

Modern Health Care

Glossary

Administration
Management
Economics
Insurance

Evidence Based Health Care
Epidemiology
Biostatistics
Prevention

Telemedicine
Informatics
New Technologies
The Internet

Edited by

Momčilo Babić, Russ Zajtchuk,
Edward Eckenfels, Maja Vučković-Krčmar

Belgrade - Chicago
2010

Copyright © 2010 by Yugoslav Cancer Foundation
Bežanijska kosa bb
11080 Belgrade
Serbia

National: 011 3010 721

International: + 381 11 3010 721

E-mail (for orders and information): mbabic8@gmail.com

cancerfound_yu@yahoo.com

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, as regulated by the Yugoslav Copyright Law (Sl. list 21/90), without the prior permission in writing of the publisher.

Publisher: Yugoslav Cancer Foundation – reprint and e-book
Editors: Prof. Babić Momčilo, MD, Ph.D.
Prof. Zajchuk Russ, MD, Ph.D.
Prof. Eckenfels Edward, Ph.D.
Vučković-Krčmar Maja, MD
Graphic design: Gaćeša Đorđe
Cover design: Bizetić Nenad
Technical editing: Danijela Gojić, Bojan Milošević, Miloš Savić
Printed by: Sprint, Belgrade
Number of copies: 500
Publication supported by: The Ministry for Education Science and Technology of the
Government of the Republic of Serbia

Index of Authors

1. **Amato Joseph, M.D.**, Professor, Rush-Presbyterian-St. Luke's Medical Center Chicago, Illinois
2. **Babić Milan, M.D.**, Medical Center "Bežanijska kosa", University of Belgrade
3. **Babić Momčilo, M.D., PhD.**, Professor, Medical Center "Bežanijska kosa", University of Belgrade
4. **Babić Uroš, MD, PhD**, Medical doctor Medical Center „Bezanijska kosa“ Belgrade
5. **Bergen Donna, M.D.**, Associate professor, Rush-Presbyterian-St. Luke's Medical Center Chicago, Illinois
6. **Bilanović Dragoljub, M.D., Ph.D.**, Associate professor, Medical Center "Bežanijska kosa", University of Belgrade
7. **Bjegović Vesna, M.D., Ph.D.**, Professor, Institute for social medicine, statistics and research in health, School of Medicine, University of Belgrade
8. **Black Henry, M.D.**, Professor, Chairman, Department of Preventive Medicine, Rush-Presbyterian-St. Luke's Medical Center Chicago, Illinois
9. **Brueschke Erich, M.D.**, Professor, Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois
10. **Caralis Dennis, M.D., M.P.H.**, Professor, Director - Rush International Health Services, Rush-Presbyterian-St. Luke's Medical Center Chicago, Illinois
11. **Dingle Leon, Jr., Ph.D.**, Professor, Illinois Medical District, Chicago, Illinois
12. **Doolas Alexander, MD.**, Professor, Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois
13. **Drecun Vasilije, M.D., Ph.D.**, Associate professor, Medical Center "Bežanijska kosa", University of Belgrade
14. **Đokić Dragoljub, M.D., Ph.D.**, Professor, Public Health Institute of Serbia "Dr Milan Jovanović-Batuš"
15. **Đorđević Miodrag, M.D., Ph.D.**, Professor, Medical Center "Bežanijska kosa", University of Belgrade
16. **Đorđević Miroslav, M.D.**, Medical Center "Bežanijska kosa", University of Belgrade
17. **Eckenfels Edward, Ph.D.**, Professor, Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois
18. **Evans Gerald, Ph.D.**, Rush-Presbyterian-St. Luke's Medical Center Chicago, Illinois
19. **Feinstein Steven, M.D.**, Professor, Director - Echocardiography, Rush-Presbyterian-St. Luke's Medical Center Chicago, Illinois

20. **Frankenbach James**, Senior vice president for corporate and hospital affairs, Rush-Presbyterian-St Luke's Medical Center, Chicago, Illinois
21. **Goldner Branislav, M.D., Ph.D.**, Professor, Medical Center "Bežanijska kosa", University of Belgrade
22. **Granić Miroslav, M.D., Ph.D.**, Associate professor, Medical Center "Bežanijska kosa", University of Belgrade
23. **Gudelj Jelena, M.D.**, Medical Center "Bežanijska kosa", University of Belgrade
24. **Henikoff Leo., M.D.**, President and CEO of Rush-Presbyterian-St Luke's Medical Center, Chicago, Illinois
25. **Ivanović Nebojša, M.D., Ph.D.**, Assistant professor, Medical Center "Bežanijska kosa", University of Belgrade
26. **Janićijević Nenad, M.D.**, Medi-help Clinic, Pittsburgh, PA
27. **Janković Tomislav, M.D.**, Republic Health Insurance Institute, Belgrade
28. **Kovčín Vladimir, M.D., Ph.D.**, Research fellow, Medical Center "Bežanijska kosa", University of Belgrade
29. **Krotin Mirjana, M.D., Ph.D.**, Associate professor, Medical Center "Bežanijska kosa", University of Belgrade
30. **Kyriopoulos John, Ph.D.**, Professor, National School of Public Health, Athens, Greece
31. **Levett Jeffrey, Ph.D.**, Professor, National School of Public Health, Athens, Greece
32. **Madden Tom, M.D.**, Associate professor, Rush-Presbyterian-St Luke's Medical Center Chicago, Illinois
33. **Marisavljević Dragomir, M.D., Ph.D.**, Associate professor, Medical Center "Bežanijska kosa", University of Belgrade
34. **Marković Jelena, B.Sc.**, Medical Center "Bežanijska kosa", University of Belgrade
35. **Mathe Georges, M.D., Ph.D.**, Academician, Institut de Cancerologie et d'Immunologie & Hôpital Suisse de Paris, Paris
36. **Mijović Zoran, M.D., Ph.D.**, Assistant professor, Medical Center "Bežanijska kosa", University of Belgrade
37. **Milićević Nataša, M.D.**, Medical Center "Bežanijska kosa", University of Belgrade
38. **Milinić Nikola, M.D., Ph.D.**, Associate professor, Medical Center "Bežanijska kosa", University of Belgrade
39. **Millikan Keith, MD.**, Professor, Rush-Presbyterian-St Luke's Medical Center, Chicago, Illinois
40. **Milošević Zorica, M.D., Ph.D.**, Assistant professor, Medical Center "Bežanijska kosa", University of Belgrade

41. **Milovanović Branislav, M.D., Ph.D.**, Assistant professor, Medical Center "Bežanijska kosa", University of Belgrade
42. **Nikolić Aleksandra, M.D.**, Assistant professor, Institute for cardiovascular diseases "Dedinje"
43. **Nikolić Dejan, M.D., M.Sc.**, Assistant professor, Medical Center "Bežanijska kosa", University of Belgrade
44. **Paranos Svetlana, M.D., Ph.D.**, Associate professor, Medical Center "Bežanijska kosa", University of Belgrade
45. **Ponomarev Dimitrije, M.D., Ph.D.**, Medical Center "Bežanijska kosa", University of Belgrade
46. **Prinz Richard, MD, FACS**, Professor, Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois
47. **Randelović Tomislav, M.D., Ph.D.**, Associate professor, Medical Center "Bežanijska kosa", University of Belgrade
48. **Saxena Amod, MD**, Department of Radiation Oncology, Rush-Presbyterian-St. Luke's Medical Center Chicago, Illinois
49. **Stanimirović Violeta, M.D., Ph.D.**, Director, Institute for Research and Development, "Galenika"
50. **Stojanović Ljudmila, M.D., Ph.D.**, Medical Center "Bežanijska kosa", University of Belgrade
51. **Trufant John, Ed.D.**, Professor, Dean, College of Health Sciences, Vice President, Academic Resources, College of health sciences, Rush University
52. **Veljović Aleksandra, M.D.**, Medical Center "Bežanijska kosa", University of Belgrade
53. **Vučković-Krčmar Maja, M.D.**, Medical Center "Bežanijska kosa", University of Belgrade
54. **Vuković Deana, M.D., Ph.D.**, Associate professor, Institute for social medicine, statistics and research in health, School of Medicine, University of Belgrade
55. **Zajtchuk Joan, M.D.**, Professor, Associate Dean, Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois
56. **Zajtchuk Russ, M.D., FACS**, Professor, Vice President, Center for Advanced Technology and International Health, Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois
57. **Zorić Sava, M.D., Ph.D.**, Medical Center "Bežanijska kosa", University of Belgrade
58. **Žaja Mirna, M.D., M.Sc.**, Medical Center "Bežanijska kosa", University of Belgrade

Preface

Modern Health Care - Glossary is book which, according to author's understanding, aims to explain terms which distinctively mark health care practice nowadays. If nothing more, this book may contribute to better understanding between Europeans and Americans regarding the theory and practice of health care and its new terminology.

We, the Europeans often do not understand the complexity of American health care, the numerous terms describing the complexity of internal relationships between the providers and the users of health care and an entire pallet of social and economic courses of innovations and practice which is, hopefully, getting always better.

We, the Americans always fail to understand how the Europeans manage to tie up and frame the free and creative initiative, and how is it that they skillfully rule and hold in obedience the powerful medical establishment.

The Americans would gladly offer advice to the Europeans how they could free medical creativity and finally begin to go after reaching the Americans in innovations and discoveries, which improve medical practice. The Europeans would gladly offer advice to the Americans how they could surpass the problem of asystemic character of their health care system, which produces problems with insufficient health insurance.

In order to try and improve the understanding between health care providers and all of those dealing with the health care systems of both America and Europe, and, perhaps, the entire world, this Modern Health Care Glossary presents an attempt of explaining the terms often used but seldom found in conventional medical dictionaries, encyclopedias and lexicons. The Modern Health Care Glossary deals with the medical and para-medical terminology in the areas of health care administration, management, economics, insurance, evidence based health care, on to epidemiology, biostatistics, prevention, telemedicine, the increasingly present informatics and new technologies, and the unavoidable Internet.

Trying to give explanations for all of the most important terms in these areas, the authors hope that this Glossary will be useful to all health care providers, as well as those who seek explanation for some of terms used in everyday life.

With best wishes,

The editors

Modern Health Care

Glossary

Administration
Management
Economics
Insurance

Evidence Based Health Care
Epidemiology
Biostatistics
Prevention

Telemedicine
Informatics
New Technologies
The Internet

A

Absolute

Unconditional, unrestricted, or independent of arbitrary standards.

Absolute discharge

Final and complete termination of the patient's relationship with a care-giving agency.

Absolute temperature

Temperature that is measured from a base of absolute zero on the Kelvin scale or the Rankine scale.

Absolute Risk Reduction (ARR)

The difference in the event rate between control group (CER) and treated group (EER):
 $ARR = CER - EER$.

Absolute value

A number's distance from zero on a number line. The absolute value of -6, shown as $|-6|$, is 6, and the absolute value of 6, shown as $|6|$, is 6.

Absolute zero

The temperature at which all molecular activity ceases. It is a theoretical value derived by calculations and projections from experiments with the behavior of gases at extremely low temperatures. On the Kelvin scale, absolute zero is estimated to be equal to -273°C . On the Rankine scale, the equivalent temperature is calculated at -460°F .

Absorption

(1) The incorporation of matter by other matter through chemical, molecular, or physical action, such as the dissolving of a gas in a liquid or the taking up of a liquid by a porous solid. (2) (in physiology) The passage of substances across and into tissues, such as the passage of digested food molecules into intestinal cells or the passage of liquids into kidney tubules. Kinds of absorption are agglutinin absorption, cutaneous absorption, external absorption, intestinal absorption, parenteral absorption, and pathologic absorption. (3) (in radiology) The process of absorbing radiant energy by living or non living matter with which the radiation interacts.

Abstraction

Condition in which the teeth or other maxillary and mandibular structures are below their normal position or away from occlusal plane.

Abstract thinking

The final more complex stage in the development of the cognitive, in which thought is characterized by adaptability, flexibility, and the use of concepts and generalizations. Problem solving is accomplished by drawing logical conclusions from a set of observations, such as making hypotheses and testing them. This type of thinking appears from about 12 to 15 years of age, usually after some degree of education.

Abuse

(1) Improper use of equipment, a substance, or a service, such as drug or program, either intentionally or unintentionally. (2) When used as a legal term in healthcare, it normally refers to actions that do not involve intentional misrepresentations in billing but which, nevertheless, result in improper conduct. Consequences can result in civil liability and administrative sanctions. An example of abuse is the excessive use of medical supplies. To physically or verbally attack or injure.

Academic medical center

A group of related institutions including a teaching hospital or hospitals, a medical school and its affiliated faculty practice plan, and other health professional schools.

Accelerated benefits

Benefits available in some life insurance policies before death, usually triggered by long-term,

A

catastrophic or terminal illness. Also known as living benefits

Acceleration

Increase in the speed or velocity of an object or reaction.

Acceptance test

A final test of an information system, performed by the users to check whether a system performs as it has been specified.

Access

(1) The patient's ability to obtain medical care. The ease of access is determined by such components as the availability of medical services and their acceptability to the patient, the location of health care facilities, transportation, hours of operation and cost of care. An individual's ability to obtain appropriate health care services. Barriers to access can be financial (insufficient monetary resources), geographic (distance to providers), organizational (lack of available providers) and sociological (e.g., discrimination, language barriers). Efforts to improve access often focus on providing/improving health coverage. (2) A relational database program, offered by Microsoft.

Access control

Policies designed to prevent unauthorized use of information by determining who can have access to what data/information (both within and outside the organization). [inf.]

Access time

Length of time required for a hard disk, CD-ROM drive or other similar device to find the data stored on it. Generally measured in milliseconds (ms). [inf.]

Accident

Any unexpected or unplanned event that may result in death, injury, property damage, or a combination of serious effects. The victim may or may not be directly involved in the cause of the accident. Accidents frequently are the result of both physical and mental factors that can result in unsafe operating systems at work, home, or other sites.

Accident and health combined ratio

The ratio of accident and health expenses incurred (general expenses, commissions, taxes, licenses, and fees) to premiums earned.

Accident and health loss ratio

The ratio of accident and health incurred claims plus increase in policy reserves to premiums earned.

Accident and Sickness Insurance (A&S)

An older name for Health Insurance.

Accident insurance

A form of insurance against loss by accidental bodily injury to the insured.

Accident report form

An accident report form is used to record key information about the accident.

Accidental bodily injury

Physical injury sustained as the result of an accident.

Accidental death and dismemberment

A policy or a provision in a Disability Income policy which pays either a specified amount or a multiple of the weekly disability benefit if the insured dies, loses his or her sight, or loses two limbs as the result of an accident. A lesser amount is payable for the loss of one eye, arm, leg, hand, or foot.

Accidental death benefit

A provision added to a life insurance policy for payment of an additional amount - usually equal to the face amount of insurance - in case of death by accidental means. It is often referred to as "double indemnity."

Accidental death insurance

A form that provides payment if the death of the insured results from an accident. It is often combined with Dismemberment Insurance in a form called Accidental Death and Dismemberment. See also Accidental Death and Dismemberment.

Accommodation

(1) The state or process of adapting or adjusting one thing or set of things to another. (2) The continuous process or effort of the individual to adapt or adjust to surroundings to maintain a state of homeostasis, both physiologically and psychologically. (3) The adjustment of an eye to variations in distance. (4) (in sociology) The reciprocal reconciliation of conflicts between individuals or groups concerning habits and customs, usually through a process of compromise, arbitration, or negotiation.

Account analyst

See Administrative Assistant.

Account current

An account current is the billing statement an insurance company sends to its producer.

Account selling

Account selling is trying to handle all of a client's insurance needs, rather than providing for only a portion of those needs.

Accountability

Liability to be called to account for actions for which one is responsible.

Accountable Health Plan (AHP)

A collaboration between health care providers and insurance companies (similar to HMOs, PPOs, and other group practices) to provide high-quality, low-cost care and insurance as a single product. AHPs can be IDSs, MCOs, Health Networks, partnerships or joint ventures between practitioners, providers or payers that would assume responsibility for delivering medical care and managing the funds required to pay for the services rendered. Physicians and other providers would either work for, contract with or own these health plans. When an IDS or hospital group or IPA operates one or more health insurance benefit products, or a managed care organization acquires a large scale medical delivery component, it qualifies as an Accountable Health System or Accountable Health Plan.

Accounting equation

A mathematical expression used to describe the relationship between the assets, liabilities and owner's equity of the business model. The basic accounting equation states that assets equal liabilities and owner's equity, but can be modified by operations applied to both sides of the equation, e.g., assets minus liabilities equal owner's equity.

Accounting perspectives (evaluation)

Perspectives underlying decisions on which categories of goods and services to include as costs or benefits in an analysis.

Accounts receivable insurance

Pays for the cost of reconstructing accounts receivable records that have been damaged or destroyed by a covered peril. Even more important, it covers any payments that cannot be collected because records cannot be reconstructed.

Accreditation

(1) An official authorization or approval to an organization determined by industry-derived standards. (2) A process whereby a program of study or an institution is recognized by an

A

external body as meeting certain predetermined standards. For facilities, accreditation standards are usually defined in terms of physical plant, governing body, administration, and medical and other staff. Accreditation is often carried out by organizations created for the purpose of assuring the public of the quality of the accredited institution or program. The State or Federal governments can recognize accreditation in lieu of, or as the basis for licensure or other mandatory approvals. Public or private payment programs often require accreditation as a condition of payment for covered services. Accreditation may either be permanent or may be given for a specified period of time. The primary organization in charge of accreditation in the USA is the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). This private regulatory body conducts regular audits at facilities around the country to document compliance with accreditation procedures. A facility must be JCAHO accredited in order to receive Medicare and Medicaid payments from the government. HCWH has met with JCAHO to ask them to consider adding environmental criteria to accreditation requirements.

Accredited adviser in insurance

See AAI.

Accrete

A Medicare term which means the process of adding new members to a health plan.

Accrual

The amount of money that is set aside to cover expenses. The accrual is the plan's best estimate of what those expenses are, and (for medical expenses) is based on a combination of data from the authorization system, the claims system, lag studies, and the plan's prior history.

Accrual basis of accounting

An accounting basis wherein revenue and expenses are recorded in the period in which they are earned or incurred regardless of whether cash is received or disbursed in that period. This is the accounting basis that generally is required to be used in order to conform to generally accepted accounting principles (GAAP) in preparing financial statements for external users.

Accumulating costs

The collecting of cost data in an organized manner, such as through a system of accounts.

Accumulation period

The time during which a person pays money into an annuity contract and builds up a fund to provide a deferred annuity.

Accuracy of data

Correctness of data and conformity of data.

ACE inhibitor

A drug that inhibits the angiotensin-converting enzyme, used against cardiac diseases.

Acquired immunity

See immunity.

Acquired immunodeficiency syndrome (AIDS)

A syndrome involving a defect in cell-mediated immunity that has a long incubation period, follows a protracted and debilitating course, is manifested by various opportunistic infections, and has a poor prognosis. The disorder originally was found in homosexual men and intravenous drug users but now occurs increasingly among heterosexual men and women and children of those with the disease. More than one million cases of AIDS have appeared in the United States, where in 1990s it was the leading cause of death among men between 25 and 44 years old and the fourth leading cause of death among women of the same age group. Observations: AIDS is caused by either of two varieties of the human immunodeficiency virus, designated HIV-1 and HIV-2. HIV is a retrovirus that attracts and kills CD4+ lymphocytes (T helper cells), weakening the immune system's ability to prevent infection. The virus may also invade macrophages, in which it replicates freely, undetected by the immune system. HIV is not spread by casual contact but rather by sexual intercourse or exposure to contaminated blood, semen, breast milk, or other body fluids of infected persons. About 20 million people worldwide are believed to be infected

A

with HIV, with highest number of cases reported in sub-Saharan Africa. A patient may be diagnosed as having AIDS if he or she is infected with HIV, has a CD4+ count below 200 to 500/ml, and exhibits one or more of the following signs and symptoms: extreme fatigue, intermittent fever, night sweats, chills, lymphadenopathy, enlarged spleen, anorexia and consequent weight loss, severe diarrhea, apathy, and depression. As the disease progresses, characteristics are a general failure to thrive, anergy, and any of a variety of recurring infections, most commonly *Pneumocystis carinii* pneumonia, tuberculosis, meningitis, and encephalitis caused by aspergillosis, candidiasis, cryptococcosis, cytomegalovirus, toxoplasmosis, or herpes simplex. Most patients with AIDS are susceptible to malignant neoplasms, especially Kaposi's sarcoma, Burkitt's lymphoma, and non-Hodgkin's lymphoma, that both cause and result from immunodeficiency. Psychological complications of AIDS may include chronic anxiety, depression, substance dependence, organic mental disorders, and suicidal ideation. INTERVENTIONS: Treatment consists primarily of combined chemotherapy to counteract the opportunistic infections. Although there is no known cure for AIDS, the antiviral drug zidovudine has been shown to slow the progress of the disease and prolong the lives of patients. Alternative antiviral drugs include didanosine (ddi), stavudine (d4T), and zalcitabine (ddc). Vaccines routinely recommended for AIDS include those directed against pneumococcal influenza, hepatitis B, and general childhood infections, as well as infections that may be endemic in countries where the patient may travel, such as typhoid and yellow fever. Interferon and other immunomodulators have been used, with little success, to correct the underlying immune defect in AIDS. The fatality rate is 90% after 2 years.

Acquisition

(1) The purchase by cash or other compensation or the receipt by exchange or gift of majority voting control of a corporation or all or substantially all the assets of a corporation. (2) The acquiring by contract with appropriated funds of supplies or services (including construction) by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated.

ACR-NEMA

American College of Radiology and the National Equipment Manufacturers Association. They have jointly developed standards for teleradiology practice. For CT, MRI, ultrasound, nuclear medicine, digital fluoroscopy: images must be scanned at 500 pixel×500 line resolution by 8 bit depth (256 gray scale) or better; for diagnostic X-rays: 2,000×2,000 ("2K by 2K") by 12 bit depth (4,096 gray scale).

Active euthanasia

Actively accelerating a good death by use of drugs etc, whether by oneself or with the aid of a doctor.

Actively at work

Means work on a regular full-time or regular part-time basis (20 or more hours per week) at one of the Company's business locations or in a location where you are required to be on the Company's business. You are not considered Actively at Work on any day you receive sick leave pay, Flexible Time Off for illness pay or income from the Company's Income Protection Plan or you are on a leave of absence. In addition, any period while you are on an approved rehabilitation program under the Income Protection Plan will not be considered Actively at Work. You will be considered Actively at Work on a day that is not one of the Company's scheduled work days only if you were Actively at Work on the immediately preceding scheduled work day. You will be considered Actively at Work on any day you receive Flexible Time Off for reasons other than illness.

Activities of daily living

Means certain basic daily tasks necessary to maintain a person's health and safety. A person will be considered able to perform Activities of Daily Living if he or she does not require the physical assistance of another person to do the activities. In this Group Long-term Care Plan, "Activities of Daily Living" refers to the activities described as follows: 1. Bathing means the ability to wash oneself completely in a tub, a shower or by sponge bath; with or without the aid of equipment; 2. Eating means the ability to consume food that has already been prepared and made available; with or without the use of adaptive utensils. "Eating" does not mean an ability or inability to

A

prepare food; 3. Dressing means the ability to: (a) put on and take off all garments and/or any braces or artificial limbs; and (b) to secure and unfasten the garments or devices; 4. Toileting means the ability to do all of the following, with or without the aid of equipment: (a) get to and from the toilet; (b) get on and off the toilet; and (c) maintain a reasonable level of personal hygiene for the body; 5. Transferring means the ability to move in and out of a chair (including a wheelchair) or bed. If a person can move with the help of equipment such as a cane, walker, crutches, grab bars or other support devices, then he or she will be considered able to transfer positions.

Activity

A process, function or task that occurs over time and has recognizable results. Activities combine to form business processes.

Activity model

A graphic representation of a business process that exhibits the activities and their interdependencies that make up the business process to any desired level of detail. An activity model reveals the interactions between activities in terms of inputs and outputs while showing the controls placed on each activity and the types of resources assigned to each activity. Wzdom offers a training course in IDEF Activity modeling and ProcessWorks! process and activity modeling software.

Activity-based costing (ABC)

Activity-based costing defines healthcare costs in terms of a healthcare organization's processes or activities. The costs are then associated with significant activities or events. It relies on the following 3 step process: 1. Activity mapping, which involves mapping activities in an illustrated sequence; 2. Activity analysis, which involves defining and assigning a time value to activities; and , 3. bill of activities, which involves generating a cost for each main activity.

Actual Cash Value (ACV)

The value of property as figured by determining what it would cost to replace the property (see replacement cost) and then adjusting this replacement cost by subtracting an amount that reflects depreciation

Actual charge

The actual amount charged by a physician for medical services rendered.

Actual cost

An amount determined on the basis of cost incurred as distinguished from forecasted cost.

Actuarial

Refers to the statistical calculations used to determine the managed care company's rates and premiums charged their customers based on projections of utilization and cost for a defined population.

Actuarial soundness

The requirement that the development of capitation rates meet common actuarial principles and rules.

Actuary

In insurance, a person trained in statistics, accounting and mathematics who determines policy rates, reserves, and dividends by deciding what assumptions should be made with respect to each of the risk factors involved (such as the frequency of occurrence of the peril, the average benefit that will be payable, the rate of investment earnings, if any, expenses, and persistency rates), and who endeavors to secure as valid statistics as possible on which to base his assumptions. Professionally trained individual, usually with experience or education in insurance, who conducts statistical studies such as determining insurance policy rates, dividend reserves and dividends, as well as conducts various other statistical studies. A capitated health provider would not accept or contract for capitated rates, or agree to a capitated contract without an actuarial determining the reasonableness of the rates.

Acupuncture

The piercing of specific body sites with needles to produce pain relief.

Acute

Occurring over a short time, usually a few minutes or hours. An acute exposure can result in short-term or long-term health effects. An acute effect happens a short time (up to 1 year) after exposure.

Acute care

A pattern of health care in which a patient is treated for a brief but severe episode of illness, for the sequelae of an accident or other trauma, or during recovery from surgery. Acute care is usually given in a hospital by specialized personnel using complex and sophisticated technical equipment and materials, and it may involve intensive care or emergency care. This pattern of care is often necessary for only short time, unlike chronic care.

Acute disease

A disease which is characterized by a single episode of a relatively short duration from which the patient returns to his/her normal or previous state of level of activity. While acute diseases are frequently distinguished from chronic diseases, there is no standard definition or distinction. It is worth noting that an acute episode of a chronic disease (for example, an episode of diabetic coma in a patient with diabetes) is often treated as an acute disease.

Acute pain

Severe pain, as may follow surgery or trauma or accompany myocardial infarction or other conditions and diseases. Acute pain occurring in the first 24 to 48 hours after surgery is often difficult to relieve, even with drugs. Some studies show that patients over 50 years of age need less analgesia to relieve acute pain than do younger patients. Another study indicates that 23% of surgical patients, except for orthopedic patients, do not require analgesia. Acute pain in individuals with orthopedic problems originates from the periosteum, the joint surfaces, and the arterial walls. Muscle pain associated with the bone surgery results from muscle ischemia rather than muscle tension. Acute abdominal pain often causes the individual involved to lie on one side and draw up the legs in the fetal position.

Adaptation

A change or response to stress of any kind, such as inflammation of the nasal mucosa in infectious rhinitis or increased or increased crying in a frightened child. Adaptation may be normal, self-protective, and developmental, as when a child learns to talk; it may be all-encompassing, creating further stress, as in polycythemia, which occurs naturally at high altitudes to provide more oxygen-carrying red blood cells but may also lead to thrombosis, venous congestion, or edema. The degree and nature of adaptation shown by a patient are evaluated regularly by the nurse. They constitute a measure of the effectiveness of nursing care, the course of the disease, and the ability of the patient to cope with stress.

Adaptation model

A conceptual framework that focuses on the patient as an adaptive system, one in which nursing intervention is required when a deficit develops in the patient's ability to cope with the internal and external demands of the environment. These demands are classified into four groups: physiologic needs, the need for a positive self-concept, the need to perform social roles, and the need to balance dependence and independence. The nurse assesses the patient's maladaptive response and identifies the kind of demand that is causing the problem. Nursing care is planned to promote adaptive responses to cope successfully with the current stress on the patient's well-being. This model, first proposed by Sister Callista Roy, is frequently used as conceptual framework for programs of nursing education.

A-D conversion

Transforming an analog signal or an image into a series of numbers (a digital signal or image, respectively) that can be processed by a computer by taking samples with a certain sampling frequency or pixels of a certain size, respectively.

A

ADC

Analog-digital converter: a piece of equipment that performs A-D conversion.

Additional drug benefit list

Prescription drugs listed as commonly prescribed by physicians for patients' long-term use. Subject to review and change by the health plan involved. Also called drug maintenance list.

Additional monthly benefit

Riders added to disability income policies to provide additional benefits during the first year of a claim while the insured is waiting for Social Security benefits to begin.

Address

Number denoting the location of data or the location of a program part in the central memory or on disk, or the location of a computer in a network.

Adenine (A)

A nitrogenous base, one member of the base pair A-T (adenine - thymine).

Adequate

Proportionate to requirements.

Adjudication

Processing claims according to contract.

Adjustable life insurance

A type of insurance that allows the policyholder to change the plan of insurance, raise or lower the face amount of the policy, increase or decrease the premium and lengthen or shorten the protection period.

Adjustable-Rate Mortgage (ARM)

A mortgage whose rate of interest changes from time to time according to a predetermined index or according to the decisions of its originator.

Adjusted admissions

A measure of all patient care activity undertaken in a hospital, both inpatient and outpatient. Adjusted admissions are equivalent to the sum of inpatient admissions and an estimate of the volume of outpatient services. This estimate is calculated by multiplying outpatient visits by the ratio of outpatient charges per visit to inpatient charges per admission.

Adjusted Average Per Capita Cost (AAPCC)

Actuarial projections of per capita Medicare spending for enrollees in fee-for-service Medicare. Separate AAPCCs are calculated - usually at the county level - for Part A services and Part B services for the aged, disabled, and people with ESRD. Medicare pays risk plans by applying adjustment factors to 95 percent of the Part A and Part B AAPCCs. The adjustment factors reflect differences in Medicare per capita fee-for-service spending related to age, sex, institutional status, Medicaid status, and employment status. A county-level estimate of the average cost incurred by Medicare for each beneficiary in the fee-for-service system. Adjustments are made so that the AAPCC represents the level of spending that would occur if each county contained the same mix of beneficiaries. Medicare pays health plans 95 percent of the AAPCC, adjusted for the characteristics of the enrollees in each plan.

Adjusted cash flow

Operating cash flow plus cash and short-term investments.

Adjusted cash flow/benefits paid

The ratio of adjusted cash flow to total cash benefits paid to policyholders.

Adjusted Community Rate (ACR) proposal

A process by which a health plan contracting with Medicare estimates the cost of providing services to its Medicare enrollees based on costs and revenues from its commercial business.

A

Health plans estimate their ACRs annually and adjust the subsequent year's supplemental benefits or premiums offered so that they do not receive a higher rate of return on Medicare enrollees than they do on their commercial business.

Adjusted Community Rating (ACR)

ACR is a rating by community influenced by certain group demographics. Estimated payment rates that health plans with Medicare risk contracts would have received for their Medicare enrollees if paid their private market premiums, adjusted for differences in benefit packages and service use. Health plans estimate their ACRs annually and adjust subsequent year supplemental benefits or premiums to return any excess Medicare revenue above the ACR to enrollees. See Adjusted Average Per Capita Cost, Medicare Risk Contract.

Adjusted drug benefit list

A small number of medications often prescribed to long-term patient. Also called a drug maintenance list. It can be modified from time to time by a health plan, HCFA or 3rd party administrator.

Adjusted Payment Rate (APR)

The Medicare capitated payment to risk-contract HMOs. For a given health plan, the APR is determined by adjusting county-level AAPCCs to reflect the relative risks of the plan's enrollees.

Adjusted Per Capita Cost (APCC)

Medicare benefits estimation for a person in a given county using sex, age, institutional status, Medicaid disability, and end stage renal disease status as a basis.

Adjuvant

(1) That which assists, esp. a drug added to a prescription to hasten or increase the action of a principal ingredient (2) In immunology, a variety of substances, including inorganic gels such as alum, aluminum hydroxide, and aluminium phosphate, that increase the antigenic response. *Freund's complete A.* - A water-in-oil emulsion in which an antigen solution is emulsified in mineral oil with killed mycobacteria to enhance antigenicity. The intense inflammatory response produced by this emulsion makes it unsuitable for use in humans. *Freund's incomplete A.* - A water-in-oil emulsion in which an antigen solution without mycobacteria is emulsified in mineral oil. On injection, this mixture induces a strong persistent antibody formation. (3) An additional treatment or therapy.

Adjuvant therapy

In cancer therapy, the use of another form of treatment in addition to the primary therapy. For example, chemotherapy may be the primary treatment and radiation therapy may be an adjuvant therapy.

Affiliated hospital

A hospital that is associated to some degree with a medical school, other health professions, a health program, or other health care institutions.

Administrative assistant

The administrative assistant supports the sales efforts of the producer. Other titles for this position include agency underwriter, insurance placer, customer service representative, marketing specialist, account analyst, and office manager.

Administrative change

A unilateral contract change, in writing, that does not affect the substantive rights of the parties.

Administrative Contracting Officer (ACO)

A contracting officer having responsibility for the administration of one or more particular contracts. In some cases the term is used to identify a contracting officer who specializes in performing contract administration functions.

Administrative costs

Costs related to utilization review, insurance marketing, medical underwriting, agents' commissions, premium collection, claims processing, insurer profit, quality assurance programs,

A

and risk management. Administrative costs also refer to certain allowable costs on hospital HCFA cost reports, usually considered overhead. Rules exist which disallow certain expenses, such as marketing.

Administrative loss ratio

Incurred claims plus expenses, divided by paid premiums.

Administrative Services Only (ASO) agreement

Contract between an insurer (or its subsidiary) and a group employer, eligible group, trustee, or other party, in which the insurer provides certain administrative services. These services may include actuarial support, plan design, claims processing, data recovery and analysis, benefits communications, financial advice, medical care conversions, data preparation for governmental reports, and stop-loss coverage.

Administrative Services Organization (ASO)

A contract between an insurance company and a self-funded plan where the insurance company performs administrative services only and the self-funded entity assumes all risk.

Administrator

(1) One who administers affairs; one who directs, manages, executes or dispenses, whether in civil, judicial, political or ecclesiastical affairs; a manager. (2) (Law) A man who manages or settles the estate of an intestate or of a testator when there is no competent executor; one to whom the right of administration has been committed by competent authority.

Admission

The formal act of registering and entering a person into a hospital for treatment as a patient. Although usually used for inpatients, the term also may be used for persons who register for certain outpatient services. If a patient is admitted to an acute care unit of a facility and is later transferred to the long-term care unit of the same facility (or visa versa), the transfer is counted as another admission and as a discharge. Transfers within the acute care, psychiatric, substance abuse or long-term care unit of a facility are not counted as additional admissions or discharges.

Admission certification

A method of assuring that only those patients who need hospital care are admitted. Certification can be granted before admission (preadmission) or shortly after (concurrent). Length-of-stay for the patient's diagnosed problem is usually assigned upon admission under a certification program.

Admissions per 1,000

Number of patients admitted to a hospital or hospitals per 1,000 health plan members. An indicator calculated by taking the total number of inpatient and/or outpatient admissions from a specific group, e.g., employer group, HMO population at risk, for a specific period of time (usually one year), dividing it by the average number of covered members in that group during the same period, and multiplying the result by 1,000. This indicator can be calculated for behavioral health or any disease in the aggregate and by modality of treatment, e.g., inpatient, residential, and partial hospitalization, etc.

Admits

The number of admissions to a hospital (including outpatient and inpatient facilities).

Adobe acrobat

A desktop publishing system.

ADSL

(Asymmetric Digital Subscriber Line) A method for moving data over regular phone lines. An ADSL circuit is much faster than a regular phone connection, and the wires coming into the subscriber's premises are the same (copper) wires used for regular phone service.

ADT

(Admission, Discharge and Transfer) A module of an HIS that collects insurance and

A

demographic data for a patient to enable billing on a per-diem basis.

Adult day care

A program for six (6) or more individuals, of social and health-related services provided during the day in a community group setting. The purpose of the program is to support frail or impaired elderly, or other disabled adults who can benefit from care in a group setting outside the home.

Advance agreement

An agreement negotiated in advance of the incurrence of a particular cost by a contractor specifying how that cost will be treated for purposes of determining its allowability (and thus its allocability) to Government contracts. An advance agreement may be negotiated before or during a contract (but before the incurrence of the subject cost), and must be in writing. For a given contractor, advance agreements may be specific to a particular contract, a group of contracts, or all the contracts of a contracting office, an agency or several agencies.

Advance directive

Document enabling you to express your wishes with respect to conditions where no treatment is desired in the event of becoming incapacitated. In many places, "advance directive" is used synonymously with "living will". In parts of America, "advance directive" is used to include 2 types of document a "living will" instruction to the health care team, and a "Durable Power Of Attorney for Health Care" (proxy directive) document instructing a third party to refuse treatment on behalf of the donor. The British Medical Association also uses the term "Advance Statement".

Advance payment

An advance of money made by the Government to a contractor prior to, in anticipation of, and for the purpose of performance under a contract or contracts.

Adverse selection

The problem of attracting members who are sicker than the general population, specifically, members who are sicker than was anticipated when developing the budget for medical costs. A tendency for utilization of health services in a population group to be higher than average or the tendency for a person who is in poor health to be enrolled in a health plan where he or she is below the average risk of the group. From an insurance perspective, adverse selection occurs when persons with poorer-than-average health status apply for, or continue, insurance coverage to a greater extent than do persons with average or better health expectations. Occurs when premium doesn't cover cost. Some populations, perhaps due to age or health status, have a great potential for high utilization. Some population parameter such as age (e.g., a much greater number of 65-year-olds or older to young population) that increases the potential for higher utilization and often increases costs above those covered by a payers capitation rate. Among applicants for a given group or individual program, the tendency for those with an impaired health status, or who are prone to higher than average utilization of benefits, to be enrolled in disproportionate numbers and lower deductible plans.

Advocacy for health

A combination of individual and social actions designed to gain political commitment, policy support, social acceptance and systems support for a particular health goal or programme. Reference: WHO (1992) Advocacy Strategies for Health and Development. Such action may be taken by and/or on behalf of individuals and groups to create living conditions which are conducive to health and the achievement of healthy lifestyles. Advocacy is one of the three major strategies for health promotion and can take many forms including the use of the mass media and multi-media, direct political lobbying, and community mobilization through, for example, coalitions of interest around defined issues. Health professionals have a major responsibility to act as advocates for health at all levels in society.

Aer(o)

Air.

Aetiological fraction

The reduction in disease when a risk factor is removed. If I^* is the number of people that a risk factor is responsible for and I is the total number of cases over the same period, then the aetiological fraction is I^*/I . Equivalently, the aetiological fraction is $(I-I_0)/I$, where I_0 is the number

A

of cases in the absence of the risk factor. Also known as the attributable fraction.

Affiliated provider

A health care provider or facility that is part of the HMO's network usually having formal arrangements to provide services to the HMO member.

Affiliates

Business concerns, organizations, or individuals are affiliates of each other if, directly or indirectly, (a) either one has the power to control the other, or (b) a third party controls or has the power to control both. Indicia of control include, but are not limited to, interlocking management or ownership, identity of interests among family members, shared facilities and equipment, common use of employees, or a business entity organized following the debarment, suspension or proposed debarment of a contractor which has the same or similar management, ownership, or principal employees as the contract or that was debarred, suspended or proposed for debarment. A similar, although more detailed, definition has been formulated by the Small Business Administration for use in applying the small business size standards under the SBA's 8(a) program.

Affiliation

An agreement (usually formal) between two or more otherwise independent entities or individuals which defines how they will relate to each other. Affiliation agreements between hospitals may specify procedures for referring or transferring patients from one facility to another, joint faculty and/or medical staff appointments, teaching relationships, sharing of records or services, or provision of consultation between programs.

Aftercare

Services that are administered following hospitalization or rehabilitation that are individualized for each patient's needs.

Age-adjusted mortality rate

A mortality rate statistically modified to eliminate the effect of different age distributions in the different populations.

Age change

The date on which a person's age, for insurance purposes, changes. In most Life Insurance contracts this is the date midway between the insured's natural birth dates. Health insurers frequently use the age of the previous birth date for rate determinations. On the date of age change, a person's age may change to that of the last birth date, the nearer birth date, or the next birth date, depending upon the way in which the rating structure has been established by that particular insurer.

Age limits

Ages below and above which an insurance company will not accept applications or renew policies.

Age/sex factor

Compares the age and sex risk of medical costs of one group relative to another. An age/sex factor above 1.00 indicates higher than average risk of medical costs due to that factor. Conversely, a factor below 1.00 indicates a lower than average risk. This measurement is used in underwriting.

Age/Sex Rates (ASR)

Separate rates are established for each grouping of age and sex categories. Preferred over single and family rating because the rates and premiums automatically reflect changes in the age and sex content of the group. Also sometimes called table rates.

Age-at-issuance rating

A method for establishing health insurance premiums whereby an insurer's premium is based on the age of individuals when they first purchased health insurance coverage. This is an older form of actuarial assessment.

Age-attained rating

A method for establishing health insurance premiums whereby an insurer's premium is based on the current age of the beneficiary. Age-attained-rated premiums increase as the purchaser grows older.

Aged (for SSI purposes)

People 65 and older whose income and resources are within SSI limitations.

Age-gender registry

Database of personal data that can be ordered according to age and gender.

Agency for Health Care Policy and Research (AHCPR)

One of the newest agencies of the U.S. Public Health Service, the AHCPR was created in 1989. The Agency's primary goal is to enhance the quality, appropriateness, and effectiveness of health care services by conducting and sponsoring credible and timely research. It is the Federal government's focal point for health services research, the efforts of which are built upon the work of AHCPR's predecessor, the National Center for Health Services

Agent

(1) A factor, such as a microorganism, chemical substance, or form of radiation, whose presence, excessive presence, or (in deficiency diseases) relative absence is essential for the occurrence of a disease. (2) An authorized representative of an insurance company who sells and services insurance contracts.

Age-specific mortality rate

A mortality rate limited to a particular age group. The numerator is the number of deaths in that age group; the denominator is the number of persons in that age group in the population.

Age-structured model

As mathematical model which take into consideration the division of the host population into different age classes. Such models can used to consider the consequences of such factors as age-dependent infection, morbidity or mortality rates or of age-specific vaccination schedules.

Aggregate exposure, gross

Total outstanding insured principal and interest.

Aggregate exposure, net

Gross aggregate exposure less exposure ceded to reinsures.

Aggregate indemnity

The maximum amount that may be collected for any disability, or period of disability, under an insurance policy.

Aggregate margin

A margin that compares revenues to expenses for a group of hospitals, rather than a single hospital. It is computed by subtracting the sum of expenses for all hospitals in the group from the sum of revenues and dividing by the sum of revenues.

Aggregate PPS Operating Margin/Aggregate Total Margin

A PPS operating margin or total margin that compare revenue to expenses for a group of hospitals, rather than a single hospital. It is computed by subtracting the sum of expenses for all hospitals in the group from the sum of revenues and dividing by the sum of revenues.

Aggregate stop loss

The form of excess risk coverage that provides protection for the employer against accumulation of claims exceeding a certain level. This is protection against abnormal frequency of claims in total, rather than abnormal severity of a single claim.

A

Aggregation

A distribution of parasites amongst hosts is said to be aggregated, or overdispersed, if parasites are found to co-occur in particular hosts more often than if the parasites were distributed at random amongst all hosts. A more precise test would be if the distribution differed significantly from a Poisson distribution; a good heuristic is whether the variance to mean ratio is bigger than unity (in appropriate units).

Aggression

(1) A forceful physical, verbal or symbolic action. It may be appropriate and self-protective, indicating healthy self-assertiveness, or it may be inappropriate. The behavior may be directed outward toward the environment or inward toward self. (2) Activity performed in a forceful manner.

Aging

Growing old, maturing; not replacing enough cells to maintain complete function; progressive changes related to passage of time. there is no precise method for determining the rate or degree of aging. In a study of 1500 persons aged 100 ears or more, the following were determined: longevity is not inheritable; sexual activity is both good and feasible for the aged; the strain of child rearing does not shorten life; the older person's offspring need not love him or her; and one should work hard all during life, however long. Proper care and hygiene usually prolong life and reduce the risk of disability. The physiological changes occurring with age (diminished neurotransmitters, circulatory capacity, sensory acuity, and perception) affect the brain. These changes do not indicate a loss of cognitive function. there is evidence of slower reaction time and information processing, but the majority of functioning and intelligence remain intact and sufficient. Emotional trauma and multiple losses occurring in older age often lead to a diminished investment in life, causing professionals to misdiagnose cognitive dysfunction. The stress of demanding situations often contributes to what appears to be an organic disorder. Validation by a team of specialists is important in the diagnosis and treatment of any disorder affecting older persons.

AI

(Artificial Intelligence) The concept that computers can be programmed to assume some capabilities normally thought to be like human intelligence, such as learning, adaptation, and self correction. For some current, healthcare examples, connect with Internet Expert Systems.

AID

Agency for International Development

Aid to Families with Dependent Children (AFDC)

The federal AFDC program provides cash welfare to: 1. needy children who have been deprived of parental support and 2. certain others in the household of such child. States administer the AFDC program with funding from both the federal government and state. The Personal Responsibility & Work Responsibility Act of 1996, enacted in August 1996, replaced AFDC with a new program called Temporary Assistance for Needy Families (TANF).

AIDS

(Acquired immune deficiency syndrome) A disease caused by a virus that damages the body's immune system, thereby destroying its ability to fight off illness.

AIM

(Advanced Informatics in Medicine) A program of the European Union for research and development in medical informatics.

Alcoholism

A chronic progressive, sometimes fatal disease marked by chronic excessive intake of and dependence on alcoholic drinks. Abuse of alcohol is a major health threat in the U.S. It is much more widely used than any of the illegal drugs. Chronic alcoholism and alcohol-related disorders, accidents, violence, and injuries can be physically, psychologically, and economically devastating to patients and their families. Alcoholism has been defined as having the following

A

characteristics: 1. "Chronic and progressive" - physical, emotional and social changes that develop are cumulative and progress as drinking continues. 2. "Tolerance" - brain adaptation to the presence of high concentrations of alcohol. 3. "Physical dependency" - withdrawal symptoms occur from decreasing or ceasing consumption of alcohol. 4. The person with alcoholism cannot consistently predict on any drinking occasion the duration of the episode or the quantity that will be consumed. 5. Pathological organ changes can be found in almost every organ, but most often involve the liver, brain, peripheral nervous system, and the gastrointestinal tract. 6. The drinking pattern is generally continuous but may be intermittent, with periods of abstinence between drinking episodes. 7. Social, emotional and behavioral symptoms and consequences of alcoholism result from the effect of alcohol on the function of the brain. The degree to which these symptoms and signs are considered deviant will depend upon the cultural norms of the society or group in which the person lives. Detection: Alcohol concentration in the blood can be measured. In addition, alcohol in the body can be detected by analyzing exhaled air. This provides an estimate of whether the individual has sufficient concentration of blood alcohol to interfere with his or her ability carry out a demanding function such as driving an automobile or piloting an airplane. Etiology: The cause of alcoholism is unknown. Psychological, physiological, and sociological factors play an important part. The exhilaration factor is often the cause of intoxication in nonalcoholic individuals. Alcoholism is an illness and should be so treated. Although it is accepted that there is a genetic factor in the development of alcoholism, the precise genetic mechanism has not been determined. Treatment: Naltrexone, an opioid antagonist has been approved for treating alcoholism. *Acute A.* - Acute intoxication with temporary mental disturbances and muscular incoordination. Caution: When stupor or coma is observed in a patient suspected of being intoxicated by alcohol, other causes, such as intracranial disease or insulin shock, should also be considered. Acute alcoholism can cause death. Symptoms: There may be motor instability (staggering gait, blurred or double vision, impaired reflex action), reduced mental function, increased pulse rate, decreased blood pressure, dilated pupils, flushing of skin, and drowsiness or stupor. Treatment: Alcohol-induced coma is a medical emergency and requires vigorous therapy. Intravenous fluids, intubation to prevent aspiration of vomitus, and oxygen inhalation may be required. *Chronic A.* - Pathological state from habitual use of alcohol in toxic amounts. Symptoms: The symptoms include malnutrition, vitamin deficiency, alcoholic cirrhosis in liver, gastritis, pancreatitis, and neurological disorders such as tremulousness, hallucinosis, seizures, delirium tremens, and coma. Prolonged, excessive ingestion of alcohol is toxic to the cells of the liver. This may lead to cirrhosis and death. Alcoholism is, in some urban areas, the third most frequent cause of death in persons between the ages of 25 and 65. The effect of alcohol on the liver is independent of poor diet. Alcohol ingestion during pregnancy may cause congenital defects. Treatment: Treatment involves withdrawal of alcohol, tranquilizing drugs, adequate nutrition and rest, correction of vitamin deficiency, and psychotherapy.

Alert card

A small card that alerts people to the fact that you have made a living will and where it can be found. Credit card sized for carrying in a wallet or handbag. Available in the VESS living will pack.

Algorithm

(1) "A finite set of well-defined rules for the solution of a problem in a finite number of steps." (ISO 2382/1-1974) (2) A mathematical coding scheme for compressing digitized broadband video or audio signals so that the signals can be transmitted over a lower (and less expensive) bandwidth. Standards-based algorithms are those which enable communication with standards-based systems from disparate manufacturers. Proprietary algorithms are unique to individual manufacturers and enable communications only between equipment from that manufacturer. Current practice strongly encourages standards-based systems.

Alias

Record of a patient with a different patient identification.

Allergy

An acquired, abnormal immune response to a substance (allergen) that does not normally cause a reaction. Sensitization, or an initial exposure to the allergen, is required; subsequent contact with the allergen then results in a broad range of inflammatory responses. Allergic conditions

A

include eczema, allergic rhinitis or coryza, hay fever, bronchial asthma, urticaria(hives), and food allergy. Allergens may be introduced by contact, ingestion (e.g. food), inhalation (e.g. pollen), or injection (e.g. drugs). The hypersensitivity immune reactions of allergies are primarily governed by antibodies, but T cells may also be involved. Types: *Type I* (immediate) reactions are local or systemic anaphylaxis (extremely rapid) inflammatory responses to allergen mediated by immunoglobulin E (IgE). Local responses include urticaria (hives, allergic rhinitis), asthma, and angioedema. Systemic anaphylaxis is life threatening. The allergen reaches the bloodstream, triggering a massive release of chemical mediators that produce severe bronchial obstruction, vasodilatation, and increased vascular permeability, which can cause laryngeal or pulmonary edema and shock. *Type II* (cytotoxic) reactions are antigen-antibody reactions mediated by IgG and IgM that cause transfusion reactions and many drug reactions. these reactions cause lysis of blood cells (erythrocytes, leukocytes and platelets) due to the release of complement. *Type III* (immune complex) reactions occur when IgG or IgM antibodies attach to antigens, creating complexes that circulate in the blood. The complexes cause damage when they adhere to the walls of blood vessels, thus initiating inflammation. Serum sickness, marked by fever, joint and muscle pain, lymphadenopathy, and urticaria, is a type III reaction that can occur in sensitized people who receive penicillins, sulfonamides or antitoxins developed from animals (e.g. for tetanus, snake venom, or rabies). *Type IV* (cell mediated) reactions are mediated by sensitized T lymphocytes, not antibodies. Contact dermatitis, one type IV reaction, involves many common allergens including rubber used in elastic materials, poison ivy, chromium in leather and nickel used in costume jewelry. These combine with skin proteins, altering the normal self-antigens so that new, foreign antigens are created. Contact dermatitis is marked by acute erythema, edema, itching, and scaling. Delayed hypersensitivity reactions (type IV reactions) are used as a clinical tool in skin tests for sensitivity. In a test, a small amount of an agent is placed on the skin; if the individual is sensitized to the substance and has a competent immune system, an inflammatory reaction will occur. At the end of the test, the site of application is compared with a site exposed to a nonsensitizing substance such as a saline symptom. Symptoms: The symptoms consist of local or systemic inflammatory responses marked by redness, edema and heat. Respiratory systems include wheezing, coughing, sneezing and nasal congestion. Increased blood eosinophil levels (eosinophilia) are common. Etiology: An allergy is caused by an inherited or acquired sensitivity over time to a foreign antigen. The number of exposures needed to produce enough antibodies to cause an allergic response varies. An allergy may occur the second time a person is exposed to a particular allergen or may not occur until years later when repeated exposures have produced sufficient antibodies or sensitized T cells. Treatment: Delayed hypersensitivity demonstrated by skin testing is often used to determine those allergens to which the patient reacts. Many allergens can be eliminated from the environment (e.g., foods, animals). Antihistamines or corticosteroids may be prescribed to reduce symptoms. Desensitization may be used to promote tolerance of allergens if allergic responses significantly interfere with lifestyle or are life threatening. The patient should wear or carry a medical identification device indicating known allergens and usual treatment. Nursing implications: A history is obtained to determine any past allergic reactions. The patient receiving blood or blood products is closely observed for the initial 20 min during and after administration of drugs not previously received. Drugs such as epinephrine, diphenhydramine, and corticosteroids should be readily available for treatment of systemic anaphylaxis, which is life threatening. Once the initial emergency has subsided, the nurse administers medications prescribed for long-term management (such as SC or longer-acting epinephrine, corticosteroids, and diphenhydramine), and inhaled bronchodilators or IV aminophylline (over 20 min) for bronchospasm. Patients are taught how to identify and avoid common allergens and identify an allergic reaction. If a patient needs drugs for treatment of systemic anaphylaxis at home, both patient and family are instructed in their use. *Atopic A.* - An inherited allergy. *Contact A.* - hypersensitivity reaction following direct contact with an allergen. *Drug A.* - Hypersensitivity to a drug.

All inclusive visit rate

Aggregate costs for any one patient visit based upon annual operating costs divided by patient visits per year. This rate incorporates costs for all services at the visit.

All patient diagnosis related groups (APDRG)

An enhancement of the original DRGs, designed to apply to a population broader than that of Medicare beneficiaries, who are predominately older individuals. The APDRG set includes groupings for pediatric and maternity cases as well as of services for HIV-related conditions and

A

other special cases.

Alleles

Alternative forms of a genetic locus; a single allele for each locus is inherited separately from each parent (e.g., at a locus for eye color the allele might result in blue or brown eyes).

Alliance

An alliance for health promotion is a partnership between two or more parties that pursue a set of agreed upon goals in health promotion. Reference: new edition. Alliance building will often involve some form of mediation between the different partners in the definition of goals and ethical ground rules, joint action areas, and agreement on the form of cooperation which is reflected in the alliance.

Allied health personnel

Specially trained and licensed (when necessary) health workers other than physicians, dentists, optometrists, chiropractors, podiatrists, and nurses. The term has no constant or agreed-upon detailed meaning; sometimes used synonymously with paramedical personnel, sometimes meaning all health workers who perform tasks which must otherwise be performed by a physician, and at other times referring to health workers who do not usually engage in independent practice.

Allocable cost

A cost which is assignable or chargeable to one or more cost objectives in accordance with the relative benefits received or other equitable relationships defined or agreed to between contractual parties.

Allocate

To assign an item of cost, or a group of items of cost, to one or more cost objectives. This term includes both direct assignment of cost and the reassignment of a share from an indirect cost pool.

Allocated benefits

Payments authorized for specific purposes with a maximum specified for each. In hospital policies, for instance, there may be scheduled benefits for X-rays, drugs, dressings, and other specified expenses.

Allocation base

The base used for determining the allocation rate for an indirect cost pool. The result that obtains from dividing the total of the indirect cost pool by the allocation base is the indirect cost rate for that pool.

Allowable charge

The maximum charge for which a third party will reimburse a provider for a given service. An allowable charge is not necessarily the same as either a reasonable, customary, maximum, actual, or prevailing charge. In the USA, this is the amount Medicare approves for payment to a physician, but may not match the amount the physician gets paid by Medicare (due to co-pay or deductibles) and usually does not match what the physician charges patients. Medicare normally pays 80 percent of the approved charge and the beneficiary pays the remaining 20 percent. The allowed charge for a nonparticipating physician is 95 percent of that for a participating physician. Non-participating physicians may bill beneficiaries for an additional amount above the allowed charge. These rates are published by the HCFA intermediary in each state.

Allowable costs

Covered expenses within a given health plan. Items or elements of an institution's costs which are reimbursable under a payment formula. Both Medicare and Medicaid reimburse hospitals on the basis of only certain costs. Allowable costs may exclude, for example, luxury travel or marketing. HCFA publishes an extensive list of rules governing these costs and provides software for determining costs. Normally the costs which are not reasonable expenditures, which are unnecessary, which are for the efficient delivery of health services to persons covered under

A

the program in question are not reimbursed. The most common form of cost reimbursement is the "cost report" methodology used for DRG-exempt services, such as many out-patient hospital based programs, long-term care and skilled nursing units, physical rehab, psychiatric and substance abuse inpatient programs. Some specialty hospitals receive all of their HCFA reimbursement as cost based reimbursement.

Allowed expenses

The maximum amount a plan will pay for a covered service.

All-payer system

A system in which prices for health services and payment methods are the same, regardless of who is paying. For instance, in an all-payer system, federal or state government, a private insurer, a self-insured employer plan, an individual, or any other payer could pay the same rates. The uniform fee bars health care providers from shifting costs from one payer to another. See cost shifting.

All-risks

"All Risks" property policies, often called "special" policies, cover any loss unless it is caused by an excluded peril listed in the policy.

Alma-Ata declaration

A declaration made in 1978, at the Conference on Primary Health Care in Alma-Ata, Russia. It stated that primary health care is the key to attaining health for all by the year 2000. Defined as essential to this were eight elements: education, food supply, safe water, maternal and child health including family planning, immunization, prevention and control of endemic diseases, appropriate treatment of common diseases and injuries, and provision of essential drugs.

ALM

Asset-liability management.

Alpha waves

Quasiperiodic waves in the EEG with a frequency of about 10 Hz.

Alphanumeric data

Contraction of alphabetic and numeric: the set that consists of the alphabetic characters a to z and the digits 0 to 9. Sometimes a few special characters such as = and - are also considered to belong to this set.

Alpha-fetoprotein (AFP)

An antigen present in the human fetus and in certain pathological conditions in the adult. The maternal serum level can be evaluated at 16 to 18 weeks of pregnancy to detect fetal abnormalities. Elevated levels indicate the possibility that neural tube defects (principally anencephaly or spina bifida) are present in the fetus. Decreased levels may indicate an increased risk of having a baby with Down syndrome. If an abnormal level of AFP is found, further tests such as ultrasound or amniocentesis will need to be done. Elevated serum levels are found in adults with certain hepatic carcinomas or chemical injuries. Test results may be abnormal in persons with diabetes, multiple pregnancies, or obesity.

Alternative medicine

Approaches to medical diagnosis and therapy that have not been developed by use of generally accepted scientific methods. Forms of alternative medicine include acupuncture, acupressure, aroma therapy, ayurveda, biofeedback, Christian Science, faith healing, guided imagery, herbal medicine, holistic medicine, homeopathy, hypnosis, macrobiotics, manipulative medicine, massage therapy, naturopathy, ozone therapy, reflexotherapy, relaxation response, Rolfing, shiatsu and yoga. This is not to say that, were these methods subjected to scientific study, all of them would be found to be ineffective. The interest of the American public in alternative approaches to health maintenance, the treatment of illness, and the restoration of health has increased over the last several decades. Individuals seeking medical care from either conventional or unconventional practitioners should be advised to inform the caregiver about all behaviors and therapies in recent or current use. In addition, the psychosomatic "placebo" effect

A

and the natural history of the particular disease must be considered in evaluating the efficacy of alternative therapies. In 1992, the Office of Alternative Medicine was established at the National Institutes of Health to investigate the scientific merits of alternative medicine. Caution: Individuals who choose to use herbal preparations should be aware that few, if any, of those products are subjected to formulation specifications and manufacturing controls. In their absence the consumer has no assurance of their purity or cleanliness. Furthermore, the possible interaction of pharmacological agents with nutritional and/or herbal preparations must be considered.

Alternate delivery systems

Health services provided in other than an inpatient, acute-care hospital or private practice. Examples within general health services include skilled and intermediary nursing facilities, hospice programs, and home health care. Alternate delivery systems are designed to provide needed services in a more cost-effective manner. Most of the services provided by community mental health centers fall into this category.

Alternate facility

A facility that primarily provides services sufficient to support needs resulting from an inability to perform Activities of Daily Living or Cognitive Impairment to at least six (6) residents in one location and meets all of the following criteria: 1) it provides 24-hour a day care and services sufficient to support needs resulting from inability to perform Activities of Daily Living or Cognitive Impairment; 2) it is state licensed, if required, to provide the level of care and services being rendered; 3) it has supervision to the extent required by law; 4) it provides three meals a day and accommodates special dietary needs; 5) it has procedures for procuring the services of a doctor or Nurse to furnish medical care in case of emergency; and, 6) it has appropriate methods and procedures to assist in administering prescribed drugs. It may include any of the following types of facilities: 1. Assisted living facility; 2. Residential care facility; 3. Alzheimer's facility; 4. Adult foster home; 5. Domiciliary care facility.

Alternate facility care

Care provided in an "alternate facility".

Alternate settlement option

An option a mortgage insurer can exercise in settling a claim in which it pays the entire amount of the claim, including applicable legal, foreclosure, and repossession expenses, generally before the home goes to foreclosure. The insurer exercising this option has no possibility of recovery even if the subsequent sale of the home yields proceeds in excess of the exposure of the lender or investor.

Alternative delivery system

Provision of health services in settings that are more cost-effective than an inpatient, acute-care hospital, such as skilled and intermediary nursing facilities, hospice programs, and in-home services.

Alternative hypothesis

A hypothesis in statistically comparing populations that is tested against the null hypothesis.

Alzheimer's disease

A progressive, irreversible disease characterized by degeneration of the brain cells and severe loss of memory causing the individual to become dysfunctional and dependent upon others for basic living needs.

Ambient

Surrounding. For example, ambient air is usually outdoor air (as opposed to indoor air).

Ambulatory care

Health services provided without the patient being admitted. Also called outpatient care. The services of ambulatory care centers, hospital outpatient departments, physicians' offices and home health care services fall under this heading provided that the patient remains at the facility less than 24 hours. No overnight stay in a hospital is required.

A

Ambulatory medicine

Denotes medical care given to patients who are not confined to bed or a hospital as a result of disease or surgery.

Ambulatory monitoring

Acquisition of biosignals from a person who is connected to the analysis equipment by wireless transmission. Also called telemetry.

Ambulatory Patient Classifications (APC)

A system for classifying outpatient services and procedures for purposes of payment. The APC system classifies some 7,000 services and procedures into about 300 procedure groups.

Ambulatory setting

Institutions such as surgery centers, clinics, or other outpatient facilities which provide health care on an outpatient basis.

Ambulatory surgery

Surgery performed on a non-hospitalized patient; patient goes home the same day as the surgery.

Ambulatory Surgical Center (ASC)

A free-standing facility certified by Medicare that performs certain types of types of procedures on an outpatient basis.

Ambulatory Visit Group (AVG)

Similar to DRGs (Diagnosis-Related Group), except outpatient rather than inpatient hospital care.

Amendment

Document changing the provisions of an insurance contract signed jointly by the insurer and the policyholder.

American Accreditation HealthCare Commission/Utilization Review Accreditation Committee (Commission/URAC)

The American Accreditation HealthCare Commission/URAC is a non-profit organization founded in 1990 to establish standards for the managed care industry. The Commission/URAC's broad-based membership includes representation from the constituencies affected by managed care: employers, consumers, regulators, health care providers, and the workers' compensation and managed care industries. Member organizations of the Commission/URAC participate in development of standards and are eligible to sit on the Board of Directors.

Amino acid

Any of a class of 20 molecules that are combined to form proteins in living things. The sequence of amino acids in a protein and hence protein function are determined by the genetic code.

A-mode

Amplitude mode: visualization of ultrasound reflections in which the amplitude of the signal is displayed against the time interval between the transmitted pulse and the echo (thus corresponding to twice the distance between the transducer and the reflecting tissue).

Amortization

The act or process of retiring a debt, usually by equal payments at regular intervals over a specific period of time.

Amount, duration and scope

A phrase which is used to describe how a medical benefit is defined and limited in a state's Medicaid plan. Each state defines these limits, so state Medicaid plans vary in what is actually covered.

Amplification

An increase in the number of copies of a specific DNA fragment, can be in vivo or in vitro. See

A

cloning, polymerase chain reaction.

Amplifier

Electronic devices, spaced at intervals throughout a cable television system, used to boost the strength of the cable signal as it passes from the head end to the subscriber. In coaxial cable systems, amplifiers are needed approximately every 1,500 feet. Amplifiers are also used in twisted copper pair telephone lines.

AMT

Alternative minimum tax.

Analog

(1) Information (electronic or otherwise) that is created and transmitted as a continuous stream. Wave forms (e.g., on oscilloscopes) are analog. Compare this to digital information generated by computers. Modems are used to convert digital computer data to analog form for sending over standard POTS lines. (2) The method in which data (usually audio or video) is recorded. An analog signal is an electronic signal that is defined by means of a steady flow of electric current that is modulated to different frequencies, voltages and amplitudes. Examples of analog devices are television, VCR and cassette recorders.

Analog signal

A wave shaped electrical symbol that continuously changes with respect to size and shape depending on the information source. Differences in volume, voice and pitch are a result of signal variations.

Analog-to-digital conversion

See A-D conversion.

Analysis

(1) Separation of anything into its constituent parts. (2) (in chemistry) Determination of or separation into consistent parts of a substance or compound. (3) Psychoanalysis. *Batch A.* - An automated analysis in which all of the samples undergo the same test or test profile. *Chromatographic A.* - Analysis of substances on the basis of color reaction of the constituents as they are differentially absorbed on one of a variety of materials such as filter paper. *Cohort A.* - The tabulation and analysis of morbidity or mortality in relation to the ages of a specific group of people (cohort), identified at a particular period of time and followed as they pass through different ages during part or all of their life span. *Colorimetric A.* - Analysis by adsorption of a compound and the identification of its element by color. *Continuous flow A.* - analysis using a type of laboratory instrument that, prior to analyzing specimens, separates them by placing an air bubble between individual specimens as they are injected into a tube. Specimens are then analyzed as they flow along the tube. *Densimetric A.* - analysis by determination of the specific gravity (density) of a solution and estimation of the amount of solids. *Discrete A.* - an automated methodology in which samples are held in separate containers to be assayed. In a continuous flow system, all samples flow through the same tubing. *Gastric A.* - analysis of the stomach contents to determine the concentration of free hydrochloric acid and combined (total) acid and the presence of lactic acid, occult blood, pus, and excessive mucus, and the amount and types of bacteria. *Hair A.* - investigation of the chemical composition of hair. It is used in studying exposure to toxic chemicals in the environment, in poisoning investigations, in nutritional studies, and in monitoring the course of certain diseases. The sample should be obtained from new-growth hair within 5 cm of the scalp to reduce the chance of contamination of the hair by air pollutants. *Qualitative A.* - determination of the nature of the elements in a substance. *Quantitative A.* - determination of the quantity of each element in a substance. *Spectrophotometric A.* - determination of materials in a compound by measuring the amount of light they absorb in the infrared, visible, or ultraviolet region of the spectrum. *Volumetric A.* - quantitative analysis performed by the measurement of the volume of solutions or liquids.

Analysis of variance (ANOVA)

A statistical technique for defining and segregating the causes of variability affecting a set of observations. Use of this technique provides a basis for analyzing the effects of various treatments or variables on the subjects or patients being investigated. In an experimental design in which several samples or groups are drawn from the same population, estimates of population

A

variance between samples should differ from each other only by chance. ANOVA provides a method for testing the hypothesis that several random and independent samples are from a common, normal population.

Analyte

A chemical component of a sample to be determined or measured. For example, if the analyte is mercury, the laboratory test will determine the amount of mercury in the sample.

Analytic epidemiologic study

Investigations designed to evaluate the causal nature of associations between exposure to hazardous substances and disease outcome by testing scientific hypotheses.

Analytic epidemiology

The aspect of epidemiology concerned with the search for health-related causes and effects. Uses comparison groups, which provide baseline data, to quantify the association between exposures and outcomes, and test hypotheses about causal relationships.

Analytic study

A comparative study intended to identify and quantify associations, test hypotheses, and identify causes. Two common types are cohort study and case-control study.

Anamnesis

(1) Remembrance of the past (2) The accumulated data concerning a medical or psychiatric patient and the patient's background, including family, previous environment, experiences, and particularly, recollections, for use in analyzing his or her condition.

Ancillary

Additional services (other than room and board charges) such as X-rays, anesthesia, lab work, etc. Fees charged for ancillary care such as X-rays, anesthesia, and lab work. This term may also be used to describe the charge made by a pharmacy for prescriptions which exceed the health insurance plan's maximum allowable cost (MAC).

Ancillary benefits

Benefits for miscellaneous hospital charges.

Ancillary department

Hospital department that assists clinicians in diagnosis and therapy (e.g. a laboratory).

Ancillary department system

Information system in an ancillary department. Also called clinical support system.

Ancillary services

Additional services offered in combination with medical care, such as lab work, imaging studies and pharmacy.

AND

(1) Binary logical operator, yielding only TRUE when both operands are TRUE. (2) Advanced Digital Network - Refers to a 56Kbps leased-line.

Angiography

Examination of blood vessels by means of X rays and contrast medium.

Anniversary date

The beginning of an employer group's benefit year. The first day of effective coverage as contained in the policy Group Application and subsequent annual anniversaries of that date. An insured has the option to transfer from an indemnity plan (which may have maximum benefit levels) to an HMO.

Annotation

Simultaneous shared annotation of captured (or, less commonly, live video) images allows

A

conference participants to clearly point out the areas in question on an image, and may provide significant instructional value.

Annual funding

The current Congressional practice of limiting authorizations and appropriations to one fiscal year at a time.

Annuitant

The person during whose life an annuity is payable, usually the person to receive the annuity.

Annuity

A contract that provides an income for a specified period of time, such as a number of years or for life. Annuities are contracts sold by life insurance companies (the seller must be a licensed insurance entity in your state). In their simplest form, you pay a sum of money (either a lump sum or a series of payments) and the insurance company makes periodic payments to you, beginning on the date in your contract and continuing for the rest of your life. The earnings on your annuity payments are not taxable during the accumulation phase of your agreement, the annuity payments are taxable as income when you receive them permit you to place your payments in professionally managed funds, similar to mutual funds, and to control how these payments are invested during the life of your contract. Unlike mutual funds, variable annuities have insurance provisions and guarantees to preserve the value of the principal you pay into the annuity. They also generally carry higher fees than mutual funds. Annuities may entail extensive taxation and estate issues, and annuity buyers should make sure they're aware of such issues.

Annuity certain

A contract that provides an income for a specified number of years, regardless of life or death.

Annuity consideration

The payment, or one of the regular periodic payments, an annuitant makes for an annuity.

Anonymous data

Data that do not contain the identifying data of a person or data from which the identity of a person cannot easily be derived, such as an address or a rare disease.

Anonymous log-in

Ability to log-in on a computer without using a password.

Antepartal care

Care of a pregnant woman during the time of maternity cycle that begins with conception and ends with the onset of labor. A medical, surgical, gynecologic, obstetric, social, and family history is taken, with particular emphasis on the discovery of familial or transmissible diseases. A physical examination is performed, including observation and evaluation of all body systems and pelvic organs. The vaginal part of the pelvic examination may include estimation of the size of the pelvis; a Papanicolaou (Pap) smear; and tests for *Neisseria gonorrhoeae*, *Candida albicans*, *Chlamidia sp.*, *Trichomonas vaginalis*, syphilis, genital herpes, and other viral infections. Blood pressure, weight, urinalysis primarily for glucose and protein, measurement of the height of the fundus and auscultation of the fetal heart are routinely performed at monthly intervals or even more frequently in the second and third trimesters. Laboratory tests are performed to determine blood type and Rh factor, rubella antibody titers, hematocrit, and hemoglobin or complete blood count. Ultrasound and/or amniocentesis may be performed if certain fetal abnormalities are suspected. Also called antenatal care, prenatal care.

Anthelmintic

A drug, for example praziquantal, used specifically against helminth or worm infections.

Antibiotic

(1) Pertaining to the ability to destroy or interfere with the development of a living organism. (2) An antimicrobial agent, derived from cultures of a microorganism or produced semisynthetically, used to treat infections. The penicillins, derived from species of the fungus *Penicillium* or manufactured semisynthetically, consist of a thiazolidine ring fused to a beta-lactam ring connected to side chains; these agents exert their action by inhibiting mucopeptide synthesis in

A

bacterial cell walls during multiplication of the organisms. Penicillin G and V are widely used in treating many gram-positive coccal infections but are inactivated by the enzyme penicillinase produced by strains of staphylococci; cloxacillin, dicloxacillin, methicillin, nafcillin, and oxacillin are penicillinase-resistant penicillins. Broad-spectrum penicillins effective against gram-negative organisms are ampicillin, carbecillin, and hetacillin. Hypersensitivity reactions, such as rash, fever, bronchospasm, vasculitis, and anaphylaxis, are relatively common side effects of penicillin therapy. Aminoglycoside antibiotics, composed of amino sugars in glycoside linkage, interfere with the synthesis of bacterial proteins and are used primarily for treating infections caused by gram-negative organisms. The aminoglycosides include gentamycin derived from *Micromonospora*, semisynthetic amikacin, kanamycin, neomycin, streptomycin, and tobramycin. These agents commonly cause nephrotoxic and ototoxic reactions as well as gastrointestinal (GI) disturbances. Macrolide antibiotics, consisting of a large lactone ring and deoxamino sugar, interfere in protein synthesis of susceptible bacteria during multiplication without affecting nucleic acid synthesis. Oleandomycin, which is added to feed to improve the growth of poultry and swine, and broad-spectrum erythromycin, used to treat various gram-positive and gram-negative infections and intestinal amebiasis, are macrolides derived from species of *Streptomyces*. Erythromycin may cause mild allergic reactions and GI discomfort, but nausea, vomiting, and diarrhea occur infrequently with the usual oral dose. Polypeptide antibiotics derived from species of *Streptomyces* or certain soil bacilli vary in their spectra; most agents are nephrotoxic and ototoxic. Bacitracin and vancomycin are polypeptides used to treat severe staphylococcal infections; capreomycin and vancomycin are antituberculosis agents; and gramicidin is included in ointments for topical infections. Among polypeptide antibiotics effective against gram-negative organisms, colistin and neomycin are administered for diarrhea caused by enteropathogenic *Escherichia coli*. The tetracyclines, including the prototype derived from *Streptomyces*, chlortetracycline, demeclocycline, doxycycline, minocycline, and oxytetracycline, are active against a wide range of gram-positive and gram-negative organisms and some rickettsiae. Antibiotics in this group are primarily bacteriostatic and are thought to exert their effect by inhibiting protein synthesis in the organisms. Tetracycline therapy may cause GI irritation, photosensitivity, renal toxicity, and hepatic toxicity. Administering a drug of this group in patients during the last half of pregnancy or before 8 years of age may result in permanent discoloration of teeth. The cephalosporins, derived from the soil fungus *Cephalosporium* or produced semisynthetically, inhibit bacterial cell wall synthesis and resist the action of penicillinase. They are used in treating infections of the respiratory tract, urinary tract, middle ear, and bones, as well as septicemia caused by a wide range of gram-positive and gram-negative organisms. The group includes cefadroxil, cefamandole, cefazolin, cephalixin, cephaloglycin, cephaloridine, cephalothin, cephalirin, and cephradine. Treatment with a cephalosporin may cause nausea, vomiting, diarrhea, enterocolitis, or an allergic reaction, such as rash, angioneurotic edema, or exfoliative dermatitis; use of antibiotics in this group is contraindicated in patients who have shown hypersensitivity to penicillin. Chloramphenicol, a broad-spectrum antibiotic initially derived from *Streptomyces venezuelae*, inhibits protein synthesis in bacteria. Because the drug may cause life-threatening blood dyscrasis, its use is reserved for the treatment of acute typhoid fever, serious gram-negative infections (including *Haemophilus influenzae meningitis*), and rickettsial diseases.

Antibodies

Proteins produced by an organism's immune system that recognize foreign proteins (or their surface sugars). Specific antibodies can be produced in large volumes and employed to detect, diagnose, or treat one or more diseases.

Antibody

An immunoglobuline produced by lymphocytes in response to bacteria, viruses, or other antigenic substances. An antibody is specific to an antigen. Each class of antibody is named for its action. Antibodies include agglutinins, bacteriolysins, opsonins, and precipitin.

Anti-coagulation therapy

Pharmacological therapy to reduce the probability that blood will clot.

Antigen

A protein, typically foreign, that elicits a specific immune response.

Antigen-antibody reaction

A process of immune system in which immunoglobuline-coated B-cells recognize an intruder or antigen and stimulate antibody production. The T cells assist in the antigen-antibody reaction, but the B cells play the key role. However, both must be present for reaction to occur. Antigen-antibody reactions activate the complement system of the body, amplifying the humoral immunity response of the B cells and causing lysis of the antigenic cells. Antigen-antibody reactions involve the binding of the antigens to antibodies to form antigen-antibody complexes that may render the toxic antigen harmless, agglutinate antigens on the surface of microorganisms, or activate the complement system by exposing the complement-binding sites on the antibody molecule. Complement protein immediately binds to these sites and triggers the activity of the other complement proteins to produce cytolysis of the antigen cells. The antigen-antibody reaction may start immediately with antigen contact or as much as 48 hours later. Antigen-antibody reactions are essential to the immune response of the body and are precipitated by contact of antigenic protein molecules with antibody protein molecules. When unique areas on the surfaces of antigen molecules fit precisely into appropriate concave combining sites on the surfaces of antibody molecules antigen-antibody reactions occur and antigen-antibody complexes are formed. Various amounts of immunoglobulins IgM, IgG, IgA, IgE, and IgD are normally present during any antigenic challenge. Antigen-antibody reactions normally produce immunity, but they can also produce allergy, autoimmunity, and fetomaternal hematological incompatibility. Antigen-antibody reaction in the immediate allergic response activates certain enzymes and causes an imbalance between these enzymes and their inhibitors. Simultaneously released into the circulation are certain pharmacologically active substances, such as acetylcholine, bradykinin, histamine, IgG, and leukotaxine.

Antihypertensive

(1) Pertaining to a substance or procedure that reduces high blood pressure. (2) An antihypertensive agent. Various drugs achieve their antihypertensive effect by depleting tissue stores of catecholamines in peripheral sites, by stimulating pressor receptors in the carotid sinus and heart, by blocking autonomic nerve impulses that constrict blood vessels, by stimulating central inhibitory alpha-adrenergic receptors, or by direct vasodilatation. Thiazides and other diuretic agents reduce blood pressure by decreasing blood volume. Among the numerous drugs used to treat hypertension are angiotensin-converting enzyme inhibitors, beta blockers, calcium channel blockers, captopril, verapamil, diazoxide, guanethidine, methyldopa, pargyline hydrochloride, and trimethaphan camsylate.

Antilipidemic

(1) Pertaining to a regimen, diet or agent that reduces the amount of lipids in the serum. (2) A drug used to reduce the amount of lipids in the serum. Antilipidemic diets and drugs are prescribed to reduce the risk of atherosclerotic cardiovascular disease (ACVD) for two reasons: atheromatous plaques contain free cholesterol, and lower serum cholesterol levels and lower incidence of coronary heart disease are found in populations consuming a low-fat diet than in those on high-fat diet. A number of pharmacological agents are used to reduce serum lipids, but it is not established whether drug-induced lowering of serum cholesterol or triglyceride level has a beneficial effect, no effect, or a detrimental effect on ACVD morbidity or mortality. Among drugs used to reduce serum lipids are clofibrate and lovastatin. Clofibrate reduces very low density lipoproteins in serum; the drug may reduce the risk of a second, nonfatal myocardial infarction, but it increases the risk of cholelithiasis, cardiac arrhythmias, intermittent claudication, and thromboembolism. Cholestyramine and colestipol exert their antilipemic action by combining with bile acids in the intestine to form an insoluble complex that is excreted in the feces; it may reduce serum cholesterol markedly, but it prevents the absorption of essential fat-soluble vitamins and may be associated with several serious side effects. Colestipol also binds and removes bile acids from the intestine; sitosterol may interfere with intestinal absorption of cholesterol, but the exact mechanism of its action and that of antilipidemic probucol are unknown. Lovastatin interferes with the biosynthesis of cholesterol.

Antineoplastic

(1) Pertaining to a substance, procedure, or measure that prevents the proliferation of malignant cells. (2) A chemotherapeutic agent that controls or kills cancer cells. Drugs used in the treatment of cancer are cytotoxic but are generally more damaging to dividing cells than to resting cells. Cycle-specific antineoplastic agents are more effective in killing proliferating cells

A

than in killing resting cells, and phase-specific agents are most active during a specific phase of the cell cycle. Most anticancer drugs prevent the proliferation of cells by inhibiting the synthesis of deoxyribonucleic acid (DNA) by various mechanisms. Alkylating agents, such as nitrogen mustard derivatives, ethylenimine derivatives, and alkyl sulfonates, interfere with DNA replication by causing cross-linking of DNA strands and abnormal pairing of nucleotides. Antimetabolites exert their action by interfering with the formation of compounds required for cell division. The folic acid analog and 5-fluorouracil, a pyrimidine analog, inhibit enzymes required for the formation of the essential DNA constituent thymidine. Hypoxanthine analog 6-mercaptopurine and 6-thioguanine, an analog of guanine, interfere with the biosynthesis of purine. Vinblastine and vincristine, alkaloids derived from the periwinkle plant, disrupt cell division by interfering with the formation of mitotic spindle. Antineoplastic antibiotics, such as doxorubicin, daunomycin, and mitomycin, block or inhibit DNA synthesis; dactinomycin and mithramycin interfere with ribonucleic acid synthesis. Cytotoxic chemotherapeutic agents may be administered orally, intravenously, or by infusion. All have untoward and unpleasant side effects and are potentially immunosuppressive and dangerous. Estrogens and androgens, although not considered antineoplastic agents, frequently cause tumor regression when administered in high doses to patients with hormone-dependent cancers.

Antioxidant

A chemical or other agent that inhibits or retards oxidation of a substance to which it is added. Examples include butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT). These substances are added to foods containing fats or oils to prevent oxygen from combining with the fatty molecules, thereby causing them to become rancid.

Antioxidants

Agents that prevent or inhibit oxidation. Antioxidants are naturally occurring or synthetic substances that help protect cells from the damaging effects of oxygen free radicals, highly reactive compounds created during normal cell metabolism. Antioxidants (such as the enzymes superoxidase dismutase and peroxidases and vitamins A, C and E) scavenge oxygen free radicals. Superoxide dismutase and other cellular enzymes convert the very destructive hydroxyl radicals into hydrogen peroxide and then into water and harmless before they can damage important cell and mitochondrial membranes, destroy cellular proteins or enzymes, and even cause DNA mutations. Assisting the cell's enzyme protectors are the antioxidant vitamins E and C and beta-carotene, a precursor of vitamin A. These vitamins absorb or attach to the free radicals, preventing them from attacking normal tissues. In some circumstances, excessive production of oxygen free radicals overwhelms the available oxidants, causing DNA mutation that can lead to cancer. Radiation therapy, tissue infarction, and aging contribute to this dangerous process. Current antioxidant therapy consists mainly of oral vitamins and food additives. However, drugs with antioxidant activity are under investigation to prevent cancer, to slow aging, and to limit the spread of tissue infarctions. In the future, these drugs may be administered by intravenous push during such crises as myocardial infarction or evolving stroke.

Antisense drugs

Drugs developed based on a technology which attempts to use synthetic segments of DNA and RNA to stop the production of disease-associated proteins by interacting with target strands of messenger RNA at a genetic level.

Antitrust

(1) A legal term encompassing a variety of efforts on the part of government to assure that sellers do not conspire to restrain trade or fix prices for their goods or services in the market (2) Against the operation, establishment, or maintenance of a monopoly in the manufacture, production, or sale of a commodity, provision of a service, or practice of a profession.

Any willing provider

State requirements that a network accept any provider who meets the network's credentialing requirements and is willing to accept the network's contractual terms.

Any-quantity rates

Quoted "per item" rates for goods or services that do not vary according to the quantity ordered.

Apgar score

(Virginia Apgar, American anesthesiologist, 1909-1974) The evaluation of an infant's physical condition, usually performed 1 minute and again 5 minutes after birth, based on a rating of five factors that reflect the infant's ability to adjust to extrauterine life. Virginia Apgar, M.D., developed the system for the rapid identification of infants requiring immediate intervention or transfer to an intensive care nursery. METHOD: The infant's heart rate, respiratory effort, muscle tone, reflex irritability, and color are scored from a low value of 0 to a normal value of 2. The five scores are combined, and the totals at 1 minute and 5 minutes are noted; for example, Apgar 9/10 is a score of 9 at 1 minute and 10 at 5 minutes. OUTCOME CRITERIA: A score of 0 to 3 represents severe distress, a score of 4 to 7 indicate moderate distress, and a score of 7 to 10 indicates an absence of difficulty in adjusting to extrauterine life. The 5-minute total score is normally higher than the 1-minute score. Because a normal, vigorous, healthy newborn almost always has bluish hands and feet at 1 minute, the first score for color will include a 1 rather than a perfect 2; however, at 5 minutes the blueness may have passed, and a score of 2 may be given. A 5-minute overall score of 0 to 1 correlates with a 50% neonatal mortality rate; infants who survive exhibit three times as many neurologic abnormalities at 1 year of age as do children with a 5-minute score of 7 or more.

Infant evaluation at birth - Apgar scoring system

Sign	0	1	2
Heart rate	Absent	Slow, <100	>100
Respiratory effort	Absent	Irregular, slow	Good, strong cry
Muscle tone	Limp	Some flexion of extremities	Well flexed
Reflex irritability (response to skin stimulation of feet)	No response	Grimace	Cry, sneeze
Color	Blue, pale	Body pink	Completely pink, blue extremities

Apolipoprotein

The protein component of lipoprotein complexes.

Apolipoprotein A-I

A protein component of lipoprotein complexes found in high-density lipoprotein (HDL) and chylomicrons. It is an activator of lecithin-cholesterol acyltransferase (LCAT), which forms cholesteryl esters in HDL. A deficiency of apolipoprotein A-1 is associated with low HDL levels and Tangier disease.

Apolipoprotein A-II

A protein component of lipoprotein complexes found in high-density lipoprotein (HDL) and chylomicrons.

Apolipoprotein B

A protein component of lipoprotein complexes found in low-density lipoprotein (LDL), very low-density lipoprotein (VLDL), and intermediate-density lipoprotein (IDL). It is elevated in the plasma of patients with familial hyperlipoproteinemia.

Apolipoprotein E

A protein component of lipoprotein complexes found in very low-density lipoprotein (VLDL), high density lipoprotein (HDL), chylomicrons, and chylomicron remnants. It is elevated in patients with type III hyperlipoproteinemia.

Applet

A small Java computer program that can be embedded in an HTML page. Applets differ from full-fledged Java applications in that they are not allowed to access certain resources on the local computer, such as files and serial devices (modems, printers, etc.), and are prohibited from communicating with most other computers across a network. The current rule is that an applet can only make an Internet connection to the computer from which the applet was sent.

A

Application

(1) A statement of information made by someone applying for life insurance. The information gathered helps the life insurance company assess whether the risk presented by the applicant is acceptable to underwriters. (2) A program or system part to solve a specific problem or to perform a specific task.

Application integrators

Software that transparently provides application-to-application functionality, primarily through data conversion and transmission, while eliminating the need for custom programming. Also referred to as application integration gateway, application interface gateway, integration engine, intelligent gateway. This type of software is key to developing networks of information systems, making client-specific information available in real time to all members of an IHDS.

Application layer

Functions of a communication program accessible by the user.

Application program

A program used to solve a specific problem or to perform a specific task.

Application program interface

A set of callable routines that a programmer uses to interact with an application.

Application server

A computer system that runs the application in a distributed system.

Application software

Set of application programs

Applied epidemiology

The application or practice of epidemiology to address public health issues.

Applied research

An investigative study in which the results are used in actual practice.

Approach

A means or method of attaining an objective or target.

Appropriate health technology

Methods, procedures, techniques and equipment that are scientifically valid, adapted to local needs and acceptable to those who use them and to those for whom they are used, and that can be maintained and utilized with resources the community or country can afford.

Appropriateness

Appropriate health care is care for which the expected health benefit exceeds the expected negative consequences by a wide enough margin to justify treatment. This term is not to be confused with "usual and customary" or "approved" service.

Approval

A term used extensively in managed care and, to many, implies the primary process of "managing" managed care. Approval usually is used to describe treatments or procedures that have been certified by utilization review. Can also refer to the status of certain hospitals or doctors, as members of a plan. Can describe benefits or services which will be covered under a plan. Generally, approval is either granted by the managed care organization (MCO), third party administrator (TPA) or by the primary care physician (PCP), depending on the circumstances. The term approval signifies the legal acceptance of forms by a state when policy information is filed; the insurer's acceptance of risks as set forth in an application for insurance (as originally made or modified by the insurer); or the acceptance of a request from an applicant or policyholder for new insurance, reinstatement of a terminated policy, a policy loan, or other request.

Approved charge

Limits of expenses paid by Medicare in a given area of covered service. Charges approved by payment by private health plans. Items that are likely to be reimbursed by the insurance company.

Approved health care facility or program

A facility or program which has been approved by a health care plan as described in the contract.

Arbovirus

A virus which uses Arthropods as vectors and is transmitted in their saliva to the definitive host. For example, yellow fever. (From Arthropod borne virus.)

Architecture

The organizational structure of a system or CSCI, identifying its components, their interfaces, and a concept of execution among them.

Arden syntax

A standard language for writing situation-action rules that can trigger alerts based on abnormal clinical events detected by a clinical information system.

Area Health Education Center (AHEC)

An organization or organized system of health and educational institutions whose purpose is to improve the supply, distribution, quality, use, and efficiency of health care personnel in specific medically underserved areas. An AHEC's objectives are to educate and train the health personnel specifically needed by the underserved areas and to decentralize health workforce education, thereby increasing supply and linking the health and educational institutions in scarcity areas.

ARI

(Absolute Risk Increase) The absolute difference in rates of bad events, when the experimental treatment harms more patients than the control treatment. ARI is also used in assessing the effect of risk factors for disease.

ARMs

Adjustable rate mortgages.

ARPA

(Advanced Research Projects Agency) Governed under the Department of Defense, this agency is involved with the use of telemedicine, its development, and continuing research. The ARPA is responsible for establishing the network that later became known as the Internet.

ARR

(Absolute Risk Reduction) The absolute arithmetic difference in outcome rates between control and experimental patients in a trial. Usually reported as a %, and calculated as C-E. In the example, C-E=9.6%-2.8%=6.8%.

Arrayed library

Individual primary recombinant clones (hosted in phage, cosmid, YAC, or other vector) that are placed in two-dimensional arrays in microtiter dishes. Each primary clone can be identified by the identity of the plate and the clone location (row and column) on that plate. Arrayed libraries of clones can be used for many applications, including screening for a specific gene or genomic region of interest as well as for physical mapping. Information gathered on individual clones from various genetic linkage and physical map analyses is entered into a relational database and used to construct physical and genetic linkage maps simultaneously; clone identifiers serve to interrelate the multilevel maps. Compare library, genomic library.

ARs

Appointed representatives. (U.K.)

A

ARS

(Automatic Route Selection) The capability of a switch, typically a private branch exchange (PBX), to automatically determine an optimal route for establishing a circuit.

Arterial pressure

The stress exerted by circulating blood on the artery walls. It is the product of the cardiac output and the systemic vascular resistance. A number of extrinsic and intrinsic factors regulate and maintain a reasonably constant arterial pressure. Extrinsic factors include neurologic stimulation, catecholamines, and prostaglandins and other hormones. Intrinsic factors include chemoreceptors and pressure-sensitive receptors in the arterial walls that cause vasoconstriction or vasodilatation. Arterial blood pressure is commonly measured with a sphygmomanometer and stethoscope. Stress, hypervolemia, hypovolemia, and various drugs may alter the arterial pressure.

Arteriosclerosis

A common arterial disorder characterized by thickening, loss of elasticity, and calcification of arterial walls. It results in a decreased blood supply, especially to the cerebrum and lower extremities. The condition often develops with aging and in hypertension, nephrosclerosis, scleroderma, diabetes, and hyperlipidemia. Typical signs and symptoms include intermittent claudication, changes in skin temperature and color, altered peripheral pulses, bruits over and involved artery, headache, dizziness, and memory defects. Vasodilators and exercise may relieve symptoms, but there is no specific treatment for the disorder. Preventive measures include therapy of predisposing diseases, adequate rest and exercise, avoidance of stress, and discontinuation of tobacco products. Kinds of arteriosclerosis are atherosclerosis and Monckeberg's arteriosclerosis.

Artifact

(1) A product of human art and workmanship. (2) A disturbance that does not belong to a signal or an image.

Artificial neural network

A system (in hardware or software) of interconnected nodes (artificial neurons), developed in analogy with the human brain. Used in various classification problems.

ASC-Approved Procedure

A procedure that has been approved by Medicare for payment in the ASC. A procedure is approved if it can be performed safely in the outpatient setting, if it was performed in the inpatient setting at least 20 percent of the time when it was approved, and if it is performed in physicians' offices no more than 50 percent of the time. (HCFA)

ASCII

(American Standard Code for Information Interchange) This is the de facto world-wide standard for the code numbers used by computers to represent all the upper and lower-case Latin letters, numbers, punctuation, etc. There are 128 standard ASCII codes each of which can be represented by a 7 digit binary number: 0000000 through 1111111.

ASN.1

(Abstract Syntax Notation) A meta-standard to define standards, mainly used in the area of telecommunications.

Assembly language

Programming language with statements very close to a computer's machine code. Requires programmers to write code that operates on machine-level elements such as registers and locations in memory.

Assessment

The regular collection, analysis and sharing of information about health conditions, risks, and resources in a community. The assessment function is needed to identify trends in illness, injury, and death, the factors which may cause these events, available health resources and their application, unmet needs, and community perceptions about health issues.

Asset-based lending

The practice of making loans that use assets such as receivables and inventory as collateral for the loan. In asset-based lending, the quality of the collateral becomes preeminent in determining the creditworthiness of the customer.

Assigned risk plans

See automobile insurance plans.

Assignment

A process in which a Medicare beneficiary agrees to have Medicare's share of the cost of a service paid directly ("assigned") to a doctor or other provider, and the provider agrees to accept the Medicare approved charge as payment in full. Medicare pays 80 percent of the cost and the beneficiary 20 percent, for most services. See participating physician.

Assignment of benefits

Authorization by the insured which allows the insurer or claims payer to pay benefits directly to the medical care provider.

Assisted death

A form of euthanasia in which an individual expressing a wish to die prematurely is helped to accomplish that goal by another person, either by counseling and/or by providing a poison or other lethal instrument. The assisted death may be regarded as homicide or suicide by local authorities, and the person giving assistance may be held responsible for the death. In most cases, the deceased was terminally ill patient.

Association

(1) A connection, union, joining, or combination of things. A term signifying a relationship between two or more events or variables. Events are said to be associated when they occur more frequently together than one would expect by chance. Association does not necessarily imply a casual relationship. Statistical significance testing enables a researcher to determine the likelihood of observing the sample relationship by chance if in fact no association exists in the population that was sampled. The terms "association" and "relationship" are often used interchangeably. (2) (In psychology) The connection of remembered feelings, emotions, sensations, thoughts, or perceptions with particular persons, things, or ideas. kinds of association are association of ideas, clang association, controlled association, dream association, and free association.

Association group

A group formed from members of a trade or professional association for insurance under one master health insurance contract

Associative law

An algebraic rule that states that the result of two identical operations is independent of the sequence of these operations, e.g., $a+(b+c)=(a+b)+c=a+b+c$.

Assurance

Making sure that needed health services and functions are available. (PHIP, 1996)

Asthma

A disease caused by increased responsiveness of the tracheobronchial tree to various stimuli, which results in paroxysmal constriction of the bronchial airways. Clinically, there is severe dyspnea accompanied by wheezing. The patient may assume a hunched-forward position in an attempt to get more air. Between attacks the patient may be quite comfortable. In some cases the attacks become continuous, a condition called status asthmaticus, and may be fatal. The recurrence and severity of attacks are greatly influenced by secondary factors, including mental or physical fatigue, endocrine changes at various periods of life, emotional situations, and exposures to noxious fumes. There is always an allergic component. Other allergic disorders may coexist. Asthma attacks have a slow or sudden onset. In slow onset, the patients have time to seek help; however sudden-onset attacks are marked by rapid development of airway

A

obstruction, and death may occur within minutes. Sudden-onset fatal asthma is considered to have occurred if the patient dies within an hour of onset. As many as 25% of asthma deaths may be attributed to this condition. Patients who have survived such an attack should wear a bracelet describing their disease, with the advice that they immediately be taken to an emergency department. Also, the patient should carry a written emergency treatment plan. This will be useful for emergency department physicians who may not be familiar with this type of asthma and not appreciate that it is potentially life threatening. Patients should always carry injectable epinephrine and use it (unless contraindicated) at the onset of an attack even prior to seeking medical assistance. No age is exempt, but asthma occurs most frequently in childhood or early adulthood. The leading cause of chronic illness in childhood, asthma is estimated to occur in 5% to 10% of children at some time during their development. Prior to puberty, twice as many boys as girls have asthma; the attack rate is equal in adults. SYN: chronic desquamating eosinophilic bronchitis; reactive airway disease. Etiology: asthma may be caused by allergens inhaled from the air (pollen, mold spores, animal dander, or dust). Occasionally food (e.g., eggs, shellfish, or chocolate) or drugs (e.g., aspirin) may precipitate an attack. This type of asthma involves immunoglobulin E (IgE). In some cases asthma develops in people with allergies of unknown etiology. It may be triggered by a respiratory tract infection. Treatment indoor inhalants such as house dust, danders, molds, tobacco smoke, and strong odors should be avoided. Acute attacks are managed by inhalation of nebulized beta₂ agonists such as terbutaline or albuterol. The more severe the episode, the longer the therapy will need to be maintained. Because the inhaled medications may cause a temporary decrease in oxygen saturation, they should be administered with oxygen. Patients with recurrent, nonacute attacks of asthma are managed by use of cromolyn sodium, which blocks release of histamine from mast cells but requires several weeks to become fully effective. A brief, intense course of oral corticosteroids will hasten remission. Salmeterol, a longer-acting inhaled drug, is also available. For persistent asthma (status asthmaticus), treatment consists of adrenocortical hormones plus continuous oxygen, intravenous fluids if the patient is dehydrated, and continued bronchodilator therapy. Careful monitoring of blood gases and pH, and electrocardiography are indicated. Sedation is indicated but should be used only if the patient is carefully monitored. Even though adrenocortical hormones may provide dramatic relief, they should be used only as long as is necessary to control the acute attack; prolonged use may cause serious side effects. The use of sedatives and expectorants is sometimes necessary. In all cases, effort should be made to control the causative factors, including the component of the disease due to emotional disturbance. Elimination of antigen or countermeasures such as immunization, desensitization, or hyposensitization, are desirable. For asthma due to infection of the respiratory tract, antibiotics should be used to control infection or prevent recurrence. Nursing implications: the nurse assesses for ventilatory rate and effort; inspiratory-expiratory ratio, presence, location and timing of wheezing; use of ancillary muscle groups; presence of retractions; and other symptoms of respiratory fatigue or distress. Vital signs are monitored and mental status is evaluated for evidence of anxiety, irritability, and reduced level of consciousness. Arterial blood gas and oxygen saturation values are monitored according to protocol. The patient is positioned to ease ventilatory effort and facilitate ventilation. Humidified air or oxygen is administered according to prescription. Prescribed medications are given; the patient is evaluated for desired responses and adverse reactions. The nurse remains with and reassures the patient. The patient is assessed for dehydration, and oral fluids are provided in frequent, small amounts, or IV fluid are administered as necessary to help thin inspissated respiratory secretions. Characteristics of the cough and any sputum are documented. When the acute attack has subsided, the patient is taught breathing exercises and the proper use of inhalers. The patient is advised to eat a balanced diet, drink sufficient fluids, avoid excessive fatigue, and avoid contact with persons with upper respiratory infections. The nurse instructs the patient about eliminating allergens or irritants, teaches home measures to prevent or decrease the severity of future attacks, and assists the patient in identifying and reducing stressors associated with the attacks. The patient and family may be referred to community-based programs for further support and information.

Bronchial A. - Allergic asthma; a common form of asthma due to hypersensitivity to an allergen.
Cardiac A. - Paroxysmal nocturnal dyspnea. *Exercise-induced A.* - Asthmatic attacks that occur during exercise. They can usually be prevented by breathing air at body temperature fully saturated with water vapor. *Extrinsic A.* - Asthma due to some environmental factor, usually allergic. *Intrinsic A.* - Asthma assumed to be due to some endogenous cause because no external cause can be found.

Asymmetric Digital Subscriber Line

See ADSL.

Asynchronous

In communications, transmission which is not dependent on the synchronization of timing or frequency between the two nodes; the start and end of the messages transmitted are encoded in the transmission.

Asynchronous Communication

Refers to systems of communication where there is a lapse in time from when a message is sent and when it is received.

AT&T

American Telephone and Telegraph.

ATC

Anatomic Therapeutic Chemical code: a systematic and hierarchical classification of drugs.

Atherosclerosis

A common arterial disorder characterized by yellowish plaques of cholesterol, lipids, and cellular debris in the inner layers of the walls of large and medium-sized arteries. The condition begins as a fatty streak and gradually builds to fibrous plaque or atheromatous lesion. The vessel walls become thick, fibrotic, and calcified, and the lumen narrows, resulting in reduced blood flow to organs normally supplied by the artery. The plaque eventually creates a risk for thrombosis and is one of the major causes for coronary heart disease, angina pectoris, myocardial infarction, and other cardiac disorders. Atheromatous lesions are major cause of coronary heart disease, angina pectoris, myocardial infarction, and other cardiac disorders. Atherosclerosis may be induced by injury to the arterial endothelium, proliferation of smooth muscle in vessel walls or accumulation of lipids in hyperlipidemia. The disorder usually occurs with aging and is often associated with tobacco use, obesity, hypertension, elevated low-density lipoprotein cholesterol levels, and diabetes mellitus. Segments of arteries obstructed or severely damaged by atheromatous lesions may be replaced by patch of grafts or by-passed, as in coronary bypass surgery, or the lesion may be removed from the vessel via endarterectomy. The eventual plaque rupture is usually provoked by activation of the sympathetic nervous system, such as sudden awakening, heavy physical exertion, or anger. Antilipemic agents do not reverse atherosclerosis; but a diet low in cholesterol, calories, and saturated fats, together with avoidance of smoking, stress, and a sedentary life-style, may help prevent the disorder. Also called arterial sclerosis, intimal sclerosis.

ATM

(Asynchronous Transfer Mode) (1) A type of store and forward two-way telecommunications service. Instead of switching transmissions as a single connection across the telecommunications grid, ATM breaks up the transmission into small 56 bps packets. These packets are transferred across the ATM network according to their priority and network activity. Transfer speeds are typically in the millions to low billions of bps (Mbps to low Gbps). ATM networks utilize different telecommunications media, such as fibre optic and coaxial cable along with microwave transmissions. ATM connections offer great promise for telehealth because they are fast enough and flexible enough to handle the massive bandwidth requirements of advanced telehealth applications such as combined teleradiology/videoconferencing applications. (2) A start/stop transmission in which each character is preceded by a start signal and followed by one or more stop signals. A variable time interval can exist between characters. ATM is becoming a preferred technology for the transfer of images.

Atrial flutter

Rapid and quasi-periodic excitation of the atrium of the heart, visible on the ECG as a regular corrugated or sawtooth appearance of the baseline.

Attack rate

A variant of an incident rate, applied to a narrowly defined population observed for a limited period of time, such as during an epidemic.

A

Attention stickers

Adhesive labels for a person's medical records to indicate the inclusion of an advance declaration or living will. Included in the VESS living will pack.

Attenuation coefficients

Amount of attenuation (of X-rays) by body tissue. It is characteristic for the chemical composition and density of tissue.

Attributable fraction

The same as aetiological fraction.

Attributable proportion

A measure of the public health impact of a causative factor; proportion of a disease in a group that is exposed to a particular factor which can be attributed to their exposure to that factor.

Attributable risk

The relative difference of the incidence of a disease in two populations differing in the exposition to a risk factor.

Attribute

(1) A property or characteristic that is common to some or all of the instances of an entity. An attribute represents the use of a domain in the context of an entity. (2) A quality ascribed to a person or a thing. (3) A characteristic quality of data in a file. (4) A column of a table in a relational database.

Audio bridge

Receives input from every endpoint and uses a sophisticated algorithm to detect which of the endpoints are talking and which ones are listening.

Audio only conference add-ins

The ability to add another site into a video conference via an audio connection only. This feature uses a regular phone line connected to the codec to conference in someone who is not near a video site but needs to be part of the conversation.

Audio-teleconferencing

Two-way electronic voice communication between two or more people at two or more locations.

Audioconferencing

Two-way communications between multiple people at various locations.

Audiographic teleconferencing

Refers to the transmission of graphic and text information over a narrow-band telecommunications channel such as a telephone line or a sub-carrier.

Audiography

The examination of the hearing function.

Audit

The systematic examination of records and documents and the securing of other evidence by confirmation, physical inspection, or otherwise, for one or more of the following purposes: determining the propriety or legality of proposed or consummated transactions, ascertaining whether all transactions have been recorded and are reflected accurately in accounts; determining the existence of recorded assets and inclusiveness of recorded liabilities; determining the accuracy of financial or statistical statements or reports and the fairness of the facts they present; determining the degree of compliance with established policies and procedures relative to financial transactions and business management; and appraising an accounting system and making recommendations concerning it.

Audit of provider treatment or charges

A qualitative or quantitative review of services rendered or proposed by a health provider. The

A

review can be carried out in a number of ways: a comparison of patient records and claim form information, a patient questionnaire, a review of hospital and practitioner records, or a pre- or post-treatment clinical examination of a patient. Some audits may involve fee verification. Something we had better get used to being subjected to since this is usually first type or "first generation" managed care approach.

Audit trail

The evidence of actions (whether automated or manual) performed upon data from original documents to final disposition. The existence of a reliable, easy-to-follow audit trail is considered one indication of good internal control in an organization.

Authentication

A method of verifying the identity of the person sending or receiving information by use of passwords, keys and other automated identifiers.

Authoring software

A software package that allows a user to create interactive media and multimedia presentations.

Authorization

(1) In clinical laboratory procedures: the procedure in which the analytical quality criteria of a preliminary laboratory test result are verified and are checked against other test results of the same run or earlier test results for the same patient before the test requester is allowed to see the results. (2) Obtaining approval from the primary care physician and/or health plan (depending on the plan's specifications) prior to receiving health care services, such as visiting specialists.

Auto liability

Pays for damages that you cause to other people and their property. If you cause an accident and you bang up your car or yourself, your auto liability insurance will not pay for your medical bills or the repairs to your car. (Auto medical payments coverage would.) But it will pay for the other guy's, up to the limits of your policy. Without the coverage, your assets would be subject to seizure to pay the medical bills, car repairs and other damages that you caused in an accident. Once the insurance company pays out the limits of your policy, you're liable for the rest, which is why it's advisable to purchase higher limits than what your state requires. Auto liability coverage has three parts - bodily injury per person, bodily injury per accident, and property damage. Limits for liability are usually written like "20/40/10." That means a policy will pay bodily injury losses up to \$20,000 per person, and up to \$40,000 per accident (if more than one person was hurt). It will also pay property damage losses up to \$10,000 per accident.

Auto medical payments

If you cause an accident, the coverage works like this: Auto liability coverage pays the bodily injury and property damage losses of the other person. Collision coverage pays for repairs to your own vehicle. Auto medical payments coverage pays medical and funeral expenses for you and your passengers. If you already have health and disability insurance, the coverage may be redundant.

Auto physical damage coverage

Insures against loss resulting from damage to an auto owned by the insured; also provides coverage if the car is stolen

Autoanalyzer

Mechanized and automated analysis equipment in biochemistry.

Autoassignment

A term used with Medicaid mandatory managed care enrollment plans. Medicaid recipients who do not specify their choice for a contracted plan within a specified time frame are assigned to a plan by the state.

Autocorrelation

Correlation between values of the same signal.

A

Automated Clearing House (ACH)

A facility used by financial institutions to distribute electronic debit and credit entries to bank accounts and settle such entries. Under the automated clearinghouse system, banks exchange checks and drafts drawn upon each other and settle their daily balances.

Automated data collection

The direct transmission of physiological information from monitoring devices to either a bedside display system or a computer-based patient record.

Automatic answer

A facility enabling a computer or terminal to receive telephone calls without human intervention.

Automatic character recognition

Data entry in which the computer reads typewritten or even handwritten text.

Automatic premium loan

A provision in a life insurance policy that any premium not paid by the end of the grace period (usually 31 days) is automatically paid by a policy loan if there is sufficient cash value.

Automation

The computer-controlled operation of equipment, processes or systems that replaces most of the human action.

Automobile insurance plans

Formerly known as assigned risk plans-are residual market programs providing auto insurance.

Autonomous decision-support system

A decision-support system that monitors incoming patient data and on the basis of these data takes action without human interference.

Autoradiography

A technique that uses X-ray film to visualize radioactively labeled molecules or fragments of molecules; used in analyzing length and number of DNA fragments after they are separated by gel electrophoresis.

Autosome

A chromosome not involved in sex determination. The diploid human genome consists of 46 chromosomes, 22 pairs of autosomes, and 1 pair of sex chromosomes (the X and Y chromosomes).

Auxiliary worker

A worker who has less than full professional qualifications in a particular field and is supervised by a professional worker.

AV node

Small area of slowly conducting cells between the cardiac atria and the ventricular conduction system. In case of conduction disturbances between the atria and the AV node, the AV node itself can issue a pacing pulse.

Average cost per claim

The total cost of administrative and/or medical services divided by the number of units of exposure such as costs divided by number of admissions, or cost divided by number of outpatient claims, etc.

Average Daily Census (ADC)

The average number of inpatients occupying hospital beds for a given period.

Average length of stay

The average period that patients are in a hospital or health care institution receiving inpatient care; calculated by dividing total patient days by the number of admitted patients.

A

Average Wholesale Price (AWP)

Commonly used in pharmacy contracting, the AWP is generally determined through reference to a common source of information. Average cost of a non-discounted item to a pharmacy provider by wholesale providers.

AVI

Audio-Video Interleaved is the file format Microsoft specifies for Video for Windows. Blocks of video and audio data are interspersed together in this format.

Avoidable hospital condition

Medical diagnosis for which hospitalization could have been avoided if ambulatory care had been provided in a timely and efficient manner.

AVR

Asset valuation reserve.

Axis

(1) Fixed reference line for measurement of coordinates or for plotting a parameter in a graphical plot. (2) A class of terms in a controlled terminology in which each term refers to a related dimension according to which a classification might be made.

B

B cell

A white blood cell which produces antibody.

Back propagation

An algorithm for training an artificial neural network to produce appropriate outputs when presented with a set of previously classified cases.

Backbone

A high-speed line or series of connections that forms a major pathway within a network. The term is relative: a backbone in a small network will be much smaller than many non-backbone lines in a large network.

Backbone network

A high-speed, high capacity transmission facility created to interconnect lower speed distribution channels from smaller branches of the computer or telecommunication network.

Background level

A typical or average level of a chemical in the environment. Background often refers to naturally occurring or uncontaminated levels.

Backhaul

Term used to describe the transmission of a signal (normally video) from the end of a microwave or broadcast system to a central point.

Back-projection

Technique to compute the attenuation coefficients from intensity profiles covering a total cross section under various angles. It is used in CT, MRI, and SPECT.

Backup

Copy of all data on a mass storage device, made at certain times.

Backward chaining

See backward reasoning.

Backward reasoning

A recursive inference mechanism that starts with a production rule in the knowledge base and checks whether data are available to confirm the rule; if no data are available to confirm the truth value of the rule, then other rules are evaluated to try to determine the necessary data values.

Bacteriaemia

Transient presence of bacteria (or other microorganisms) in the blood.

Bad debts

Income lost to a provider because of failure of patients to pay amounts owed. Bad debts may sometimes be recovered by increasing charges to paying patients. Some cost-based reimbursement programs reimburse certain bad debts. The impact of the loss of revenue from bad debts may be partially offset for proprietary institutions by the fact that income tax is not payable on income not received.

Badge reader

Equipment that can read a magnetic card or a smart card.

BAFO

Best and Final Offer.

Balance billing

(1) Physician charges in excess of Medicare-allowed amounts, for which Medicare patients are responsible, subject to a limit. (2) In Medicare and private fee-for-service health insurance, the practice of billing patients in excess of the amount approved by the health plan. In Medicare, a

B

balance bill cannot exceed 15 percent of the allowed charge for nonparticipating physicians.

Balance sheet

A financial statement comprising a listing of the assets, liabilities and owner's equity of a business as of a particular date. Under the accounting equation, assets are always equal to (and thus in balance with) liabilities and owner's equity; hence, the term "balance sheet."

Band-pass filter

Filter that reduces both the high and the low frequencies in a signal or in an image.

Bandwidth

A measure of the information carrying capacity of a communications channel, usually expressed in kbps (kilobits per second) or Mbps; the higher the bandwidth, the greater the amount of information which can be carried. Also, a range of frequencies available for signaling in a communication channel.

Bank acceptance

A draft for money drawn on and payable by a bank.

Banker's acceptance

A short term credit instrument consisting of a bill of exchange draft, payable at maturity, which is drawn by a creditor against his or her debtor. A banker's acceptance is often used by persons in international trade and may be sold on market at a discount.

Bar chart

A visual display of the size of the different categories of a variable. Each category or value of the variable is represented by a bar.

Bar code

(1) A code made up of a number of vertical lines of various widths that can be transformed into a binary code by a special reading device. (2) A printed code that corresponds to a specific location(s) on a LaserDisc. A barcode scanner reads the code and allows you to locate and play any image or sequence on a LaserDisc.

Bar diagram

A graphical presentation in which the values of the dependent variable are represented by vertical or horizontal bars, drawn at coordinates on the other axis of the corresponding values of the independent discrete variable.

Base

One of the four chemical units (nucleotides) arranged along the DNA or RNA molecule.

Base pair

A pair of nucleotides on complementary strands of DNA or RNA. Each nucleotide base can pair with only one of the three other bases, thereby determining the sequence of a complementary strand.

Base sequence

The order of nucleotide bases in a DNA molecule.

Base sequence analysis

A method, sometimes automated, for determining the base sequence.

Baseband

The transmission of unmodulated signals, usually by direct current, over short distances on a communication channel.

Baseline

A standard benefit which is accepted in the industry as the basis against which competitive offerings are measured. It can also mean a "core benefit" which is part of an initial offering, as opposed to "fringe benefit".

BASIC

An acronym for "Beginner's All-purpose Symbolic Instruction Code", a high-level computer language that is especially popular in the personal computer environment. As implied by its name, BASIC is often used by beginning programmers in learning how to program, although modern implementations of the language are very powerful.

Basic benefits

A set of "basic health services" specified in the member's plan and those services required under applicable federal and state laws and regulations.

Basic DRG payment rate

The payment rate a hospital will receive for a Medicare patient in a particular diagnosis-related group. The payment rate is calculated by adjusting the standardized amount to reflect wage rates in the hospital's geographic area (and cost of living differences unrelated to wages) and the costliness of the DRG.

Basic facts

Addition facts through 10 (0+0, 1+0, ... , 10+10), subtraction facts which are the inverses of the addition facts (20-10, ... , 1-0, 0-0), multiplication facts (1×1, 1×2, ... , 10×10), and division facts which are the inverses of the multiplication facts (1÷1, 2÷1, ... , 100÷10).

Basic health plan

Washington's state-sponsored health insurance plan for children and adults not eligible for the standard Medicaid program or who do not otherwise receive employment-based coverage. The plan pays all costs for children in families with incomes up to 200% of the federal poverty level, and part of insurance costs for adults up to 200% of the federal poverty level. Individuals or families above the income cutoff can purchase BHP coverage at unsubsidized rates.

Basic health service

A network of institutions run by the government as part of the country's administrative system that provide certain indispensable medical care and preventive services to individuals. A network of coordinated peripheral, intermediate, and central health units, staffed by competent professional and auxiliary personnel and capable of performing effectively a selected group of functions essential to the health of the people living in the area. It is administered by central, intermediate, and local organs, as appropriate to the general administrative pattern of the country. Health services able to cope with the essential health needs of a large part of the population. Note: The services are rendered by professional and non-professional staff who have been selected without prior consultation with the community they serve, and the community itself is not necessarily involved in the action taken to improve its health. Moreover, basic health services usually start from the centre and extend out to the periphery; they do not necessarily attempt to identify and use appropriate health technology and they do not concern themselves with the socioeconomic aspects of health and the related intersectoral action. The Expert Committee on Public Health Administration, at its second meeting considered the following health services as basic, regardless of the situation of the rural health unit: maternal and child health; communicable disease control; environmental sanitation; maintenance of records for statistical purposes; health education of the public; public-health nursing; and medical care (to an extent varying with the needs of the area and the accessibility of larger hospital centres). Expert Committee on Public Health Administration. Second report Methodology of planning an integrated health programme for rural areas. Geneva, World Health Organization, 1954 (Technical Report Series No.83, p.4).

Basic ordering agreement

A written instrument of understanding, negotiated between an agency, contracting activity, or contracting office and a contractor, that contains (1) terms and clauses applying to future contracts (orders) between the parties during its term, (2) a description, as specific as practicable, of supplies or services to be provided, and (3) methods for pricing, issuing, and delivering future orders under the basic ordering agreement. A basic ordering agreement is not a contract.

Batch processing

A serial form of processing in which groups or batches of transactions are gathered over a period of time and input to the system. Batch processing stands in contrast to real time processing in which information is processed immediately upon initial input. Batch processing is often preferred because it typically costs less to perform.

Batista procedure (left ventriculectomy)

Radical surgical procedure for treatment of end-stage heart failure by removing a piece of the left ventricle, surgically reducing the size of the chamber, ultimately allowing the heart to beat more efficiently, as a possible alternative to heart transplantation.

Baud

A unit of digital transmission signalling speed of information transmission. It is used to describe the rate of information flow. Given in bits per second (bps) the rate is the highest number of single information elements (bits) transferred between two devices (such as modems or fax machines) in one second.

Baud rate

The standard unit of measure for the data transmission capability of lines, terminals and interface equipment. It indicates the number of significant data line transitions (change in voltage or frequency) per second. Typical rates are 1200, 2400, 9600, and 14,400 baud.

Bayes' rule

A rule used to calculate the posterior probability of having a disease when some symptoms are observed, based on the conditional probability of showing symptoms when the disease is present and the prior probability of having the disease.

Bayesian belief networks

Graphical structures representing the probabilistic relationships of causes on effects. Given prior probabilities of causes, Bayesian belief networks allow for the automatic calculation of posterior probabilities of effected outcome states.

Bayesian probabilistic network

A decision-support method for multiple diseases or classes that uses Bayes' Rule.

BBS

(Bulletin Board System) A computerized announcement system that allows people to carry on discussions, upload and download files, and make announcements without the people being connected to the computer at the same time.

B-CDMA

(Broadband Code Division Multiple Access) A form of wireless technology where digital information is able to be sent over communication networks.

BCG vaccine

Baccille Calmette-Guerin vaccine, a form of tuberculosis vaccine that consists of a freeze-dried preparation of a live, attenuated strain of Mycobacterium bovis. It is used to immunize children against tuberculosis, but its efficacy is questionable. BCG vaccine is indicated a tuberculin-negative infant who resides in a household in which repeated exposure to untreated or ineffectively treated cases of tuberculosis occurs. It may also be instilled in the bladder to prevent recurrence of bladder tumors.

Beam splitter

For tele-oto/ophthalmoscopes. Allows direct visualization through the device into the eye or ear by the clinician, while still routing a portion of the image to the video camera. This is usually preferred by the clinician who is accustomed to looking directly through the device rather than at a video monitor.

Becquerel

SI Unit for radioactivity, the number of decays per second.

B

Bed

(1) A supporting structure or tissue. (2) A couch or support for the body during sleep. *AIR B.* - A bed inflated with air. *Air-fluidized B.* - A bed consisting of a mattress filled with approx. 100 billion ceramic spheres that are suspended by a continuous flow of warm air at the rate of approx. 40 cu ft./min. This creates a surface that feels like a liquid, having a specific gravity of 1.3. The patient "floats" on the mattress with only minimal penetration. Because of the even distribution of weight, the bed is particularly useful in treating patients with burns or decubitus ulcers. Nursing care of the patient is simplified because the patient can be moved by fingertip pressure. *B. Blocks* - Blocks of sturdy material, usually wood, placed under the legs of a bed to elevate one end of it. Raising the foot of the bed may be useful in treatment of shock, inguinal hernia, bleeding from the lower limbs, or edema of the lower limbs, vulva, or scrotum. It may also be helpful when weight is used on the lower limbs or when a patient has difficulty with enema retention. Raising the head of the bed may be used to drain the abdomen or pelvis, to treat congestive heart failure, to aid respiration, or to treat bleeding from the head, neck, or upper chest. *B. board* - A firm board placed beneath a mattress to keep it from sagging. It is used to treat some persons with back difficulties. *Capillary B.* - A network of capillaries. *Circular B.* - A bed that allows a patient to be turned end-over-end while held between two frames. This permits turning the patients without disturbing them by turning the two frames inside a circular apparatus that holds the ends of the frames. It is useful in treating paralyzed or immobilized patients. SYN: circ-o-lectric bed. *Float B.* - A bed in which the patient is supported either on a water mattress or on minute ceramic beads with air flowing through them. This type of bed is useful for patients with decubitus ulcers or burns. *Flotation B.* - A bed in which the patient reclines in a hollow, flexible, mattress-shaped device filled with water. This enables equal distribution of pressure on the body. It is used to treat and prevent decubiti. *Fracture B.* - A bed for patients who have fractures. *Gatch B.* - An adjustable bed that provides elevation of the back and the knees. *Hydrostatic B.* - Water bed. *Kinetic B.* - A bed that constantly turns patients side to side through 270°. It is used to prevent the hazards of immobility in patients required prolonged bedrest, as in multiple trauma and some neuromuscular diseases. *Metabolic B.* - A bed arranged to facilitate collection of feces and urine of a patient so that metabolic studies can be done. *Nail B.* - The skin that lies beneath a nail at the tip of a digit. *Open B.* - A bed available for assignment to a patient. *Recovery B.* - A bed, usually a portable bed or stretcher, prepared to receive a patient immediately after surgery. *Rocking B.* - A device used to create abdominal displacement ventilation in patients with respiratory failure. *Surgical B.* - A bed equipped with a mechanism by which the head or the foot of the bed can be raised or lowered independently of each other. *Water B.* - A water-filled rubber mattress used for prevention of bedsores.

Bed reservation benefit

Means the payment you receive for room charges in a Nursing Facility or Alternate Facility (to reserve your bed) when you are temporarily hospitalized while receiving benefits.

Bedside terminal

A terminal at the bedside of the patient.

Before-and-After Design (evaluation)

A reflexive design in which only a few before-intervention and after-intervention measures are taken.

Behavior disorder

Any of a group of antisocial behavior patterns occurring primarily in children and adolescents, such as over-aggressiveness, over-activity, destructiveness, cruelty, truancy, lying, disobedience, perverse sexual activity, criminality, alcoholism, and drug addiction. Treatment may include psychotherapy, milieu therapy, medication, and family counseling.

Behavioral health care

Assessment and treatment of mental and/or psychoactive substance abuse disorders.

Behavioral science

Any of the various interrelated disciplines, such as psychiatry, psychology, sociology, and anthropology, that observe and study human activity, including psychologic and emotional

B

development, interpersonal relationships, values, and mores.

Behavior systems model

A conceptual framework describing factors that may affect the stability of person's behavior. The model examines systems of behavior, not the behavior of an individual at any particular time. In one model, behavior is defined as an integrated response to stimuli. Several subsystems of behavior form the eight human microsystems, which are ingestion, elimination, dependency, sex, achievement, affiliation, aggression, and restoration. Each subsystem comprises several structural component called *imperatives*, which are goal set, choice, action, and support. The goal of nursing care is to attain, maintain, or restore balance of the subsystems of behavior for the stability of the patient.

Benchmarking

A method of measuring processes against those of recognized leaders to establish priorities and targets leading to process improvement. It is undertaken by identifying strategies, customers, processes and costs to benchmark and their key characteristics; determining who to benchmark; collecting and analyzing data from direct contact, survey, interviews, technical journals and advertisements; determining the "best of class" from each benchmark item identified; and evaluating the process in terms of improvement goals.

Beneficiary

Someone who is eligible for or receiving benefits under an insurance policy or plan. The term is commonly applied to people receiving benefits under the Medicare or Medicaid programs.

Beneficiary liability

The amount beneficiaries must pay providers for Medicare-covered services. Liabilities include copayments, and coinsurance amounts, deductibles, and balance billing amounts.

Benefit

The value which is conveyed to a plan participant under a health plan.

Benefit level

The limit of the services a person is entitled to receive based on his/her contract with the insurer.

Benefit package

Health insurers vary considerably in the type of services they cover. A benefit package is the sum of services for which a health plan, government agency or employer contracts to provide. In addition to basic physician or hospital services, some health insurers cover chiropractic care, acupuncture and home nursing care. Some plans also cover prescriptions and vision care. Employers and governments have recently shifted from a philosophy of offering a broad benefit package to making a "defined contribution" toward health coverage, although the beneficiary may opt to pay personally to receive a richer package of benefits.

Benefit period

The start and end date of a health care contract.

Benefits (evaluation)

Net project outcomes, usually translated into monetary terms. Benefits may include both direct and indirect effects.

Benefits-to-Costs Ratio (evaluation)

The total discounted benefits divided by the total discounted costs.

Best and final offer (BAFO)

For negotiated procurements, a contractor's final offer issued upon request by the contracting officer after the contractor has been notified that discussions have been concluded. Requests for best and final offers normally are issued only to contractors who have been determined to be within the competitive range via the proposal evaluation process.

Best evidence synthesis

Evidence based on the best evidence principle as used in law, in which the same evidence that

B

would be essential in one case might be disregarded in a second case because better evidence becomes available.

Best practice

A way or method of accomplishing a business function or process that is considered to be superior to all other known methods.

Bias

Deviation of results or inferences from the truth, or processes leading to such systematic deviation. Any trend in the collection, analysis, interpretation, publication, or review of data that can lead to conclusions that are systematically different from the truth.

Bid and proposal (B&P) cost

The cost incurred in preparing, submitting, or supporting any bid or proposal which effort is neither sponsored by a grant, nor required in the performance of a contract.

Bid guarantee

A form of security assuring that the bidder (a) will not withdraw a bid within the period specified for acceptance and (b) will execute a written contract and furnish required bonds, including any necessary coinsurance or reinsurance agreements, within the time specified in the bid, unless a longer time is allowed, after receipt of the specified forms.

BIDE

(Birth, Immigration, Death, Emigration) The four demographic processes which might act on a population compartment in a typical compartmental model.

Bill of materials

A descriptive and quantitative listing of materials, supplies, parts, and components required to produce a designated complete end-item of material or assembly or subassembly. May also show estimated costs or fixed prices.

Billing lag

The time lag between the incurrence of contract costs and the submission of an invoice to the Government. A billing lag generally results from the inability to physically bill a contract until the necessary accounting data has been processed; the term is most often associated with the billing of invoices for time-and-materials and cost-plus contracts.

Billing rate

An indirect cost rate (a) established temporarily for interim reimbursement of incurred indirect costs and (b) adjusted as necessary pending establishment of final indirect cost rates.

Binary

(1) Mathematical representation of a number with base 2, that is, that representation of a number only consists of zeros and ones. (2) Everything that can be expressed by two values, e.g., 0 or 1, or TRUE or FALSE.

Binary number

A number expressed with base 2, the way that a computer usually stores number.

Binary number system

A system of representing numbers using only 0 and 1; also known as "base two".

Binary operator

An operator on two variables.

Binomial distribution

- Distribution for the probability that an event occurs x times in N independent trials.

Biochemistry

Chemistry dealing with the compounds and the processes in organisms. In health care human specimens are investigated in clinical chemistry and hematology laboratories.

Biologic activity

The inherent capacity of a substance, such as a drug or toxin, to alter one or more of the chemical or physiologic functions of a cell, tissue, organ, or entire organism. The capacity has a relationship not only to the physical and chemical nature of the substance but also to its concentration and the duration of cellular exposure to it. Theoretically, biologic activity may have a "domino effect" in that alteration of one function may disrupt the normal activity of one or more chemical reactions within a cell with the possible events being equivalent to factorial (N!) of the total number of reactions within the cell.

Biologic monitoring

(1) A process of measuring the levels of various physiologic substances, drugs, or metabolites within a patient during diagnosis or therapy. (2) The measurement of toxic substances in the environment and the identification of health risks to the population. Biologic monitoring often uses indirect methods of identifying and measuring substances by analysis of samples of blood, urine, feces, hair, nails, sweat, saliva, or exhaled air and by extrapolation from metabolic effects.

Biologic transmission

The indirect vector-borne transmission of an infectious agent in which the agent undergoes biologic changes within the vector before being transmitted to a new host.

Biological Indicators of Exposure Study

A study designed to use biomedical testing or the measurement of a chemical (analyte), its metabolite, or another marker of exposure in human body fluids or tissues in order to validate human exposure to a hazardous substance.

Biological monitoring

Measuring chemicals in biological materials (blood, urine, breath, etc.) to determine whether chemical exposure in humans, animals, or plants has occurred.

Biological uptake

The transfer of hazardous substances from the environment to plants, animals, and humans. This may be evaluated through environmental measurements, such as measurement of the amount of the substance in an organ known to be susceptible to that substance. More commonly, biological dose measurements are used to determine whether exposure has occurred. The presence of a contaminant, or its metabolite, in human biologic specimens, such as blood, hair, or urine, is used to confirm exposure and can be an independent variable in evaluating the relationship between the exposure and any observed adverse health effects.

Biomass

Materials and waste from living things that can be used as a source of fuel, energy, commodity chemicals, animal feed, and specialty products (e.g., flavors, fragrances, pigments).

Biomaterials

Materials with novel chemical, physical, mechanical, or "intelligent" properties, produced through processes that employ or mimic biological phenomena.

Biomedical testing

Biological testing of persons to evaluate a qualitative or quantitative change in a physiologic function that may be predictive of a health impairment resulting from exposure to hazardous substance(s).

Biometrics

An identification system that uses a measurement from a physical feature or repeatable action of an individual (e.g. retinal or iris scan, fingerprint patterns, DNA sequence characteristics, and handwritten signatures).

Biometry

The application of statistical methods in analyzing data obtained in biologic or anthropologic research. See biostatistics.

B

Biomimetic

Mimicking a biological substance or process.

Biomolecular materials

Complex biological macromolecules that can have unusual combinations of properties (e.g., strong and supple yet lightweight). These materials comprise a subset of biomaterials.

Biopsy

(1) The removal of a small piece of living tissue from an organ or other part of the body for microscopic examination to confirm or establish a diagnosis, estimate prognosis, or follow the course of a disease. (2) The tissue excised for examination. (3) (informal) To excise tissue for examination. Kinds of biopsy include aspiration biopsy, needle biopsy, punch biopsy, and surface biopsy.

Bioreactor

A chamber where biological growth, product formation, and/or enzymatic reactions occur.

Bioremediation

The use of living organisms or their products to degrade wastes into less toxic or non-toxic products and to concentrate and immobilize toxic elements, such as heavy metals. Bioremediation may be employed either on site or in bioreactors, using either native organisms or newly introduced ones, including genetically engineered varieties. The choice of organisms and treatments is determined by the nature of the toxic material and the biological and physical characteristics of the affected system.

Biosignal

Contraction of biological signal: signal delivered by a living organism.

Biostatistics

Numeric data on births, deaths, diseases, injuries, and other factors affecting the general health and condition of human populations. Also called vital statistics.

Biosynthesis

Any one of thousands of chemical reactions continually occurring throughout the body in which molecules form more complex biomolecules, especially the carbohydrates, lipids, proteins, nucleotides, and nucleic acids. Biosynthetic reactions constitute the anabolism of the body.

Biosystem

Any living organism or complex system of living things.

Biotechnology

(1) The study of the relationships between humans or other living organisms and machinery, such as the health effects of computer equipment on office workers or the ability of airplane pilots to perform tasks when traveling at supersonic speeds. (2) The industrial application of the results of biologic research, particularly in fields such as recombinant deoxyribonucleic acids (DNA) or gene splicing, which permits the production of synthetic hormones or enzymes by combining genetic material from different species.

Birth rate (aka Crude birth rate)

The number of live births in a year divided by the average total population in that year expressed as a rate per thousand. The U. S. rate is approximately 15 per 1,000 or 1.5 percent.

Bit

Stands for binary digit. It is the smallest possible unit of information making up a character or a word in digital code, and is represented as either "on" or "off" by the numbers "0" or "1." An electronic string of bits represents letters and symbols. Bandwidth is usually measured in bits-per-second.

Bit map

Screen memory such that each pixel corresponds to one bit in memory for monochrome screens

B

or several bits for color screens.

BITNET

The acronym for Because It's Time Network, an international electronic network. BITNET, privately owned by a consortium of U.S. colleges and universities, has about 2,500 host computers located primarily at universities.

Black box

Description of a process or system by its input and output only, without considering what occurs inside.

BLEED classification

A system used to classify patients presenting to the ER with GI hemorrhage as being in a high- or low-risk category. Could be used to determine whether patient should be admitted to an intermediate care or intensive care unit. In retrospective studies, patients meeting one or more BLEED criteria were classified as high-risk and were found to have had a greater incidence of complications. BLEED is a mnemonic for the variables used to predict outcome: 1. bleeding (ongoing); 2. low systolic blood pressure; 3. elevated prothrombin time; 4. erratic mental status; 5. disease (unstable co-morbid disease).

Block

Unit of data storage on a disk.

Block diagram

(1) Used as a synonym for bar diagram. (2) A diagram of a system or a computer in which the main components are represented by connected geometrical figures. See flowchart.

Blood

The cell-containing fluid that circulates through the heart, arteries, veins, and capillaries, carrying nourishment, electrolytes, hormones, vitamins, antibodies, heat, and oxygen to the tissues and taking away waste matter and carbon dioxide. Characteristics: blood has a distinctive, somewhat metallic, odor. Arterial blood is bright red or scarlet and usually pulsates if the artery has been cut. Venous blood is dark red or crimson and flows steadily from a cut vein. Composition: human blood is 52% to 62% plasma and 38% to 48% cells. The plasma is mostly water and transports many materials. The cells are the erythrocytes (red cells), leukocytes (white cells), and thrombocytes (platelets). The leukocytes comprise neutrophils, eosinophils, basophils, lymphocytes, and monocytes. An adult weighing 70 kg has a blood volume of about 5L or 70 ml/kg of body weight. Blood constitutes approx 7% to 8% of body weight. The pH of the blood is from 7.35 to 7.45. The specific gravity of blood varies from 1.048 to 1.066, the corpuscles being heavier and plasma lighter than this. Blood is of slightly higher specific gravity in men than in women. Specific gravity is higher after exercise and at night. Function: in passing through the lungs the blood gives up carbon dioxide and absorbs oxygen; after leaving the heart, it is carried to the tissues as arterial blood and then returned to the heart in the venous system. It moves in the aorta at an average speed of 30 cm/sec and it makes the circuit of the vascular system in about 20 sec. Red blood cells carry oxygen; white blood cells participate in the immune response to infection; platelets are important in blood clotting. The plasma transports nutrients, waste products, hormones, carbon dioxide, and other substances, and contributes to fluid electrolyte balance and thermal regulation. Formation: red blood cells are produced at the rate of approx. 2,400,000 each second. Since each red blood cell lives for approx. 120 days, the number of red cells remains at a level concentration. *Arterialized B.* - blood that has been exposed to oxygen in the lung. *Cord B.* - the blood present in the umbilical vessels connecting the placenta with the fetus. *Defibrinated B.* - whole blood from which fibrin was separated during the clotting process. If whole blood is stirred, the stringy elastic fibrin comes out on the stirrer; the fibrin can be washed until white. The remaining thick red blood, called defibrinated blood, can no longer clot. If it is centrifuged, a clear liquid called serum appears in the upper half of the centrifuged tube; serum differs from plasma chiefly in that it does not contain fibrinogen (the precursor of fibrin). The corpuscles are in the lower part of the tube. *Occult B.* - blood that is present in such small quantities that it is not apparent to the eye. Blood may be present in feces but of such color and consistency as to be unnoticed by the patient. Occult blood is usually detected only by chemical tests or by microscopic or spectroscopic examination. *Sludged B.* - blood in which red corpuscles

B

have massed together in the smaller blood vessels, and block or slow the blood flowing through the vessels. *Unit of B.* - approx. 1 pint (473 ml) of blood, the usual amount available for use in transfusion.

Blood bank

A place in which whole blood and certain derived components are processed, typed, and stored until needed for transfusion. Blood is mixed with adenine supplemented citrate phosphate dextrose and is stored at 4°C (39°F). heparin may be used as a preservative. Banked blood should be used as soon as possible because the longer it is stored, the fewer red blood cells survive in usable form. Ninety percent of the red cells survive up to 14 days of storage, but only 70% remain after 24 days. Caution: It is mandatory that appropriate measures be taken to prevent transmission of hepatitis B virus and human immunology deficiency virus (HIV) as a result of the use of blood or blood component therapy.

Blood group

A genetically determined system of antigens located on the surface of the erythrocyte. There are a number of human blood group systems; each system is determined by a series of two or more genes that are allelic or closely linked on a single autosomal chromosome. The ABO system (discovered in 1901 by Karl Landsteiner) is of prime importance in blood transfusions. The Rhesus (Rh) system is esp. important in obstetrics. There are about 30 Rh antigens. The population can be phenotypically divided into four ABO groups: A, B, AB, and O. Individuals in the A group have the A antigen on the surface of their red cells; B group has the B antigen on red cells; AB group has A and B antigens on red cells; and O group has neither A nor B antigens on red cells. The individuals in each group have in their sera the corresponding antibody agglutinin to the red cells antigens that they lack. Thus, a group A person has in the blood serum the anti-B antibody; group B has anti-A antibodies; group AB has no antibodies for A and B; and group O individuals have anti-A and anti-B antibodies in their sera. Blood group factors are important in clinical medicine because of the interaction of the antigens on cells with their agglutinin(s) in the serum. For example, destruction of red cells transfused from either a group A or group B donor to a group O recipient - the anti-A and anti-B agglutinins in the recipient's serum would react with the A or B antigens on the donor's red cells. Analysis of blood groups is important in identification of bloodstains for medico-legal purposes, in genetic and anthropological studies, and in the past in determination of the probability of fatherhood in paternity suits.

Blood pressure

The tension exerted by blood against the arterial walls. Determining factors include ventricular contraction, arteriolar and capillary resistance, elasticity of the arterial walls, and blood volume and viscosity. The blood pressure reaches its highest values in the left ventricle during systole. It decreases in the arterial system as the distance from the heart increases, and is lower in capillaries than in arteries. The systolic arterial blood pressure rises during activity or excitement and falls during sleep. In the normal, relaxed, sitting adult, it may be as low as 100 or as high as 140 mm Hg. The following findings in adults are considered abnormal: systolic pressure persistently above 140; diastolic pressure persistently above 90. When either the systolic pressure is 160 or more or the diastolic pressure is 115 or above, the elevation is considered severe. Blood pressure varies with age, sex, altitude, muscular development, and states of mental and physical stress and fatigue. usually it is lower in women than in men, low in childhood, and higher in the elderly. There are a variety of conditions and factors which can lead to an erroneous blood pressure being recorded. When the pressure is taken in a clinic or by a physician the pressure may be temporarily elevated due to the patient's anxiety. This is called the "white coat effect". If the blood pressure cuff is too small the pressure may be higher than if a larger cuff was used. talking while the pressure is measured may increase the value; drinking coffee or smoking a cigarette just prior to taking the blood pressure may raise it; blood pressure may be reduced for several hours following vigorous exercise. It is therefore important to evaluate these factors when judging whether or not the person's blood pressure is within normal limits. It is unwise to judge a person to be hypertensive on the basis of a single recording of the blood pressure. Devices are available for use in the home to monitor blood pressure. This technique is reliable when used by qualified persons. Use of the device is not difficult. *Central B. P.* - blood pressure in the heart chambers, in a great vein, or close to the heart. If determined in a vein, it is termed central venous blood pressure; if in the aorta or a similar large artery close to

B

the heart, it is designated central arterial blood pressure. *Chronic low B. P.* - a condition in which the systolic blood pressure is consistently less than 100 mm Hg. In the absence of associated disease, low blood pressure is often a predictor of longevity and continued health. *Diastolic B. P.* - blood pressure when the ventricles are relaxed; systemic pressure is normally 60 to 85 mm Hg. It is dependent primarily upon the elasticity of the arteries and peripheral resistance, which in turn is dependent upon the diameter of the arterioles. *Direct measurement of B. P.* - determination of the blood pressure is one of several arteries. It is done by placing a sterile needle or small catheter inside an artery and having the blood pressure transmitted through that system to a suitable recorder. As the blood pressure fluctuates, the changes are recorded graphically. *High B. P.* - blood pressure that is above the normal range. The person making this diagnostic judgment must consider the person's age, body build, previous blood pressure, and state of mental and physical health at the time the blood pressure is measured. Generally it is inadvisable to declare that a person has elevated blood pressure if the opinion is based on one blood pressure measurement. SYN: hypertension. *Indirect measurement of B. P.* - a simple external method for measuring blood pressure. Palpation method: the same arm, usually right should be used each time the pressure is measured. The arm should be raised to heart level if the patient is sitting, or kept parallel to the body if the patient is recumbent. The patient's arm should be relaxed and supported in a resting position. Exertion during the examination could result in a higher blood pressure reading. Either a mercury-gravity or aneroid-manometer type of blood pressure apparatus may be used. The blood compression cuff should be the width and length appropriate for the size of the subject's arm: narrow (2.5 to 6 cm) for infants and children and wide (13 cm) for adults. The inflatable bag encased in the cuff should be 20% wider than one third the circumference of the limb used. The deflated cuff is placed evenly and snugly around the upper arm so that its lower edge is about 1 in. above the point of the brachial artery where the bell of the stethoscope will be applied. While feeling pressure is about 30 mm above the point where the radial pulse was no longer felt. Deflate the cuff slowly and record as accurately as possible the pressure at which the pulse returns to the radial artery. Systolic blood pressure is determined by this method; diastolic blood pressure cannot be determined by this method. Auscultatory method: begin as above. After inflating the cuff until the pressure is about 30 mm above the point where the radial pulse disappears, place the bell of the stethoscope over the brachial artery just below the blood pressure cuff. Then deflate the cuff slowly, about 2 to 3 mm Hg per heartbeat. The first sound heard from the artery is recorded as the systolic pressure. The point at which sounds are no longer heard is recorded as the diastolic pressure. For convenience the blood pressure is recorded as figures separated by a slash. The systolic value is recorded first. Sound heard over the brachial artery change in quality at some point prior to the point the sounds disappear. Some physicians consider this the diastolic pressure. This value should be noted when recording the blood pressure by placing it between the systolic pressure and the pressure noted when the sound disappears. Thus, 120/90/80 indicates a systolic pressure of 120 with a first diastolic sound change at a pressure of 90 and a final diastolic pressure of 80. The later pressure is the point of disappearance of all sounds from the artery. When the values are so recorded, the physician may use either of the last two figures as the diastolic pressure. When the change in sound and the disappearance of all sound coincide, the result should be written as follows: 120/80/80. *Mean B. P.* - half of the sum of systolic and diastolic values (for a normal person in good health, about 100 mm Hg). *Negative B. P.* - blood pressure that is less than atmospheric pressure, as in the great veins near the heart. *Normal B. P.* - in healthy young persons a blood pressure reading of 100 to 140 mm Hg systolic and 60 to 90 mm Hg diastolic. Loss of resilience in the vascular tree and physiological changes of age must be considered when levels above 140 systolic or above 90 diastolic are obtained in apparently healthy older persons. *Systolic B. P.* - blood pressure during contraction of the ventricles; systemic pressure is normally 90 to 135 mmHg.

Blood transfusion

The administration of whole blood or a component, such as packed red cells, to replace blood lost through trauma, surgery, or disease. Method: Blood for transfusion is obtained from a healthy donor or donors whose ABO blood group and antigenic subgroups match those of the recipient and who have adequate hemoglobin level (above 13.5 g/ml for men, and above 12.5 g/ml for women). Each 500 ml of blood collected from a donor is stored in a plastic bag containing citrate-dextrose or citrate-phosphate. A unit can be stored under refrigeration or only 3 weeks; at that time the leukocytes, platelets, and 20% to 30% of the red cells are nonviable, and the levels of clotting factors V and VIII are low. The blood is removed from the refrigerator no

B

more than 30 minutes before the transfusion and is checked according to hospital policy. The necessary equipment is assembled, the blood tubing is flushed with normal saline solution, and the patient's venipuncture site is prepared. During transfusion the position of the extremity is checked, and the venipuncture site is observed for signs of erythema, swelling, or leakage. The procedure is stopped if there is evidence of a systemic reaction. An acute hemolytic reaction, characterized by chills, fever, headache, back pain, decreased blood pressure, hematuria, and nausea may occur if the recipient's and donor's blood groups are not exactly matched. Circulatory overload may cause shortness of breath, lung congestion and frothy sputum. A pyrogenic reaction caused by bacteria or an antigen on the leukocytes or platelets of the transfused blood may result in fever, chills and palpitations. An allergic reaction to serum protein in transfused blood may be characterized by urticaria, laryngeal edema, and asthmatic wheezing. After a transfusion has been completed, pressure is applied to the venipuncture site and a bandage or dressing is applied. The patient is observed at 30-minute intervals to make certain that a reaction does not occur. INTERVENTIONS: The nurse prepares the required equipment and venipuncture site; observes the patient during and after transfusion, measures vital signs before, during and after transfusion, and instructs the patient to report any symptoms associated with the procedure. OUTCOME CRITERIA: Most transfusions take place without complications. However, all possible measures are taken to prevent the reactions in an estimated 2% to 3% of transfused patients. Acute hemolytic reactions can be fatal; delayed hemolysis, characterized by jaundice and anemia, may occur weeks or months after transfusion. Air embolism may occur if blood is administered under air pressure after hemorrhaging; massive replacement may cause hyperkalemia, thrombocytopenia, ammonia, and citrate toxicity. Viral hepatitis, cytomegalovirus disease, and other diseases may be transmitted by transfused blood.

Blue Cross plan

A nonprofit, tax-exempt insurance plan providing coverage for hospital care and related services. (The individual plans should be distinguished from their national association, the Blue Cross Association.) Historically, the plans were largely the creation of the hospital industry and designed to provide hospitals with a stable source of revenue. A Blue Cross plan should be a nonprofit community service organization with a governing body whose membership includes a majority of public representatives.

Blue Shield plan

A nonprofit, tax-exempt insurance plan which provides coverage for physicians' services. Blue Shield coverage is sometimes sold in conjunction with Blue Cross coverage, although this is not always the case.

B-mode

Brightness mode: see M-mode.

Board certification

A process by which physicians are certified in a given medical specialty or subspecialty. Certification is awarded by the 23-member boards of the American Board of Medical Specialties on completion of accrediting training and examinations and fulfillment of individual requirements of the board.

Board certified

Status granted a medical specialist who completes a required course of training and experience (residency) and passes an examination in his/her specialty. Individuals who have met all requirements except examination are referred to as "board eligible".

Board of Health

An administrative body acting on a municipal, county, state, provincial, or national level. The functions, powers, and responsibilities of boards of health vary with the locales. Each board is generally concerned with the recognition of the health needs of the people and the coordination of projects and resources to meet and identify these needs. Among the tasks of most boards of health are disease prevention, health education, and implementation of laws pertaining to health.

Body burden

The total amount of a chemical in the body. Some chemicals build up in the body because they

B

are stored in fat or bone or are eliminated very slowly.

Body mass index (BMI)

An index for estimating obesity, obtained by dividing weight in kilograms by height in meters squared. Age is an important factor in interpreting these values because a high level in a young person is more likely to indicate obesity than in an old one. In adult males, a BMI greater than 27.8 kg/m² indicates obesity; in females, 27.3 kg/m². For adult males, being underweight is specified as a BMI less than 20.7 kg/m²; for females, 19.1 kg/m².

Body of knowledge

The sum of what is known.

Bond insurance

Issuers of health care bonds purchase this coverage to lower their interest rate to make the bonds more attractive to investors; bonds with insurance typically are rated AAA-the highest rating.

Bonus payment

An additional amount paid by Medicare for services provided by physicians in Health Professional Shortage Areas. Currently, the bonus payment is 10 percent of Medicare's share of allowed charges.

Book of business

The range of business contracts held by a corporation, whether between insurer and employer or between provider and insurer.

Book value

An accounting term used to describe the original cost of an asset less accumulated depreciation, depletion or amortization; also called net book value.

Boolean algebra

A set of rules for logical variables, comparable to algebraic rules for numbers. Syn: Boolean logic, symbolic logic, combinatorial logic.

Boolean expression

See logical expression.

Boolean logic

See Boolean algebra.

Boolean variable

See logical variable.

Boot

Starting up a computer.

Boren Amendment

Part of the Medicaid law that requires state payment rates for hospital and nursing facilities to be reasonable and adequate to meet the costs incurred by efficiently and economically operated facilities.

Boundary detection

Detecting the edges of an object in an image.

Box plot

Also called a box-and-whiskers plot. A graphic method for showing a summary of data using median, quartiles, and extremes of data. A box plot makes it easy to see where the data are spread out and where they are concentrated. The longer the box, the more the data are spread out.

B

BPO

Blanket Purchase Order.

Bps

(Bits per second) The number of binary digits transmitted per second. This transmission particularly applies to a modem. Common modems transmit at either 14.4 Kbps (14,400 bps) or 28.8 Kbps (28,800 bps), but newer modems are capable of 33.6 Kbps and 56Kbps, and in some cases, transmission speed may extend to 128 Kbps.

Brachy

Short.

Brachytherapy

Application of radiotherapy with radioactive sources placed close to the tumor.

Brady

Slow.

Brain

A large soft mass of nerve tissue contained within the cranium the cranial portion of the central nervous system. Syn: encephalon. Anatomy: the brain is composed of neurons (nerve cells) and neuroglia or supporting cells. The brain consists of gray and white matter. Gray matter is composed mainly of neuron cell bodies and is concentrated in the cerebral cortex and the nuclei and basal ganglia. White matter is composed of neuron processes, which form tracts connecting parts of the brain with each other and with the spinal cord. The brain consists of three major parts: the cerebrum, cerebellum, and brainstem (medulla, pons and midbrain). The weight of brain and spinal cord is about 1350 to 1400 g, of which 2% is the cord. The cerebrum represents about 85% of the weight of the brain. *Lobes:* frontal, parietal, occipital, temporal, insular. *Glands:* pituitary, pineal. *Membranes:* meninges-dura mater (external), arachnoid(middle), and pia mater (internal). *Nerves:* cranial. *Subdivisions* of the brain are (1) diencephalon, including the epithalamus, thalamus, and hypothalamus (optic chiasma, tuber cinereum, and maxillary bodies); (2) myelencephalon, including the corpora quadrigemina, tegmentum, crura cerebri, and the medulla oblongata; (3) metencephalon, including the cerebellum and pons; (4) telencephalon, including the rhinencephalon, corpora striata, and cerebrum (cerebral cortex). *Ventricles:* the cavities of the brain are the first and second lateral ventricles, which lie in the cerebral hemispheres, the third ventricle of the diencephalon, and the fourth ventricle posterior to the medulla and pons. The first and second communicate with the third by the interventricular foramina, the third with the fourth by the cerebral aqueduct (of Sylvius), the fourth with the subarachnoid spaces by the two foramina of Luschka and the foramen of Magendie. The ventricles are filled with cerebrospinal fluid., which is formed by the choroid plexuses in the walls and roof of the ventricles. *Physiology:* the brain is the primary center for regulating and coordinating body activities. Sensory impulses are received through afferent nerves and register as sensation, the basis for perception. It is the seat of consciousness, thought, memory, reason, judgment, and emotion. Motor impulses are discharged through efferent nerves to muscles and glands initiating activities. Through reflex centers automatic control of body activities is maintained. The most important reflex centers are the cardiac, vasomotor, and respiratory centers, which regulate circulation and respiration.

Brain death

The cessation of brain function. The criteria for concluding that the brain has died include lack of response to stimuli, lack of all reflexes, absent respirations, and an isoelectric electroencephalogram that for at least 30 min will not change in response to sound or pain stimuli. Before making this diagnosis, two physicians, including one experienced in caring for severely brain-damaged patients, should review the medical records. It is inadvisable for physicians associated with transplantation procedures to participate in the review. The patient may be kept alive by life-support device, but death is the inevitable outcome. Caution: Some drugs (e.g. barbiturates, methaqualone, diazepam, mecloqualone, meprobamate, trichloroethylene can produce short periods of isoelectric encephalograms. Hypothermia must be excluded as the cause of apparent brain death.

Branching-logic program

A decision-support program that uses logical statements.

Brand-name drug

A drug marketed by a major pharmaceutical company under a trade name with the protection of a patent. They are usually more expensive than a generic equivalent.

Breakeven analysis

The process of computing a company's breakeven point for a given set of assumptions regarding the company's levels of fixed costs and variable costs.

Breakeven point

The sales volume at which total revenue equals total costs.

Breast

(1) The upper anterior aspect of the chest (2) The mammary gland, a compound alveolar gland consisting of 15 to 20 lobes of glandular tissues separated from each other by interlobular septa. Each lobe is drained by a lactiferous duct that opens on the tip of the nipple. The mammary gland secretes milk used for nourishment of the infant. *Development:* during puberty, estrogens from the ovary stimulate growth and development of the duct system. During pregnancy, progesterone secreted by the corpus luteum and placenta acts synergistically with estrogens to bring the alveoli to complete development. Following parturition, prolactin (luteotrophin) in conjunction with adrenal corticoid initiates lactation, and oxytocin from the posterior pituitary induces ejection of milk. Sucking or milking reflexly stimulates both milk secretion and discharge of milk. *Changes in pregnancy:* during the first 6 to 12 weeks, there are fullness and tenderness, erectile tissues develop in the nipples, nodules are felt, pigment is deposited around the nipple (primary areola) in blondes the areolae and nipples become darker pink and in brunettes they become dark brown and in some cases even black), and a few drops of fluid may be squeezed out. During the next 16 to 20 weeks, the secondary areola shows small whitish spots in pigmentation due to hypertrophy of the sebaceous glands (glands of Montgomery). *Chicken B.* - A deformity in which the sternum projects anteriorly; caused by rickets or obstructed respiration in childhood. Syn: pigeon b. *Ductal carcinoma in situ of the B. (DCIS)* - A cluster of abnormal cells in the milk ducts. In their early development they are not life-threatening. If left untreated, as many as 50%. *Pigeon B.* - Chicken b. *B. self-examination (BSE)* - A technique that enables a woman to detect changes in her breasts. The accompanying illustration explains the specific steps to be followed. The examination should be done each month soon after the menstrual period ends, as normal physiological changes that may confuse results occur in the premenstrual period. This method of self-examination is useful in the early detection of breast cancer, but is not as accurate as mammography.

Breast cancer

A malignant neoplasm of the breast. Breast cancer is the leading cause of death in women between the ages of 30 and 60, and is second only to heart disease as a cause of death in women over 50. Approx. one woman in 10 will develop breast cancer in her lifetime. About 1000 men develop breast cancer each year. The gene BRCA1, believed to indicate susceptibility to cancer of the breast and ovary, has been isolated. *Diagnosis:* about 90% of the cases of breast masses are discovered by breast self-examination (BSE) or accidentally by the patient. The remainder are detected by physical examination by a health professional or by screening techniques, such as mammography. Positive diagnosis can be made only by obtaining tissues for microscopic examination. The American Cancer Society recommends that all women perform BSE monthly. In addition, women 20 to 40 years of age should be examined by a clinician every 3 years. In the 40 to 49 age group, mammography is recommended every 1 to 2 years, and clinical breast examination every year; women 50 years of age and older should have clinical breast examination and mammography annually. *Note:* BSE is a useful procedure and should not be neglected, but mammography should also be performed because it can detect a much smaller suspicious lesion that can be felt by use of BSE. *Risk factors:* it is estimated that in the U.S. 75% of breast cancer cases occur in women with no known high-risk factors. The risk of developing breast cancer increases with age. Persons born in northern Europe and North America have higher rates of breast cancer than those born in other countries. The more full-term pregnancies a woman has had may decrease her risk of breast cancer after about age 45,

B

but increases her risk for developing it at an earlier age. The data are not conclusive but in general the longer the total period of lactation after childbirth, the less risk there is of developing breast cancer. Risk factors in order of importance include: having a mother who had bilateral breast cancer diagnosed prior to menopause; having a close relative who developed breast cancer but was menopausal; being over age 50 and nulliparous or having a first pregnancy after age 30; a history of chronic breast disease, esp. epithelial hyperplasia; exposure to ionizing radiation of more than 0.5 Gy (50 rad) during adolescence; and obesity. Early menarche, late menopause, and menstrual cycle irregularity also increase the chances of breast cancer development. Artificial menopause prior to age 35 and childbearing prior to age 18 provide some protection from breast cancer. *Treatment:* the type of treatment, whether surgical, chemotherapeutic, or a combination of the two, is determined by the extent of the disease, the patient's age, and her decisions. The amount of breast tissue to be removed remains controversial. At one time, radical mastectomy was done routinely. Although still performed, modified radical mastectomy, simple mastectomy, or lumpectomy have become more common in management of the disease. Lumpectomy removes only the cancerous portion of the breast and axillary nodes; radiation or chemotherapy are adjuvant therapy. *Nursing implications:* the patient's feelings and level of knowledge about her disease are determined. She is encouraged to express fears and concerns, and the nurse stays with her during periods of anxiety or anguish. If surgery is planned, the procedure, postoperative care, and expected outcomes are explained. Prescribed chemotherapy is administered, and the patient is monitored for adverse reactions, such as nausea, vomiting, anorexia, stomatitis, GI ulceration, leukopenia, thrombocytopenia, and bleeding, so that they can be managed early. Weight and nutrition status are evaluated. Skin is inspected for redness, irritation, or breakdown if radiation therapy is prescribed. Prescribed analgesics are administered, and noninvasive nursing measures to relieve pain are instituted and taught to the patient. Comfort measures are used to promote relaxation and rest and to relieve anxiety. If immobility develops late in the disease, careful repositioning, excellent skin care, respiratory toilet, and low-pressure mattresses are used to prevent complications (skin breakdown, respiratory problems, pathological fractures). The patient's and family's coping abilities are evaluated, and referral for counseling and support services may be necessary.

Breast examination

A process in which the breasts and their accessory structures are observed and palpated in assessing the presence of changes or abnormalities that could indicate malignant disease.

Breastfeeding

(1) Suckling nursing, giving a baby milk from the breast. Breastfeeding encourages postpartum uterine involution and natural return of the menses. (2) Taking milk from the breasts.

Bridge

Device used to interconnect three or more telecommunications channels such as telephone lines, to permit simultaneous, two-way communication among all points that have been interconnected.

Broad form coverage

A term used to describe comprehensive extended insurance coverage that often covers losses resulting from breakage of glass, falling objects, weight of snow, ice or sleet and water damage.

Broadband

Communications which are capable of carrying a wide range of frequencies. Broadcast television, cable television, microwave, and satellite are examples of broadband technologies. A facility or circuit that has bandwidth in excess of that required for high grade voice communication.

Broadbanding

Is the grouping of jobs and roles into fewer but wider pay ranges to encourage incentives such as management development, career ladders, and skill- and competency-based pay.

Broker

An individual who represents an insured in the solicitation, negotiation or procurement of insurance. An insurance broker does not represent insurance companies as agent but places

B

orders with insurance companies.

Browse

Following a nonconsecutive way through a multimedia file. Syn: navigate.

Browser

Software used to view, retrieve, and print information and HTML documents from the Internet.

BSO

(Bilateral salpingo-oophorectomy) Excision of bilateral ovaries.

BTW

("By The Way") A shorthand appended to a comment written in an online chat forum.

Budget neutrality

For the Medicare program, adjustment of payment rates when policies change so that total spending under the new rules is expected to be the same as it would have been under the previous payment rules.

Budget system

A measure to contain health care costs by only funding an established number of diagnostic and therapeutic actions per health care organization or physician.

Buffy coat

Platelet-rich blood component obtained from separated blood; the buffy coat is further filtered for platelet and fibrin concentrates used in growth factor products.

Bulk funding

A system whereby a contracting officer receives authorization from a fiscal and accounting officer to obligate funds on purchase documents against a specified lump sum of funds reserved for the purpose for a specified period of time rather than obtaining individual obligational authority on each purchase document.

Bulletin board

A file containing public messages accessible over a network.

Bundled payment

A single comprehensive payment for a group of related services.

Bundled service

A "bundled service" combines closely-related specialty and ancillary services for an enrolled group or insured population by a group of associated providers.

Bundling

The use of a single payment for a group of related services.

Bursty data

Short, intense transmissions of grouped, related information. Sometimes called "boluses of data" by medical clinicians.

Bus

A network of computer devices that are connected by a shared telecommunications capability.

Business case

A structured proposal for business process improvement that functions as a decision package for enterprise leadership. A business case includes an analysis of business process needs or problems, proposed solution, assumptions and constraints, alternatives, life cycle costs, benefits/cost analysis, and investment risk analysis, and investment risk analysis.

B

Business logistics

A term used to describe the management of all activities that facilitate movement and coordination of supply and demand in the creation of time and place utility of goods.

Business model

A description at a high level of abstraction of the main processes occurring in an organization.

Business process improvement

The betterment of an organization's business practices through the analysis of activities to reduce or eliminate non-value added activities or costs, while at the same time maintaining or improving quality, productivity, timeliness, or other strategic or business purposes as evidenced by measures of performance. Also called Functional Process Improvement.

Business Process Reengineering (BPR)

A structured approach by all or part of an enterprise to improve the value of its products and services while reducing resource requirements. The transformation of a business process to achieve significant levels of improvement in one or more performance measures relating to fitness for purpose, quality, cycle time, and cost by using the techniques of streamlining and removing added activities and costs. Redesign projects typically take about six months to complete.

Business unit

Any segment of an organization, or an entire business organization which is not divided into segments.

Button

(In informatics) An imitation of a physical button on a VDU screen that by a point-and-click operation evokes an action.

Buy-In

Refers to the arrangements states make for paying Medicare premiums on behalf of those they are required or choose to cover. See Qualified Medicare Beneficiary, Specified Low-income Beneficiary.

Bypass Technology

Communication services that completely eliminate the need for any services from the local telephone company (i.e., microwave and satellite).

Byte

Each data character, such as the letter A, is composed of 8 bits, called a "byte" (abbreviated "B"). Units of storage are often referred to in terms of the number of bytes (e.g., a "100 MB hard drive").

C

C

A programming language originally designed for UNIX environments, but now in general use.

C++

Object-oriented extension of C.

CABG

Coronary artery bypass graft.

Caching

Storing or buffering data in a temporary location, so that the information can be retrieved quickly by an application. On the Internet, ISPs cache Web page data on their networks for use by their subscribers to speed up access to commonly accessed Web content.

CAD

Coronary artery disease.

CAI

Computer-assisted instruction.

Calendar year

Means a period of twelve months that begins on January 1 and ends on December 31.

CALS

Computer-aided Acquisition & Logistics System

Camera control

May be near end (local control of local pan/tilt/zoom/iris/focus) or far end (local control of p-t-z at the remote site). May be quite useful in consultations if the examiner wants to control the remote camera's view without having to provide verbal directions to the assistant at the remote site.

CAMIS

Center for Advanced Medical Informatics at Stanford. See also Medical Informatics.

Cancer

An imprecise term used to describe an estimated 200 different kinds of malignant neoplasms, marked by uncontrolled growth and spread of abnormal cells. Cancers may be lethal by invading adjacent normal tissues or by spread (metastasis) to sites distant from the place of origin. Cancers that arise in epithelial tissues are called carcinomas; from mesenchymal tissues, sarcomas. Leukemias are also considered malignant growths. Syn: neoplasia; malignancy. Four attributes differentiate cancer cells from normal cells: 1. Clonality: cancer cells originate from genetic changes in a single cell, which then multiplies to form a clone of malignant cells; 2. Autonomy: cancerous growth is not controlled or regulated by the normal biochemical and physical forces present in the body; 3. Anaplasia: the abnormally growing cells do not develop into normal cells similar to the one from which the clone arose; 4. Metastasis: cancer cells are able to grow in parts of the body other than their site of origin. The process by which normal cells develop into cancer cells is called malignant transformation. Cancer is the second leading cause of death in U.S. In the last 40 years in the U.S the cancer death rate has declined in women and increased in men. Symptoms: There are seven warning signs of cancer, which may be remembered by the mnemonic Caution: Change in bowel or bladder habits; a sore that does not heal; unusual bleeding or discharge; thickening or lump in breast or elsewhere; Indigestion or difficulty in swallowing; obvious change in a wart or mole; nagging cough or hoarseness. If any one of these signs is observed, it should be brought to a physician's attention without delay. Etiology: unregulated, disorganized proliferation of cell growth may be stimulated by various chemicals, viruses and physical agents such as ionizing radiation and ultraviolet light. Ironically, cytotoxic agents used to treat cancer may cause it. Several agents are specific carcinogens, notably the chemicals contained in tobacco products. Other lifestyle factors such as dietary high-fat and low-fiber intake may be important contributors to the development of cancer in humans. Familial predisposition to certain types of cancer has been evidenced. A family history of some

C

malignancies, for example breast cancer, may be a risk factor. Diagnosis: depending on the site, diagnosis is made by various means, the most important being biopsy, use of devices to visualize hollow organs, radiography including computed tomography (CT), mammography, ultrasound, cytology such as Papanicolaou test, and palpation for lumps. Although some of these techniques and devices may demonstrate an increase in size or change in shape of an organ, such alteration may be due to either a benign or a malignant growth. The most effective screening test to detect cancers in the symptomless stage are those for cancer of the uterine cervix, breast and prostate. Tests for cancer of the ovary, lung and colon are being researched. Metastatic cancer in which it is not possible to determine the site of the primary malignancy frequently involves adenocarcinoma, melanoma, lymphoma, sarcoma or squamous carcinoma. Even though the prognosis is poor for patients with these types of malignancies, the response may be improved when the cell type is specifically identified. Various cancer staging systems exist to help delineate the extent and prognosis of tumors. An example of one of these is the tumor, node, metastasis (TNM) system. Numbers are added to each category to indicate the degree of dissemination. Treatment surgery, chemotherapy, hormone therapy, radium and radiotherapy are all recognized effective methods for treating patients with cancer. Application of the proper method or combination of methods is necessary for effective therapy. Therefore, early diagnosis is the most important factor. Nursing implications: the nurse coordinates collaborative efforts of the entire health-care team and encourages participation of the patient and family in care. The patient's knowledge of the disease process is determined, misinformation corrected, and verbal and written information supplied about the disease, its progression, its treatment, and expected outcomes. The patient's and family's positive coping mechanisms are identified and supported, and verbalization of feelings and fears, particularly with regard to changes in body image, pain and suffering, and dying and death, is encouraged. Assistance is provided with personal hygiene and physical care. Physical care is directed at the maintenance of fluid and electrolyte balance and proper nutrition. Nutrition is a special concern because tumors compete with normal tissues for nutrients and grow at their expense and because the disease or treatments can cause anorexia, altered taste sensations, mouth ulcerations, vomiting, diarrhea, and draining fistulas. Nutritional support includes assessing the patient's status and problems, experimenting to find foods that the patient can tolerate, avoiding highly aromatic foods, and offering frequent small meals of high-calorie, high-nutrient soft foods along with fluids to limit fatigue and to encourage overall intake. Elimination is maintained by administering stool softeners as necessary if analgesic drugs result in constipation. Using careful, gentle handling techniques, the nurse assists with range of motion exercises, encourages ambulation when possible, and turns and repositions the patient frequently to decrease the deleterious multisystemic effects of immobilization. Comfort is achieved through correct body alignment, noninvasive measures such as guided imagery and cutaneous stimulation and prescribed pharmacological measures, preferably administered on a regular schedule to prevent pain, with additional dosing to relieve breakthrough pain. The nurse also strives to decrease the patient's fears of helplessness and loss of control; provides hope for remission or long-term survival, but avoids giving false hope; and provides the patient with realistic reassurance about pain control, comfort and rest. Hospice care if needed is discussed with the patient and family. The nurse encourages family members to assume an active role in the patient's care, fosters communication between patient and family and other health-care providers, and assists the patient to maintain control and to carry out realistic decision making about issues affecting life and death. To provide effective emotional support to the patient and family, the nurse must understand and cope with personal feelings about terminal illness and death and seek assistance with grieving and in developing a personal philosophy about dying and death. The nurse will then be better able to listen sensitively to patient's concerns, to offer genuine understanding and comfort, and to help patients and family work through their grief. *Bone C.* - A malignancy of bone tissues. Primary bone tumors are rare in adults; they are seen more often in children and adolescents. Secondary or metastatic bone tumors are far more common. Tumors arising in other areas of the body which metastasize to the bones most often spread to areas such as the spine and pelvis. *Chimney sweeps' C.* - Cancer of the skin of the scrotum due to chronic irritation by coal soot. *Hard C.* - A cylindrical cancer composed of fibrous tissue. Syn: scirrhous c. *Lip C.* - An epithelioma of the lower lip usually seen in men or smokers. *Lung C.* - Cancer that may appear in the trachea, air sacs, and other lung tubes. It may appear as an ulcer in the windpipe, as a nodule or small flattened lump, or on the surface blocking air tubes. It may extend into the lymphatics and blood vessels. The majority of lung cancers are caused by carcinogens inhaled via cigarette smoking. The relative risk of developing lung cancer is increased by about 13 times by active smoking and about 1.5 times by long time exposure to

C

cigarettes (passive smoking). *Ovarian C.* - Any malignant growth in an ovary. About 85% to 90% of ovarian cancers arise from the surface epithelium of the ovary. More women die of epithelial ovarian cancer than of all other gynecologic cancers combined. *Scirrhouc C.* - Hard c.

Cancer grading and staging

The standardized procedure for expressing cancer cell differentiation, called grading, and the extent of dissemination of the cancer, called staging. This procedure is very helpful in comparing the results of various forms of therapy. Cancer is graded on the differentiation of the tumor cells and the number of mitoses present. These are thought to be correlated with the ability of the tumor to grow and spread. Some cancers are graded I to IV, the latter being the most anaplastic and having the least resemblance to normal tissue. Cancers are staged according to size, amount of local spread (metastases), and whether or not blood-borne metastasis has occurred. there are two major staging systems. The TNM judges the size of primary tumor(T), evidence of regional extension, or nodes(N), and evidence of metastases(M). Another system classifies cancers as Stage 0 to IV according to the size of the tumor and its spread. It is not possible to determine the site of the primary malignancy for some metastatic cancers. The most frequent cell types are adenocarcinoma, melanoma, lymphoma, sarcoma, and squamous carcinoma. Even though the prognosis is poor for these patients, the response may be improved when the cell type is specifically identified.

Cancer screening

A program to detect cancer in its symptomless stage. Because the number of lives lost to cancer is so great, it has been the object of intense investigation for effective screening tests. Effective screening tests for cancers of the breast, uterine cervix, and prostate are available. Evaluation of screening tests includes determining the chance that the test will be negative when the patient does indeed have the disease (false negative) and the reverse when the test is positive but cancer is not present (false positive)

Canonical regression

Regression analysis with multiple dependent variables.

Capacity

The ability to perform the core public health functions of assessment, policy development, and assurance on a continuous, consistent basis, made possible by maintenance of the basic infrastructure of the public health system, including human, capital, and technology resources.

Capacity standards

Statements of what public health agencies and other state and local partners must do as a part of ongoing, daily operations to adequately protect and promote health, and prevent disease and injury.

Capital

Fixed or durable non-labor inputs or factors used in the production of goods and services, the value of such factors, or the money specifically allocated for their acquisition or development. Capital costs include, for example, the buildings, beds, and equipment used in the provision of hospital services. Capital assets are usually thought of as permanent and durable as distinguished from consumables such as supplies.

Capital costs

Depreciation, interest, leases and rentals, and taxes and insurance on tangible assets like physical plant and equipment

Capital depreciation

The decline in value of capital assets (assets of a permanent or fixed nature, e.g., goods and plant) with use over time. The rate and amount of depreciation is calculated by a variety of different methods (e.g., straight line, sum of the digits, declining balance) which often give quite different results. Third-party reimbursement for health services usually includes an amount intended to be equivalent to the capital depreciation in any given period experienced by the provider of a service.

Capital expenditure

An expenditure for the acquisition, replacement, modernization, or expansion of facilities or equipment which, under generally accepted accounting principles, is not properly chargeable as an expense of operation and maintenance.

Capital expenditure review

A review of proposed capital expenditures of hospitals and/or other health facilities to determine the need for, and appropriateness of, the proposed expenditures. The review is done by a designated regulatory agency and has a sanction attached which prevents or discourages unneeded expenditures.

Capital stock

The shares in a corporation representing a percentage of ownership in the business.

Capitalization of earnings method

A method used in valuing a business that assumes the business will yield constant, regular earnings (sometimes called "normalized earnings"). The value of the business is determined by multiplying the normalized earnings figure by a capitalization rate that is essentially the reciprocal of the rate of return desired by the investor.

Capitation (CAP) or prepayment

Negotiated per capita rate to be paid periodically, usually monthly, to a health care provider to cover services required by the covered person under the conditions of the provider contract. The term is widely used but may mean different things, depending on the circumstances. For example, a primary care physician may say that she is capitated for certain patients, but the capitation is only for primary care services, at a rate, for example, of between \$10 and \$15 per member per month. However, primary care physicians also may be capitated on a full-risk basis in which they are paid \$90 or \$100 per person per month and are responsible for all of that individual's specialty and hospital services, not just primary care. Both arrangements are called capitation, but they are very different. Under capitation, providers - hospitals and/or physicians - agree to accept a set advance payment in exchange for providing health care services for a group of people, usually for a year. Hospitals and/or physicians receive payments per member per month for a comprehensive set of services, or for a more specialized service, such as cardiac care. Whether a member uses the health service once or a dozen times, a provider who is capitated receives the same payment.

Caps

A set limit on how much an insurer ("premium cap") or provider ("price cap") charges for a service.

Carcinogen

Any cancer-producing substance; often a distinction is made between epigenetic and genotoxic carcinogens. *Epigenetic C.* - a carcinogen that does not itself damage DNA but causes alterations such as hormonal derangements, immunosuppression, or chronic tissue injury that in turn predispose to cancer. *Genotoxic C.* - carcinogens that react directly with DNA or with macromolecules that then react with DNA.

Cardiac defibrillation

Conversion of ventricular fibrillation into a regular rhythm by applying an electrical shock.

Care

The services rendered by members of the health professions for the benefit of a patient. *Coronary C.* - a specially designed and equipped hospital area containing a small number of private rooms, with all facilities necessary for constant observation and possible emergency treatment of patients with severe heart disease. *Critical C., Intensive C.* - a hospital unit in which are concentrated special equipment and skilled personnel for the care of seriously ill patients requiring immediate and continuous attention; abbreviated *ICU*. *Primary C.* - the care a patient receives at first contact with the health care system, usually involving coordination of care and continuity over time. *Respiratory C.* - 1. The health care profession providing, under a physician's supervision, diagnostic evaluation, therapy, monitoring, and rehabilitation of patients with

C

cardiopulmonary disorders; it also employs educational activities to support patients and their families and to promote cardiovascular health among the general public 2. A general term for the type of medical care provided by the members of this profession. *Secondary C.* - Treatment by specialists to whom a patient has been referred by primary care providers. *Tertiary C.* - Treatment given in a health care center that includes highly trained specialists and often advanced technology.

Care management

Sometimes less appropriately called case management - helps achieve better health outcomes by anticipating and linking patients with the services they need more quickly. Care management also helps to avoid unnecessary testing and care by preventing medical problems from escalating.

Carrier

(1) An individual who harbors a specific pathogenic organism of the disease, and is potentially capable of spreading the organism to others. Classification: *infection by animal carriers*: some microorganisms may be carried from animals to humans by direct contact, indirect transfer, or intermediary hosts. *Airborne infection*: pathogenic organisms in the respiratory tract, discharged from the mouth or nose, may be airborne and may settle on food, clothing, walls, and floors. If there are of the type that resists drying for a long period, they may remain virulent until transmitted to another person. Coughing, sneezing, and expectorating may be responsible for droplet infection. *Contact infection*: this is caused by transmission from person to person as to kissing, or coming in contact with persons who have communicable diseases or with utensils handled by such persons. *Food-borne infection*: bacteria may be transported by food. Root and salad vegetables may carry bacteria from the soil or from manure used as fertilizer. Cooking provides safeguards by destroying microorganisms on food. *Human carriers*: some parasites may live on or in the bodies of persons who themselves do not suffer from the parasites, but may carry them to others. Carriers may be asymptomatic contact carriers (who never show symptoms) incubationary carriers (in whom the infection is starting but has not completed the incubation period), and convalescent carriers (who have recovered but still harbor the organisms causing their disease). *Insect vectors*: an insect may act as a physical carrier, such as the tick that may transmit the organism causing Rocky Mountain spotted fever, or an active intermediate host, such as the Anopheles mosquito, which transmits malaria. *Prenatal infection*: this is caused by infection of the fetus from the mother's bloodstream or from contiguity with the maternal membranes. *Soil-borne infection*: soil-borne, sporeforming organisms commonly enter the body through wounds as in tetanus and gas gangrene. *Water-borne infection*: organisms producing typhoid, dysentery, cholera, and amebic infections may be carried through a water supply or in public swimming pools. These organisms may pass into the water from the feces of an infected person and be communicated to others. *Active C.* - One who harbors a pathogenic organism for a considerable period after recovery from disease caused by it. *Convalescent C.* - One who harbors an infective organism during recovery from the disease caused by the organism. *Genetic C.* - One whose chromosomes contain a pathological mutant gene that may be transmitted to offspring. In some cases, such as Tay-Sachs disease, this can be detected prenatally by a laboratory test done on amniotic fluid. *Healthy C.* - One who harbors an infectious organism but does not succumb to the disease. SYN: passive c. *Incubatory C.* - One who harbors an infectious organism during the incubation period of a disease. *Intermittent C.* - One who is capable of spreading infectious organisms. *Passive C.* - Healthy c. (2) Something that carries anything, as an insect that passively carries infectious organisms. (3) A substance that, when combined with another substance (transport substance), can pass through cell membranes as occurs in active transport mechanisms. (4) A heterozygote; one who carries a recessive gene together with its normal allele. (5) An instrument or apparatus for transporting something; in dentistry, an amalgam carrier. (6) A private organization, usually an insurance company, that has a contract to provide health care and other benefits. (7) An organization, typically an insurance company, that has a contract with the Health Care Financing Administration to administer claims processing and make Medicare payments to health care providers for most Medicare Part B benefits.

Carrying capacity

The maximum number of individuals a habitat can sustainably support. Typically defined so as not to include losses from predation or disease.

Carve out

Regarding health insurance, an arrangement whereby an employer eliminates coverage for a specific category of services (e.g., vision care, mental health/psychological services and prescription drugs) and contracts with a separate set of providers for those services according to a predetermined fee schedule or capitation arrangement. Carve out may also refer to a method of coordinating dual coverage for an individual.

Carve-Out Coverage

Carve-out refers to an arrangement where some benefits (e.g., mental health) are removed from coverage provided by an insurance plan, but are provided through a contract with a separate set of providers. Also, carve-out may refer to a population subgroup for whom separate health care arrangements are made.

Carve-Out Service

A "carve-out" is typically a service provided within a standard benefit package but delivered exclusively by a designated provider or group.

CAS

Chemical Abstracts Service: a chemical structure and dictionary database containing records on substances.

CAS Number

(Also CAS Registry Number, CAS RN, or CAS#) A unique accession number assigned by the Chemical Abstracts Service, a division of the American Chemical Society. Other than being guaranteed unique to a given compound, this number has no particular meaning. CAS Registry Numbers are assigned to every uniquely-identifiable substance, so 'cis-2-hexene', 'trans-2-hexene', and '2-hexene' (a mixture with unspecified cis/trans composition) are all assigned separate CAS Numbers.

Cascade model

A method for the system development process. The process is divided into phases. The output of a phase is input for the next one. Syn: waterfall model.

Case

(1) A particular instance of disease, as a *case* of leukemia; sometimes used incorrectly to designate the patient with the disease. (2) A term sometimes used incorrectly in dentistry to designate a flask, denture, casting, or the like. *Borderline C.* - an instance of a disease in which the symptoms resemble those of a recognized condition but are not typical of it. *Index C.* - the case of the original patient (propositus, or proband), which provides the stimulus for study of other members of the family, to ascertain a possible genetic factor in causation of the presenting condition. In epidemiology of contagious disease, the first case of a disease, as opposed to subsequent cases. *Trial C.* - a box containing convex and concave spherical, and convex and concave cylindrical lenses, arranged in pairs, a trial spectacle frame, and various other devices used in testing vision.

Case definition

A set of standard criteria for deciding whether a person has a particular disease or health-related condition, by specifying clinical criteria and limitations on time, place, and person.

Case fatality rate

The proportion of persons with a particular condition (cases) who die from that condition. The denominator is the number of incident cases; the numerator is the number of cause-specific deaths among those cases.

Case finding

Selection of cases of an illness or another condition for research purposes (e.g., to compose trial groups) or to obtain cases for educational purposes.

Case management

(1) A process whereby covered persons with specific health care needs are identified and a plan which efficiently utilizes health care resources is formulated and implemented to achieve the optimum outcome in the most cost-effective manner. (2) A system whereby the health care provider attempts to manage the entire course of a patient's treatment from pre-hospital to in-hospital to post-hospital. Individual case managers are responsible for this management of health care.

Case manager

An experienced professional (e.g., nurse, doctor or social worker) who works with clients, providers and insurers to coordinate all services deemed necessary to provide the client with a plan of medically necessary and appropriate health care.

Case mix

(1) Categories of patients classified by disease, procedure, method of payment, or other characteristics in an institution at a given time, usually measured by counting or aggregating groups of patients sharing one or more characteristics. (2) The mix of patients treated within a particular institutional setting, such as the hospital. Patient classification systems like DRGs can be used to measure hospital case mix.

Case mix factor

A number that reflects the severity of illness of the patients in the hospital. Many states calculate the case mix for the entire hospital, usually on the basis of its diagnosis related group (DRG) profile. Medicare also calculates a case mix index. The index average is 1.0. A medium-sized community hospital typically has a Medicare case mix factor of 1.2 to 1.35. Larger teaching hospitals may go as high as 1.7; and some actually exceed 2.0. These are usually hospitals that have large cardiac surgery programs amid other services that involve long stays in intensive care.

Case study

The medical or epidemiological evaluation of a single person or a small number of individuals to determine descriptive information about their health status or potential for exposure through interview or biomedical testing.

Case study design

A nonexperimental study that extensively explores a single unit (a unit may be a person, family, or group) or a very small number of units.

Case-based reasoning

A decision-support system that uses a database of similar case.

Case-control study

(1) A type of observational analytic study in which the risk factors of people with a disease are compared with those without a disease. Enrollment into the study is based on presence ("case") or absence ("control") of disease. Characteristics such as previous exposure are then compared between cases and controls. (2) An investigation of two or more groups of a population that differ in the occurrence of an event (e.g., myocardial infarction) over time to explain the influence of risk factors.

Case-mix

A measure of the mix of cases being treated by a particular health care provider that is intended to reflect the patients' different needs for resources. Case mix is generally established by estimating the relative frequency of various types of patients seen by the provider in question during a given time period and may be measured by factors such as diagnosis, severity of illness, utilization of services, and provider characteristics.

Case-Mix Index (CMI)

The average DRG weight for all cases paid under PPS. The CMI is a measure of the relative costliness of the patients treated in each hospital or group of hospitals. See also DRG.

Case-series

A report on a series of patients with an outcome of interest. No control group is involved.

Cash basis of accounting

The accounting basis in which revenue and expenses are recorded in the period they are actually received or expended in cash. Use of the cash basis generally is not considered to be in conformity with generally accepted accounting principles (GAAP) and is therefore used only in selected situations, such as for very small businesses and (when permitted) for income tax reporting.

Cash beneficiaries

People who qualify for Medicaid based on their eligibility for a cash-assistance program, such as SSI.

Cash collateral account

An account in the name of a borrower that serves as a clearing account with its bank, usually for the purpose of securing and servicing an indebtedness. With a cash collateral account, money is deposited in a lockbox account; when the funds are collected and the deposits have cleared, the debt served by the account is reduced. A cash collateral account cannot be drawn upon like a checking account and essentially is considered a zero balance account.

Cash surrender value

The amount available in cash on voluntary termination of a policy before it becomes payable by death or maturity.

Casualty insurance

The coverage of loss or liability arising from accident or mishap excluding certain types of loss which by law or custom are considering as falling exclusively within the scope of other types of insurance (such as fire or marine insurance).

Catalytic model

A (rather misleading name for a) type of compartmental model in which the force of infection is treated as a parameter to be estimated.

Catastrophic case

A catastrophic case is any medical condition where total cost of treatment (regardless of payment source) is expected to exceed an amount designated by the HMO contract with the medical group.

Catastrophic health insurance

A health insurance plan which provides protection against the high cost of treating severe or lengthy illnesses or disabilities. Generally, such policies cover all, or a specified percentage, of medical expenses above an amount that is the responsibility of another insurance policy up to a maximum limit or liability.

Catchment area

A geographic area defined and served by a health program or institution such as a hospital or community mental health center which is delineated on the basis of such factors as population distribution, natural geographic boundaries, and transportation accessibility. By definition, all residents of the area needing the services of the program are usually eligible for them, although eligibility may also depend on additional criteria.

Categorically needy

Persons whose Medicaid eligibility is based on their family, age or disability status. Persons not falling into these categories cannot qualify, no matter how low their income. The Medicaid statute defines over 50 distinct population groups as potentially eligible, including those for which coverage is mandatory in all states and those that may be covered at a state's option. The scope of covered services that states provide to the categorically needy is much broader than the minimum scope of services for the other, optional groups receiving Medicaid benefits.

Catheter

A tubular device for insertion into canals, vessels, etc., to permit injection or withdrawal of fluids or transducers.

Catheterization

(1) Insertion of a catheter. (2) More specific: invasive method to determine properties of veins and arteries (e.g., pressures, flows, cross-sections).

CATV

(Cable Television) A transmission system that distributes broadcast television signals and other services by means of coaxial cable. Residential cable subscribers are connected by means of cable to a central community antenna, which picks up signals from satellites for community distribution.

Causal forecasting models

A forecasting model where reliance is placed upon highly refined and specific information about the relationships between the factor to be forecast and other factors, such as related business and socioeconomic factors.

Causal networks

Graphical structures implementing cause-effect relationships. Used to facilitate logical reasoning.

Causal relationship

An association between events or phenomena, for which a cause-effect relationship has been shown.

Causality

Relating causes to the effects they produce. Most of epidemiology concerns causality, and several types of causes can be distinguished. A cause is termed "necessary" when a particular variable must always precede an effect. This effect need not be the sole result of the one variable. A cause is termed "sufficient" when a particular variable inevitably initiates or produces an effect. Any given cause may be necessary, sufficient, neither, or both.

Cause of disease

A factor (characteristic, behavior, event, etc.) that directly influences the occurrence of disease. A reduction of the factor in the population should lead to a reduction in the occurrence of disease.

Cause specific mortality rate

The mortality rate from a specified cause for a population. The numerator is the number of deaths attributed to a specific cause during a specified time interval; the denominator is the size of the population at the midpoint of the time interval.

CAV

(Constant Angular Velocity) Term used to describe an interactive LaserDisc where each frame has its own access number and a user can access individual frames randomly and in any sequence they desire. A CAV LaserDisc can store up to 54,000 individual images or 30 minutes of fully random access motion video.

C-Band

A category of satellite transmission in the 6 GHz range. C-Band transmission generally requires a large antenna, or "downlink dish," because of its use of longer wavelength frequencies when compared with other transmission systems such as Ku-Band.

CBR

(Case-Based Reasoning) A physician, diagnosing the illness of a new patient, is reminded of a past patient and checks a computerized database to see if the former diagnosis is relevant. This is an example of Case-Based Reasoning (CBR), a form of problem solving in which the problem solver reuses a past case to solve a new problem.

CCD

(Charge coupled device="chip") A 1-CCD ("1-chip") camera contains a single charge coupled device with specialized semiconductors. These contain photosensitive cells that generate voltage when struck by photons of light. One photosensitive cell equates to one pixel in the displayed image. The number of cells on a chip determines the number of pixels of resolution the camera can display. The larger the chip the greater the image resolution. Increased resolution is accomplished either by using larger chips or by using more of them. Single chip cameras do a good job. 2-CCD cameras use one chip for chrominance and one for luminance. Three chip cameras do an even better job because they have more total cells and because they use one chip each to capture red, green and blue light. Three chip cameras provide images with higher resolution and better color representation, and can cost 10 times as much as 1-CCD cameras. A 1-CCD camera can support 640 pixels × 480 lines and 24 bit color. A 3-CCD camera may cost \$10,000 (for 1,524×1,012×36 bit) up to \$30,000 (for 3,060×2,036×14 bit). CCD scanners for teleradiology are less expensive than laser scanners, and may not have the same ability to detect contrast. This may or may not affect their ability to transmit diagnostic quality images.

CCITT

(Consultative Committee for International Telegraphy and Telephony) The forerunner of the ITU's Telecommunications Standardization Sector (TSS). An organization that issues many standards on the hardware and syntactic levels of data communication.

CD

(Compact disc) High-capacity storage device in which the data (sound, images, and computer data) are stored (mostly only once) by burning small holes and from which data are repeatedly retrieved by means of a laser beam. See also CD-ROM.

CD+G

Compact Disc plus Graphics is a format which includes limited video graphics capabilities in a CD-DA format. Mostly used in Karoke (sing-along) devices.

CDC

See Centers for Disease Control and Prevention (United States).

CD-DA

Compact Disc Digital Audio or CD-DA, contains musical or audio information that is encoded digitally. CD-DA is the standard format used by the music industry. The standard used for CD-DA is known as Red Book, based on the standards published by Philips and Sony.

CDF

(Channel Definition Format) An extension of Microsoft's Internet Explorer 4.0 browser designed to allow web sites to broadcast ("push") information to individuals.

CD-i

Developed by Philips, Compact Disc-Interactive is a compact disc stand alone (set top) system that connects to a standard TV. This system was designed for the home user interested in multimedia entertainment, but who does not want to invest in a multimedia computer. CD-i is capable of storing 19 hours of audio, 7,500 still images and 72 minutes of full screen/full motion video (MPEG) in a standard CD format. The standard used for CD-i is known as Green Book. CD-i devices are also capable of playing CD-DA, CD+G, Photo CD and Video CDs.

cDNA

See complementary DNA.

CD-ROM

Compact Disc-Read Only Memory is a laser-encoded optical memory storage medium on which digital data is stored. CD-ROM is the basis for many existing CD formats, using the same CLV spiral concept as computer audio discs. Newer CD-ROMs hold about 650mb of data (around the equivalent of 220 000 pages of text), sound, and limited stills and motion video. A CD-ROM player will typically play CD-DA discs, but a CD-DA player will not play CD-ROMs. The standard used for most CD-ROM formats is known as Yellow Book, based on the standard published by Philips. As the name indicates, these disks can only be read (not recorded on to), with the help

C

of a device called a compact disk (or laser disk) drive.

CD-ROM XA

CD-ROM Extended Architecture is a hybrid format that combines CD-ROM and CD-i capabilities to allow interleaved compressed sound and graphics. CD-ROM XA is the basis for Kodak's Photo CD format.

CDs

A generic term used to represent all optical laser Compact Disc formats including, but not limited to, CD-DA, CD-i, CD-ROM, Video CD, CD+G. Typically, the CD is 4.72" (12 cm) in diameter.

CDS

(Clinical Decision Support) Information regarding a patient, his or her health problems, and alternative tests/treatments used to aid a clinician in diagnosis and treatment. Also referred to as Clinical Decision Support Systems (CDSS).

CECSR

Contractor Employee Compensation System Review.

Cell

(1) A small enclosed or partly enclosed cavity such as an air cell; (2) a mass of protoplasm containing a nucleus or nuclear material; the structural unit of all animals and plants. Cells and their products make up all the tissues of the body. Cells carry out all the body's functional activities, and their structure and form are closely correlated with their functions. Cells arise only from pre-existing cells; new cells arise by cell division. Growth and development result from the increase in numbers of cells and their differentiation into different types of tissues. Specialized germ cells, the spermatozoa and ova, contain in their nuclei the genes for hereditary characteristics. STRUCTURE: when a typical cell is fixed and stained, it exhibits a centrally located nucleus surrounded by cytoplasm. the nucleus contains the chromosomes, which are made of DNA and protein. It also possesses a nuclear membrane that encloses clear karyoplasm. One or more densely staining bodies, the nucleoli, are usually present the cell membrane is made of phospholipids, protein, and cholesterol; it forms the outer boundary of the cells and selectively allows substances to enter or leave the cell. The functional and structural elements, called organelles, within the cell include ribosomes, endoplasmic reticulum, mitochondria, Golgi apparatus, centrioles, lipid droplets, and glycogen granules. CELL DIVISION: *Meiosis* is the type of cell division in which two successive divisions of the germ cell nuclei produce cells that contain half the number of chromosomes present in somatic cells. In *mitosis*, the other type of cell division, each daughter cell contains the same number of chromosomes as the parent cell. *Accessory C.* - A monocyte or macrophage; refers to the immune response. *Acidophil C.* - A cell with an affinity for staining dyes. *Acinar C.* - A cell present in the acinus of an acinous gland (e.g., of the pancreas). *Adipose C.* - Fat c. *Adventitial C.* - A macrophage along a blood vessel, together with perivascular undifferentiated cells associated with it. *Alpha C.* - A cell of the anterior lobe of the pituitary and the pancreas. In the latter, these cells are the source of glucagon. *Alveolar C., Type I* - One of the thin, flat cells that form the epithelium of the alveoli. *Alveolar C., Type II* - An epithelial cell of the alveoli of the lungs that secretes pulmonary surfactant. *Ameloblast C.* - The type of cell that produces the enamel rods of the tooth crown. *Argentaffin C.* - A cell found in the epithelium of the digestive tract (stomach, intestine, appendix). The cytoplasm of these cells contains granules that stain selectively with silver. *B C.* - A lymphoid stem cell from the bone marrow that migrates to, and becomes a mature antigen-specific cell in, the spleen and lymph nodes. The spleen contains many immature B cells, which, because of the large amount of blood passing through the spleen, become exposed to new antigens and differentiate into functional cells. Each mature B cell can be stimulated by a specific antigen entering the body. After a B cell comes in contact with an antigen, it changes into a plasma cell or a memory cell. Plasma cells produce antibodies that destroy the invading cell. Memory cells are available to produce antibodies quickly if the same antigen reappears. All B cells are antigen specific and respond to only one foreign protein. The antigen-antibody reaction is part of the specific immune response. It is the basis for vaccination and plays a major role in defense against infection from common organisms. SYN: *B lymphocyte*. *Band C.* - The developing leukocyte at a stage at which the nucleus is not segmented. *Basal C.* - A type of cell in the deepest layer of the epidermis. *Basket C.* - (1) A branching basal or

C

myoepithelial cell of the salivary and other glands; (2) A type of cell in the cerebellar cortex in which Purkinje cells rest. *Basophil C.* - A cell with an affinity for staining with basic dyes. *Beta C.* - (1) One of the insulin-secreting cells of the pancreas that constitute the bulk of the islets of Langerhans; (2) A basophil cell of the anterior lobe of the pituitary. *Bipolar C.* - A neuron with two processes, an axon and a dendrite. It is found in the retina of the eye and in the cochlear and vestibular ganglia of the acoustic nerve. *Blast C.* - A newly formed cell of any type. Large numbers of blast cells in the peripheral blood indicate that the bone marrow is producing a high level of the particular cell (e.g. lymphoblast [lymphocyte], monoblast [monocyte]). *Blood C.* - Any type of nucleated or nonnucleated cell normally found in the blood or blood-forming tissues. *Burr C.* - An erythrocyte with 10 to 30 spicules distributed over the surface of the cell, as seen in heart disease, stomach cancer, kidney disease, and dehydration. *Capsule C.* - Satellite c. *Castration C.* - An enlarged and vacuolated basophil cell seen in the pituitary in gonadal insufficiency or following castration. *Cementoblast C.* - One of the cells that produce the cementum layer, which covers the tooth root and provides attachment for the supporting periodontal ligament. *Cementocyte C.* - One of the cells trapped within cementum that maintain cementum as a living calcified tissue by their metabolic activity. *Centroacinar C.* - A duct cell of the pancreas more or less invaginated into the lumen of the acinus. *Chalice C.* - Goblet c. *Chief C.* - (1) One of the cells of the parathyroid gland that secrete the parathyroid hormone; (2) One of the secretory cells that line the gastric glands and secrete pepsin or its precursor; (3) A chromophobe cell of the pituitary. *Chromaffin C.* - An epinephrine-containing cell of the adrenal medulla whose granules stain brown when cells are stained with a fluid containing potassium bichromate. *Cleavage C.* - A cell that results from mitosis or splitting of the fertilized ovum; a blastomere. *Clue C.* - A type of vaginal epithelial cell coated with coccobacillary organisms. The cells, which appear granular, are seen in bacterial vaginosis. *Columnar C.* - An epithelial cell with height greater than its width. *Cone C.* - A cell in the retina whose scleral end forms a cone that serves as a light receptor. Vision in bright light, color vision, and acute vision depend on the function of the cones. *Cuboid C.* - A cell with height about equal to width and depth. *Cytotoxic T C.* - A CD8+ T lymphocyte that can destroy microorganisms directly. *Daughter C.* - Any cell formed from the division of a mother cell. *Delta C.* - A cell of the islets of Langerhans of the pancreas that secretes somatostatin. *Endothelial C.* - One of the flat cells that form the lining of the blood and lymph vessels. *Ependymal C.* - One of the cells of the developing neural tube that give rise to the ependyma. They originate from spongioblasts derived from the neural epithelium. *Epithelial C.* - One of the cells forming the epithelial surfaces of membranes and skin. *Ethmoidal C.* - One of the several cavities that honeycomb the lateral masses of the ethmoid bone, forming a part of the paranasal air sinuses. SYN: *ethmoid sinus*. *Fat C.* - A cell that stores fat. SYN: adipose c.; adipocyte; lipocyte. *Foam C.* - A cell that contains vacuoles; a lipid-filled macrophage. *Ganglion C.* - (1) Any neuron whose cell body is located within a ganglion; (2) A neuron of the retina of the eye whose cell body lies in the ganglion cell layer. The axons of ganglion cells form the fibers of the optic nerve.

CEN

(Comite Europeen de Normalisation) European standardization committee. An international agency responsible for setting standards in health care informatics.

CEN/TC251

CEN's technical committee for medical informatics.

Census

The enumeration of an entire population, usually with details being recorded on residence, age, sex, occupation, ethnic group, marital status, birth history, and relationship to head of household.

Census day

Based on the number of patients in the hospital at midnight of a given day. Each such patient gives rise to "Census Day".

Centers for Disease Control and Prevention (CDC)

The Centers for Disease Control and Prevention, based in Atlanta, Georgia, charged with protecting the US public health by providing direction in the prevention and control of communicable and other diseases and responding to public health emergencies. Within the U.S. Public Health Service, CDC is the agency that led efforts to prevent such diseases as malaria,

C

polio, smallpox, toxic shock syndrome, Legionnaire's disease and, more recently, acquired immunodeficiency syndrome (AIDS), and tuberculosis. CDC's responsibilities evolve as the agency addresses contemporary threats to health, such as injury, environmental and occupational hazards, behavioral risks, and chronic diseases.

Centers of excellence

A network of health care facilities or a specific clinical program (i.e., neurology, cardiology, oncology) that provides specific clinical services based on providers' experience, outcomes, efficiency and effectiveness.

Centimorgan (cM)

A unit of measure of recombination frequency. One centimorgan is equal to a 1% chance that a marker at one genetic locus will be separated from a marker at a second locus due to crossing over in a single generation. In human beings, 1 centimorgan is equivalent, on average, to 1 million base pairs.

Central health service

The level of health services that deals with those elements of the health system that devolve on it by virtue of the country's administrative organization.

Central memory

Computer memory directly under control of the CPU.

Central Nervous System (CNS)

The part of the nervous system that includes the brain and the spinal cord.

Central processing unit

See CPU.

Central services/Central sterile

The department in charge of supplying all of the sterile equipment for the entire facility. These supplies may be disposable single-use items or durable items requiring sterilization on-site.

Central steep islands

Defect as possible side-effect from laser surgery that causes distorted images and reduction in visual acuity, treatable with repeat laser photocoagulation. See central steep islands.

Centrex System

A service provided by a central office offering PBX functionality to a business for a fee. This offers the customer an alternative to making the capital outlay for a PBX and having to maintain the system.

Centromere

A specialized chromosome region to which spindle fibers attach during cell division.

CER

(Control Event Rate) See Event Rate.

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, also known as Superfund. This is the legislation that created ATSDR.

CERN

(Centre Energie Recherche Nuclear) The origin of the World Wide Web.

Certificate of Authority

A certificate issued by a state government entity that licenses the operation of a MCO.

Certificate of Competency

A certificate issued by the Small Business Administration (SBA) stating that the holder is responsible (with respect to all elements of responsibility, including but not limited to capability,

C

competency, capacity, credit, integrity, perseverance, and tenacity) for the purpose of receiving and performing a specific Government contract. (FAR 19.601)

Certificate of current cost and pricing data

A form of certification as set forth in FAR 15.804-4 that must be executed by a contractor certifying the contractor's current cost and pricing data when required to do so under FAR 15.804-2.

Certificate of Need (CON)

A certificate issued by a governmental body to an individual or organization proposing to construct or modify a health facility, acquire major new medical equipment, modify a health facility, or offer a new or different health service. Such issuance recognizes that a facility or service, when available, will meet the needs of those for whom it is intended. CON is intended to control expansion of facilities and services by preventing excessive or duplicative development of facilities and services.

Certification

The process by which a governmental or nongovernmental agency or association evaluates and recognizes an individual, institution, or educational program as meeting predetermined standards. One so recognized is said to be "certified." It is essentially synonymous with accreditation, except that certification is usually applied to individuals, and accreditation to institutions. Certification programs are generally nongovernmental and do not exclude the uncertified from practice as do licensure programs.

Certified cost and pricing data

Cost and pricing data that has been certified as accurate, complete, and current as of the date of price agreement between the Government and the contractor by execution of a certificate of current cost and pricing data.

Certified health plan

A managed health care plan, certified by the Health Services Commission and the Office of the Insurance Commissioner to provide coverage for the Uniform Benefits Package to state residents.

CGI

(Common Gateway Interface) A set of rules that describe how a Web Server communicates with another piece of software on the same machine, and how the other piece of software (the "CGI program") talks to the web server. Usually a CGI program is a small program that takes data from a web server and does something with it, like putting the content of a form into an e-mail message, or turning the data into a database query.

Chain of infection

A process that begins when an agent leaves its reservoir or host through a portal of exit, and is conveyed by some mode of transmission, then enters through an appropriate portal of entry to infect a susceptible host.

Change order

A written order, signed by the contracting officer, directing the contractor to make a change that the Changes clause authorizes the contracting officer to order without the contractor's consent.

Channel

A radio frequency assignment made according to the frequency band being used and the geographic location of the send/receive sites. A communication path established between two or more institutions.

Channel banks

The systems that route private or leased lines that do not need to feed through a switch.

Channel of distribution

The route taken by the title of ownership of goods and services as they move from the producer to the ultimate consumer, or business user.

Character-based interface

A user interface in which only keyboard symbols are used.

Charge coupled device

See CCD.

Charges

The posted prices of provider services.

Charity care

Free or reduced fee care provided due to financial situation of patients. (AMA, 1993) Generally refers to physician and hospital services provided to persons who are unable to pay for the cost of services, especially those who are low-income, uninsured and underinsured. A high proportion of the costs of charity care is derived from services for children and pregnant women (e.g., neonatal intensive care).

CHD

(Coronary heart disease) See ischemic heart disease.

Chemical Dependency Hospital

A hospital exclusively devoted to the treatment of addiction such as alcoholism, drug abuse or poly-substance abuse.

Chemoprophylaxis

Drug treatment designed to prevent future occurrences of disease. Treatment may be chemotherapy as far as an individual is concerned but chemoprophylactic for the population as a whole.

Chemotherapy

The use of chemical agents in the treatment of diseases, especially in the treatment of cancer.

Chiba biopsy needle

A needle with an echogenic point, which allows for enhanced ultrasound imaging.

Chief information officer

The senior information management position responsible for information strategy and overall information management.

CHIN

(Community Health Information Network) A popular system of communication created for common use by health professionals, patients and the community. This system fuses hospital information systems (HIS) with medical databases, community health information, and on-line computer services. A CHIN provides a common communications system for health professionals, patients and the community. It integrates the Hospital Information System with medical databases, community health information, and on-line services. It is a central resource for hospital information, e.g., policies and procedures, scheduling, etc. An example of the development of a Community Health Information Network can be found at the University of Texas at Houston Health Science Center - Hermann Hospital. Another example, is the Department of Veterans Affairs. See also Medical Informatics.

Chip

(1) An integrated circuit consisting of a large number of electronic components. (2) Children's Health Insurance Program. Federal program initiated in 1998, and jointly funded by states and the federal government, which provides medical insurance coverage for children not covered by state Medicaid-funded programs. In Washington state, the plan covers children in families with an income between 200 and 250% of the federal poverty level.

Chip card

See smart card.

C

Chiropractor

A health care provider who treats physical disorders by manipulating the spinal column.

CHMIS

(Community Health Management Information System) An electronic system similar to a CHIN. The explicit emphasis is on building a data repository for use in assessing the performance of health care providers and insurance plans.

Chol(e)

Bile, or referring to gallbladder.

Chondr(o)

Cartilage.

Chrominance

Hue and saturation (color) on a video monitor.

Chromosomes

The self-replicating genetic structures of cells containing the cellular DNA that bears in its nucleotide sequence the linear array of genes. In prokaryotes, chromosomal DNA is circular, and the entire genome is carried on one chromosome. Eukaryotic genomes consist of a number of chromosomes whose DNA is associated with different kinds of proteins.

Chronic

Occurring over a long period of time (more than 1 year).

Chronic care

The care of a condition that will not be cured or materially resolved. Chronic care hospitals are invariably long-term care facilities for people who may be terminally ill or have a degenerative condition that is essentially incurable and that requires hospitalization to preserve the patient's life.

Chronic disease

A disease which has one or more of the following characteristics: is permanent, leaves residual disability; is caused by nonreversible pathological alteration, requires special training of the patient for rehabilitation, or may be expected to require a long period of supervision, observation, or care.

Ciné loop

Also called 'paging.' The rapid, repeating display of sequential images in movie fashion. This display method plays a limited number of frames, at a limited frame rate, but gives the impression of dynamic motion. Often used in telecardiology applications.

Cinepak

A CODEC used for digitizing video.

CIPR

Contractor Insurance/Pension Review.

Circuit Switched Network

Also may be called line switching and dial-up service, this network temporarily links multiple channels between multiple points that permits the user to exclusive use of an open channel to exchange information.

CIS

Clinical Information System.

CISC

Complex Instruction Set Computer: a computer that, in contrast to an RISC, has a large number of instructions, including intricate instructions.

Civilian Agency Acquisition Council (CAAC)

A group composed of representatives of the Departments of Agriculture, Commerce, Energy, Health and Human Services, Interior, Labor, State, Transportation, Treasury and Veterans Affairs, the Environmental Protection Agency, and the Small Business Administration, which is charged with maintenance of the Federal Acquisition Regulation (FAR) on a joint basis with the Defense Acquisition Regulatory Council (DARC).

Claim

A written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under a contract, unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. However, a written demand or written assertion by the contractor seeking the payment of money exceeding \$50,000 is not a claim under the Contract Disputes Act of 1978 until certified as required under the Act and [FAR] 33.207. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim, by written notice to the contracting officer as provided at [FAR] 33.206(a), if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

Clarification

Communication with an offeror for the purpose of eliminating minor irregularities, informalities, or apparent clerical mistakes in the proposal. It is achieved by explanation or substantiation, either in response to Government inquiry or as initiated by the offeror. Unlike discussion, clarification does not give the offeror an opportunity to revise or modify its proposal, except to the extent that correction of apparent clerical mistakes results in a revision.

Class interval

A span of values of a continuous variable which are grouped into a single category for a frequency distribution of that variable.

Classical epidemiology

Our term for the varieties of epidemiology primarily concerned with the statistical relationships between disease agents, both infectious and non-infectious; for example a study to establish the relative risk of lung cancer associated with smoking. We contrast this with ecological epidemiology.

Classification

The systematic arrangement of similar entities on the basis of certain differing characteristics. *Adansonian C.* - numerical taxonomy. *Angle's C.* - a classification of dental malocclusion based on the mesiodistal (anteroposterior) position of the mandibular dental arch and teeth. *Arneth's C.* - a method of determining the percentage of neutrophils having the same number (1-5) of nuclear lobes or segments: the normal values (Arneth's formula) are 1 lobe, 5 per cent; 2 lobes, 35 per cent; 3 lobes, 41 per cent; 4 lobes, 17 per cent; 5 lobes, 2 per cent; Arneth's index is the sum of the percentages for 1 and 2 lobes plus half the percentage for 3 lobes. An increase in the percentages with fewer lobes is termed a *shift to the left*, and in the other direction, a *shift to the right*. *Bergey's C.* - a system of classification of bacteria in which the organisms are grouped according to Gram reaction, metabolism, and morphology, with each group being further subdivided into orders, families, genera, and species. *Borrmann's C.* - a classification of gastric carcinoma as either polypoid, ulcerating, ulcerating-infiltrating, or infiltrating. *Broders' C.* - an index of malignancy based on the fact that the more undifferentiated or embryonic cells of a tumor, the more malignant the tumor. Grade 1 contains one fourth undifferentiated cells; grade 2, one half undifferentiated cells; grade 3, three fourths undifferentiated cells; grade 4, all cells undifferentiated. *Caldwell-Moloy C.* - classification of female pelves as gynecoid, android, anthropoid, and platypelloid. *Chicago C.* - the classification of human chromosomes adopted by the geneticist at Chicago in 1966 for the identification of chromosomal bands and regions and for the location of structural chromosomal abnormalities. *Denver C.* - a former classification of human chromosomes on the basis of size and centromere position, adopted by geneticists in Denver in 1960. The 23 pairs of chromosomes are arranged into seven groups, labeled A to G,

C

in the order of decreasing length. *Duke's C.* - a three-class staging system that classifies colorectal carcinoma from A to C based on the extent of the tumor: A, penetration into but not through the bowel wall; B penetration through the bowel wall; C lymph node involvement regardless of extent of bowel wall penetration. Many modifications of this classification exist. *FIGO C.* - any of the classification systems established by the International Federation of Gynecology and Obstetrics for the staging of gynecological cancers. Cancers at any particular site are staged from 0 to IV with 0 being precancerous or in situ and IV being highly malignant or invasive; subdivisions using letters may also be used, as IA, IB, IIA, IIB, and so on. *Frankel C.* - a classification dividing spinal cord injuries into five groups according to severity of deficit below the level of injury: Group A, complete interruption of all sensation and motor function; Group B, incomplete interruption, with some sensation but no motor function; Group C, incomplete interruption, with demonstrable voluntary motor function but at a minimal, nonuseful level; Group D, incomplete interruption, with some voluntary motor function that is useful to the patient; and Group E, recovery to normal functioning attained. *Fredrickson and Lees C.* - a scheme for subdividing the familial hyperlipoproteinemias in the basis of phenotypes, which are classified as I-V. *French-American-British (FAB) C.* - a classification of acute leukemia produced by a three-nation joint collaboration; acute lymphocytic leukemia is subdivided into three types and acute myelogenous leukemia is subdivided into six types. *Gell and Coombs C.* - a classification of immune mechanisms of tissue injury, called by Gell and Coombs "allergic reactions", comprising four types: Type I, immediate hypersensitivity reactions, mediated by IgE antibody; Type II, cytotoxic reactions, mediated by antitissue antibody, including complement-dependent lysis, antibody-dependent cell-mediated cytotoxicity (ADCC), and phagocytosis induced by opsonizing antibody; Type III, reactions mediated by immune complexes, including serum sickness, Arthus reactions and immune complex disorders; and Type IV delayed hypersensitivity reactions, mediated by sensitized T lymphocytes either by release of lymphokines or by T-cell - mediated cytotoxicity, including contact dermatitis, allograft rejection, and graft - versus - host disease. Other authorities have added Type V, antibody interference with the function of biologically active substances, including autoimmune diseases mediated by antireceptor antibodies and coagulation disorders mediated by antibodies to coagulation factors. *Janský's C.* - a classification of ABO blood types designated by roman numerals I to IV, corresponding with types O, A, B, and AB, respectively. *Kauffman-White C.* - a scheme for the serologic identification of species of *Salmonella* by classification of their reactions to O, H, and Vi antisera. *Keith-Wagener-Barker C.* - a classification of hypertension and arteriosclerosis based on retinal changes: Group 1, essential benign hypertension indicated by moderate arteriole attenuation; Group 2, constant high blood pressure but no apparent effect on health, indicated by more definite arteriole attenuation with localized constriction; Group 3 hypertension with retinal, renal, cerebral, and other symptoms, indicated by marked attenuation of the arterioles, cotton-wool exudates, and hemorrhages; Group 4, severe hypertension with severe nervous system, visual, and other organ disturbances, indicated by ophthalmoscopic signs of Group 3, with papilledema. *Kennedy C.* - a classification of partially edentulous conditions and partial dentures, based on the location of the edentulous spaces in relation to the remaining teeth. *Kiel C.* - a classification of non-Hodgkin's lymphomas, used primarily in Europe and based on morphologic and cytologic criteria. A later classification system is the National Cancer Institute's *Working Formulation of Non-Hodgkin's Lymphomas for Clinical Usage*. *Lancefield C.* - a serologic classification of the hemolytic streptococci, based on extraction and examination by a precipitin technique of group-specific carbohydrate antigens contained in the cell wall. Groups A through O have been established. *Lennert's C.* - Kiel c. *Lukes-Collins C.* - a classification of non-Hodgkin's lymphomas based on their presumed cells of origin. It stresses the distinction between B-cell, T-cell, and lymphocytic lymphomas, with the B-cell and T-cell types having several subtypes that can be arranged by grade of malignancy. A later classification is the National Cancer Institute's *Working formulation of Non-Hodgkin's Lymphomas for Clinical Usage* (see under *formulation*). *Lund-Browder C.* - a classification of burn severity in children; it attaches percentages to different body surface areas similarly to the rule of nines used for adults and is modified according to the age of the child. *McNeer C.* - Borrmann's c. *Migula's C.* - a classification of bacteria drawn up by Migula in 1900. *Moss' C.* - a classification of ABO blood types designated by roman numerals I to IV, corresponding with types AB, A, B, and O, respectively. *New York Heart Association (NYHA) C.* - a functional and therapeutic classification for prescription of physical activity for cardiac patients. Class I (or A): patients with no limitation of activities; they suffer no symptoms from ordinary activities. Class II (or B): patients with slight limitation of activity; they are comfortable at rest or with mild exertion. Class III (or C): patients with marked limitation of activity; they are comfortable only at rest. Class IV (or D): patients who should be at complete

C

rest, confined to bed or chair; any physical activity brings on discomfort and symptoms also occur at rest. *Numerical C.* - an arithmetic method of classifying larger numbers of bacterial strains on the basis of their overall similarity to one another, according to the number of phenotypic characters they share, each character being given equal weight. *Paris C.* - a modification made in Paris in 1971 of the Chicago classification of human chromosomes, providing more detail genetic information. *Rappaport C.* - a classification of non-Hodgkin's lymphomas based on histologic criteria; the categories it developed were *nodular lymphomas* and *diffuse lymphomas*. It was replaced by the Lukes-Collins Classification and the Kiel Classification. *Runyon C.* - a classification of mycobacteria based on the pigmentation and growth condition of the organisms. *Rye C.* - a classification of Hodgkin's disease on the basis of histology and pathology into the categories of lymphocyte predominance type, mixed cellularity type, lymphocyte depletion type, and nodular sclerosis type. *Skinner C.* - a method of classifying partially edentulous conditions and partial dentures, based on the location of the edentulous spaces in relation to the remaining teeth.

Classified information

Any information or material, regardless of its physical form or characteristics, that is owned by the United States Government, and determined pursuant to Executive Order 12356, April 2, 1982 or prior orders to require protection against unauthorized disclosure, and is so designated.

Claus model

A commonly used biological model to estimate a woman's risk of developing breast cancer. The Claus model determines risk based on the number of her first- and second-degree relatives with breast cancer and their ages of onset.

Click-throughs

Also known as ad clicks and click rate. How often a viewer will respond to an ad by clicking on it and following the link.

Client

A person who is enrolled in the Medicaid program and thus is eligible to receive services funded through Medicaid. See also Recipient.

Client server

Architecture in which an application is divided over at least two computers: the client issues requests to the server, who provides the requested data or programs; database handling may be performed by another computer. See also application server and database server.

Clinic

A facility, or part of one, devoted to diagnosis and treatment of outpatients. "Clinic" is irregularly defined. It may either include or exclude physicians' offices; may be limited to describing facilities which serve poor or public patients; and may be limited to facilities in which graduate or undergraduate medical education is done.

Clinical chemistry

The department responsible for performing chemical and enzymatic analyses of body fluids and tissues.

Clinical departmental system

An information system in a clinical department.

Clinical dss

A medical knowledge system that uses items of patient data to generate a case specific advice.

Clinical epidemiology

Principles and methods of epidemiology applied to research in clinical medicine.

Clinical Information System

An integrated system for the processing of data related to clinical events. Components of a clinical information system would include traditional areas like lab, x-ray, pharmacy, billing and more innovative areas, such as expert systems, medical records, and patient care at the

bedside. The focus of a CIS is on clinical decision-making, whereas a Hospital Information System provide support for all information processing within the organization.

Clinical paths/clinical guidelines

Strategies used to manage patients' clinical care; they encompass basic elements such as recommended schedules for childhood immunizations to the more complex areas of drug protocols and pathways for disease management.

Clinical personal health services

Health services generally provided one-on-one in a medical clinical setting.

Clinical Practice Guideline

(1) A predefined policy that allows a health care organization to manage patients with a certain presenting condition in a standardized manner (cf. protocol). (2) A systematically developed statement designed to assist practitioner and patient make decisions about appropriate health care for specific clinical circumstances.

Clinical preventive services

Health care services delivered to individuals in clinical settings for the purpose of preventing the onset or progression of a health condition or illness. (PHIP, 1996)

Clinical trial

An investigation assessing the difference between two (clinical) populations, for instance, with respect to the outcome of a therapy. Clinical trials (development of new therapies) are: Preclinical - Product development begins with the identification of promising compounds and concepts that are scientifically challenging and may fill unmet medical needs. Extensive testing is then done in laboratory settings to assess the usefulness of the candidate therapies and to ensure that these novel approaches are safe to administer in humans. The resulting scientific data are then compiled and a formal request made to the FDA for permission to advance to the next phase of research and to administer the new drug to patients. This request is called an Investigational New Drug application, or an IND. Approval of the IND is given only after the scientific and ethical merits of the supporting research and the proposed phase I study have been evaluated in depth and experts concur with the company's recommendation to move forward. *Phase I* - Phase I studies are principally designed to examine the safety of a new medication and to begin to understand how the drug will work in humans through the gathering of extensive information to evaluate how the human body responds. Observations of how the medication is absorbed, distributed, metabolized and eliminated from the body are often made, along with assessments of how quickly a therapeutic concentration is achieved, how long the drug remains in the body, and what, if any, the effect drug metabolite by-products may have. With step-by-step increases in dose, the optimal dosage is eventually determined where minimum side effects are coupled with maximum therapeutic effect, termed the toxic-therapeutic window. Many phase I studies enroll only healthy individuals to evaluate how a new drug behaves in humans. In some instances, the FDA and investigating physicians deem it more appropriate for phase I trials to enroll patients who suffer from the same disease that the new drug seeks to treat, rather than to study healthy volunteers. Candidates are enrolled in a study only after a review of their history and physical confirms their eligibility and an informed consent for treatment is given. The number of patients enrolled in a phase I trial will vary depending on the step-wise progression established for achieving optimal dosing as well as prior clinical experience with similar compounds and approaches. As well, the FDA will recommend the required follow-up period for each study subject. Follow-up time periods may range from just a few days to six or more months. Further trials may continue only if phase I results indicate that the new therapy is reasonably safe in humans, and the FDA approves further investigations. *Phase II* - Phase II studies are principally designed to evaluate the therapeutic effect of a new drug in patients who suffer from the targeted disease, and to confirm the safety profile established in earlier phase I trials. Second phase studies are sometimes placebo-controlled and often double-blinded where neither the patient or the medical personnel know if a placebo or the medication is being prescribed. Phase II trials tend to enroll a larger number of patients than in phase I and patient follow-up may be for longer periods. Phase II studies are tailored to specific treatment indications for which the company plans to seek broader approval. Phase II trials set the stage, and further establish parameters for, the longer-term phase III trials. Recent reforms have been made to FDA procedures for clearing new drugs aimed at treating fatal diseases such

as AIDS and cancer. In selected circumstances, and where compelling scientific evidence is presented, the FDA has indicated that it will expedite review of a company's application for market clearance. Expedited review of phase II clinical data, and clearance of that early application, can obviate requirements for phase III trials. *Phase III* - Phase III trials are principally designed to demonstrate the potential advantages of the new therapy over other therapies that are already on the market. Safety and efficacy of the new therapy are studied over a longer period of time and in many more patients enrolled into the study with less restrictive eligibility criteria. The scope of phase III studies is intended to help scientists identify rarer side effects of treatment and to prepare for a broader application of the product.

Clinicopathological conference (CPC)

A teaching conference in which clinical findings are presented to a physician previously unfamiliar with a case, who then attempts to diagnose the disease that would explain the clinical findings. The exact diagnosis is then presented by the pathologist, who has either examined the tissue removed at surgery or has performed the autopsy.

Clock speed

The rate of the internal clock of a computer that is used to synchronize fetching and execution of instructions.

Clone bank

See genomic library.

Clones

A group of cells derived from a single ancestor.

Cloning

The process of asexually producing a group of cells (clones), all genetically identical, from a single ancestor. In recombinant DNA technology, the use of DNA manipulation procedures to produce multiple copies of a single gene or segment of DNA is referred to as cloning DNA.

Cloning vector

DNA molecule originating from a virus, a plasmid, or the cell of a higher organism into which another DNA fragment of appropriate size can be integrated without loss of the vectors capacity for self-replication; vectors introduce foreign DNA into host cells, where it can be reproduced in large quantities. Examples are plasmids, cosmids, and yeast artificial chromosomes; vectors are often recombinant molecules containing DNA sequences from several sources.

Close contact

An infection which requires close contact, other than sexual contact, between susceptible and infectious individuals, for transmission.

Closed access

A managed health care arrangement in which covered persons may only select providers who are enrolled in the company's plan.

Closed panel

A managed care arrangement in which the MCO contracts with the physicians on an exclusive basis and does not allow them to see patients outside of their plan.

CLSC

(Centre local de service communautaire) Local community service centres. There are 154 in Quebec. Under the direction of a regional health and social services council, the CLSC is designed as a single point of access for patients and offers a coordinated, team approach to ambulatory care, integrating health and social services and emphasizing health promotion and disease prevention.

Cluster

(1) A set of objects that belong to each other according to certain criteria. (2) An aggregation of cases of a disease or other health-related condition, particularly cancer and birth defects, which are closely grouped in time and place. The number of cases may or may not exceed the

C

expected number; frequently the expected number is not known.

Cluster investigation

A review of an unusual number, real or perceived, of health events (for example, reports of cancer) grouped together in time and location. Cluster investigations are designed to confirm case reports; determine whether they represent an unusual disease occurrence; and, if possible, explore possible causes and environmental factors.

Cluster-cluster distance

The distance between two clusters.

Clustering

Grouping a set of objects into clusters according to their features.

CLV

(Constant Linear Velocity) Describes a Laser Disc with information stored in a linear or straight-line fashion. Typically plays from beginning to end with minimal interaction, like a movie. Using software or a barcode, you can create limited random access. Stores one hour of motion video per side.

CMV

Cytomegalovirus: a herpes virus which causes glandular fever (as does EBV).

CNS

See Central nervous system.

CO

(1) Central Office. (2) (Central or Switching Office) A local telephone company facility that houses the switching system and related equipment needed to interconnect telephone calls for customers in the immediate geographic area. Every LATA must have at least one central office.

Coaxial Cable

A single or dual transmission wire covered by an insulating layer, a shielding layer, and an outer jacket. Because it contains a high bandwidth, this cable may be a broadband carrier with the ability to transmit data, voice, and video.

COBOL

An acronym for "Common Business Oriented Language"; a high-level computer language often used for business applications.

COBRA

A federal law which permits many people who lose eligibility under a group health plan to continue that coverage without lapse.

COC

Certificate of Competency.

Code

(1) A set of rules that unambiguously describes the form in which data may be represented. (2) A part of a computer program. (3) The representation of a concept by a string of alphanumeric characters.

CODEC

(Coder-Decoder) A device that converts a digital (discrete) transmission into an analog (continuous) transmission at one end and back again at the other. It is generally used to transform video signals into digital form for transmission over digital transmission systems. Generally speaking, this digital information must be reconverted into analog form at its point of reception.

Coding

(1) A mechanism for identifying and defining physicians' services. (2) The process of replacing a concept with a combination of numbers and characters in a defined way.

Codon

See genetic code.

Co-evolution

Changes in the genotypes of two or more species that are a direct consequence of the species' interaction with one another.

Cognition

The process of knowing, including both awareness and judgment.

Cognitive impairment

Means a loss of mental capacity demonstrated by a person's inability to think, perceive, reason or remember. Such impairment: 1. Results in a person's inability to care for him or herself without ongoing supervision from another person; and, 2. Is not due to a Mental or Nervous Condition Without an Organic Cause.

Cognitive load

A measure of the complexity and difficulty of a task, correlating with factors such as learning time, fatigue, stress, proneness to errors, and possibility of performing parallel tasks.

Cognitive psychology

The part of psychology that studies mental processes such as thinking, language, and decision making.

Cognizant audit agency

The audit agency having responsibility, as determined under the administrative principles enumerated in FAR 42, for performing contract audits of a contractor. Such audit agencies include the Defense Contract Audit Agency (DCAA) of the Department of the Defense and the Office of the Inspector General (OIG) for each of the various civilian departments.

Coherent averaging

Averaging the repetitive complexes in a signal or image to reduce the effects of noise.

Cohort

A well-defined group of people who have had a common experience or exposure, who are then followed up for the incidence of new diseases or events, as in a cohort or prospective study. A group of people born during a particular period or year is called a birth cohort.

Cohort study

(1) A type of observational analytic study. Enrollment into the study is based on exposure characteristics or membership in a group. Disease, death, or other health-related outcomes are then ascertained and compared. (2) An observational investigation using two or more groups of a population that differ in, for instance, the exposition to a risk factor over time, to measure the difference in the incidence of an event. A Cohort Study involves the identification of two groups (cohorts) of patients, one which did receive the exposure of interest, and one which did not, and following these cohorts forward for the outcome of interest.

COIN

Clinical Oncology Information Network: cancer registration project of the NHS (United Kingdom).

Co-insurance

A cost-sharing requirement under a health insurance policy. It provides that the insured party will assume a portion or percentage of the costs of covered services. The health insurance policy provides that the insurer will reimburse a specified percentage of all, or certain specified, covered medical expenses in excess of any deductible amounts payable by the insured. The insured is then liable for the remainder of the costs until their maximum liability is reached.

Coinsurance maximum

The total amount of coinsurance that a member pays each year before the insurance plan pays 100% of allowable charges for covered services. Coinsurance amounts differ with each plan.

Coinsurance/copayment

The portion of a medical bill not covered by insurance and payable by the patient.

Collected Living Wills

This is now out of print. I produced it as there was no extant volume showing examples of living wills from various countries - A considerable handicap to researchers (including myself). Writing to various organisations takes an awfully long time. A main reason it hasn't been reprinted is because the documents readily become out-of-date as examples of what is produced by various organisations. Another reason is that the obsession with pieces of paper hasn't (in my opinion) greatly furthered patient autonomy. A living will is only as good as the communication process of which it should be a part. This doesn't mean a lot can't be done to improve existing documents, just that we need to be asking more basic questions. (If you want to hear me go on at length about this, with the various pieces of supporting evidence, you can seek out Dartmouth's Contemporary Issues in Law, Medicine and Ethics and my contributing chapter on living wills.)

Collection period

The average number of days it takes a business to collect its accounts receivable.

Collimator

Device to obtain a beam of parallel radiation or particles or a beam with restricted area.

Combinations

Subsets chosen from a larger set of objects in which the order of the items doesn't matter (for example, the number of different committees of three that can be chosen from a group of twelve members).

Combinatorial logic

See Boolean algebra.

Command language

A formal language used to communicate with a computer.

Commercial paper

Bills of exchange (drafts), promissory notes, bank checks, and other negotiable instruments for the payment of money, which are such instruments by virtue of their form.

Commercial plan

Refers to the benefit package an insurance company offers to employers. This is distinguished from a senior plan which is offered to Medicare beneficiaries.

Commerciality

One of two conditions which must be met if an item is to qualify for the established catalog or market price requirement for the submission of cost or pricing data. A commercial item (which may be either supplies or services) is of a class or kind that is (1) regularly used for other than Government purposes, and (2) sold or traded in the course of conducting normal business operations. (The other condition that the item be sold in substantial quantities to the general public is met when the facts support a reasonable conclusion that the quantities regularly sold to other than affiliates of the seller for end use by other than the Government agencies are sufficient to constitute a real commercial product).

Commission

A percentage of the premium paid to an agent or broker by the insurer.

Common carrier

A telecommunications company regulated by government agencies that offers communications relay services to the general public via shared circuits, charging published and non-

discriminatory rates. Any supplier of transmission facilities or services to the general public authorized by the appropriate regulatory authority and bound to adhere to the applicable operating rules.

Common source outbreak

An outbreak that results from a group of persons being exposed to a common noxious influence, such as an infectious agent or toxin. If the group is exposed over a relatively brief period of time, so that all cases occur within one incubation period, then the common source outbreak is further classified as a point source outbreak. In some common source outbreaks, persons may be exposed over a period of days, weeks, or longer, with the exposure being either intermittent or continuous.

CommonKADS

A revision of KADS that models explicit, reusable problem-solving methods.

Communication

The process by which information is exchanged between individuals or computers through the use of a commonly accepted set of symbols.

Communication link layer

Part of a communication program that sends and receives messages to and from the network.

Communication multiplexer

A device that allows data from multiple, lower speed, communication lines to share a single higher speed communication path.

Community

A specific group of people, often living in a defined geographical area, who share a common culture, values and norms, are arranged in a social structure according to relationships which the community has developed over a period of time. Members of a community gain their personal and social identity by sharing common beliefs, values and norms which have been developed by the community in the past and may be modified in the future. They exhibit some awareness of their identity as a group, and share common needs and a commitment to meeting them. Reference: modified definition. In many societies, particularly those in developed countries, individuals do not belong to a single, distinct community, but rather maintain membership of a range of communities based on variables such as geography, occupation, social and leisure interests.

Community action for health

Community action for health refers to collective efforts by communities which are directed towards increasing community control over the determinants of health, and thereby improving health. Reference: new edition. The Ottawa Charter emphasizes the importance of concrete and effective community action in setting priorities for health, making decisions, planning strategies and implementing them to achieve better health. The concept of community empowerment is closely related to the Ottawa Charter definition of community action for health. In this concept an empowered community is one in which individuals and organizations apply their skills and resources in collective efforts to address health priorities and meet their respective health needs. Through such participation, individuals and organizations within an empowered community provide social support for health, address conflicts within the community, and gain increased influence and control over the determinants of health in their community.

Community Assistance Panel (CAP)

Community assistance panels are established to (1) facilitate constructive communication between ATSDR and the affected community; (2) provide an ongoing series of community-based meetings to ensure community involvement throughout the range of ATSDR public health activities at a site; and (3) provide information to ATSDR on the community's health concerns for inclusion in the public health assessment.

Community health assessment

Process of formally assessing and documenting the health status of a community; normally

C

culminates in a formal, published report leading to a strategic plan; an assessment can be segmented by numerous characteristics and can be undertaken by an individual or an organization.

Community health center

An ambulatory health care program (defined under Section 330 of the Public Health Service Act) usually serving a catchment area which has scarce or nonexistent health services or a population with special health needs; sometimes known as "neighborhood health center." Community health centers attempt to coordinate Federal, State, and local resources in a single organization capable of delivering both health and related social services to a defined population. While such a center may not directly provide all types of health care, it usually takes responsibility to arrange all health care services needed by its patient population.

Community health information network (CHIN)

An integrated collection of computer and telecommunications capabilities that facilitates communication of patient, clinical and payment information among multiple providers, payers and related health care entities within a community.

Community health investigation

Medical or epidemiological evaluation of descriptive health information about individual persons or a population of persons to evaluate and determine health concerns and to assess the likelihood that they may be linked to exposure to hazardous substances.

Community Health Management Information Systems (CHMIS)

An automated communication network supporting the transfer of clinical and financial information, currently under development with the support of the John A. Hartford Foundation.

Community health status

AHPI defines this as "the overall level and quality of health in a community, taking into account the composite status of all individuals and groups within that community and the health services available to them, as well as the environmental conditions in that area." This is a potential leverage point for communities in which a facility or health care provider has expressed a commitment (in their literature or through public relations efforts) to maintaining or improving "community health status". It's tough to make a case for improving the health of the community by operating an incinerator!

Community health worker

Trained health worker who lives within the community and works with other health and development workers as a team. The community health worker provides the first contact between the individual and the health system. The types of community health worker vary between countries and communities according to their needs and the resources available to meet them. In many societies, these workers come from and are chosen by the community in which they work. In some countries they work as volunteers; normally those who work part-time or full-time are rewarded, in cash or in kind, by the community and the formal health services.

Community involvement

The active involvement of people living together in some form of social organization and cohesion in the planning, operation and control of primary health care, using local, national and other resources. The term 'community involvement' is preferable to 'community participation' because it implies a deeper and more personal identification of members of the community with primary health care. In community involvement individuals and families assume responsibility for their, and the community's, health and welfare and develop the capacity to contribute to their own and the community's development.

Community mental health and mental retardation centers (CMHMRCs)

Non-profit, locally governed components of the TXMHMR service delivery system which provide community-based mental health and/or mental retardation services to people in the community. Medicaid-funded services provided by centers include ICF MR, HCS, Case Management, Rehabilitation for people with mental illness and Diagnostics for people with mental retardation.

Community rating

(1) A system of setting health insurance premiums based on the average cost of providing medical services to all people in a geographic area, without adjusting for an individual's medical history. (2) A method for establishing health insurance premiums whereby an insurer's premium is the same for everyone in a premium class within a specific geographic area. (3) A method of determining an insurance premium structure that reflects expected utilization by the population as a whole, rather than by specific groups.

Community rating by class (class rating)

For federally qualified HMOs, the Community Rating by Class (CRC) - adjustment of community-rated premiums on the basis of such factors as age, sex, family size, marital status, and industry classification. These health plan premiums reflect the experience of all enrollees of a given class within a specific geographic area, rather than the experience of any one employer group.

Community Supported Living Arrangements (CSLA) Option

The Federal program that allows states to provide Medicaid funded community-based services to people with developmental disabilities who do not meet the criteria for institutional care.

Community-based care

The blend of health and social services provided to an individual or family in their place of residence for the purpose of promoting, maintaining, or restoring health or minimizing the effects of illness and disability.

Commutative law

An algebraic rule that states that the sequence of an operation can be interchanged, e.g., $a+b=b+a$. Three-dimensional rotations are not commutative.

Co-morbidity

A term used in conjunction with DRGs to express the concurrent presence of a disease process that makes the DRG more complex to treat and, therefore, requires additional reimbursement.

Compact disc

See CD.

Comparability

A condition that exists between an offered price and some other price against which it is compared. This condition is necessary for effective price comparison and exists when all price related differences have been identified and accounted for so that prices being compared are based on relatively equal assumptions.

Comparison values

Estimated contaminant concentrations in specific media that are not likely to cause adverse health effects, given a standard daily ingestion rate and standard body weight. The comparison values are calculated from the scientific literature available on exposure and health effects.

Compartmental model

A mathematical model which divides hosts into different compartments according to their infectious state. A typical model for microparasites might be an SEIR model. Sometimes referred to as a prevalence model.

Compassion In Dying

American-based right to die society that has made several court challenges on the constitutionality of laws against assisted suicide with varying degrees of success. The most recent, by the 9th Circuit Court of Appeal, upheld the decision that Washington's law against doctors assisting in a suicide, by prescribing lethal drugs, was unconstitutional. Majority ruling. Dissenting opinions.

Compatibility

Refers to the ability of two pieces of hardware (a personal computer and a printer, for example) to work together. Standards, published specifications of procedures, equipment interfaces, and data formats are essential to decreasing and possibly eventually extinguishing incompatibility.

Compensated personal absence

Any absence from work for any reason such as illness, vacation, holidays, jury duty, military training, or personal activities for which an employer pays compensation directly to an employee in accordance with a plan or custom of the employer.

Competency-based pay

Is compensation based on the development of those attributes that distinguish exceptional performers, such as customer orientation, team commitment and conflict resolution.

Competition

A characteristic of market economics in which buyers choose from among alternative goods and services made available in the market by two or more sellers. In a classic competitive market, there are many buyers and many sellers.

Competition In Contracting Act (CICA)

A public law enacted for the purpose of increasing the number of Government procurements conducted under the principles of full and fair competition, as opposed to contracts that are issued under noncompetitive arrangements such as "sole source" or "set-aside" awards.

Competitive Bidding

A pricing method that elicits information on costs through a bidding process to establish payment rates that reflect the costs of an efficient health plan or health care provider.

Competitive Medical Plan (CMP)

A state-licensed entity, other than a federally qualified HMO, that signs a Medicare Risk Contract and agrees to assume financial risk for providing care to Medicare eligible on a prospective, prepaid basis.

Competitive proposals

A competitive procurement that (1) is initiated by a request for proposals, which sets out the Government's requirements and the criteria for evaluation of offers, (2) contemplates the submission of timely proposals by the maximum number of possible offerors, (3) usually provides discussions with those offerors found to be within the competitive range, and (4) concludes with the award of a contract to the one offeror whose offer is most advantageous to the Government, considering only price and the other factors included in the solicitation.

Competitive range

A range appropriate to the post-evaluation, pre-award phase of competitive procurements. Determined by the contracting officer on the basis of price, cost, or technical or other salient factors. Unless excepted by circumstances prescribed by regulations, the contracting officer must conduct written or oral discussions with all responsible offerors who submit proposals within the competitive range.

Compilation (of financial statements)

The process whereby an accountant presents, in the form of financial statements, information that is the representation of management (owners), without undertaking to express any assurance on the statements.

Compiler

Program that translates a program written in a high-level language into object code. The compiled program is executed in a next step. See also interpreter.

Complementary DNA (cDNA)

DNA that is synthesized from a messenger RNA template; the single-stranded form is often used as a probe in physical mapping.

Complementary sequences

Nucleic acid base sequences that can form a double-stranded structure by matching base pairs; the complementary sequence to G-T-A-C is C-A-T-G.

Completed contract method of accounting

A method of revenue recognition for long-term contracts (i.e., contract which span more than one accounting period) whereby the total contract revenue and related cost of performance are recognized in the period in which the contract is completed. This method stands in contrast to the percentage-of-completion method of accounting and is most often used when significant uncertainty exists with respect to the total cost of performing the contract and, accordingly, the ultimate amount of profit to be recognized thereon.

Completeness

Completeness of data means that all relevant patient data are available. Incompleteness may be caused by considering data irrelevant or by not documenting data.

Complex numbers

Numbers that can be written in the form $a+bi$, for example, $-2.7+8.9i$, where a and b are real numbers and $i^2=-1$.

Complex regional pain syndrome (CRPS)

Another name for reflex sympathetic dystrophy (RSD), a syndrome characterized by pain and tenderness associated with vasomotor instability, skin changes, and rapid development of bony demineralization (e.g., osteoporosis) often following localized trauma, stroke, or peripheral nerve injury. *CRPS type I* (or type 1, depending on reference): as above without the presence of a definable nerve lesion; *CRPS type II* (or type 2), a.k.a. causalgia: relates to cases where a definable nerve lesion is present.

Component video

Compared to composite video, keeps the chrominance and luminance parts of the video signal separate, yielding better image quality, higher lines of resolution, and better color.

Composite rate

Payment by Medicare that covers the bundle of services, tests, drugs, and supplies routinely required for dialysis treatment.

Composite video

Color TV evolved from black/white systems that were developed over 50 years ago. A separated red, green, and blue color broadcast used in RGB would have taken three times the bandwidth of existing black/white approaches. An ingenious solution to conserve bandwidth was to create a separate chrominance signal for color that could be overlaid onto the existing luminance signal, without increasing bandwidth. The result composite video. Because of potential interference between the chrominance and luminance, composite video requires periodic adjustment to assure 'true' color. Used with NTSC and PAL systems.

Comprehensive automobile liability insurance

Insurance designed to cover a variety of automobile liability exposures for bodily injury and property damage.

Comprehensive health system

A health system that includes all the elements required to meet all the health needs of the population.

Comprehensive insurance

A term used for a variety of policies providing broad protection.

Comprehensive outpatient rehabilitation facility (CORF)

A facility that provides complete outpatient rehab treatments for patients.

Comprehensive personal liability insurance

Insurance that reimburses the policyholder if he or she becomes liable to pay money for damage or injury he or she has caused to others. This insurance does not include automobile liability or business operations, but does include almost every activity of the policyholder.

Compressed Video

Video images that have been processed to remove redundant information, reducing the amount of bandwidth needed to capture the necessary information so that the information can be sent over narrowband carriers such as a T1 telephone line.

Compression

Reducing data, a signal, or an image to minimize storage and communication requirements. Loss-less techniques make use of the redundancy in the original signal; lossy techniques are not completely reconstructable. A standard for image compression is included in DICOM.

Compression ratio

The amount that an image is "compressed" using mathematical algorithms to decrease the amount of data that needs to be stored or transmitted. An uncompressed NTSC (broadcast, broadcast quality) signal transmits at about 90 Mbps; this can be compressed using a CODEC to 384 Kbps (more than 200:1 compression); the resulting image is adequate for most clinical applications. "Lossless compression" loses no data; generally data compressed more than three times (3:1) is considered "lossy." This is true of the JPEG compression algorithm. Some compression algorithms (wavelets) support a higher compression ratio (10:1 or higher) before becoming "lossy." See also MPEG.

Computed Radiography (CR)

A system of creating digital radiographic images that utilizes a storage phosphor plate (instead of film) in a cassette. Once the plate is exposed, a laser beam scans it to produce the digital data which are then translated to an image.

Computed tomography

See CT.

Computed-based Patient Record

A term for a paperless, (electronic) medical record. Such development has occurred in the ancillary services, e.g. lab and x-ray. A completely computer-based patient record remains part of the future of Medical Informatics. There are issues of storage and accessibility plus security and confidentiality. If you want to participate in the development of standards for primary care electronic records, connect with MedFileS. Some hospital systems, e.g. VA have begun experimentation with optical cards which store amounts of vital data and that patients carry with them.

Computer

A data processor that can perform substantial computation, including numerous arithmetic operations or logic operations, without intervention by a human operator during a run (ISO 2382/1-1974).

Computer Conferencing

Group communications through computers, or the use of shared computer files, remote terminal equipment and telecommunications channels for two-way, real time, group communication.

Computer language

See programming language.

Computer memory

Component of a computer in which data can be inserted, stored, and extracted. The central memory is fast, but it is relatively restricted in capacity; auxiliary memory (e.g., a hard disk) is slower but can contain more data.

Computer network

A set of interconnected computers and their connections.

Computer system

A system consisting of computer equipment, computer programs, people and procedures.

Computer word

A number of bytes (usually 1, 2, 4, or 8 bytes) that can be addressed and processed simultaneously.

Computer-aided design (CAD)

Design supported by a computer system.

Computer-aided manufacturing (CAM)

Manufacturing supported by a computer system.

Computer-based history taking

See patient-driven data entry.

Computer-based patient record (CPR)

A record, in electronic form, that is comprised of individual patient information that resides in a system capable of providing access to complete and accurate patient data, alerts, reminders, clinical decision support systems, links to medical knowledge, and other aids.

Concentration

The amount of one substance dissolved or contained in a given amount of another. For example, sea water contains a higher concentration of salt than fresh water.

Concept

General notion or idea defining a class of objects.

Conceptual data model

Description of concepts in a domain with their relationships, e.g., by an entity relation diagram (ERD).

Conceptual graph

A visual representation of logical sentences in which logical variables are represented as boxes connected by labeled lines that relate the variables to one another.

Conceptual model

A model of a domain consisting of the main concepts and their relationships.

Conceptual utilization

Long-term, indirect utilization of the ideas and findings of an evaluation.

Concurrency control

Protection of data against simultaneous updating.

Concurrent review

A method of reviewing patient care, during hospital confinement, to validate the necessity of current care and to explore alternatives to inpatient care.

Conditional probability

The probability that an event will take place given that some other event also will occur.

Conference call

A telephone call that uses a bridge to connect more than two individuals at geographically distant locations for simultaneous conversation.

Confidence interval

A range of values for a variable of interest, e.g., a rate, constructed so that this range has a specified probability of including the true value of the variable. The specified probability is called the confidence level, and the end points of the confidence interval are called the confidence limits. Confidence intervals (CIs) quantify the uncertainty in the clinically useful measures that appear in our abstracts. The strategy we use is the 95% CI, which is the range of values within which we can be 95% sure the true value lies for the whole population of patients from whom the

C

study patients were selected. The CI for a measure like a number needed to treat (NNT) narrows as the number of patients on which it is based increases. We prefer CIs to P values because the former tell us about the strength of evidence, whereas the latter merely test the evidence against a null hypothesis. CIs are reported as shown in the section below.

Confidence limit

The minimum or maximum value of a confidence interval.

Confidentiality

See privacy.

Confidentiality

The act of limiting the disclosure of sensitive information by utilizing authorization protocols in order to protect it against theft or improper use.

Configuration

The particular choice of hardware and its connections making up a computer system.

Conformal radiotherapy

Radiotherapy in which the dimensions of the high dose volume are, as much as possible, equal to the shape of the target volume (the tumor).

Conformity of data

Extent to which data conform to the rules of a coding system.

Confounder

See bias.

Confusion matrix

A table in which the results of a decision model are compared with an independent reference.

Congruent or the concept of congruence

Two figures are said to be congruent if they are the same size and shape.

Conjecture

A statement that is to be shown true or false. A conjecture is usually developed by examining several specific situations.

Connectivity

The ability of disparate devices to be connected into a single system. See also port.

Conscious sedation

Light sedation during which the patient retains airway reflexes and responses to verbal stimuli.

Conserved sequence

A base sequence in a DNA molecule (or an amino acid sequence in a protein) that has remained essentially unchanged throughout evolution.

Consolidated Omnibus Budget Reconciliation

A federal law which permits many people who lose eligibility under a group health plan to continue that coverage without lapse.

Consolidated Tool Model

A consolidation of metamodels from the existing tools studied. We are seeking to define and build (as proof of concept) a better and better repository. We have collected the metamodels from several existing products. We are currently creating a Consolidated Tool Model by bringing these metamodels together in a single model representation. This Consolidated Tool model will provide us with the schema (data layout) for a Repository of existing tools. This Repository will grow as we add tools and as we define how to handle the rules and how they evolve into a knowledge store.

Consolidation

Combining the assets and operations of two or more organizations into a single new entity.

Constructive change

During contract performance, an oral or written act or omission by the contracting officer or other authorized Government official, which is of such a nature that it is construed to have the same effect as a written change order.

Consumables

Articles to be used in a computer environment: magnetic tapes and disks, paper, ribbon, ink, etc.

Consumer

One who may receive or is receiving health services. While all people at times consume health services, a consumer, as the term is used in health legislation and programs, is usually someone who is not associated in any direct or indirect way with the provision of health services.

Contact

Exposure to a source of an infection, or a person so exposed.

Contact rate

The rate at which susceptibles meet infecteds. Usually measured as individuals per unit time.

Contagious

Capable of being transmitted from one person to another by contact or close proximity.

Contagious distribution

Same as an aggregated distribution.

Contaminant

Any substance or material that enters a system (the environment, human body, food, etc.) where it is not normally found.

Context-sensitive help

Help that depends on the phase that a program has reached when help is requested.

Contig map

A map depicting the relative order of a linked library of small overlapping clones representing a complete chromosomal segment.

Contigs

Groups of clones representing overlapping regions of a genome.

Contingency table

A table in which the observed results of two or more sets of discrete observations are presented to analyze their correlation.

Contingent fee

Any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract. (FAR 3.104-4)

Continuing medical education (CME)

A process of ongoing education on the part of individual physicians, who often in the context of professional requirements in specialty fields take courses, read medical journals, attend teaching programs and take self-study courses to keep up with medical improvements, procedures, drugs, etc.; CME programs are provided by organizations including medical schools, professional organizations and hospitals.

Continuity of care

Continuous care provided from first contact with a patient through completion of treatment.

Continuous data

Data that must be represented by a real number, such as the results of measured observations.

Continuous process improvement

A policy that encourages, mandates, and/or empowers employees to find ways to improve process and product performance measures on an ongoing basis.

Continuous quality improvement/total quality management

A philosophy that promotes the ongoing search for methods to enhance the systemic quality of products and services, and the overall improvement of system operations.

Continuous time model

A model in which the system changes continuously over time. Derivatives (e.g. dY/dt) are the mathematical formalism for describing such continuous change. The differential equation which embodies a model provides the values of these derivatives at any particular time point; calculus or a computer can then be used to move the state of the model forwards in time. Continuous models have the advantage over discrete time models in that they are more amenable to algebraic manipulation, although they are slightly harder to implement on a computer. The same as a differential equation model.

Continuum of care

A range of medical, nursing treatments and social services in a variety of settings that provides services most appropriate to the level of care required. For example, a hospital may offer services ranging from nursery to a hospice.

Contour detection

See boundary detection.

Contour extraction

Manipulation of an image such that only contours remain.

Contract

A mutually binding legal relationship obligating the seller to furnish supplies or services (including construction) and the buyer to pay for them.

Contract administration office

An office that performs (a) assigned post-award functions related to the administration of contracts and (b) assigned pre-award functions.

Contract management firm

"An organization that specializes in managing and directing an entire health care institution or a particular department, service or activity in a health care institution (such as housekeeping, food service or emergency physician care) for a set fee paid by the institution." (AHPI) Depending on the size of your local facility, it may not be managed by someone on-site. Rather, some services - including purchasing or environmental services - may be contracted out, making it more difficult to identify who's in charge of which services.

Contract modification

Any written change in the terms of a contract.

Contracting

Purchasing, renting, leasing, or otherwise obtaining supplies or services from nonfederal sources. Contracting includes description of supplies and services required, selection and solicitation of sources, preparation and award of contracts, and all phases of contract administration. It does not include grants or cooperative agreements.

Contracting activity

An element of an agency designated by the agency head and delegated broad authority regarding acquisition functions.

Contracting office

An office that awards or executes a contract for supplies or services and performs post-award functions not assigned to a contract administration office.

Contracting officer

A person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the contracting officer acting within the limits of their authority as delegated by the contracting officer. "Administrative contracting officer (ACO)" refers to a contracting officer who is administering contracts. "Termination contracting officer (TCO)" refers to a contracting officer who is settling terminated contracts. A single contracting officer may be responsible for may be responsible for duties in any or all of these areas. Reference in [the FAR] to administrative contracting officer or termination contracting officer does not (a) require that a duty be performed at a particular office or activity or (b) restrict in any way a contracting officer in the performance of any duty properly assigned.

Contractor team arrangement

An arrangement in which (a) two or more companies form a partnership or joint venture to act as potential prime contractor; or (b) A potential prime contractor agrees with one or more other companies to have them act as its subcontractors under a specified Government contract or acquisition program.

Contractor-acquired property

Property acquired or otherwise provided by the contractor for performing a contract and to which the Government has title.

Contractual adjustment

Deductions from gross patient service revenue based on third-party payment contracts. For example, a Medicare patient may be charged \$10,000 for particular hospital services based on published charges, but if Medicare and the hospital have agreed that Medicare will pay only \$7,000 for those services, there will be a \$3,000 contractual adjustment or deduction from revenues. This contractual adjustment to "gross patient service revenue" will result in "net patient service revenue".

Contractual allowance

The difference between what hospitals bill and what they receive in payment from third party payers, most commonly government programs; also known as contractual adjustment.

Contraindication

Reason why a treatment or a procedure is not advisable.

Contrast enhancement

Procedure in image processing that increases the difference between tones in an image.

Contrast medium

A substance with a high attenuation for X rays, used to improve the X-ray visibility of vessels, cavities, intestines, and so on.

Contribution margin

A term used to describe the amount of gross profit from each sale that contributes towards covering fixed costs and profits. The contribution margin is equal to revenue less variable costs and may be expressed as a total, unit amount, or ratio.

Control

In a case-control study, comparison group of persons without disease.

Controlled clinical trial

A clinical trial consisting of a comparison of the outcomes of two different treatments.

Conventional insurance coverage

Insurance plans that allow covered individuals to go to any provider they choose. Reimbursement is on a fee-for-service basis and covered individuals have to cost share.

Conversion

(1) Changing internal computer data from one representation into another, e.g., from integer to real number format (2) Changing an information system such that it can run on a computer system different from the one on which it originally was developed.

Conversion factor update

A dollar amount for one base unit in the relative value scale (RVS). The price to be paid to the provider for a given service equals the relative value of the service multiplied by the dollar amount of the conversion factor. For example, a blood sugar determination might have a relative value of 5.0, and the conversion factor might be \$5.00. The "price" of the blood sugar determination would therefore be \$25.00.

Conversion privilege

A contractual right given to an insured person whose group coverage terminates to be able to convert to an individual policy without providing evidence of insurability.

Convertible term insurance

Term insurance that can be exchanged for another plan of insurance offered by the company without evidence of insurability.

Coordinate geometry

Geometry based on the coordinate system.

Coordinate system

(Also called rectangular coordinate system) A method of locating points in the plane or in space by means of numbers. A point in a plane can be located by its distances from both a horizontal and a vertical line called the axes. The horizontal line is called the x-axis. The vertical line is called the y-axis. The pairs of numbers are called ordered pairs. The first number, called the x-coordinate, designates the distance along the horizontal axis. The second number, called the y-coordinate, designates the distance along the vertical axis. The point at which the two axes intersect has the coordinates (0,0) and is called the origin.

Coordinated coverage

Method of integrating benefits payable under more than one health insurance plan (for example, Medicare and retiree health benefits). Coordinated coverage is typically orchestrated so that the insured's benefits from all sources do not exceed 100 percent of allowable medical expenses. Coordinated coverage may require beneficiaries to pay some deductibles or coinsurance.

Coordination of

If an individual has two group health plans, the amount payable is divided between the plans so that the combined coverage amounts to, but does not exceed, 100 percent of the charges.

Coordination of benefits

Procedures used by insurers to avoid duplicate payment for losses insured under more than one insurance policy. A coordination of benefits, or "nonduplication," clause in either policy prevents double payment by making one insurer the primary payer, and assuring that not more than 100 percent of the cost is covered. Standard rules determine which of two or more plans, each having COB provisions, pays its benefits in full and which becomes the supplementary payer on a claim.

Coordination within the health sector

Organized collaboration as necessary among those providing the services at the same and different levels of the health system in order to make the most efficient use of resources, as well as within and among the various categories of health workers following agreement on the division of labour.

Copayment

(1) A fixed dollar amount paid for a covered service by a health insurance enrollee (2) Amount that a member of a health plan has to pay for specific health services, such as visits to a physician.

Co-payment or co-pay

A cost-sharing arrangement in which a covered person pays a specified charge for a specified service, such as \$10 for an office visit. The covered person is usually responsible for payment at the time the health care is rendered.

COPD

Chronic obstructive pulmonary disease, e.g., lung emphysema.

CORBA

(Common Object Request Broker Architecture) Specification of how objects can be distributed in a network and can be combined into services and applications.

Core functions

Three basic functions of the public health system: assessment, policy development, and assurance. State and local public health agencies must perform these functions in order to protect and promote health, and prevent disease and injury. (PHIP, 1996)

Core time

In a flexible time program, core time is the period when all employees must be present.

Coronary Care Unit (CCU)

A type of critical care unit specializing in the treatment of patients with heart disease.

Corpor

Body.

Corporate administrative contracting officer (CACO)

A contracting officer having overall administrative contracting responsibility, i.e., on a corporate-wide basis, for certain contractors with two or more operational locations, each of which has a resident administrative contracting officer assigned. The assignment of a CACO generally is for the purpose of achieving consistency and efficiency in the contract administration function.

Corporate practice of medicine

State laws prohibiting lay people, organizations and corporations from directly or indirectly practicing medicine. They are designed to ensure that those making decisions about the provision of medical services will not be subject to commercial exploitation.

Correctness of data

Extent to which data are free of systematic and random errors.

Correlation

The degree of the statistical relationship between two parameters.

Correlation coefficient

Measure for the correlation.

Cortex

The outer layer of the brain.

Cosmid

Artificially constructed cloning vector containing the cos gene of phage lambda. Cosmids can be packaged in lambda phage particles for infection into *E. coli*; this permits cloning of larger DNA fragments (up to 45 kb) than can be introduced into bacterial hosts in plasmid vectors.

Cost

Expenses incurred in the provision of services or goods. Many different kinds of costs are defined and used (see allowable, direct, indirect, and operating costs). Charges, the price of a

C

service or amount billed an individual or third party, may or may not be equal to service costs.

Cost accounting standards (CAS)

Specific accounting policies prescribed by the Cost Accounting Standards Board (CASB) to ensure consistency in the application of cost accounting principles to Government contracts. The cost accounting standards are enumerated in FAR 30, along with the criteria that dictate which contractors are subject to their application.

Cost Accounting Standards Board

A body established for the purpose of establishing Government cost accounting standards (CAS).

Cost analysis

The review and evaluation of the separate cost elements and proposed profit of (a) an offeror's or contractor's cost or pricing data and (b) the judgmental factors applied in projecting from the data to the estimated costs in order to form an opinion on the degree to which the proposed costs represent what the cost of the contract should be, assuming reasonable economy and efficiency.

Cost and pricing data

All facts as of the date of price agreement that prudent buyers and sellers would reasonably expect to affect price negotiations significantly. Cost or pricing data are factual, not judgmental, and are therefore verifiable. While they do not indicate the accuracy of the prospective contractor's judgment about estimated future costs or projections, they do include the data forming the basis for that judgment. Cost or pricing data are more than historical accounting data; they are all the facts that can be reasonably expected to contribute to the soundness of estimates of future costs and to the validity of determination of costs already incurred. They also include such factors as (a) vendor quotations; (b) nonrecurring costs; (c) information on changes in production methods and in production or purchasing volume; (d) data supporting projections of business prospects and objectives and related operations costs; (e) unit-cost trends such as those associated with labor efficiency; (f) make or buy decisions; (g) estimated resources to attain business goals; and (h) information on management decisions that could have a significant bearing on costs.

Cost center

An accounting device whereby all related costs attributable to some "financial center" within an institution, such as a department or program are segregated for accounting or reimbursement purposes.

Cost containment

Control or reduction of inefficiencies in the consumption, allocation, or production of health care services that contribute to higher than necessary costs. (Inefficiencies in consumption can occur when health services are inappropriately utilized; inefficiencies in allocation exist when health services could be delivered in less costly settings without loss of quality; and, inefficiencies in production exist when the costs of producing health services could be reduced by using a different combination of resources).

Cost input

The cost, except general and administrative (G&A) expenses, which for contracting purposes is allocable to the production of goods and services during a cost accounting period.

Cost objective

A function, organizational subdivision, contract, or other work unit for which cost data are desired and for which provision is made to accumulate and measure the cost of processes, products, jobs, capitalized projects, etc.

Cost of capital committed to facilities

An imputed cost determined by applying a cost of money rate to individual facilities capital.

Cost of goods sold

Inventoriable costs that are expensed because the units are sold; equals beginning inventory plus cost of goods purchased or manufactured minus ending inventory.

Cost of money

An imputed cost determined by applying a cost-of-money rate to facilities capital employed in contract performance, or to an investment in tangible and intangible assets while they are being constructed, fabricated or developed for the contractor's own use. Although technically not a recovery of interest, as specifically expressed in FAR 31.205-10, cost of money is intended to compensate a contractor for the capital cost of employing certain facilities in the performance of contracts, and therefore has many of the characteristics of a reimbursement for interest. A cost of money provision is allowable only if the contractor's capital investment is accounted for in accordance with the relevant Cost Accounting Standards and is specifically identified or proposed in the contractor's cost proposal for a given contract.

Cost sharing

The generic term that includes co-payments, coinsurance, and deductibles. Co-payments are flat fees, typically modest, that insured persons must pay for a particular unit of service, such as an office visit, emergency room visit, or the filling of a drug prescription. Coinsurance is a percentage share of medical bills (e.g., 20%) which an insured person must pay out-of-pocket. Deductibles are specified caps on out-of-pocket spending which an individual or a family must incur before insurance begins to make payments.

Cost shifting

- (1) When the cost of uncompensated care provided to the uninsured is passed onto the insured.
- (2) Increasing revenues from some payers to offset losses and lower net payments from other payers.

Cost-benefit

The balance of costs and benefits of an (information) system, which is an important criterion for a go-no go decision of the management.

Cost-benefit

The relationship between the cost of an activity and the benefits that accrue from it.

Cost-benefit analysis

An analytic method in which a program's cost is compared to the program's benefits for a period of time, expressed in dollars, as an aid in determining the best investment of resources. For example, the cost of establishing an immunization service might be compared with the total cost of medical care and lost productivity which will be eliminated as a result of more persons being immunized. Cost-benefit analysis can also be applied to specific medical tests and treatments.

Cost-effectiveness analysis

A procedure used when benefits are difficult to measure or when those that are measurable are not commensurable. A method aiming at measuring the relative cost of alternative ways of achieving an objective. It is similar to cost-benefit analysis except that benefit, instead of being expressed in monetary terms, is expressed in terms of results achieved, e.g. number of lives saved or number of days free from disease. Organizational study on methods of promoting the development of basic health services.

Cost-efficiency

The extent to which financial resources are being used as well as possible.

Cost-plus-award-fee (CPAF) contract

A cost-reimbursement contract which provides for a fee consisting of (1) a base amount fixed at inception of the contract and (2) an award amount that the contractor may earn in whole or in part during performance and that is sufficient to provide motivation for excellence in such areas as quality, timeliness, technical ingenuity, and cost effective management. The amount of the award fee to be paid is determined by the Government's judgmental evaluation of the contractor's performance in terms of the criteria stated in the contract. This determination is

made unilaterally by the Government and is not subject to the disputes clause.

Cost-plus-fixed-fee (CPFF) contract

A cost-reimbursement contract which provides payment to the contractor of a negotiated fee that is fixed at the inception of the contract. The fixed fee does not vary with actual cost, but may be adjusted as a result of changes in the work to be performed under the contract. This contract type permits contracting for efforts that might otherwise present too great a risk to contractors, but it provides the contractor only a minimum incentive to control costs.

Cost-plus-incentive-fee (CPIF) contract

A cost-reimbursement contract that provides for the initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs. This contract type specifies a target cost, a target fee, minimum and maximum fees, and a fee adjustment formula. After contract performance, the fee payable to the contractor is determined in accordance with the formula. The formula provides, within limits, for increases in fee above target fee when total allowable costs are less than target costs, and decreases in fee below target fee when total allowable costs exceed target costs. This increase or decrease is intended to provide an incentive for the contractor to manage the contract effectively. When total allowable cost is greater than or less than the range of costs within which the fee adjustment formula operates, the contractor is paid total allowable costs, plus the minimum or maximum fee.

Cost-reimbursement contract

A type of contract which provides for payment of allowable incurred costs, to the extent prescribed in the contract. These contracts establish an estimate of total cost for the purpose of obligating funds and establishing a ceiling that the contractor may not exceed (except at its own risk) without the approval of the contracting officer.

Costs

Inputs, both direct and indirect, required to produce an intervention.

Cost-sharing contract

A cost-reimbursement contract in which the contractor receives no fee and is reimbursed only for an agreed-upon portion of its allowable costs. (FAR 16.303)

Cost-shifting

The condition which occurs when health care providers are not reimbursed or not fully reimbursed for providing health care so charges to those who pay must be increased. Typically results from providing health care to the medically indigent or the Medicare patients.

Cost-utility analysis

Converts effects into personal preferences (or utilities) and describes how much it costs for some additional quality gain (e.g. cost per additional quality-adjusted life-year, or QALY).

Counterirritant

An agent that is applied to produce irritation at one site so as to decrease perception of pain at the same or a distant site.

Country health programme

All the activities making up the coordinated sum of all the health programmes in a country. This term has become obsolete since the broader concepts of strategies and plans of action have come into use.

Country health programming

A managerial process dealing directly with the selection of priority health problems, specification of operational objectives and translation of these into activities, resource needs and organization. Since country health programming deals directly with the selection of priority health problems, specification of operational objectives and translation of these into activities, resource needs and organization, it is quite likely to have a direct bearing on the government's 'health policy'. In fact, consideration of the government's health policy in a continuous national health planning process such as country health programming is unavoidable. Improving country health programming, an

C

assessment and recommendations. Assessing a country's health problems in their socioeconomic context, determining which areas are changing, and formulating programmes to bring about the changes needed. Country health programming forms part of a broader managerial process for national health development which has superseded it, corresponding in practice to the aggregate of broad programming, programme budgeting and detailed programming.

Coupling of files

See record linkage.

Covariance

The statistical relationship between two variables.

Coverage

A detailed list of all treatment and medication allowable under the contracted policy.

Coverage decision

A decision by a health plan whether to pay for or provide a medical service or technology for particular clinical indications. (PPRC, 1996)

Coverage effective date

Means the day upon which your coverage under the Plan starts. The Coverage effective date is shown in the Schedule of Benefits.

Covered expense

Services, treatments and expenses that are benefits (in full or in part) under the plan.

Covered life

An individual who meets eligibility requirements and has paid a premium for specified benefits of the contractual agreement.

Covered person

Means a person who is in the Eligible Group and approved for coverage under the Group Long-term Care Plan.

Covered Service

A provider's service or supply for which the plan will pay.

Cox's regression

Regression analysis used in studies of risk factors, named after Cox.

CPA

Certified Public Accountant

CPAF

Cost-Plus-Award-Fee (contract).

CPAP

(Continuous positive airway pressure) Provides positive pressure in order to maintain an open airway during sleep as a treatment for obstructive sleep apnea (OSA).

CPCM

Certified Professional Contract Manager.

CPE

(Customer Premises Equipment) Devices ranging from simple telephones to computers to TV monitors that are part of a customer's telephone system and are used to send or receive information over a telephone network.

C

C-peptide

(Protein) Studies have shown that C-peptide (a protein released as a by-product when the body produces insulin), when injected in high doses, was found to repair blood vessels and nerve damage found in diabetic rats. The C-peptide protein is found in significantly decreased amounts in type 2 diabetic patients and is absent in most type 1 diabetic patients. Scientists hope further studies will lead to a treatment for diabetics which will prevent both vascular and neurologic damage.

CPF

Cost-Plus-Fixed-Fee (contract).

CPI

Means the Consumer Price Index for all Urban Consumers published by the United States Department of Labor.

CPIF

Cost-Plus-Incentive-Fee (contract).

CPR

Cost Performance Report.

CPR

(Computed-based Patient Record) A term for a paperless, (electronic) medical record. Such development has occurred in the ancillary services, e.g. lab and x-ray. A completely computer-based patient record remains part of the future of Medical Informatics. There are issues of storage and accessibility plus security and confidentiality. Some hospital systems, e.g. VA have begun experimentation with optical cards which store amounts of vital data and that patients carry with them.

CPRI

(Computer-based Patient Record Institute, Inc.) An independent institute which develops and recommends standards for computerized patients records.

CPT

Current Procedural Terminology: coding system scheme for diagnostic and therapeutic procedures for billing and reimbursement.

CPU

(Central Processing Unit) The electronic circuitry within a computer that controls the allocation of resources (files, programs, memory, input and output devices, etc.) A Central processing unit is a part of a computer that fetches and executes instructions stored in central memory.

CRAG

Contractor Risk Assessment Guide.

Create-use matrix

A method used to develop an information architecture by setting up a matrix that describes the relation between activities or processes in a business and its relevant objects (data entities). This matrix describes for all activities or processes (the rows of the matrix) the allowed operations, such as create, use, delete, and so on, on data entities (the columns) and is used to subdivide the information processes in an organization.

Credentialing

The recognition of professional or technical competence. The credentialing process may include registration, certification, licensure, professional association membership, or the award of a degree in the field. Certification and licensure affect the supply of health personnel by controlling entry into practice and influence the stability of the labor force by affecting geographic distribution, mobility, and retention of workers. Credentialing also determines the quality of personnel by providing standards for evaluating competence and by defining the scope of functions and how personnel may be used.

Credit life insurance

A form of decreasing term life insurance on the life of a borrower. The lender is named as beneficiary, and the insurance is kept in force for as long as the loan is outstanding. The amount of the policy matches the loan's balance during the term of the loan.

Criterion

Standard against which actions can be compared. A standard by which something is judged; it may be technical or social.

Critical care

The treatment of inpatients with life-threatening conditions requiring a very high level of skilled nursing, regular physician attention, cardiac monitoring, respiratory monitoring, respiratory assistance through ventilator-assisted breathing, arterial monitoring of blood gases and the like.

Critical paths

Focus on a patient and document essential steps in the diagnosis and treatment of a condition or the performance of a condition. They document a standard pattern of care to be followed for each patient and are developed primarily as a nursing tool specific to a healthcare organization and its unique system (Meyer and Feingold, 1995). Synonyms for Care Paths: critical paths, practice guidelines/parameters, clinical guidelines/protocols/algorithms, care tracks, care maps, care process models, case care coordination, collaborative case management plans, collaborative care tracks, collaborative paths, coordinated care, minimum standards, patient pathways, quality assurance triggers, reference guidelines, service strategies, recovery routes, target tracks, standards of care, standard treatment guidelines, total quality management, key processes, anticipated recovery paths.

Critical pathway

The path through a network of activities that determines the shortest possible time that a process (e.g., a project or a patient's treatment) can be completed.

Critiquing system

Decision-support system that allows the user to make the decision first; the system then gives its advice when the user requests it or when the user's decision is out of the system's permissible range.

Crosscorrelation

Correlation between values of different signals.

Crossing over

The breaking during meiosis of one maternal and one paternal chromosome, the exchange of corresponding sections of DNA, and the rejoining of the chromosomes. This process can result in an exchange of alleles between chromosomes. Compare recombination.

Crossover study design

The administration of two or more experimental therapies one after the other in a specified or random order to the same group of patients.

Cross-sectional study

The observation of a defined population at a single point in time or time interval. Exposure and outcome are determined simultaneously. Decision Analysis is the application of explicit, quantitative methods to analyse decisions under conditions of uncertainty.

Crude birth rate

The number of live births in a year divided by the population size.

Crude death rate

The number of deaths in a year divided by the population size.

C

Crude mortality rate

The mortality rate from all causes of death for a population.

Cry(o)

Cold.

Cryoanalgesia

The destruction of peripheral nerves by extreme cold to achieve prolonged pain relief.

Cryotherapy

The therapeutic use of cold to reduce discomfort, limit progression of tissue edema, or break a cycle of muscle spasm.

Cryptographic

See encryption.

Cryptography

Keeping data secret through the use of mathematical or logical functions that transform intelligible data into unintelligible data and back again.

C-scan

(Compound scan) Ultrasound technique in which the crystal can move.

CSCSC

Cost/Schedule Control System Criteria.

CSRA

Civil Service Reform Act.

CSSR

Cost /Schedule Status Report

CSU/DSU

(Channel Service Unit / Data Service Unit) A hardware device that is needed to terminate a high speed telecommunications connection. It is inserted between the telemedicine system (i.e., CODEC) and the communications line. It conditions and strengthens the signal, and supports the necessary link protocols, for transmission of data from LANs, video systems, and other applications over leased or switched communications lines (T1, fractional T1, leased or switched 56, ISDN). Some models allow the allocation and sharing of bandwidth with other traffic, such as digitized voice from a PBX, and act as a multiplexer.

CT

(Computerized Tomography) Scan A means of obtaining a two-dimensional image of the real tissue distribution in a single slice by means of X rays. The use of a medical diagnostic imaging device combining X-rays, detectors and a computer to analyze the resulting densities. A cross-sectional view can be obtained using the data.

CT scanner

A tomographic machine that is capable of doing a large number of scans at a very high rate of speed; it uses computer technology to reconstruct and display the scanning images.

Cumulative frequency

In a frequency distribution, the number or proportion of cases or events with a particular value or in a particular class interval, plus the total number or proportion of cases or events with smaller values of the variable.

Cumulative frequency curve

A plot of the cumulative frequency rather than the actual frequency for each class interval of a variable. This type of graph is useful for identifying medians, quartiles, and other percentiles.

Current cost

Cost stated in terms of current values (of productive capacity) rather than in terms of acquisition cost.

Current population survey

U.S. Census Bureau survey conducted nationally to measure employment, health insurance status, income, and other variables.

Current Procedural Terminology (CPT)

The coding system for physicians' services developed by the CPT Editorial Panel of the American Medical Association; basis of the HCFA Common Procedure Coding System.

Current Procedure Terminology Codes (CPT Codes)

A system of codes for medical procedures. Generally, Medicare and other non-governmental payors require health care providers to use these codes to obtain reimbursement for services.

Currently performing

A contractor has been awarded a contract, but has not yet received final notification of acceptance of all supplies, services, and data deliverable under this contract (including options).

Cursor

Special sign on the screen indicating locations, e.g., where the next alphanumeric keyboard input will be located or where the mouse is pointing. The form of the cursor may indicate which activity is going on or may influence the next command of the user.

Custodial Care

Means that level of care which is mainly for the purpose of meeting the Activities of Daily Living. It may be provided by persons without professional skills or training. Such care is intended to: 1. Maintain and support your existing level of health; and; 2. Preserve your health from further decline. It is not primarily for the convenience of you or your family.

Customary and Reasonable

Refers to a fee which falls within a common range of community fees.

Customary charge

One of the factors determining a physician's payment for a service under Medicare. Calculated as the physician's median charge for that service over a prior 12-month period.

Cutoff

See threshold.

Cybernetics

The study of automatic control systems, especially the comparison of the nervous system with mechanical-electronic communications systems.

Cyberspace

Term used to describe the whole range of information resources available through computer networks.

Cycle count

In a perpetual inventory system, a test count of certain product lines or items taken on a periodic basis. This physical method is used to determine the accuracy of the perpetual inventory quantities and to control shrinkage problems.

Cycles of exchange

The period of time between the acquisition of goods and services for resale and the time funds received in payment from the sale of these goods and services are used to acquire replacement goods and services.

Cyclotron

Equipment to accelerate charged particles such as electrons.

Cytometry

Measuring of objective geometric parameters in cells and tissue.

Cytoprotective agent

A class of drug designed to selectively protect healthy tissues while allowing anticancer drugs to destroy malignant cells.

D

D-A conversion

Conversion of digital data into analog data.

Daily census

The number of patients occupying hospital beds in a hospital at midnight of a given day.

Damages

The amount claimed or allowed as compensation for injuries sustained or property damaged through the wrongful acts or the negligence of another.

Data

A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automatic means (ISO2382/1-1974). Oracle publication on CASE metamodel defines data as: When an application is operating, the computer is manipulating information in the real world. (e.g. product descriptions, pricing information, customer details). This information is known as data.

Data acquisition

Identification, selection, and sampling of data for further computer processing.

Data active

Information which has behavior knowledge so that its representation changes on the basis of the environment in which it is used.

Data base

A collection of data. The structure of the data is independent of any particular application.

Data base management system (DBMS)

Term used to describe software that organizes, catalogues, locates, retrieves and maintains data in a data base.

Data collection

The gathering of source data.

Data communication

The movement of digitally encoded data by means of electrical or electromagnetic transmission systems.

Data compression

Method to reduce sheer volume of data by more efficient encoding practices, thereby reducing image processing, transmission times, bandwidth requirements, and storage space requirements. Some compression techniques result in the loss of some information, which may or may not be clinically important.

Data consistency

The property that various related data are not in contradiction with each other. Consistency control (e.g., by validity checks) is a function of a DBMS to improve the correctness of data in the database.

Data conversion

Changing the form of the representation of the data.

Data dictionary

The set of standard descriptions of data items and entities which are used in all programs in an organization. It includes definitions, codes, validation rules, ownership, right of access, right of updating.

Data entry

The process of entering data into a computer, mostly by human action.

D

Data field

See field.

Data glove

A glove that senses the movements of a hand or fingers and transmits these data to a computer and also gives feedback to the fingers to evoke the sense of pressure. It is used in virtual reality.

Data integrity

(1) A subarea of data security. (2) Refers to the accuracy and completeness of the data.

Data logger

Device that stores data sequentially without any further processing.

Data management

The organizing, cataloging, locating, storing, retrieving, and maintaining data.

Data mining

The use of the set of basic tools to extract patterns from the data in a data warehouse. Often artificial intelligence methods are used.

Data model

A graphical and textual representation of analysis that identifies the data needed by an organization to achieve its mission functions, goals, objectives, and strategies, and to manage and rate the organization. A data model identifies the entities, domains (attributes) and relationships (or associations) with other data, and provides the conceptual view of the data and the relationships among data.

Data passive

Static information that represents something; that something is only known by the application which is responsible for interpreting its meaning.

Data processing

Operations performed on data to provide useful data and information.

Data protection

See data security.

Data reduction

Transformation of raw data into more condensed data without losing significant semantic information.

Data reliability

Correctness, completeness and relevance of data.

Data repository

A specialized database containing information about data and data relationships. Used to provide a common resource of standard data elements and models.

Data security

Encompasses confidentiality, integrity, and availability of data.

Data storage device

Device to store data separate from the computer memory, e.g. on disk.

Data transformation

Rearranging and recalculating data such that they are more adapted to interpretation, e.g. by a human observer.

Data transmission

See data communication.

D

Data validation

The examination of data for correctness.

Data warehouse

A central data storage facility of large capacity for data imported periodically from multiple systems. The technique to extract patterns from the data is called data mining.

Database

(1) A collection of data. (2) A structured set of logically related data together with software to define the structure of the data and to obtain access to the data.

Database consistency

Function of a DBMS that ensures the internal consistency of a database.

Database integrity

Function of a DBMS that ensures the internal integrity of a database.

Database management system

See DBMS.

Database Management Systems Object

(1) A Database Management System (DMBS) that is encapsulated as an object or a component with a set of explicitly defined public methods or interfaces. Such a component could be used within a compatible component architecture (e.g. MS COM/DCOM/ActiveX, CORBA, Java Bean Enterprise architecture, ...) (2) A DBMS such as Oracle7 or Oracle8 loosely defines internal structures it manages as entities or objects.

Database server

A computer system in a distributed system that contains a database and a DBMS.

Data-driven reasoning

See forward reasoning.

DAX

(Digital exchange) A computerized digital cross connection that permits specific channels from high capacity lines to split out separately so that they may be directed elsewhere.

Days per Thousand

A standard unit of measurement of utilization. Refers to an annualized use of the hospital or other institutional care. It is the number of hospital days that are used in a year for each thousand covered lives.

dBase

A software package used to store and retrieve data in a database.

DBMS

(Data Base Management System) A set of programs for establishing, sorting, searching and otherwise manipulating the data base. It generally permits further calculations and the production of reports.

DBS

(Direct Broadcast Satellite) A satellite designed with sufficient power so that inexpensive earth stations, or downlinks, can be used for direct residential reception.

DDCO

(Direct Dial Central Office) Local telephone trunks connecting a telephone system to a central office. These provide regular local dial-up service.

D

DDD

(Direct Distance Dialing) Conventional long distance switched telephone network or dial-up long distance circuits. They provide regular long distance service.

DDF

See density distribution function.

DDL

(Data definition language) A tool of a DBMS that enables a description of the data such that an automatic conversion from the implementation model into the physical data model is possible.

DDS

(Digital Data System) A system for transmitting telephone traffic in digital format between major switching hubs. This system allows digital transmission of voice and data as a component of the analog telephone system (POTS).

De Dombal's system

One of the first decision-support system, diagnosing abdominal pain.

De Morgan's Law

A rule for the expansion of the negation of a logical summation or a logical product.

Death

Permanent cessation of all vital functions; the loss of brainstem and spinal reflexes and flat electroencephalograms over at least 24 hr. The following definitions of death have also been considered: (1) Total irreversible cessation of cerebral function, spontaneous function of the respiratory system; spontaneous function of the circulatory system. (2) Final and irreversible cessation of perceptible heartbeat and a ration. If any heartbeat or respiration can be perceived, with or without mechanical or electric aids, and regardless of how the heartbeat and respiration have been maintained, death has not occurred. Conditions such as cardiac standstill or complete lack of renal function no longer means certain death. The use of cardiac pacemakers, artificial hearts and kidneys, heart transplants, and kidney transplants has made this definition of death untenable. Signs: The principal sign of death cessation of the heart's action. Other indications are absence of reflexes, cessation of electric activity in the brain determined by electroencephalogram, manifestations of rigor mortis, and a mottled discoloration of the body, esp. over all parts where there is pressure. In case of an emergency, the usual symptoms of death often are found to be unreliable tempts at resuscitation should continue indefinitely. No harm can be caused by attempting to resuscitate a person who seems to be deceased; successes are numerous. Determining time lapse: since death occurred: The rectal temperature should be taken. In general the body loses 1°F each hour following death. Of course the rate of heat loss varies with temperature of the surrounding air, water or snow. Emotional aspects of dying: Patients and their families rely on physicians to provide technical expertise when illness occurs. In addition, when the patient is dying, the patient and the family require emotional and physical support. The dying patient who is conscious needs to be touched and assured that the physician is providing all necessary care. Nursing implications: Legal procedures and institutional protocols should be followed concerning requests for organ donation. Appropriate health care professionals are notified of the patient's and family's wishes regarding organ donation. Time of cessation of respirations and heartbeat is documented, and the physician or other legally authorized health professional is notified and requested to certify death. The family is notified according to institutional policy, and emotional support is provided. Auxiliary equipment is removed, but the hospital identification bracelet is left in place. The body is cleansed, clean dressings are applied as necessary, and the rectum is packed with absorbent material to prevent drainage. The patient is placed in a supine position with the limbs extended the head slightly elevated. Dentures are inserted, if appropriate, the mouth and eyes closed, and the body covered to the chin with a sheet. Patient's belongings are collected and documented. Witnesses should be present, esp. if personal items have great sentimental or monetary value. The family is encouraged to visit, touch, and hold the patient's body as desired. In some situations (e.g., neonatal death, accidental) and according to protocol, a photograph of the deceased is obtained to assist the family in grieving and remembering their loved one. The nurse and a family member sign for and remove the patient's belongings. After the family has gone, the nurse prepares the

D

body for the morgue by applying a chin strap, wrist and ankle protection and restraint, and shroud. Body tags, imprinted with the patient's identification plate or card information (name, identification number, room and bed, attending physician), along with the date and time of death, are tied to the patient's foot or wrist as well as to the outside of the shroud. The body is then transported to the morgue and placed in a refrigerated unit according to protocol. *Biological D.* - Death due directly to natural causes. *Black D.* - Former name for bubonic plague. *Brain D.* - See brain death. *Crib D.* - Sudden infant death syndrome. *Fetal D.* - Death of a fetus in utero. *Functional D.* - Central nervous death with vital functions being artificially supported. *Good D.* - Death in which the rights of the individual have been respected, and during which the dying person was made as comfortable as possible and was in the company of persons he or she knew and loved. *Local D.* - Gangrene or necrosis of a part. *Man-Made D.* - Death due to something other than natural causes (e.g., murder, war, political violence). *Molecular D.* - Death of cell life.

Death On Request

Award-winning documentary featuring the administration of euthanasia.

Death Rate (aka Crude Death Rate)

The number of deaths per year divided by the average total population. Expressed as a rate per thousand. The U.S. death rate is about eight per 1,000 or 0.8 percent.

Death-To-Case ratio

The number of deaths attributed to a particular disease during a specified time period divided by the number of new cases of that disease identified during the same time period.

Debarment

An action taken by a debarring official to exclude a contractor from Government contracting or Government approved subcontracting for a reasonable specified period.

Debt service

Required payments for interest on and retirement of a debt; the amount needed, supplied, or accrued for meeting such payments during any given accounting period; a budget or operating statement heading for such items.

Debt service ratios

Measurements used to assess a company's ability to repay debt. Some common debt service ratios include the following:

Decision

An intentional choice out of a number of possibilities that will result in effects.

Decision analysis

A decision analysis aims to support the clinician and the patient by an explicit and quantitative consideration of relevant aspects of a decision problem.

Decision support system

A management information system in which significant analysis is done in order to present reports in a format directly useful for decision. See also AI and CIS.

Decision table

A table containing the values for all logical expressions pertaining to a certain problem (the conditions) and the corresponding logical outcome using logical rules that connect conditions with results. All logical expressions are considered simultaneously. See also truth table.

Decision tree

A decision tree consists of nodes where a logical decision has to be made and connecting branches that are chosen according to the result of this decision. The nodes and branches that are followed constitute a sequential path through a decision tree that reaches a final decision in the end.

D

Decision-support system

System consisting of a knowledge base and an inference engine that is able to use entered data to generate case specific advice.

Decoding

The inverse process of coding.

Decreasing term life insurance

A form of life insurance in which the premium remains level for a specified number of years, while the face amount of insurance declines during that term.

Dedicated line

A permanent telephone line reserved exclusively for one patient, accessible all hours of the day. These line usually offer better quality than standard telephone lines, but may not significantly augment the performance of data communications. May also be known as "leased," or "private" lines.

Deductible

(1) The amount paid by the patient for medical care prior to insurance covering the balance. (2) A type of cost sharing where the insured party pays a specified amount of approved charges for covered medical services before the insurer will assume liability for all or part of the remaining covered services (3) Cumulative amount a member of a health plan has to pay for services before that person's plan begins to cover the costs of care.

Deduction

Deriving a particular conclusion from general principles and premises by logical reasoning.

Defective cost or pricing data

Certified cost or pricing data subsequently found to have been inaccurate, incomplete, or noncurrent as of the effective date of the certificate. In this case, the Government is entitled to an adjustment of the negotiated price, including profit or fee, to exclude any significant sum by which the price was increased because of the defective data, provided the data were relied upon by the Government.

Defensive medicine

Physician practices just to reduce risk of a liability claim, e.g., performing diagnostic tests of marginal value. Defensive medicine totals an estimated \$20.7 billion. (AMA, 1993)

Deferred annuity

An annuity providing for the income payments to begin at some future time or date such as in a specified number of years or at a specified age.

Deferred compensation

An award made by an employer to compensate an employee in a future cost accounting period or periods for services rendered in one or more cost accounting periods before the date of the receipt of compensation by the employee.

Defined benefit

Funding mechanisms for pension plans that can also be applied to health benefits. Typical pension approaches include: (1) pegging benefits to a percentage of an employee's average compensation over his/her entire service or over a particular number of years; (2) calculation of a flat monthly payment; (3) setting benefits based upon a definite amount for each year of service, either as a percentage of compensation for each year of service or as a flat dollar amount for each year of service.

Defined contribution

Funding mechanism for pension plans that can also be applied to health benefits based on a specific dollar contribution, without defining the services to be provided.

Definite quantity contract

A contract which provides for delivery of a definite quantity of specific supplies or services for a

D

fixed period, with deliveries to be scheduled at designated locations upon order.

Definition study

The investigation at the beginning of the development of an information system in which the user demands are inventoried, how these demands can be fitted within their organization and what the connection is with other information systems.

Definitive host

(Epidemiology) The host in which a parasite reproduces sexually.

Dehalogenate

To remove chlorine or bromine ions from common organic contaminants and thereby reduce either their toxicity or the difficulty of degrading them.

Deinstitutionalization

Policy which calls for the provision of supportive care and treatment for medically and socially dependent individuals in the community rather than in an institutional setting.

Delphi technique

A feedback method to reduce interobserver variability by confronting each member of a panel of experts with the independent judgments of the other members and giving each member the possibility to adapt his or her judgment.

Deltacheck

Checking the results of a biochemical test against earlier test results of the same patient to detect possible errors.

Demand

(In health economics) The amount of a good or service consumers are willing and able to buy at varying prices, given constant income and other factors. Demand should be distinguished from utilization (the amount of services actually used) and need (which has a normative connotation and relates to the amount of goods or services which should be consumed based on professional value judgments).

DeMeester score

A combined score of six variables assessed during a 24-hour pH test to determine esophageal acid exposure.

Demographic information

The "person" characteristics - age, sex, race, and occupation - of descriptive epidemiology used to characterize the populations at risk.

Demographics

A person's data for address, birth date, gender, etc.

Demonstration projects

Refers to the state Medicaid research projects approved by the HCFA (most often used to create managed care arrangements for Medicaid recipients in the state).

Dendrogram

A visualization of a clustering process that looks like the branches of a tree.

Denial Of Claim

A refusal by an insurance company to honor a request by an individual or his provider to pay for health care services obtained from a health care professional.

Denis classification

Classification of compression fractures: Type A involves both superior and inferior endplates; Type B involves superior endplate; Type C involves inferior endplate; Type D anterior cortex buckling with intact inferior and superior endplates.

D

Denominator

The lower portion of a fraction used to calculate a rate or ratio. In a rate, the denominator is usually the population (or population experience, as in person-years, etc.) at risk.

Density distribution function

A function describing the number of events within an interval of an independent variable.

Density-dependent

(1) Effects whose intensity changes with increasing population density. (2) Effects whose intensity increases with increasing population density, for example a mortality which becomes very high near a carrying capacity. Effects which become less pronounced at higher population sizes (perhaps the reduction in fecundity caused by the difficulty of mating) are sometimes called inverse density dependent. Density dependent effects are often a cause of nonlinearity in a model.

Departing Drugs

Title of the research project, and subsequently published booklet, of the International Drugs Consensus Working Party that examined self-deliverance drugs. (The booklet was published in the UK in 1993 under the title Supplement to How to Die With Dignity). The story of the research in this area can be found in Chapter One of Beyond Final Exit.

Departmental system

A system that fulfills specific tasks encountered only in certain clinical departments.

Dependent variable

In a statistical analysis, the outcome variable(s) or the variable(s) whose values are a function of other variable(s) (called independent variable(s) in the relationship under study).

Dependents

Spouse (wife or husband) and/or children age 18 or under who are covered by an employee's insurance plan.

Depolarization

Breakdown of a potential difference (polarization) between two objects, for instance, in a cell between a separating cell membrane.

Depreciation

An accounting term used to describe the systematic cost allocation through which the decline in usefulness of a company's tangible assets are recorded over time.

Dermal

Referring to the skin. Dermal absorption means absorption through the skin.

Descriptive epidemiology

Study of the amount and distribution of disease within a population by person, place, and time.

Descriptive study

A nonexperimental study in which variables or subject characteristics are examined as they naturally occur for the purpose of describing or comparing samples or examining relationships among a set of variables.

Design set

See learning population.

Desktop metaphor

An imitation on a VDU screen of the top of a desk with folders, calendars, papers that cover each other (windows), and so forth.

Desktop publishing

Preparing a document for publishing by use of a computer.

Detection

The decision whether an event (e.g., a signal component) has occurred.

Detection theory

The theory of how to discriminate a meaningful signal from a noisy background.

Detector

Equipment, program, or observer that identifies an event or a phenomenon.

Determinant

Any factor, whether event, characteristic, or other definable entity, that brings about change in a health condition, or in other defined characteristics

Determinants of health

The range of personal, social, economic and environmental factors which determine the health status of individuals or populations. Reference: new edition. The factors which influence health are multiple and interactive. Some determinants of health are not modifiable (for example age, sex and genetic endowment). Health promotion is fundamentally concerned with action to address the full range of potentially modifiable determinants of health-not only those which are related to the actions of individuals, such as health behaviors and lifestyles, but also those factors which are largely outside of the control of individuals and groups. These include, for example, income and social status, education, employment and working conditions, access to appropriate health services, and the physical environments which, in combination, create different living conditions which impact on health. Achieving change to these lifestyles and living conditions which determine health status are considered to be intermediate health outcomes.

Determination and findings

A special form of written approval by an authorized official that is required by statute or regulation as a prerequisite to taking certain contract actions. The "determination" is a conclusion or decision supported by the "findings". The findings are statements of fact or rationale essential to support the determination and must cover each requirement of the statute or regulation.

Deterministic model

A mathematical model in which the parameters and variables are not subject to random fluctuations, so that the system is at any time entirely defined by the initial conditions chosen. Contrast with a stochastic model.

Deterministic signal

Signal that shows a definite form and sometimes periodicity.

Developmental disability

A disability that is expected to be life long in nature, manifests itself prior to the age of 22, and requires on-going services and supports for the individuals. The disability must result in substantial functional limitations in three or more of the major life activities, such as self-care, expressive or receptive language, mobility, self-direction, and one's capacity for employment or independent living. There is a Federal definition of developmental disability contained in the Developmental Disability Assistance and Bill of Rights Act (the DD Act) and many states enact a variation of the Federal definition which is used in determining eligibility for certain programs and supports. Developmental Disability typically includes such conditions as cerebral palsy, epilepsy, spina bifida, and mental retardation.

Diagnosis

(1) The term denoting the disease or syndrome a person has or it is believed to have. (2) the use of scientific and skillful methods to establish the cause and nature of a person's illness. This is done by evaluating the history of the disease process, the signs and symptoms, and the laboratory data, and by special tests such as radiography and electrocardiography. The value of establishing a diagnosis is to provide a logical basis for treatment and prognosis. *Antenatal D.* -

D

diagnostic procedures to determine the health status of a fetus including amniocentesis, cell culture, biochemical studies, amnioscopy, nonstress test, oxytocin challenge test, biophysical profile, amniography, ultrasound, and chorionic villus biopsy. *Clinical D.* - identification of a disease by history, laboratory studies, and symptoms. Most diseases have a symptom or symptoms in common with other diseases. *Cytological D.* - identification of a disease based on cells present in body tissues or exudates. *Differential D.* - identification of a disease by comparison of the symptoms of two or more similar diseases. *D. By exclusion* - identification of a disease by eliminating other possibilities. *Medical D.* - the entire process of identifying the cause of the patient's illness or discomfort. The method of determination depends on several factors, including the type of illness or injury present. For example, the diagnosis of a simple and superficial skin laceration of the lower leg is much less involved than that of a scalp laceration. In the latter, the depth of the wound is of utmost importance in determining the number of layers of the scalp to be sutured. Also, the diagnosis of an obscure infectious disease or an unexplained fever involves clinical skills and sophisticated laboratory investigations that would not be required when diagnosing a simple cold or influenza. Medical diagnosis is to be differentiated from nursing diagnosis. *Pathological D.* - identification of an illness based on structural lesions. *Physical D.* - identification of an illness by external examination only. *Radiographic D.* - identification of an illness by the interpretation of radiographic findings. *Serological D.* - identification of an illness through a serological test such as that for syphilis or typhoid.

DRG

(Diagnosis Related Group) (1) A system for classifying patients according to the severity of their illness and the resources needed to treat them. This classification system was developed in the 1970s and early 1980s at Yale University, and was adopted in 1983 by the Medicare program as a way of classifying and paying for Medicare patients. Many other payors have adopted a DRG system of reimbursement. Based on their primary and secondary diagnoses and related conditions, patients are placed into one or more of 470 DRGs. Reimbursement therefore does not depend on length of stay, but on the DRG classification. Some have questioned whether DRGs properly reflect the resource requirements of patients. However, regardless of their merits, they are widely used as a payment classification mechanism. (2) A system for determining case mix, used for payment under Medicare's PPS and by some other payers. The DRG system classifies patients into groups based on the principal diagnosis, type of surgical procedure, presence or absence of significant comorbidities or complications, and other relevant criteria. DRGs are intended to categorize patients into groups that are clinically meaningful and homogeneous with respect to resource use. Medicare's PPS currently uses almost 500 mutually exclusive DRGs, each of which is assigned a relative weight that compares its costliness to the average for all DRGs.

Diagnosis-related group

See DRG.

Diagnostic-therapeutic cycle

A cycle consisting of the following elements: collection of patient data, diagnosis, therapy that may be repeated several times.

Dial-up

The process of or the facilities involved in establishing a temporary connection via the switched telephone network.

Dialysis

Purification of blood by flow past semipermeable membranes, performed in case of renal failure.

Dichotomous outcome

An outcome that can have only one out of two results.

DICOM

(Digital Imaging and Communications in Medicine) A set of protocols describing how radiology images are identified and formatted that is vendor-independent and developed by the American College of Radiology and the National Electronic Manufacturers Association. The standard emphasizes point-to-point connection of digital medical imaging devices. DICOM 3.0 is the current version.

D

Dictionary

A device for starting futile arguments over definitions.

DID

(Direct Inward Dialing) A service allowing an outside caller to call directly to an extension within a PBX, eliminating switchboard traffic. While the telephone company provides the service, the customer's PBX must be able to handle the calls.

Differential diagnosis

A list of possible diagnoses that explain the current signs, symptoms, and measurements.

Differentiation

(1) The distinguishing of one thing or disease from another. (2) The act or process of acquiring completely individual characters, as occurs in the progressive diversification of cells and tissues of the embryo. (3) Increase in morphological or chemical heterogeneity. *Correlative D.* - differentiation caused by factors outside the tissue itself, as by an inductor. *Dependent D.* - correlative d. *Functional D.* - differentiation which results from the functioning of the tissue of a part. *Invisible D.* - the development toward a fixed fate, through chemodifferentiation, by cells that show no visible signs of this determination. *Regional D.* - the appearance of regional differences within a field of development. *Self D.* - differentiation produced by factors solely within the tissue or part.

Digital

Information coded in discrete numerical values (bits). Digital data streams are less susceptible to interference than analog data streams. Also, because they are made up of zeros and ones (bits) than can be manipulated and integrated easily with other data streams (voice/video/data).

Digital camera

Captures images (still or motion) digitally and does not require analog-to-digital conversion before the image can be transmitted or stored in a computer. The analog-to-digital conversion process (which takes place in CODECs) usually causes some degradation of the image, and a time delay in transmission. Avoiding this step theoretically provides a better, faster image at the receiving end.

Digital certificates

An encoded document that verifies connection between a server's public key (known to anyone) and the server's identification. Cryptographic checks, including a digital signature, ensure that the information within the certificate can be trusted and has not been altered.

Digital image

An image formed by independent pixels, each of which is characterized by a digitally represented luminance level. For example, a popular screen size for digital images is a 1024 by 1024 matrix of pixels x 8 bits, representing 256 luminance levels.

Digital signal

(1) An electrical signal in the form of discrete voltage pulses. These signals transmit audio, video, and data as bits, which are either on or off, differing from analog signals, which are continuously varying. Communications signals may be compressed using digital technology, allowing efficient and reliable transmission rates. (2) Discrete signals such as those represented by means of bits (which are either "on" or "off") as opposed to continuously variable analog signals. Used in both electronic and light-based systems, digital signals transmit audio, video, and data as bits. Digital technology allows communications signals to be compressed for more efficient transmission. A transmission which represents information by distinct voltage pulses (usually +3 volts and -3 volts). Transmission speed can be guaranteed at the desired rate and can reach billions of bits per second with negligible errors.

Digital signature

A means of authenticating the identity of the sender of a digital message and proving the integrity of the message by means of data appended to that message, for instance by the RSA

D

algorithm.

Digital subtraction angiography (DSA)

Procedure to visualize blood vessels with contrast medium in a bony environment by subtracting the pre-contrast image (the mask) from the image with contrast medium.

Digital-to-analog conversion

See D-A conversion.

Digitize

See A-D conversion.

Digitize

The process by which analog, or continuous, information is transformed into digital, or discrete, information. Because most computers are only capable of processing digital information and visual information is inherently in analog format, this process is essential in computer imaging applications.

Digitizing tablet

An input device that registers precisely the position of a pen. It is used to enter the digitized coordinates into a computer.

Dilation

A transformation that either enlarges or reduces a geometric figure proportionally.

Dioecious

Having separate sexes, opposite of monoecious.

Diploid

A full set of genetic material, consisting of paired chromosomes one chromosome from each parental set. Most animal cells except the gametes have a diploid set of chromosomes. The diploid human genome has 46 chromosomes. Compare haploid.

Dipole

A pair of opposite electric charges or magnetic poles of the same strength, usually on a small distance.

Direct access

A situation in which a member receives medical services from a specialist without first consulting a primary care provider or gatekeeper.

Direct capture

A procedure by which image data are formed directly from the original source allowing a high quality image reproduction. In this process, images created from image files are identical to the original, regardless of the device used to capture them, such as a CT or an MRI. In direct video capture, the video signal is digitized from the display, which creates a higher quality image and is more efficient than acquisition through scanning.

Direct contract model

A common type of model in open-panel HMOs. A health plan contracts directly with private practice physicians in the community rather than through an intermediary, such as an IPA or a medical group.

Direct contracting

Direct contracting usually refers to a service (e.g. substance abuse treatment) that an employer contracts directly to save money on its employees' health plan, leaving employees free to choose among other eligible providers for their primary, obstetric, pediatric and other medical care needs.

Direct cost

A cost which is identifiable directly with a particular activity, service, or product of the program

D

experiencing the costs. These costs do not include the allocation of costs to a cost center which are not specifically attributable to that cost center.

Direct digital imaging

Involves the direct capture of digital images (e.g., an MRI) so that they can be electronically transmitted. This is in contrast to an x-ray that is first made into a film and then photographed for digitization to send or store. Kodak will tell you about applications, testimonials and products in their Medical & Scientific Customer Forum. The University of Medicine and Dentistry of New Jersey operates a medical imaging gopher site. The University of Pittsburgh School of Medicine has a Medical Image Database System at a web site called Image Engine. Check out the Multimedia Medical Reference Library or ARPA.

Direct life cycle

A life cycle in which a parasite is transmitted directly from one host to the next without an intermediate host or vector of another species.

Direct medical education reimbursement

That portion of the Medicare payment to a hospital that is outside the normal DRG payment system. Medicare adds it to compensate for its share of the cost of residents and faculty.

Direct transmission

The immediate transfer of an agent from a reservoir to a susceptible host by direct contact or droplet spread.

Direct utilization

Explicit utilization of specific ideas and findings of an evaluation by decision makers and other stakeholders.

Directory

See folder.

Disability

Any limitation of physical, mental, or social activity of an individual as compared with other individuals of similar age, sex, and occupation. Frequently refers to limitation of a person's usual or major activities, most commonly vocational. There are varying types (functional, vocational, learning), degrees (partial, total), and durations (temporary, permanent) of disability. Public programs often provide benefits for specific disabilities, such as total and permanent.

Disability benefit

A provision added to a life insurance policy providing for a waiver of premium and sometimes payment of monthly income if the insured becomes totally and permanently disabled.

Disability income insurance

Provides a regular income for a person who is unable to work because of illness or accidental injury. It is a limited benefit no more than two-thirds or three-quarters of an insured's usual income. This limitation encourages a person to return to work as soon as possible.

Disability insurance

A type of insurance designed to protect a person's wages in the event that he or she becomes unable to work for an extended period of time due to injury or illness.

Discharge planning

The evaluation of patients' medical needs in order to arrange for appropriate care after discharge from an inpatient setting.

Discharged patient days

The number of patient days for all patients discharged from a facility during the accounting period. They include the day of admission, but not the day of discharge or death. If both admission and discharge or death occur on the same day, the day is considered as one discharged patient day.

D

Disclosure statement (cost accounting standards)

Persons or firms required to complete and submit a disclosure statement describe their contract cost accounting practices by providing data that are responsive to the form's requirements.

Discounted cash flow

A method of performing an economic analysis that takes the time value of money into account. Used to remove interest rates and inflation factors from a calculation so that the results of analysis are comparable.

Discounted fee for service

A method of payment that often is used in the early stages of the development of a managed care system. Providers simply give a discount to the third-party payor, calculated as a percentage reduction from their typical charge.

Discounted future earnings method

A method used in valuing a business which estimates a series of future earnings along with a terminal residual value, each of which is discounted to its present value based on the rate of return desired by the investor.

Discounting

The treatment of time in valuing costs and benefits, that is, the adjustment of costs and benefits to their present values, requiring a choice of discount rate and time frame.

Discrete number

Countable data; integer.

Discrete signal

See digital signal.

Discrete time model

A model in which the system jumps from one state to the next at fixed intervals or timesteps. These difference models are simple to understand but often difficult to analyse; Contrast continuous time models. The parameters in such a model refer to the amount of change over the finite timestep; they are sometimes referred to as finite rates. In a (rather precise) sense, a differential equation is what you eventually get from a difference equation when you let the timestep get smaller and smaller and smaller.

Discretization

See A-D conversion.

Discrimination

Distinguishing a like object from another by discerning differences in features derived from the objects.

Discussion

Any oral or written communication between the Government and an offeror (other than communications conducted for the purpose of minor clarification), whether or not initiated by the Government, that (a) involves information essential for determining the acceptability of a proposal, or (b) provides the offeror an opportunity to revise or modify its proposal.

Disease

Literally the lack of ease; a pathological condition of the body that presents a group of clinical signs, symptoms, and laboratory findings peculiar to it and setting the condition apart as an abnormal entity differing from other normal or pathological condition. Syn: dyscrasia. The concept of disease may include illness or suffering not necessarily arising from pathological changes in the body. There is a major distinction between disease and illness in that disease is usually tangible and may even be measured, whereas illness is highly individual and personal, as with pain, suffering, and distress. A person may have a serious disease such as hypertension but no feeling of pain or suffering, and thus no illness. Conversely, a person may be extremely ill, as with hysteria or mental illness but have no evidence of disease as measured by pathological

D

changes in the body. *Acute D.* - A disease having a rapid onset and relatively short duration. *Anticipated D.* - A disease that may be predicted to occur in individuals with a certain genetic, physical, or environmental predisposition. *Autoimmune D.* - A disease produced when the body's normal tolerance of the antigens on its own cells (i.e., self-antigens or autoantigens [AAGs]) disappears. Current theories are that the loss of self-tolerance is the result of damage to AAGs by microorganisms, a strong similarity in appearance between the AAG and a foreign antigen, or a foreign antigen, linking with an AAG. T cells identify the altered AAG as foreign and stimulate B cells to produce autoantibodies [Aabs] that produce inflammation and damage. Researchers have found links between AAb production and the inheritance of certain histocompatibility antigens, indicating that genetic susceptibility is probably a component in autoimmune diseases. Other unknown factors within the immune system may prevent it from stopping the abnormal inflammatory process once it has begun. Many diseases are based on AAb-AAG reactions. Systemic lupus erythematosus is an unusual autoimmune disease in that multiple tissues are affected; most disorders are limited to a single tissue. The damage to cardiac valves in rheumatic fever occurs because AAGs on the valves are similar in structure to antigens on group A beta-hemolytic streptococci. Insulin dependent diabetes mellitus is caused by AAb destruction of the islets of Langerhans, rheumatoid arthritis is caused by inflammatory changes in the connective tissue of joints, and multiple sclerosis is caused by AAb destruction of the myelin sheath covering nerves. Hemolytic anemia, some forms of glomerulonephritis, myasthenia gravis, chronic thyroiditis, Reiter's syndrome, and Graves' disease also are considered to be autoimmune diseases. **CAISSON D.** A condition that develops in divers subjected to rapid reduction of air pressure after coming to the surface following exposure to compressed air. The cause is nitrogen bubbles in the tissue spaces and small blood vessels. Symptoms appear when a diver is exposed to a depth of at least 30 ft (9.1 m) long enough for the tissues to be saturated with nitrogen, and then ascends to the surface rapidly; or when an aviator ascends rapidly in unpressurized aircraft from sea level to at least 18,000 ft (5486 m). Syn: decompression illness. Symptoms: Symptoms include deep boring, usually constant joint pain; itching skin; burning sensation in lungs and coughing; and various neurological signs. Treatment: Recompression and then slow decompression is performed in a special hyperbaric chamber. *Cat scratch D.* - A febrile disease characterized by lymphadenitis, thought to be transmitted by cats. A distinctive manifestation of this disease is the oculoglandular syndrome, which follows primary inoculation of the conjunctiva or eyelid. Regional lymphadenopathy develops within about 2 weeks, but may take as 2 months. Fever, malaise, headache, and anorexia accompany the lymphadenopathy. The causative organism is *Bartonella henselae* (formerly *Rochalimaea*), a gram-negative rod that in cats usually produces asymptomatic infection. Diagnosis is based on clinical findings combined with the history of cat contact and positive results from a cat scratch antigen skin test. Currently, antibiotics are not recommended because of minimal response. Aminoglycoside therapy, quinolone therapy, or both may be indicated for severe, disseminated disease. Hot compresses are used to promote drainage of the pustule. The prognosis is usually excellent; rare complications are encephalitis and endocarditis. *Celiac D.* - sprue. *Chronic D.* - A disease having a slow onset and lasting for a long period of time. *Chronic granulomatous D.* - Abbr: CGD. An X-linked congenital disease of phagocytes (neutrophils and macrophages) marked by defects in the respiratory burst (the metabolic process by which these cells kill bacteria after ingesting them). Patients are usually diagnosed by 2 years of age. Life expectancy is limited and depends on the success of early treatment and the degree of damage to organs, particularly the liver and lungs. Most patients die within 20 years. Symptoms: Symptoms include chronic and acute infections of the skin, liver, lymph nodes, intestinal tract, and bone, often involving bacteria or other microorganisms that usually do not cause infections such as *Staphylococcus epidermidis*, *Pseudomonas*, *Escherichia coli*, *Candida*, and *Aspergillus*. Treatment: High doses of antibiotics, usually an aminoglycoside and penicillin, are administered until blood cultures reveal the pathogenic organism. Antifungal agents such as fluconazole or amphotericin B are used if fungi are involved. Usually, 6 weeks of antibiotic therapy is required. Experimental treatments include the use of gamma interferon and bone marrow transplantation. *Communicable D.* - A disease in which the causative organism is transmissible from one person to another either directly or indirectly through a carrier or vector. *Complicating D.* - A disease that occurs during the course of another disease. *Congenital D.* - A disease that is present at birth. It may be due to hereditary factors, prenatal infection, injury, or the effect of a drug the mother took during pregnancy. *Connective tissue D.* - Abbr: CTD. A group of diseases that affect connective tissue, including muscle, cartilage, tendons, vessels, skin, and ligaments. CTDs may be acute but are usually chronic. They may be localized or systemic. *Contagious D.* - An infectious disease readily transmitted from one person to another. *Cystine storage D.* - An inherited

D

disease of cystine metabolism resulting in abnormal deposition of cystine in body tissues. The cause is disordered proximal renal tubular function. Clinically, the child fails to grow and develops rickets, corneal opacities, and acidosis. Syn: cystinosis. *Deficiency D.* - A disease resulting from inadequate intake or absorption of essential dietary factors such as vitamins or minerals. *Degenerative D.* - A disease resulting from deterioration of tissues and organs, characteristic of old age. *Degenerative joint D.* - Osteoarthritis. *Demyelinating D.* - A disturbance of nerve cells due to destruction of their myelin sheaths. *Endemic D.* - A disease that is present more or less continuously, or recurs frequently, in a community. *Epidemic D.* - A disease that attacks a large number of individuals in a community at the same time. *Epizootic D.* - An epidemic that affects animals of a particular area, usually in a short period of time. *Extrapyramidal D.* - Any of several degenerative diseases of the nervous system that involve the extrapyramidal system and the basal ganglion of the brain. Symptoms include tremors, chorea, athetosis, and dystonia. Parkinsonism is a form of extrapyramidal disease. *Familial D.* - A disease that occurs in several members of the same family. *Fibrocystic d. of the breast* - A nonspecific diagnosis for a condition marked by palpable lumps in the breasts, usually associated with pain and tenderness, that fluctuate with the menstrual cycle and become progressively worse until menopause. At least 50% of women of reproductive age have palpably irregular breasts caused by this condition. Syn: chronic cystic mastitis. Women with fibrocystic breast disease have a two to five times greater risk of developing breast cancer. Some women with this disease have atypical hyperplasia in the lesion. If these patients also have a family history of breast cancer, their risk of developing breast cancer is greatly increased. They should have a breast examination every 6 months and mammograph once a year. Nursing implications: Teach patient importance of monthly breast self examination, mapping known lumps (round, movable and well-delineated), also examination by a health professional and mammography annually or earlier as prescribed. Teach the patient that knowing the contours (feel, texture) of her breasts will make it possible for her to detect any changes, often sooner or more accurately than the health care provider who examines her infrequently. Discuss use of fine-needle aspiration for diagnosis and treatment, encouraging patient verbalize feelings and concerns. Wearing a well-fitted, supportive brassiere day and night can help reduce discomfort as can application of ice packs intermittently to tender areas and treatment with aspirin or nonsteroidal anti-inflammatory drugs available over the counter. In severe cases, hormone therapy may be prescribed. Nurse should caution that relief may not be noted for 4 to 6 months, and should assess for annoying and upsetting side effects such weight gain, amenorrhea, and masculinization. Provide emotional support for patient, who may have a heightened awareness and fear about developing breast cancer. *Fibrocystic d. of the pancreas* - Cystic fibrosis. *Fifth D.* - Erythema infectiosum, so named because it is the fifth most common rash-producing illness in children. *Focal D.* - A disease located at a specific and distinct area such as the tonsils, adenoids, or a boil. *Foot and mouth D.* - A viral disease of cattle and horses that is rarely transmitted to humans. Symptoms: In humans, symptoms include fever, headache, and malaise with dryness and burning sensation, mouth. Vesicles develop on the lips, tongue, mouth, palms, and soles. Treatment Therapy is symptomatic. Full recovery occurs in 2 to 3 weeks. *Functional D.* - A disease in which no anatomical changes can be observed to account for the symptoms present. *Heavy Chain D.* - A group of diseases involving serum immunoglobulins. The globulins contain heavy chain subunits. If immunoglobulin A is affected, abdominal lymphoma and malabsorption occur. If immunoglobulin D is involved a clinical picture similar to multiple myeloma is present. If immunoglobulin G is affected, there are lymphadenopathy, weakness, weight loss, and repeated bacterial infections. If immunoglobulin M is involved, the lymphadenopathy affects the abdominal lymph nodes, the liver, and the spleen. Bence Jones proteinuria is present. *Hemolytic D. of the newborn* - Erythroblastosis fetalis. *Hemorrhagic D. of the newborn* - A bleeding tendency in newborns characterized by melena, purpura, and prothrombin deficiency. The disease is self-limiting. *Hereditary D.* - A disease due to genetic factors transmitted from parent to offspring. *Hookworm D.* - Ancylostomiasis; Necator americanus. *Hydatid D.* - The disease produced by the cysts of the larval stage of the tapeworm Echinococcus. Syn: echinococcosis. *Hypokinetic D.* - Physical and mental illness produced by lack of or insufficient exercise. *Iatrogenic D.* - A disease caused by medical or surgical intervention. The implication is that the disease would not have occurred if the individual had not sought medical care. *Idiopathic D.* - A disease for which no active factor can be recognized. *Infectious D.* - Any disease caused by growth of pathogenic microorganisms in body. It is not necessarily contagious. *Inflammatory Bowel D.* - Abbr: IBD. The term for a number of chronic inflammatory diseases of the gastrointestinal tract. The names previously used include irritable bowel syndrome, Crohn's disease, ulcerative colitis, and regional ileitis or enteritis. There are no

D

specific features or diagnostic tests for this illness; thus, it is established by exclusion. Chronic IBD is divided into ulcerative colitis and Crohn's disease. The major clinical symptoms of ulcerative colitis are bloody diarrhea and abdominal pain. In severe cases, there may be acute bowel dehydration, anemia, fever, and weight loss. The physical findings may include tenderness along the colon. In severe cases, signs of arthritis and liver disease may be present. A major complication of severe ulcerative colitis is toxic megacolon. In Crohn's disease, the clinical signs and symptoms are similar to those of ulcerative colitis except fatigability is more common in Crohn's disease, and a palpable mass in the colon area may be present. Complications of Crohn's disease include intestinal obstruction, fistula formation between bowel segments, and intestinal perforation. Treatment: The therapy for ulcerative colitis and Crohn's disease is similar, and in both conditions, treatment will depend on the severity. The objectives are to control the inflammation and to replace fluid and nutritional losses. If bleeding is severe and chronic, blood transfusion may be needed. In ulcerative colitis, control of diarrhea by the use of codeine and antispasmodics must be done carefully to prevent colonic dilatation and toxic megacolon. Anti-inflammatory agents such as glucocorticoid and sulfasalazine are used. Intravenous cyclosporine is effective in patients with corticosteroid-resistant ulcerative colitis. Toxic megacolon manifests by segmental dilatation of the large intestine with areas of ulceration and thinning of the intestinal wall to the point that perforation may occur. This condition requires immediate intensive therapy with IV fluids, electrolyte replacement, nasogastric suction, and blood transfusion. Glucocorticoids are given IV, and broad-spectrum antibiotics are administered after stool cultures have been obtained. If the patient does not stabilize within 24 to 48 hr and intestinal perforation is a possibility, emergency colectomy is done. The mortality rate after perforation is almost 50%. Therapy of Crohn's disease is similar to ulcerative colitis, except in the latter use of glucocorticoids may mask signs of intestinal perforation or fistula formation. When the colon and small intestine are involved, the nutritional problems are more severe than with colonic involvement alone. Once the disease is in remission glucocorticoids should be discontinued gradually. *Intercurrent D.* - A disease occurring during the course of another, unrelated disease. *Iron Storage D.* - Hemochromatosis. *Kinky Hair D.* - A congenital syndrome caused by an autosomal recessive gene, consisting of short, sparse, often poorly pigmented, kinky hair and physical and mental retardation. The disease is due to a metabolic defect that causes an abnormality in the fatty acid composition of the gray matter of the brain. Death follows progressive severe degenerative changes in the central nervous system. *Lysosomal Storage D.* - A disease caused by deficiency of specific lysosomal enzymes that normally degrade glycoproteins, glycolipids, or mucopolysaccharides. Thus, the substances that cannot be catabolized accumulate in lysosomes. Specific enzymes account for specific storage diseases. Included in this group are Gaucher's, Hurler's, Tay-Sachs, Niemann-Pick, Fabry's, Morquio's, Scheie's, and Maroteaux-Lamy diseases. *Malignant D.* - 1. Cancer; 2. A disease, including but not limited to cancer, in which the progress is extremely rapid and generally threatening or resulting in death within a short time. *Mediterranean D.* - Thalassemia. *Metabolic D.* - A disease due to abnormality of the body chemistry. The abnormality may be due to underproduction of a needed substance, such as insulin in diabetes, or overproduction, such as thyroid hormone in thyrotoxicosis. *Mixed connective tissue D.* - Abbr: MCTD. A rare disease that combines the signs and symptoms of certain connective tissue diseases including lupus erythematosus, scleroderma, and polymyositis. The cause is unknown. *Motor neuron D.:* One of several diseases of the motor neurons: progressive muscular atrophy, progressive bulbar palsy, and amyotrophic lateral sclerosis. These diseases are marked by degeneration of anterior horn cells of the spinal cord, the motor cranial nerve nuclei, and corticospinal tracts. They occur principally in men. In the U.S., amyotrophic lateral sclerosis is commonly known as Lou Gehrig's disease. Gehrig was a well-known athlete whose baseball career and life ended prematurely as a result of this disease. *Occupational D.* - A disease resulting from factors associated with the occupation in which the patient is engaged. *Organic D.* - A disease resulting from recognizable anatomical changes in an organ or tissue of the body. *Pandemic D.* - An extremely widespread epidemic disease involving the populations of several countries. *Parasitic D.* - A disease resulting from the growth and development of parasitic organisms (plants or animals) in or on the body. *Polycystic Kidney D.* - A hereditary disorder in which cysts form in the kidneys, eventually destroying kidney tissues and function. The autosomal recessive form usually appears in early childhood; the autosomal dominant form usually develops later in life. The only treatments are dialysis and kidney transplant. *Psychosomatic D.* - A physical illness caused or exacerbated by psychological factors. Conditions in the general category of psychosomatic disorders are obesity, tension headache, some types of asthma, neurodermatitis, peptic ulcer, some attacks of angina pectoris, and frequency of urination. Note: It is possible for a human being to be consciously sick without

D

some interplay between the emotions and the bodily functions. *Pulmonary veno-occlusive D.* - A rare condition marked by extensive occlusion of the small and medium-sized veins of the lung by loose, sparsely cellular, fibrous tissue. Some larger veins may be involved. This disease produces severe pulmonary venous hypertension. *Reactive airway D.* - Asthma. *Restrictive Lung D.* - Any chest disease that results in a reduced lung volume. *Secondary D.* - A disease caused by another disease, as when obesity causes diseases of the joints and muscles due to the increased trauma of transporting and supporting the added weight. *Self-limited D.* - A disease that eventually goes away even if untreated. *Storage D.* - A disorder involving abnormal deposition of a substance in body tissues. *Subacute D.* - A disease in which symptoms are less pronounced but more prolonged than in acute disease; this type is intermediate between acute and chronic disease. *Systemic D.* - A generalized disease rather than a localized or focal one. *Thyrotoxic Heart D.* - A disease due to increased activity of the thyroid gland, marked by cardiac enlargement, atrial fibrillation, and heart failure. *Trophoblastic D.* - Abbr: VD. Any neuroplasm of trophoblastic origin. *Venereal D.* - Abbr: VD. A disease usually acquired through sexual relations. It includes acquired immunodeficiency syndrome (AIDS), syphilis, gonorrhea, granuloma inguinale, herpes genitalis, Chlamydia trachomatis infections, trichomoniasis, anogenital warts, scabies, pediculosis pubis, enteric infections due to anal-oral contacts, lymphogranuloma venereum, and chancroid.

Disease and intervention registries

A patient registry of occurrences of specific diseases or specific interventions.

Disease and Symptom-Prevalence Study

A study designed to measure the occurrence of self-reported disease that may, in some instances, be validated through medical records or physical examination if available, and to determine those adverse health conditions that may require further investigation because they are considered to have been reported at an excess rate. This study design can only be considered hypothesis generating.

Disease control

All the measures designed to prevent or reduce as much as possible the incidence, prevalence, and consequences of disease, such as the control of disease vectors, the removal or reduction of the influence of predisposing factors in the environment, immunization and curative care.

Disease episode

The entire time period in which a person has a specific disease.

Disease management

Treating and controlling the cause and spread of disease.

Disease prevention

Disease prevention covers measures not only to prevent the occurrence of disease, such as risk factor reduction, but also to arrest its progress and reduce its consequences once established. Reference: adapted from WHO (1984) HFA Glossary of Terms. Primary prevention is directed towards preventing the initial occurrence of a disorder. Secondary and tertiary prevention seeks to arrest or retard existing disease and its effects through early detection and appropriate treatment; or to reduce the occurrence of relapses and the establishment of chronic conditions through, for example, effective rehabilitation. Disease prevention is sometimes used as a complementary term alongside health promotion. Although there is frequent overlap between the content and strategies, disease prevention is defined separately. Disease prevention in this context is considered to be action which usually emanates from the health sector, dealing with individuals and populations identified as exhibiting identifiable risk factors, often associated with different risk behaviors.

Disease registry

A system for collecting and maintaining in a structured record, information on persons having a common illness or adverse health condition.

Disenrollment

The process of voluntary or involuntary terminating coverage in a health plan.

D

Dish

A parabolic antenna that is the primary element of a satellite earth station, or downlink.

Disk

A flat circular plate with a magnetizable surface layer on which data can be stored by magnetic recording (ISO 2382/XII-1978).

Diskette

See floppy disk.

Dispersion

See standard deviation.

Display terminal

See visual display unit.

Disproportionate share (DISPRO or DSH)

A program which provides additional reimbursement to hospitals which serve a disproportionate share of low income patients to compensate for revenues lost by serving needy Texans.

Disproportionate share hospital (DSH) adjustment

An additional payment under Medicare or Medicaid to hospitals that serve a relatively large volume of low-income patients.

Distributed database

A data base which, though conceived as one whole, is held in more than one computer.

Distributed network model

An organization where individual branches are relatively independent and communication and inventory sharing are done on an informal basis. Under this model, headquarters may offer some functions such as billing, purchasing and accounting, but for the most part, branches operate anonymously.

Distributed system

A set of computer systems interacting via a network and using data communications standards in which the various computers collaborate in common tasks.

Distribution

In epidemiology, the frequency and pattern of health-related characteristics and events in a population. In statistics, the observed or theoretical frequency of values of a variable. The pattern by which parasite numbers are partitioned amongst available hosts. If the fraction of the population who have i parasites is $p(i)$ then the distribution is the set of numbers $p(0)$, $p(1)$, $p(2)$, etc. Summary statistics of this distribution include prevalence $(1-p(0))$ and mean intensity $[p(1)+2p(2)+3p(3)+\dots]$. Useful distributions include the Poisson and negative binomial.

Distributional effects

Effects of programs that result in a redistribution of resources in the general population.

Distributive law

An algebraic rule that states that the same result is produced when an operation is applied on a whole as when operating on each part and collecting the results, e.g., $a * (b + c) = a * b + a * c$.

DM

See data mining.

DML

(Data manipulation language) Language used to store and retrieve data from a database.

DNA

(Deoxyribonucleic acid) The basic unit of DNA is the nucleotide (containing one of four bases). A

D

DNA strand can be made up of thousands of nucleotides joined by a backbone of phosphate sugars. Chromosomes typically are constructed of two strands of DNA twisted together in the shape of a double helix. Specific nucleotide sequences define genes, which encode instructions for cell function and products (including proteins). The human genome contains 100,000 genes, or 3×10^9 base pairs; the simplest bacterium contains about 2,000 genes, or 2 million base pairs.

DNA "fingerprint"

The chemical/physical profile of an organism's nucleotide sequences, typically determined from blood samples.

DNA probe

A fragment of DNA used to recognize a specific complementary DNA sequence, or gene(s). Probes can be employed, for example, to bind to the genetic material of microbes for purposes of detection, identification, or, in some cases, inactivation.

DNA replication

The use of existing DNA as a template for the synthesis of new DNA strands. In humans and other eukaryotes, replication occurs in the cell nucleus.

DNA sequence

The relative order of base pairs, whether in a fragment of DNA, a gene, a chromosome, or an entire genome. See base sequence analysis.

Document management

Digital storage and retrieval of documents that in most cases are handled as images and not as alphanumeric data.

Domain

(1) The set of elements to which a variable or function is limited. (2) Any area of interest that might be modeled, e.g., to create an information system. (3) Oracle publication on CASE metamodel defines domain as: a set of business validation rules, format constraints and other properties that apply to a group of attributes. For example, a list of values, a range, a qualified list or range or any combination of these.

Domain name

The unique name that identifies an Internet site, such as "painwebber.com" The domain name is tied to the numerical addresses (like a street address) that represents the actual identity of that machine.

Domestic end product

(1) An unmanufactured end product mined or produced in the United States, or (2) an end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components.

Domestic offer

An offered price for a domestic end product, including transportation to destination.

Domestic services

Services performed in the United States. If services provided under a single contract are performed both inside and outside the United States, they shall be considered domestic if 25 percent or less of their total cost is attributable to services performed outside the United States.

Donor registries

A registry of potential donors, maintained by international collaboration.

Doppler effect

The effect that the frequency of a reflected sound wave depends on the velocity of the target on which it reflects. This effect can be used to detect the target's velocities.

D

DOS

(Disk Operating System) An operating system residing on a hard disk. Examples for personal computers are MS-DOS (Microsoft) and the functionally identical PC-DOS (IBM).

Dose

The amount of substance to which a person is exposed. Dose often takes body weight into account.

Dot matrix image

An image, mostly a character, formed by a number of dots selected out of a rectangular array of dots.

Double blind

A clinical trial that is performed in such a way that neither the patients nor their physicians are aware of which patients have been assigned to receive the experimental intervention.

Double effect

When drugs are administered to relieve pain but have the secondary effect of shortening life.

Double helix

The shape that two linear strands of DNA assume when bonded together.

Double indemnity

A provision in some policies that provides for twice the face amount of the policy to be paid if death results from stated but generally accidental causes.

Downlink

The path, or link, from the satellite to earth stations which receive its signals. The term is frequently applied to a parabolic antenna that receives signals from a satellite. It is often referred to as a dish, a terminal, an earth station, or a TVRO (television receive only).

DRG

(Diagnosis-Related Groups) a grouping of ICD codes based on costs of treatment, to be used for budgeting and hospital reimbursement.

DRG-exempt

Certain services, such as psychiatry and acute rehabilitation, are eligible for DRG exemption under Medicare. These services normally are reimbursed on a cost basis, subject to specified limits.

Drop shipper

A limited-function distributor that carries little or no inventory. The term is sometimes used to describe certain systems integrators that configure a systems solution based on hardware and software obtained from many different vendors and then coordinate the delivery and installation by those vendors without directly handling the related items.

Droplet nuclei

The residue of dried droplets that may remain suspended in the air for long periods, may be blown over great distances, and are easily inhaled into the lungs and exhaled.

Droplet spread

The direct transmission of an infectious agent from a reservoir to a susceptible host by spray with relatively large, short-ranged aerosols produced by sneezing, coughing, or talking.

Drug formulary

A listing of prescription medications which are preferred for use by the health plan and which will be dispensed through participating pharmacies to covered persons. This list is subject to periodic review and modification by the health plan. A plan that has adopted an "open or voluntary" formulary allows coverage for both formulary and nonformulary medications. A plan that has adopted a "closed, select or mandatory" formulary limits coverage to those drugs in the

D

formulary.

Drug interaction

Interaction between two drugs administered at almost the same time causing a decrease or an increase of the effects of the drugs.

Drug utilization review

A quantitative evaluation of prescription drug use, physician prescribing patterns or patient drug utilization to determine the appropriateness of drug therapy.

DS0, DS1, DS2

(Digital telecommunications channels) These channels are capable of transmitting high volume voice, data or compressed video signals. DS1 and DS3 are also known as T1 and T3 carriers. Transmission rates are 64 Kbps for DS0, 1.544 Mbps for DS1, and 45 Mbps for DS3.

DS1

See T1

DS3

See T3

DSA

See digital subtraction angiography.

DSH hospital

Disproportionate Share Hospital. A hospital which serves a higher than average number of Medicaid and other low-income patients.

DSM

Diagnostic and Statistical Manual for Mental Disorders: a nomenclature system for mental disorders.

DSS

See Decision-support system.

DSU

(Digital Service Unit) See CSU/DSU.

DTP

(Desktop publishing) A method to prepare a document with a computer that is ready to print.

Dual choice

A situation in which an employer offers a primary and an alternative health care plan to their employees.

Dual eligible

A person enrolled in Medicare and Medicaid.

Dumb terminal

A device used only to provide input (data) or present output (information) to a user.

Duplex

A transmission system permitting data to be transmitted in both directions simultaneously.

Duplex audio

Full duplex describes the ability of both ends of a conference to speak and be heard simultaneously (like a regular phone call). Half duplex audio supports only one site speaking at a time; other speakers will be cut off.

D

Duplicate record

The occurrence of more than one record for instance, for the same patient, which should be combined.

Durable medical equipment

Equipment which meets the following criteria: (a) can withstand repeated use; (b) is primarily and customarily used to serve a medical purpose; (c) generally, is not useful to a person in the absence of illness/injury; and (d) is appropriate for home use.

Durable Power of Attorney

A formal way of empowering another person to represent you legally even if you later become incapacitated. Durable Power of Attorney cannot be used in enforcing a living will in the UK.

DVI

Digital Video Interactive is a set of proprietary hardware and software products by Intel for video digitizing and playback.

DW

See data warehouse.

Dynamic image

An image that frequently changes (i.e. blood samples).

E

E. coli

Common bacterium that has been studied intensively by geneticists because of its small genome size, normal lack of pathogenicity, and ease of growth in the laboratory.

EAN 128

Barcode specification that is able to encode all the characters that are on a conventional keyboard.

EPSDT

(Early and Periodic Screening, Diagnosis, and Treatment Program) A mandatory Medicaid benefit and service for Medicaid eligible children and adolescents under age 21 which all states are required to provide. The program is intended to ensure access to early and comprehensive health care and treatment for youths.

Earth station

The ground equipment, including a dish and other electronics components needed to receive and/or transmit satellite telecommunications signals. An "uplink" is used for sending information to a satellite for distribution to various earth receiving stations, while a "downlink" is used to receive such information.

EBV

(Epstein-Barr virus) A herpes virus which causes glandular fever (as does CMV) and some cancers.

ECG

(Electrocardiogram) Recording of the body surface potential caused by the electrical activity of the heart muscle, giving information on the condition of the heart.

Echo cancellation

Prevents a system from picking up the sound from its own speakers and transmitting it back to other conference sites that is highly desirable for acceptable audioconferencing.

Echo scan

Imaging by means of the reflection of ultrasound on tissue boundaries.

Echocardiography

Examination of the heart by means of ultrasound.

Ecological epidemiology

A branch of epidemiology which views disease as a result of the ecological interactions between populations of hosts and parasites; what we do. We contrast this with classical epidemiology.

Ecological survey

Based on aggregated data for some population as it exists at some point or points in time; to investigate the relationship of an exposure to a known or presumed risk factor for a specified outcome.

Economic analysis

A formal method of comparing two or more alternative ways of accomplishing a set objective, given a set of assumptions and constraints and the costs and benefits of each alternative, such that the analysis will indicate the optimum choice.

Economic credentialing

The use of economic criteria unrelated to quality of care or professional competency in determining an individual's qualifications for initial or continuing hospital medical staff membership or privileges.

Economic Order Quantity (EOQ)

The size of an order at which the combined cost of procuring and carrying inventory is at a

E

minimum.

Economic price adjustment

An alteration permitted and specified by contract provisions for the upward or downward revision of a stated contract price upon the occurrence of certain contingencies that are defined in the contract.

Economically disadvantaged individuals

Socially disadvantaged individuals whose ability to compete in the free enterprise system is impaired due to diminished opportunities to obtain capital and credit as compared to others in the same line of business who are not socially disadvantaged.

Edge

The border between two regions in an image with different grey levels.

Edge detection

An image analysis technique to detect borders between two regions in an image with different average grey levels.

Edge enhancement

Procedure in image processing that increases the visibility of an edge or a contour in an image.

EDI

(Electronic Data Interchange) Refers to any transmission of information without paper or human intervention between two devices or application, using a standard data format. The sending and receiving of data directly between trading partners without paper or human intervention.

EDIFACT

Electronic Data Interchange for Administration, Commerce and Transport. EDI standard especially in use in commercial environments. EDIFACT is widely adopted in Europe.

Editor

A program that does additions or alterations in text-like files such as programs. Its functionality and user friendliness is usually less than that of word processors.

EDP

Electronic data processing: mostly electronic processing of administrative or registrative data.

EDP auditing

An examination by external experts of the functioning of the information-processing activities in an organization. This examination regards the contents of the procedures and the way they are obeyed.

EEG

(Electroencephalogram) The recording of the electric activity of the brain.

EER

(Experimental Event Rate) See Event Rate.

Effective

Showing results in accordance with the objectives and targets for reducing the dimensions of a problem or improving an unsatisfactory situation.

Effective date

The date on which the Health Plan Agreement goes into effect. On this date, employees begin receiving insurance coverage and employers begin paying for it.

Effectiveness

The effects of the activity and the end-results, outcomes or benefits for the population achieved in relation to the stated objectives. The ratio between the achievement of the programme activity

E

and the desired level which, during the planning process, the planners had proposed would result from the programme activity. The degree to which a plan, a programme or a project has achieved its purpose within the limits set for reaching its objective. The extent to which actions achieve predetermined objectives. An expression of the degree to which a programme has produced the effects as planned or desired. An expression of the desired effect of a programme, service or institution in reducing a health problem or improving an unsatisfactory health situation. The essential difference between efficiency and effectiveness is that the latter is related to the results achieved (or planned to be achieved), and the former to the cost, in terms of resources, of achieving those results. The latter approaches the meaning of the technical term cost-effectiveness. Costs are not involved in this measurement as they are in that of efficiency. Thus, effectiveness measures the degree of attainment of the predetermined objectives and targets of the programme, service or institution. The assessment of effectiveness is aimed at improving programme formulation or the functions and structure of health services and institutions through analysis of the extent of attainment of their objectives. Where feasible, the extent of attainment should be quantified. Where this is not feasible, a qualitative analysis of the relevance and usefulness of the achievement has to be performed, however subjective and impressionistic such an analysis may be, until a more precise way of measuring is developed. The evaluation of effectiveness should also include an assessment of the satisfaction or otherwise expressed by the community concerned with the effects of the programme, service or institution.

Efficacy

An index of the potency of a drug or disease treatment. For an anthelmintic, usually estimated as the proportion of the worm burden in a host killed by a single dose or short-term course of the treatment. For a vaccine, efficacy is the percentage of persons who are protected by the vaccine. Specifically, if I_v is the incidence in vaccinated individuals and I_u then vaccine efficacy is $v = 1 - I_v/I_u$. Note that this may include the effects of protection due to herd immunity, and so is not the same as immunogenicity, even if the presence of an immune reaction always indicated individual protection.

Efficiency

The effects or end-results achieved in relation to the efforts expended in terms of money, resources and time. The ratio between the result that might be achieved through the expenditure of a specific amount of resources and the result that might be achieved through a minimum of expenditure. The skill with which resources have been used to achieve a given end. The extent to which resources are used as well as possible. The essential difference between efficiency and effectiveness is that the latter is related to the results achieved (or planned to be achieved), and the former to the cost, in terms of resources, of achieving those results. The latter approaches the meaning of the technical term cost-effectiveness. Hogarth J. Glossary of Health Care Terminology. Copenhagen, World Health Organization Regional Office for Europe, 1978 (Public Health in Europe, No. 4).

Efficient

Productive of effects, effective, adequately operative. Productive of results, with the efforts expended on a programme, activity, task, etc. being as good as possible in relation to the resources devoted to it.

EFMI

European Federation for Medical Informatics.

EIS

Executive information system: almost a synonym of MIS, but sometimes an EIS aggregates the data on a higher level than an MIS.

Electrocardiogram

See ECG.

Electrocardiography

The study of electrical phenomena in the heart by ECG, VCG, His-bundle recording, and so forth.

E

Electrode

A conductor used to establish contact with nonmetallic objects.

Electro-encephalography

See EEG.

Electromagnetic radiation

See EM radiation.

Electromyography

See EMG.

Electron-beam computed tomography (EBCT)

Noninvasive, imaging study for detection of plaque calcifications in coronary arteries, indicated as an alternative to invasive cardiac catheterization and angiography procedures. Procedure is performed without dye or invasive catheter insertion while patients hold their breath for 45 seconds. Studies have shown this method to have the highest accuracy in excluding significant disease; the standard invasive tests prove to be more accurate in determining the degree and extent of plaque and arterial narrowing in diseased vessels.

Electronic claims management

A computerized data interchange system for the transfer of claims, status reports and payment information between providers and an insurer. Electronic data interchange reduces administrative costs for providers and insurers.

Electronic clearinghouse

A computer network that collects claims from health care providers, then organizes and transmits those claims to the appropriate health insurance company for payment.

Electronic data interchange (EDI)

(1) Transmission of information between computers using highly standardized electronic versions of common business documents. (2) The electronic exchange of business information in a standardized, structured, machine-processible format.

Electronic mail

See E-mail.

Electronic signature

This is attached to an electronic document to bind it to a particular entity. This authentication process includes the use of several technologies including passwords, cryptography, and biometrics. See digital signature.

Electronic textbook

Multimedia document that permits different access paths, search strategies, and presentation facilities.

Electrooculography

The examination of the electrophysiological part of the visual function.

Electrophoresis

A method of separating large molecules (such as DNA fragments or proteins) from a mixture of similar molecules. An electric current is passed through a medium containing the mixture, and each kind of molecule travels through the medium at a different rate, depending on its electrical charge and size. Separation is based on these differences. Agarose and acrylamide gels are the media commonly used for electrophoresis of proteins and nucleic acids.

ELIAS

Information system for primary care, widely used in the Netherlands.

Eligibility guarantee

An assurance of reimbursement to the medical group for services/goods provided to a member

E

who subsequently is found to be ineligible for benefits.

Eligible person

A person who meets the qualifications of a health plan contract.

ELISA

See Enzyme-linked immunosorbent assay.

EM radiation

Electromagnetic radiation: consisting of periodic variations of electric and magnetic fields. Examples are gamma waves, X rays, light, and radio waves.

E-mail

(1) Electronic Mail Messages, usually text, sent from one person to another via computer. E-mail can also be sent automatically to a large number of addresses. (2) Mail in electronic form; the sender composes a message on his or her computer and transmits it via a communications network to the receiver's computer.

Emergency

(1) Any urgent condition perceived by the patient as requiring immediate medical or surgical evaluation or treatment. (2) An unexpected serious occurrence that may cause a great number of injuries, which usually require immediate attention.

Emergency contract management

Outsourcing of emergency physician and other clinical staff to a non-affiliated professional organization on the part of a hospital.

Emergency Medical Services (EMS)

Services, including rescue operations, ambulance transportation, emergency department services, and public education, that are required as a result of an acute illness or injury. Other components of an effective EMS system include rescue and emergency care training, communications (including ambulance dispatch, hospital-to-EMS crew communication, and a centralized emergency telephone number, 911, for public access), continuing medical education, effective medical control and evaluation, disaster linkage with mutual aid agreements between neighboring communities.

Emergency physician

A physician who specializes in the area of emergency medicine.

Emergency Room or Emergency Service

A hospital unit typically located in an accessible ground floor location that is set up and equipped to take care of emergent health care problems such as heart attacks, severe wounds, fractures and other types of trauma.

Emergency services

Services provided in connection with an unforeseen acute illness or injury requiring immediate medical attention. The division of a health care organization responsible for the delivery of emergency care.

Emerging small business

A small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the Standard Industrial Classification code assigned to a contracting opportunity.

EMG

Electromyography: recording of muscle action potentials.

EMLA

(Eutectic mixture of local anesthetic) An ointment that contains local anesthetics so that topical application causes local anesthesia without the need for injection.

Empirical variance

See standard deviation.

Employee benefit survey

Survey of employers administered by the U.S. Bureau of Labor Statistics to measure the number of employees receiving particular benefits such as health insurance, paid sick leave, and paid vacations.

Employee Retirement Income Security Act (ERISA)

One provision of this law allows self-funded employer plans to avoid paying premium taxes, complying with state-mandated benefits, or otherwise complying with state laws and regulations on insurance. Another provision requires plans and insurance companies to provide and explanation of benefits (EOB) statement to a member of covered insured in the event of a denial of a claim, explaining why the claim was denied and informing the individual of his or her rights of appeal.

Empowerment for health

In health promotion, empowerment is a process through which people gain greater control over decisions and actions affecting their health. Reference: new edition. Empowerment may be a social, cultural, psychological or political process through which individuals and social groups are able to express their needs, present their concerns, devise strategies for involvement in decision-making, and achieve political, social and cultural action to meet those needs. Through such a process people see a closer correspondence between their goals in life and a sense of how to achieve them, and a relationship between their efforts and life outcomes. Health promotion not only encompasses actions directed as strengthening the basic life skills and capacities of individuals, but also at influencing underlying social and economic conditions and physical environments which impact upon health. In this sense health promotion is directed at creating the conditions which offer a better chance of there being a relationship between the efforts of individuals and groups, and subsequent health outcomes in the way described above. A distinction is made between individual and 'community empowerment', where individual empowerment refers primarily to the individual's ability to make decisions and have control over his or her personal life in health promotion. Community empowerment involves individuals acting collectively to gain greater influence and control over the determinants of health and the quality of life in their community, and is an important goal in community action for health.

EMR

(Electronic medical record) See computer-based patient record.

Emulation

The imitation of a hardware system by other hardware or by software such that the imitating system accepts the data and the instructions of the emulated system.

EMYCIN

MYCIN's backward chaining inference engine as a separately usable program.

Enabling

In health promotion, enabling means taking action in partnership with individuals or groups to empower them, through the mobilization of human and material resources, to promote and protect their health. Reference: new edition. The emphasis in this definition on empowerment through partnership, and on the mobilization of resources draws attention to the important role of health workers and other health activists acting as a catalyst for health promotion action, for example by providing access to information on health, by facilitating skills development, and by supporting access to the political processes which shape public policies affecting health.

Encapsulation

Shielding the internal properties of an object from the outside world, for instance in object-oriented programming the access to the data structure of the object are restricted to access by the object's functions.

E

Encounter

A member visit to the medical group with the intent of seeing a health care provider. There may be a variety of services performed at an encounter: a brief office visit, EKG, lab test, and an immunization.

Encounter data

Description of the diagnosis made and services provided when a patient visits a health care provider under a managed-care plan. Encounter data provide much of the same information available on the bills submitted by fee-for-service providers.

Encrypt

To scramble the contents of a file or message in such a way as to make it unreadable to everyone except those with a software "key", which makes it possible to unscramble the encrypted file or message.

Encryption

A mathematical transposition of a file or data stream so that it cannot be deciphered at the receiving end without the proper key. Encryption is a security feature that assures that only the parties who are supposed to be participating in a video conference or data transfer are able to do so. This has not been an essential feature for telemedicine systems, but with the growing concern about patient privacy in telemedicine networks it may become one.

Encryption

The process of encoding (scrambling) data such that a specific key is needed to decode the data, mostly by means of methods that are based on the use of prime numbers.

End of coverage plan

Means a plan of Long-term Care services prepared by the Care Advisor for which no benefits are payable under the Plan. This plan will be arranged for you when benefits provided by the Plan are about to end due to your Maximum Lifetime Benefit.

End product

Those articles, materials, and supplies to be acquired for public use under the contract.

Endemic

A term to describe levels of infection which do not exhibit wide fluctuations through time in a defined place. For microparasites like measles, the term is used slightly differently to indicate an infection which can persist in a population in the long term without needing to be reintroduced from outside.

Endemic disease

The constant presence of a disease or infectious agent within a given geographic area or population group; may also refer to the usual prevalence of a given disease within such area or group.

Endemic fadeout

Parasite extinction occurring because endemic levels are so low that it is possible for small stochastic fluctuations to remove all parasites. Contrast epidemic fadeout.

Endogenous determinant

An individual's personal possibilities and restrictions that influence his or hers health.

Endonuclease

An enzyme that cleaves its nucleic acid substrate at internal sites in the nucleotide sequence.

Endorsement

A provision added to an existing insurance policy to modify its coverage, also called a "rider."

Endoscopy

Visual inspection of any cavity of the body by means of the endoscope. *Peroral E.* - examination

E

of organs accessible to observation through an endoscope passed through the mouth.
Transcolonic E. - Examination of the lumen of the colon by means of an endoscope inserted through an incision in its wall

Endowment insurance

A type of life insurance that is payable to the insured if he or she is living on the maturity date stated in the policy, or to a beneficiary if the insured dies prior to that date.

Engine

Software module that performs a certain task, for example a database engine or an inference engine.

Enrollee

Synonymous with member. A person eligible to receive benefits from an insurance policy. Includes both those who have enrolled or "subscribed" and their eligible dependents.

Enrollment

The number of members in an HMO. The number of members assigned to a physician or medical group providing care under contract with an HMO. Also, the process by which a health plan signs up individuals or groups as subscribers.

Enrollment area

The geographical area serviced by an HMO which may also be known as a service area.

Enrollment protection

The practice of an HMO to protect its contracted medical groups against part or all of the losses incurred for physician services above a specified dollar amount while caring for the HMO's enrollees. Also referred to as stop-loss or reinsurance.

Enterprise

An organization that exists to perform a specific mission and achieve associated goals and objectives.

Entity

(1) An object having meaning in a particular context. (2) The representation of a set of real or abstract things (people, objects, places, events, ideas, combination of things, etc.) that are recognized as the same type because they share the same characteristics and can participate in the same relationships.

Entity relation diagram

See ERD.

Entropy

(1) A variable that describes the state of a thermodynamic system. It is a measure of the disorder of a closed system. (2) A measure of the amount of information in a message.

Environmental contamination

The presence of hazardous substances in the environment. From the public health perspective, environmental contamination is addressed when it potentially affects the health and quality of life of people living and working near the contamination.

Environmental factor

An extrinsic factor (geology, climate, insects, sanitation, health services, etc.) which affects the agent and the opportunity for exposure.

Environmental health

An organized community effort to minimize the public's exposure to environmental hazards by identifying the disease or injury agent, preventing the agent's transmission through the environment, and protecting people from the exposure to contaminated and hazardous environments.

E

Environmental services

Housekeeping/janitorial staff responsible for cleaning rooms and handling waste. These are the staff at most risk - for needle sticks, mercury exposure (since they handle clean-up), and exposure to any toxic emissions from an on-site incinerator or autoclave. Also, because they handle the red bags, you will want to have environmental services' permission and involvement for any waste audit you may do. These are key people to have involved in your local effort whenever possible. The director of environmental services will be the one to speak with about the implications of the MACT rule (if their waste is incinerated) as well as waste segregation and recycling efforts.

Enzyme

A protein that acts as a catalyst, speeding the rate at which a biochemical reaction proceeds but not altering the direction or nature of the reaction.

Enzyme-linked immunosorbent assay

A sensitive, inexpensive assay technique involving the use of antibodies coupled with indicators (e.g., enzymes linked to dyes) to detect the presence of specific substances, such as enzymes, viruses, or bacteria.

Enzymes

Protein catalysts, produced by living cells, that facilitate specific chemical or metabolic reactions.

Epidemic

A rapid increase in the levels of an infection. Typical of the microparasitic infections (with long lasting immunity and short generation times) an epidemic is usually heralded by an exponential rise in the number of cases in time and a subsequent decline as susceptible numbers are exhausted. Epidemics may arise from the introduction of a novel pathogen (or strain) to a previously unexposed (naive) population or as a result of the regrowth of susceptible numbers some time after a previous epidemic due to the same infectious agent. Contrast endemic, pandemic.

Epidemic curve

A histogram that shows the course of a disease outbreak or epidemic by plotting the number of cases by time of onset.

Epidemic fadeout

Parasite extinction occurring because numbers are so low immediately following an epidemic that it is possible for small stochastic fluctuations to remove all parasites. Contrast endemic fadeout.

Epidemic period

A time period when the number of cases of disease reported is greater than expected.

Epidemiological surveillance

The ongoing, systematic collection, analysis, and interpretation of health data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know. The final link in the surveillance chain is the application of these data to prevention and control. A surveillance system includes a functional capacity for data collection, analysis, and dissemination linked to public health programs.

Epidemiologic triad

The traditional model of infectious disease causation. Includes three components: an external agent, a susceptible host, and an environment that brings the host and agent together, so that disease occurs.

Epidemiology

(1) Epidemiology is the study of the distribution and determinants of health-states or events in specified populations, and the application of this study to the control of health problems.

E

Epidemiological information, particularly that defining individual, population and/or physical environmental risks has been at the core of public health, and provided the basis for disease prevention activities. Epidemiological studies use social classifications (such as socioeconomic status) in the study of disease in populations, but generally make less than optimal use of social sciences, including economic and public policy information, in investigating and understanding disease and health in populations. "Social epidemiology" has evolved as a discipline during the past two decades. Social epidemiology is the study of health and illness in populations which is informed by social, psychological, economic and public policy information, and uses that information in the definition of public health problems and proposal of solutions. As the discipline of epidemiology further develops and expands, such distinctions will be less important in the future. (2) The study of the occurrence and causes of health effects in human populations. An epidemiological study often compares two groups of people who are alike except for one factor, such as exposure to a chemical or the presence of a health effect. The investigators try to determine if any factor is associated with the health effect. (3) The study of the patterns of determinants and antecedents of disease in human populations. Epidemiology utilizes biology, clinical medicine, and statistics in an effort to understand the etiology (causes) of illness and/or disease. The ultimate goal of the epidemiologist is not merely to identify underlying causes of a disease but to apply findings to disease prevention and health promotion.

Epidural

Situated within the spinal canal, on or outside the dura mater (tough membrane surrounding the spinal cord); synonyms are "extradural" and "peridural."

Epilepsy

Electrical disturbance in the central nervous system, giving rise to spasms and sometimes the loss of consciousness.

Epiphytotic

An epidemic in a plant host population.

Episode of care

The range of treatments provided over time for treating a condition or illness.

Epizootic

An epidemic in an animal host population. While there may be scientific reasons for distinguishing an epidemic from an epizootic, the use of epizootic is not required on linguistic grounds any more than a demographer is required to count only people.

EPO

Exclusive Provider Organization.

Equal access

Ability to choose between the different long-distance carriers. In rural areas, some local exchange carriers are still serviced by only one long-distance carrier.

Equianalgesic

Having equal pain killing effect; for example, morphine sulfate 10 mg intramuscular is generally used for opioid analgesic comparisons.

Equilibrium

A state in which a system is not changing. A population size might be at a static equilibrium at which nothing is happening (there are no births or deaths) or a dynamic equilibrium at which different processes are balanced (there are the same numbers of births and deaths). More generally, the state to which a system eventually evolves, for example sustained periodic oscillations, might be called an equilibrium.

Equity

An accounting term used to describe the net investment of owners or stockholders in a business. Under the accounting equation, equity also represents the result of assets less liabilities.

E

Equity in health

Equity means fairness. Equity in health means that people's needs guide the distribution of opportunities for well-being. Reference: WHO (1995) Equity in Health and Health Care. The WHO global strategy of achieving Health for All is fundamentally directed towards achieving greater equity in health between and within populations, and between countries. This implies that all people have an equal opportunity to develop and maintain their health, through fair and just access to resources for health. Equity in health is not the same as equality in health status. Inequalities in health status between individuals and populations are inevitable consequences of genetic differences, of different social and economic conditions, or a result of personal lifestyle choices. Inequities occur as a consequence of differences in opportunity which result, for example, in unequal access to health services, to nutritious food, adequate housing and so on. In such cases, inequalities in health status arise as a consequence of inequities in opportunities in life.

Equivalency

A logical operation between two logical expressions that is then and only then TRUE when both expressions are TRUE.

ERCP

Endoscopic retrograde cholangiopancreatography.

ERD

(Entity Relation Diagram) Method to describe a data structure by entities, i.e., the objects that are important for the user according to the external data model and by their relationships with other entities.

Error Rate

The probability of a bit, character or block being in error within a given sample size.

ESOP

Employee Stock Option Plan.

Essential Community Providers

Providers such as community health centers that have traditionally served low-income populations.

Essential drug

Any of those therapeutic substances that are indispensable for the rational care of the vast majority of diseases in a given population. Experience has shown that about 30 to 40 drugs are sufficient for primary health care in many countries, the rest being required for secondary and tertiary health care. Such lists do not mean that no other drugs are useful, but simply that in a given situation those drugs are the most needed for the health care of the majority, and should, therefore, be available at all times in adequate amounts and in the proper dosage forms.

Established catalog price

A price included in a catalog, price list, schedule or other form that (1) is regularly maintained by a manufacturer or vendor, (2) is published or made available for inspection by customers, and (3) states prices at which sales are currently or were last made to a significant number of buyers constituting the general public.

Established market price

A current price, established in the usual and ordinary course of trade between buyers and seller free to bargain, which can be substantiated from sources independent of the manufacturer or vendor, although such pricing data may have to come from the seller.

Esthetic zones

In dentistry and associated specialties, esthetic zones include the teeth and gums that are visible when a person smiles.

E

Estimating costs

The process of forecasting a future result in terms of cost, based on information available at the time.

Estimator

(1) An estimation of a phenomenon (e.g., waveform) used to obtain a better detection, a better estimation, or a better numerical calculation. (2) A piece of equipment or a program that performs an estimation.

ETC

Estimate to Complete.

Ethernet

A very common method of networking computers in a LAN. Ethernet will handle about 10,000,000 bits-per-second and can be used with almost any kind of computer.

Ethics committee

Many facilities have an ethics committee, to deal with issues of medical ethics (e.g., physician-assisted suicide). HCWH believes that the environmental impact of health care, particularly because health care providers take an oath to "first, do no harm," should be an issue considered by ethics committees everywhere.

Etiology

The study or theory of the factors that cause disease and the method of their introduction to the host, the causes or origin of a disease or disorder.

EUCLIDES

(European Clinical Laboratory Information Data Exchange Standard) A European standard for the exchange of laboratory orders and reports.

Eukaryote

Cell or organism with membrane-bound, structurally discrete nucleus and other well-developed subcellular compartments. Eukaryotes include all organisms except viruses, bacteria, and blue-green algae. Compare prokaryote. See chromosomes.

Eurotransplant

An international organization that registers patients waiting for an organ transplantation.

Euthanasia

The generally understood meaning is rather more than the dictionary definition of dying well - A good and easy death. We generally mean when a doctor induces the death, for instance with a lethal injection, of a patient who is suffering unrelievably and has persistently requested the doctor to do so. We don't generally include irrational or emotional suicides or the forced killing of another person, although the term was hijacked by Nazi Germany to mean a form of forced killing, which is a very different idea. In the Netherlands, the definitions in use for euthanasia and assisted suicide are defined by the State Commission on Euthanasia: Euthanasia is the intentional termination of life by somebody other than the person concerned at his or her request. Assisted suicide means intentionally helping a patient to terminate his or her life at his or her request.

eV

(Electronvolt) A unit of energy used in particle physics and in radiation physics. It is the energy gained by an electron when it is accelerated by a potential difference of one volt.

Evaluation

(1) The judgment of anything; (2) (in medicine) consideration of the health and physical and mental capability and potential of a patient or a person considered to be healthy; (3) the final step of the nursing process, essential in ensuring its quality and effectiveness. This step includes providing answers concerning the accuracy of the nursing diagnoses, the effectiveness of the nursing plan in meeting the needs of the patient, the usefulness of the nursing interventions in carrying out the plan, and the need for changing any aspects of the nursing process to improve

E

the quality of care; (4) (in physical therapy) the procedures used to determine the condition of the patient before initiation of therapy, and change in status to determine the continued appropriateness or need for adaptation of the therapeutic program.

Evaluation

(1) A process that attempts to determine as systematically and objectively as possible the relevance, effectiveness, and impact of activities in the light of their objectives. See Formative Evaluation, Outcome Evaluation or Impact Evaluation. (2) Measuring or describing something to assess its value with respect to a certain purpose.

Evaluation and Management (EM) Service

A nontechnical service, such as a visit or consultation, provided by most physicians to diagnose and treat diseases and counsel patients.

Event

A happening, the arrival of a significant point in time, a change in status of something or the occurrence of something external that causes the business to react.

Event rate

The proportion of patients in a group in whom an event is observed. Thus, if out of 100 patients, the event is observed in 27, the event rate is 0.27. Control Event Rate (CER) and Experimental Event Rate (EER) are used to refer to this in control and experimental groups of patients respectively.

Event-driven programming

Software architecture, in which events from the outside world, for instance, a key press, are first handled by the operating system such as Windows that generates a message to the program that should handle that event. Likewise, output from an application program is performed by sending an appropriate message to the operating system which will handle the output request.

Evidence of insurability

A procedure used to review factors concerning a person's physical condition and medical history. From this review, the company evaluates whether the risk of the individual will be accepted and the person will be offered coverage.

Evidence-based health care

Extends the application of the principles of Evidence-based medicine (see below) to all professions associated with health care, including purchasing and management.

Evidence-based medicine

(1) Selection of diagnostic or therapeutic methods on the basis of scientifically based empirical evidence. (2) The conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research.

Evoked response

See evoked signal.

Evoked signal

Signal after stimulation of a signal source.

Evoking strength

A measure used to express how strongly a finding suggests the presence of a disease.

Evolutionarily conserved

See conserved sequence.

Ex post efficiency analysis

An efficiency analysis undertaken subsequent to knowing a program's net outcome effects.

E

Excel

Name of a spreadsheet program.

Excess insurance

Coverage beyond the primary or first layer of insurance; for example, excess coverage of \$1,000,000 beyond \$500,000 of primary coverage.

Exchange

A part of an telephone system composed of one central office, the subscribers whom it serves and the interconnecting lines or wires.

Excluded hospitals and distinct-part units

Specialty hospitals, rehabilitation, psychiatric, long-term care, children's, and cancer) that are excluded from Medicare's hospital inpatient PPS. Hospitals located in U.S. territories, Federal hospitals, and Christian Science Sanatoria are also excluded from PPS. Excluded facilities are paid under cost-reimbursement, subject to rate of increase limits. Rehabilitation facilities are slated to move into a prospective payment system in October 2000. Congress has also directed HCFA to develop a legislative proposal for a prospective payment system for long-term care facilities.

Exclusion

A loss or risk that a policy does not cover.

Exclusion coverage

Method of integrating payment for health benefits provided by Medicare and an employer. Medicare payments are subtracted from actual claims and the employer-sponsored plan's benefits are applied to the balance. Such coverage generally leaves the beneficiary responsible for the employer's plan's cost sharing and deductibles.

Exclusions

Populations or services can be excluded from a mainstream managed care plan, and reimbursed on a fee-for-service basis. An exclusion generally employed if mainstream plans are unwilling to enroll high cost individuals or if a system of care does not exist to serve this population, because either their disease is rare or their rural or remote location prohibits the formation of a managed care network.

Exclusive OR

See XOR.

Exclusive provider arrangement (EPA)

An indemnity or service plan that provides benefits only if care is rendered by the institutional and professional providers with which it contracts (with some exceptions for emergency and out-of-area services).

Exercise ECG

ECG recorded during physical exercise of the patient.

Exogenous determinant

Factors coming from the outside world that influence somebody's health.

Exogenous DNA

DNA originating outside an organism.

Exons

The protein-coding DNA sequences of a gene. Compare introns.

Exonuclease

An enzyme that cleaves nucleotides sequentially from free ends of a linear nucleic acid substrate.

E

Expectation

The mean of a statistical function.

Expenditure target (ET)

A mechanism to adjust fee updates (or the fees themselves) based on how actual expenditures in an area compare to a target for those expenditures.

Experience rate

The percentage applied to the cost of premiums in a subsequent period, based on the loss experience of the insurance company during the past period.

Experience rating

A method used by actuaries to determine health insurance premium levels for a select group of insured people. It uses actual loss ratios or health care consumption to determine the group's premium rates. Depending on the size of the group, the premium can be affected significantly by high average use rates or by a single individual with extremely high costs of care.

Experimental study

A study in which the investigator specifies the exposure category for each individual (clinical trial) or community (community trial), then follows the individuals or community to detect the effects of the exposure.

EXPERT

A rule-based shell, used to create decision-support systems.

Expert system

Older term for a knowledge-based system.

Explanation of Benefits (EOB)

A statement provided by an insurance company in response to a claim being filed which explains what amount will be paid by the plan and what amount is the individual's responsibility.

Exponent

A number used to tell how many times a number or variable is used as a factor. For example, 5^3 indicates that 5 is a factor 3 times, that is, $5 \times 5 \times 5$. The value of 5^3 is 125.

Exponential decay

A decline in which the rate of decay is always proportional to the amount of material remaining; the constant of proportionality is the rate constant.

Exponential function

A function that has an equation of the form $y = ax$. These functions are used to study population growth or decline, radioactive decay, and compound interest.

Exponential growth

An increase in which the rate of growth is always proportional to the amount of material remaining; the constant of proportionality is the rate constant.

Exposed (group)

A group whose members have been exposed to a supposed cause of disease or health state of interest, or possess a characteristic that is a determinant of the health outcome of interest.

Exposure

Contact with a chemical by swallowing, by breathing, or by direct contact (such as through the skin or eyes). Exposure may be short term (acute) or long term (chronic).

Exposure dose reconstruction

An approach that uses computational models and other approximation techniques to estimate cumulative amounts of hazardous substances internalized by people at presumed or actual risk from contact with substances associated with hazardous waste sites.

Exposure investigation

The collection and analysis of site-specific information to determine if human populations have been exposed to hazardous substances. The site-specific information may include environmental sampling, exposure-dose reconstruction, biologic or biomedical testing, and evaluation of medical information. The information from an exposure investigation is included in public health assessments, health consultations, and public health advisories.

Exposure registry

A system for collecting and maintaining in a structured record, information on persons with documented environmental exposure(s). The exposure registry evolved from the need for fundamental information concerning the potential impact on human health of long-term exposure to low and moderate levels of hazardous substances.

Expressed gene

See gene expression.

Expressly unallowable cost

A particular item or type of cost which, under the express provisions of an applicable law, regulation, or contract, is specifically named and stated to be unallowed.

Extended care facility

A nursing home-type setting that offers skilled, intermediate, or custodial care.

Extensibility

It is often useful to add new elements, properties and associations into a BPR project Dictionary. This is achieved by a facility known as (user) extensibility.

External data model

In the framework of a DBMS: data as seen from the viewpoint of the user.

External Quality Review Organization (EQRO)

States are required to contract with an entity that is external to and independent of the State and its HMO and HIO contractors to perform an annual review of the quality of services furnished by each HMO or HIO contractor.

Externalities

Effects of a program that impose costs on persons or groups who are not targets.

Extranet

A business-to-business network of computer leveraging Internet standards and protocols designed to simplify information sharing and transactions.

Extrasystole

A premature ventricular contraction of the heart that may give rise to an arrhythmia.

Face amount

The amount stated on the face of the policy that will be paid in case of death or at maturity. It does not include amounts added through dividend additions, double indemnity or other special provisions.

Facilities capital

The net book value of tangible capital assets and of those intangible capital assets that are subject to amortization.

Facilities contract

A contract under which Government facilities are provided to a contractor or subcontractor by the Government for use in connection with performing one or more related contracts for supplies or services.

Facilities management

Staff in charge of building maintenance and repair.

Facility specific

Rate methodology which pays providers delivering the same type of service at different rates. Rates are tied explicitly to facility expenditures on items most directly related to patient care.

Failsafe Budget Mechanism

An overall limit on Medicare spending proposed in a conference agreement passed by the Congress in November 1995. The mechanism would obtain scored savings of \$270 billion by the year 2002 based on economic assumptions of the Congressional Budget Office, and would provide a safeguard against unrestrained growth in Medicare spending.

Fair and reasonable price

A price that is fair to both parties, considering the agreed-upon conditions, promised quality, and timeliness of contract performance. Although generally a fair and reasonable price is a function of the law of supply and demand, there are statutory, regulatory, and judgmental limits on the concept.

Fair market value

The price (cash or equivalent) that a buyer could reasonably be expected to pay and a seller could reasonably be expected to accept, if the business were for sale on the open market for a reasonable period of time, both buyer and seller being in possession of all pertinent facts, and neither being under any compulsion to act.

False alarm

A false-positive alarm, a term especially used in patient monitoring.

False negative

A measure for the quality of a decision. The percentage of objects that have some attribute and for which a decision procedure incorrectly rejects this attribute.

False positive

A measure for the quality of a decision. The percentage of objects that do not have some attribute but for which a decision procedure incorrectly detects this attribute.

Family practice

A form of specialty practice in which physicians provide continuing comprehensive primary care within the context of the family unit.

Family practitioners

MDs or DOs who specialize in providing comprehensive, continuous health care for all family members, regardless of age or sex.

FAQ

(Frequently Asked Questions) FAQs are documents that list and answer the most common questions on a particular subject to assist the newly initiated.

FASB

Financial Accounting Standards Board

Fast Fourier transform (FFT)

A method to quickly compute the Fourier transform.

Fast track designation

FDA designation intended to facilitate development and expedite reviews of drugs/instruments intended to treat a serious or life-threatening condition and address unmet medical needs for such a condition. The manufacturer, or sponsor, submits an application requesting a fast track designation from the FDA, which may (conditionally) or may not approve the application based on the criteria mentioned above. If a fast track designation is granted, the manufacturer may submit data to the FDA during the clinical trial process and thus speed up the regulatory review process leading to final approval.

Favorable selection

A tendency for utilization of health services in a population group to be lower than expected or estimated.

Fax (Facsimile)

A machine that transfers images of hard copy documents normally over telephone lines.

Fax/Modem

Facsimile capability built directly into the hardware components of a computer, so documents and/or images can be transmitted over telephone lines without the need to transfer those documents or images to hard copy first.

FDA

Food and Drug Administration, the US government organization that certifies medical equipment and drugs.

FDDI

(Fiber Distributed Data Interface) A high speed fiber optic network which has "state of the art" bandwidth. The medical centers of Buffalo, New York were one of the first healthcare information networks to use fiber.

Feature

(1) A measured or derived characteristic that is of importance for a decision or for a pattern-recognition problem. (2) The signs, symptoms, measurements, and results of tests.

Feature extraction

See feature selection.

Feature selection

Selecting and extracting semantically or statistically relevant parameters for classification of, for instance, signals or images.

Feature space

An abstract space of n dimensions in which the n features are the axes.

Feature vector

A set of features.

Federal Acquisition Regulation (FAR)

The body of regulations which is the primary source of authority governing the Government procurement process. The FAR, which is published as Chapter 1 of Title 48 of the Code of

F

Federal Regulations, is prepared, issued, and maintained by under the joint auspices of the Secretary of Defense, the Administrator of General Services, and the Administrator of the National Aeronautics and Space Administration. Actual responsibility for maintenance and revision of the FAR is vested jointly in the Defense Acquisition Regulatory Council (DARC) and the Civilian Agency Acquisition Council (CAAC). The FAR provisions are implemented and augmented by the various agency supplements, and are subject to interpretation by the entities such as the Federal courts, the Armed Services Board of Contract Appeals (ASBCA), the General Services Board of Contract Appeals (GSBCA) and others.

Federal Employee Health Benefits Program (FEHBP)

The health insurance program that covers federal employees. The program's key features are: 1. Federal employees in most places can choose once a year among eight to 12 competing health insurance plans. 2. The government contributes a fixed amount of money that can be as much as 75 percent of each employee's premium. 3. The extra cost of more expensive plans must be paid by the employee. 4. The plans must accept every applicant and charge the same premium to every enrollee.

Federal Information Resource Management Regulation (FIRMR)

The body of regulations that has primary jurisdiction over the acquisition by the Government of supplies and services related to automated data processing. In cases of conflict with the Federal Acquisition Regulation (FAR), the provisions of the FIRMR have precedence.

Federal Medical Assistance Percentage (FMAP)

The percentage of federal dollars available to a state to provide Medicaid services. FMAP is calculated annually based on a formula designed to provide a higher Federal matching rate to States with lower per capita income. In 1994 the FMAP for Texas is approximately 64 percent for most services. The federal share of Medicaid administrative costs is not based on a per capita income formula. It is a flat 50 percent for most activities.

Federally Qualified Health Center (FQHC)

A center receiving a grant under the Public Health Services Act or an entity receiving funds through a contract with a grantee. These include community health centers, migrant health centers and health care for the homeless. FQHC services are mandated Medicaid services and may include comprehensive primary and preventive services, health education and mental health services.

Federally qualified HMO

An HMO that has had its entire business process extensively evaluated and approved by HCFA; an organization must be federally qualified to participate in certain Medicare cost and risk contracts.

Fee

In specified cost reimbursement pricing arrangements, fee represents an agreed-to amount beyond the initial estimate of costs. In most instances, fee reflects a variety of factors, including risk, and is subject to statutory limitations. Fee may be fixed at the outset of performance, as in a cost-plus-fixed-fee contract, or may vary (within a contractually specified minimum-maximum range) as in a cost-plus-incentive fee contract.

Fee disclosure

Physicians discuss, or have posted, charges for services rendered. Fee-For-Service: (1) Is the most prevalent payment mechanism for physicians. It is reimbursing the provider whatever fee he or she charges on completion of a specific service (2) A method of paying health care providers for individual medical services rendered, as opposed to paying them salaries or capitated payments. (3) Type of payment used by some health insurers that pays providers for each service after it has been delivered.

Fee schedule

A listing of charges or established benefits for specified medical or dental procedures.

F

Fee schedule payment area

A geographic area within which payment for a given service under the Medicare Fee Schedule does not vary.

Feedback

The bringing back of part of the output of a system to the input.

Fee-for-service

Method of billing for health services under which a physician or other practitioner charges separately for each patient encounter or service rendered; it is the method of billing used by the majority of U.S. country's physicians. Under a fee-for-service payment system, expenditures increase if the fees themselves increase, if more units of service are provided, or if more expensive services are substituted for less expensive ones. This system contrasts with salary, per capita, or other prepayment systems, where the payment to the physician is not changed with the number of services actually used. FEE-FOR-SERVICE INSURANCE - Health insurance plans that reimburse physicians and hospitals for each individual service rendered. FEE-FOR-SERVICE REIMBURSEMENT - The traditional health care payment system, under which physicians and other providers receive a payment for each unit of service they provide.

FEP

(Front End Processor) A computer linked to the host by a high speed channel that manages data transmitted over a network in both directions. By performing network processing tasks the FEP frees up CPU resources.

Fertility rate

Live births in a year per 1,000 females, age 15 - 44.

FEST

(Framework for European Telemedicine Services) FEST is an European Community (EC) funded project with some 22 partners and associated partners which is supported under the AIM program. The main objective is to develop a framework for Telemedicine services.

FFP

Firm-Fixed Price (contract).

FFT

See fast Fourier transform.

Fiber Optic Cable

(1) Cable that is insulated, flexible and consists of a glass core that relies on light sources rather than electricity to transmit audio, video, and data signals. This system permits high capacity transmission at extreme speeds, sometimes billions of bits per second, with very low error rates.
(2) Hair-thin, flexible glass rods encased in cables that uses light pulses rather than electricity to transmit audio, video, and data signals. Fiber optics allow transmission speeds of voice and data in the billions of bits per second at low error rates and high capacity.

Fibrillation

Disturbance in which the muscle cells contract chaotically and independently of each other, which makes a normal contraction impossible. In the heart, atrial fibrillation or ventricular fibrillation may occur.

Fiducial marker

Marker points in an image that correspond to known positions in the original.

Fiduciary

Relating to, or founded upon, a trust or confidence. A fiduciary relationship exists where an individual or organization has an explicit or implicit obligation to act in behalf of another person's or organization's interests in matters which affect the other person or organization. A physician has such a relation with his/her patient, and a hospital trustee has one with a hospital.

F

Field

Part of a record containing one piece of data. Oracle CASE Dictionary Ref Guide: A means of implementing an item of data within a file. It can be in character, date, number or other format, and can be optional or mandatory.

FIFO

First In, First Out (inventory method).

File

(1) A data-storage entity that has a name and that is divided into logical records. Mostly, a file contains related records. (2) Oracle CASE Dictionary Ref Guide: A method of implementing part or all of a database.

Film digitizer

(1) A device that allows scanning of existing static images so that the images can be stored, manipulated or transmitted in a digital form. (2) An instrument that permits scanning of existing static images so that the images may be stored, manipulated, or transmitted in digital form.

Filter

Removes (equipment or software) or removing (activity) unwanted parts from the frequency spectrum of a signal or an image.

Final cost objective

A cost objective that has allocated to it both direct and indirect costs and, in the contractor's accumulation system, is one of the final accumulation points.

Final indirect cost rate

The indirect cost rate established and agreed upon by the Government and the contractor as not subject to change. It is usually established after the close of the contractor's fiscal year (unless the parties decide upon a different period) to which it applies. In the case of cost-reimbursement research and development contracts with educational institutions, it may be predetermined; that is, established for a future period on the basis of cost experience with similar contracts, together with supporting data.

Final indirect rate proposal

A document required to be prepared and submitted annually by contractors performing cost-reimbursement contracts in which the contractor enumerates the composition of its claimed indirect cost pools and the resulting indirect cost rates for the year. The proposal is subject to audit by the Government before final rates are determined.

Finance

The sources, timing, and channels of public health funds, and the authority to raise and distribute those funds.

Financial feasibility

The projected ability of a provider to pay the capital and operating costs associated with the delivery of a proposed health care service.

Firewall

A computer connected both to the Internet and the local HIN that prevents the passing of Internet traffic, in the form of IP packets, to the internal hospital network. Provides an added layer of protection against 'hackers'. There are two kinds of firewalls: external, which protect all hospital systems from the outside world, and internal, which protect only selected systems. Firewall disadvantages: it restricts information transfer in both directions, and makes file transfer (ftp) and telnet (remote login) more difficult. See access control, encryption.

Firm-fixed-price (FFP) contract

A fixed-price contract which provides for a price that is not subject to any adjustment on the basis of the contractor's cost experience in performing the contract. This contract type places upon the contractor maximum risk and full responsibility for all costs and resulting profit or loss. It

F

provides maximum incentive for the contractor to control costs and perform efficiently and imposes a minimum administrative burden upon the contracting parties.

First in, first out (FIFO)

An accounting term used to describe the inventory method that allocates cost on the assumption that the cost of the first goods purchased is the cost of the first goods sold.

Fiscal intermediary

An agent that has contracted with providers of services to process claims for reimbursement under health-care coverage. In addition to handling financial matters, it may perform other functions such as providing consultative services or serving as a center for communication with providers and making audits.

Fiscal soundness

The requirement that managed care organizations have sufficient operating funds, on hand or available in reserve, to cover all expenses associated with services for which they have assumed financial risk.

Fiscal year

A 12-month period for which an organization plans the use of its funds, such as the Federal government's fiscal year (October 1 to September 30). Fiscal years are referred to by the calendar year in which they end; for example, the Federal fiscal year 1998 began October 1, 1997. Hospitals can designate their own fiscal years, and this is reflected in differences in time periods covered by the Medicare Cost Reports. See also PPS year.

FISH

(Fluorescence In Situ Hybridization) A physical mapping approach that uses fluorescein tags to detect hybridization of probes with metaphase chromosomes and with the less-condensed somatic interphase chromatin.

Fisher's test

Test to compare observed frequencies in populations.

Five-year review

A review of the accuracy of Medicare's relative value scale that the Health Care Financing Administration is required to conduct every five years. (MedPAC, 1998)

Fixed assets

Term used to describe tangible assets having relatively long lives such as property, plant and equipment.

Fixed cost

Costs that do not vary with the level of activity during a given period. In practice, some fixed costs are difficult to distinguish from variable costs; it has been said that all costs are fixed in the short run and variable in the long run.

Fixed-price (FP) contract

A contract type which provides for a firm price or, in appropriate cases, an adjustable price. Fixed-price contracts providing for an adjustable price may include a ceiling price, a target price (including target cost), or both. Unless otherwise specified in the contract, the ceiling price or target price is subject to adjustment only by operation of contract clauses providing for equitable adjustment or other revision of the contract price under stated circumstances.

Fixed-price incentive (FPI) contract

A fixed-price contract that provides for adjusting profit and establishing the final contract price by application of a formula based on the relationship of total final negotiated cost to total target cost. The final price is subject to a price ceiling, negotiated at the outset.

Flame

A heated exchange.

F

Flat Rate

Method of reimbursement whereby providers delivering the same service are paid at the same rate. Also known as uniform rate.

Flexible benefit plan

A benefit program that offers employees a number of benefit options, allowing them to tailor benefits to their needs.

Flock-worker's lung

A form of chronic interstitial lung disease characterized by dry cough, shortness of breath, and chest pain and thought to be caused by the inhalation of flock (short nylon fibers). Nylon fiber was previously felt to be biologically inert; however, a recent outbreak of the disease in eight flock workers in Rhode Island suggests it may cause a pathological inflammatory response under certain conditions.

Floppy disk

Inexpensive lightweight removable disk with a limited storage capacity (storage capacity up to about 2 Mbytes [1996]) for a personal computer used to store and retrieve data. It consists of a flexible (floppy) disk coated with magnetic oxide surrounded by a hard plastic case.

Flow cytometry

(1) Analysis of biological material by detection of the light-absorbing or fluorescing properties of cells or subcellular fractions (i.e., chromosomes) passing in a narrow stream through a laser beam. An absorbance or fluorescence profile of the sample is produced. Automated sorting devices, used to fractionate samples, sort successive droplets of the analyzed stream into different fractions depending on the fluorescence emitted by each droplet. (2) Assessing the DNA content in a flow of suspensions of cell contents by measuring the light intensity caused by fluorescent stains.

Flow karyotyping

Use of flow cytometry to analyze and/or separate chromosomes on the basis of their DNA content.

Flowchart

(1) A graphical representation of the definition, the analysis, or the solution of a problem, making use of symbols that represent processing, decisions, input/output, and so forth. (2) In decision-support systems a connection of decision units (microdecisions) that are traversed sequentially via a path that depends on the outcome of the microdecisions.

Fluid balance

The balance between fluid input and output of a patient within a fixed period.

Futter

In cardiology, a rapid and quasi-periodic atrial or ventricular excitation.

FMV

Fair Market Value.

FN

See false negative.

Folder

A set of files that can be found under the name of the folder. Syn: directory.

Folders

IBM software which, when used with Linkway and a corresponding LaserDisc, allows rapid access of frames and sophisticated branching.

Food and Drug Administration

See FDA.

Foodborne illness

Illness caused by the transfer of disease organisms or toxins from food to humans.

Footprint

The geographic region on the earth underneath a satellite which is in the appropriate range to receive that satellite's information.

Force of infection

The per capita rate at which susceptibles are infected.

Foreign exchange

A variation of the tie line that establishes a connection between a PBX and a remote central office using a dedicated line. The user can call all numbers in the distant exchange while only paying for one line and a local call cost.

Foreign offer

An offered price for a foreign end product, including transportation to destination and duty (whether or not a duty-free entry certificate is issued).

Formative evaluation

Formative evaluation, including pretesting, is designed to assess the strengths and weaknesses of materials or campaigning strategies before implementation. It permits necessary revisions before the full effort goes forward. Its basic purpose is to maximize the chance for program success before the communication activity starts. (Making, 1992)

Forms-driven data entry

Data entry by means of a form with a fixed layout which must be completed.

Formulary

A collection of (allowed) medications.

For-profit hospital

A hospital that is owned and operated by a corporation or a group of investors, and is required to produce a return on investment and pay income taxes.

Forward chaining

See forward reasoning

Forward pricing rate agreement

A written agreement negotiated between a contractor and the Government to make certain rates available during a specified period for use in pricing contracts or modifications.

Forward reasoning

An inference mechanism that starts with case data and executes production rules that use these data. Syn: data-driven reasoning. Ant: backward reasoning.

Foundation model

A legal mechanism that allows a hospital or health system to employ physicians indirectly; the physicians are technically employed by a independently chartered organization, which then has a contract with the foundation to provide care; particularly popular in states with corporate-practice-of-medicine statutes.

Fourier transformation

Mathematical transformation of a signal or an image from the time or spatial domain into the frequency domain, or vice versa. (See also FFT).

Fourth-generation programming languages

Programming languages that are sometimes considered successors to the procedural languages. They have a higher level of abstraction from the actual functioning of a computer. An

F

example is SQL.

FP

See false positive.

Fractal

A geometric shape that is self-similar and has fractional dimensions. Natural phenomena such as the formation of snowflakes, clouds, mountain ranges, and landscapes involve patterns. Their pictorial representations are fractals and are usually generated by computers.

Frame

A form of knowledge representation in which concepts are associated explicitly with their defining attributes. Instances of a concept are created by assigning values to the attributes.

Frame grabber

Captures, into a computer, the analog display output of cameras, VCRs, etc.

Frame rate

Frames per second (fps) displayed on a video monitor. A frame rate of 25-30 fps is considered 'full motion' and is what most broadcast video operates at. A frame rate of 15 fps is noticeably 'jerky'. Slower frame rates may be inadequate for gait and motion observations and analysis.

Frame relay

A streamlined process of sending and acknowledgement of transmitted packets of data which improves the rate of data transfer compared to previous transmission protocols.

Frame-based

A decision-support system in which the knowledge is condensed in coherent groups of decision rules.

Frame-based inheritance

Inheritance of the values of attributes, that is, when concepts in a frame-based knowledge-representation system are organized hierarchically in a taxonomy, more specific concepts in the hierarchy automatically may assume the values for attributes of related concepts that are more general.

Frame-based system

A knowledge-based system in which frames constitute the primary means for encoding knowledge.

Free text

Natural language text without restrictions on format and word choice. Syn: natural language. Ant: structured language.

Freedom of choice

(1) In general, a state must ensure that Medicaid beneficiaries are free to obtain services from any qualified provider. Exceptions are possible through waivers of Medicaid and special contract options. (2) The ability of consumers to select or change their own doctors and to go directly to a specialist or receive specialty care without seeking a referral from a primary care physician. In general, a state must ensure that Medicaid beneficiaries are free to obtain services from any qualified provider. Exceptions are possible through the state obtaining Federal waivers and special contract options.

Free-form text

See free text.

Free-standing Health Care Facility

Usually a specialty facility that is not part of the general hospital. For example, a free-standing outpatient surgery facility or a free-standing psychiatric hospital.

F

Freestanding hospital

A hospital that is not formally tied to any other hospital or health care organization.

Freestanding surgical center/surgi-center

A health care facility that is physically or geographically separated from a hospital and provides surgical services to outpatients who do not require hospitalization.

Freeze frame

One way to transmit still images over regular telephone lines. A single image is transmitted every 8 to 30 seconds. This method may also be known as slow scan. It is useful in a medical consultation, allowing the consultant to get a well framed and focused still image of a lesion or other item of interest for closer examination. Often images captured from a live video source are of higher resolution than the live video picture and as a result may provide more diagnostic value.

Frequency

(1) The number of times that an event occurs in an interval. (2) The rate at which an electromagnetic signal alternates. It is a term used with analog signals, and is reported in Hertz.

Frequency analysis

Analysis of the frequency components of a signal, mostly done by bandpass filtering or Fourier transformation.

Frequency distribution

A complete summary of the frequencies of the values or categories of a variable; often displayed in a two column table: the left column lists the individual values or categories, the right column indicates the number of observations in each category.

Frequency polygon

A graph of a frequency distribution with values of the variable on the x-axis and the number of observations on the y-axis; data points are plotted at the midpoints of the intervals and are connected with a straight line.

Frequency response

Measured in cycles/second (Hz); a relative measure of audio quality. Generally the broader the response the better. To approximate a standard acoustic stethoscope, an electronic stethoscope should be able to send and receive sounds as low as 30 Hz (for low-pitched heart murmurs) and as high as 1000 Hz (for squeaks, wheezes and pops heard in lung sounds). Many electronic stethoscopes can have their frequency response optimized for either heart or lung sounds by flipping a switch.

Frequency spectrum

The amplitude of the various frequencies in a signal or an image.

Friedman test

Test to compare data that are not normally distributed for multiple observations on same individuals.

Fringe pool

A type of indirect cost pool that commonly is established for the purpose of accumulating employee fringe benefit costs. This type of pool has become increasingly popular in recent years. Common costs accumulated in such pools include those for compensated absences, health insurance, bonuses, retirement plans, and payroll taxes.

Fringe rate

An indirect cost rate which expresses the relationship between costs accumulated in a fringe pool and the related base for allocating such costs, for a given period of time. A typical allocation base for a fringe pool is the related labor dollars.

F

FTP

(File Transfer Protocol) An application under TCP/IP to retrieve a file from another computer over a network.

Full and open competition

With respect to a contract action, means that all responsible sources are permitted to compete.

Full duplex

A channel used for communication that is capable of both transmitting and receiving in two directions at the same time. A standard telephone line is one example of this because both parties can simultaneously speak while listening to the voice on the opposing end.

Full motion video

(1) A standard video signal, conventionally requiring 6 Mhz an analog format and 90 Mbps when digitally encoded, that is able to be transmitted by a variety of ways including television broadcast, microwave, fiber optics, and satellite. Full motion video traditionally requires 6 MHz in analog format and 45 Mbps when encoded digitally. Industry agreements are still needed for efficiently mapping advanced digital video streams into ATM and handling the effect of "cell jitter" in applications where video and audio synchronization is crucial. Since 1994 there have been multimedia experiments over MBONE (Multicast backBONE) primarily by NASA and the military. For more info, refer to the MBONE FAQ. Some form of video compression normally is used to reduce the amount of data and to allow it to be read from disk quickly enough. The time taken for compression can be relatively long; decompression is done in real-time with the picture quality and frame rate varying with the processing power available. Two compression standards discussed with full motion video are H.261 and MPEG. H.261 was developed before 1992 to work with ISDN and support video conferencing. (2) Video running at 25 (PAL, SECAM) or 30 (NTSC) frames per second, down to 10-15 fps. Any frame rate less than about 10 fps is approaching slow-scan video.

Full-time Equivalent (FTE)

In an organization with a 40-hour work week, there is one full-time equivalent employee paid for every 2,080 hours paid per year.

Fully insured

An insurance company funds health care costs from the premiums paid to it by policyholders.

Function

(1) A relationship between two sets of numbers (or other mathematical objects). Functions can be used to understand how one quantity varies in relation to another, for example, the relationship between the number of cars and the number of tires. (2) A specific set of skills and resources that can be used to perform one or more activities that make up a process. Usually several functions are associated with a single process.

Function key

Special keys that may used to control the program flow.

Function laboratories

Departments that examine the dynamic (functional) properties of organs and organ systems.

Functional Economic Analysis (FEA)

A technique for analyzing and evaluating alternative information system investments and management practices. Within DoD, FEA is a business case. Also, a document that contains a fully justified proposed improvement project with all supporting data.

Functional Independence Measure

(Function Related Group) A Patient classification system developed for medical rehabilitation patients.

Functional MRI

Use of magnetic resonance imaging to study metabolic processes in the brain.

F

Functional process improvement

A structured approach by all or part of an enterprise to improve the value of its products and services while reducing resource requirements. Also referred to as business process improvement (BPI), business process redesign, and business reengineering.

Fuzzy-set theory

An expansion of classical set theory, in which the membership of a set is not given by TRUE or FALSE, but rather by a distribution function.

G

G

See Giga.

G&A pool

A type of indirect cost pool that commonly is established for the purpose of accumulating general and administrative expenses. G&A expenses are often distinguished from expenses included in one or more overhead pools on the basis that the G&A expenses are less directly associated with contract activities than overhead costs. Costs typically segregated in a G&A pool include general management salaries, salaries of employees engaged in administration, finance and accounting, and a proportionate share of items such as rent, depreciation, taxes, and general business insurance associated with general and administrative activities. The G&A pool is also the repository for Bid and Proposal (B&P) and Independent Research and Development (IR&D) costs, as well as certain other business development costs.

G&A rate

An indirect cost rate which expresses the relationship between costs accumulated in a G&A pool and the related base for allocating such costs, for a given period of time. The base for allocating G&A expenses in determining the G&A rate usually consists of total cost inputs for a business unit before G&A expenses.

Gail model

A commonly used biological model to estimate a woman's risk of developing breast cancer. The Gail model determines risk based on her age, reproduction history, previous breast biopsy history, and the number of first-degree relatives with breast cancer.

Gainsharing

Is an incentive program focused on improving operating results, typically implemented at the group or organizational level.

GALEN

Galen is a reference model for medical concepts.

Gamete

Mature male or female reproductive cell (sperm or ovum) with a haploid set of chromosomes (23 for humans).

Gaming

Gaining advantage by using improper means to evade the letter or intent of a rule or system.

Gamma camera

A device that transforms gamma radiation into a visual or electric image.

Gamma knife

Device provides 201 beams of radiation for treatment of multiple types of brain lesions. Each beam contains low-dose gamma radiation, which leaves healthy tissue undamaged with only high-dose radiation being delivered directly to the tumor where the multiple beams converge.

Gamma radiation

High energy electromagnetic radiation used for imaging and for radiotherapy.

Gantry

Mechanical structure to support equipment.

Gastroesophageal reflux disease (GERD)

Condition in which stomach contents back up into the esophagus, causing discomfort, indigestion and/or heartburn.

Gatekeeper

The primary care practitioner in managed care organizations who determines whether the presenting patient needs to see a specialist or requires other non-routine services. The goal is to

G

guide the patient to appropriate services while avoiding unnecessary and costly referrals to specialists.

Gatekeeper model

A method of providing health care services in which the primary care physician is the patient's initial and main contact for care and referrals.

Gatekeeper physician

The contact physician in a gatekeeper model; this physician is usually a family practitioner, internist, pediatrician or obstetrician/gynecologist.

Gateway

A computer used to provide translations between different types of standards. Generally refers to computers that translate complex protocol suites; for example, different E-mail messaging systems. Currently, it has been used to describe a "door" from a private data network to the Internet. For example, Prodigy has a gateway that translates between its internal, proprietary e-mail format and Internet e-mail format. Another, sloppier meaning of gateway is to describe any mechanism for providing access to another system, e.g. AOL might be called a gateway to the Internet.

Gaussian distribution

See normal distribution

GDP (Gross domestic product)

A measure for the economic activity in a country, defined as the resident producers value of gross output at market prices, including taxes and import duties. It is equal to total final uses of goods and services at purchaser's value.

Gene

The fundamental physical and functional unit of heredity. A gene is an ordered sequence of nucleotides located in a particular position on a particular chromosome that encodes a specific functional product (i.e., a protein or RNA molecule). See gene expression.

Gene amplification

The duplication of regions of DNA to form multiple copies of a specific portion of the original region. This method of gene enhancement is important in increasing a tumor cell's resistance to cytotoxic drugs, and in allowing multiple drug resistance to a wide range of unrelated drugs after resistance to a single agent has developed.

Gene expression

The process by which a gene's coded information is converted into the structures present and operating in the cell. Expressed genes include those that are transcribed into mRNA and then translated into protein and those that are transcribed into RNA but not translated into protein (e.g., transfer and ribosomal RNAs).

Gene families

Groups of closely related genes that make similar products.

Gene mapping

Determining the hereditary information carried on the 23 pairs of human chromosomes, called the Human Genome Project. This required determining the base pairs, or chemical code of each of the estimated 60,000 to 100,000 human genes. The magnitude of this task can be appreciated by the fact that there are 3.5 billion base pairs in the human genome. Once a gene is mapped, that information may be used to compare abnormal genes with normal ones; molecular biological techniques then may be used to search for methods of treating and preventing conditions resulting from genetic abnormality. The book *Mendelian Inheritance in Man* contains a catalogue of human genes and genetic disorders. It is published by the Johns Hopkins University Press and is maintained and updated as part of the Human Genome Project.

G

Gene probe

In molecular biology, the technique of matching a short segment of DNA or RNA with the matching sequence of bases on a chromosome. use of this method permits identification of the precise area on a chromosome responsible for the genetic abnormality being investigated.

Gene product

The biochemical material, either RNA or protein, resulting from expression of a gene. The amount of gene product is used to measure how active a gene is; abnormal amounts can be correlated with disease-causing alleles.

Gene testing

The study of genetic material, as by amniocentesis to attempt to diagnose and predict conditions caused by abnormalities of genes or chromosomes. This can be done on both plants and animals. These studies have allowed inherited diseases to be predicted prior to their clinical manifestations and, in some cases, prenatally.

Gene therapy

The replacement in a human of a defective or malfunctioning gene by introducing a gene that functions adequately and properly. This was first done in September 1990 by use of molecular biology techniques by Drs. R. Michael Blaese, W. French Anderson, and Kenneth W. Culver at the U.S. National Institutes of Health. The patient was a 4 year-old girl who lacked the ability to produce the specific enzyme adenosine deaminase (ADA) essential to keeping immune cells alive. This type of therapy will permit use of vectors to introduce a repairing, or disease-correcting, gene into the tissue, a technique that may allow treatment of genetic diseases and cancer. *Somatic G. T.* - An experimental method of cloning genes and reintroducing them into cells for the purpose of correcting inherited disease. As this form of therapy develops so do ethical questions concerning its use: what diseases should be treated, and whether an individual could be treated to enhance his or her normal condition (e.g., to become a stronger or faster athlete).

General Accounting Office (GAO)

The audit agency of the United States Congress. GAO has broad authority to conduct investigations on behalf of the Congress and to review certain contract decisions, including protests of contract awards and decisions of contracting officers' with respect to the acquisition by the Government of supplies and services related to automated data processing.

General adaptation syndrome (G.A.S.)

The syndrome described by Hans Selye (Austrian-Canadian endocrinologist, 1907-1982) as the total organism's nonspecific response to stress. The response occurs in the following three stages: 1. the alarm reaction stage, in which the body recognizes the stressor and the pituitary-adrenocortical system responds by producing the hormones essential to "flight or fight". In this stage, heart rate increases, blood glucose is elevated, pupils dilate and digestion slows; 2. the resistance or adaptive stage, in which the body begins to repair the effect of the arousal. The acute stress symptoms diminish or disappear. If, however, the stress continues, adaptation fails in its attempts to maintain the defense; 3. the exhaustion stage, in which the body can no longer respond to the stress. As a consequence, one or several of a great variety of diseases such as emotional disturbances, cardiovascular and renal diseases, and certain types of asthma may develop.

General and administrative expense (G&A)

Any management, financial, and other expense which is incurred by or allocated to a business unit and which is for the general management and administration of the business unit as a whole. G&A expense does not include those management expenses whose beneficial or casual relationship to cost objectives can be more directly measured by a base other than a cost input base representing the total activity of a business unit during a cost accounting period.

General Hospital (aka Acute Care General Hospital)

A hospital where the majority of beds are devoted to the care of short-stay patients who have episodes of illness that require inpatient care. A general hospital usually treats a broad variety of medical conditions such as heart attacks, surgical, maternity, pediatrics and related needs.

General practice

A form of practice in which physicians without specialty training provide a wide range of primary health care services to patients.

General practitioner

See GP.

General Services Board of Contract Appeals (GSBCA)

The executive branch entity responsible for deciding appeals of contracting officers' decisions with respect to contracts for the acquisition by the Government, other than the Department of Defense, of supplies and services. In addition to its role as the primary appeals body for the civilian agencies, the GSBCA also shares responsibility with the General Accounting Office (GAO) for deciding appeals of decisions issued with respect to automated data processing acquisitions on a Government-wide basis.

Generalists

Physicians who are distinguished by their training as not limiting their practice by health condition or organ system, who provide comprehensive and continuous services, and who make decisions about treatment for patients presenting with undifferentiated symptoms. Typically include family practitioners, general internists, and general pediatricians.

Generally accepted accounting principles (GAAP)

Term used to describe broadly the body of principles that governs the accounting for financial transactions underlying the preparation of a set of financial statements. Generally accepted principles are derived from a variety of sources, including promulgations of the Financial Accounting Standards Board and its predecessor, the Accounting Principles Board, and the American Institute of Certified Public Accountants. Other sources include the general body of accounting literature consisting of textbooks, articles, papers, etc.

Generic

Relating to or characteristic for a whole class.

Generic drug

A chemically equivalent copy designed from a brand-name drug whose patent has expired. A generic is typically less expensive and sold under a common or "generic" name for that drug (e.g., the brand name for one tranquilizer is Valium, but it is also available under the generic name diazepam). Also called generic equivalent.

Generic substitution

Dispensing a generic drug in place of a brand name medication.

Genetic code

The sequence of nucleotides, coded in triplets (codons) along the mRNA, that determines the sequence of amino acids in protein synthesis. The DNA sequence of a gene can be used to predict the mRNA sequence, and the genetic code can in turn be used to predict the amino acid sequence.

Genetic engineering technologies

See recombinant DNA technologies.

Genetic map

See linkage map.

Genetic material

See genome.

Genetics

The study of the patterns of inheritance of specific traits.

G

Genome

All the genetic material in the chromosomes of a particular organism; its size is generally given as its total number of base pairs.

Genome projects

Research and technology development efforts aimed at mapping and sequencing some or all of the genome of human beings and other organisms.

Genomic library

A collection of clones made from a set of randomly generated overlapping DNA fragments representing the entire genome of an organism. Compare library, arrayed library.

Geographic Adjustment Factor (GAF)

The GAF for each service in a particular payment area is the average of the area's three geographic practice cost indexes weighted by the share of the service's total RVUs accounted for by the work, practice expense, and malpractice expense components of the Medicare Fee Schedule.

Geographic Information System (GIS)

A computer hardware and software system designed to collect, manipulate, analyze, and display spatially referenced data for solving complex resource, environmental, and social problems.

Geographic Practice Cost Index (GPCI)

An index summarizing the prices of resources required to provide physicians' services in each payment area relative to national average prices. There is a GPCI for each component of the Medicare Fee Schedule: physician work, practice expense, and malpractice expense. The indexes are used to adjust relative value units to determine the correct payment in each fee schedule payment area.

Geographical information system (GIS)

A system that manages, analyzes, and displays data with an explicit geographical component. It is based on a spatial database containing location data and a more or less integrated attribute database describing the application data.

Geometry

A branch of mathematics that deals with the measurement, properties, and relationships of points, lines, angles, and two- and three-dimensional figures.

Geostationary orbit

Refers to the orbit of a satellite whose location relative to the earth's surface is constant so it seems to hover over one spot on the earth's equator.

GERD

See gastroesophageal reflux disease.

Geriatrician

A physician with specialized training in the diagnosis, treatment and prevention of disorders in older people.

Ghosting

A motion artifact in monitor displays of compressed video images. As an image moves quickly across the field of view (e.g., an arm waving) it leaves a trail of 'ghost' images that resolve as the movement stops. See tiling.

GIF

(Graphic Interchange Format) A common format for image files, especially suitable for images containing large areas of the same color. GIF format files of simple images are often smaller than the same file would be if stored in JPEG format, but GIF format does not store photographic images as well as JPEG.

Giga

Abbreviation for 1,000,000,000.

Gigabyte (Gbyte)

A measure of the storage capacity and memory of a computer. One gigabyte is equivalent to 1.074 billion bytes or 1,024 Mbytes. Usually used to express a data transfer rate, (1 gigabit/second=1 Gbps). The bandwidth of optical fiber is often in the gigabit or billion-bits-per second range.

GIS

See geographical information system

Glass fiber

Filament of glass used to optically transport digital signals with a large bandwidth.

Global budgeting

A method of hospital cost containment in which participating hospitals must share a prospectively set budget. Method for allocating funds among hospitals may vary but the key is that the participating hospitals agree to an aggregate cap on revenues that they will receive each year. Global budgeting may also be mandated under a universal health insurance system.

Global fee

A total charge for a specific set of services, such as obstetrical services that encompass prenatal, delivery and post-natal care.

Global Strategy for Health for All

A mechanism that brings together regional and national strategies for health for all into an integrated world strategy fostering the development of regional and national policies, strategies and plans of action, and supporting countries, both in regional groupings and individually, in their preparation and implementation. The Global Strategy was adopted by the World Health Assembly in 1981. It describes the broad lines of action to be taken at policy and operational levels, nationally and internationally, in the health sector and in other social and economic sectors, to attain health for all by the year 2000. The central thrust is the building up in each country of the health system infrastructure, starting with primary health care, for the delivery of programmes that reach the whole population, using appropriate health technology. The strategy involves specifying measures to be taken by individuals and families in their homes, by communities, by the health services at the most peripheral and referral levels, and by other sectors. It also points to ways of ensuring cooperation within the health sector and intersectoral action; enlisting the support of health and related workers and of the general public through the dissemination of appropriate information; setting up a managerial process for national health development; reorienting research as necessary; generating and mobilizing all possible resources; cooperating with other countries in common areas of interest; and bringing about political commitment and financial support for all the above. Crucial to the Strategy is the social control of the health system through a high degree of community involvement. The Strategy also describes how the international community, and in particular WHO, should support national action.

Global transformation

An image transformation in which the intensity value in any point of the output image is a function of the intensity values of all pixels in the original image. Ant local transformation.

Glucose tolerance test

Assessing glucose metabolism by administering glucose to a patient at fixed times and determining at intervals thereafter the blood glucose content.

Glyc(o)

Sweet, or referring to glucose

GMDS

German Association for Medical Informatics, Biometry and Epidemiology.

G

Goal

The intended outcome of a programme. It does not necessarily have to be quantifiable or measurable in operational terms. A long-range specified state of accomplishment towards which actions and resources are directed; goals are not constrained by time or existing resources. A specific state towards which actions and resources are directed. Objectives set at the level of the national planning agency for socio-economic development. The final purpose or aim, the end to which a design tends. A general aim towards which to strive, for example to have an environment that is conducive to health or to have primary health care available to everybody. Unlike objectives and targets, goals are not constrained by time or existing resources, nor are they necessarily attainable but are rather an ultimate desired state towards which actions and resources are directed. Planning and programming for nursing services. Geneva, World Health Organization, 1971 (Public Health Papers No. 44, p.104).

Goal-driven reasoning

See backward reasoning.

Gold standard

The assessment of a diagnosis by independent clinical evidence for comparison with the results of a diagnostic method being evaluated.

Golf ball liver

Acute hepatitis symptoms induced from toxins sprayed on golf courses and transmitted to the body by golfers who lick their golf balls routinely to clean them.

Golfer's wrist

Pain and tenderness of the wrist or palm on the side of the hand opposite the thumb caused by small stress fracture(s) of the hook of the hamate. This sports-related injury is most commonly associated with repeated swinging motions involved in playing golf, tennis, or baseball. Use of MRI to confirm the diagnosis is suggested since conventional x-ray may not reveal the damage. Treatment usually involves a relatively simple surgical procedure to remove the hook of the hamate.

Good laboratory practice (GLP)

A formal quality control system for laboratories.

Gopher

An 'ancient' method of making information available over the Internet. Although Gopher spread rapidly across the globe in only a couple of years, it has been largely supplanted by HTML.

Gourmand syndrome

Newly discovered, rare benign eating disorder, which has been found to develop in people who have suffered right-sided brain injury or have seizure activity arising from the right hemisphere of the brain. Compulsive thinking and eating of fine foods characterizes syndrome.

Governance

The legal authority and responsibility for the public health system.

Government-furnished property

Property in the possession of or directly acquired by the Government and subsequently made available to the contractor.

GP

General practitioner: in some countries a primary care physician.

GPS

Global positioning system: accurate positioning system making use of earth-orbiting satellite.

Grace period

(1) A period of time, usually thirty-one days following the premium due date, during which the

G

payment of the premium will continue the policy and during which the policy remains in force and effect (2) Means the 45 days following the date the Premium payment is due. Although coverage will continue in force during the Grace Period, it will terminate retroactive to the last day through which Premiums are paid, if Premiums due are not paid within the Grace Period.

Gradient

(1) Changes in the value of a quantity per unit of distance in a specified direction. (2) A quantity showing a gradual change.

Graduate Medical Education (GME)

Medical education after receipt of the Doctor of Medicine (MD) or equivalent degree, including the education received as an intern, resident (which involves training in a specialty) or fellow, as well as continuing medical education. HCFA partly finances GME through Medicare direct and indirect payments.

Graphic equalizer

Allows user to accentuate or de-emphasize selected frequencies within an audio sample. An example is the different 'tuning' for heart and lung sounds in electronic stethoscopes. See frequency response.

Graphic tablet

Computer peripheral for interactive entry of image features.

Graphical user interface (GUI)

A user interface that, besides keyboard characters, may contain windows, command buttons, and icons that the user can point at to issue a command. A method of controlling computers using graphic images or icons, to which the user accesses using a mouse.

Graphics stand

Document stand. Typically used for capturing and transmitting images of documents. Can be used for skin lesions and the like. Typically uses a 1-CCD (1-chip) camera. At a minimum, a graphic camera should have color and black and white modes, manual iris, zoom, focus, and color adjustments, additional overhead lights for uniform illumination, and a large (at least 8.5×11 inch) back-lighted base. The last feature is useful for capturing images of transparencies and X-ray, CT, and MRI images.

Grateful Med

WWW server to obtain access to MEDLINE.

Gray scale

The levels (shades) of gray that a screen or pixel within a screen can display.

Grey level

Intensity grades of an image.

Grey level quantization

Digitization (see A-D conversion) of the intensity of a point of an image.

Grievance procedure

A defined process in a health plan for consumers or health care providers to use when there is disagreement about a plan's services, billings, or general procedures.

Gross Domestic Product (GDP)

The total current market value of all goods and services produced domestically during a given period; differs from the gross national product by excluding net income that residents earn abroad.

Gross margin

Net sales minus goods sold; the difference between sales revenues and manufacturing costs as an intermediate step in the computation of operating profits or net income.

Gross Patient Service Revenue (GPSR)

The revenue generated by patient care activities calculated on the basis of published charges.

Group

Two or more unrelated persons and their dependents receiving coverage under one policy.

Group contract

The application and addenda signed by both the health plan and the enrolling unit, which constitutes the agreement regarding the benefits, exclusions and other conditions between the health plan and the enrolling unit.

Group insurance

Any insurance plan by which a number of employees (and their dependents) are insured under a single policy, issued to the employer, with individual certificates given to each insured employee.

Group Model

In a group model HMO, the HMO contracts with a group of physicians, which is paid a set amount per patient to provide a specified range of services. The group of physicians determines the compensation of each individual physician, often sharing profits. The practice may be located in a hospital or clinic setting.

Group model HMO

(1) A health care model involving contracts with physicians organized as a partnership, professional corporation, or other association. The health plan compensates the medical group for contracted services at a negotiated rate, and that group is responsible for compensating its physicians and contracting with hospitals for care of their patients. (2) A model of HMO made up of one or more physician group practices that are not owned by the HMO, but that operate as independent partnerships or professional corporations. The HMO pays the groups at a negotiated rate, and each group is responsible for paying its doctors and other staff, and for paying for hospital care or care from outside specialists.

Group practice

A formal association of three or more physicians or other health professionals providing health services. Income from the practice is pooled and redistributed to the members of the group according to some prearranged plan (often, but not necessarily, through partnership). Groups vary a great deal in size, composition, and financial arrangements.

Group practice without walls

A network of physicians who have formed a single legal entity but maintain their individual practices; the assets of individual practices may be acquired by the larger entity, but some autonomy is retained at each site.

Group purchasing organization (GPO)

Basically, a "buying club" for health care facilities. It may be like a cooperative -- comprised only of member-facilities who choose as a group to shop for volume discounts on supplies; or it may be run by a for-profit company which charges an administrative fee to secure volume discounts. GPOs may specialize in supplies for a specific department (e.g., surgical supplies) or they may procure products for all of a facility's needs -- from toilet paper and office paper to IV bags to cafeteria dishware. Some GPOs require a facility to buy a certain percentage of its supplies "on-contract" -- that is, they are penalized (through withholding of rebate checks and or being dropped from the program) if they don't buy a minimum portion of their products from the GPO. This can severely restrict even the most willing facility's ability to comply with the HCWH covenant, as they may be locked into a contract for PVC IV bags through their GPO for the next two years.

Groupware

Software used to prepare documents with many authors connected by a network, for instance an Intranet.

G

Guanine (G)

A nitrogenous base, one member of the base pair G-C (guanine and cytosine).

Guaranteed eligibility

A defined period of time (3-6 months) that all patients enrolled in a prepaid health program are considered eligible for Medicaid, regardless of their actual eligibility for Medicaid. A State may apply to HCFA for a waiver to incorporate this into their contracts.

Guaranteed insurability

Means that additional coverage may be purchased even if your health deteriorates.

Guaranteed issue

The requirement that each insurer and health plan accept everyone who applies for coverage and guarantee the renewal of that coverage as long as the applicant pays the premium.

Guaranteed renewable

The requirement that each insurer and health plan continue to renew health policies purchased by individuals as long as the person continues to pay the premium for the policy.

Guaranteed renewable policy

A policy that is renewable at the option of the insured for a specified number of years, or until a stated age such as 50 or 60. During this period, the insurer cannot cancel the policy or modify its provisions; however, the premium can be increased based on standards that are applied to everyone in the policyholder's class.

GUI

See graphical user interface.

Guide to Self-Deliverance

Early manual detailing methods of self-deliverance published by Exit in 1980/81, but withdrawn after repeated litigation.

Guideline

Rules that set out the steps to be taken in performing a task or implementing a policy and the manner to do so. Guidelines are more specific and more detailed than guiding principles, on which they are based. Sometimes referred to as practice parameters, clinical practice guidelines or protocols. These are statements by authoritative bodies as to the procedures appropriate for the physician to employ in making a diagnosis and treating it.

Guiding principle

General rule that can be used as a guide by the Member States of WHO, for example to develop and implement policies, to set up a managerial process or to organize primary health care in communities. Because of the great difference among Member States guiding principles must be very general.

H

Hacker

A person who breaks into a computer network and tampers with the system.

Half duplex

A channel of communication which is capable of both transmitting and receiving information, but only in one direction at a time.

Half-life

Time in which an activity reduces to 50%. A measure especially useful for nonlinear decays, such as exponential radioactive decay.

Hand-held or Palm-top Computer

A small, lightweight tablet computer, which can be operated while talking to a patient and which requires no special skills to operate. Such computers may have integrated modem cards to communicate via wireless modem to a computer network. The screen itself is a digitizer as well as a display, and a stylus is used like a mouse to pull down menus and make touch-screen choices. More sophisticated versions allow for graphics, hand-made diagrams and handwriting to be captured.

Handheld computer

A small computer that can be held in one's hand so that it can be used at the point of care, also in home care.

Handicapped

As defined by Section 504 of the Rehabilitation Act of 1973, any person who has a physical or mental impairment which substantially limits one or more major life activity, has a record of such impairment, or is regarded as having such an impairment.

Hantavirus pulmonary syndrome (HPS)

Acute respiratory disease caused by newly discovered strains of the hantavirus.

Haploid

A single set of chromosomes (half the full set of genetic material), present in the egg and sperm cells of animals and in the egg and pollen cells of plants. Human beings have 23 chromosomes in their reproductive cells. Compare diploid.

Hard copy

Output on paper.

Hard disk

Auxiliary random-access magnetic memory. It contains one or more platters covered with magnetic material on which data can be written or read by means of read-write heads that can move in and out while the platters are spinning. Typical storage capacity for a personal computer is about 1 G byte (1997).

Hard drive

An internal or external device for your computer for storage of data. Many types of hard drives are available depending on capacity, speed, etc. Newer "AV" hard drives are optimized for audio and video capture and playback.

Hard wired

Refers to the permanent connection of two devices by a communications link.

Hardware

Used to refer to all the tangible equipment related to information technology, including the computers, peripheral devices, such as printers, disks, and scanners, and the cables, switches, and other components of the telecommunications infrastructure that binds everything together.

H

Harmonic

A component of a periodic signal with a frequency that is an integer multiple of the basic frequency of the signal.

Hashing

Part of the data of a record (the key) is entered into a formula that calculates from these data a number that is used as an address for the record.

Hazard

A source of risk that does not necessarily imply potential for occurrence. A hazard produces risk only if an exposure pathway exists, and if exposures create the possibility of adverse consequences.

Hazardous Substances and Health Effects Database (HazDat)

The scientific database developed by ATSDR to manage data collection, retrieval, analysis, and utilization through the sophisticated technologies provided by computerization. HazDat allows ATSDR to locate information on the release of hazardous substances into the environment, and to ascertain the effects of hazardous substances on health with improved uniformity, efficiency, and precision.

HCI

See human-computer interaction.

HDTV

(High-definition television) (1) A television system with 1125 lines of horizontal resolution, with the ability of creating high quality video images. (2) High resolution broadcast video. Vertical resolution about 4 times that of a standard television (1,125 lines compared to 352 lines in a standard NTSC television output) and an aspect ratio of 16:9, similar to a movie screen.

Health (WHO)

A condition in which all functions of the body and mind are normally active. The World Health Organization defines health as a state of complete physical, mental or social well-being and not merely the absence of disease or infirmity. This definition is of limited usefulness when evaluating an individual and when asking who determines well-being, the health professional or the individual. Many persons enjoy the state of well-being even though they might be classed as unhealthy by others. *Bill of H.* - A public health certificate stating that passengers on a public conveyance or ship are free of infectious disease. *Board of H.* - A public body, appointed or elected, concerned with administering the laws pert to the health of the public. *H. Care proxy* - A legal document that allows individuals to name someone they know and trust to make health care decisions for them if, for any reason and at any time the individual becomes unable to make or communicate those decisions. Some states limit the age at which such a proxy may be established and prohibit certain persons, such as an estate administrator or an employee of a health care facility in which the person making the proxy is resident, from being appointed to make health care decisions unless he or she is related to the person by blood, marriage, or adoption. SEE: advance directive; living will. *H.cCertificate* - An official statement signed by a physician attesting to the state of health of a particular individual. *Department of H.* - The branch of a government (city, country or nation) involved in the regulation and protection of the people's health. *H. education* - An educational process or program designed for the improvement and maintenance of health. It is directed to the general public, in contrast to a health education program organized for instructing persons who will become health educators. *H. Hazard* - Literally, any thing, condition, or circumstance that may be or is harmful to health. With respect to chemicals, a substance is considered a health hazard if at least one study, conducted in accordance with established scientific principles, documents that acute or chronic effects may occur in connection with use or exposure to that chemical. *Industrial H.* - The health of employees of industrial firms. *Mental H.* - In general, mental health is the absence of mental illness. This definition, of course, is vague because of the difficulty of providing a comprehensive definition of mental illness. Individuals are considered mentally healthy if they have adjusted to life in such a way that they are comfortable with their life situation and, at the same time, are able to live so that their behavior does not conflict with their associates or the rest of society. Inherent in this, for most individuals, are feelings of self-worth and accomplishment and the ability to be

H

gainfully employed with sufficient reward for that employment to satisfy the economic needs required for their life situations. It is difficult but not impossible to be mentally healthy without being physically healthy. *Public H.* - The state of health of an entire community population, as opposed to that of an individual. *H. risk appraisal* - An analysis of all that is known about a person's entire life situation including personal and family medical history, occupation, and social environment in order to estimate his or her risk of disability or death as compared with the national averages. The data used for comparison will vary with the patient's age, sex, ethnic background, and income, and the skill of the evaluator and the sensitivity and specificity of the tests used in the evaluation. Assessments should include special diagnostic procedures such as mammography, prostate examination, Pap smear, electrocardiogram, tests for total serum lipids including cholesterol, tests for occult blood in feces, hearing tests, and stress tests as indicated and appropriate for the individual patient (i.e., health screening). SEE: risk factor.

Health

Health is defined in the WHO constitution of 1948 as: A state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity. Health is regarded by WHO as a fundamental human right and, correspondingly, all people should have access to basic resources for health. Within the context of health promotion, health has been considered less as an abstract state and more as a means to an end which can be expressed in functional terms as a resource which permits people to lead an individually, socially and economically productive life: Health is a resource for everyday life, not the object of living. It is a positive concept emphasizing social and personal resources as well as physical capabilities. Reference: WHO (1986) Ottawa Charter. In keeping with the concept of health as a fundamental human right, the Ottawa Charter emphasizes certain prerequisites for health which include peace, adequate economic resources, food and shelter, and a stable ecosystem and sustainable resource use. Recognition of these prerequisites highlights the inextricable links between social and economic conditions, the physical environment, individual lifestyles and health. These links provide the key to an holistic understanding of health which is central to the definition of health promotion. A comprehensive understanding of health implies that all systems and structures which govern social and economic conditions and the physical environment should take account of the implications of their activities in relation to their impact on individual and collective health and well-being.

Health alliance

Also known as a Health Insurance Purchasing Cooperative (HIPC). These nonprofit agencies would act as the purchasing agent for consumers under a system of managed competition in negotiating to get the best plan at the lowest cost from networks of doctors and hospitals or HMOs.

Health behavior

Any activity undertaken by an individual, regardless of actual or perceived health status, for the purpose of promoting, protecting or maintaining health, whether or not such behavior is objectively effective towards that end. Reference: Health Promotion Glossary (1986). It is possible to argue that almost every behavior or activity by an individual has an impact on health status. In this context it is useful to distinguish between behaviors which are purposefully adopted to promote or protect health (as in the definition above), and those which may be adopted regardless of consequences to health. Health behaviors are distinguished from risk behaviors which are defined separately as behaviors associated with increased susceptibility to a specific cause of ill-health. Health behaviors and risk behaviors are often related in clusters in a more complex pattern of behaviors referred to as lifestyles.

Health Care Authority (HCA)

Washington state agency that manage various state-sponsored health plans, including the Basic Health Plan and programs for public employees and retirees. HCA also provides funding for community clinics in various areas of the state.

Health Care Financing Administration (HCFA)

The agency within the Department of Health and Human Services which administers federal health financing and related regulatory programs, principally the Medicare, Medicaid and Peer Review Organization.

Health Care Prepayment Plan (HCPP)

Plans that receive payment for their reasonable costs of providing Medicare Part B services to Medicare enrollees. (2) A health plan with a Medicare cost contract to provide only Medicare Part B benefits. Some administrative requirements for these plans are less stringent than those of risk contracts or other cost contracts.

Health care provider

An individual or institution that provides medical services (e.g., a physician, hospital, laboratory). This term should not be confused with an insurance company which "provides" insurance.

Health care proxy

Person appointed to look after your affairs in the event that you are unable to do so. In the UK, health care proxies can administer finances etc, but are not allowed to enforce living wills.

Health centre

A centre that carries out promotive, protective, preventive, diagnostic, curative and rehabilitative activities for ambulant people, but has no beds other than perhaps a few needed for emergencies and maternity care. In some countries the term is applied to institutions that have beds and may or may not have physicians on the staff, while in yet others it is applied to institutions that provide specialized care.

Health communication

Interpersonal or mass communication activities which are directed towards improving the health status of individuals and populations. Health communication may involve the integration of mass and multi-media communication with more local and/or personal traditional forms of communication. Reference: new edition. In the past, health communication has been employed to achieve community support for or compliance with pre-determined objectives. However, advances in communication media continue to improve access to health information. In this respect, health communication becomes an increasingly important element to achieving greater empowerment of individuals and communities. Health communication is not only directed to the people from government, but can come from the people as a form of advocacy for health directed towards the achievement of healthy public policies, or the creation of supportive environments for health. Health communication can take many forms, ranging from the use of modern multi-media communications through to traditional and culture-specific forms of communication such as story-telling, puppet shows and songs. Health communication may take the form of discreet health messages, or be incorporated into existing communication media, including news media, advertising and sponsorship, and popular entertainment. In the last case this form of health communication is often referred to as 'edutainment'.

Health consultation

A response to a specific question or request for information pertaining to a hazardous substance or facility (which includes waste sites). It often contains a time-critical element that necessitates a rapid response; therefore, it is a more limited response than an assessment.

Health development

Health development is the process of continuous, progressive improvement of the health status of individuals and groups in a population. Reference: WHO Terminology Information System (1997). The Jakarta Declaration describes health promotion as an essential element of health development.

Health education

Health education comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing life skills which are conducive to individual and community health. Reference: modified definition. Health education is not only concerned with the communication of information, but also with fostering the motivation, skills and confidence (self-efficacy) necessary to take action to improve health. Health education includes the communication of information concerning the underlying social, economic and environmental conditions impacting on health, as well as individual risk factors and risk behaviors, and use of the health care system. Thus,

H

health education may involve the communication of information, and development of skills which demonstrate the political feasibility and organizational possibilities of various forms of action to address social, economic and environmental determinants of health. In the past, health education was used as a term to encompass a wider range of actions including social mobilization and advocacy. These methods are now encompassed in the term health promotion, and a narrower definition of health education is proposed here to emphasize the distinction.

Health expectancy

Health expectancy is a population based measure of the proportion of expected life span estimated to be healthful and fulfilling, or free of illness, disease and disability according to social norms and perceptions and professional standards. Reference: new edition. Health expectancy belongs to a new generation or type of health indicators which are currently being developed. These indicators are intended to create measures which are more sensitive to the determinants and dynamics of health. Health expectancy indicators combine information from life expectancy tables and health surveys of populations. They need to be based on life expectancy at country level or a similar geographic area. Examples of health expectancy indicators currently in use are disability free life years (DFLY) and quality adjusted life years (QALY). They focus primarily on the extent to which individuals experience a life span free of disability, disorders and/or chronic disease. Health promotion seeks to expand the understanding of health expectancy beyond the absence of disease, disorder and disability towards positive measures of health creation, maintenance and protection, emphasizing a healthy life span.

Health facilities

Collectively, all physical plants used in the provision of health services; usually limited to facilities which were built for the purpose of providing health care, such as hospitals and nursing homes. They do not include an office building which includes a physician's office. Health facility classifications include: hospitals (both general and specialty), long-term care facilities, kidney dialysis treatment centers, and ambulatory surgical facilities.

Health for All

A process leading to progressive improvement in the health of people. In 1977 the Thirtieth World Health Assembly decided that the main social goal of governments and WHO in the coming decades should be the attainment by all the people of the world by the year 2000 of a level of health that would permit them to lead a socially and economically productive life. This goal is commonly known as 'health for all by the year 2000'. The process itself will be interpreted differently by each country in the light of its social and economic characteristics, the health status and morbidity patterns of its population, and the state of development of its health system. However, there is a health baseline below which no individuals in any country should find themselves; all people in all countries should have a level of health that will permit them to work productively and to participate actively in the social life of the community in which they live. Health for all does not mean that in the year 2000 doctors and nurses will provide medical care for everybody in the world for all their existing ailments and that nobody will be sick or disabled. It does mean that health begins and is fostered or endangered at home, in school and in factories, where people live and work. People will use better approaches than they do now for preventing disease and alleviating unavoidable illness and disability, and have better ways of growing up, growing old and dying in dignity. Essential health care will be accessible to all individuals and families, in an acceptable and affordable way, and with their full involvement. There will be an even distribution among the population of whatever resources for health are available and people will realize that they themselves have the power to shape their lives and the lives of their families, free from the avoidable burden of disease, and aware that ill-health is not inevitable.

Health gain

Health gain is a way to express improved health outcomes. It can be used to reflect the relative advantage of one form of health intervention over another in producing the greatest health gain. Reference: new edition. The Jakarta Declaration indicates that health promotion 'acts on the determinants of health to create the greatest health gain for people'.

Health goal

Health goals summarize the health outcomes which, in the light of existing knowledge and resources, a country or community might hope to achieve in a defined time period. Reference:

H

new edition. Health goals are general statements of intent and aspiration, intended to reflect the values of the community in general, and the health sector in particular, regarding a healthy society. Many countries have adopted an approach to setting health goals and health targets as statements of direction and intent with regard to their investments for health. WHO has supported the development, and promoted the use of health goals and targets at both global and regional levels.

Health impact assessment

Health impact assessment is any combination of procedures or methods by which a proposed policy or program may be judged as to the effect(s) it may have on the health of a population.

Health indicator

A health indicator is a characteristic of an individual, population, or environment which is subject to measurement (directly or indirectly) and can be used to describe one or more aspects of the health of an individual or population (quality, quantity and time). Reference: modified edition. Health indicators can be used to define public health problems at a particular point in time, to indicate change over time in the level of the health of a population or individual, to define differences in the health of populations, and to assess the extent to which the objectives of a program are being reached. Health indicators may include measurements of illness or disease which are more commonly used to measure health outcomes, or positive aspects of health (such as quality of life, life skills, or health expectancy), and of behaviors and actions by individuals which are related to health. They may also include indicators which measure the social and economic conditions and the physical environment as it relates to health, measures of health literacy and healthy public policy. This latter group of indicators may be used to measure intermediate health outcomes and health promotion outcomes.

Health information network

A network on a regional or a national scale to improve communications between health care centers.

Health information system

A combination of health statistics from various sources, used to derive information about health status, health care, provision and use of services, and impact on health.

Health insurance

(1) Coverage that provides for the payments of benefits as a result of sickness or injury. Includes insurance for losses from accident, medical expense, disability, or accidental death and dismemberment. (2) Financial protection against the medical care costs arising from disease or accidental bodily injury. Such insurance usually covers all or part of the medical costs of treating the disease or injury. Insurance may be obtained on either an individual or a group basis.

Health Insurance Purchasing Cooperatives (HIPCs)

Public or private organizations which secure health insurance coverage for the workers of all member employers. The goal of these organizations is to consolidate purchasing responsibilities to obtain greater bargaining clout with health insurers, plans and providers, to reduce the administrative costs of buying, selling and managing insurance policies. Private cooperatives are usually voluntary associations of employers in a similar geographic region who band together to purchase insurance for their employees. Public cooperatives are established by state governments to purchase insurance for public employees, Medicaid beneficiaries, and other designated populations.

Health Insuring Organization (HIO)

A type of Medicaid managed care service delivery model. An HIO accepts a capitation amount, finances beneficiary services and is responsible for seeing that services are provided. Unlike HMOs, HIOs are required to obtain all services through subcontractors.

Health investigation

Any investigation of a defined population, using epidemiological methods, which would assist in determining exposures or possible public health impact by defining health problems requiring further investigation through epidemiological studies, environmental monitoring or sampling, and surveillance.

H

Health literacy

Health literacy represents the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health. Reference: new edition. Health literacy implies the achievement of a level of knowledge, personal skills and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions. Thus, health literacy means more than being able to read pamphlets and make appointments. By improving people's access to health information, and their capacity to use it effectively, health literacy is critical to empowerment. Health literacy is itself dependent upon more general levels of literacy. Poor literacy can affect people's health directly by limiting their personal, social and cultural development, as well as hindering the development of health literacy.

Health Maintenance Organization (HMO)

An entity with four essential attributes: (1) an organized system providing health care in a geographic area, which accepts the responsibility to provide or otherwise assure the delivery of, (2) an agreed-upon set of basic and supplemental health maintenance and treatment services to (3) a voluntarily enrolled group of persons; and (4) for which services the entity is reimbursed through a predetermined fixed, periodic prepayment made by, or on behalf of, each person or family unit enrolled. The payment is fixed without regard to the amounts of actual services provided to an individual enrollee. Individual practice associations involving groups or independent physicians can be included under the definition. HMO members receive comprehensive preventive and hospital and medical care from specific medical providers who receive a pre-paid fee. Members select a primary care physician or medical group from the HMO's list of affiliated doctors. In turn, primary care doctors coordinate the patient's total care, which is free from hassles involving deductibles or claim forms. When using medical services, members pay a small co-payment, usually between \$5 and \$15. HMOs can take the following form(s): *Staff Model* - Physicians provide care exclusively for the health plan. Often, a broad array of services are found in one location in staff model HMOs; *Individual Practice Association (IPA) Model* - Physicians in private practice contract with an HMO to provide medical services through an Individual Practice Association for a set fee, paid in advance. The same physicians typically provide care for members of a variety of health plans; *Group Practice Model* - A physician group - usually one with a large number of primary care and specialist physicians - contracts with an HMO to provide services for a fixed advance payment. Rather than paying physicians individually, the negotiated payment goes to the group. The group bears the accountability to compensate physicians and to ensure the health of the members for which they are responsible.

Health manpower development

The provision of health workers sufficiently trained to meet the present and future needs for activities in the health and related sectors. It involves the planning, production and management of health manpower - that is, the estimation of needs and the taking of steps to ensure that the health workers are properly trained, recruited or otherwise employed, adequately paid, and given career prospects that will keep them within the health system. The term 'health manpower' is now deprecated. The term 'human resources for health' should be used instead.

Health Manpower Shortage Area (HMSA)

An area or group which the U.S. Department of Health and Human Services designates as having an inadequate supply of health care providers. HMSAs can include: (1) an urban or rural geographic area, (2) a population group for which access barriers can be demonstrated to prevent members of the group from using local providers, or (3) medium and maximum-security correctional institutions and public or non-profit private residential facilities.

Health outcome data

A major source of data for public health assessments. The identification, review, and evaluation of health outcome parameters are interactive processes involving the health assessors, data source generators, and the local community. Health outcome data are community specific and may be derived from databases at the local, state, and national levels, as well as from data collected by private health care organizations and professional institutions and associations. Databases to be considered include morbidity and mortality data, birth statistics, medical

H

records, tumor and disease registries, surveillance data, and previously conducted health studies.

Health outcomes

A change in the health status of an individual, group or population which is attributable to a planned intervention or series of interventions, regardless of whether such an intervention was intended to change health status. Reference: new edition. Such a definition emphasizes the outcome of planned interventions (as opposed, for example, to incidental exposure to risk), and that outcomes may be for individuals, groups or whole populations. Interventions may include government policies and consequent programs, laws and regulations, or health services and programs, including health promotion programs. They may also include the intended or unintended health outcomes of government policies in sectors other than health. Health outcomes will normally be assessed using health indicators. (See also intermediate health outcomes, and health promotion outcomes).

Health outcomes study

An investigation of exposed persons designed to assist in identifying exposure or effects on public health. Health studies also define the health problems that require further inquiry by means of, for example, a health surveillance or epidemiological study.

Health personnel

Collectively, all persons working in the provision of health services, whether as individual practitioners or employees of health institutions and programs, whether or not professionally trained, and whether or not subject to public regulation. Facilities and health personnel are the principal health resources used in producing health services.

Health Plan

(1) An organization that provides a defined set of benefits; this term usually refers to an HMO-like entity, as opposed to an indemnity insurer. (2) A generic term to refer to a specific benefit package offered by an insurer. Also used to pertain to the insurer; e.g., "I signed up for the Blue Cross health plan."

Health Plan Employer Data and Information Set (HEDIS)

HEDIS is a set of standardized performance measures designed to ensure that purchasers and consumers have the information they need to reliably compare the performance of managed health care plans. The performance measures in HEDIS are related to many significant public health issues such as cancer, heart disease, smoking, asthma and diabetes. HEDIS is sponsored, supported and maintained by the National Committee for Quality Assurance.

Health Plan Purchasing Cooperative (HPPC)

A health insurance purchasing entity advanced by some health system reform proposals to enroll individuals, collect premiums, purchase enrollees' insurance from participating health plans, and enforce the rules that manage health plan competition.

Health planning

Planning concerned with improving health, whether undertaken comprehensively for a whole community or for a particular population, type of health service, institution, or health program. The components of health planning include: data assembly and analysis, goal determination, action recommendation, and implementation strategy.

Health policy

A formal statement or procedure within institutions (notably government) which defines priorities and the parameters for action in response to health needs, available resources and other political pressures. Reference: modified definition. Health policy is often enacted through legislation or other forms of rule-making which define regulations and incentives that enable the provision of health services and programs, and access to those services and programs. Health policy is currently distinguished from healthy public policy by its primary concern with health services and programs. Future progress in health policies may be observed through the extent to which they may also be defined as healthy public policies.

Health professional education

Any activity or activities directed toward public health professionals and the local medical community. The purpose of this activity is to improve the knowledge, skill, and behavior of health professionals concerning medical surveillance, screening, and methods of diagnosing, treating, and preventing injury or disease related to exposure to hazardous substances. These activities may include immediately disseminating written materials or making database information available, presenting workshops and short courses, or, where appropriate, long-term follow-up activities.

Health Professional Shortage Area (HPSA)

(1) An urban or rural geographic area, a population group, or a public or nonprofit private medical facility that the Secretary of Health and Human Services determines to be served by too few health professionals. Physicians who provide services in HPSAs qualify for the Medicare bonus payment. Replaces Health Manpower Shortage Area. (2) Federally-Designated areas within a state that have fewer than a specified number of physicians per unit of population (currently 1 per 3,500).

Health programme

An organized aggregate of activities directed towards the attainment of defined objectives and targets, which are progressively more specific than the goals to which they contribute. Each health programme should have its specific objectives and targets, whenever possible quantified, that are consistent with those of the national health strategy. The programme should set out clearly the requirements in health workers, physical facilities, technology, equipment and supplies, information and intercommunication, the methods of monitoring and evaluation, the timetable of activities, and the ways of ensuring correlation between its various elements and related programmes.

Health promoting hospitals

A health promoting hospital does not only provide high quality comprehensive medical and nursing services, but also develops a corporate identity that embraces the aims of health promotion, develops a health promoting organizational structure and culture, including active, participatory roles for patients and all members of staff, develops itself into a health promoting physical environment and actively cooperates with its community. Reference: adapted from WHO (1991) Budapest Declaration on Health Promoting Hospitals. Health promoting hospitals take action to promote the health of their patients, their staff, and the population in the community they are located in. Health promoting hospitals are actively attempting to become 'healthy organizations'. The Health Promoting Hospital is a concept in development since 1988. An international network has developed to promote the wider adoption of this concept in hospitals and other health care settings.

Health promoting schools

A health promoting school can be characterized as a school constantly strengthening its capacity as a healthy setting for living, learning and working. Reference: WHO (1997) Promoting Health through Schools: Report of a WHO Expert Committee on Comprehensive School Health Education and Promotion. WHO Technical Report Series. Towards this goal, a health promoting school engages health and education officials, teachers, students, parents and community leaders in efforts to promote health. It fosters health and learning with all the measures at its disposal, and strives to provide supportive environments for health and a range of key school health education and promotion programs and services. A health promoting school: implements policies, practices and other measures that respect an individual's self esteem; provides multiple opportunities for success; and acknowledges good efforts and intentions as well as personal achievements. It strives to improve the health of school personnel, families and community members as well as students, and works with community leaders to help them understand how the community contributes to health and education. WHO's Global School Health Initiative aims at helping all schools to become 'health promoting' schools by, for example, encouraging and supporting international, national and subnational networks of Health Promoting Schools, and helping to build national capacities to promote health through schools.

Health promotion

Health promotion is the process of enabling people to increase control over, and to improve their

H

health. Reference: WHO (1986) Ottawa Charter. Health promotion represents a comprehensive social and political process; it not only embraces actions directed at strengthening the skills and capabilities of individuals, but also action directed towards changing social, environmental and economic conditions so as to alleviate their impact on public and individual health. Health promotion is the process of enabling people to increase control over the determinants of health and thereby improve their health. Participation is essential to sustain health promotion action. The Ottawa Charter identifies three basic strategies for health promotion. These are: advocacy for health to create the essential conditions for health indicated above; enabling all people to achieve their full health potential; and mediating between the different interests in society in the pursuit of health. These strategies are supported by five priority action areas which are the basic tools for health promotion. In the Ottawa Charter health promotion action means: a) build healthy public policy; b) create supportive environments for health; c) strengthen community action for health; d) develop personal skills; e) re-orient health services. Each of these strategies and action areas is further defined in the glossary. The Jakarta Declaration on Leading Health Promotion into the 21st Century from July 1997 confirmed that these strategies and action areas are relevant for all countries. Furthermore, there is clear evidence that 1) Comprehensive approaches to health development are the most effective. Those that use combinations of the five strategies are more effective than single-track approaches. 2) Settings for health offer practical opportunities for the implementation of comprehensive strategies. 3) Participation is essential to sustain efforts. People have to be at the center of health promotion action and decision-making processes for them to be effective. 4) Health literacy fosters participation. Access to education and information is essential to achieving effective participation and the empowerment of people and communities. For health promotion into the 21st century the Jakarta declaration identifies five priorities: a) promote social responsibility for health; b) increase investments for health development; c) expand partnerships for health promotion; d) increase community capacity and empower the individual; e) secure an infrastructure for health promotion. Each of these priorities is further defined in the glossary. Increasing community capacity is addressed in the definition of community action for health. Empowerment for health is included as a definition.

Health promotion evaluation

Health promotion evaluation is an assessment of the extent to which a health promotion action achieves a 'valued' outcome. Reference: new edition. To this end, assessment of the extent to which health promotion actions enable individuals or communities to exert control over the determinants of health represents a central element to evaluation in health promotion. Health promotion outcomes represent the first point of assessment for many health promotion activities. Achievement of these health promotion outcomes is directed towards enabling individuals or communities to exert control over the determinants of health which are defined as intermediate health outcomes. In many cases it is difficult to trace the pathway which links health promotion activities to health outcomes. This may be because of the long time-lag between action and outcome, and because of the technical difficulties of isolating cause and effect in complex, 'real-life' situations. In most cases, there is also 'value' placed on the process by which different outcomes are achieved. In terms of valued processes, evaluations of health promotion activities may be 'participatory', involving all those with a vested interest in the initiative; 'pluralistic', involving a variety of disciplinary perspectives; may help build the capacities of individuals, communities, organizations and governments to address important health problems, and may be 'integrated' into all stages of the development and implementation of a health promotion initiative.

Health promotion outcomes

Health promotion outcomes are changes to personal characteristics and skills, and/or social norms and actions, and/or organizational practices and public policies which are attributable to a health promotion activity. Reference: new edition. Health promotion outcomes represent the most immediate results of health promotion activities and are generally directed towards changing modifiable determinants of health. Health promotion outcomes include health literacy, healthy public policy, and community action for health.

Health protection

Guarding against potential dangers to health, such as wearing protective clothing against inclement weather, or taking measures to protect workers against the specific hazards of their

work.

Health research

Research on all aspects of health, the factors affecting it, and ways of promoting, protecting and improving it. It is an essential part of national health development. It includes medical and biomedical research relating to a wide variety of medical matters and involving various life sciences such as molecular biology and biophysics; clinical research, which is based on the observation and treatment of patients or volunteers; epidemiological research, which is concerned with the study and control of diseases and of situations that are suspected of being harmful to health; and socioeconomic and behavioural research, which investigates the social, economic, psychological and cultural determinants of health and disease with a view to promoting health and preventing disease. Often a multidisciplinary combination of the above kinds of research is needed to solve a health problem.

Health risk behaviors

Behaviors, such as smoking, lack of exercise, and overeating, that increase the potential for an individual to experience disease, or injury.

Health risk factors

In addition to "health risks behaviors" defined above, risk factors include genetic factor such as a family history of heart disease, or environmental factors such as living in a polluted area.

Health sector

The health sector consists of organized public and private health services (including health promotion, disease prevention, diagnostic, treatment and care services), the policies and activities of health departments and ministries, health related non-government organizations and community groups, and professional associations. Reference: adapted from WHO (1984) HFA Glossary of Terms.

Health sector

The sector that includes government ministries and departments, social security and health insurance schemes, voluntary organizations and private individuals and groups, providing health services.

Health service area

Geographic area designated on the basis of such factors as geography, political boundaries, population, and health resources, for the effective planning and development of health services.

Health Services Commission

A Governor-appointed state regulatory commission created by the Health Services Act of 1993. The Commission has five voting members, and the Insurance Commissioner is a non-voting member. Responsibilities include defining the Uniform Benefits Package (UBP) and supplemental benefits package, setting a maximum premium for the UBP, and establishing a system of accountability for systems reform and cost control.

Health situation

An overall picture of the health status which also includes measures taken to improve health, the resources devoted to health, an appreciation of specific health problems that require particular attention, and the degree of people's awareness about their health and ways of improving it.

Health statistics review

Evaluation of information and relevant health outcome data for an involved population, including reports of injury, disease, or death in the community. Databases may be local, state, or national; information from private health care providers and organizations may also be used. Databases may include morbidity and mortality data, tumor and disease registries, birth statistics, and surveillance data.

Health status

A description and/or measurement of the health of an individual or population at a particular point in time against identifiable standards, usually by reference to health indicators. Reference: adapted from WHO (1984) HFA Glossary of Terms.

Health status

The state of health of a specified individual, group, or population. It may be measured by obtaining proxies such as people's subjective assessments of their health; by one or more indicators of mortality and morbidity in the population, such as longevity or maternal and infant mortality; or by using the incidence or prevalence of major diseases (communicable, chronic, or nutritional). Conceptually, health status is the proper outcome measure for the effectiveness of a specific population's medical care system, although attempts to relate effects of available medical care to variations in health status have proved difficult.

Health surveillance

The periodic medical screening of a defined population for a specific disease or for biological markers of disease for which the population is, or is thought to be, at significantly increased risk. The program should include a mechanism to refer for treatment those persons who test positive for disease (also called Medical Monitoring).

Health system

The complex of interrelated elements that contribute to health in homes, educational institutions, workplaces, public places, and communities, as well as in the physical and psychosocial environment and the health and related sectors. A Health system is usually organized at various levels, starting at the most peripheral level, also known as the community level or the primary level of health care, and proceeding through the intermediate (district, regional or provincial) to the central level.

Health system infrastructure

Services, facilities, institutions or establishments, organizations and those operating them for the delivery of a variety of health programmes, which make use of the health resources in a well planned, organized and administered manner. The health programmes provide individuals, families and communities with health care that consists of a combination of promotive, protective, preventive, diagnostic, curative and rehabilitative measures. Thus the Seventh General Programme of Work has a section on health system infrastructure that aims at the establishment, progressive strengthening, organization, and operational management of health system infrastructures, including the related manpower, through the systematic application of a well defined managerial process and related health systems research, the delivery of country-wide health programmes using appropriate technologies, and social control of the health system and the technology used in it.

Health Systems Agency (HSA)

A health planning agency created under the National Health Planning and Resources Development Act of 1974. HSAs were usually nonprofit private organizations and served defined health service areas as designated by the States.

Health systems research

Research dealing with the entire health system or only part of it, the object of which being to ensure that the system is optimally planned and organized and that programmes are carried out by the health system infrastructure efficiently and effectively and with appropriate technology.

Health target

Health targets state, for a given population, the amount of change (using a health indicator) which could reasonably be expected within a defined time period. Targets are generally based on specific and measurable changes in health outcomes, or intermediate health outcomes. Reference: new edition. Health targets define the concrete steps which may be taken towards the achievement of health goals. Setting targets also provides one approach to the assessment of progress in relation to a defined health policy or program by defining a benchmark against which progress can be measured. Setting targets requires the existence of a relevant health indicator and information on the distribution of that indicator within a population of interest. It also requires an estimate of current and likely future trends in relation to change in the distribution of the indicator, and an understanding of the potential to change the distribution of the indicator in the population of interest.

Health team

A group of persons having a common health goal to the achievement of which each member of the team contributes in accordance with his or her competence and skill and in coordination with the functions of the others.

Health trend

A picture of a health situation referring also to what led up to it and to prospects for the future. Health development and socioeconomic development are inseparably linked, progress in health leading to and at the same time depending on socioeconomic progress. Health development implies coordination at all levels between activities in the health sector and activities in other social and economic sectors such as education, agriculture, industry, housing, public works, water supply and communications.

Healthy Cities

A healthy city is one that is continually creating and improving those physical and social environments and expanding those community resources which enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential. Reference: WHO (EURO) (1994) Terminology for the European Health Policy Conference. The WHO Healthy Cities project is a long-term development project that seeks to place health on the agenda of cities around the world, and to build a constituency of support for public health at the local level. The Healthy Cities concept is evolving to encompass other forms of settlement including Healthy Villages and Municipalities.

Healthy Islands

A healthy island is one that is committed to and involved in a process of achieving better health and quality of life for its people, and healthier physical and social environments in the context of sustainable development. Reference: adapted from WHO (WPRO) (1995) Yanuca Island Declaration. The Yanuca Island Declaration states that Healthy Islands are places where: children are nurtured in body and mind; environments invite learning and leisure; people work and age in dignity; and ecological balance is a source of pride. This declaration was ratified by the Health Ministers of 14 Pacific Island nations in 1995 and has since become an inter-regional source of reference for Healthy Islands programs throughout the world.

Healthy public policy

Healthy public policy is characterized by an explicit concern for health and equity in all areas of policy, and by an accountability for health impact. The main aim of healthy public policy is to create a supportive environment to enable people to lead healthy lives. Such a policy makes healthy choices possible or easier for citizens. It makes social and physical environments health enhancing. Reference: WHO (1988) Adelaide Conference Recommendations. The Ottawa Charter highlighted the fact that health promotion action goes beyond the health care sector, emphasizing that health should be on the policy agenda in all sectors, and at all levels of government. One important element in building healthy public policy is the notion of accountability for health. Governments are ultimately accountable to their people for the health consequences of their policies, or lack of policies. A commitment to healthy public policies means that governments must measure and report on their investments for health, and the subsequent health outcomes, and intermediate health outcomes of their investments and policies in a language that all groups in society readily understand. Closely related to the health promotion concept of healthy public policy is the strategy of investment for health. Investment for health is a strategy for optimizing the health promoting impact of public policies.

HEDIS

(Health Employer Data and Information Set) A set of performance measures for health plans developed for the National Committee for Quality Assurance (NCQA) that provides purchasers with information on effectiveness of care, plan finances and costs, and other measures of plan performance and quality.

Helminths

Worms, in particular the five groups of parasitic worms: Monogeneans (flukes), Digeneans (flukes, schistosomes), Cestodes (tapeworms), Nematodes (roundworms) and Acanthocephalans (spiny-headed worms).

HELP

A hospital information system developed by the University of Utah that also contains a decision-support system to generate reminders.

Help desk

Part of an information-processing department with the support of the user as its explicit task.

Hemochromatosis

A congenital disease in which there is an abnormality of iron metabolism. Excessive amounts of iron are deposited throughout the body.

Herd immunity

Specifically, the mechanism by which an infection may be eradicated from a population although some susceptibles still remain, because the remainder of the population is immune and thus transmission is reduced. More generally, the immunological status of a population of hosts and its effect on transmission rates.

Heterozygosity

The presence of different alleles at one or more loci on homologous chromosomes.

Heuristic classification

A KBS in which generalizations of the input features are heuristically associated with elements of the set of potential solutions by using rules of thumb.

Heuristic reasoning

Problem-solving method closely resembling human reasoning, in which a decision is reached after following paths of yes or no decisions using heuristics, that is, informal rules of thumb.

Heuristic system

Decision-support system that uses heuristic reasoning.

Hexadecimal

A number system with base 16: that is, numbers are represented with 16 different symbols, mostly 0 ... 9, A ... F.

HI test

Haemagglutination inhibition test, a serological test used to detect antibodies specific to a particular family of viruses which possess the ability to agglutinate red blood cells e.g. measles, rubella and influenza.

Hierarchical code

Hierarchical codes are formed by extending an existing code with one or more additional characters for each additional level of detail.

Hierarchical Coexisting Conditions Model (HCC)

A risk-adjustment model that groups beneficiaries based on their diagnoses.

Hierarchical data model

Database model in which records are connected by PCR (parent-child relationships).

High risk group

A group in the community with an elevated risk of disease.

High-level language

A formal programming language that allows statements that are close to the problem description. A program written in a high-level language requires an interpreter or a compiler to execute it.

High-pass filter

Filter that reduces the low frequencies in a signal.

H

High-risk Maternity Service

A maternity service that is equipped and staffed to care for mothers and babies where there is a significant risk of premature birth or maternal complications.

HIM

Hospital information model: a reference model for hospital organizations.

HIN

Health information networks: computer networks for health information.

Hinchey grading (classification/staging)

Grading system for diverticulitis: 1. stage I - diverticulitis associated with pericolic abscess; 2. stage II - diverticulitis associated with distant abscess (retroperitoneal or pelvic); 3. stage III - diverticulitis associated with purulent peritonitis; 4. stage IV - diverticulitis associated with fecal peritonitis.

HIPC

See Health Insurance Purchasing Cooperatives.

Hippocratic oath

The oath exacted of his students by Hippocrates: "I swear by Apollo the physician, and Aesculapius, and Hygeia, and Panacea, and all the gods and goddesses, that according to my ability and judgment, I will keep this oath and its stipulation - to reckon him who taught me this art equally dear to me as my parents, to share my substance with him, and to relieve his necessities if required to look upon his offspring in the same footing as my own brothers, and to teach them this art if they shall wish to learn it, without fee or stipulation, and then by precept, lecture, and every other mode of instruction, I will impart a knowledge of the art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none other. I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to anyone if asked, nor suggest any such counsel; and in like-manner I will pass my life and practice my art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick, and I will abstain from every voluntary act of mischief or corruption; and further, from the seduction of females or males, of freemen and slaves. Whatever, in connection with my professional practice, or not in connection with it, I see or hear, in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of this art, respected by all men, in all times. But should I trespass and violate this Oath, may the reverse be my lot".

HIR

Health information resources: information processing in the field of population-based health care.

HIRSP

The Health Insurance Risk Sharing Plan (HIRSP) provides insurance coverage to high-risk and otherwise uninsurable individuals in the state of Wisconsin. Only those under age 65 are eligible. Automatic eligibility is granted to people with disabilities who are receiving Medicare Part A. Also eligible are people with HIV infection who meet program criteria. No one who is currently covered by an insurance plan is eligible for coverage. Premium and deductible reduction programs are available based on income.

HIS

(Hospital Information System) An information system used to collect, store, process, retrieve, and communicate patient care and administrative information for all hospital-affiliated activities and to satisfy the functional requirements of all authorized users. One that supports all hospital functions and activities such as patient records, scheduling, administration, charge-back and billing, and often links to or includes clinical information systems such as an RIS. Provides support for all information processing within the organization with a focus on administrative

H

support (e.g. planning and budgeting, marketing, personnel, etc.) It integrates the clinical information system with strategic planning and quality improvement. There is development underway to apply hypertext technology (such as this document) to Hospital Information Systems. One example is remote reading and interpretation of radiographic studies (RIS). For more explanation of this concept, read WWW and the Electronic Medical Record. The number of hospitals with a presence on the Web is growing. A current list is maintained at Massachusetts General Hospital. For an example of a distributed HIS for an integrated hospital system, go to the Department of Veterans Affairs. Another elegant HIS example is the Virtual Hospital.

HIS reference model

A model describing the functional components of a HIS and the data-flow relationships among these components.

HISB

Health care Informatics Standards Board of ANSI.

His-bundle electrogram

Registration of the activation of the His bundle. This bundle conducts the electrical signal in the heart from the AV node toward the bundle branches in the ventricles.

Hiscom HIS

A hospital information system developed and widely used in The Netherlands.

Histogram

(1) A graphic representation of the frequency distribution of a continuous variable. Rectangles are drawn in such a way that their bases lie on a linear scale representing different intervals, and their heights are proportional to the frequencies of the values within each of the intervals. (2) A graphical presentation of the number of events as a function of an independent variable. The values of the independent variable are generally divided in equal parts (bins), and the number of events in a bin is represented by the height of a block above that bin. It shows the distribution of a parameter.

Histogram mode

A nuclear medicine scintigram made by adding the detected gamma quanta from a matrix of pixels into corresponding memory locations. The count distribution represents a two dimensional activity distribution over an organ.

Histogram segmentation

Decomposition of an image into its constituent parts by analyzing the histogram of intensity values.

Hits Access to a file on a Web page

Often used to attempt to compare popularity in the context of getting so many "hits" during a given period. Not directly correlated with page views. A single page view is usually comprised of several hits, because each file accessed is recorded as a hit.

HIV

(Human Immunodeficiency Virus) The cause of Acquired Immune Deficiency Syndrome (AIDS).

HL7

(Health Level 7 Data Communications Protocol) Used at the applications level, this communication protocol outlines the guides to transmitting health-related information. Usually used within a single institution, HL7 allows the synthesis of various applications, such as bedside terminals, radiological imaging stations, hospital census, order entries, and patient accounting, into one system. It defines standards for transmitting data for billing, hospital census, order entries, and results reporting over hospital networks. The protocol is accepted by most types of host computers. HL7 allows bedside terminals, radiological image stations, patient accounting, order entries, and critical care monitors to be incorporated into a single system.

H

HLA

Human leukocyte antigen: used in matching donor and receptor tissues in organ transplantation.

Hold Harmless Clause

A clause frequently found in managed care contracts whereby the HMO and the physician hold each other not liable for malpractice or corporate malfeasance if either of the parties is found to be liable. It may refer to language in provider contracts that prohibits the provider from billing the patients if the managed care company becomes insolvent.

Holism

Refers to the integration of mind, body, and spirit of a person and emphasizes the importance of perceiving the individual (regarding physical symptoms) in a "whole" sense. Holism teaches that the health care system must extend its focus beyond solely the physical aspects of disease and particular organ in question, to concern itself with the whole person and the interrelationships between the emotional, social, spiritual, as well as physical implications of disease and health.

Holoendemic

An infection whose prevalence is fairly uniform throughout a region, country or continent. Mainly used in the malaria literature.

Holter ECG

Continuous ECG recording lasting many hours (typically 24 hours).

Home and community care for the functionally disabled

An optional state plan benefit which allows states to provide home and community-based services to functionally disabled individuals. A waiver of the Medicaid state plan granted under Section 1915(c) of the Social Security Act which allows states to provide community-based services to people with disabilities as an alternative to institutional care.

Home Care

Type of care provided to a person in his or her home which is mainly for the purpose of meeting the Activities of Daily Living. It may be rendered by persons without professional skills or training working under the supervision of a Home Care Agency or a Home Health Care Agency; however, this does not include a member of your Immediate Family. Home Care includes assisting with or in: 1. ambulation and exercise; 2. self-administered medications; 3. reporting changes in your conditions and needs; 4. completing appropriate records; 5. Personal Care; 6. homemaker services or home health aide services; and 7. other services needed to maintain or improve your functional ability.

Home Care Agency

Means an agency or organization which provides Home Care, and: 1. is supervised by a qualified professional such as a Registered Nurse (RN) or a licensed social worker; 2. whose employees receive appropriate specialized training; 3. keeps plan of care records, including doctor's orders where appropriate, on all patients; and 4. is state licensed, where required, or accredited by the National Home Caring Council, a Division of the Foundation for Hospice and Home Care, or the Joint Commission on Accreditation of Health Care Organizations, or the National League for Nursing.

Home office

An office responsible for directing or managing two or more, but not necessarily all, segments of an organization. It typically establishes policy for, and provides guidance to, the segments in their operations. It usually performs management, supervisory, or administrative functions, and may also perform service functions in support of the operations of the various segments. An organization which has intermediate levels, such as groups, may have several home offices which report to a common home office. An intermediate organization may be both a segment and a home office.

Home page

(1) A World Wide Web document. Home page often refers to a person or organization's main Web page that provides links to other pages within the person or organization's Web site. (2)

H

The first screen of a URL, which usually introduces the host organization and provides pointers to other pages within the web site.

Homeobox

A short stretch of nucleotides whose base sequence is virtually identical in all the genes that contain it. It has been found in many organisms from fruit flies to human beings. In the fruit fly, a homeobox appears to determine when particular groups of genes are expressed during development.

Homologies

Similarities in DNA or protein sequences between individuals of the same species or among different species.

Homologous chromosomes

A pair of chromosomes containing the same linear gene sequences, each derived from one parent.

Horizontal integration

Merging of two or more firms at the same level of production in some formal, legal relationship. See vertical integration.

Horizontal survey

A study of a community, perhaps stratified by age, sex, ethnicity etc., but at one point in time or over a short time interval. Although a snapshot, horizontal surveys of prevalence and intensity within different age classes of a community can nevertheless provide valuable information on the rate at which hosts acquire infection through time, provided that the host and parasite populations have remained approximately stable for a period of time (ie stable endemicity). Same as cross-sectional study, converse of longitudinal study.

Horizontal transmission

Transmission occurring generally within a population, but not including vertical transmission.

Hospice

A program which provides palliative and supportive care for terminally ill patients and their families, either directly or on a consulting basis with the patient's physician or another community agency. Originally a medieval name for a way station for crusaders where they could be replenished, refreshed, and cared for, hospice is used here for an organized program of care for people going through life's "last station." The whole family is considered the unit of care, and care extends through their period of mourning. Originally an experimental group of hospitals, religious-orientated, set up to research methods of pain control and transmit their findings to ordinary hospitals. Now largely involved in giving a high standard of palliative care to a small proportion of dying people.

Hospital

An institution whose primary function is to provide inpatient diagnostic and therapeutic services for a variety of medical conditions, both surgical and nonsurgical. In addition, most hospitals provide some outpatient services, particularly emergency care. Hospitals may be classified by length of stay (short-term or long-term), as teaching or non-teaching, by major type of service (psychiatric, tuberculosis, general, and other specialties, such as maternity, pediatric, or ear, nose and throat), and by type of ownership or control (Federal, State, or local government, for-profit and nonprofit). The hospital system is dominated by the short-term, general, nonprofit community hospital, often called a voluntary hospital. Hospitals are institutions, operating within the scope of its license when rendering services in treatment of a condition for which claim is made, that is: 1. Accredited as a hospital by the Joint Commission on Accreditation of Health Care Organizations or by the American Osteopathic Association; and, 2. Licensed as a hospital by the state in which it is located. "Hospital" does not mean a place or any part of a place, even if it is called a hospital, that is operated mainly for: a) rest; b) convalescence; c) custodial care; d) care of the aged; e) the care or treatment of drug addicts; f) the care or treatment of alcoholics; g) rehabilitation; or, h) training, schooling or occupational therapy. A hospital operated mainly for the treatment of mental disorders, but lacking surgical facilities, will qualify if it meets all the other

H

requirements of this definition.

Hospital day

A term to describe any twenty-four hour period commencing at 12:00 a.m., or 12:00 p.m., whichever is used by a hospital to determine a hospital day, during which a patient receives hospital services at the hospital.

Hospital information system

See HIS.

Hospital Inpatient Prospective Payment System (PPS)

Medicare's method of paying acute care hospitals for inpatient care. Prospective per case payment rates are set at a level intended to cover operating costs for treating a typical inpatient in a given DRG. Payments for each hospital are adjusted for differences in area wages, teaching activity, care to the poor, and other factors. Hospitals may also receive additional payments to cover extra costs associated with atypical patients (outliers) in each DRG. Capital costs, originally excluded from PPS, are being phased into the system. By 2001, capital payments will be made on a fully prospective, per case basis. Prospective payment systems are also being developed for Medicare payments for home health services, outpatient hospital services, skilled nursing facilities, and rehabilitation facilities. See Capital Costs, Diagnosis-Related Groups, Outliers, Prospective Payment.

Hospital Insurance (HI)

The part of the Medicare program that covers the cost of hospital and related post-hospital services. Eligibility is normally based on prior payment of payroll taxes. Beneficiaries are responsible for an initial deductible per spell of illness and copayments for some services. Also called Part A coverage or benefits.

Hospital Outshopping

The bypassing of local hospitals by patients in favor of other hospitals (usually because the patients believe the quality of care is better in the other hospital).

Hospital without walls

A term used to describe the range of high-tech services that can be provided outside the hospital setting.

Host

(1) A person or other living organism that can be infected by an infectious agent under natural conditions. (2) Any computer on a network that is a repository for services available to other computers on the network. (3) A project funded by the National Library of Medicine (NLM) to develop telemedicine demonstration projects that evidence an Open Systems approach. Major partners include IBM and Sprint.

Host factor

An intrinsic factor (age, race, sex, behaviors, etc.) which influences an individual's exposure, susceptibility, or response to a causative agent.

Hot link

Hypertext link. A highlighted word, phrase, or graphic within an Internet document that, when selected, automatically links to another site (URL) on the Internet.

Hough transform

Originally a method to detect straight lines in digital images, later extended to more general digital curves.

Housekeeping

See "Environmental services".

How to Die With Dignity

Early manual published by VESS and detailing methods of self-deliverance. The first book of its

H

kind anywhere in the world.

HPCC

(High Performance Computing and Communications) A program of research coordinated by the Federal Government focused on research and development, created to expedite the introduction and use of the next generation of high performance computer systems.

HPS

(Hantavirus Pulmonary Syndrome) See hantavirus pulmonary syndrome.

HSV

(Herpes simplex virus) Types one and two, HSV-I and HSV-II, are among the causes of cold sores and genital ulcers.

HTML

(HyperText Markup Language) A simple coding system used to format documents for viewing by World Wide Web clients. HTML can be compared to early word processing software, in which all special characters, like bold or underline, need to be marked or "tagged" to let the printer know that the character requires special consideration during output. Web pages are written in this standard specification. HTML files are meant to be viewed using a World Wide Web Client Program, such as Netscape.

HTTP

(HyperText Transfer Protocol) An Internet computer communication encoding standard for the exchange of documents on the Web. The protocol for moving hypertext files across the Internet. Requires a HTTP client program on one end, and an HTTP server program on the other end. HTTP is the most important protocol used in the World Wide Web (WWW).

Hub

(1) Central part of a wheel; center of activity. (2) Provides a cost-effective single point of connection to the network for workstations and other devices.(3) See gateway.

Human brain

The central part of the human information processing system. Although some superficial analogies with a computer can be seen, the structure of knowledge and the way of processing of information in a human brain are yet largely unknown, but almost certainly different from computer processing.

Human gene therapy

Insertion of normal DNA directly into cells to correct a genetic defect.

Human thinking

See human brain.

Human-computer interaction

(HCI) The design, implementation, and evaluation of interactive computer systems.

Hyperendemic disease

A disease that is constantly present at a high incidence and/or prevalence rate.

Hyperlink

The path between two documents, which allow the user to point and click on specific words on the screen and thereby follow the thought to the requested location, wherever it is on the Internet.

Hypermedium

Document that contains links to various media.

Hypertext

Any text that contains links to other documents - words or phrases in the document that can be

H

chosen by a reader and which cause another document to be retrieved and displayed.

Hypertext mark-up language

See HTML.

Hypoendemic

A term from the malaria literature used to mean (roughly) an area with little transmission.

Hypothesis

A supposition, arrived at from observation or reflection, that leads to refutable predictions. Any conjecture cast in a form that will allow it to be tested and refuted.

Hypothesis testing

(1) In the context of statistics: the statistical test of the assumption that two populations are equal (null hypothesis) or unequal (alternative hypothesis) with respect to the probability of a certain attribute. (2) Testing the validity of a hypothesis by statistically analyzing the results of an experiment.

Hypothesis, alternative

The hypothesis, to be adopted if the null hypothesis proves implausible, in which exposure is associated with disease.

Hypothesis, null

The first step in testing for statistical significance in which it is assumed that the exposure is not related to disease.

Hz

(Hertz) Unit of frequency, equal to one cycle per second.

I/O

Input and output.

IAIMS

(Integrated Advanced Information Management Systems) Institution wide computer networks that link and relate library systems with individual and institutional databases and information files, within and external to the institution, for patient care, research, education and administration.

IARC

The WHO linked International Agency for Research on Cancer.

Iatrogenesis

Illness or adverse effects produced by medical treatment (e.g., bed sores, hospital-borne infections, adverse drug reactions and surgical complications). Indemnity Insurance Traditional health care insurance in which, for the price of a fixed premium, the enrollees are free to choose whichever provider they wish, as long as the provider is enrolled in the plan.

IC

(Interexchange Carrier) A telephone company such as AT&T, Sprint, or MCI that carries long distance calls. The ICs are authorized by the FCC to carry inter-LATA, interstate traffic and can be authorized by state PUCs to carry inter- LATA, intrastate traffic. Also known as Long Distance Carriers.

ICD

(1) (International Classification of Diseases) a coding system for disease terminology originally intended to be used to report mortality statistics but now also in use for patient record abstraction. (2) Intermittently connected device.

ICD-10

The tenth revision of the ICD.

ICD-9-CM

Clinical modification (CM) of the ninth revision of ICD (see specifications).

ICD-O

International Classification of Diseases for Oncology: a WHO classification widely in use for cancer registrations.

ICF MRP

(Intermediate Care Facility for Mentally Retarded Persons) Optional Medicaid service which provides residential care and services for individuals with a developmental disabilities.

ICIB

(Image Communication Information Board) A German Television Web Site with standards and documents on information technology, television and telecommunications.

ICIDH

International Classification of Impairments, Disabilities, and Handicaps (WHO, 1980).

ICNP

(International Classification for Nursing Practice) A lexicon describing nursing events and interventions.

Icon

A pictorial representation on the computer screen of a function to be performed by the computer.

ICPC

(International Classification of Primary Care) Classification for diagnoses, reasons for encounter,

therapies, and laboratory tests.

ICPM

(International Classification of Procedures in Medicine) Though it never passed the trial phase, it has been a source for many procedural classifications.

ICU

Intensive care unit a nursing unit for patients who need intensive care (artificial respiration, monitoring of heart or brain functions, etc.).

ID

Identification (of a patient, a laboratory sample and so on).

IDEF Modeling Technique

A combination of graphic and narrative symbols and rules designed to capture the processes and structure of information in an organization.

IDEFO

An activity, or behavior, modeling technique.

IDEF1X

A rule, or data, modeling technique.

Identification

(1) The unambiguous establishment that a set of data corresponds to a person. (2) A unique set of numbers and characters that is used to label a person in a computer.

IDIQ

Indefinite Delivery, Indefinite Quantity (contract)

IEC

International Electrotechnical Committee.

IEC (IXC)

(InterExchange Carrier) The long distance companies in the U.S. that provide inter-LATA telephony services. E.g., Sprint, AT&T, MCI. See LEC.

IETF

Internet Engineering Task Force.

IHFDS

(In-house Film Distribution Systems) A film digitizer and/or "frame grabber," that captures and converts video images in a modality to a digital form, an image file server, display stations and communication capability.

IMA

Internal mammary artery.

Image analysis

The extraction of numerical information from images.

Image capture

See freeze frame.

Image compression

Reduction of storage needs of an image by using compression.

Image enhancement

Improvement of the quality of an image by increasing features of the image such as contrast or edges (subjective image enhancement). In order to improve further visual or automatic processing. Ant Image restoration.

Image management

Stored image management denotes the ability to sort, arrange, and manipulate stored images into functional groups. Some systems allow the user to store images, but once done they cannot be arranged and are permanently stored in the order in which they were saved. This may be cumbersome.

Image processing

The enhancement of the quality of images.

Image restoration

Improvement of the quality of an image by inverting a previous degradation procedure such as noise addition or distortions (objective image enhancement) in order to improve further visual or automatic processing. Ant. image enhancement.

Image segmentation

Decomposing an image into its constituent components, possibly with the objective of performing measurements on each of them.

Image subtraction

Composing a new image that is the pixel by pixel difference of two images.

Image transformation

Image processing operations to perform image restoration or image enhancement.

Imaging

Generating images of organisms, organs, or parts of organisms or organs by means of radiation.

IMHO

("In My Humble Opinion") A shorthand appended to a comment written in an online chat forum, IMHO indicates that the writer is aware that they are expressing a debatable point of view.

IMIA

International Medical Informatics Association, an association that unites national or regional medical informatics societies from around the world.

IMIA-LAC

Regional federation of health societies in Latin America.

Immediate family

Means a Covered Person's Spouse, daughter, son, father, mother, sister or brother, granddaughter or grandson, or in-laws.

Immunity

A state in which a host is not susceptible to infection or disease; Immunity, active - Resistance developed in response to stimulus by an antigen (infecting agent or vaccine) and usually characterized by the presence of antibody produced by the host; Immunity, herd - The resistance of a group to invasion and spread of an infectious agent, based on the resistance to infection of a high proportion of individual members of the group. The resistance is a product of the number susceptible and the probability that those who are susceptible will come into contact with an infected person; Immunity, passive - Immunity conferred by an antibody produced in another host and acquired naturally by an infant from its mother or artificially by administration of an antibody-containing preparation (antiserum or immune globulin).

Immunogenicity

The ability of a vaccine to stimulate the immune system, as measured by the proportion of individuals who produce specific antibody or T cells, or the amount of antibody produced, say. Not the same as efficacy.

Immunopathology

Damage to the host caused by its own immune response against a pathogen.

Immunosuppression

A reduction in the capacity of the immune system. Caused by infection (eg HIV), drug treatment, pregnancy and malnutrition among others. Immunosuppressed individuals are commonly referred to as immunocompromised.

Impact evaluation

Impact evaluation is the most comprehensive of the four evaluation types. It is desirable because it focuses on the long-range results of the program and changes or improvements in health status as a result. Impact evaluations are rarely possible because they are frequently costly, involve extended commitment and may depend upon other strategies in addition to communication. Also, the results often cannot be directly related to the effects of an activity or program because of other (external) influences on the target audience which will occur over time.

Implanted device registries

A registry that relates a patient to the model and possibly the serial number of an implanted device, such as a pacemaker or an artificial heart valve.

Implementation

The introduction of a developed information system in an organization by adapting (tuning) the application to the working practices of the users.

Implementation model

Model derived from the conceptual data model to be used by a DBMS for implementation.

Implication

A logical operation between two logical expressions that is true and only true when both the left-hand variable is TRUE and the right-hand variable is TRUE.

Impressions

The gross sum of all media exposures (number of people or homes) without duplication. The total number of times an ad is seen on a Web page.

Improper influence

Any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

IMUX

(Inverse multiplexer) Re-aggregates split subchannels in a data stream into a single channel. See ISDN.

In situ hybridization

Use of a DNA or RNA probe to detect the presence of the complementary DNA sequence in cloned bacterial or cultured eukaryotic cells.

Incidence

(1) In epidemiology, the number of cases of disease, infection, or some other event having their onset during a prescribed period of time in relation to the unit of population in which they occur. Incidence measures morbidity or other events as they happen over a period of time. Examples include the number of accidents occurring in a manufacturing plant during a year in relation to the number of employees in the plant, or the number of cases of mumps occurring in a school during a month in relation to the number of pupils enrolled in the school. It usually refers only to the number of new cases, particularly of chronic diseases. (2) The number of new cases of a particular problem or condition that are identified or arise in a specified area during a specified period of time. (Rossi and Freeman, 1993)

Incidence rate

A measure of the frequency with which an event, such as a new case of illness, occurs in a population over a period of time. The denominator is the population at risk; the numerator is the

number of new cases occurring during a given time period.

Inclusive OR

See OR.

Incontestable clause

A provision in life insurance policies that prevents the insurer from challenging the coverage because of alleged misstatements by the insured after a stipulated period has passed, usually two to three years.

Incubation period

(1) A period of subclinical or inapparent pathologic changes following exposure, ending with the onset of symptoms of infectious disease. (2) The time that elapses between infection and the appearance of symptoms of a disease. Not the same as the latent period.

Incurred But Not Reported (IBNR)

(1) A cash reserve set up by a payer to cover claims that have been filed but not officially reported as paid. (2) Claims that have not been reported to the insurer as of some specific date for services that have been provided. The estimated value of these claims is a component of an insurance company's current liabilities.

Incurred cost audit

Term used to describe the audit of a contractor's incurred cost submission, primarily for the purpose of determining the allowability of costs charged to cost-reimbursement type contracts.

Incurred cost submission

A term commonly used to describe a final indirect rate proposal prepared in the format required by the Defense Contract Audit Agency.

Indefinite quantity contract

A contract which provides for an indefinite quantity, within stated limits, of specific supplies or services to be furnished during a fixed period, with deliveries to be scheduled by placing orders with the contractors.

Indemnity

(1) A medical plan, also called fee-for-service, that allows the enrollee to choose any doctor or hospital and pays a portion of the medical bills. The enrollee pays a deductible and coinsurance. (2) Health insurance benefits provided in the form of cash payments rather than services. An indemnity insurance contract usually defines the maximum amounts which will be paid for covered services. (3) InsuranceTraditional insurance in which patients pay bills, then receive partial reimbursement (generally 80 to 90 percent) from their carrier.

Indemnity insurance

An insurance contract which allows beneficiaries to choose their own health care providers. Offers virtually unlimited choice of physicians and hospitals, but at a higher cost than managed care plans. Providers are reimbursed each time they provide a service, incentivizing them financially to provide more services. Coverage is usually limited to a percentage of the billed amount. Also known as fee-for-service.

Indemnity plan

A traditional insurance plan without provider networks where each insured has a deductible, then all benefits are paid on a percentage basis of incurred costs or usual, customary and reasonable charges. Doctors and other service providers are paid according to the services they provide to the insured.

Indeo

Intel's compression algorithm that works with the proprietary DVI system or as a stand-alone CODEC for use with QuickTime and Video for Windows.

Independent Physician Association (IPA)

Contracts with individual physicians who see HMO members, as well as their own patients, in their own private offices. It is the ability of IPA physicians to see both IPA and private patients in their own offices that principally differentiates an IPA from a group or staff HMO. Physicians in an IPA are paid either on a capitation or a modified fee-for-service basis.

Independent Practice Association (IPA)

(1) An organized form of prepaid medical practice in which participating physicians remain in their independent office settings, seeing both enrollees of the IPA and private-pay patients. Participating physicians may be reimbursed by the IPA on a fee-for-service basis or a capitation basis. (2) A type of HMO that contracts with sole practitioners in medicine, dentistry and other health care fields. From the patients' perspective, they receive network care when selecting among the affiliate providers. However, these practitioners may also serve fee-for-service patients. IPAs may pay their physicians fee for service or may capitate their physicians, but the physicians bear some degree of risk for medical expenses.

Independent Research and Development (IR&D) cost

The cost effort which is neither sponsored by a grant, nor required in performing a contract, and which falls within any of the four following areas: (a) basic research, (b) applied research, (c) development, and (d) systems and other concept formulation studies.

Independent telephone company

A local exchange carrier that is not part of the Regional Bell System of Operating Companies (RBOCs). In rural areas, many of the independent telephone companies are cooperative.

Independent variable

An exposure, risk factor, or other characteristic being observed or measured that is hypothesized to influence an event or manifestation (the dependent variable).

Index

A key of a record used for fast retrieval of that record.

Index file

File connecting a key with an address or with another key.

Indicator

Any variable which helps to measure changes. Quantitative expression of a health state (or other element state), of an indirect or surrogate character, sometimes standardized by national or international authorities, usually of a summary nature. Variable susceptible of direct measurement that is assumed to be associated with a state that cannot be measured directly. Indicators are sometimes standardized by national or international authorities. Measure of the extent to which targets are being reached. Variable that helps to measure changes in a health situation directly or indirectly and to assess the extent to which the objectives and targets of a programme are being attained. If the aim of the programme is to train a number of auxiliary workers annually, the number of workers trained each year is a direct - or output - indicator. If the aim is to improve child health, several indicators could be used, such as nutritional status, psychosocial development, the immunization rate, or the morbidity and mortality rates. While efforts are normally made to quantify indicators, this is not always possible. Moreover, evaluations cannot always be made by aggregating numerical values alone. Qualitative indicators are therefore often used, for example to assess people's involvement and their perception of their health status. WHO has proposed four categories of indicators: health policy indicators; social and economic indicators; indicators of health care delivery; and indicators of health status, including quality of life. It should be emphasized that, while indicators help to measure the attainment of targets, they are not in themselves targets. Indicators have to be selected carefully to make sure that they are responsive to current trends of development and that they are useable for the analysis of ongoing activities. When selecting indicators, full account has to be taken of the extent to which they are valid, objective, sensitive and specific. Validity implies that the indicator actually measures what it is supposed to measure. Objectivity implies that even if the indicator is used by different people at different times and under different circumstances, the results will be the same. Sensitivity means that the indicator should be sensitive to changes in the situation or phenomenon concerned. However, indicators should be

sensitive to more than one situation or phenomenon. Specificity means that the indicator reflects changes only in the situation or phenomenon concerned. Another important attribute of an indicator is its availability, namely that it should be possible to obtain the data required without undue difficulty. Development of health programme evaluation: Report by the Director-General. Geneva, World Health Organization, 1978.

Indigent care

Health services provided to the poor or those unable to pay. Since many indigent patients are not eligible for Federal or State programs, the costs which are covered by Medicaid are generally recorded separately from indigent care costs.

Indirect costs

A costs which cannot be identified directly with a particular activity, service, or product of the entity incurring the cost. Indirect costs are usually apportioned among an entity's services in proportion to each service's share of direct costs.

Indirect cost pool

A grouping of indirect costs identified with two or more objectives but not identified specifically with any final cost objective.

Indirect cost rate

The percentage or dollar factor that expresses the ratio of indirect costs incurred in a given period to direct labor cost, manufacturing cost, or another appropriate base for the same period.

Indirect life cycle

A life cycle which requires one or more intermediate hosts before the definitive host species is reinfected. Compare direct, nondirect.

Indirect Medical Education (IME) Adjustment

A payment adjustment applied to DRG and outlier payments under PPS for hospitals that operate an approved graduate medical education program. For operating costs, the adjustment is based on the hospital's ratio of the number of interns and residents to the number of beds. For capital costs, it is based on the hospital's ratio of interns and residents to average daily occupancy.

Indirect transmission

The transmission of an agent carried from a reservoir to a susceptible host by suspended air particles or by animate (vector) or inanimate (vehicle) intermediaries.

Individual coverage

One person and dependents receiving coverage under one policy; separate from state small group law.

Individual insurance

Policies purchased by individuals directly from an insurance company, not through the auspices of another organization such as an employer or association.

Individual Practice Association (IPA) Model HMO

A health care model that contracts with an entity, which in turn contracts with physicians, to provide health care services in return for a negotiated fee. Physicians continue in their existing individual or group practices and are compensated on a per capita, fee schedule, or fee-for-service basis.

Induction

Inference from particular to general.

Infant

A child from birth to age one year

Infant Mortality (Death) Rate

The total deaths of children under one year of age in a year divided by the number of live births in the year.

Infected

A host who has an infection.

Infection

The presence of a parasite within a host where it may or may not cause disease.

Infectious

Capable of causing infection or disease by entrance of organisms (e.g. bacteria, viruses, protozoans, fungi) into the body, when they grow and multiply. Often used synonymously with "communicable".

Infectious period

The time period during which infecteds are able to transmit an infection to any susceptible host or vector they contact. Note that the infectious period may not necessarily be associated with symptoms of the disease.

Infectivity

The proportion of persons exposed to a causative agent who become infected by an infectious disease.

Inference

Draw of conclusions from available knowledge and data. In statistics, the development of generalizations from sample data, usually with calculated degrees of uncertainty.

Inference mechanism

A procedure that operates on a knowledge representation to conclude new propositions.

Inflation rider

Provides for the anticipated rise in the cost of long-term care. A rider to offset inflationary increases; however, can increase premium cost by as much as one-third.

Informatics

(1) The application of computer science and information science to the management and processing of data, information, and knowledge. (2) In genome projects, informatics includes the development of methods to search databases quickly, to analyze DNA sequence information, and to predict protein sequence and structure from DNA sequence data.

Information

(1) Knowledge derived from study. (2) Knowledge of a specific event or situation; intelligence. (3) A collection of facts or data - statistical information. (4) The act of informing or the condition of being informed; communication of knowledge: (ie: "Safety instructions are provided for the information of our passengers."). (5) (Computer Science) A nonaccidental signal or character used as an input to a computer or communications system. (6) A numerical measure of the uncertainty of an experimental outcome.

Information analyst

A person who analyzes the current information flows in an organization.

Information architecture

The existing or required framework of information processing.

Information content

The amount of information in a message that an event has occurred with the probability p , expressed in the smallest amount of information, the bit, by Shannon's formula $I = -\log_2 p$.

Information entropy

Negative value of information content

Information feedback

Reporting to those who supplied information on the use made of it, the results obtained and the action to be taken.

Information planning

An activity to describe the information needs in an organization and to propose technologies that will address those needs.

Information processing

The totality of operations performed by a computer, in which a human is involved to interpret the data so that they become information.

Information processing system

Computer system that processes data to obtain information.

Information requirement determination

See IRD.

Information support

The supply to and from all concerned and the constant use of relevant, sensitive and consistent information required for formulating, programming, budgeting, implementation, monitoring and evaluation of a programme or project.

Information Technology (IT)

Using a variety of techniques, it refers to the storage, manipulation, and communication of information in audio, data, and video formats.

Informed consent

A careful explanation by the practitioner to the patient, usually in writing, that details proposed diagnostic or therapeutic procedures or course of treatment.

Infrastructure for health promotion

Those human and material resources, organizational and administrative structures, policies, regulations and incentives which facilitate an organized health promotion response to public health issues and challenges. Reference: new edition. Such infrastructures may be found through a diverse range of organizational structures, including primary health care, government, private sector and non-government organizations, self-help organizations, as well as dedicated health promotion agencies and foundations. Although many countries have a dedicated health promotion workforce, the greater human resource is to be found among the wider health workforce, work forces in other sectors than health (for example, in education, social welfare and so on), and from the actions of lay persons within individual communities. Infrastructure for health promotion can be found not only in tangible resources and structures, but also through the extent of public and political awareness of health issues, and participation in action to address those issues.

Ingestion

Swallowing (such as eating or drinking). Chemicals can get in or on food, drink, utensils, cigarettes, or hands where they can be ingested. After ingestion, chemicals can be absorbed into the blood and distributed throughout the body.

Inhalation

Breathing. Exposure may occur from inhaling contaminants because they can be deposited in the lungs, taken into the blood, or both.

Inheritance

In object-oriented programming and frame-based decision-support system: the fact that a descendant object class inherits characteristics of an ancestor.

Ink-jet printer

A printer that forms its output by directing selectively an ink jet to a place on paper.

Inoculum

The amount of parasite to which an individual host is exposed at transmission.

Inpatient

A person is considered an inpatient if he is formally admitted as an inpatient with the expectation that he will remain at least overnight and occupy a bed, even if it later develops that he can be discharged and does not actually use a hospital bed overnight. A person who is admitted to the hospital as a "day patient" is not considered an inpatient.

Inpatient care

Care provided to admitted patients.

Inpatient services

Items and services furnished to a hospital inpatient by the hospital, including bed and board, nursing services, diagnostic procedures, therapeutic services, and surgery.

Input

The labor, capital, and other resources hospitals use to produce goods and services.

Input device

A mechanism for receiving data. See also CPU and port.

Insolvency

A legal determination occurring when a managed care plan no longer has the financial reserves or other arrangements to meet its contractual obligations to patients and subcontractors.

Instance

An object isolated from an object class.

Instantaneous rate

In a short time interval (e.g. a week), the number of events (e.g. births in the UK) taking place during the interval is approximately proportional to the length of the interval. The constant of proportionality is the rate at which these events occur. This argument becomes more and more exact as the length of the time interval becomes shorter and shorter. When the time interval has shrunk to an instant, the rate has become an 'instantaneous rate'. A bad term; just call it a rate.

Institution for Mental Diseases (IMD)

An institution for providing services to individuals with mental illness which is a residential facility with 16 or more beds and offers specialized psychiatric care.

Institutional health services

Health services delivered on an inpatient basis in hospitals, nursing homes, or other inpatient institutions. The term may also refer to services delivered on an outpatient basis by departments or other organizational units of, or sponsored by, such institutions.

Instruction

Command to the CPU to perform an action.

Instrumental Activities of Daily Living (IADL)

An index or scale that measures a patient's degree of independence in aspects of cognitive and social functioning, including shopping, cooking, doing housework, managing money, and using the telephone.

Insurable interest

An interest that might be damaged if the peril insured against occurs; the possibility of a financial loss to an individual that can be protected against through insurance.

Insurance

An economic device for reducing risk by transferring a risk of an individual to an insurer in exchange for a premium. The insurer agrees to assume, to a specified extent, the losses suffered by the insured.

Insured

The party to an insurance arrangement whom the insurer agrees to indemnify for losses.

Insurer

The party to an insurance arrangement who undertakes to indemnify for losses.

Intangible capital asset

An asset that has no physical substance, has more than minimal value, and is expected to be held by the enterprise for continued use beyond the current accounting period for the benefits it yields.

Integer

Zero, positive or negative natural number (... , -2, -1, 0, 1, 2, ...).

Integers

The set of numbers consisting of the counting numbers (that is, 1, 2, 3, 4, 5, ...), their opposites (that is, negative numbers, -1, -2, -3, ...), and zero.

Integrated Delivery System

(1) A group of health care service units that typically includes hospitals, physicians (for example, medical groups and independent practice associations), and other non-hospital providers (for example, ambulatory surgery center, home health, skilled nursing facility). These units are coordinated in their efforts to service one or more target markets. The integration may take a variety of forms including joint venture, merger, or contract. (2) The affiliation or formal merger of a variety of organizations, typically including hospitals, physicians and physician groups, outpatient service organizations, managed care organizations, and others, for the purpose of delivering patient care in a coordinated fashion to a defined population.

Integrated Service Networks (ISNs)

(1) Integrated Service Networks are organizations that are accountable for the costs and outcomes associated with delivering a full continuum of health care services to a defined population. (Laws 1993) Under an ISN arrangement, a network of hospitals, physicians, and other health care providers furnish all needed health services for a fixed payment. (2) A network of organizations usually including hospitals and physician groups, that provides or arranges to provide a coordinated continuum of services to a defined population and is held both clinically and fiscally accountable for the outcomes of the populations served.

Integrated-Computer Aided Software Engineering (I-CASE)

A set of software design and development tools operating with an integrated shared repository to support the entire systems development life cycle.

Integration

Data, presentation, or functions are available for the user in a consistent way.

Integrator

A vendor that uses retail parts from other manufacturers to produce a product that other vendors might make and assemble within the company. See VAR, OEM.

Integrity control

Consistency control to safeguard the correctness of data.

Intensity

(1) (Traditional) The mean parasite burden within all the infected members of the host population. Also called mean abundance. (2) (Newer) The mean parasite burden within both infected and uninfected hosts. It is important to indicate which usage is adopted, since they give

different statistics, unless the prevalence is 100%. Macroparasites, and infections like malaria, are usually measured in terms of intensity.

Intensity of Services

The number and complexity of resources used in producing a patient care service, such as a hospital admission or home health visit. Intensity of services reflects, for example, the amount of nursing care, diagnostic procedures, and supplies. See also Volume and Intensity of Services.

Intensive Care Unit (ICU)

A form of critical care. In large hospitals, there may be different kinds of intensive care units depending on the diagnosis and recent treatment of the patient. Usually these units are broken down into surgical intensive care units for patients requiring a high level of care after major surgery and medical intensive care units that deal with cardiac patients.

Interest

The cost incurred for borrowing funds. Interest is usually expressed as a percentage of the total loan.

Interface

(1) A common boundary between two pieces of equipment or between a piece of equipment and a human being. (2) In programming, the outside view of a procedure or an object. An interface is how the system enables information to be accessed and modified. A graphical user interface (GUI) is typically simple to use, with mouse controlled point-and-click onscreen icons.

Interference

(1) Effect of one signal on another signal (e.g., light or electric signals). (2) Influence of one task on another task.

InterGovernmental Initiative (IGI)

Cooperative arrangement between local government entities in which local dollars used for indigent care are contributed as a match to draw down federal medicaid dollars. IGI's are responsive for management of the delivery system.

Interlingua

An artificial language used as an intermediate language for computer translation of a natural language into another one.

Intermediate care

Means a degree of nursing care and evaluation that is less than that provided for Skilled Nursing Care, but greater than that provided for Custodial Care. This level of care provides a planned, continuous program of nursing care that is preventive or rehabilitative in nature.

Intermediate Care Facility

An institution which is licensed under State law to provide on a regular basis, health-related care and services to individuals who do not require the degree of care or treatment which a hospital or skilled nursing facility is designed to provide. Public institutions for care of the mentally retarded or people with related conditions are also included in the definition. The distinction between "health-related care and services" and "room and board" has often proven difficult to make but is important because ICFs are subject to quite different regulations and coverage requirements than institutions which do not provide health-related care and services.

Intermediate health outcomes

Intermediate health outcomes are changes in the determinants of health, notably changes in lifestyles, and living conditions which are attributable to a planned intervention or interventions, including health promotion, disease prevention and primary health care. Reference: new edition. See also determinants of health, health outcomes and intermediate health outcomes.

Intermittently connected device

See ICD.

Intern

A physician in training in the first year after graduating from medical school. The term "intern" is falling out of favor, although it used to be a very common one, when it was the usual practice for many physicians to complete only one year of post- medical school training before going into general practice.

Internal data model

The mapping of the implementation data model onto a model consisting of computer files and logical data records.

Internal rate of return

The calculated value for the discount rate necessary for total discounted program benefits to equal total discounted program costs.

International Agency for Cancer research

See IARC.

International Classification of Diseases, 9th Edition (Clinical Modification) (ICD-9-CM)

A listing of diagnoses and identifying codes used by physicians for reporting diagnoses of health plan enrollees; this process provides a uniform language to ensure reliable and consistent labeling on claim forms. The World Health Organization's ninth edition of its book is used widely for hospital diagnoses. A 10th version recently has been released. It also contains fee structures that are designed along the lines of ICD-9 codes. The diagnosis and procedure classification system is designed to facilitate collection of uniform and comparable health information. This system is used to group patients into DRGs.

International Drugs Consensus Working Party

International, multidisciplinary group, that peer-reviewed and finalised Departing Drugs.

International medical graduate (IMG)

A physician who graduated from a medical school outside of the United States, usually Canada. U.S. citizens who go to medical school abroad are classified as international medical graduates just as are foreign-born persons who are not trained in a medical school in this country. U.S. citizens represent only a small portion of the IMG group.

Internet

(1) A collection of inter-connected networks that speak the same computer language and connect thousands of independent networks into a global communication system. It links computers and computer networks from colleges and universities, government agencies, institutions, and commercial organizations worldwide. (2) A loose aggregation of thousands of computer networks forming an enormous worldwide WAN (although some would not use the term WAN for this generally low-bandwidth system). (3) The international network of networks. The vast collection of inter-connected networks that all use the same protocols. The Internet came into being between the late 1970s and early 1980s with the development and adoption of TCP/IP. TCP/IP allowed ARPAnet to join with other networks.

Internet protocol

Based on the Web site's technical address, this is another way for accessing Web sites. The format for this protocol is a four-part number, such as 207.87.223.39.

Internet relay chat

Basically a huge multi-user live chat facility. Anyone can create a channel and anything that anyone types in a given channel is seen by all others in the channel. Private channels can be created for multi-person conference calls.

InterNIC

A collaborative project of three organizations to offer the Internet community a full scope of network information services, such as providing information about accessing and using the Internet, assistance in locating resources on the network, and registering network components

for Internet connectivity.

Internist

An MD or DO who specializes in the diagnosis and medical treatment of diseases in adults.

Interoperability

The capacity of different system components and platforms to work together smoothly and predictably.

Interphase

The period in the cell cycle when DNA is replicated in the nucleus; followed by mitosis.

Interpolation

Estimation of values between known values.

Interpreter

A program that processes high-level program statements, executing them immediately.

Interquartile range

The central portion of a distribution, calculated as the difference between the third quartile and the first quartile; this range includes about one-half of the observations in the set, leaving one-quarter of the observations on each side.

Intersection

The intersection of two sets is the set that contains the objects that are in both original sets.

Intersectoral action

Action in which the health sector and other relevant sectors collaborate for the achievement of a common goal, the contributions of the different sectors being closely coordinated.

Intersectoral collaboration

A recognized relationship between part or parts of different sectors of society which has been formed to take action on an issue to achieve health outcomes or intermediate health outcomes in a way which is more effective, efficient or sustainable than might be achieved by the health sector acting alone. Reference: modified from WHO (1997) Intersectoral Action for Health: A Cornerstone for Health-for-All in the 21st Century. Intersectoral action for health is seen as central to the achievement of greater equity in health, especially where progress depends upon decisions and actions in other sectors, such as agriculture, education and finance. A major goal in intersectoral action is to achieve greater awareness of the health consequences of policy decisions and organizational practice in different sectors and, through this, movement in the direction of healthy public policy and practice. Not all intersectoral action for health need involve the health sector. For example, in some countries the police and transport sectors might combine to take action to reduce road transport injury. Such action, although explicitly intended to reduce injury, will not always involve the health sector.

Intersectoral health policy

Health-related policy that lies outside the official public health sphere, such as traffic safety or housing regulations.

Interstitial therapy

The treatment of certain cancers through the implantation of radioactive materials adjacent to the tumor. This type of therapy is used either exclusively or in conjunction with other therapies for certain types of cancers, such as spinal cancer.

Intervention registry

See disease and intervention registries.

Intervention strategy

A generic term used in public health to describe a program or policy designed to have an impact on an illness or disease. Hence a mandatory seat belt law is an intervention designed to reduce

automobile-related fatalities.

Intranet

An internal enterprise-wide network of computers on TCP/IP or similar standards. A private network inside a company or organization that uses the same kinds of software that you would find on the public Internet, but that is only for internal use.

Intraperitoneal hyperthermic chemotherapy (IPHC)

Chemotherapeutic treatment wherein the chemotherapy agents in solution are heated and/or cooled and circulated throughout the peritoneal cavity.

Intrathecal

Within a sheath (e.g., cerebrospinal fluid that is contained within the dura mater).

Introns

The DNA base sequences interrupting the protein-coding sequences of a gene; these sequences are transcribed into RNA but are cut out of the message before it is translated into protein. Compare exons.

Inventory

A detailed description of quantities and locations of different kinds of facilities, major equipment, and personnel which are available in a geographic area and the amount, type, and distribution of services these resources can support.

Inverse density dependence

See density dependence.

Investment for health

Investment for health refers to resources which are explicitly dedicated to the production of health and health gain. They may be invested by public and private agencies as well as by people as individuals and groups. Investment for health strategies are based on knowledge about the determinants of health and seek to gain political commitment to healthy public policies. Reference: new edition. Investment for health is not restricted to resources which are devoted to the provision and use of health services and may include, for example, investments made by people (individually or collectively) in education, housing, empowerment of women, or child development. Greater investment for health also implies reorientation of existing resource distribution within the health sector towards health promotion and disease prevention. A significant proportion of investments for health are undertaken by people in context of their everyday life as part of personal and family health maintenance strategies. See also healthy public policy, supportive environments for health.

Involuntary euthanasia

Euthanasia without asking that person's consent. Used to mean mercy killing or else (wrongly) murder (as in the type of "euthanasia" practised by the Nazis.)

Ionizing radiation

Radiation (high-energy EM radiation), or (particles from radioactive decay, and so forth) that causes ionization of atoms, which may result in cell damage in the body because of changes in molecular bonds.

IP address

Internet protocol address. Every machine on the Internet has a unique IP address which consists of four parts separated by dots. (For example: 178.24.79.374). This can be tied to a domain name for easier identification. Every machine that is on the Internet has a unique IP number - if a machine does not have an IP number, it is not on the Internet.

IPA

See Independent Practice Association.

IPHC

See Intraperitoneal hyperthermic chemotherapy.

IR&D

Independent research and development

IRC

(Internet Relay Chat) Basically a huge multi-user live chat facility. Anyone can create a channel and anything that anyone types in a given channel is seen by all others in the channel. Private channels can be created for multi-person conference calls.

IRC

Internal Revenue Code

IRD

(Information requirement determination) Methods used to obtain information about a domain, necessary to make a model of the information processes and their relationships.

Iridium

A mobile satellite project by Motorola offering inexpensive global voice, fax and data transmission services. This project overcomes the problem of earth's curvature (i.e. no more loss of quality as one goes north). Because the satellites are in low-altitude orbits, transmitters need much less power to get much clearer signal and thus can be smaller and cheaper than those of previous systems. One possible complication for this system is that because Iridium satellites are in low earth orbit, they cannot cover very large areas (like all of Canada).

Irrational numbers

The set of numbers which cannot be represented as fractions. Examples are $\sqrt{2}$, the cube root of 29, e , and $\frac{1}{4}$.

ISAAC

Integrated Systems Architecture in Advanced Primary Care.

Ischemic heart disease

Impaired flow of oxygen to parts of the heart muscle caused by obstructions in the coronary arteries.

ISDN

(Integrated Services Digital Network) A new kind of digital dial-up connection offering high-speed access over a pair of telephone lines and allowing the integrated transmission of voice, video and data. Their speed is 64 kbps per channel, for a total of 128 kbps. ISDN is rapidly gaining in popularity and it is perceived as an affordable telecommunications solution for low-end users who require higher speeds than a normal telephone system modem will allow. In terms of telehealth, ISDN is particularly useful for Internet connections, desktop videoconferencing and lower-resolution image transfers. There is also a broadband version of the ISDN.

ISO

(International Organization for Standardization) Comprised of national bodies elected to set standards, this non-treaty organization is involved in illustrating norms for all communications fields except electrotechnical. It establishes and coordinates worldwide standards for electronic information exchange.

ISO 9000

Family of quality management and quality assurance standards adopted by ISO (International Organization for Standardization, founded 1947), an international consensus of over 110 countries. ISO 9000, first published in 1987, has been adopted as national standards in more than 80 countries.

ISO 9660

A format adopted by the International Standards Organization for organizing and placing data onto a CD-ROM. Most CD-ROM drives now come with drivers that allow you to read ISO 9660 discs.

ISO/OSI

(International Organization for Standardization/Open Systems Interconnections) The typical reference archetype for local area network (LAN) architecture. The model is made up of several hierarchical levels (physical, data link, network, transport, session, presentation, and application) that address LAN design, from the specification of the physical transmission medium to the abilities of user interaction with LAN services.

Isodose curve

Curve that connects points that receive equal doses of radiation.

Isotopes

Chemical elements that have almost the same chemical properties, but that show different physical behaviors, especially in their radioactivity.

ISP

(Internet Service Provider) The local, regional, or national (AOL, CompuServe, etc.) company that provides dial-up connections to the Internet, as well as hosting of home pages.

ISPAHAN

An interactive system for feature evaluation, supervised classification and clustering.

IT

Information technology.

ITA

International Trade Administration.

ITC

International Trade Commission.

ITFS

(Instructional Television Fixed Service) A non-broadcast television service that is typically used for closed-circuit instructional applications. It requires special antennas and converters to translate signals for viewing.

ITU

(International Telecommunications Union) This union, governed by a treaty and comprised of government telecommunications agencies, is responsible for setting standards for radio, telegraph, telephone, and television.

ITU-T

Standards International Telecommunications Union (the T is for TSS). Founded in 1865 as a telegraphy standards body. Now a United Nations agency. H series (videoconferencing): H.320 defines how the whole H series works together & contains instructions for ISDN and some G (audio) algorithms as well; H.323 are LAN standards; H.324 permits video, voice, and data over a single analog phone line; H.261 is a video compression protocol for dissimilar CODECs; H.230 for multipoint control; H.263 is a video coding interface subset of H.324 and supports htm1; H.723 is a dual speech coder that transmits at 6.4 and 5.3 Kbps; H.242 is an audio conference setup and termination protocol. T.120 series: image capture, annotation and transfer in video conferences. G series (G.721, G.722, G.728): audioconferencing. See CCITT.

ITV

Interactive TeleVideo (=IATV).

IXC

(Interexchange Carrier) Also referred to as a long-distance carrier, a telephone company that carries long-distance calls.

Jakarta Declaration on Health Promotion into the 21st Century

See Health promotion.

Java

An object-oriented programming language that has been designed specifically for running application programs on World Wide Web client systems.

Java applet

Small application program written in a subset of Java and embedded in HTML pages.

JavaScript

An independent, but related programming language to Java, that is likewise, largely Web-based. Both permit augmented functionality of and enhancements to a Web site. If one's browser is unable to use these languages, the enhancements or features found in the Web site will usually not be displayed. Netscape and Microsoft support both types of languages.

JCAHO

(Joint Commission on Accreditation of Healthcare Organizations) A national private, nonprofit organization whose purpose is to encourage the attainment of uniformly high standards of institutional medical care. Establishes guidelines for the operation of hospitals and other health facilities and conducts survey and accreditation programs. The mission of the Joint Commission is to improve the quality of health care for the public by providing accreditation and related services that support performance improvement in health care organizations (<http://www.jcaho.org/>).

Jerusalem syndrome

Psychological phenomenon in which religious visitors to holy sites assume the identities of various biblical figures. Many stricken with this mental illness have no previous history of psychological problems; symptoms usually disappear within days of leaving the holy site that originally triggered the illness.

Job-Lock

The inability of individuals to change jobs because they would lose crucial health benefits.

Joint-and-last survivor annuity

An annuity issued on two lives under which payments continue in whole or in part until both have died.

Joint-life annuity

An annuity issued on two lives under which payments cease at the death of either of the two persons.

Joystick

A pointing device that translates two-dimensional movements of a stick to movements on a screen of a VDU. Its operation is generally faster than that of a mouse and it is therefore used in computer games and some medical applications.

JPEG

(Joint Photographic Experts Group) The standard adopted by the Joint Photographic Experts Group for compression and decompression of digital images and more recently, video. JPEG is the most common format for image files. This international group, a joint effort of the ISO and TSS, has developed standards for still image compression. Motion JPEG applies JPEG compression to each frame of a video clip. JPEG format is preferred to the GIF format for photographic images as opposed to line art or simple logo art.

Junction

The junction of two sets contains the objects that are in one or both sets.

Just-in-time purchasing/stockless purchasing

A supply system organized so that the right amount of medical supplies is made available at the correct time, in order to avoid the cost and administrative burdens of maintaining large supply inventories.

K

k

See Kilo.

KADS

(Knowledge Acquisition and Design Structuring) A methodology for the development of decision-support systems.

Karnaugh diagram

Representation of all possible conditions expressed in a truth table. It is used to reduce logical circuits or logical expressions.

Karyogram

Visual representation of chromosomes after staining.

Karyotype

A photomicrograph of an individual's chromosomes arranged in a standard format showing the number, size, and shape of each chromosome type; used in low-resolution physical mapping to correlate gross chromosomal abnormalities with the characteristics of specific diseases.

Karyotyping

Classification of a karyogram.

Katie Beckett children

Disabled children who qualify for home care coverage under a special provision of Medicaid, named after a girl who remained institutionalized solely to continue Medicaid coverage.

KB

(1) Kilobyte. 1,024 bits of data. (2) See knowledge base.

KBE

See knowledge-based editor.

Kbps

Kilobits (thousands of bits) per second. A typical compressed video clinical interaction is transmitted at 385 Kbps.

KBS

Knowledge-based system: a system with a knowledge base and an inferencing mechanism operating on a patient database. Syn: decision-support system.

Kernel

A central or essential part.

Key

(1) Part of a keyboard used to enter symbols. (2) Part of a record that identifies that record. (3) Something (e.g., a number) used to encrypt or decrypt a message.

Keyboard

Input device consisting of a number of keys that have as a subset the standard typewriter keys.

Kickback

Any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

Kilo

K

Abbreviation for 1000.

Kilobase (kb)

Unit of length for DNA fragments equal to 1000 nucleotides.

Kilobyte

1,024 bytes.

K-means algorithm

Iterative clustering algorithm, assigning objects to K classes by using the distances to the class centers.

Knowledge

(1) The state or fact of knowing. (2) Facts and relationships used or needed to obtain insight or to solve problem. (3) Familiarity, awareness, or understanding gained through experience or study. (4) Specific information about something. (Explicit) (5) The sum or range of what has been perceived, discovered, or learned. (Implicit)

Knowledge acquisition

The procedure in artificial intelligence of interacting with an external source, usually a domain expert, to find and organize knowledge for the purpose of transferring the knowledge to an expert system to solve problems.

Knowledge base

A logical collection of information in a particular domain that has been formalized in the appropriate representation with which to perform reasoning. A dynamic knowledge base is used to store information relevant to solving a particular problem and varies from one problem solving session to the next.

Knowledge engineer

A person who analyzes knowledge and represents it in the knowledge base. Now this person is more often simply called a systems analyst.

Knowledge management

The leveraging of collective wisdom to increase responsiveness and innovation.

Knowledge representation

A formal description of knowledge by means of, for instance, decision trees, Bayesian statistics, production rules or frames.

Knowledge store

The collection of the Knowledgebase of the Consolidated Tool Model, Domain Knowledgebase and toolset knowledgebase. This Store contains the data and the "engine" necessary to access that data.

Knowledge-based editor (KBE)

A computer system used to enter knowledge directly into a knowledge base.

Knowledge-based system

See KBS

Knowledge-driven data entry

A data entry system that contains a knowledge model that generates the most appropriate questions in response to the user's input.

Kruskal-Wallis test

Test to compare not normally distributed observations for more than two groups.

Kurtosis

K

Parameter that describes the steepness of a distribution.

L

Labor and Delivery (L&D)

Suite An area similar to an operating room suite in which there are rooms for labor as well as operating rooms for normal delivery or cesarean section delivery.

Labor cost at standard

A preestablished measure of the labor element of cost, computed by multiplying labor-rate standard by labor-time standard.

Labor hour contract

A variation of a time and materials (T&M) contract, differing only in that materials are not supplied by the contractor.

Labor, Delivery and Recovery Room (LDR)

A labor, delivery and recovery room is a room in which the three activities (that typically are separate in a traditional maternity facility) are combined in one room.

Labor, Delivery, Recovery and Post-partum Room (LDRP)

A single room in which the entire maternity process, including post-partum recovery, occurs. Most modern maternity services are set up either as LDR or LDRP rooms.

Labor-rate standard

A preestablished measure, expressed in monetary terms, of the price of labor.

LAN

(Local Area Network) A network of computers, generally small in number, whose reach is limited, typically within a building or campus, linked to allow access and sharing of data and computer resources by users. Differentiated from MAN and WAN by the size of the area, LAN is the smallest. Can support audio, video, and data exchange. Typically runs at 10-100 Mbps.

LAN connectivity

The ability to connect the video system to a LAN within the health care facility. This can allow access to and sharing of patient records, test reports, demographics, etc. during a video conference. Currently few institutions are capitalizing on this potential.

Language

See programming language.

Laparoscope

An instrument used to inspect or to act on the interior of the abdomen via a small incision.

Lapse

The cancellation of insurance due to the insured's failure to make premium payments.

Laptop computer

A small and lightweight personal computer that is portable and that can be used comfortably on a person's lap.

Large Urban Area

A metropolitan statistical area with a population of one million or more, or a New England County Metropolitan Area with a population of 970,000 or more.

Laser digitizer

Laser scanner. Employs a laser to capture image information to digital form. Very high resolution and wide gray scale range are possible. Because it uses coherent light, the laser scanner can penetrate thick films (an ability measured in units of optical density) and extract information better than CCD scanners. Serves the same function as CCD X-ray scanners, but generally at higher resolution, better contrast, and much higher price.

L

Laser printer

A printer that transfers images to paper by means of a light beam generated by a laser.

LaserDisc and Players

LaserDisc players are devices that use 12 cm (4.72 inches) discs to display high quality video on a standard television or monitor. There are two types of LaserDiscs: CAV and CLV. They are differentiated by the way information is stored and accessed on the disc. When used in conjunction with a computer, LaserDiscs can be an invaluable addition to the classroom by providing a rich interactive multimedia learning experience.

Last in, first out (LIFO)

An accounting term used to describe the inventory method that allocates cost on the assumption that the cost of the last goods purchased is the cost of the first goods sold.

LATA

(Local Access and Transport Areas) The areas within which the RBOC and LEC can provide telephony services. Inter-LATA connections are provided by IECs.

Latency period

A period of subclinical or inapparent pathologic changes following exposure, ending with the onset of symptoms of chronic disease.

Latent period

The time from infection to when the individual is infectious to others. In helminths it is termed the pre-patent period. Not the same as the incubation period.

Lavalier

A small microphone that is typically clipped to clothing at breast pocket level. May be wired or wireless. Coined from the Duchesse de La Vallière (1644-1710), a mistress of Louis XIV, who wore a jeweled pendant on a chain around her neck.

Lay reporting

The collection of information, its use, and its transmission to other levels of the health system by non-professional health workers.

LCD

(Liquid crystal display) See screen.

Lead agency

Term often used to describe, for a particular contractor (or a business unit or segment of a contractor), that Federal Government agency (or contract administration office) with primary responsibility for certain contract matters, such as negotiation of advance agreements and settlement of final indirect cost rates. In connection with the negotiation of advance agreements covering independent research and development costs, the term has the specific meaning attributed to it at FAR 42.1003 regarding the vesting of authority for such agreements within a single agency.

Lead time

The period of time between the determination of need for an item and the actual manufacture and delivery of the item.

Leaf

End node, that is, a node with input but no output branches in a decision tree or a model.

Learning

(In a decision-support system or pattern recognition system) The process in which such a system improves its performance by adapting its rules or methods.

Learning population

A file of data to optimize systems and models, e.g., for classification. Syn: training set. Ant: test population.

Leased-56

A leased line providing a transmission rate of 56 Kbps. See

Leased line

Private line. A point-to-point connection that is logically similar to two cans tied together with a dedicated piece of string. You pay for the sole use of the circuit and the price does not vary as a function of usage, as with switched lines.

Lease-to-ownership program (LTOP)

A contract for the lease of property that provides for the automatic transfer of title to the property to the Government upon the expiration of the lease.

Lease-with-option purchase

A contract for the lease of property that provides the Government with the options to purchase the property at one or more points during the lease, or upon its expiration.

Least-squares fit

A fit of a curve to a number of given points for which the sum of the squares of the deviations between the points and the curve is minimal.

LEC

(Local Exchange Company) The local telephone office that bridges between the long-distance carrier and the customer site. May be part of an RBOC or an independent telephone company.

Leeds Abdominal Pain System

See De Dombal's system.

Left bundle branch block (LBBB)

Electric conduction disturbance in the left-bundle branch of the heart, which is visible on the ECG by the occurrence of a widened QRS complex.

Legacy system

Information system that is inherited from the past, but still in use.

Length of Stay (LOS)

The number of days a patient stays in a hospital. The day of admission is counted; the day of discharge is not.

LEOS

(Low Earth Orbiting Satellite) A satellite designed to provide inexpensive medical and health data services to countries lacking adequate terrestrial telecommunications infrastructures. Satellites normally orbit about 35 600 kilometres above the earth, but a LEOS can travel in orbits only about 960 kilometres above the earth. A LEOS called SatelLife provides Healthnet service to several countries.

Letter contract

A written preliminary contractual instrument that authorizes the contractor to begin immediately manufacturing supplies or performing services.

Level 2 Nursing Home Care

Long-term care facilities in which patients are cared for until they die.

Level of health

The quantified expression of health status.

Level premium insurance

A policy for which the premiums do not change for the entire duration of the policy. The amount of a level premium is higher than needed for the protection given in the early years of the contract but less than needed for protection in the later years.

Leveling

A software manipulation technique, using mathematical algorithms, to compensate for a teleradiology monitor's inability to provide the same contrast and bit depth as the original hardcopy X-ray. The great variation in the density of X-ray exposure within an image can lead to seriously over- and underexposed portions of a monitor (screen) image. Thus, a chest film may have very high density (white) portions, such as the spine, and very low density portions (such as the lungs). Using locally adapted histogram leveling, bit depth (contrast, gray scale) can be selectively adjusted for different portions of the image, or for different pixel depths. This yields much more useable clinical information.

Leveraged buy-out

A mechanism under which a company is acquired by a person or entity using the value of the company's assets to finance its acquisition; this allows for the acquirer to minimize its outlay of cash in making the purchase.

Liabilities

Amounts owed by a business to its creditors.

Library

(1) Set of programs or modules organized in such a way that individual programs or modules can easily be retrieved. (2) An unordered collection of clones (i.e., cloned DNA from a particular organism), whose relationship to each other can be established by physical mapping. Compare genomic library, arrayed library.

License

The right to use a software package.

License/licensure

A permission granted to an individual or organization by a competent authority, usually public, to engage lawfully in a practice, occupation, or activity. Licensure is the process by which the license is granted. It is usually granted on the basis of examination and/or proof of education rather than on measures of performance. A license is usually permanent but may be conditioned on annual payment of a fee, proof of continuing education, or proof of competence.

Licensed beds not in use

Those licensed beds that are not staffed and are not immediately available to accept inpatients.

Licensed beds in operation

The total number of licensed adult and pediatric beds that are staffed adequately with nurses and permanently maintained by a facility for the purpose of lodging inpatients. The number reported is as of the end of the reporting month.

Licensing

A process most States employ, which involves the review and approval of applications from HMOs prior to beginning operation in certain areas of the State. Information considered by the licensing authority include fiscal soundness, network capacity, and quality assurance. The applicant must demonstrate it can meet all existing statutory and regulatory requirements prior to beginning operations.

Life Expectancy

(1) Average expected length of life for a group of people, of a particular age, chosen at a particular time (for example, for White infants born in 1960). (2) Longevity, the average length of life of individuals in a population.

Life skills

Life skills are abilities for adaptive and positive behavior, that enable individuals to deal effectively with the demands and challenges of everyday life. Reference: WHO (1993) Life Skills Education in Schools. Life skills consist of personal, interpersonal, cognitive and physical skills which enable people to control and direct their lives, and to develop the capacity to live with and

L

produce change in their environment. Examples of individual life skills include decision-making and problem-solving, creative thinking and critical thinking, self-awareness and empathy, communication skills and interpersonal relationship skills, coping with emotions and managing stress. Life skills as described above are fundamental building blocks for the development of personal skills for health promotion described as one of the key action areas in the Ottawa Charter.

Lifestyle

(Lifestyles conducive to health) Lifestyle is a way of living based on identifiable patterns of behavior which are determined by the interplay between an individual's personal characteristics, social interactions, and socioeconomic and environmental living conditions. Reference: modified definition. These patterns of behavior are continually interpreted and tested out in different social situations and are therefore not fixed, but subject to change. Individual lifestyles, characterized by identifiable patterns of behavior, can have a profound effect on an individual's health and on the health of others. If health is to be improved by enabling individuals to change their lifestyles, action must be directed not only at the individual but also at the social and living conditions which interact to produce and maintain these patterns of behavior. It is important to recognize, however, that there is no 'optimal' lifestyle to be prescribed for all people. Culture, income, family structure, age, physical ability, home and work environment will make certain ways and conditions of living more attractive, feasible and appropriate.

Lifetime maximum benefit

The total amount of money an insurance contract will pay a provider for the treatment of a patient.

LIFO

Last In, First Out (inventory method).

Light pen

A handheld pen-like pointing device that can observe light when it is pointed to a screen. The moment that the pen senses the light caused by the writing beam, the position of the light is translated by the control program into the coordinates of the location on the screen.

Likelihood

Given some data (for example maternal antibody levels), and a model for how a process supposedly generating it occurs, (for example, exponential decay with rate m), and for how variance is likely to occur in observations of the process (for example sampling error), the likelihood that a particular model (i.e. a particular m plus the error in observation) can generate the observed data. Picking the parameter value which is most likely to have generated the observed data is the method of maximum likelihood.

Likelihood Ratio

The ratio of the probability of a test result among patients with the target disorder to the probability of that same test result among patients who are free of the target disorder. The LR for a positive test is calculated as $\text{sensitivity}/(1-\text{specificity})$. The LR for a negative test is calculated as $(1-\text{sensitivity})/\text{specificity}$.

Limitation of Cost clause

A clause prescribed for inclusion in cost-reimbursement type contracts that establishes requirements for notifying the Government a) at any point at which the contractor has reason to believe that the total cost for performance of the contract will be either greater or substantially less than had been previously estimated, or b) when incurred costs as of a given date plus costs expected to be incurred over the subsequent 60-day period are expected to exceed 75% of the contract target cost. The notification provision is designed to allow the Government an opportunity to assess the contract progress and to issue a stop-work order if it decides not to continue. The notification to be provided must be in writing. Failure to comply with this clause is one of the most common bars to recovery of cost overruns on cost-reimbursement type contracts.

L

Limitation of Funds clause

A clause prescribed for inclusion in cost-reimbursement type contracts that establishes requirements for notifying the Government when incurred costs as of a given date plus costs expected to be incurred over the subsequent 60-day period are expected to exceed 75% of the total amount so far allotted by the Government (i.e., the funded amount). The notification provision is designed to allow the Government to designate additional funding for the contract in order to proceed in a timely manner. The notification to be provided must be in writing.

Limited service hospital

A hospital, often located in rural areas, that provides a limited set of medical and surgical services.

Limiting charge

The maximum amount that a non-participating physician is allowed to charge a Medicare beneficiary for a service. Starting in 1993, the limiting charge was set at 115 percent of the Medicare charge.

Linear

A process is linear if doubling the starting conditions doubles the outcome. For example, the number of new schistosome infections establishing in mice is directly proportional to the number of cercaria the mice are exposed to, over a certain range. Outside this range, the response is nonlinear: there is no longer a direct proportionality. Linear differential equations are ones whose solutions are linear. This property allows us to solve linear differential equations completely: most nonlinear differential equations can't be solved analytically.

Linear accelerator

Equipment used to accelerate charged particles such as electrons. In a linear accelerator the particles travel in straight lines, not in orbits, as in cyclotrons.

Linear function

A function that has a constant rate of change.

Linear regression analysis

Statistical analysis of the linear relationship of two variables.

Linguistic pattern recognition

See syntactic pattern recognition.

Linkage

The proximity of two or more markers (e.g., genes, RFLP markers) on a chromosome; the closer together the markers are, the lower the probability that they will be separated during DNA repair or replication processes (binary fission in prokaryotes, mitosis or meiosis in eukaryotes), and hence the greater the probability that they will be inherited together.

Linkage map

A map of the relative positions of genetic loci on a chromosome, determined on the basis of how often the loci are inherited together. Distance is measured in centimorgans (cM).

Liquidity

The ability of a business to meet its obligations as they come due; the more liquid a business is, the better able it is to meet short-term financial obligations.

Liquidity ratios

Measurements used to calculate the degree of a company's liquidity, i.e., its ability to meet its obligations as they come due. Some common liquidity ratios and the formulas for calculating them are as follows: 1. Accounts receivable turnover, Total credit sales divided by average accounts receivable, 2. Accounts payable turnover, Total credit purchases divided by average accounts payable, 3. Inventory turnover, Total cost of sales divided by average inventory, 4. Acid-test, Cash plus securities plus accounts receivable, divided by current liabilities, 5. Current ratio, Current assets divided by current liabilities, 6. Working capital, Current assets minus the

L

sum of current liabilities.

Lissajous figure

Figure that is the result when the amplitudes of two signals at identical times are plotted along the x and y axes.

List mode

In this mode for storing the data of a nuclear medicine examination, all x and y coordinates of the counts are stored sequentially together with the times the pulses were detected.

Little League elbow

Epicondylitis, also commonly called "pitcher's elbow," caused by the repetitive action associated with pitching a ball, which may tear and stretch muscles and ligaments as well as injure the growth plate of the head of the radius.

Living conditions

Living conditions are the everyday environment of the people, where they live, play and work. These living conditions are a product of social and economic circumstances and the physical environment—all of which can impact upon health—and are largely outside of the immediate control of the individual. Reference: modified definition. The Ottawa Charter action of creating supportive environments for health is largely focused on the need to improve and change living conditions to support health.

Living will

Document enabling you to express your wishes with respect to conditions where no treatment is desired in the event of becoming incapacitated. See also: values history.

Loading

An amount added to the basic rate or premium to cover the expense to the insurance company of securing and maintaining the business.

Local area network

See LAN.

Local nerve block

Infiltration of a local anesthetic around a peripheral nerve so as to produce anesthesia in the area supplied by the nerve.

Local transformation

An image transformation in which the intensity value in any point of the output image is a function of the intensity values of some points in a neighborhood of the corresponding pixel in the original image.

Localize

Determination of the original position (locus) of a gene or other marker on a chromosome.

Location registries

A registry that provides directly or indirectly information about individual entities. Examples are breast cancer tissue registry and the CAS (Chemical Abstract Service) registry.

Lockbox

A bank facility that accelerates the collection of receivables by reducing mail and processing time associated with remittance handling. Under a lockbox arrangement, customers mail remittances to a uniquely zip-coded post office box (lockbox) which the bank then uses to rapidly process credits to a customer's account. All documents accompanying the remittances are forwarded to the company through prearranged channels.

Lock-in

A contractual provision by which members, except in cases of urgent or emergency need, are required to receive all their care from the network health care providers.

L

Locus (pl. loci)

The position on a chromosome of a gene or other chromosome marker; also, the DNA at that position. The use of locus is sometimes restricted to mean regions of DNA that are expressed. See gene expression.

Log file

A file documenting all changes to a file or database, usually since the time of the last backup (see also roll forward).

Log in

Procedure to obtain access to a computer, usually consisting of identification by a user identification (e.g., name or number) and authentication by a password.

Log on

See log in.

Logarithm

Alternate way to express an exponent. For example, $\log_2 8=3$ is equivalent to 2 to the third power=8.

Logging

To put transactions in a log file.

Logical circuitry

Electronic circuitry consisting of components that can be in only one of two states.

Logical deduction

Deduction using logical reasoning.

Logical expression

(1) An expression that has only two values, TRUE or FALSE, consisting of a logical variable or of logical variables connected by logical operators. Syn: Boolean expression. (2) A verbal statement that is TRUE or FALSE.

Logical negation

See NOT.

Logical operator

Operator on one or more logical variables or Boolean expressions, whose result is TRUE or FALSE.

Logical product

Logical AND operation.

Logical record

See record.

Logical summation

Logical OR operation.

Logical variable

A variable that has only two values, commonly denoted by TRUE or FALSE.

Login

The account name used to gain access to a computer system. Or, the act of entering into a computer system.

Logistic regression

Multivariate regression of a logarithmically transformed dependent variable, frequently used in

L

studies of risk factors.

Logistics

The procurement, maintenance, and transportation of material, facilities, and personnel.

Log-likelihood

The logarithm of the likelihood of the data given a model and a set of parameters.

Log-normal distribution

A distribution that becomes Gaussian after a logarithmic transformation of the original data.

LOINC

(Logical Observation Identifier Names and Codes) This database contains codes, names, and synonyms for more than 6,300 clinical chemistry test observations. It has been made available on the Internet.

LONESTAR

Texas' first managed health care pilot project under the Medicaid program.

Long term care

(1) Assistance and care for persons with chronic disabilities. Long term care's goal is to help people with disabilities be as independent as possible; thus it is focused more on caring than on curing. Long term care is needed by a person who requires help with the activities of daily living (ADLs) or who suffers from cognitive impairment. (2) Ongoing health and social services provided for individuals who need assistance on a continuing basis due to a physical or mental disability. Often, this means that services are provided to a person who needs assistance with his activities of daily living (ADLs). The services may be provided in the person's home, a community setting, or a residential care facility.

Longitudinal investigation

An investigation in which data for the same individuals are compared over time (see also cohort study).

Longitudinal patient record

A patient record that contains data covering a period longer than one disease episode.

Longitudinal study

A study taking place over time. If individuals are followed, this is a longitudinal cohort study. If individuals are not followed, but classes (usually age classes) are restudied, this is a longitudinal cross-sectional study. The converse of a horizontal study.

Long-term care

A set of health care, personal care and social services required by persons who have lost, or never acquired, some degree of functional capacity (e.g., the chronically ill, aged, disabled, or retarded) in an institution or at home, on a long-term basis. The term is often used more narrowly to refer only to long-term institutional care such as that provided in nursing homes, homes for the retarded and mental hospitals. Ambulatory services such as home health care, which can also be provided on a long-term basis, are seen as alternatives to long-term institutional care.

Long-term disability

A disability that exceeds a specified period of time. The actual number of days or months considered "long-term" will vary by insurer.

Loss

The amount of reduction in the value of an insured's property caused by an insured peril.

Loss ratio

The ratio of benefits paid out to premiums collected for a particular type of insurance policy. Low loss ratios indicate that a small proportion of premium dollars were paid out in benefits, while high loss ratios indicate that a high percentage of the premium dollars were paid out as benefits.

L

Lossless

A format of data compression, typically of an order of less than 2:1, in which none of the original data information is lost when the image is reproduced.

Lossy

A process of data compression at a relatively high ratio, which leads to some permanent loss of information upon reconstruction.

Lotus 123

Name of a spreadsheet program.

Lotus Notes

A groupware package from Lotus company (now part of IBM).

Low pass filter

A filter for leveling out the borders in the screen display of a radiology image. The image is altered by placing a value on each pixel which is the weighted sum of the pixels in a small square surrounding the pixel in the original image. The weights or filter coefficients determine how the new image will look, and the borders of the image can be leveled out ("low pass filter") or sharpened ("high pass filter").

Luminance

Characteristics of brightness for a video monitor. See composite video.

Lux

A unit of illumination. Generally, lighting levels of 1000-3500 lux are satisfactory for telemedicine applications, while newer "low lux" cameras produce quality pictures at levels as low as 750 lux. Having a lux level above 1000 enables the camera to keep more of the image in focus, since the trade-off for low light conditions is lower depth of field.

M

M

See Mega.

Machine code

See object code.

Machine language

See object language.

Machine vision

Imitation of vision by means of sensing devices and pattern recognition programs.

Macroparasites

Typically, the parasitic helminths and arthropods. In general, parasites which do not multiply within their definitive hosts but instead produce transmission stages (eggs and larvae) which pass into the external environment. Immune responses elicited against macroparasites generally depend on the number of parasites present in a given host and tends to be of a relatively transient nature. The key epidemiological measurement is generally the number of parasites per host. Such parasites are often found in a highly aggregated distribution. Contrast microparasites.

Macrorestriction map

Map depicting the order of and distance between sites at which restriction enzymes cleave chromosomes.

Magnetic card

Plastic card the size of a credit card that contains a magnetic strip for storing and reading data.

Magnetic disk

See hard disk.

Magnetic Resonance Imaging (MRI)

A technology that images internal body parts and structures through the use of a powerful magnet without any X-rays. MRI units are sensitive to radio waves and therefore must be shielded against them. They also emit significant magnetic force and must be shielded from metal objects. The standard unit is a 1.5 tesla magnet, tesla being the standard measure of magnet strength.

Magnetic tape

A sequential storage device consisting of a long plastic tape, coated on one side with magnetic material on which data are stored.

Mail Order Drug Program

A prescription drug service which fills prescriptions through the mail. A mail order drug program provides larger discounts that are possible because of high volume.

Mailbox

A temporary storage location for e-mail messages to avert the necessity of keeping the receiving system on-line.

Mailing list

Often referred to as "listservs". Groups of email addresses that receive the same mail. A user must first subscribe to the list to begin participating.

Mainframe

A computer with a variety of peripheral devices (dumb terminals), a large amount of storage and a fast central processing unit, generally used for comparison with a smaller or subordinate computer.

M

Major teaching hospitals

Hospitals with an approved graduate medical education program and a ratio of interns and residents to beds of 0.25 or greater.

Malpractice

Professional misconduct or failure to apply ordinary skill in the performance of a professional act. A practitioner is liable for damages or injuries caused by malpractice. For some professions like medicine, malpractice insurance can cover the costs of defending suits instituted against the professional and/or any damages assessed by the court, usually up to a maximum limit. To prove malpractice requires that a patient demonstrate some injury and that the injury be caused by negligence.

Malpractice expense

The cost of professional liability insurance incurred by physicians. A component of the Medicare relative value scale.

Mammogram

Breast examination by X rays to detect breast cancer.

Mammography Quality Standards Act (MQSA)

New MQSA regulation requires mammography clinics to mail patients a written report on their mammogram test results. The reports are to be clear, easy to understand, and mailed within 30 days of the examination or sooner if results are suspicious. These reports are in addition to those sent to the patient's physician.

Managed behavioral (or mental) health

Program A program of managed care specific to psychiatric or behavioral health care. This usually is a result of a "carve-out" by an insurance company or managed care organization. Reimbursement may be in the form of sub-capitation, fee-for-service or capitation.

Managed care

A relatively new term coined originally to refer to the prepaid health care sector (e.g., HMOs) where care is provided under a fixed budget and costs are therein capable of being "managed". Increasingly, the term is being used by many analysts to include PPOs and even forms of indemnity insurance coverage that incorporate preadmission certification and other utilization controls. There are several definitions of the term such as: (1) An integrated system of health insurance, financing, and service delivery functions involving risk sharing for the delivery of health services and defined networks of providers. (2) Any system of health payment or delivery arrangements where the health plan attempts to control or coordinate use of health services by its enrolled members in order to contain health expenditures, improve quality, or both. Arrangements often involve a defined delivery system of providers with some form of contractual arrangement with the plan. (3) Approaches to health services delivery and benefit design that integrate management and coordination of services with financing to influence utilization, cost, quality, and outcomes.

Managed care organization

A managed care organization may be a physician group, health plan, hospital or health system - i.e., any organization that is accountable for the health of an enrolled group of people. In contrast to organizations that provide services at a discount but do not attempt to coordinate care, managed care organizations actually have responsibility for the health of enrollees and, as a consequence, seek improvements in both the results and cost-effectiveness of the services provided. Most managed care organizations still care for those with traditional indemnity insurance in addition to patients insured under managed care health insurance products.

Managed care plan

A health plan that uses managed care arrangements and has a defined system of selected providers that contract with the plan. Enrollees have a financial incentive to use participating providers that agree to furnish a broad range of services to them. Providers may be paid on a prenegotiated basis.

Managed competition

A purchasing strategy to obtain maximum value for consumers and employers. A sponsor (that is, an employer, governmental entity, or purchasing cooperative), acting on behalf of a large group of subscribers, structures and adjusts the market to overcome attempts by insurers to avoid price competition. Organized groups of doctors, hospitals, insurers and health maintenance organizations in each region would compete for customers by offering a standardized benefit package. It is assumed consumers would favor the best plan offered at the lowest price, and would utilize Health alliances. The Managed Care plan is often credited primarily to Alain Enthoven, a professor of management at Stanford's Graduate School of Business and to Paul Ellwood, M.D., president of InterStudy, a health policy research organization. Together with a number of other health policy experts they founded what came to be known as the "Jackson Hole Group", after a critical 1990 meeting in Wyoming that spawned an influential blueprint for health care system reform. The broad goals of the Jackson Hole plan are to provide universal coverage, to control costs and to improve quality. The founding belief is that even with our hundreds of insurers in this country, price competition is virtually nonexistent. The Jackson Hole plan would attempt to introduce competition by pressuring providers and insurers to organize into comprehensive delivery systems and compete for business on uniform measures of cost and clinical effectiveness. Small employers and their employees would be grouped into large regional purchasing cooperatives; large firms would continue to be the sponsor for their workers. Eventually, after a phase-in period, the unemployed and people now on government plans (for instance Medicare and Medicaid) would be included in the cooperatives. Doctors, other providers, hospitals, and insurers would form large organized delivery systems. They would be under regulations governing reporting of outcomes, and benefits that can be offered. Based on the price and quality information, consumers could choose among a limited number of plans approved by the cooperatives. The approved plans would be paid a capitated fee that would be adjusted for the predicted health risk of their overall enrollee group. The plans would be required to admit all applicants. All of this would be overseen by a national health board appointed by the president, and confirmed by the Senate. The potential drawbacks to the plan are essentially similar to those of HMOs.

Managed health care plan

One or more products which integrate financing and management with the delivery of health care services to an enrolled population; employ or contract with an organized provider network which delivers services and which (as a network or individual provider) either shares financial risk or has some incentive to deliver quality, cost-effective services; and use and information system capable of monitoring and evaluating patterns of covered persons' use of medical services and the cost of those services.

Managed indemnity

A plan in which the covered person has the flexibility to obtain care from any licensed provider; however, the enrollee pays a greater proportion of his health care costs than with a network-based plan.

Management

The sum of the measures taken to plan, organize, operate, and evaluate all the many interrelated elements of a system. Such measures are required to translate policies into strategies and strategies into plans of action for determining the action required to define and operate health programmes and ensure that the health system infrastructure is built up to deliver them efficiently and effectively.

Management information

Information needed by managers to run an organization.

Management service organization (MSO)

(1) A legal entity that provides practice management, administrative and support services to individual physicians or group practices. The management services organization provides administrative and practice management services to physicians. An MSO may typically be owned by a hospital, hospitals, or investors. Large group practices may also establish MSOs to sell management services to other physician groups. (2) A management entity owned by a

M

hospital, physician organization or third party. The MSO contracts with payers and hospitals and physicians to provide services such as negotiating fee schedules, handling administrative functions and billing and collections.

Management systems

Software tools for supporting the modeling, analysis, and enactment of business processes.

Managerial process for national health development

A continuous process of systematic planning and programming carried out in collaboration with other sectors concerned with health. The managerial process for national health development involves: (1) formulating policies and defining priorities; (2) broad programming to translate these policies into a strategy with clearly stated objectives and targets; (3) programme budgeting to ensure the preferential allocation of resources for the implementation of the strategy; (4) preparing plans of action in the light of broad programming and programme budgeting, indicating the main lines of action to be taken in the health and other sectors to implement the strategy; (5) working out detailed programmes for each of the programmes in the plan of action; (6) implementing the programmes through their delivery by the health infrastructure and applying sound day-to-day managerial procedures to their end; (7) monitoring and evaluating programmes with a view to ensuring that they are proceeding as planned and that the services and institutions concerned are delivering them efficiently and effectively; (8) preparing revised programmes as necessary with a view to introducing any modification or improvements recommended as a result of monitoring and evaluation; (9) ensuring the information support required for all the above. Whenever feasible, it is desirable that the managerial process for national health development be decentralized through delegation of authority and resources to intermediate and local administrative levels. A national plan of action is established for the whole country, but also, for example, provincial plans for the provinces and local plans for the local communities. The advantage of such decentralization is that intermediate levels are near enough to the community to respond to its needs and to the central level to put government policies into practice, and communities have greater opportunities for direct involvement.

Mandated benefits

Those benefits that health plans are required by state or federal law to provide to policy-holders and eligible dependents.

Mandated employer insurance

Employers are required to provide health benefit coverage for their employees. (AMA, 1993)

Mandated insurance benefits

Minimum health insurance coverage requirements specified by government statute.

Mandated or required services

Services which a state is required to offer to categorically needy clients under a state Medicaid plan. (Medically needy clients may be offered a more restrictive service package.) Mandated services are: a) hospital (IP & OP), b) lab/x-ray, c) nursing facility care (21 and over), d) home health care, e) family planning, f) physician, g) nurse midwives, h) dental (medical/surgical), i) rural health clinic, j) certain nurse practitioners, k) federally qualified health centers, l) renal dialysis services, m) EPSDT (under age 21) and n) medical transportation.

Mapping

See gene mapping, linkage map, physical map.

Margin

Revenue less specified expenses.

Marker

An identifiable physical location on a chromosome (e.g., restriction enzyme cutting site, gene) whose inheritance can be monitored. Markers can be expressed regions of DNA (genes) or some segment of DNA with no known coding function but whose pattern of inheritance can be determined.

M

Market basket index

An index of the annual change in the prices of goods and services providers used to produce health services. There are separate market baskets for PPS hospital operating inputs and capital inputs; and SNF, home health agency and renal dialysis facility operating and capital inputs.

Market data method

A method used in valuing a business which uses sales of comparable businesses as a base and adjusts the figures for differences.

Market share

The proportion of eligible enrollees in a defined market that a managed care or insurance company has enrolled in its plan. Usually this is expressed as a percentage of the potential market.

Mark-sense form

Computer-readable paper form on which information can be placed by entering pencil marks in preprinted boxes.

Mass action transmission

Transmission of infection which occurs at a rate directly proportional to the number or density of both susceptibles and infecteds present. Some authors reserve the name mass action for transmission processes of the form $b X Y/N$, which we associate with STD-type transmission, and describe transmission rates of the form $b X Y$, as pseudo-mass action; the two are equivalent if the population size is unchanging.

Mass storage device

A device used to supply a relatively inexpensive storage capability for a large amount of data, e.g., a hard disk.

Master patient index

An index of patients, persons, members of health care plans, guarantors, physicians, health care practitioners, payers, employers, employees, and others.

Material cost at standard

A preestablished measure of the material elements of cost, computed by multiplying material price standard by material-quantity standard.

Material management

The process of procuring and moving materials, parts, or finished inventory from the point of purchase to assembly plants, warehouses, or the final customer.

Material-price standard

A preestablished measure, expressed in monetary terms, of the price of material.

Material-quantity standard

A preestablished measure, expressed in physical terms, of the quantity of material.

Materials management

The department in charge of making sure everyone has the right materials to do their jobs. Also known as "purchasing" or "procurement." These are the folks to talk to about alternatives to endocrine-disrupting chemicals and PVC products, mercury-free supplies and reusable products as well as efforts to reduce packaging.

Maternal immunity

Immunity for a neonate provided by IgG antibody generated by a mother and passed across the placenta to the unborn offspring. This provides short lived protection (with a typical half life of 3-6 months) to the neonate. Also known as immunity.

Mathematical model

A formal framework to convey ideas about the components of a host-parasite interaction.

M

Construction requires three major types of information: (a) a clear understanding of the interaction within the individual host between the infectious agent and the host, (b) the mode and rate of transmission between individuals, and (c) host population characteristics such as demography and behaviour. Mathematical models can aid exploration of the behaviour of the system under various conditions from which to determine the dominant factors generating observed patterns and phenomena. They also aid data collection and interpretation and parameter estimation, and provide tools for identifying possible approaches to control and for assessing the potential impact of different intervention measures.

MATMO

(Medical Advanced Technology Management Office) Developed and implemented by the Department of Defense, this imaging system combines PACS and teleradiology networks.

Matrix LCD, Active or Passive

A Passive Matrix LCD is a common LCD technology that illuminates a pixel by sending current down the appropriate row and column on the display. Thus, screen redraws and graphics display is very slow. Active Matrix LCD improves upon that technology by adding a transistor to each pixel to increase and speed up the flow of current to a pixel.

Maximum Allowable Actual Charge (MAAC)

A limitation on billed charges for Medicare services provided by nonparticipating physicians. For physicians with charges exceeding 115 percent of the prevailing charge for nonparticipating physicians, MAACs limit increases in actual charges to 1 percent a year. For physicians whose charges are less than 115 percent of the prevailing, MAACs limit actual charge increases so they may not exceed 115 percent.

Maximum Allowable Costs (MAC)

A list of prescription medications, established by the health plan and distributed to pharmacies, that will be covered at a generic product level.

Maximum daily benefit

Means the maximum benefit allowed per day as shown in the Schedule of Benefits. The Maximum Daily Benefit will not exceed the daily rate actually charged for the care received in a Nursing Facility or Alternate Facility.

Maximum lifetime benefit

Means the maximum amount of benefits that will be paid for a Covered Person under this Plan during the covered person's lifetime. This benefit limit applies to any combination of Long-term Care services for which a benefit is paid under this Plan. The Maximum Lifetime Benefit is shown in the Schedule of Benefits.

Maximum monthly benefit

Means the maximum benefit allowed during a given month for any combination of Home Care, Home Health Care, and Adult Day Care, as shown in the Schedule of Benefits. The Maximum Monthly Benefit will not exceed the actual charges for all covered services received during the month.

Mbps

Megabits (millions of bits) per second. A typical uncompressed video signal requires 45 Mbps (or more) to transmit.

MCARE

(National Clearinghouse on Managed Care and Long-Term Services and Supports for Individuals with Developmental Disabilities and Their Families) A national clearinghouse to provide information and technical assistance on managed care, long term services, and self-determination. MCARE provides the most recent news stories, policy trends, research studies, and legislative information.

MCU

(Multipoint Control or Conferencing Unit) Bridge. A device that enables participants at more than

M

two sites to participate in voice or video calls. Offered by switched network providers, this centrally located service allows three or more user to be connected, allowing audio and video teleconferencing.

MDELS

Medical Decisions at the End of Life (Dutch terminology).

MDIS

(Medical Diagnostic Imaging Support) MDIS represents a successful PACS implemented by the United States Department of Defense (DoD). They are working toward a goal of fully filmless radiology. For example, go to the DoD Telemedicine Test Bed.

MEA

(Microwave Endometrial Ablation) See microwave endometrial ablation (MEA).

Mean

The average value of the data in a distribution.

Mean

(1) (Arithmetic) The measure of central location commonly called the average. It is calculated by adding together all the individual values in a group of measurements and dividing by the number of values in the group. (2) (Geometric) The mean or average of a set of data measured on a logarithmic scale.

MEANS

Modular ECG Analysis System: system for the interpretation of ECGs and VCGs.

Measure of association

A quantified relationship between exposure and disease; includes relative risk, rate ratio, odds ratio.

Measure of central location

A central value that best represents a distribution of data. Measures of central location include the mean, median, and mode. Also called the measure of central tendency.

Measure of dispersion

A measure of the spread of a distribution out from its central value. Measures of dispersion used in epidemiology include the interquartile range, variance, and the standard deviation.

Measures of central tendency

Numbers which in some sense communicate the "center" or "middle" of a set of data. The mean, median, and mode of statistical data are all measures of central tendency.

Measures of variability

Numbers which describe how spread out a set of data is, for example, range and quartile.

Media

Soil, water, air, plants, animals, or any other parts of the environment that can contain contaminants.

Median

The measure of central location which divides a set of data into two equal parts.

Median value

Defined such that 50% of the observations have a value greater than.

Mediation

In health promotion, a process through which the different interests (personal, social, economic) of individuals and communities, and different sectors (public and private) are reconciled in ways that promote and protect health. Reference: new edition. Producing change in people's lifestyles

M

and living conditions inevitably produces conflicts between the different sectors and interests in a population. Such conflicts may arise, for example, from concerns about access to, use and distribution of resources, or constraints on individual or organizational practices. Reconciling such conflicts in ways which promote health may require considerable input from health promotion practitioners, including the application of skills in advocacy for health.

Medicaid

(1) A joint federal-state entitlement program that pays for medical care on behalf of certain groups of low-income persons. The program was enacted in 1965 under Title XIX of the Social Security Act and is meant for the poor, who are aged, blind, disabled, or members of families with dependent children. Each state sets its own eligibility standards. Finances care for about 25 million poor people. Medicaid is linked to eligibility for welfare cash assistance: a beneficiary must prove s/he is impoverished before being declared eligible for benefits. It is financed by a mixture of federal and state general tax revenues, but because its fees are so low, many physicians refuse to accept the beneficiaries as patients. As of 1992, Medicaid financed care for only 42% of people with incomes below the federal poverty level (then \$6,565 a year for a single person and \$10,284 for a family of three). Only 40% of individuals with income below the poverty level currently are covered.

Medical audit

Detailed retrospective review and evaluation of selected medical records by qualified professional staff. Medical audits are used in some hospitals, group practices, and occasionally in private, independent practices for evaluating professional performance by comparing it with accepted criteria, standards, and current professional judgement. A medical audit is usually concerned with the care of a given illness and is undertaken to identify deficiencies in that care in anticipation of educational programs to improve it.

Medical device registries

Medical device registries are the result of legislation requiring registration, certification, tracking, and postmarketing surveillance (see below) of medical devices.

Medical food

A food which is formulated to be consumed or administered enterally under the supervision of a physician and which is intended for the specific dietary management of a disease or condition for which distinctive nutritional requirements are established by medical evaluation.

Medical group

A group of associated doctors usually working out of one location to provide a variety of medical services to patients. See our Helpful Hints section for more information.

Medical group practice

The provision of health care services by a group of at least three licensed physicians engaged in a formally organized and legally recognized entity which shares equipment, facilities, common records, and personnel.

Medical informatics

The combination of computer science, information science, and the health sciences (medicine) designed to assist in the management and processing of data to support the delivery of health care. A simple definition: Computer applications in medical care. A more complex definition: (from the Medical Informatics FAQ available on the USENET Newsgroup sci.med.informatics) Biomedical Informatics is an emerging discipline that has been defined as the study, invention, and implementation of structures and algorithms to improve communication, understanding and management of medical information. The end objective is the coalescing of data, knowledge, and the tools necessary to apply that data and knowledge to the decision-making process, at the time and place that a decision needs to be made. The focus on the structure and algorithms necessary to manipulate the information is what separates Biomedical Informatics from other medical disciplines where information content is the focus.

Medical loss ratio

The ratio between the cost to deliver medical care and the amount of money that was taken in by

M

a plan. Insurance companies often have a medical loss ratio of 92 percent or more; tightly managed HMOs may have medical loss ratios of 75 percent to 85 percent, although the overhead (or administrative cost ratio) is concomitantly higher.

Medi-Cal managed care

A type of Medi-Cal plan in which participants select primary care physicians to serve as gatekeepers to manage all care provided. To contain huge increases in public health care spending for Medi-Cal eligible beneficiaries and mothers with Aid to Families with Dependent Children (AFDC), these beneficiaries are being moved into a variety of structures that provide managed health care.

Medical monitoring

The periodic medical testing to screen people at significant increased threat of disease.

Medical necessity

(1) Only those covered services, supplies and hospital admissions that are medically necessary are payable. Medically necessary services and supplies are those that are appropriate with regard to standards of good medical practice, appropriate to the illness or injury for which they are performed, not solely for the convenience of you or a provider, or the most appropriate supply or level of service that can be safely provided to you. (2) The evaluation of health care services to determine if they are: medically appropriate and necessary to meet basic health needs, consistent with the diagnosis or condition, and rendered in a cost-effective manner consistent with national medical practice guidelines regarding type, frequency and duration of treatment.

Medical record

Part of the patient record, mainly used by physicians, sometimes used as a synonym for patient record.

Medical record/patient record

A written or electronic record of a person's illnesses and treatments.

Medical Savings Account (MSA)

(1) A health insurance option consisting of a high-deductible insurance policy and a tax-advantaged savings account. Individuals would pay for their own health care up to the annual deductible by withdrawing from the savings account or paying out of pocket. The insurance policy would pay for most or all costs of covered services once the deductible is met. (2) An account in which individuals can accumulate contributions to pay for medical care or insurance. Some states give tax-preferred status to MSA contributions, but such contributions are still subject to federal income taxation. MSAs differ from Medical reimbursement accounts, sometimes called flexible benefits or Section 115 accounts, in that they need not be associated with an employer. MSAs are not currently recognized in federal statute.

Medical Service Organization (MSO)

A form of hospital-physician integration. The MSO provides support services for physicians and usually negotiates with managed care plans on behalf of the hospital and member physicians.

Medical surveillance

The monitoring of potentially exposed individuals to detect early symptoms of disease.

Medical technology

Includes drugs, devices, techniques, and procedures used in delivering medical care and the support systems for that care. (AMA, 1993)

Medical/Surgical Care (M/S Care)

The treatment of acute or episodic medical or surgical problems, either in an inpatient or outpatient setting. Hospital inpatient units include medical/surgical units. In small hospitals there are generalized units that treat a variety of patients. In larger hospitals, the units will be specialized; there may be an orthopedic surgery unit, a neurosurgery unit and a general surgery unit, as well as medical units that are specialized according to the diagnosis of the patient. Maternity and pediatric units technically are not medical/surgical.

M

Medical/surgical supplies (aka "med-surge")

The supplies used for any medical or surgical treatment. This includes both disposable and reusable items.

Medically dependant children's program (MDCP)

A 1915(c) Medicaid waiver program that provides nursing, respite and Medicaid benefits to children as an alternative to nursing facility care.

Medically indigent

Persons who cannot afford needed health care because of insufficient income and/or lack of adequate health insurance.

Medically necessary

- (1) A term used to describe the supplies and services provided to diagnose and treat a medical condition in accordance with the standards of good medical practice and the medical community.
- (2) The evaluation of health care services to determine if they are: medically appropriate and necessary to meet basic health needs; consistent with the diagnosis or condition and provided in a cost-efficient manner; and consistent with national medical practice guidelines in the type, frequency and duration of treatment.

Medically needy

An optional category of Medicaid eligibility that covers people who have too much income to qualify under other categories, but who have large medical expenses which consume so much of their resources that they qualify based on what they have left.

Medically underserved population

A population group experiencing a shortage of personal health services. A medically underserved population may or may not reside in a particular medically underserved area or be defined by its place of residence. Thus, migrants, American Indians, or the inmates of a prison or mental hospital may constitute such a population. The term is defined and used to give priority for Federal assistance (e.g., the National Health Service Corps).

Medicare

The U.S. Medicare system is a government financed system which provides the elderly and disabled with access to short-term medical services. This program is the single largest payer in the U.S. medical care system. It purchased about 20% of all personal health services in 1991. Internationally, Medicare is peculiar, as no other nation has national health insurance for the elderly alone. American Medicare was enacted in 1965 by President L.B. Johnson, who campaigned on the issue. At the time, only slightly more than half of our elderly had hospital insurance. The American Medical Association (AMA) opposed the creation of Medicare, but was partially appeased when the preamble was written to prohibit federal "supervision or control over the practice of medicine or the manner in which medical services are provided." These words are often ignored. Medicare's benefits mostly cover acute illnesses. It does not pay for outpatient prescription drugs, or routine hearing, vision, and dental care. The program is divided into two sections, Part A, which pays for hospital care, and Part B, an optional package, which pays for supplemental medical insurance. Under Part A, the program pays for all reasonable inpatient services, minus a deductible amount for the first 60 days of needed care (in 1992, the deductible was \$652). For days 61 to 90, a coinsurance payment is charged (\$163/day in 1992). Since 1988 there has been no cap on the amount of potential liability for a Medicare patient. Under Part B, Medicare pays 80% of the approved amount for the outpatient services over a deductible (\$100 in 1992). Medicare is financed from: mandatory contributions by employers and employees, general tax revenue, beneficiaries' premiums, and deductible and copayment amounts. Nearly 90% of Medicare's annual revenue now comes from people who are under 65 years old, in the form of payroll taxes, income taxes, and trust-fund interest. Medicare's outlay of about \$130 billion in 1992 was greater than the budgets of all of America's private corporations and most of the world's nations. And yet, perhaps because the program has no sales, marketing, risk-assessment, or insurance-commission costs, and because there are only a relatively small number of benefit packages, Medicare has substantially lower administrative costs than the average private insurer. Medicare coincidentally is also the name of the single-payer national

M

health plan in Canada.

Medicare approved charge

The amount Medicare approves for payment to a physician. Typically, Medicare pays 80 percent of the approved charge and the beneficiary pays the remaining 20 percent. Physicians may bill beneficiaries for an additional amount (the balance) not to exceed 15 percent of the Medicare approved charge.

Medicare assignment

An agreement in advance by a physician to accept Medicare's Allowed charge as payment in full (guarantees not to balance bill). Medicare pays its share of the allowed charge directly to physicians who accept assignment and provides other incentives under the Participating Physician and Supplier Program.

Medicare choices demonstration

A demonstration project designed to offer flexibility in contracting requirements and payment methods for Medicare's managed-care program. Participating plans include PSOs and PPOs. Plans are required to submit encounter data to HCFA, and most will test new risk-adjustment methods.

Medicare cost contract

A contract between Medicare and a health plan under which the plan is paid on the basis of reasonable costs to provide some or all of Medicare-covered services for enrollees.

Medicare Cost Report (MCR)

An annual report required of all institutions participating in the Medicare program. The MCR records each institution's total costs and charges associated with providing services to all patients, the portion of those costs and charges allocated to Medicare patients, and the Medicare payments received.

Medicare Current Beneficiary Survey (MCBS)

A longitudinal survey administered by HCFA that provides information on specific aspects of beneficiary access, utilization of services, expenditures, health insurance coverage, satisfaction with care, health status and physical functioning, and demographic information.

Medicare Economic Index (MEI)

An index that tracks changes over time in physician practice costs. From 1975 through 1991, increases in prevailing charge screens were limited to increases in the MEI.

Medicare Fee Schedule

The resource-based fee schedule Medicare uses to pay for physicians' services.

Medicare Provider Analysis and Review (MedPAR) File

An HCFA data file that contains charge data and clinical characteristics, such as diagnoses and procedures, for every hospital inpatient bill submitted to Medicare for payment.

Medicare Risk Contract

A contract between Medicare and a health plan under which the plan receives monthly capitated payments to provide Medicare-covered services for enrollees, and thereby assumes insurance risk for those enrollees. A plan is eligible for a risk contract if it is a federally qualified HMO or a competitive medical plan.

Medicare risk HMOs

An alternative to traditional Medicare coverage in which patients assign their Medicare benefits to health plans that receive monthly premiums from the federal Health Care Financing Administration. Care is provided like HMOs with gatekeepers or primary care physicians coordinating care. Seniors elect these plans to eliminate the paperwork and deductibles associated with Medicare. The health plans offer the same benefits as Medicare and often additional benefits such as prescription coverage as incentives to enroll. These health plans are relatively new alternatives to regular Medicare and Medicare Supplemental coverage for those

M

older than 65 years of age, with premiums funded by federal health benefits. As with all types of HMOs, seniors receive care from a specified network of providers who are paid in advance. The plans cover most physician and hospital services, and in some cases, prescriptions and other benefits.

Medicare risk product

An HMO-type of health insurance plan that provides all services under Medicare Part A (hospital) and Part B (physician) in return for a fixed monthly per-patient payment from the federal Health Care Financing Administration (HCFA).

Medicare select

A type of Medicare supplement insurance which has lower premiums in return for a limited choice of beneficiaries: they will use only providers who have been selected by the insurer as "preferred providers". Also covers emergency care outside the preferred provider network.

Medicare supplement

A supplemental insurance policy to help cover the difference between approved medical charges and benefits paid by Medicare.

Medicare supplement policy

A health insurance policy that pays certain costs not covered by Medicare such as coinsurance and deductibles.

Medicare+Choice

A program created by the Balanced Budget Act of 1997 to replace the existing system of Medicare risk and cost contracts. Beneficiaries will have the choice during an open season each year to enroll in a Medicare+Choice plan or to remain in traditional Medicare. Medicare+Choice plans may include coordinated care plans (HMOs, PPOs, or plans offered by provider-sponsored organizations); private fee-for-service plans; or plans with medical savings accounts.

MedicarePlus

Program to offer private health plans to Medicare beneficiaries, as proposed under the conference agreement passed by the Congress in November 1995.

Medicine

(1) A drug or remedy. (2) The act of maintenance of health, and prevention and treatment of disease and illness. (3) Treatment of disease by medical, as distinguished from surgical, treatment. *Aerospace M.* - Branch of medicine concerned with the selection of individuals for duty as pilots or crew members for flight and space missions. Includes study of the pathology and physiology of persons and animals who travel in airplanes and spacecraft in the earth's atmosphere and in outer space. *Clinical M.* - Observation and treatment at the bedside; the practice of medicine in the clinical setting as distinguished from laboratory science. *Community M.* - Medical care directed toward service of the entire population of the community, with emphasis on preventive medicine. *Dental M.* - Branch of medicine concerned with the preservation and treatment of the teeth and other orofacial tissues. It includes preventive measures such as oral hygiene, as well as restorative procedures or prostheses and surgery. The results are widespread, including better nutrition and digestion from restored and balanced occlusion, and improved mental health from the control of oral and dental infections that often are overlooked but jeopardize the success of other medical treatments. *Disaster M.* - Large-scale application of emergency medical services in a community following a natural or man-made catastrophe. The aim is to save lives and restore every survivor to maximum health as promptly as possible. Its success depends on prompt sorting of patients according to their immediate needs and prognosis. *Emergency M.* - Branch of medicine specializing in emergency care of the acutely ill and injured. Board-certified physicians who successfully complete a residency and qualifying examination may use the abbreviation F.A.C.E.P. (Fellow of the American College of Emergency Physicians). *Environmental M.* - Branch of medicine concerned with the effects of the environment (temperature, rainfall, population size, pollution, radiation) on humans. *Experimental M.* - The scientific study of disease or pathological conditions through experimentation on laboratory animals or through clinical research. *Family M.* - Area of medical specialization concerned with providing or supervising the medical care of all members of the

M

family. *Folk M.* - Use of home remedies for treatment of diseases. *Forensic M.* - Medicine in relation to the law; as in autopsy proceedings, or the determination of time or cause of death, or in the determination of sanity. Also, the legal aspects of medical ethics and standards. Syn: legal m. *Group M.* - 1. Practice of medicine by a group of physicians, usually consisting of specialists in various fields who pool their services and share laboratory and roentgenography facilities. Such a group is commonly called a clinic; 2. Securing of medical services by a group of individuals who, on paying definite sums of money, are entitled to certain medical services or hospitalization in accordance with prearranged rules and regulations. *High-tech M.* - The recent advances in medical knowledge and technique that have resulted in improved diagnostic, therapeutic, and rehabilitative procedures. *Holistic M.* - The comprehensive and total care of a patient. In this system, the needs of the patient in all areas, such as physical, emotional, social, spiritual, and economic, are considered and cared for. *Industrial M.* - Occupational m. *Internal M.* - Branch of medicine that treats diseases of the internal organs by other than surgical means. In effect, internal medicine is based on experimental work in physiology and physiochemistry and the implication that investigators and practitioners in the specialty have special training, knowledge, and skills. *Legal M.* - Forensic m. *Nuclear M.* - Branch of medicine involved with the use of radioactive substances for diagnosis, therapy, and research. *Occupational M.* - Abbr: OC. Branch of medical specialization in which the object is to investigate, prevent, and treat diseases peculiar to persons whose environment includes their work spaces. It is a form of environmental medicine. *Patent M.* - A drug or medical preparation that is protected by patent and sold without a physician's prescription. The law requires that it be labeled with names of active ingredients, the quantity or proportion of the contents, and directions for its use, and that it not have misleading statements as to curative effects on the label. *Physical M.* - Treatment of disease by physical agents such as heat, cold, light, electricity, manipulation, or the use of mechanical devices. *Preclinical M.* - (1) preventive medicine; (2) term used to indicate the first 2 years of medical school training, during which there is little or no exposure to patients for teaching purposes. *Psychosomatic M.* - Branch of medicine that recognizes the importance of mindbody interrelationship in all illnesses, on which therapy and management are based. *Socialized M.* - Practice of medicine under control and direction of a government agency. The cost of medical care under this plan is usually financed by levying taxes or through a national medical insurance program. *Sports M.* - Field of medicine concerned with all aspects of physiology, pathology, and psychology as they apply to persons who participate in sports, whether at the recreational, amateur, or professional level. An important facet of sports medicine is the application of medical knowledge to the prevention of injuries in those who participate in sports. *Tropical M.* - Branch of medical science that deals principally with diseases common in tropical or subtropical regions, esp. diseases of parasitic origin. *Veterinary M.* - Branch of medical science that deals with diagnosis and treatment of diseases of animals.

Medigap

Private health insurance products that supplement Medicare insurance benefits.

Medigap insurance

Privately purchased individual or group health insurance policies designed to supplement Medicare coverage. Benefits may include payment of Medicare deductibles, coinsurance and balance bills, as well as payment for services not covered by Medicare. Medigap insurance must conform to one of ten federally standardized benefit packages.

MEDINFO

A triennial international congress on medical informatics sponsored by IMIA.

Medium

The substance across which data can be transmitted (optical fiber, copper wire, coaxial cable, microwaves, etc.)

Medium-term programme

A programme prepared on the basis of the General Programme of Work specifying the types of activities to be carried out by WHO for the six years covered in order to attain the objectives and targets of that General Programme.

MEDIX

(Medical Data Interchange Standard) Established by the IEEE, this data communication protocol

M

is utilized at the applications level.

MEDLINE

A large database of abstracts of articles in the international medical journals at the National Library of Medicine (NLM). The database is also accessible via the Internet.

MED-SURG

An abbreviation for medical-surgical. A term used to refer to managed care organizations which provide acute care benefits.

Mega

Abbreviation for 1,000,000 (10⁶).

Megabase (Mb)

Unit of length for DNA fragments equal to 1 million nucleotides and roughly equal to 1 μ m.

Megabyte (MB)

A million bytes or a thousand kilobytes.

Meiosis

The process of two consecutive cell divisions in the diploid progenitors of sex cells. Meiosis results in four rather than two daughter cells, each with a haploid set of chromosomes.

Member

A subscriber to an insurance plan. Also known as a covered member, subscriber, enrollee, beneficiary or recipient. (2) A person eligible to receive, or receiving, benefits from an HMO or insurance policy. Includes both those who have enrolled or "subscribed" and their eligible dependents.

Member month

The unit of volume measurement used by HMO managed care plans. A member month is equal to one member enrolled in an HMO for one month regardless of actual services provided.

Memory

Storage facilities of a computer, including both volatile central memory and background memory on mass storage devices such as disks.

Mental arithmetic

Performing computations in one's head without writing anything down. Mental arithmetic strategies include finding pairs that add up to 10 or 100, doubling, and halving.

Mental health services

Comprehensive mental health services, as defined under some state laws and federal statutes, include: inpatient care, outpatient care, day care, and other partial hospitalization and emergency services; specialized services for the mental health of children; specialized services for the mental health of the elderly; consultation and education services; assistance to courts and other public agencies in screening catchment area residents; follow-up care for catchment area residents discharged from mental health facilities or who would require inpatient care without such halfway house services; and specialized programs for the prevention, treatment and rehabilitation of alcohol and drug abusers.

Mental health

The condition of being sound mentally and emotionally.

Mental illness

(1) All forms of illness in which psychological, emotional, or behavioral disturbances are the dominating feature. The term is relative and variable in different cultures, schools of thought, and definitions. It includes a wide range of types and severities. (2) A single severe mental disorder, excluding mental retardation, or a combination of severe mental disorders as defined in the latest edition of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental

M

Disorders.

Mental or Nervous Condition Without an Organic Cause

Means: 1. Neurosis, 2. Psychoneurosis, 3. Psychopathy, 4. Psychosis; or 5. A mental or nervous disorder without demonstrable organic disease. It does not mean senility or Alzheimer's disease. The phrase "mental disorders" will be deemed to mean "Mental or Nervous Condition Without an Organic Cause".

Mental retardation

Significantly subaverage intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period.

Menu

A list of options from which a user can choose.

Menu-driven user interface

An interface in which the user selects an item from a menu or list on a display screen, which may produce a new list for further selection.

Mercy killing

Ending another person's suffering by ending his or her life. Different from voluntary euthanasia (where the dying person has been able to clearly state his or her wishes).

Merger

When two or more health care organizations are combined into a single legal entity.

MeSH

(Medical Subject Headings) A classification developed by NLM to index the world medical literature.

Mesoendemic

A term from the malaria literature used to mean (roughly) an area with some transmission.

Message switching

A message (image or text) is divided into many parts and the parts are transmitted to the receiver separately. Once the parts are received they are put back together to form the message.

Messenger model

A method of setting fees for loose, non-risk bearing MCOs such as IPAs or PHOs. A designated agent must act as a "messenger", shuttling individual physician information to the payer and vice versa. This method meets the criteria of antitrust laws that bar physicians from sharing any practice data or fee information.

Messenger RNA (mRNA)

RNA that serves as a template for protein synthesis. See genetic code.

Meta model

Oracle publication on CASE: The meta model describes the structure of the Data Model by defining entities, attributes and relationships.

Meta-analysis

(1) A critical review by statistically combining the results of previous research studies reported in the literature. (2) A systematic, typically quantitative method for combining information from multiple studies.

Metabolism

All the chemical reactions that enable the body to work. For example, food is metabolized (chemically changed) to supply the body with energy. Chemicals can be metabolized and made either more or less harmful by the body.

M

Metabolite

Any product of metabolism.

Metaphase

A stage in mitosis or meiosis during which the chromosomes are aligned along the equatorial plane of the cell.

Metastasis

(1) Movement of bacteria or body cells (esp. cancer cells). (2) Change in location of a disease or of its manifestations or transfer from one organ or part to another not directly connected. The usual application is to the manifestation of a malignancy as a secondary growth arising from the primary growth in a new location. The malignant cells may spread through the lymphatic circulation, the bloodstream, or avenues such as the cerebrospinal fluid.

Metazoans

Multicellular animals.

Meter

(1) The SI unit for length. (2) A piece of equipment to show the value of a parameter. (3) An imitation of such a piece of equipment on a screen.

Method

Regular and systematic means of enterprise improvement including procedures and techniques appropriate to the health care industry.

Metropolitan Statistical Area (MSA)

A geographic area that includes at least one city with 50,000 or more inhabitants, or a Census Bureau-defined urbanized area of at least 50,000 inhabitants and a total MSA population of at least 100,000 (75,000 in New England). (OMB)

MI

See medical informatics.

Mic level inputs

The input jacks available for microphones. Some applications may require multiple microphones. A mixer can be added if there are not enough mic level inputs.

Microfiche

A microscopic photographic copy of text or graphic data. Important to the archiving of paper records. Access can be automated thus providing a less expensive transition to the computerized patient record.

Microorganisms

Organisms so small (e.g., bacteria and yeast) that they can be seen only with a microscope.

Microparasites

Typically, viruses, bacteria, fungi and protozoa. More generally, parasites which multiply within their definitive hosts. Microparasites are characterized by small size, short generation times, and a tendency to induce immunity to reinfection in those hosts that survive. The duration of infection is usually short in relation to the lifespan of the host, but there are important exceptions, such as the slow viruses. The key epidemiological variable, by contrast with macroparasites, is whether or not the individual host is infected.

Microphone audio overlays playing tape audio

The ability to talk to the other end while using the VCR as the audio/video input source. In a telemedicine consult, this feature is valuable when playing a pre-recorded tape of a procedure or examination and the providers want to discuss what is being seen at the same time.

Microsoakable camera

An oddball term meaning that the camera can be sterilized by soaking in disinfectant solutions.

M

This adds significantly to the camera's expense but may be necessary.

Microwave

High frequency radio waves (greater than 800 megahertz) relayed between towers; used for point-to-point communication of audio, video, and data signals. They can be simplex (omni-directional) or duplex. The microwave spectrum is generally above 2 GHz. Microwave transmission requires a line of sight transmission between sending and receiving antennas. Once the most widely used medium by the telephone companies, now being surpassed by fiber optics.

Microwave endometrial ablation (MEA)

Procedure uses microwave energy to destroy the endometrium as a treatment of dysfunctional uterine bleeding. An applicator is inserted into the uterus with microwave power ablating up to 3 mm of the uterine lining in approximately three minutes. Patients are pretreated for 4 to 6 weeks with hormonal therapy and can expect a watery discharge for several weeks after treatment.

Microwave link

A system of communication using high frequency radio signals, exceeding 800 megahertz, for audio, video, and data transmission. These links require line of sight connection between transmission antennas.

Middleware

A software shell between the operating system and the applications or the user.

Midi

An acronym for Musical Instrument Digital Interface, MIDI is a international industry specification for control of digital audio devices and musical instruments.

Midrange

The halfway point or midpoint in a set of observations. For most types of data, it is calculated as the sum of the smallest observation and the largest observation, divided by two. For age data, one is added to the numerator. The midrange is usually calculated as an intermediate step in determining other measures.

MIME

(Multipurpose Internet Mail Extensions) The standard for attaching non-text files to standard Internet mail messages. Non-text files include graphics, word-processor documents, sound files, jpegs, etc.

Minicomputer

A computer, smaller than a mainframe, but larger than a PC. Nowadays minicomputers are mostly being replaced by workstations or PCs, which have increasing capacities.

Minimal Risk Level (MRL)

An MRL is defined as an estimate of daily human exposure to a substance that is likely to be without an appreciable risk of adverse effects (noncancer) over a specified duration of exposure. MRLs are derived when reliable and sufficient data exist to identify the target organ(s) of effect or the most sensitive health effect(s) for a specific duration via a given route of exposure. MRLs are based on noncancer health effects only. MRLs can be derived for acute, intermediate, and chronic duration exposures by the inhalation and oral routes.

Mini-PACS

An image management system that focuses one or more of the digital modalities, such as an ultrasound mini-PACS, or one application areas such as neuroradiology.

Minnesota code

A code used for the formal description of ECG waveforms and arrhythmias, especially for population studies.

Mirror

Generally speaking, "to mirror" is to maintain an exact copy of something. The most common use

M

of the term on the Internet refers to "mirror sites" which are web sites, or FTP sites that maintain exact copies of material originated at another location, usually in order to provide more widespread access to the resource. Another common use of the term "mirror" refers to when information is written to more than one hard disk simultaneously, so that if one disk fails, the computer keeps on working without losing anything.

MIS

(Management Information System) An information system used to support the management of an organization by making available information about revenues, costs, and personnel.

Missing data

Missing data in a record.

Mitosis

Type of cell division of somatic cells in which each daughter cell contains the same number of chromosomes as the parent cell. Mitosis is the process by which the body grows and dead somatic cells are replaced. Mitosis is a continuous process divided into four phases: prophase, metaphase, anaphase, and telophase. *Prophase*: the chromatin granules of the nucleus stain more densely and become organized into chromosomes. These first appear as long filaments, each consisting of two identical chromatids the result of DNA replication. Each pair of chromatids is joined at a region called the centromere, which may be central or toward one end. As prophase progresses, the chromosomes become shorter and more compact and stain densely. The nuclear membrane and the nucleoli disappear. At the same time, the centriole divides and two daughter centrioles, each surrounded by a centrosphere, move to opposite poles of the cell. They are connected by fine protoplasmic fibrils, which form an achromatic spindle. *Metaphase*: the chromosomes (paired chromatids) arrange themselves in an equatorial plane midway between the two centrioles. *Anaphase*: the chromatids (now called daughter chromosomes) diverge and move toward their respective centrosomes. The end of their migration marks the beginning of the next phase. *Telophase*: the chromosomes at each pole of the spindle undergo changes that are reverse of those in the prophase, each becoming a long, loosely spiraled thread. The nuclear membrane re-forms and nucleoli reappear. Outlines of chromosomes disappear, and chromatin appears as granules scattered throughout the nucleus and connected by a lightly staining net. The cytoplasm becomes separated into two parts, resulting in two complete cells. This is accomplished in animal cells by constriction in the equatorial region; in plant cells, a cell plate that gives rise to the cell membrane forms in a similar position. The period between two successive divisions is called interphase. Mitosis is of particular significance in that genes are distributed equally to each daughter cell and a fixed number of chromosomes is maintained in all somatic cells of an organism.

Mitosis

The process of nuclear division in cells that produces daughter cells that are genetically identical to each other and to the parent cell.

Mixed Model HMO

An HMO resembling a combination of two or more of the following model types: an IPA, a staff model HMO, a group model HMO, or a network model HMO. The mixed model HMO has become the most common model type as the result of industry consolidation.

Mixed opioid agonist-antagonist

A compound that has an affinity for two or more types of opioid receptors and blocks opioid effects on one receptor type while producing opioid effects on a second receptor type.

Mixer

Enables multiple audio or video inputs to a processor. See mic level inputs.

MLM

Medical logic module: encoding of a segment of medical knowledge.

M-mode

Motion mode: visualization of ultrasound reflections, in which the time interval between the pulse and the echo (corresponding to the distance between the transducer and the reflecting tissue) is

M

plotted along one axis and the subsequent pulses are plotted along the other one. This enables the visualization of movements. The brightness of a point corresponds to the amplitude of the reflected signal.

Mnemonic code

A code formed from one or more characters of its related class rubric. This helps users to memorize codes.

Model

(1) A pattern or form used to make a replica, as a cast or impression of teeth in dentistry. (2) A person or thing worthy of emulation or imitation. (3) A framework or system for organizing and representing hypotheses or theories. *Animal M.* - The study of anatomy, physiology, or pathology in laboratory animals in order to apply the results to human function and disease. *Conceptual M.* - A set of abstract and general concepts and statements about those concepts. Also called *conceptual framework*, *conceptual system*, and *paradigm*. *M. of human occupation* - A conceptual framework for viewing occupational therapy practice, aimed at improving the patient's organization of time, overall function, and adaptation as reflected in the performance of occupations. Within this framework, intervention includes strategies for fostering skill development and habit changes through role acquisition, improved self-image, and environmental changes. *Nursing M.* - A conceptual model that refers to global ideas about people, their environments and health and nursing. *Study M.* - A diagnostic cast of an impression of the dental arches or a part thereof, trimmed with the arches articulated and the edges perpendicular to the occlusal plane. The study model serves as the basis for construction of dental appliances, dentures, or orthodontic treatment.

Model Waiver Option

A variation of the 1915(c) waiver that allows states to fund community-based Medicaid services for certain people with disabilities (mostly children) whose family income would otherwise disqualify them from assistance unless the person was placed in an institution. Model waivers may cover up to 200 individuals within defined a population.

Modem

(MOdulator, DEModulabr) A device that you connect to your computer and to a phone line, that allows the computer to talk to other computers through the phone system. Basically, modems do for computers what a telephone does for humans.

Modem access for remote diagnostic support

Indicates that a technical support center can call into the system on a separate modem line to perform remote diagnostics.

Modification

The addition of new work to a contract, or the extension of a contract, which requires a justification and approval.

Modified Accelerated Cost Recovery System (MACRS)

A system of computing and allocating depreciation of property and equipment over one or more periods that is prescribed by the Internal Revenue Code. The MACRS system is a modification of the Accelerated Cost Recovery System method of depreciation introduced in the Tax Reform Act of 1986.

Modified endowment contract (MEC)

A life insurance contract that does not meet the requirements specified in the Internal Revenue Code and under which a withdrawal of investment earnings before age 59-1/2 is subject to penalty.

Modified fee-for-service reimbursement

A system in which providers are paid on a fee-for-service basis, with certain fee maximums for each procedure.

Modular

A system that is divided into modules.

M

Module

A rather independent component of a program package that, ideally, can be used as a building block to compose programs or system.

MOLE

A knowledge-acquisition system for systems that perform fault diagnoses.

Molecular biology

General term referring to study of the structure and function of proteins and nucleic acids; may be used as a synonym for genetic engineering or recombinant DNA techniques.

Molluscicides

Chemical substances which kill snails or other molluscs.

Moment

(1) A point of time. (2) A quantity describing the characteristics of a stochastic distribution, such as mean, variance, skewness, and kurtosis.

Monitor

(1) Equipment used to record the ongoing state of a patient, mostly patients in ICUs. (2) Visual display unit.

Monitoring

(1) The continuous follow-up of activities to ensure that they are proceeding according to plan. It keeps track of achievements, staff movements and utilization, supplies and equipment, and the money spent in relation to the resources available, so that if anything goes wrong immediate corrective measures can be taken. The information gained from monitoring is utilized for evaluation. (2) The ongoing act of sampling data to watch the state of a patient, the incidence and prevalence of a disease or a risk factor (epidemiological monitoring or health surveillance and vigilance, adverse drug reactions, safety of medical devices, etc.

Monoclonal antibodies

Antibodies made from single cells that recognize one chemical component on a foreign target molecule.

Monoecious

Male and female sexual apparatus present in the same individual. Same as hermaphrodite; opposite of dioecious.

Monolithic system

A system's architecture whose structure is determined from the beginning and that incorporates in principle all hospital information functions.

Morbidity

The extent of illness, injury, or disability in a defined population. It is usually expressed in general or specific rates of incidence or prevalence.

Morphology

The study of form and structure of organs, cells, etc., without considering their function.

Morphometry

Measuring the form and structure of objects, e.g., cells.

Morse alphabet

A coding system, invented by Morse, that transmits messages consisting of text by audible or visible signals (especially in telegraphy). The code consists of short and long signs denoting characters, digits, a few punctuation marks and pauses to separate characters and words.

Mortality

Death. Used to describe the relation of deaths to the population in which they occur. The

M

mortality rate (death rate) expresses the number of deaths in a unit of population within a prescribed time and may be expressed as crude death rates (e.g., total deaths in relation to total population during a year) or as death rates specific for diseases and, sometimes, for age, sex, or other attributes (e.g., number of deaths from cancer in white males in relation to the white male population during a given year).

Mortality rate

(1) A measure of the frequency of occurrence of death in a defined population during a specified interval of time. (2) The per capita death rate in a population. The mortality rate is the reciprocal of the population life expectancy.

Mortality rate, infant

A ratio expressing the number of deaths among children under one year of age reported during a given time period divided by the number of births reported during the same time period. The infant mortality rate is usually expressed per 1,000 live births.

Mortality rate, neonatal

A ratio expressing the number of deaths among children from birth up to but not including 28 days of age divided by the number of live births reported during the same time period. The neonatal mortality rate is usually expressed per 1,000 live births.

Mortality rate, postneonatal

A ratio expressing the number of deaths among children from 28 days up to but not including 1 year of age during a given time period divided by the number of live births reported during the same time period. The postneonatal mortality rate is usually expressed per 1,000 live births.

Mortality table

A table reporting the average rate of death for each given age, based on studies of a large group of individuals over many years.

Mouse

A handheld device whose movements are read by the computer and converted into movements of a cursor on the screen.

Moving average cost

An inventory costing method under which an average unit cost is computed after each acquisition by adding the cost of the newly acquired units to the cost of the units of inventory on hand and dividing this figure by the new total number of units.

MPC

Formed by computer industry leaders, the Multimedia PC (MPC) Marketing Council is a subsidiary of the Software Publishers Association. This council determines the standards for multimedia hardware platforms, primarily IBM PCs and compatibles.

MPEG

(Moving Picture Experts Group) A group of standards for compression and storage of motion video. MPEG-1 provides images of 240 lines \times 360 pixels/line, digital transfer rates up to 1.5 Mbps, and compression ratios of about 100:1. MPEG-2 provides a higher quality picture - 720 horizontal lines \times 480 vertical lines (pixels/line). The MPEG-2 standard is used for HDTV, and will be used for cable broadcasts.

MPEG1

A form of video compression optimized for playback from CD-ROM and T-1 communications links at near VHS quality. This compression uses frame differencing and other compression algorithms to allow for data rates of 1 to 1.5 megabits per second. A Video CD contains approximately 72 minutes of full screen, full motion video. This standard was published by an industry committee, the Moving Pictures Experts Group.

MPEG2

A new standard under development by the Moving Pictures Experts Group. When officially adopted, data rates will increase to above 5 megabits per second. This new compression

M

method will offer broadcast quality video and support for high definition television. A Video CD with MPEG 2 video would contain over two hours of video.

MPR

See multimedia patient record.

MPT

(Multiple Parameter Telemetry) Portable cardiac monitoring device.

MRI

(Magnetic Resonance Imaging) A diagnostic device that records images by means of powerful electromagnets aligning atomic nuclei in the body. A computer analyzes the radiation picked up from this atomic alignment.

MS-DOS

Operating system for PCs, manufactured by Microsoft.

MST

(Minimal Spanning Tree) The graph with the minimal total length of the connections between all objects.

Multicenter trial

A clinical trial in which more than one center participates.

Multidisciplinary

The determination of treatment plans and delivery of care by groups of clinical and affiliated care professionals representing a wide range of specialties and expertise.

Multifactorial or multigenic disorders

See polygenic disorders.

Multihospital system

A central association that owns, leases or controls, by contract, two or more hospitals; some benefits of this arrangement are: improved availability of capital markets; mutual purchasing for greater economies of scale; and mutual use of technical and management personnel.

Multimedia

A term which broadly applies to the transmission and manipulation of any form of information, including words, pictures, videos, music, numbers, or handwriting. This information is regarded as simply digital bits-zeros and ones-as it is to a digital telecommunications link that carries information in bit form. The substantial increase in computing power permits integrated patient records with audio and video clips.

Multimedia extensions

A set of routines or drivers for running multimedia programs under Windows 3.0. Microsoft incorporated these drivers into Windows 3.1.

Multimedia patient record

Medical record with text, images, signals, and sounds.

Multi-Option

A plan in which there is a choice of two or more different options. Similar to a POS (Point of Service) plan, although a multi-option plan is less flexible because the member must select his/her option at the time of enrollment and is typically locked-in to that choice for a year. Sometimes a multi-option plan is referred to as a Point-of-Enrollment or POE plan.

Multiple infection

An infection in which an individual is infected by parasites of more than one species.

Multiple option plan

A health plan design that offers employees choice of several types of coverage, usually from among an HMO, a PPO, and a major medical indemnity plan. Increasingly, employers are defining the contribution they will make toward health premiums; "richer" plans may be partially funded by employees through payroll deductions.

Multiple regression

Regression analysis for more than one independent variable.

Multiplexer ("MUX")

Equipment which transmits two or more lines of voice, data, or video information over a single channel. A multiplexer enables a single T1 telephone line to be split into a number of different "channels" to allow for multiple applications to be carried along the same T1 line. Dials individual telephone lines (minimum of two, maximum of 11) and assembles them into one high speed line and then turns control over to the codec. By combining and interweaving low-capacity channels in discrete time or frequency slices, this equipment allows transmission of multiple lines of audio, video or data information in one high-capacity communications channel.

Multiplexing

A sequencing approach that uses several pooled samples simultaneously, greatly increasing sequencing speed.

Multiprocessing

Simultaneous execution of two or more programs by a computer or a computer network.

Multiprogramming

Quasi simultaneous execution of two or more programs by a computer by switching quickly from one program to the other.

Multisectoral action

Action in which the health sector and other relevant sectors collaborate for the achievement of a common goal, the contributions of the different sectors being closely coordinated. For practical purposes, intersectoral action and multisectoral action are synonymous terms, the former perhaps emphasizing the element of coordination, the latter the contribution of a number of sectors.

Multi-Session CD-ROM Drives

New CD technology that allows additional data to be appended onto a ISO 9660 CD-ROM. You can add to the disc as many times as you want, up to the full capacity of the disc or until the disc is fixated. A multi-session CD-ROM drive is required to read CDs that are not fixated. A drive that is Photo CD capable is a multi-session drive.

Multivariate analysis

Statistical analysis of data collected on several dimensions for the same individual.

Multivariate regression

See multiple regression.

Multiyear contracts

Contracts covering more than one-year's but not in excess of five-year's requirements. Each program year is annually budgeted and funded and, at the time of award, funds need only to have been appropriated for the first year.

MUMPS

Programming language, also called M.

Mutation

Any heritable change in DNA sequence. Compare polymorphism.

N

Named peril coverage

Property insurance that covers losses that result from specifically named causes.

Nanosecond

One billionth of a second. Commonly used to measure the speed of memory chips.

Narrowband

A telecommunications medium, such as copper wire or part of a coaxial cable channel, that uses (relatively) low frequency signals. Generally speaking, narrowband transmissions go up to 1.544 Mbps.

NASA

(National Aeronautics and Space Administration) An important component of the HPCC and focus for development in the areas of computing, imaging, telecommunications and telerobotics. NASA supported some of early, innovative developments in telemedicine. NASA Office of Life Sciences and Microgravity Sciences and Applications still has a vested interest in further academic, commercial and military development of telemedicine.

National centre for health development

Any suitable department, university, institution or organization designated by the ministry of health to help carry out the actual task of working out and applying various parts of the managerial process for national health development. It may also advise on technical matters, disseminate information, and help to ensure coordination of activities with other sectors.

National Exposure Registry

A listing of persons exposed to hazardous substances. This listing is composed of chemical-specific subregistries. The primary purpose of the registry program is to create a large database of similarly exposed persons. This database is to be used to facilitate epidemiology research in ascertaining adverse health effects of persons exposed to low levels of chemicals over a long period.

National health council

One of several possible mechanisms to advise governments on health and related socioeconomic issues for an entire country. The composition of such a council would vary from country to country according to its circumstances, but it should preferably cover the fields of health and related political, economic and social affairs and include members of the public.

National health development network

A series of national centres for health development linked together organizationally.

National health expenditures

Total spending on health services, prescription and over-the-counter drugs and products, nursing home care, insurance costs, public health spend, and health research and construction.

National health insurance

The government as the single payor of medical bills. Key features often include: federal financing from general tax revenues; beneficiary contributions and/or payroll taxes; government fee controls; and prospective budgets. (AMA, 1993)

National health policy

An expression of national goals for improving the health situation, the priorities among those goals, and the main directions for attaining them. A set of decisions to pursue courses of action aimed at achieving defined goals for improving a health situation. National policies, strategies and plans of action form a continuum, and there are no sharp dividing lines between them. It might therefore be unwise to be specific in attempting to define them, but it is useful to indicate what each might entail. Formulating strategies for health for all by the year 2000: guiding principles and essential issues. Geneva, World Health Organization, Geneva, 1979 (Executive Board document, p.14).

National Health Service Corps (NHSC)

A program administered by the U.S. Public Health Service that places physicians and other providers in health professions shortage areas by providing scholarship and loan repayment incentives. Since 1970, the Corps members have worked in community health centers, migrant centers, Indian health facilities and in other sites targeting underserved populations.

National plan of action

A broad intersectoral master plan for attaining the national health goals through implementation of the strategy. It indicates what has to be done, who has to do it, during what time frame, and with what resources. It is framework leading to more detailed programming, budgeting, implementation and evaluation. A broad intersectoral master plan for implementing the strategy in order to attain the national health goals. It specifies in operational terms the steps to be taken in accordance with the strategy, keeping in mind the various objectives and targets to be attained and the programmes for attaining them. These steps include political, economic, financial, social, legislative, administrative, scientific, technical and managerial measures. The action that has to be taken by the health and other sectors concerned is laid down and a framework for monitoring the implementation of the plan of action and evaluating its impact is established. Plans of action form a continuum with national health policies and strategies, there being no sharp dividing lines. National policies, strategies and plans of action form a continuum, and there are no sharp dividing lines between them. It might therefore be unwise to be specific in attempting to define them, but it is useful to indicate what each might entail. Formulating strategies for health for all by the year 2000: Guiding principles and essential issues. Geneva, World Health Organization, 1979.

National Practitioner Data Bank

A computerized data bank maintained by the federal government that contains information on physicians against whom malpractice claims have been paid or certain disciplinary actions have been taken.

National Priorities List (NPL)

The Environmental Protection Agency's (EPA) listing of sites that have undergone preliminary assessment and site inspection to determine which locations pose immediate threat to persons living or working near the release. These sites are most in need of cleanup.

National strategy

Based on national health policy, it includes the broad lines of action required in all sectors involved to give effect to that policy. A set of decisions which lays down the broad lines of action required in all the sectors concerned to give effect to the national health policy and indicates the problems and ways of dealing with them. National policies, strategies and plans of action form a continuum, and there are no sharp dividing lines between them. It might therefore be unwise to be specific in attempting to define them, but it is useful to indicate what each might entail. Formulating strategies for health for all by the year 2000: guiding principles and essential issues. Geneva, World Health Organization, 1979 (Executive Board document, p.14).

National Toxicology Program (NTP)

NTP conducts toxicological testing on those substances most frequently found at sites on the National Priorities List of the EPA, and which also have the greatest potential for human exposure.

Natural history of disease

The temporal course of disease from onset (inception) to resolution.

Natural language processing (NLP)

Accessing data in the form of narrative or free text and creating machine-understandable interpretations of those data.

Navigation

To find one's way through a large amount of data or text, also making jumps to other sets of data.

N

NCQA

(National Committee for Quality Assurance) The NCQA is a private, not-for-profit organization dedicated to assessing and reporting on the quality of managed care plans. NCQA's mission is to provide information that enables purchasers and consumers of managed health care to distinguish among plans based on quality, thereby allowing them to make more informed health care purchasing decisions (<http://www.ncqa.org/>).

Nearest neighbor classification

Classification by determining for a new object the nearest neighbor or nearest neighbors of that object in feature space.

Necessary cause

A causal factor whose presence is required for the occurrence of the effect (of disease).

Need

Something required or essential. Certain elements are essential for the physical and mental health of humans. Included in physical needs are oxygen, water, food, shelter, freedom from fear and physical harm. Most human beings seem to need some form of physical exercises over and above that required for ordinary daily living. Mental health needs include some form of human (loving) relationship and the feeling of self-worth. Not an absolute need, but highly desirable, is that each individual have some goal, no matter how trivial or grandiose and the feeling that the goal is socially acceptable and is being attained.

Negative binomial distribution

A distribution which is parameterised by a mean m and an aggregation parameter k which is large when aggregation is small; in fact as k becomes large, the negative binomial distribution approximates the Poisson distribution.

Negative Predictive Value (-PV)

The proportion of people with a negative test who are free of disease.

Negotiated subcontract

Any subcontract except a firm fixed-price subcontract made by a contractor or subcontractor after receiving offers from at least two persons not associated with each other or with such contractor or subcontractor, providing (a) the solicitation to all competitors is identical, (b) price is the only consideration in selecting from among the competitors solicited, and (c) the lowest offer received in compliance with the solicitation from among those solicited is accepted.

Negotiation

Contracting through the use of either competitive or other-than-competitive proposals and discussions. Any contract awarded without using sealed bidding procedures is a negotiated contract.

Neonatal Intensive Care Unit (NICU)

A nursery that is equipped and staffed to care for newborns who are ill or have low birth weight. These units usually are classified as Level 2 and Level 3. Level 3 is the unit with the greatest service capacity that is able to take care of the smallest and sickest infants, particularly those who require ongoing respiratory assistance. Intensive care nurseries require substantially more space per bassinet than normal nurseries, in addition to higher staffing ratios and more frequent intervention by pediatricians and neonatologists.

Neonate

An infant from birth to age 28 days.

Net benefits

The total discounted benefits minus the total discounted costs (also called net rate of return).

Net income

The net return (earnings or profit) earned by a business after deducting all selling and administrative costs, depreciation, taxes and any other adjustments prior to dividends and

N

withdrawals.

Netiquette

(1) The etiquette on the Internet. (2) Rules for proper behavior on email discussion lists. The particular email list owner sets guidelines. An example might be a restriction on the use of profanity or personal attacks rather than expressing ideas.

Netizen

Derived from the term citizen, referring to a citizen of the Internet.

NetPhone

Software that allows individuals to place telephone calls through the Internet.

Netscape

A WWW Browser and the name of a company. The Netscape browser was originally based on the Mosaic program developed at the National Center for Supercomputing Applications (NCSA).

Network

(1) A grouping of individuals, organizations and agencies organized on a non-hierarchical basis around common issues or concerns, which are pursued proactively and systematically, based on commitment and trust. Reference: new edition. WHO actively initiates and maintains several health promotion networks around key settings and issues. These include, for example, the intersectoral Healthy Cities network, networks of Health Promoting Schools, and WHO country networks for health promotion such as the WHO Mega-Country Initiative. Networks of networks are also being established. Examples include the WHO (EURO) initiative 'Networking the Networks' and global networking initiatives for health promotion in order to build a global alliance for health promotion. (2) A list of doctors, hospitals and other health care providers compiled and contracted by a health plan as participating providers. Network providers must agree to a discounted fee schedule for all services provided, along with other responsibilities, in exchange for a preferred status. Members using network providers receive higher benefits (less out-of-pocket expenses) than when using out-of-network providers. (3) Interconnected telecommunication equipment used to handle voice, data and video. There are at least three types of networks: Local Area Network (LAN), Metropolitan Area Network (MAN) and Wide Area Network (WAN). Rice University gopher site (RiceInfo) has extensive references on networks.

Network

(1) A set of nodes and connecting lines to describe intricate structures, e.g., the activities in processes, conceptual models, or data models. 2. In telecommunications, the technical facilities to permit voice and data transmission, e.g., the public switched telephone network. 3. A system of interconnected computers and terminals including their network protocols, e.g., LAN and the World Wide Web. 4. A computer representation of active or passive nodes and their connections, e.g., artificial neural network and models for HIV epidemiology. Syn: net.

Network data model

A database model in which records may be accessed by arbitrary, predefined connections.

Network interface

Connectivity options for the system.

Network Model HMO

May contract with both single and multi-specialty groups. The physicians work in their own office, and may or may not provide care exclusively for the HMO's members.

Neural network

See artificial neural network.

Neuron

(1) A cell that is the basic functional unit of the nervous system. (2) A node in an artificial neural network.

N

Neuropathic pain

Pain that arises from a damaged nerve.

Newsgroups

Also referred to as "Usenets." Discussion groups open to the public where users can read the information posted and add new messages.

NIC

(Networked Information Center) Generally, any office that handles information for a network. The most famous of these on the Internet is the InterNIC, which is where new domain names are registered.

NIH

(National Institute of Health) NIH Responsible for the development of Federally funded medical and health related research. It is the sponsoring organization of the National Library of Medicine (NLM) and houses one of the largest governmental, non-military supercomputers. NIH is funded by the Department of Health and Human Services.

Nissen fundoplication (laparoscopic)

Laparoscopic surgical procedure for the treatment of reflux esophagitis and gastroesophageal reflux disease (GERD).

NIST

(National Institute of Standards and Technology) NIST is the component of the HPCC responsible for translating Federal research into applied technology that will improve efficiencies and stimulate excellence. (National Library of Medicine)

Nitrogen fixing

Conversion of atmospheric nitrogen gas to a chemically combined form, ammonia, which is essential to plant growth. Some microorganisms can "fix" nitrogen.

Nitrogenous base

A nitrogen- containing molecule having the chemical properties of a base.

NLM

(National Library of Medicine - HyperDoc) - National Library of Medicine is the largest library dealing with a single scientific/professional topic. It has over 4.5 million holdings. It offers extensive on-line information services dealing with basic biomedical research, clinical care, toxicology and environmental health. One NLM service is HSTAT (Health Services Technology Assessment Text) an NIH initiative to develop national standards of clinical care. The NLM has several active research and development programs designed to improve the medical library system in the United States (including an extramural grants program). It was one of the first medical libraries to develop a web site.

NLP

See natural language processing.

NMDS

(Nursing Minimum Data Set) A minimum set of nursing data elements with uniform definitions and categories, including nursing problems, diagnoses, interventions, and patient outcomes.

NNH

(Number Needed to Harm) The number of patients who, if they received the experimental treatment, would lead to 1 additional person being harmed compared with patients who receive the control treatment, and calculated as 1/ARI.

NNT

The number of patients who need to be treated to prevent 1 bad outcome. Specifies the treatment, its duration, and the bad outcome being prevented. Reported as a whole number, calculated as 1/ARR, rounded to the next highest whole number, and accompanied by its 95%

N

confidence interval (CI). In the example, $1/ARR=1/6.8\%=14.7$, rounded to 15, with a 95% CI from 9 to 35. Readers can convert this to an NNT for a specific patient by estimating that patient's susceptibility (sometimes called the "baseline risk") relative to the average control patient in the trial report, expressed as a decimal fraction, F, and then dividing the reported NNT by F. In the example, if a reader's patient was judged to be half as susceptible as the average control patient in the example, $F=0.5$ and $NNT/F=15/0.5=30$, and 30 of these patients would need to be treated to prevent 1 event.

NNTP

(Network News Transport Protocol) The protocol used by client and server software to carry USENET postings back and forth over a TCP/IP network.

No Apparent Public Health Hazard

Sites where human exposure to contaminated media is occurring or has occurred in the past, but the exposure is below a level of health hazard.

Nociception

The process of pain transmission; usually relating to a receptive neuron for painful sensations.

Nodal rhythm

A cardiac rhythm paced by the AV-node.

Node

Any single computer connected to a network.

Noise

Disturbance of a signal by unwanted extra sources, e.g., random noise or main line interference.

Nolan's growth model

A model that describes the stages of growth of an organization caused by and necessary for the implementation of information systems in an organization.

Nomenclature system

A system that assigns codes to medical concepts and allows for the combination of these concepts.

Nominal Group Technique (NGT)

A structured brainstorming technique that allows a group or team to quickly come to consensus on the importance of issues, problems or solutions. Based on individual contributions, equal footing of team members and prioritization of issues.

Nominal scale

Classification into unordered qualitative categories; e.g., race, religion, and country of birth as measurements of individual attributes are purely nominal scales, as there is no inherent order to their categories.

Nominal value

Measurement of an economic amount in terms of current prices.

Non-value added activity

An activity performed in a process that does not add value to the output product or service, which may or may not have a valid business reason for being performed.

Non-cash beneficiaries

People eligible for Medicaid because of certain circumstances, such as being pregnant, but are not eligible for cash-assistance programs.

Non-contracting provider

A hospital, physician or other provider which does not have a contract with Medical Mutual.

N

Non-direct transmission

A mode of transmission that differs in some mysterious way from indirect transmission; we don't make a distinction in this course.

Nonforfeiture option

The value, if any, either in cash or in another form of insurance available upon failure to continue the required premium payments.

Non-infectious

Not spread by infectious agents. Used to describe diseases such as heart disease, most cancers, and cirrhosis. Often used synonymously with "noncommunicable".

Nonlinear

Not linear.

Nonparticipating physician

A physician who does not sign a participation agreement and, therefore, is not obligated to accept assignment on all Medicare claims. See Assignment, Participating Physician, Participating Physician.

Nonphysician practitioner

A health care professional who is not a physician. Examples include advanced practice nurses and physician assistants.

Non-repudiation

Proof (to a third party) that only the signer could have created a signature. A basis of legal recognition of electronic signatures.

Nonstationary signal

A stochastic signal whose statistical properties change over time.

Normal curve

A bell-shaped curve that results when a normal distribution is graphed.

Normal distribution

A distribution that can be described by a symmetric bell-shaped curve (syn: Gaussian distribution). The symmetrical clustering of values around a central location. The properties of a normal distribution include the following: (1) It is a continuous, symmetrical distribution; both tails extend to infinity; (2) the arithmetic mean, mode, and median are identical; and, (3) its shape is completely determined by the mean and standard deviation.

Normal newborn

A newborn that has no sign of disease and weighs at least 2,500 grams (approximately 5 1/4 pounds).

Nosology

The science of the classification of diagnostic terms.

NOT

Unary logical operator, yielding the negation of its operand.

Notebook computer

A portable personal computer that is about the size of a notebook and that is thus smaller than a laptop computer.

Not-for-profit hospital

A hospital with a tax exemption status due to its classification as a charitable organization; the exemption, which is regulated by the IRS, allows the hospital to forego tax payment in a number of areas, the most visible of which are tax on net income, payroll and property; in return, the hospital must meet various requirements outlined by the IRS.

N

Notifiable disease

Diseases, usually of an infectious nature, whose occurrence is required by law to be made known to a health officer or local government authority.

Novation agreement

A legal instrument executed by (a) the contractor (transferor), (b) the successor in interest (transferee), and (c) the Government by which, among other things, the transferor guarantees performance of the contract, the transferee assumes all obligations under the contract, and the Government recognizes the transfer of the contract and related assets.

NREN

(National Research and Education Network) A biotechnology network that features transmission of digital images, intelligent gateways to retrieve information from multiple life science databases and innovations in educational techniques. It serves about 1 million scientists and educators.

NTIA

(National Telecommunications and Information Administration) Federal agency responsible for the National Information Infrastructure (NII) Initiative. National Telecommunication and Information Administration gopher site has documentation about telecommunications funding.

NTSC

(National Television System Committee) The National Television Systems Committee is the industry group that formulated the standards for American television. This body adopted a video signaling standard for black and white television in 1953 (EIA RS-170 specification). The NTSC standard defines all of the parameters that allow television sets in N. America to receive broadcast signals. NTSC has a display rate of 30 frames per sec (fps) in interlaced fashion: odd lines in one pass, even lines in the next. The vertical resolution is determined by the number of rasters (scan lines). It actually consists of 525 scan lines, but due to 'vertical blanking intervals' many of these drop out, resulting in 484 lines. In actual practice this is usually reduced to 352 lines. Thus, many systems advertise "352x288 lines of resolution." Horizontal resolution is determined by how small the scanning point is in the camera and the number of vertical lines that can alternate between white and black in an area as wide as the overall image is tall. Also called "composite video" because all of the video information, i.e. sync, luminance and color, are combined into a single analog signal.

Nuclear Medicine

A modality for imaging internal organs and body parts by injecting radioactive isotopes and measuring the radiation through the use of a gamma camera.

Nucleic acid

Any one of a group of high-molecular-weight substances found in the cells of all living things. They have a complex chemical structure formed of sugars (pentoses), phosphoric acid, and nitrogen bases (purines and pyrimidines). Most important are ribonucleic acid (RNA) and deoxyribonucleic acid (DNA).

Nucleotide

A subunit of DNA or RNA consisting of a nitrogenous base (adenine, guanine, thymine, or cytosine in DNA; adenine, guanine, uracil, or cytosine in RNA), a phosphate molecule, and a sugar molecule (deoxyribose in DNA and ribose in RNA). Thousands of nucleotides are linked to form a DNA or RNA molecule. See DNA, base pair, RNA.

Nucleus

The cellular organelle in eukaryotes that contains the genetic material.

Null hypothesis

An assumption about the distributions of populations that is tested against alternative hypotheses. Mostly, the null hypothesis states that there is no difference between the populations.

N

Number code

A code formed by assigning a number (sequential, random) to a class.

Number Needed to Treat (NNT)

The number of patients who need to be treated to prevent one bad outcome. It is the inverse of the ARR:

Number sense

An understanding of number. This would include number meanings, number relationships, number size, and the relative effect of operations on numbers.

Number system

The representation of numbers by using different symbols. For positional number systems the number of symbols is called the base, for instance the symbols 0, 1, 2 ... 9 for the decimal number system. See also octal and hexadecimal.

Numerator

The upper portion of a fraction.

Nurse

An individual trained to care for the sick, aged, or injured. A nurse can be defined as a professional qualified by education and authorized by law to practice nursing. There are many different types, specialties, and grades of nurses. A legally qualified person, other than a member of your Immediate Family, who is licensed by the state as either: 1. A Registered Nurse (RN); 2. A Licensed Practical Nurse (LPN); 3. A Licensed Vocational Nurse (LVN); or 4. A Licensed Public Health Nurse.

Nurse practitioner

A registered nurse qualified and specially trained to provide primary care, including primary health care in homes and in ambulatory care facilities, long-term care facilities, and other health care institutions. Nurse practitioners generally function under the supervision of a physician but not necessarily in his/her or her presence. They are usually salaried rather than reimbursed on a fee-for-service basis, although the supervising physician may receive fee-for-service reimbursement for their services.

Nursing facilities

An institution that provides skilled nursing care and rehabilitation services to injured, functionally disabled, or sick persons. Formerly, distinctions were made between intermediate care facilities (ICFs) and skilled nursing facilities (SNFs). The Omnibus Budget Reconciliation Act of 1987 eliminated this distinction effective October 1, 1990, by requiring all nursing facilities to meet SNF certification requirements.

Nursing home

Includes a wide range of institutions which provide various levels of maintenance and personal or nursing care to people who are unable to care for themselves and who have health problems which range from minimal to very serious. The term includes free-standing institutions, or identifiable components of other health facilities which provide nursing care and related services, personal care, and residential care. Nursing homes include skilled nursing facilities and extended care facilities but not boarding homes.

Nursing informatics

Analyzing, formalizing, and modeling how nurses collect, manage, and process data.

Nursing information system

An information system handling nursing data.

Nursing record

Part of the patient record, mainly used by nurses.

Object

(1) In a model, a representation for a concept in the world; an entity. (2) In object-oriented programming, a software construct that encapsulates both a description of some entity and program fragments that affect the behaviors that that entity is capable of exhibiting.

Object class

A set of objects that have common characteristics.

Object code

Instructions in binary code that can be executed by a computer with no or with minimal translation. Syn: machine code; Ant: source code.

Object language

The formal language for object codes. Ant: object language.

Object modeling

The objective of object modeling is to understand and describe an environment in terms of its objects while embracing the concepts of abstraction, encapsulation, modularity, hierarchy, typing, concurrence and persistence.

Object oriented

Method in which an object is considered to be an instance of a more general type. The properties of an object are encapsulated (e.g., a record with its (encapsulated) data structure together with the operations allowed for this record forms an object). Descendants of an object inherit the properties of their ancestors, thus creating a taxonomy of objects. Object-oriented methods are applied in object-oriented modeling, in object-oriented databases, and in object oriented programming.

Objective

(1) A measurable state that is expected to exist at a predetermined place and time as a result of the application of procedures and resources. (2) Realistically attainable end. (3) Those ends towards which an individual's or an agency's motives are directed; the desired or expected outcomes. (4) Pertaining to a phenomenon or clinical finding that is observed; not subjective. An objective finding is often described in health care as a sign, as distinguished from a symptom, which is a subjective finding. (5) The end result a programme seeks to achieve. 'Objective', 'goal' and 'target' are all defined as a desired end-state sought by a programme or sub-programme. Since there are widespread differences in the ways in which various administrative systems relate these terms to each other - As to which are more general and more specific - this rather gross generalization seems unavoidable. Schaefer M. Concepts and issues of programme evaluation in environmental health. Geneva, World Health Organization, 1972.

Objective data collection

The process in which data relating to the client's problem are obtained by an observer through direct physical examination, including observation, palpation and auscultation, and by laboratory analyses and radiological and other studies. Compare subjective data collection.

Object-oriented (development)

An approach to developing software where every component represents an object in the real world, its attributes, and its possible actions; objects can be grouped in classes to facilitate attribute and action assignments.

Object-oriented database

Besides data storage, an object-oriented DBMS provides mechanisms for specifying data semantics and for implementing methods that perform database operations. A set of related records can be seen as one object, and associated with the object are methods for setting and updating fields contained in the object, for preserving its integrity, and for doing special computations.

Object-oriented modeling

Conceptual modeling that uses object-oriented means such as object classes and their relationships.

Object-oriented programming

Type of programming language in which parts of the program are organized as objects; that is, functions and data structure are located within the object and are accessible only via a formal interface. This encapsulation prohibits undesired side effects when an object is used by different parts of the program. Object-oriented programming makes it possible that child objects inherit the properties of the parent object.

Observation

The acquisition of data, relevant to decrease the uncertainty about the state of a patient.

Observation day

Patients may be put in a bed for observation, either in the emergency room or holding area to determine whether or not they require admission. A patient is an observation day patient for a one- to 23-hour period. Usually, if a patient is held for more than 24 hours, the patient becomes an inpatient.

Observational study

Epidemiological study in situations where nature is allowed to take its course. Changes or differences in one characteristic are studied in relation to changes or differences in others, without the intervention of the investigator.

Occult blood

Blood that is not apparent grossly appears from a nonspecific source, with obscure signs and symptoms. It may be detected by means of a chemical test or by microscopic or spectroscopic examination. Occult blood is often present in the stools of patients with gastrointestinal lesions.

Occult blood test

A test for the presence of microscopic amounts of blood in the feces secondary to bleeding in the digestive tract. Normally only minimal amounts of occult blood are passed into the gastrointestinal tract. Ordinarily this bleeding is not significant enough to cause a positive result for occult blood testing. Benign and malignant gastrointestinal tumors, ulcers, inflammatory bowel disease, arteriovenous malformations, diverticulosis and hematomata can cause the appearance of occult blood in the stool, as can swallowed blood from oral or nasal pharyngeal bleeding.

Occupancy rate

A measure of inpatient health facility use, determined by dividing available bed days by patient days. It measures the average percentage of a hospital's beds occupied and may be institution-wide or specific for one department or service.

Occupational disability

A condition in which a worker is unable to perform the functions required to complete a job satisfactorily because of an occupational disease or an occupational accident.

Occupational disease

A disease that results from a particular employment, usually from the effect of long-term exposure to specific substances or continuous or repetitive physical acts.

Occupational health

(1) Activities undertaken to protect and promote the health and safety of employees in the workplace, including minimizing exposure to hazardous substances, evaluating work practices and environments to reduce injury, and reducing or eliminating other health threats. (2) The ability of a worker to function at an optimum level of well-being at a worksite as reflected in terms of productivity, work attendance, disability compensation claims, and employment longevity.

Occupational health services

Health services concerned with the physical, mental, and social well-being of an individual in relation to his/her working environment and with the adjustment of individuals to their work. The term applies to more than the safety of the workplace and includes health and job satisfaction. In the U.S., the principal Federal statute concerned with occupational health is the Occupational Safety and Health Act administered by the Occupational Safety and Health Administration (OSHA) and the National Institute of Occupational Safety and Health (NIOSH).

Occupational history

A part of the health history in which questions are asked about the person's occupation, source of income, effects of the work on worker's health or the worker's health on the job, the duration of the job, and to what degree of the occupation satisfies the person. Any adverse effects known to be associated with the work or the place of work are investigated by further questions by the interviewer; for example, a tennis player might be asked about musculoskeletal problems; or a taxi driver about functions of the urinary tract.

Occupational medicine

A field of preventive medicine concerned with the medical problems and practices relating to occupations and especially to the health of workers in various industries.

Occupational therapy

Therapy designed to increase and restore independence to perform day-to-day functions for victims of accident, illness or disability.

OCIS

(Oncology Clinical Information System) One of the first comprehensive departmental information systems, assisting both with information access and decision support developed at Johns Hopkins University Hospital in Baltimore, Md.

OCR

OCR stands for Optical Character Recognition. OCR software converts the characters in an image into text for use with word processing programs.

Octal

A number expressed in a number system with base 8.

Ocular tube adapter

Allows a camera to be mounted to any microscope. This feature is needed to adapt a telepathology system to an existing ocular microscope without a camera port. Capturing images through an ocular tube has some disadvantages that must be weighed against the cost of a new scope.

Odds

A ratio of nonevents to events. If the event rate for a disease is 0.1 (10 per cent), its nonevent rate is 0.9 and therefore its odds are 9:1. Note that this is not the same expression as the inverse of event rate.

Odds ratio

(1) The ratio of the number of events and the number of nonevents in two groups, differing in the exposition to a risk factor. (2) A comparison of the presence of a risk factor for disease in a sample of diseased subjects and non diseased controls. The number of people with disease who were exposed to a risk factor (I_e) over those with disease who were not exposed (I_o) divided by those without disease who were exposed (Ne) over those without who were not exposed (No). Thus $OR = (I_e/I_o)/(Ne/No) = I_e No / I_o Ne$. This measure should be used for case control studies where we retrospectively look at risks in those with and without disease. Also known as exposure odds ratio. (3) When used to summarise an overview or for individual studies on treatment, diagnosis, causation, or prognosis, an odds ratio (OR) describes the odds of an experimental patient having an adverse event relative to a control patient. We can calculate the odds of having an event (for patients in the same group) by dividing the number for whom the event occurs by the number for whom it does not occur. The OR is then calculated by dividing

O

the odds in one group by those in the comparison group. From this definition, it follows (for treatments, for example) that efficacious treatments generate ORs <1 , which is analogous to the relative risk (RR) of the adverse event happening (experimental event rate [EER]/control event rate [CER]) being <1 . However, if we mistakenly interpret odds as if they were RRs, we will exaggerate the latter, especially when events are more common. Thus, if a treatment halves the risk of an event, so that 20 (a) experimental patients have an event and 80 (b) do not, whereas 40 (c) control patients have an event and 60 (d) do not, although the RR declines to 0.5, the OR calculated as $(a/b)/(c/d)$ or ad/bc or $(20 \times 60)/(80 \times 40)$ declines all the way to 0.375. As a result, number needed to treat (NNT) calculations are more difficult and must take into account individual patient expected event rates.

OEM

Original equipment manufacturer.

Off-line

Not connected to a computer. Ant on-line.

OHC

Occupational health care: services used to prevent work-related diseases, to promote and maintain employees' health and working ability, and to restore working ability to those with a diminished working ability.

OLAP

(On-Line Analytical Processing) An OLAP application analyzes large on-line databases to extract statistical information.

OLE

(Object Linking and Embedding) A Microsoft method to link (make a connection) or embed (inserting information) objects from other applications into an application.

Omnibus Budget Reconciliation Act (OBRA)

Federal laws which direct how federal funds are to be spent. Amendments to Medicaid eligibility and benefits are often made in such Acts.

ONCOGIN

Decision-support system for the treatment of cancer patients.

Oncogene

A potentially cancer-inducing gene. Under normal conditions such genes play a role in the growth and proliferation of cells, but, when altered in some way by a cancer-causing agent such as radiation, a carcinogenic chemical, or an oncogenic virus, they may cause the cell to be transformed to a malignant state.

Oncogenesis

The process initiating and promoting the development of a neoplasm through the action of biologic, chemical, or physical agents. Compare carcinogenesis, sarcomagenesis, tumorigenesis.

Oncology

(1) The branch of medicine concerned with the study of malignancy; (2) The study of cancerous growths.

On-demand pacemaker

A pacemaker that starts triggering the heart only when an implanted device detects an irregular heart rate, or a heart rate that is too low, or an insufficient voltage.

On-line

(1) For equipment, directly coupled to and under control of a central computer. (2) For a user, directly communicating with a computer.

Ontology

A domain of discourse for describing some reality. A set of concepts, the attributes of those concepts, and the relationships among concepts that characterize a given application area.

OPAL

An interactive, graphical knowledge acquisition system for ONCOCIN.

Open

(1) A term denoting that a system not only is able to run programs developed for that system or to be connected with systems of the same type, but that intentionally has been designed to accept programs or connections from various origins. See also UNIX and OSI. (2) Sentence a statement that contains at least one unknown. It becomes true or false when a quantity is substituted for the unknown. For example, $3+x=5$.

Open access

A term describing a member's ability to self-refer for specialty care. Open access arrangements allow a member to see a participating provider without a referral from another doctor. This arrangement may also be called an Open Panel.

Open enrollment

(1) The annual period during which people can choose among the plans being offered by their place of employment. Also the period during which a federally qualified HMO must make its plan available without restrictions to individuals who are not part of a group. (2) The time, usually preceding the beginning of a health plan contract year, when members (employees) are permitted to enroll in or transfer between available health care plans.

Open enrollment period

A period during which subscribers in a health benefit program have an opportunity to select among health plans being offered to them, usually without evidence of insurability or waiting periods. This also can be the period in which covered members can make changes in the policy that they had previously selected.

Open panel

A managed care plan that contracts (either directly or indirectly) with private physicians to deliver care in their own offices. Examples include a direct contract HMO and an IPA.

Operand

Something on which an operator works.

Operating cost

In the health field, the financial requirements necessary to operate an activity which provides health services. These costs normally include the costs of personnel, materials, overhead, depreciation, and interest.

Operating cycle of a business

The average period of time between acquisition of merchandise or materials by a business and realization of cash from the sale of merchandise or products manufactured from raw materials.

Operating margin

(1) A portion of net income attributable to the excess of operating revenue over expenses; this measure is used by many analysts as the primary indicator of hospital profitability. (2) Revenues from sales minus current cost of goods sold. A measure of operating efficiency that is independent of the cost flow assumption for inventory. Sometimes called "current (gross) margin."

Operating revenue

Amounts accrued or charged to customers, clients, and tenants, for the sale of products manufactured or purchased for resale, for services, and for rental of property held primarily for leasing to others.

Operating system

The set of programs that control the computer. The main tasks are I/O control, starting and stopping of programs, and scheduling resources.

Operator

(1) A person who is in charge of the daily operation of a computer system. (2) Indicator for some action, e.g., multiplication or AND, on variables or expressions.

Opioid agonist

Any morphine-like compound that produces bodily effects including pain relief, sedation, constipation, and respiratory depression.

Opportunity costs

The value of opportunities foregone because of an intervention project.

Optical card

Plastic card the size of a credit card on which data are stored optically.

Optical coherence tomography (OCT)

Optical technique whereby computerized images are produced from photons reflected back from light passing through tissue, with each tissue creating a unique spectral signature. Present studies indicate accuracy is limited to depths of 4 mm, but represents a significant improvement in diagnostic capability over surface viewing as is presently obtained in standard endoscopies. Future studies may include the use of dyes and fluorescent markers for visualization and differentiation between benign and malignant tissues.

Optical storage

Storage of digital data by optical means (via laser beams) (see also CD).

Optimal health

Optimal health is a balance of physical, emotional, social, spiritual and intellectual health.

Optimization problems

Real-world problems in which, given a number of constraints, the best solution is determined. For example, finding the best number of nonstop flights from Denver to San Francisco given the cost of fuel, number of passengers, number of crew required, etc.

Optional services or benefits

Over 30 different services which a state can elect to cover under a State Medicaid plan. Examples include Personal Care, Rehabilitative Services, Prescribed Drugs, Therapies, Diagnostic Services, ICF-MR, Targeted Case Management, etc.

OR

Binary logical operator, yielding only FALSE as result when both operands are FALSE.

Order management

A system that handles physician's and nurse's orders for diagnostic and therapeutic actions. Input is done by the requesters themselves. Tracing of the order and data management of the reports are done by the system.

Order-entry system

Part of an HIS that handles the orders of physicians and nurses to laboratories, the pharmacy department, etc.

Order-management system

A system that processes requests for services, tracks the progress of that request, and handles the results of these actions.

Ordinal data

A type of data that can be ordered according to a code derived from the data. (e.g., stages of an

disease or a code for the quality of life).

Ordinal scale

Classification into ordered qualitative categories; e.g., social class (I, II, III, etc.), where the values have a distinct order, but their categories are qualitative in that there is no natural (numerical) distance between their positive values.

Organ

A structural part of a system of the body that is composed of tissues and cells that enable it to perform a particular function, such as the liver, spleen, digestive organs, reproductive organs, or organs of special sense. Each one of the paired organs can function independently of the other. The liver, pancreas, spleen, and brain may maintain normal or near normal function with over 30% of the organ damaged, destroyed or excised. Also called organon, organum.

Organism

An individual living animal or plant able to carry on life function through mutually dependent systems and organs.

Organization

The condition or manner of being organized.

Organization center

A focal point within the developing embryo from which the organism grows and differentiates. In vertebrates this point is chorda-mesoderm of the dorsal lip of the blastopore.

Organization diagnostics

The process of identifying organization problems with individuals, processes, procedures, technology, culture, etc.

Organize

To arrange by systematic planning.

Organizer

Any part of the embryo that induces morphologic differentiation in some other part. Those parts that are formed and in turn give rise to other parts are classified as organizers of the second degree, and so on as the embryo develops in complexity. Kinds of organizers include nucleolar organizer, primary organizer.

Orthogonal

Perpendicular (for two items) or pairwise perpendicular (for more items).

OS/2

A Windows-oriented operating system for PCs manufactured by IBM.

OSI

Open Systems Interconnection reference model developed by ISO that describes in a seven-layer stack, each needing its own standards, the functionality of the communications software and the interrelation of the tasks.

Other teaching hospitals

Hospitals with an approved graduate medical education program and a ratio of interns and residents to beds of less than 0.25.

Ottawa Charter for Health Promotion

See Health promotion.

Outbreak

Synonymous with epidemic. Sometimes the preferred word, as it may escape sensationalism associated with the word epidemic. Alternatively, a localized as opposed to generalized epidemic.

Outcome

(1) The condition of a client at the end of therapy or a disease process, including the degree of wellness and the need for continuing care, medication, support, counseling, or education. (2) The consequence of a medical intervention on a patient.

Outcome data

Information collected to evaluate the capacity of a client to function at a level described in the outcome statement of a nursing plan or in standards for client care.

Outcome evaluation

Outcome evaluation is used to obtain descriptive data on a project and to document short-term results. Task-focused results are those that describe the output of the activity (e.g., the number of public inquiries received as a result of a public service announcement). Short-term results describe the immediate effects of the project on the target audience (e.g., percent of the target audience showing increased awareness of the subject). Information that can result from an outcome evaluation includes: knowledge and attitude changes; expressed intentions of the target audience; short-term or intermediate behavior shifts; and policies initiated or other institutional changes made.

Outcome measure

(1) A measure of the quality of medical care, the standard against which the end result of the intervention is assessed. (2) An evaluation of the results of treatment for a particular disease or condition, generally measured in terms of a patient's ability to function, quality of life and length of life.

Outcome measurement

Assessments which gauge the effect or results of treatment for a particular disease or condition. Outcome measures include the patient's perception of improvements - changes, quality of life and functional status. Outcome measures also use objective measures of mortality, morbidity and health status as well as a process of systematically measuring individual or collective clinical treatment and response to that treatment.

Outcome measures

Assessments which gauge the effect or results of treatment for a particular disease or condition. Outcome measures include the patient's perception of restoration of function, quality of life and functional status, as well as objective measures of mortality, morbidity and health status.

Outcome standards

Long-term objectives that define optimal, measurable future levels of health status, maximum acceptable levels of disease, injury, or dysfunction, or prevalence of risk factors.

Outcomes

Outcomes are the result of preventive health measures, medical services or prescription drug treatment. Managed care organizations are developing comprehensive systems for measuring and improving outcomes.

Outcomes and Effectiveness Research

(Sometimes called Outcomes Research) - Medical or health services research that attempts to identify the clinical outcomes (including mortality, morbidity, and functional status) of the delivery of health care.

Outcomes management

Systematically improving health care results, typically by modifying practices in response to data gleaned through outcomes measurement, then remeasuring and remodifying-often in a formal program of continuous quality improvement.

Outcomes measurement and management

The ongoing process of gathering data on clinical outcomes in any of a number of areas, and measuring, comparing, analyzing and using the data in order to improve patient care and the

care delivery process.

Outcomes research

Research on measures of changes in patient outcomes, that is, patient health status and satisfaction, resulting from specific medical and health interventions. Attributing changes in outcomes to medical care requires distinguishing the effects of care from the effects of the many other factors that influence patients' health and satisfaction.

Outlier

(1) A hospital admission requiring either substantially more expense or a much longer length of stay than average. Under DRG reimbursement, outliers are given exceptional treatment (subject to peer review and organization review). (2) Cases with extremely long lengths of stay (day outliers) or extraordinarily high costs (cost outliers) compared with others classified in the same diagnosis-related group. Hospitals receive additional PPS payment for these cases.

Outlier

Observation with an extreme value.

Out-of-Pocket Costs

(1) The term given to health care expenditures paid directly from a patient to a physician or other provider. These expenses include payments for services not paid by an insurer, and uncovered prescription costs. (2) Total costs paid directly by consumers for insurance co-payment and deductibles, prescription or over-the-counter drugs, and other services.

Out-of-Area

Refers to the treatment given an HMO member outside the geographical limits of his own HMO. The coverage generally is restricted to emergency services.

Out-of-Network

(1) Health care services and treatment not received from a network provider. Many health plans offer lower benefits (higher out-of-pocket expenses) or no benefits when members receive benefits out-of-network. (2) Not in the HMO's network of selected and approved doctors and hospitals. HMO members who get care out-of-network (sometimes called out-of-area) without getting permission from the HMO to do so may have to pay for all or most of that care themselves. Exceptions are usually made for extreme emergencies or urgent care needed when traveling away from home.

Out-of-Pocket Expense

Payments made by an individual for medical services. These may include direct payments to providers as well as payments for deductibles and coinsurance for covered services, for services not covered by the plan, for provider charges in excess of the plan's limits, and for enrollee premium payments.

Out-of-Pocket Maximum

(1) The maximum amount you must pay for eligible expenses each year before the health plan begins paying 100 percent of subsequent eligible expenses in that year. Most health plans state an out-of-pocket maximum that limits the amount a member must pay as part of his/her share (through co-payments and co-insurance) of covered medical expenses. Once the member has paid so much out-of-pocket, the health plan will then cover all future covered expenses at 100% for the remainder of the year. This limits the liability of a member in the case of high medical bills. Depending on the plan, deductibles and co-payments may or may not be counted toward the out-of-pocket maximum amount. (2) The total amount paid each year by the member for the deductible and coinsurance. After reaching the out-of-pocket maximum, the plan pays 100% of the allowable charges for covered services for the rest of that calendar year.

Outpatient

A patient who is receiving ambulatory care at a hospital or other facility without being admitted to the facility. Usually, it does not mean people receiving services from a physician's office or other program which also does not provide inpatient care.

Outpatient care

Care that is provided to patients who are not admitted to a health care facility.

Outpatient service

A medical service rendered to a patient without an overnight stay.

Outpatient volume adjustment

The average daily census of a hospital is normally adjusted for outpatient volume by multiplying it by the ratio of total gross patient revenue to inpatient revenue.

Outsourcing

Contracting out information systems handling to a third party.

Overcapacity

A situation in which a hospital or hospital-based system has more inpatient beds than needed by its patient population; also applies to the concept of entire markets, regions or the overall health care system having more beds than needed, particularly in an operating environment becoming more and more dominated by managed care and capitation.

Overhead

The general costs of operating an entity which are allocated to all the revenue producing operations of the entity but which are not directly attributable to a single activity. For a hospital, these costs normally include maintenance of plant, occupancy costs, housekeeping, administration, and others.

Overhead pool

A term that is often used to describe a type of indirect cost pool in which common costs related to a one or more groups of cost objectives are accumulated. Although the term frequently is used in a comparatively broad sense, it is probably most often employed for the purpose of designating pools that contain costs that are general in nature, such as indirect labor, rent, supplies, insurance, and depreciation. An overhead pool is often used to accumulate costs that are distinct from those necessary to the overall operation of a business (which are often termed "general and administrative" costs), or those that may have a greater degree of commonality (such as employee fringe benefits). Overhead pools are commonly established using a variety of indicators of allocability such as costs associated with individual business units, geographic locations, or groups of related cost objectives.

Overhead rate

An indirect cost rate which expresses the relationship between costs accumulated in an overhead pool and the related base for allocating such costs, for a given period of time. A typical allocation base for an overhead pool is the related direct labor dollars.

Overview

A systematic review and summary of the medical literature.

Ownership

The general accepted principle is that the primary patient record is maintained and owned by the health care provider. The patient generally has control over the release of patient-identifiable (confidential) information.

Oximetry

Determination of the oxygen saturation of arterial blood, typically by means of an external probe applied around a finger or toe.

Oxytocin

Uterus-contracting hormone administered to accelerate parturition.

Pacemaker

(1) The sinoatrial node composed of specialized nervous tissue located at the junction of the superior vena cava and the right atrium. It initiates the contractions of the atria, which transmit the impulse on to the atrioventricular (AV) node, thereby initiating the contraction of the ventricles. An ectopic or indioventricular pacemaker, originating in the atria, AV node, or ventricle, may cause contractions in cases of abnormal heart functions; (2) Also called cardiac pacemaker, an electric apparatus used in most cases to increase the heart rate in severe bradycardia by electrically stimulating the heart muscle. A pacemaker may be permanent or temporary, emit the stimulus at a constant and fixed rate, or fire only on demand, when the heart does not spontaneously contract at a minimum rate.

Packet

A basic message unit for communications in networks. A short block of data comprised of data, call control signals and error control information and containing information on its source, content and destination that is transferred in a packet switched network.

Packet network

A network that gives out data bits in packets.

Packet switching

The method used to move data around on the Internet. In packet switching, all the data coming out of a machine is broken up into chunks, each chunk has the address of where it came from and where it is going. This enables chunks of data from many different sources to co-mingle on the same lines, and be sorted and directed to different routes by special machines along the way. This way many people can use the same lines at the same time. This 'invention' made the Internet possible.

PACO

Principal Administrative Contracting Officer.

PACS

(Picture Archiving and Communications System) Storage, retrieval, manipulation, display and communication of digital images. Computer-based image management and communications systems for the creation of a totally electronic radiology department.

Page

An HTML (hypertext markup language) document that may contain text, images, another on-line elements, such as Java applets and multimedia files.

Page view

The number of time a page was downloaded by users, often measured as a function of time ("page views per day"). The actual number of times the page was seen by users may be higher because of "caching".

Paid Amount

The portion of a submitted charge that is actually paid by both third-party payers and the insured, including copayments and balance bills. For Medicare this amount may be less than the allowed charge if the submitted charge is less. or it may be more because of balance billing. See Allowed Charge, Balance Billing, Payment Rate, Submitted Charge.

Paid-up insurance

A life insurance policy on which all premiums have been paid.

Pain

(1) An unpleasant sensation caused by noxious stimulation of the sensory nerve endings. It is a subjective feeling and an individual response to the cause. Pain is a cardinal symptom of inflammation and is valuable in the diagnosis of many disorders and conditions. It may be mild or severe, chronic, acute, lancinating, burning, dull or sharp, precisely or poorly localized, or referred. (2) A nursing diagnosis accepted by the Fourth National Conference on the

P

Classification of Nursing Diagnoses (revised 1996). Pain is defined as an unpleasant sensory and emotional experience arising from actual or potential tissue damage or described in terms of such damage; sudden or slow onset of any intensity from mild to severe with an anticipated or predictable end and a duration of less than 6 months.

Pain assessment

An evaluation of the reported pain and the factors that alleviate or exacerbate it, used as an aid in the diagnosis and the treatment of disease and trauma. Responses to pain vary widely among individuals, depending on many different physical and psychological factors, such as specific diseases and injuries and the health, pain threshold, fear, anxiety, and cultural background of the individual involved, as well as the way the person expresses pain experiences.

Pain chronic

A nursing diagnosis accepted by the Seventh National Conference on the Classification of Nursing Diagnoses (revised 1996). Chronic pain is defined as an unpleasant sensory and emotional experience arising from actual or potential tissue damage or described in terms of such damage (International Association for the Study of Pain); sudden or slow onset of any intensity from mild to severe; constant or recurring without an anticipated or predictable end; and a duration of greater than 6 months.

Pain intervention

The relief of the painful sensation experienced in suffering the physiologic and psychological effects of disease and trauma. Effective pain intervention depends on proper evaluation of the type of pain the patient is in, and the behavioral patterns commonly associated with different kinds of pain. The most common method of pain intervention is the administration of narcotics, such as morphine, but many authorities believe that the exclusive use of pain killing drugs without consideration and implementation of psychological aids is too narrow an approach. There are few patients without a psychogenic overlay on the physical experience of pain, and comprehensive pain intervention employs methods and procedures that incorporate both psychological and physical measures. Methods of pain intervention for acute pain are different from those for chronic pain. Acute pain, occurring in the first 24 to 48 hours after surgery, is often difficult to relieve and narcotics seldom alleviate it completely. Some authorities believe that the individual who has undergone repeated surgical operations has a decreased tolerance for pain. The type of pain intervention usually depends on description of the pain by the individual experiencing it. Mild pain may best be relieved by comfort measures and the distraction afforded by television, visitors, reading and other passive activities. Moderate pain may best be relieved by combination of comfort measures and drugs. Cognitive dissonance often employed to dampen moderate pain and courage the patient to reflect on pleasant experiences and describe them to health care personnel. Intervention to relieve severe pain often includes the administration of narcotics purposeful interaction between the patient, attending personnel, reduction of environmental stimuli, increased comfort measures, and "waking imagined analgesia", in which the patient is encouraged to concentrate on and become distracted by former pleasant experiences, such as relaxing on beach surrounded by cool ocean water. In the alleviation of all types of pain dampening or decreasing stimuli that create pain is the chief goal. Pain often increases in cold room because the muscles of the patient tend to contract, but the local application of cold such as with an ice pack, often alleviates pain by reducing swelling. Pain intervention seeks to reduce the effects of other factors that compound pain, such as fatigue and anxiety. Coping with pain becomes increasingly difficult as the patient becomes more tired. Sensory restriction may increase pain because it blocks otherwise effective distraction; over stimulation may cause fatigue and anxiety, thus increasing pain. Religious beliefs may be effective in helping the patient to decrease pain or increase tolerance if the pain is viewed by the patient as requiring self-discipline or as providing catharsis for past transgressions. Religious beliefs, however, may increase pain if the patient interprets it as punishment and relates its severity to the gravity of transgressions or faults. Pain intervention by the use of drugs includes the administration of mild nonnarcotic analgesics and of much more potent and potentially addictive opioids, such as morphine. Opioid analgesics administered for the relief of pain, cough, or diarrhea provide only symptomatic treatment and are used cautiously in the care of patients with acute or chronic diseases. They may obscure the symptoms or the progress of the disease, and repeat daily administration of any opioid eventually produces some tolerance to the therapeutic effects of the drug and some physical dependence of the dosage. The risk of

P

development of psychological and physical dependency on any drug is always present, especially with opioids. In usual doses opioids relieve suffering by altering emotional component of the painful experience and by effecting analgesia. Some caregivers are so concerned about the addictive dangers of opioids that they tend to prescribe initial doses that are too low or too infrequent to alleviate pain. A typical dose of 10mg of morphine relieves postoperative pain in only 2/3 of patients; some patients may require considerably more than the average dose to experience adequate relief. Some other patients with more rapid metabolisms may require such drugs at shorter intervals. Many drugs are appropriate substitutes for the potent opioids morphine and codeine. Some of the effective semisynthetic substitutes are hydrocodone, dihydrocodeine and meperidine. The narcotic analgesics act on the central nervous system, but the salicylates and other nonnarcotic drugs act at the site of the origin of the pain. Some nonnarcotic drugs, such as aspirin, indomethacin, ibuprofen or naproxen, also have inflammatory and antipyretic activity. In patients who are sensitive to or unable to take aspirin, acetaminophen is an acceptable substitute, as are the nonsteroidal anti-inflammatory drugs. Pain intervention in the treatment of terminal illnesses employs numerous drugs that relieve pain and produce euphoria and tranquillity in patients who would otherwise suffer greatly. Analgesic mixtures of opioids and alcoholic solutions may be prescribed. Nerve block by the injection of alcohol, chloroform, and other neurosurgical interventions may sometimes be employed. Other techniques include acupuncture; hypnosis; behavior modification, in which treatment consists of reducing medication and gradually increasing mobility through exercise and any other appropriate modality; biofeedback; and transcutaneous electrical nerve stimulation. The latter technique is a noninvasive and nonaddictive method of modifying pain messages to the brain.

Pain pathway

The network that communicates unpleasant sensations and the perceptions of noxious stimuli throughout the body in association with physical disease and trauma involving tissue damage. The gate control theory of pain is an attempt to explain the role of the nervous system in the pain response. It states that pain signals that reach the nervous system excite a group of small neurons that form a "pain pool". When the total activity of these neurons reaches a minimum level, a theoretic gate opens up and allows the pain signals to proceed to higher brain centers. The areas in which the gates operate are considered to be in the spinal cord dorsal horn and the brainstem. The pattern theory holds that the intensity of a stimulus evokes a specific pattern, which is interpreted by the brain as pain. This perception is the result of the intensity and frequency of stimulation of a nonspecific end organ. Some authorities believe that bradykinin and histamine, two chemical substances produced by the body, cause pain. Recently discovered pain killers produced naturally by the body are the enkephalins and the endorphins. Some studies indicate that the enkephalins are 10 times as potent as morphine in reducing pain. It is known that after histamine and some other naturally occurring chemical substances are released in the body, pain sensations travel along fast-conducting and slow-conducting nerve fibers. These pain-transmitting neuropathways communicate the pain sensation to the dorsal root ganglia of the spinal cord and synapse with certain neurons in the posterior horns of the gray matter. The pain sensation is then transmitted to the reticular formation and the thalamus by neurons that form the anterolateral spinothalamic tract. It is then conveyed to various areas of the brain, such as the cortex and the hypothalamus, by synapses at the thalamus. The immediate reaction to pain is transmitted over the reflex arc by sensory fibers in the dorsal horn of the spinal cord and by synapsing motor neurons in the anterior horn. This anatomic pattern of sensory and motor neurons allows the individual to move quickly at the touch of some harmful stimulus, such as extreme heat or cold. Nerve impulses alerting the individual to move away from such stimuli are simultaneously sent along efferent nerve fibers from the brain. Also called pain mechanism.

Paired t-test

A test for the comparison of normally distributed distributions of two observations for the same individuals.

PAL

(Phase Alternation Line) A European alternative to NTSC composite video signaling used in N. America, adopted in 1967. Provides greater bandwidth for chrominance, yielding better color resolution. Also, the number of scan lines is increased to 625 over NTSC's 525 (or less on the monitor). However, the frame rate is reduced to 25 fps from NTSC's 30. See SECAM, video

P

format.

Palliative Care

Care that provides comfort and relief from pain, but does not aim to cure the condition.

Palpitation

A pounding or racing of the heart. It is associated with normal emotional responses or with heart disorders. Some people may complain of pounding heart and display no evidence of heart disease, whereas others with serious heart disorders may not detect associated abnormal palpitations. Some patients complain of palpitations, after receiving digitalis because it increases the force of heart contractions.

Pandemic

An epidemic occurring over a very wide area (several countries or continents) and usually affecting a large proportion of the population.

Panzootic

A widely distributed epizootic, often one affecting more than one host species.

Paradigm

(1) Example. (2) Pattern. (3) Fundamental concept.

Paradoxical reaction

A response (e.g., to a drug) that is the opposite of the usual response, such as agitation produced in a individual patient by a drug normally considered to be a sedative.

Parallel processing

Simultaneous processing of several programs or several parts of the same program.

Parameter estimation

Estimation of the value of a population parameter and determination of the confidence interval.

Parasite

(1) Any disease causing organism. (2) An organism exhibiting an obligatory dependence on another organism, its host, which is detrimental to the host.

Parasuicide

Suicide "gesture" or "cry for help." A self-mutilating act which may or may not be motivated by a genuine desire to die. It is common in young people who are distressed but not mentally ill.

Parasympathetic system

Part of the autonomic nervous system that increases secretion, the contractility of smooth muscles, and the dilatation of blood vessels. Ant. sympathetic system.

Parity

(1) (in obstetrics) The classification of a women by the number of live-born children and stillbirths she has delivered at more than 20 weeks of gestation. Commonly parity is noted with the total number of pregnancies and represented by the letter P or the word para. A para 4 (P4) gravida 5 (G5) has had four deliveries after 20 weeks and one abortion or miscarriage before 20 weeks. Currently a more complete system is in use: the total number of pregnancies is followed by the number of deliveries at term, the number of premature infants, the number of abortions or miscarriages before 20 weeks gestation, and the number of children living at present. This system may be abbreviated as TRAL. (2) (In epidemiology) The classification of women by the number of live-born children she has delivered.

Parse

To break input into smaller pieces, e.g., parsing a sentence to obtain the various words.

PART A

Medicare hospital insurance that helps pay for medically necessary inpatient hospital care, and,

P

after a hospital stay, for inpatient care in a skilled nursing facility, for home care by a home health agency or hospice care by a licensed and certified hospice agency.

PART B

Medicare medical insurance that helps pay for medically necessary physician services, outpatient hospital services, outpatient physical therapy and speech pathology services, and a number of other medical services and supplies that are not covered by the hospital insurance. Part B will pay for certain inpatient services if the beneficiary does not have Part A.

Partial Capitation

An insurance arrangement where the payment made to a health plan is a combination of a capitated premium and payment based on actual use of services; the proportions specified for these components determine the insurance risk faced by the plan.

Partial Hospitalization

The care of patients for approximately six hours per day on an outpatient basis. Partial hospitalization is limited almost exclusively to psychiatric treatment for patients who no longer require an inpatient setting, but whose needs are such that they require fairly intensive daily treatment for long periods of time.

Partial Risk Contract

A contract between a purchaser and a health plan, in which only part of the financial risk is transferred from the purchaser to the plan. See Self-Insured Health Plan.

Participating medical group (PMG)

A physician group (a primary care or multispecialty group) that is a member of a health plan's network and, therefore, covered by that health plan.

Participating Physician

A physician who signs a participation agreement to accept assignment on all Medicare claims for one year. See Assignment.

Participating Provider

Health care professionals or organizations who have an agreement with an insurance company to accept the plan's allowable charge as payment-in-full for services. Charges not billed to the member because of these agreements are called participating provider savings.

Partnership for health promotion

A partnership for health promotion is a voluntary agreement between two or more partners to work cooperatively towards a set of shared health outcomes. Reference: new edition. Such partnerships may form a part of intersectoral collaboration for health, based on alliances for health promotion. Such partnerships may be limited by the pursuit of a clearly defined goal-such as the successful development and introduction of legislation-or may be on-going, covering a broad range of issues and initiatives.

Pascal

(1) A procedural programming language with a very well defined structure. (2) (Pa) SI unit for pressure, one Newton per square meter. 1 mmHg (pressure unit for physiological pressures) equals 133.332 Pa.

Passive carrier

A healthy person whose body carries the causal organisms of an infectious disease although the person has not contracted the disease and remains symptomless. A person who carries a gene associated with hereditary trait although the trait is not expressed in the person.

Passive immunity

Immunity which has been acquired through the transfer of maternal or other antibodies. Passive immunization does not induce immunological memory.

Passive intervention

Health promotion and disease prevention initiatives which do not require the direct involvement of the individual (e.g., fluoridation programs) are termed "passive." Most often these types of initiatives are Government sponsored.

Passive movement

The moving of parts of the body by an outside force without voluntary action or resistance by the individual.

Passive smoking

The inhalation by nonsmokers of the smoke from other people's cigarettes, pipes, and cigars. The amount of such ambient smoke inhaled by a nonsmoker is small compared with that inhaled by tobacco user. Research, however, indicates that passive smoking can aggravate respiratory illnesses and contribute to more serious illnesses, such as cancer, and can injure the health of nonsmoking spouses, infants, and unborn babies. Studies also show that individuals with chronic heart and lung disease and allergies to tobacco can be adversely affected by passive smoking.

Password

A code used to gain access to a locked system. Good passwords contain letters and non-letters.

Patient-centered care/patient-focused care

The process of organizing care delivery according to patient, rather than provider-operational, needs; often involves the restructuring of staffing and activity patterns in a provider organization.

Pathogen

A specific causative agent of disease.

Pathogenicity

The proportion of persons infected, after exposure to a causative agent, who then develop clinical disease.

Patient day

A unit of measure denoting services rendered to a patient on an inpatient basis between the census-taking hours on two successive days. A day begins at midnight and ends 24 hours later. The midnight-to-midnight method is used in reporting inpatient days. The admit day is counted as a patient day, but the discharge is not. When a patient is admitted and discharged on the same day, this is counted as one patient day. If a patient occupies the labor/delivery room or ancillary service area at midnight, this is counted as one patient day.

Patient education

Providing the patient with an explanation of perioperative procedures, expected postoperative sensations, and instruction to help decrease mobility-related discomfort.

Patient identification

(1) Identification of a patient (2) A unique code that identifies the patient and that can be used as a key to his or her data records.

Patient origin study

A study, generally undertaken by an individual health program or health planning agency, to determine the geographic distribution of the residences of the patients served by one or more health programs. Such studies help define catchment and medical trade areas and are useful in locating and planning the development of new services.

Patient record

An account of a patient's health and disease, containing findings, considerations, test results and treatment information related to the disease process. In some countries, there are separate medical records and nursing records.

Patient representative

A person who investigates and mediates patients' problems and complaints in relation to a

hospital's services.

Patient-driven data entry

Data entry, mostly concerning the anamnesis, performed by the patient before seeing the clinician.

Pattern recognition

Techniques for classifying a set of objects into a number of distinct classes by considering similarities of objects belonging to the same class and the dissimilarities of objects belonging to different classes.

Patterns

Regularities in situations such as those in nature, events, shapes, designs, and sets of numbers (for example, spirals on pineapples, geometric designs in quilts, the number sequence 3, 6, 9, 12, etc.).

Pay for Skills

Is compensation that rewards individuals for developing the various skills necessary for certain roles or jobs. (Pierson and Williams, 1994)

Payer/purchaser

A person or organization that pays or underwrites coverage for health care expenses.

Payment Rate

The total amount paid for each unit of service rendered by a health care provider, including both the amount covered by the insurer and the consumer's cost sharing: sometimes referred to as payment level. Also used to refer to capitation payments to health plans. For Medicare payments to physicians, this is the same as the allowed charge.

Payor Mix

The distribution of patients and patient revenues by different classes of payor, such as Medicare, Medicaid, Blue Cross, HMO and Worker's Compensation. Payor mix varies from market to market. In general, it reflects the population characteristics and managed care maturity of the particular service area. It is not unusual for a hospital to have between 30 and 50 percent of its revenue from Medicare.

PC

(Personal Computer) Generally, but not necessarily, IBM-compatible (as opposed to Macintosh).

PC applications conferencing

Describes the ability to run a PC application on one end of a video conference and to share that application with the PC at the other end of the video conference. This computer sharing application allows the monitors and keyboards to simultaneously interact with the computer program while in a conference. It has use primarily in administrative applications when working in a financial spreadsheet or database, and in distance learning environments when using educational software.

PC platform for data/applications access and storage

Indicates if a personal computer (PC) is integrated into the system and is available for use by PC applications.

PCA

(Patient Controlled Analgesia) Self-administration of an analgesic by a patient instructed in doing so; usually refers to self-dosing with intravenous opioid (e.g., morphine) administered by means of a programmable pump.

PC-DOS

Operating system for PCs.

P

PCL

(1) Printer Control Language, a language used to control a printer. (2) Posterior cruciate ligament

PCM

(Pulse Code Modulation) A process of encoding audio signals.

PCR

(1) Parent-child relationship: a hierarchical relationship between records in a database. Child records are dependent on the parent record. PCRs are used in the hierarchical data model. (2) See polymerase chain reaction.

PDA

(Personal Digital Assistant) A pocket-size computer used as organizer and for data entry.

PDF

(Portable Document Format) A widely used Adobe Acrobat file format

PDMS

Patient data management system: a computer system that manages patient data (acquisition, storage, data processing, and presentation).

PDQ

A base for oncology clinical trial protocols developed by the National Cancer Institute in the United States.

PEBB

Public Employees Benefits Boards. Oversees insurance for Washington state employees and teachers and is managed by the state Health Care Authority.

Pediatric hospital

A hospital geared toward treating diseases and illnesses found in children.

Peer review

Generally, the evaluation by practicing physicians or other professionals of the effectiveness and efficiency of services ordered or performed by other members of the profession (peers). Frequently, peer review refers to the activities of the Professional Review Organizations, and also to review of research by other researchers.

Peer Review Organization (PRO)

(1) An organization contracting with HCFA (Health Care Financing Administration) to review the medical necessity and the quality of care provided to Medicare beneficiaries; formerly called Utilization and Quality Control Peer Review Organization. (2) An organization that contracts with HCFA to investigate the quality of health care furnished to Medicare beneficiaries and to educate beneficiaries and providers. PROs also conduct limited review of medical records and claims to evaluate the appropriateness of care provided. An organization established to review the quality of care and appropriateness of admissions, readmissions and discharges for Medicare and Medicaid patients.

Pegylation

The modification of a pure protein with polyethylene glycol (PEG) on the protein surface.

Pen-based input

Input into a computer by means of a pen-like device whose movements are observed and interpreted by a computer.

Per Capita Health Care Spending

Annual spending on health care per person. (AMA, 1993)

Per capita rate

A rate which is proportional to the number of individuals in a population.

Per Diem

A method of payment in which inpatient care is reimbursed on a fixed sum per day. Per diem rates vary for hospital care from market to market. In mature managed care markets, per diems between \$500 and \$700 are typical. In other less mature managed care markets, per diems of \$850 to over \$1,000 per day are still paid.

Per Diem Cost

Cost per day; hospital or other institutional cost for a day of care.

Per Diem Payments

Fixed daily payments that do not vary with the level of services used by the patient. This method generally is used to pay institutional providers, such as hospitals and nursing facilities. (See also Capitation.)

Per Diem Reimbursement

Reimbursement of an institution, usually a hospital, based on a set rate per day rather than on charges. Per diem reimbursement can be varied by service (e.g., medical/surgical, obstetrics, mental health, and intensive care) or can be uniform regardless of intensity of services.

Per Member Per Month (PMPM)

The unit of measure related to each member for each month the member was enrolled in a managed care plan. The calculation is: # of units/member months (MM).

Per Member Per Year (PMPY)

Generally used by HMOs and their medical providers as an indicator of revenue, expenses or utilization of services per member per year; .e.g., Our patients come in to see the doctor on an average of 3.7 times per member per year.

Percentage-of-completion method of accounting

A method of revenue recognition for long-term contracts (i.e., contracts which span more than one fiscal period) under which a portion of the total contract revenue, and a share of contract costs, is recorded in each period based on the relative cost or effort applied during that period. This method stands in contrast to the completed contract method of accounting, and is considered appropriate when the total cost of performing the contract and, accordingly, the ultimate profit to be recognized thereon, is reasonably determinable and predictable.

Percentile

The set of numbers from 0 to 100 that divide a distribution into 100 parts of equal area, or divide a set of ranked data into 100 class intervals with each interval containing 1/100 of the observations. A particular percentile, say the 5th percentile, is a cut point with 5 percent of the observations below it and the remaining 95% of the observations above it.

Perception

(1) Apprehension of the elements of the environment through physical. (2) The act of getting a mental image (a concept).

Perceptron

Early statistical method for the classification of objects that can be trained by using a learning population. The perceptron is the predecessor of artificial neural networks.

Percutaneous transluminal coronary angioplasty (PTCA)

Process by which an angioplasty balloon is inserted percutaneously into the arterial system and advanced to the area of stenosis, at which time, the balloon is inflated, reopening the stenosed lumen.

Performance Measure

A specific measure of how well a health plan does in providing health services to its enrolled

P

population. Can be used as a measure of quality. Examples include percentage of diabetics receiving annual referrals for eye care, mammography rate, or percentage of enrollees indicating satisfaction with care.

Performance Standard

Standards an individual provider is expected to meet, especially with respect to quality of care. The standards may define a volume of care delivered to a provider's enrollees during a time period.

Period of Care

Means a period of time, after the Wait Period, during which you are receiving Long-term Care due to (a) an inability to perform two or more Activities of Daily Living; or (2) a Cognitive Impairment. A Period of Care begins on the first day you receive and are paid for Long-term Care through your Service Plan and ends when you are no longer receiving services or the period specified in your Service Plan has ended.

Period prevalence

The amount a particular disease present in a population over a period of time.

Periodic inventory method

Using a "purchases" account, this system of inventory adds beginning inventory to net purchases and subtracts ending inventory to determine cost of goods sold. Inventory is thus periodically calculated rather than perpetually recorded.

Periodic signal

A deterministic signal that is repeated with a fixed time interval (period).

Peripheral device

Computer equipment not belonging to the central computer equipment (e.g., printers and terminals).

Peripheral devices

Attachments to videoconferencing systems to augment their communications or medical capabilities. Examples include: electronic stethoscopes, oto-/ophthalmoscopes, dermoscopes, graphic stands, and scanners.

Permanent life insurance

Generally refers to any life insurance policy other than group and term.

Permutations

All possible arrangements of a given number of items in which the order of the items makes a difference. For example, the different ways that a set of four books can be placed on a shelf.

Perpetual inventory method

An inventory recording system that keeps a continuous record of all goods in stock; as items are sold, the cost is transferred to a cost of goods sold account.

Persistent vegetative state (PVS)

Non-terminal state characterised by irreversible brain damage, and with brain metabolism equivalent to that in deep surgical anaesthesia, yet breathing without mechanical assistance; a sort of living death.

Personal Care

Optional Medicaid benefit which allows a state to provide attendant services to assist functionally impaired individuals in performing the activities of daily living (e.g., bathing, dressing, feeding, grooming, ...).

Personal computer (PC)

Small computer intended to be used by one person at a time.

Personal digital assistant

A small handheld computer.

Personal health care expenditures

(1) These are outlays for goods and services relating directly to patient care (2) The part of total national or state health expenditures spent on direct health care delivery, including hospital care, physician services, dental services, home health, nursing home care, and prescription drugs.

Personal Needs Allowance (PNA)

The amount of money that a Medicaid beneficiary who is residing in an institution can withhold each month from Social Security and retirement income to pay for personal items.

Personal skills

See Life skills.

Personally identifiable health information

Health information that contains an individual's identifiers, such as name, social security number, birth date, or that contain a sufficient number of variables to allow the identification of an individual.

Person-time-rate

A measure of the incidence rate of an event, e.g., a disease or death, in a population at risk over an observed period to time, that directly incorporates time into the denominator.

PET

Positron emission tomography: an imaging technique in nuclear medicine in which radiopharmaceuticals that emit positrons are used. The creation of a positron in the body is detected, and its location is reconstructed. In this way dynamic properties of biochemical and metabolic processes can be studied.

Petitioned Public Health Assessment

A public health assessment conducted at the request of a member of the public. When a petition is received, a team of environmental and health scientists is assigned to gather information to ascertain, using standard public health criteria, whether there is a reasonable basis for conducting a public health assessment. Once ATSDR confirms that a public health assessment is needed, the petitioned health assessment process is essentially the same as the public health assessment process.

pH

A measure of the acidity or basicity of a solution.

Phage

A virus for which the natural host is a bacterial cell.

Pharmaceutical

Pertains to drugs, pharmacy or pharmacists.

Pharmaceutical care

A strategy that attempts to utilize drug therapy more efficiently to achieve definite outcomes that improve a patient's quality of life; a set of relationships and decisions through which pharmacists, physicians, nurses, and patients work together to design, implement, and monitor a therapeutic plan that will produce specific therapeutic outcomes.

Pharmacokinetic model

Model of intake, transport through the body compartments, metabolism, and secretion of pharmaceuticals.

Phonocardiogram

Recording of the sound produced by the beating heart.

Photo CD

Standard developed by Kodak and Philips that allows you to record and view photographic images on a CD-ROM. Up to 100 high resolution images can be stored on a Photo CD. Any computer with a Photo CD compatible CD-ROM drive, a Photo CD Player, or a CD-i Player is required to view images on a Photo CD.

Photomultiplier

Equipment that multiplies the effect of an incoming photon by secondary emissions.

Photosynthesis

The reaction carried out by plants in which energy from sunlight is used to convert carbon dioxide from the atmosphere into sugars and oxygen.

PHS

(1) Public Health Service. (2) Public health surveillance. See surveillance.

Physiatry

A medical specialty (physical medicine and rehabilitation) devoted to the evaluation and treatment of patients whose functional abilities have been impaired as a result of injury or disease.

Physical data model

The organization of data in a DBMS as they are actually stored on the mass storage device.

Physical diagnosis

The diagnostic process accomplished by the study of the physical manifestation of health, disease, and illness revealed in the physical examination, as guided by the patient's complete history and supported by various laboratory tests. Physical diagnosis is to medicine what the health assessment is to nursing.

Physical distribution management

The integration of two or more activities for the purpose of planning the efficient flow of raw materials, in-process inventory and finished goods from point of origin to point of consumption.

Physical examination

An investigation of the body to determine its state of health, using any or all of the techniques of inspection, palpation, percussion, auscultation, and smell. The physical examination, history, and initial laboratory test constitute the data base on which a diagnosis is made and on which a plan of treatment is developed.

Physical map

A map of the locations of identifiable landmarks on DNA (e.g., restriction enzyme cutting sites, genes), regardless of inheritance. Distance is measured in base pairs. For the human genome, the lowest-resolution physical map is the banding patterns on the 24 different chromosomes; the highest-resolution map would be the complete nucleotide sequence of the chromosomes.

Physical record

A collection of data stored physically in one location, for instance, on an addressable part of a disk.

Physical therapy

This therapy helps people whose strength, ability to move, or sensation is impaired; treatments are designed to control pain, strengthen muscles and improve coordination.

Physician

A health professional who has earned a degree of Doctor of Medicine (M.D.) after completing an approved course of study at an approved medical school. Satisfactory completion of National Board Examinations, usually given during both the second and the final year of medical school and after graduation, is also required. An M.D. usually enters a hospital internship or residency program for 1 year of postgraduate training before beginning practice of further training in a specialty. To practice medicine, an M.D. is required to obtain a license from the state in which

professional services will be performed.

Physician assistant

A staff member who takes over some of the more routine tasks traditionally performed by an MD, such as taking medical histories and doing physical examinations. Also known as a physician extender, a PA is a specially trained and licensed or otherwise credentialed individual who performs tasks, which might otherwise be performed by a physician, under the direction of a supervising physician.

Physician Income

Net income after expenses and before taxes. Median net income for physicians in 1991 was \$139,000. Physician net income in 1991 was 13% of U.S. health expenditures. (AMA, 1993)

Physician Organization (PO)

A group of physicians banding together, usually for the purpose of contracting with managed care entities or to represent the physician component in a PHO.

Physician Payment Review Commission (PPRC)

Congress created the Physician Payment Review Commission in 1986 to advise it on reforms of the methods used to pay physicians under the Medicare program. The Commission has conducted analyses of physician payment issues and worked closely with the Congress to bring about comprehensive reforms in Medicare physician payment policy. Its recommendations formed the basis of 1989 legislation that created the RBRVS, a resource-based fee schedule limiting the amount physicians may charge patients.

Physician Services

One portion of national health care expenditures. Includes physicians' overhead, administrative expenses, and income. Total expenditures for physician services in 1991 were \$142 billion or 19% of total health spending. (AMA, 1993)

Physician Work

A measure of the physician's time, physical effort and skill, mental effort and judgment, and stress from iatrogenic risk associated with providing a medical service. A component of the Medicare relative value scale.

Physician/Hospital Organization (PHO)

A legal entity formed by a hospital and a group of physicians to further mutual interests and to achieve market objectives. A PHO generally combines physicians and a hospital into a single organization for the purpose of obtaining payer contracts. Doctors maintain ownership of their practices and agree to accept managed care patients according to the terms of a professional services agreement with the PHO. The PHO serves as a collective negotiating and contracting unit. It is typically owned and governed jointly by a hospital and shareholder physicians.

Physician's Corporation of America (PCA)

An HMO providing health benefits to Medicaid clients in Travis County.

Pie chart

A graphical presentation in which the values of a variable are represented by segments of a circle, such that the result looks like a pie divided into unequal pieces.

Piezo-electricity

Electrical change caused by pressure, especially in certain crystals.

PILL

Patient Information and Imaging Libraries.

Pilot Health Study

Any investigation of exposed individuals, using epidemiological methods, which would assist in determining exposures or possible public health impacts by defining health problems requiring further investigation through epidemiological studies, environmental monitoring or sampling, surveillance, or registries.

Pilot review

Review and testing of the present guideline by clinicians to evaluate aspects of the guideline such as clarity, clinical applicability, flexibility, resource utilization, training needs, and cost of guideline implementation. Review of a consumer version of the present guideline by consumers and clinicians to evaluate its clarity, usefulness, flexibility, and accuracy.

Pion

An unstable elementary particle, heavier than an electron, with positive, negative or no charge.

PIP

(Picture In Picture) Allows both ends of the video conference to be viewed simultaneously on a single monitor. Picture in picture swap allows the two video pictures to change positions so that the local video fills the largest portion of the screen. On some two monitor systems, PIP allows both live video images to be seen simultaneously on one screen while higher resolution graphic images are seen on the other.

Pixel

The smallest unit of a raster display. A picture cell with specific color and/or brightness. The more pixels an image has, the more detail, or resolution, it can display. The pixel size in a high-end computer monitor's screen (a "1K×1K monitor") is approximately 0.28×0.28 mm. The pixel size for diagnostic teleradiology monitors ("2K×2K") is much smaller than this.

Placebo effect

The effect caused by the suggestion of having received a possibly effective therapy.

Planning

Mental formulation and verbal or graphical representation to do or to achieve something. See for planning of information systems.

Plasmid

Autonomously replicating, extrachromosomal circular DNA molecules, distinct from the normal bacterial genome and nonessential for cell survival under nonselective conditions. Some plasmids are capable of integrating into the host genome. A number of artificially constructed plasmids are used as cloning vectors.

Platform

A characteristic combination of types of computer hardware and operating system, for example, a UNIX platform or a Windows95 platform.

Play or Pay

A concept that would require employers to provide health insurance to their employees and dependents (play) or pay a tax or premium toward a publicly provided system that covers people without private insurance (pay).

Plethysmography

Method in lung physiology to determine the volume components of various respiratory gases.

Plotter

A computer output device that draws images with ink pens.

Plug-in

A small piece of software that adds features to a larger piece of software. They are often downloaded over the Internet directly to an existing program. Plug-ins are usually created by firms other than the publishers of the original software the plug-in works with.

Plume

An area of chemicals in a particular medium, such as air or groundwater, moving away from its source in a long band or column. A plume can be a column of smoke from a chimney or chemicals moving with groundwater.

Point of service

A commercial insurance plan that combines characteristics of both HMOs and PPOs to balance cost control with freedom of choice. Enrollees select a primary care physician gatekeeper from a network of physicians contracted to the plan. The cost to the enrollee for care provided by a network provider is very low or nothing. Enrollees may obtain care from out-of-plan providers but with significantly higher cost sharing.

Point of Service Plan

An HMO plan which allows the member to pay little or nothing if they stay within the established HMO delivery system, but permits member to choose and receive services from an outside doctor, any time, if they are willing to pay higher copayments, deductibles and possibly monthly premiums. Also called an open-ended plan.

Point prevalence

The amount of a particular disease present in a population at a single point in time.

Point process

A signal that is "0" most of the time, but when some event occurs it very briefly becomes a "1".

Pointing device

A device whose movements are translated into the movement of a cursor on the computer screen.

Point-of-care system

A system that allows for the entry and retrieval of patient-specific data at the bedside.

Point-of-Service (POS)

A health plan that offers the option to either coordinate care through a primary care physician or seek medical care from another provider. To exercise the first option, sometimes called "tier 1," the patient selects a primary care physician to coordinate all care. As with a health maintenance organization, the patient is responsible for a nominal copayment. For a higher degree of choice, or "tier 2," the patient may elect to receive care from the plan's network of physicians and hospitals without coordinating through the primary care physician. The patient is generally responsible for a deductible and for paying a percentage of the bill. In "tier 3," the patient may choose any doctor outside the network, but pays an even higher percentage of the bill.

Point-to-point connection

Communication configuration in which each connection is a direct line.

Poison

Any substance that impairs health or destroys life when ingested, inhaled, or absorbed by the body in relatively small amounts. Some toxicologists suggest that, depending on dosages, all substances are poisons. Many experts state that it is impossible to categorize any chemical as either safe or toxic and that the real concern is the risk or hazard associated with the use of any substance. Clinically all poisons are divided into those that respond to specific treatments or antidotes and those for which there is no specific treatment. Research continues to develop effective antitoxins for poisons, but there are relatively few effective antidotes, and the treatment of poisoned individuals is based mainly on eliminating the toxic agent from the body before it can be absorbed. Maintaining respiration and circulation is the most important aspect of such treatment.

Poison control center

One of a nearly worldwide network of facilities that provide information regarding all aspects of poisoning or intoxication, maintain records of their occurrence, and refer patients to treatment centers.

Poisoning

(1) The act of administering a toxic substance. (2) The condition or physical state produced by the ingestion of, injection of, inhalation of, or exposure to a poisonous substance. Identification of

P

the poison and presentation of a container label are critical to expeditious diagnosis and treatment.

Poisoning treatment

The symptomatic and supportive care given a patient who has been exposed to or who has ingested a toxic drug, commercial chemical, or other dangerous substance. In the case of oral poisoning a primary effort should be directed toward recovery of the toxic substance before it can be absorbed into the body tissues. If vomiting does not occur spontaneously, it should be induced after first identifying the poison, if possible, and calling a poison control center. If the poison is a petroleum distillate, such as kerosene, or a caustic or corrosive substance, vomiting should not be induced. Before any attempt to induce emesis, the victim, if conscious, should be given one or two glasses of milk or water. A carbonated beverage should never be given an oral poisoning patient. Because of the danger of hypernatremia the patient, particularly a child, should not be given water containing salt or mustard. A family member should be instructed to call a poison control center first. Syrup of ipecac can be given, if available, to induce vomiting, and the dosage can be repeated one time. But if the ipecac fails to induce vomiting, vomiting should be encouraged by stimulating the patient's gag reflex at the back of the throat. Ipecac, which can be a GI irritant, should not be allowed to remain in the stomach. It also should not be given with milk or charcoal, both of which can interfere with its action. In certain cases an antidote may be administered to render the poison inert or to prevent its absorption, as by giving a mild solution of vinegar or citrus juice to neutralize an alkali. A physician should be summoned to take charge of the case.

Poisoning, risk for

A nursing diagnosis accepted by the Seventh National Conference on the classification of Nursing Diagnoses. The diagnosis describes the accentuated risk of accidental exposure to or ingestion of drugs or dangerous products in doses sufficient to cause poisoning.

Poisson distribution

The distribution which arises when parasites are distributed at random amongst hosts.

Policy

the written contract of insurance that is issued to the insured by the insurer, which states the terms of the insurance contract.

Policy development

The process whereby public health agencies evaluate and determine health needs and the best ways to address them.

Policy loan

A loan made by an insurance company to a policyholder on the security of the cash value of the policy.

Policy significance

The significance of an evaluation's findings for policy and program development (as opposed to their statistical significance).

Policy space

The set of policy alternatives that are within the bounds of acceptability to policymakers at a given point in time.

Polygenic disorders

Genetic disorders resulting from the combined action of alleles of more than one gene (e.g., heart disease, diabetes, and some cancers). Although such disorders are inherited, they depend on the simultaneous presence of several alleles; thus the hereditary patterns are usually more complex than those of single- gene disorders. Compare single- gene disorders.

Polymerase chain reaction (PCR)

A method for amplifying a DNA base sequence using a heat- stable polymerase and two 20- base primers, one complementary to the (+)- strand at one end of the sequence to be amplified

P

and the other complementary to the (-) strand at the other end. Because the newly synthesized DNA strands can subsequently serve as additional templates for the same primer sequences, successive rounds of primer annealing, strand elongation, and dissociation produce rapid and highly specific amplification of the desired sequence. PCR also can be used to detect the existence of the defined sequence in a DNA sample. PCR is a powerful technique for producing millions of copies of a specific region of DNA, so it can be analyzed as readily as can a purified chemical substance. PCR has been instrumental in major breakthroughs in diagnostic kit development, forensic medicine, and detection of genes associated with inborn errors of metabolism. A Nobel Prize in medicine was awarded in 1993 for the development of PCR.

Polymorphism

Difference in DNA sequence among individuals. Genetic variations occurring in more than 1% of a population would be considered useful polymorphisms for genetic linkage analysis. Compare mutation.

Pool (risk pool)

A defined account (e.g., defined by size, geographic location, claim dollars that exceed "x" level per individual, etc.) to which revenue and expenses are posted. A risk pool attempts to define expected claim liabilities of a given defined account as well as required funding to support the claim liability.

POP

(1) Point of Presence. A Point of Presence usually means a city where a network can be connected to, often with dial up phone lines. A term used by Internet service providers to indicate the number or geographical locations of their access to the Internet (2) Post Office Protocol refers to the way e-mail software such as Eudora gets mail from a mail server. When you obtain a SLIP, PPP, or shell account you almost always get a POP account with it, and it is this POP account that you tell your e-mail software to use to get your mail.

Population

The total number of inhabitants of a given area or country. In sampling, the population may refer to the units from which the sample is drawn, not necessarily the total population of people.

Population at Risk

Segment of population with significant probability of having or developing a particular condition.

Population Carve-outs

A population carve-out provides health care to a designated population, targeted or defined by a specific health condition.

Population screening

Examination of a population to detect patients at risk or to find risk factors or disease.

Port

(1) A place where information goes into or out of a computer. (2) An Internet port refers to a number that is part of a URL, appearing after a colon (:) right after the domain name. Every service on an Internet server listens on a particular port. (3) Finally, port also refers to translating a piece of software to bring it from one type of computer system to another, e.g. to translate a PC program so that it will run on a Macintosh.

Portability

(1) Requirement that health plans guarantee continuous coverage without waiting periods for persons moving between plans. An individual changing jobs would be guaranteed coverage with the new employer, without a waiting period or having to meet additional deductible requirements. (2) The requirement that insurers waive any preexisting condition exclusion for someone who was previously covered through other insurance as recently as 30 to 90 days earlier.

Portability

The possibility of running a program on a machine different from the machine on which it has been developed. Also used for the possibility to transfer files from one computer to another.

Portal

A term to describe a Web site that is or is intended to be the first place people see when using the Web. Typically a "Portal site" has a catalog of web sites, a search engine, or both. A Portal site may also offer email and other service to entice people to use that site as their main "point of entry" (hence "portal") to the Web.

Positive Predictive Value (+PV)

The proportion of people with a positive test who have disease.

Positron emission tomography (PET)

A computerized radiographic technique that employs radioactive substances to examine the metabolic activity of various body structures. In PET studies the patient either inhales or is injected with a biochemical such as glucose, carrying a radioactive substance that emits positively charged particles, or positrons. When these positrons combine with negatively charged electrons normally found in the cells of the body, gamma rays are emitted. The electronic circuitry and computers of the PET device detect the gamma rays and convert them into color-coded images that indicate the intensity of the metabolic activity of the organ involved. The radioactive substances used in the PET technique are very short-lived, so that patients undergoing a PET scan are exposed to very small amounts of radiation. Researchers use PET to study blood flow and the metabolism of the heart and the blood vessels. There is also a growing application of the technique in the study and diagnosis of cancer and in studies of the biochemical activity of the brain.

Posterior probability

Probability that an object belongs to a class given its features and prior probabilities of the classes.

Post-graduate Year (PGY)

It is common to classify physicians in training as PGY1, PGY2, PGY3 or PGY4, denoting the years after graduation from medical school. Therefore, in old terminology, an intern would be a PGY1. This would also describe a first-year resident.

Postherpetic neuralgia (PHN)

A painful, residual condition resulting from nerve injury after an outbreak of shingles (herpes zoster). The herpes zoster virus (HZV) is the same virus that causes chicken pox; a shingles outbreak is due to a reactivation of the HZV.

Postmarketing surveillance

Registering and monitoring of side effects and malfunctions of drugs, medical implants, and medical devices after their introduction to the market.

Postnatal

Subsequent to (and within 1 year of) childbirth.

Post-partum Unit

A unit in which women convalesce after giving birth.

PostScript

A universal command language for printers.

Post-test odds

The odds that the patient has the target disorder after the test is carried out (pretest odds LR).

Post-test probability

The proportion of patients with that particular test result who have the target disorder (post-test odds/[1+post-test odds]). Use of the nomogram avoids the need for these calculations: Anchor a straight edge on the left-hand column at the appropriate pretest probability and direct it through the central column at the value of the LR. The approximate post-test probability can be read off the right-hand column.

Potential/Indeterminate Public Health Hazard

Sites for which no conclusions about public health hazard can be made because data are lacking.

Potentially Avoidable Hospitalizations (PAHs)

Admissions to a hospital that could have been avoided if adequate and timely health care had been available.

Potentially exposed

The condition where valid information, usually analytical environmental data, indicates the presence of contaminant(s) of a public health concern in one or more environmental media contacting humans (i.e., air, drinking water, soil, food chain, surface water), and there is evidence that some of those persons have an identified route(s) of exposure (i.e., drinking contaminated water, breathing contaminated air, having contact with contaminated soil, or eating contaminated food).

POTS

(Plain Old Telephone Service) The everyday voice telephone system we all know. Data transmission is performed over this system by using modems (modulator-demodulator units) at both ends of the line to transform the data into sound and then back into data. This analog, public switched telephone network is in common use throughout the world. Also known as Public Switched Telephone Network (PSTN). Enables voice phone calls and data transmission of up to 33.6 Kbps, as well as limited videoconferencing.

Poverty income level

(For the USA Federal Fiscal Year 1994) The Poverty income level based on annual income for one person is \$7,360, for a family of two people \$9,840, a family of three \$12,320, and a family of four \$14,800.

Power spectrum

A function of the frequency of a signal, calculated from the autocorrelation function, that describes the power of the signal in a frequency band.

PowerPoint

A presentation package from Microsoft used to prepare slide shows.

PPP

(Point to Point Protocol) A protocol that allows a computer to use a telephone line and a modem to make TCP/IP connections and thus be on the Internet.

PPS Inpatient Margin

A measure that compares PPS operating and capital payments with Medicare-allowable inpatient operating and capital costs. It is calculated by subtracting total Medicare-allowable inpatient operating and capital costs from total PPS operating and capital payments and dividing by total PPS operating and capital payments. See also PPS Operating Margin.

PPS Operating Margin

A measure that compares PPS operating payments with Medicare-allowable inpatient operating costs. This measure excludes Medicare costs and payments for capital, direct medical education, organ acquisition, and other categories not included among Medicare-allowable inpatient operating costs. It is calculated by subtracting total Medicare-allowable inpatient operating costs from total PPS operating payments and dividing by total PPS operating payments.

PPS Year

A designation referring to hospital cost reporting periods that begin during a given Federal fiscal year, reflecting the number of years since the initial implementation of PPS. For example, PPS1 refers to hospital fiscal years beginning during Federal fiscal year 1984, which was the first year of PPS. For a hospital with a fiscal year beginning July 1, PPS 1 covers the period from July 1,

P

1984, through June 30, 1985. (See also Fiscal Year)

P-QRS-T

A complete complex of an ECG, starting with the P-wave, followed by the QRS-complex and the T-wave.

Practice Expense

The cost of nonphysician resources incurred by the physician to provide services. Examples are salaries and fringe benefits received by the physician's employees, and the expenses associated with the purchase and use of medical equipment and supplies in the physician's office. A component of the Medicare relative value scale. See Relative Value Scale.

Practice Guideline

(1) Practice guidelines are systematically developed statements on medical practices that assist a practitioner in making decisions about appropriate health care for specific medical conditions. Managed care organizations frequently use these guidelines to evaluate appropriateness and medical necessity of care. Practice guidelines are developed with the "long view" of health in mind. This is fundamental to managed care organizations that want to keep the customers they have. Physicians in managed care environments, therefore, are incentivized to provide high quality medicine.

Practice Parameters

Strategies which are used for patient management and were developed to assist physicians in making clinical decisions. This may also be referred to as practice options, practice guidelines, practice policies, or practice standards.

Pragmatic

The effect of information on human actions.

Preadmission certification

A process under which admission to a health institution is reviewed in advance to determine need and appropriateness and to authorize a length of stay consistent with norms for the evaluation.

Pre-admission review

The practice of reviewing claims for inpatient admission prior to the patient entering the hospital in order to assure that the admission is medically necessary. Also known as pre-admission certification and pre-certification.

Pre-authorization

A requirement in some health plans for services that tend to be more costly or are frequently unnecessary. Participating network providers are usually responsible for pre-authorizing special tests, surgery or hospitalization by calling the health plan before providing such treatment to members. Under POS, Fee-for-Service and Indemnity plans, it is the responsibility of the member to have certain treatments pre-authorized for payment by the health plan.

Pre-award survey

An evaluation by a surveying activity of a prospective contractor's capability to perform a proposed contract.

Precertification

Obtaining approval from a health plan for an elective hospital stay, prior to admission to the hospital. Expected length of stay is also determined during precertification.

Precision

(1) Degree of exactness of a quantity. (2) In statistics, the quality of being sharply defined or stated. One measure of precision is the number of distinguishable alternatives from which a measurement was selected, sometimes indicated by the number of significant digits in the measurement. Precision can be contrasted with accuracy, which is the degree of conformity of a

measure to a standard or true value. Often, however, this contrast is not relevant, because the true value is not known.

Predator

An animal that kills its prey and then feeds on it to subsist until the next kill.

Predictive value

The ratio between the correctly predicted outcome and the total of correctly and incorrectly predicted outcomes (positive predictive value for positive outcomes, negative predictive value for negative outcome).

Predictive value positive

A measure of the predictive value of a reported case or epidemic; the proportion of cases reported by a surveillance system or classified by a case definition which are true cases.

Predictor

A feature of a disease process that can be used to predict a clinical outcome.

Pre-Existing

Medical condition(s) which existed prior to the individual enrolling in an insurance plan.

Pre-Existing Condition

A medical condition present or for which medical treatment has been sought, received or advised for a period of time prior to participation under a health plan. Many plans have pre-existing condition limitations, meaning that conditions meeting the definition in the previous sentence will not be covered under the health plan for a certain period of time. All other conditions that arise while on the health plan that were not pre-existing conditions at the time of application will be covered as of the effective date of coverage under the plan. State and federal laws now limit the time period prior to application for which conditions are considered pre-existing and how long exclusions on these conditions can be applied by health plans. HMO plans have no pre-existing condition limitations. Many group plans are now required to give you credit for time covered under a previous health plan toward the pre-existing condition limitation period.

Preexisting Condition Exclusion

A practice of some health insurers to deny coverage to individuals for a certain period, for example, six months, for health conditions that already exist when coverage is initiated. See Portability.

Preexisting Condition Limitations

A provision in insurance policies that excludes health conditions existing prior to coverage sign up. These limitations exclude specified conditions entirely or for a specified period. When an individual changes jobs and enrolls in a new insurance plan, these limitations can cause a critical gap in health benefits.

Preferred provider arrangement (PPA)

Selective contracting with a limited number of health care providers, often at reduced or pre-negotiated rates of payment.

Preferred Provider Organization

(1) A health plan where members can seek treatment from any physician, hospital or health care provider. When services are received from Preferred Providers participating in the plan's network, the member receives higher benefits than when receiving treatment from non-participating providers. Most PPO plans have a deductible and pay benefits on a percentage basis (higher in-network and lower out-of-network). Participating providers agree to provide discounts on services to the plan. (2) An arrangement between a provider network and a health insurance carrier or a self-insured employer. Providers generally accept payments less than traditional fee-for-service payments in return for a potentially greater share of the patient market. PPO enrollees are not required to use the preferred providers, but are given strong financial incentives to do so, such as reduced coinsurance and deductibles. Providers do not accept financial risk for the management of care. Preferred Provider Organizations offer the option for

P

beneficiaries to receive services from providers who are not part of the "preferred", or contracted, panel. Members pay a much higher portion of costs in exchange for this freedom of choice. Typically, annual deductibles must be met before members take advantage of some benefits. Some PPOs do require claim forms.

Premium

(1) A fixed amount paid in advance by an insured to an insurer to provide a defined set of benefits for a specific period of time. (2) The amount paid or payable in advance, often in monthly installments, for an insurance policy.

Premium loan

A policy loan made for the purpose of paying premiums.

Preoperative care

The preparation and management of a patient before surgery. Method: The patient's nutritional and hygienic state, medical and surgical history, allergies, current medication, physical handicaps, signs of infection, and elimination habits are noted and recorded. The patient's understanding of the operative, preoperative, and postoperative procedures; the patient's ability to verbalize anxieties; and the family's knowledge of the planned surgery are ascertained. The signed informed consent statement, the physician's preoperative orders, and the patient's identification bands and willingness to receive blood if necessary are checked. Vital signs are recorded, and any abnormalities are reported to the physician. The physician is also informed if the electrocardiogram, chest radiographic study, or laboratory tests show any abnormalities. On completion of the patient's blood typing the number of matched blood transfusion is determined. When ordered, an enema is given, a bowel preparation is completed, a nasogastric tube or indwelling catheter is inserted, and parenteral fluids are administered. Nothing is given orally for several hours before surgery unless ordered. After preoperative medication is administered, the side rails of the bed are raised. Before transfer to the operating room with the completed chart the patient voids, and any dentures, contact lenses, and valuables are removed for safekeeping. Interventions: The nurse performs and explains the preoperative procedures, reinforces the physician's explanation of the operation; provides instruction and emotional support; answers the patient's questions as honestly as possible, avoiding standard cliches in responding to any anxiety; and reassures the patient that medication will be available to relieve postoperative pain. Depending on the surgical procedure, the nurse shows the patient how to turn, cough, deep breathe, and support the incision during coughing. Instructions on leg exercises are also given. The nurse informs the patient and the patient's family about the postoperative period in the recovery room or the intensive care unit, indicated. Outcome criteria: The patient who is carefully prepared for an operation, psychologically and physically, experiences less anxiety and is more likely to make an uneventful recovery.

Prepaid Group Practice Plan

A plan which specified health services are rendered by participating physicians to an enrolled group of persons, with a fixed periodic payment made in advance by (or on behalf of) each person or family. If a health insurance carrier is involved, a contract to pay in advance for the full range of health services to which the insured is entitled under the terms of the health insurance contract. A Health Maintenance Organization (HMO) is an example of a prepaid group practice plan.

Prepaid health plan (PHP)

An entity that contracts on a pre-paid, capitated risk basis to provide services that are not risk-comprehensive services, or contracts on a non-risk basis. Additionally, some entities that meet the above definition of HMOs are treated as PHPs through special statutory exemptions.

Pre-patent period

The time from infection until when a female starts to produce eggs in helminth infections, equivalent to latent period in micro-parasitic infections.

Prepayment

Usually refers to any payment to a provider for anticipated services (such as an expectant mother paying in advance for maternity care). Sometimes prepayment is distinguished from

P

insurance as referring to payment to organizations which, unlike an insurance company, take responsibility for arranging for, and providing, needed services as well as paying for them (such as health maintenance organizations, prepaid group practices, and medical foundations).

Preprocessing

Processing of data, for instance a signal to facilitate further processing. See signal transformation.

Prescription medication

A drug which has been approved by the Food and Drug Administration and which can, under federal or state law, be dispensed only pursuant to a prescription order from a duly licensed physician.

Present value

The current value of a future series of cash flow given a discount factor or interest value. Used to evaluate the alternative investments.

Presets

Determines how many predefined camera positions can be set. Presets are useful for rapid changes in camera position - for example, to quickly move from a close up of a patient to a larger view of both the patient and the physician.

Pretest odds

The odds that the patient has the target disorder before the test is carried out (pretest probability).

Pretest probability (prevalence)

The proportion of patients who have the target disorder, as determined before the test is carried out ($(a+c)/(a+b+c+d)$).

Prevailing charge

One of the factors determining a physician's payment for a service under Medicare, set at a percentile of customary charges of all physicians in the locality.

Prevalence

(1) Fraction of the population with a certain risk factor, symptom, or disease. (2) The number of cases of disease, infected persons, or persons with some other attribute, present at a particular time and in relation to the size of the population from which drawn. It can be a measurement of morbidity at a moment in time, e.g., the number of cases of hemophilia in the country as of the first of the year.

Prevalence models

Prevalence models are compartmental models dividing the host population into, for example, susceptible, latent, infectious and immune individuals.

Prevalence rate

The proportion of persons in a population who have a particular disease or attribute at a specified point in time or over a specified period of time.

Prevention

Actions taken to reduce susceptibility or exposure to health problems (primary Prevention), detect and treat disease in early stages (secondary prevention), or alleviate the effects of disease and injury (tertiary prevention).

Prevention measures

Actions taken to reduce susceptibility or exposure to health problems, to detect and treat disease in early stages, or to alleviate the effects of disease and injury.

Preventive care

Care designed to prevent disease altogether, to detect and treat it early, or to manage its course most effectively. Examples of preventive care include immunizations and regular screenings like

Pap smears or cholesterol checks.

Preventive health care

Health care that seeks to reduce higher cost of treatment through prevention. It fosters early detection of disease and morbidity, and focuses on keeping patients well in addition to healing them while they are sick. It includes such services as routine physical examinations, immunizations and well person care.

Preventive medicine

Care which has the aim of preventing disease or its consequences. It includes health care programs aimed at warding off illnesses (e.g., immunizations), early detection of disease (e.g., Pap smears), and inhibiting further deterioration of the body (e.g., exercise or prophylactic surgery). Preventive medicine developed following discovery of bacterial diseases and was concerned in its early history with specific medical control measures taken against the agents of infectious diseases. Preventive medicine is also concerned with general preventive measures aimed at improving the healthfulness of the environment. In particular, the promotion of health through altering behavior, especially using health education, is gaining prominence as a component of preventive care.

Preventive services

Services intended to prevent the occurrence of a disease or its consequences.

Price analysis

The process of examining and evaluating a proposed price without evaluating its separate cost elements and proposed profit.

Pricing

The process of establishing a reasonable amount or amounts to be paid for supplies or services.

Primary Care

Basic or general health care focused on the point at which a patient ideally first seeks assistance from the medical care system. Primary care is considered comprehensive when the primary provider takes responsibility for the overall coordination of the care of the patient's health problems, be they biological, behavioral, or social. The appropriate use of consultants and community resources is an important part of effective primary care. Such care is generally provided by physicians but is increasingly provided by other personnel such as nurse practitioners or physician assistants. Physicians who are predominantly primary care doctors include general or family practitioners, internists, pediatricians and sometimes OB/GYN doctors.

Primary Care Case Management (PCCM)

A managed care option which is allowed with a Freedom of Choice Waiver under section 1915(b) of the Social Security Act. States contract directly with primary care providers who agree to be responsible for the provision and/or coordination of medical services to Medicaid recipients under their care. Currently, most PCCM programs pay the primary care physician a monthly case management fee in addition to receiving fee-for-services payment.

Primary Care Network (PCN)

A group of primary care physicians who share the risk of providing care to members of a given health plan.

Primary Care Physician

A physician who provides general medical services or who plays the role of what formerly was known as the family doctor. Usually refers to a general practitioner, family practitioner, general internist or pediatrician, or sometimes an obstetrician/gynecologist. Sometimes inappropriately referred to as a "gatekeeper," the job of the primary care physician in a managed care organization is to promote the health of specified members. This physician is responsible for orchestrating the medical care process, by referring a patient on for specialized diagnosis and treatment, or by caring for that patient then and there. Primary care physicians often participate in teams made up of specialists and other health professionals to study and improve how care is provided, particularly for patients at highest medical risk.

Primary care provider

Health care professional capable of providing a wide variety of basic health services. Primary care providers include practitioners of family, general, or internal medicine; pediatricians and obstetricians; nurse practitioners; midwives; and physician's assistant in general or family practice.

Primary dissemination

Dissemination of the detailed findings of an evaluation to sponsors and technical audiences.

Primary health care

Primary health care is essential health care made accessible at a cost a country and community can afford, with methods that are practical, scientifically sound and socially acceptable. Reference: WHO (1978) Alma Ata Declaration. The Alma Ata Declaration also emphasizes that everyone should have access to primary health care, and everyone should be involved in it. The primary health care approach encompasses the following key components: equity, community involvement/participation, intersectorality, appropriateness of technology and affordable costs. As a set of activities, primary health care should include, at the very least, health education for individuals and the whole community on the size and nature of health problems, and on methods of preventing and controlling these problems. Other essential activities include: the promotion of adequate supplies of food and proper nutrition; sufficient safe water and basic sanitation; maternal and child health care, including family planning; immunization; appropriate treatment of common diseases and injuries; and the provision of essential drugs. Primary health care as defined above will do much to address many of the prerequisites for health indicated earlier. In addition, at a very practical level, there is great scope for both planned and opportunistic health promotion through the day to day contact between primary health care personnel and individuals in their community. Through health education with clients and advocacy on behalf of their community, primary health care personnel are well placed both to support individual needs and to influence the policies and programs that affect the health of the community. The primary health care concept and themes are currently being reviewed by WHO.

Primary health care approach

The establishment of a health system as described in the Alma-Ata report, with primary health care as the central function and main focus supported by the rest of the health system.

Primary Home Care (PHC)

Medicaid-funded community care program, administered by TDHS, which provides personal care services to over 40,000 aged or disabled people in Texas. PHC is provided as an optional state plan benefit. See also Personal Care.

Primary nursing

A system for the distribution of nursing care in which care of one patient is managed for the entire 24-hour day by one nurse who directs and coordinates nurses and other personnel; schedules all tests, procedures, and daily activities for that patient, and cares for that patient personally when on duty. In acute care the primary care nurse may be responsible for only one patient, in intermediate care, the primary care nurse may be responsible for three or more patients. Nurse midwives and other nurse practitioners practice primary nursing. Some advantages are continuity of care for the patient, accountability of the nurse for that care, patient-centered care that is comprehensive, individualized, and coordinated; and the professional satisfaction of the nurse.

Primary prevention

Measures seeking to prevent the initial occurrence of a disease or other health problems such as low birth weight, through such measures as health education, immunization, improved nutrition, improvement of the environment and appropriate care of women during pregnancy.

Primitive

In pattern recognition, an elementary component of an object.

P

Principle

(1) A general truth or established rule of action. (2) A prime source or element from which anything proceeds. (3) A law on which others are founded or from which others are derived.

Printer

Computer device that can print characters or make drawings.

Prior probability

The probability that an object belongs to a class without using the features of that object. It can be defined in the same way as prevalence.

Privacy

The individual rights of a person to protect his or her personal life from the outside world, including the right to be left alone and to decide himself or herself how, what, and to what degree others may dispose of his or her data.

Privacy regulation

The written policy of an organization with respect to privacy.

Privileged communication

A legal term employed in court-related proceedings concerning the right to reveal information that belongs to the person who spoke. It may prevent the listener from disclosing the information without the permission of the speaker. Privileged communication may exist between a patient and a health professional only if the law specifically establishes it.

Privileges

Authority granted to a physician or dentist by a hospital governing board to provide patient care in the hospital. Clinical privileges are limited to the individual's professional license, experience, and competence. Emergency privileges may be granted by a hospital governing board or chief executive officer in an emergency and without regard to the physician's or dentist's regular service assignment or status. Temporary privileges may be granted a physician or dentist to provide health care to patients for a limited period or to a specific patient.

Probabilistic reasoning

A decision-support system that uses statistical methods.

PROBE evaluation

Related to clinical trials or studies, PROBE is an acronym for prospective, randomized, open, blinded endpoint evaluation.

Problem

Any health care condition that requires diagnostic, therapeutic, or educational action. An active problem requires immediate action, whereas an inactive problem is one that occurred in the past. A subjective problem is one reported by the patient, whereas one noted by an observer is regarded as an objective problem.

Problem-oriented medical record

Medical record in which the notes are recorded for each problem assigned to the patient. Each problem is described according to the SOAP principle referred to Weed.

Problem-oriented medical record (POMR)

A method of recording data about the health status of a patient in a problem-solving system. The POMR preserves the data in an easily accessible way that encourages ongoing assessment and revision of the health care plan by all members of the health care team. The particular format of the system used varies from setting to setting, but the components of the method are similar. A data base is collected before beginning the process of identifying the patient's problems. The data base consists of all information available that contributes to this end, such as that collected in an interview with the patient and family or others, that from a health assessment or physical examination of the patient, and that from various laboratory tests. It is recommended that the database be as complete as possible, limited only by potential hazard pain or discomfort to the

P

patient, or excessive expense of the diagnostic procedure. The interview, augmented by prior records, provides the patient's history, including the reason for contact, an identifying statement that is a descriptive profile of the person, a family illness history, a history of the current illness, a history of past illness, an account of the patient's current health practices, and a review of systems. The physical examination or health assessment makes up the second major part of the data base. The extent and depth of the examination vary from setting to setting and depend on the services offered and the condition of the patient. The next section of the POMR is the master problem list. The formulation of the problems on the list is similar to the assessment phase of the nursing process. Each problem as identified represents a conclusion or a decision resulting from examination, investigation, and analysis of the data base. A problem is defined as anything that causes concern to the patient or to the care giver, including physical abnormalities, psychological disturbance, and socioeconomic problems. The master problem list usually includes active, inactive, temporary, and potential problems. The list serves as an index to the rest of the record and is arranged in five columns; a chronological list of problems, the date of onset, the action taken, the outcome of the problem and its date. Problems may be added, and intervention or plans for intervention may be changed; thus the status of each problem is available for the information of all members of the various professions involved in caring for the patient. The third major section of the POMR is the initial plan, in which each separate problem is named and described, usually on the progress note in a SOAP format S, subjective data from the patient's point of view; O, the objective data acquired by inspection, percussion, auscultation, and palpation and from laboratory tests; A, assessment of the problem that is an analysis of the subjective and objective data; and P, the plan, including further diagnostic work, therapy, and education or counseling. After an initial plan for each problem is formulated and recorded, the problems are followed in the progress notes by narrative notes in the SOAP format or by flow sheets showing the significant data in a tabular manner. A discharge summary is formulated and written, relating the overall assessment of progress during treatment and the plans for follow-up or referral. The summary allows a review of all the problems initially identified and encourages continuity of care for the patient.

Problem-solving method

A generic strategy that can be abstracted from a class of KBSs.

Procedural language

A high-level programming language (third-generation language). It contains statements that specify the steps that must be taken to perform a task.

Procedure

(1) A coherent set of actions to perform a certain task. (2) Part of a program that performs a subtask.

Process

(1) Something going on. (2) The systematic performing operations to produce a specified result. (3) The transformation of input data to output data that may be more suitable for further processing or interpretation.

Process recording

A system used for teaching nursing students to understand and analyze verbal and nonverbal interaction. The conversation between nurse and patient is written on special forms or in a special format. The student nurse is instructed to record observations, perceptions, thought, and feelings, as well as conversation. The process recording is then studied by the nursing instructor to discover and to help the student nurse identify patterns of difficulty in communicating with the patient.

Process-control system

A computer system in which the decision-making process is part of the system, used to coordinate work processes such as manufacturing or assembly or to control processes.

Procurement official

Any civilian or military official or employee of an agency who has participated personally and substantially in the conduct of the agency procurement concerned, including all officials and

P

employees who are responsible for reviewing and approving the procurement

Production rule

Rule in a decision-support system-module that consists of a condition part and an action part. When the conditions are met, the action is executed.

Productivity

The ratio of outputs (goods and services produced) to inputs (resources used in production). Increased productivity implies that the hospital or health care organization is either producing more output with the same resources or the same output with fewer resources.

Professional

A person who is licensed to practice medicine in all of its branches, perform surgery and dispense drugs.

Professional or Peer Review Organization (PRO)

An organization that reviews the care given to Medicare and Medicaid patients and makes determinations as to whether and how much a provider should be paid for the services.

Profiling

Expressing a pattern of practice as a rate - some measure of utilization (costs or services) or outcome (functional status, morbidity, or mortality) aggregated over time for a defined population of patients - to compare with other practice patterns. May be done for physician practices, health plans, or geographic areas.

Profit center

The smallest organizationally independent segment of a company charged by management with profit and loss responsibilities.

Profitability ratios

Measurements used to assess the relative profitability of a company. Some common profitability ratios and the formulas for calculating them are as follows: 1. Book value per share (Total common equity divided by the number of common shares outstanding), 2. Dividends per share (Total dividends paid to common shareholders divided by the number of common shares outstanding), 3. Earnings per share (The common shareholders' portion of net income for a given period divided by the number of common shares outstanding), 4. Gross profit percentage (Total cost of sales for a given period divided by total sales for that period), 5. Net profit percentage (Net income for a given period divided by total sales for that period), 6. Operating profit percentage (Earnings before interest and taxes for a given period divided by total sales for that period), 7. Return on common equity (Net income for a given period less dividends, divided by shareholders' equity less preferred stock), 8. Return on investment (Net income divided by total assets).

Prognosis

A prediction of the probable outcome of a disease based on the condition of the person and the usual course of the disease as observed in similar situations.

Prognostic

Pertaining to signs and symptoms that may indicate the outcome of an illness or injury.

Program

(1) A sequence of instructions, written in computer programming language, that controls the functions of a computer. (2) An organized aggregate of activities directed towards the attainment of defined objectives and targets, which are progressively more specific than the goals to which they contribute.

Program budget

Document that provides details of the program activities in the medium-term program, together with the related budgets, to be carried out in each of the three two-year periods that make up the period of the General Program of Work.

Program budgeting

The process of making resources available to attain the objectives of programs. Program budgeting differs from ordinary budgeting in that the emphasis is on the results to be achieved rather than on unconnected budgetary items. The objectives and targets of the program are defined clearly and in order to attain them the resources required are grouped together, those who will receive them specified, and their sources determined. These could include public sources, such as the government through the ministry of health or its equivalent and other ministries, regional and local governments, and state government in countries with a federal system, as well as compulsory health insurance. They could also include private sources such as voluntary health insurance, voluntary organizations, community contributions, private employers, and individual payment. Moreover they could derive from external sources such as international organizations, bilateral agencies and philanthropic bodies.

Program evaluation

The systematic assessment of the relevance, adequacy, progress, efficiency, effectiveness, and impact of a program.

Programmer

A person who designs, writes, tests, and maintains software.

Programming

Defining all the requirements of a program.

Programming language

A formal language for the representation of a computer program. Syn: computer language.

Project

A cluster of related activities that has a clear beginning and a clear ending in time. A project should deliver a specified product.

Project leader

A person who has the day-to-day responsibility for a project.

Prokaryote

Cell or organism lacking a membrane-bound, structurally discrete nucleus and other subcellular compartments. Bacteria are prokaryotes. Compare eukaryote. See chromosomes.

Pro-life

Term frequently applied to the anti-euthanasia (and anti-abortion) movement.

Promoter

A site on DNA to which RNA polymerase will bind and initiate transcription.

Promotion

Health education and the fostering of healthy living conditions and lifestyles.

Prompt

A special sign on the device with which the user interacts (VDU or printer-keyboard combination), indicating that the computer expects a response.

Prompt Payment Act

A law enacted in order to ensure that companies transacting business with the Government are paid in a timely manner. With certain exceptions, the Act requires that the Government make payment within 30 days from the date of submission of a properly prepared invoice by a contractor. For amounts not paid within the required period, the Government is obligated to pay interest at a rate established by the Secretary of the Treasury. At the time of original enactment, the law provided for a 15-day grace period in addition to the basic 30-day period; this provision was subsequently repealed due to perceived abuse by the Government.

Propagated outbreak

An outbreak that does not have a common source, but instead spreads from person to person.

Prophylactic treatment

Treatment used to prevent a disease developing, rather than attempting to cure.

Prophylaxis

Prevention of or protection against disease, often involving the use of a biologic, chemical, or mechanical agent to destroy or prevent the entry of infection organisms.

Proportion

A type of ratio in which the numerator is included in the denominator. The ratio of a part to the whole, expressed as a "decimal fraction" (e.g., 0.2), as a fraction (1/5), or, loosely, as a percentage (20%).

Proportionate mortality

The proportion of deaths in a specified population over a period of time attributable to different causes. Each cause is expressed as a percentage of all deaths, and the sum of the causes must add to 100%. These proportions are not mortality rates, since the denominator is all deaths, not the population in which the deaths occurred.

Proposal

Any offer or other submission used as a basis for pricing a contract, contract modification, or termination settlement or for securing payments thereunder.

Propositional logic

See Boolean algebra.

Proprietary

Profit making; owned and operated for the purpose of making a profit, whether or not one is actually made.

Prospective Payment

Any method of paying hospitals or other health programs in which amounts or rates of payment are established in advance for a defined period (usually a year). Institutions are paid these amounts regardless of the costs they actually incur. These systems of payment are designed to introduce a degree of constraint on charge or costs increases by setting limits on amounts paid during a future period. In some cases, such systems provide incentives for improved efficiency by sharing savings with institutions that perform at lower than anticipated costs. Prospective payment contrasts with the method of payment originally used under Medicare and Medicaid (as well as other insurance programs) where institutions were reimbursed for actual expenses incurred.

Prospective Payment System (PPS)

(1) The Medicare system used to pay hospitals for inpatient hospital services; based on the DRG classification system. (2) Medicare's acute care hospital payment method for inpatient care. Prospective per-case payment rates are set at a level intended to cover operating costs in an efficient hospital for treating a typical inpatient in a given diagnosis-related group. Payments for each hospital are adjusted for differences in area wages, teaching activity, care to the poor, and other factors. Hospitals may also receive additional payments to cover extra costs associated with atypical patients (outliers) in each DRG. Capital costs, originally excluded from PPS, are being phased into the system. By 2001, capital payments will be made on a fully prospective, per-case basis. (See also Capital Costs, Diagnosis-Related Groups, Outliers, and Prospective Payment)

Prospective review

A method of reviewing possible hospitalization, prior to admission, to determine necessity of confinement, outpatient alternatives and estimated reasonable length of stay.

Prospective study

P

An analytic study designed to determine the relationship between a condition and a characteristic shared by some members of a group. The population selected is healthy at the beginning of the study. Some of the members of the group share a particular characteristic, such as cigarette smoking. The researcher follows the population group over a period, noting the rate at which a condition, such as lung cancer, occur in the smoker and in the nonsmokers. A prospective study may involve many variables or only two, it may seek to demonstrate a relationship that is an association or one that is causal. Prospective studies produce a direct measure of risk called the relative risk.

Prosthesis

An artificial device that replaces a part of the body.

Protease

An enzyme that digests proteins.

Protection

Elimination or reduction of exposure to injuries and occupational or environmental hazards.

Protein

A large molecule composed of one or more chains of amino acids in a specific order; the order is determined by the base sequence of nucleotides in the gene coding for the protein. Proteins are required for the structure, function, and regulation of the body's cells, tissues, and organs, and each protein has unique functions. Examples are hormones, enzymes, and antibodies.

Protein engineering (genetic engineering)

The alteration of DNA to encode the synthesis of new proteins that perform new functions. DNA is made of only four nucleotides, in varying sequences, so it can be modified more easily than can proteins, which are difficult to alter using standard chemical means. Protein engineering was the basis for a Nobel prize in 1994.

Protest

A written objection by an interested party to a solicitation by an agency for offers for a proposed contract for the acquisition of supplies or services or a written objection by an interested party to a proposed award or the award of such a contract.

Protocol

(1) A standard means by which two devices can exchange data. It applies to the syntax or the semantics. (2) A standard algorithm that defines one precise manner in which certain classes of patients should be evaluated or treated. (3) A common language between computers over a network, such as hypertext transfer protocol (HTTP), used by the Web, or file transfer protocol (FTP), a quick software method of sending or receiving files over the Internet. (4) A system of guidelines and procedures, applying to both hardware and software, that oversees communications between two computer devices. They are primarily concerned with three aspects of the communication process: how data are symbolized and coded, how data are transmitted, and, in file transfer protocol, how errors and failures are recognized and corrected.

Prototype

A preliminary system that has part of the required properties of the intended system, such as the user interface.

Protozoan

A unicellular eukaryote.

Provider

Hospital or licensed health care professional or group of hospitals or health care professionals that provide health care services to patients. May also refer to medical supply firms and vendors of durable medical equipment.

Provider networks

Organizations of health care providers that service managed care plans. Network providers are

P

selected with the expectation that they will deliver care inexpensively, and enrollees are channeled to network providers to control costs.

Provider Service Organization (PSO)

See Provider Sponsored Network and Physician-Hospital Organization.

Provider sponsored network (PSN)

Formal affiliations of providers, organized and operated to provide an integrated network of health care providers with which third parties, such as insurance companies, HMOs or other health plans, may contract for health care services to covered individuals. Some models of integration include Physician Hospital Organizations and Management Service Organizations.

Provisional rate

An alternate term for a billing rate.

Provocative test

Signal issued by a biological system that is brought into a forced condition, e.g., by a stimulus, exercise, or artificial pacing.

Pseudo-3D

Visualization of a three-dimensional image on a two-dimensional device by using techniques such as shadowing and hidden-line removal.

Psychiatric hospital

A hospital that treats patients with mental or emotional disorders.

PTCA

See percutaneous transluminal coronary angioplasty.

PTER

(Percutaneous Transluminal Endomyocardial Revascularization) Catheter-based minimally invasive procedure for treatment of coronary artery disease by creating channels in oxygen-starved areas of the heart muscle. Procedure can be performed without general anesthesia, thereby providing treatment to patients previously too high-risk for more invasive surgery.

Public Availability Session

An informal, drop-by meeting at which community members can meet one-on-one with ATSDR staff members to discuss health and site-related concerns.

Public Comment

An opportunity for the general public to comment on Agency findings or proposed activities. The public health assessment process, for example, includes the opportunity for public comment as the last step in the draft phase. The purposes of this activity are to 1) provide the public, particularly the community associated with a site, the opportunity to comment on the public health findings contained in the public health assessment, 2) evaluate whether the community health concerns have been adequately addressed, and 3) provide ATSDR with additional information.

Public domain software

Free software.

Public good

A good or service whose benefits may be provided to a group at no more cost than that required to provide it for one person. The benefits of the good are indivisible and individuals cannot be excluded. For example, a public health measure that eradicates smallpox protects all, not just those paying for the vaccination.

Public Health

The science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society. Public health is a social and political concept aimed at improving

health, prolonging life and improving the quality of life among whole populations through health promotion, disease prevention and other forms of health intervention. A distinction has been made in the health promotion literature between public health and a new public health for the purposes of emphasizing significantly different approaches to the description and analysis of the determinants of health, and the methods of solving public health problems. This new public health is distinguished by its basis in a comprehensive understanding of the ways in which lifestyles and living conditions determine health status, and a recognition of the need to mobilize resources and make sound investments in policies, programs and services which create, maintain and protect health by supporting healthy lifestyles and creating supportive environments for health. Such a distinction between the 'old' and the 'new' may not be so necessary in the future as the mainstream concept of public health develops and expands. The concept of 'ecological public health' has also emerged in the literature. It has evolved in response to the changing nature of health issues and their interface with emerging global environmental problems. These new problems include global ecological risks such as the destruction of the ozone layer, uncontrolled and unmanageable air and water pollution, and global warming. These developments have a substantial impact on health which often elude simple models of causality and intervention. Ecological public health emphasizes the common ground between achieving health and sustainable development. It focuses on the economic and environmental determinants of health, and on the means by which economic investment should be guided towards producing the best population health outcomes, greater equity in health, and sustainable use of resources.

Public Health Action

Designed to prevent exposures and/or to mitigate or prevent adverse health effects in populations living near hazardous waste sites or releases. Public health actions can be identified from information developed in public health advisories, public health assessments, and health consultations. These actions include recommending the dissociation (separation) of individuals from exposures (for example, by providing an alternative water supply), conducting biologic indicators of exposure studies to assess exposure, and providing health education for health care providers and community members.

Public Health Advisory

A statement by ATSDR containing a finding that a release of hazardous substances poses a significant risk to human health and recommending measures to be taken to reduce exposure and eliminate or substantially mitigate the significant risk to human health.

Public Health Assessment

The evaluation of data and information on the release of hazardous substances into the environment in order to assess any current or future impact on public health, develop health advisories or other recommendations, and identify studies or actions needed to evaluate and mitigate or prevent human health effects; also, the document resulting from that evaluation.

Public Health Hazard

Sites that pose a public health hazard as the result of long-term exposures to hazardous substances.

Public Health Statement

The first chapter of an ATSDR toxicological profile. It is intended to be a health effects summary written in lay language for the target audience, that is, the general public, especially people living in the vicinity of a hazardous waste site or chemical release.

Public Health Surveillance

The systematic collection, analysis, interpretation, and dissemination of health data on an ongoing basis, to gain knowledge of the pattern of disease occurrence and potential in a community, in order to control and prevent disease in the community.

Punched card

A now outdated storage and input medium that consists of a cardboard card in which the data were recorded by holes punched in the card.

P

Purchasing organization

See health insurance purchasing cooperatives (HIPCs).

Purchasing

See "Materials management".

Purine

A nitrogen- containing, single- ring, basic compound that occurs in nucleic acids. The purines in DNA and RNA are adenine and guanine.

P-value

The value of the probability threshold for accepting or rejecting a hypothesis.

PVC

Premature ventricular contraction: see extrasystole.

P-wave

First part of the ECG waveform corresponding to the depolarization of the atria.

Pyrimidine

A nitrogen- containing, double- ring, basic compound that occurs in nucleic acids. The pyrimidines in DNA are cytosine and thymine; in RNA, cytosine and uracil.

Q

Q wave

If the QRS complex of the ECG starts with a negative wave, then this wave is called the Q-wave. The presence of a Q-wave in some leads is an indication of a myocardial infarction.

QA

Quality assessment.

QC

Quality control.

QCIF

(Quarter Common Intermediate Format - "Q-sif") A measure of video resolution, displaying 176 pixels by 144 lines. Has half of the CIF spatial resolution of FCIF. This is the 'default' minimum H.261 format. Typically used in desktop videoconferencing.

QRS complex

Most prominent part of the ECG waveform. The first positive wave in the QRS complex is called the R-wave, a possibly preceding negative wave is called a Q-wave. The QRS-complex shows the electrical activity caused by the depolarization of the ventricles.

Quadratic function

A function that has an equation of the form $y=ax^2+bx+c$. These functions are used to describe the flight of a ball and the stream of water from a fountain.

Qualification requirement

A Government requirement for testing or other quality assurance demonstration that must be completed before award of a contract.

Qualified bidders list (QBL)

A list of bidders who have had their products examined and tested and who have satisfied all applicable qualification requirements for that product or have otherwise satisfied all applicable qualification requirements.

Qualified manufacturers list (QML)

A list of manufacturers who have had their products examined and tested and who have satisfied all applicable qualification requirements for that product.

Qualified Medicare Beneficiary (QMB)

Refers to a low-income Medicare beneficiary for whom Medicaid must cover the costs of Medicare premiums, copayments and deductibles.

Qualified products list (QPL)

A list of products which have been examined, tested, and have satisfied all applicable qualification requirements.

Qualifying event

An occurrence that causes a person to lose health care coverage (such as graduation from college, divorce, or leaving a company) and therefore entitles you to coverage under COBRA.

Qualitative data

Data describing nominal categorical aspects.

Qualitative decision-support system

Decision-support system that uses symbolic reasoning methods, e.g., logical deduction.

Qualitative forecasting techniques

Forecasting techniques that use expert judgment and experience combined with a rating system to develop projections of future events and results.

Qualitative model

Q

A model in which relationships among concepts are defined in symbolic terms (e.g., ontologies and knowledge bases). Ant quantitative model.

Quality assessment

Measures used to determine the quality of medical care.

Quality assurance

(1) A formal methodology and set of activities designed to assess the quality of services provided. Quality assurance includes formal review of care, problem identification, corrective actions to remedy any deficiencies and evaluation of actions taken. (2) Monitoring and maintaining the quality of public health services through licensing and discipline of health professionals, licensing of health facilities, and the enforcement of standards and regulations.

Quality control

A method of repeated assay of known standard materials and monitoring reaction parameters to ensure precision and accuracy.

Quality factor

Evaluation of the biologic damage that radiation can produce. It is observed that identical doses of different types of radiation can produce differing levels of damage. In the shield of radiation protection, biologically equivalent doses are set equal to one another by multiplying the actual absorbed dose by a number called the quality factor. The resulting quantity is called dose equivalent, measured in Sieverts or Rem.

Quality improvement

A continuous process that identifies problems in health care delivery, tests solutions to those problems and constantly monitors the solutions for improvement.

Quality management

(In health care) (1) Any evaluation of services provided and the results achieved as compared with accepted standards. In one form of quality assurance, various attributes of health care, such as cost, place, accessibility, treatment, and benefits, are scored in a two-part process. First, the actual results are compared with standard results; then, any deficiencies noted or identified serve to prompt recommendations for improvement. (2) A system of review of selected hospital medical/nursing records by medical/nursing staff members, performed for the purposes of evaluating the quality and effectiveness of medical/nursing care in relation to accepted standards.

Quality monitoring

A nursing Interventions Classification defined as systematic collection and analysis of an organization's quality indicators for the purpose of improving patient care.

Quality of care

Can be defined as a measure of the degree to which delivered health services meet established professional standards and judgments of value to the consumer. Quality may also be seen as the degree to which actions taken or not taken maximize the probability of beneficial health outcomes and minimize risk and other untoward outcomes, given the existing state of medical science and art. Quality is frequently described as having three dimensions: quality of input resources (certification and/or training of providers); quality of the process of services delivery (the use of appropriate procedures for a given condition); and quality of outcome of service use (actual improvement in condition or reduction of harmful effects).

Quality of life

(1) A measure of the optimum energy or force that endows a person with the power to cope successfully with the full range of challenges encountered in the real world. The term applies to all individuals, regardless of illness or handicap, on the job, at home, or in leisure activities. Quality enrichment methods can include activities that reduce boredom and allow a maximum amount of freedom in choosing and performing various tasks. (2) The perception of individuals that their needs are being satisfied and that they are not being denied opportunities to achieve happiness and fulfillment, regardless of physical health status, or social and economic

Q

conditions. Reference: modified definition. The goal of improving the quality of life, alongside preventing avoidable ill-health, has become of increased importance in health promotion. This is particularly important in relation to meeting the needs of older people, the chronically sick, terminally ill, and disabled populations.

Quality-of-life measures

An assessment of patients' perceptions of how they deal with their disease or with their everyday life when suffering from a particular condition.

QUALY

Quality adjusted life years, a measure of the life expectancy corrected for loss of quality of that life caused by diseases and disabilities.

Quantile

Division of a distribution such that a given percentage of the observations have values above that quantile. The 50% quantile is identical to the median.

Quantitative analysis

(1) (In chemistry) The determination of the amounts of constituents in a sample of material. Kinds of quantitative analysis include gravimetric analysis, volumetric analysis, and spectrophotometric analysis. (2) (In research) The use of statistical methods to analyze data.

Quantitative data

Countable (discrete) or measurable (continuous) data.

Quantitative decision support

Decision support by statistical methods.

Quantitative model

A model in which relationships among concepts are defined in mathematical terms (e.g., compartment models and probabilistic models). Ant. qualitative model.

Quantitative trait loci

A combination of genes that often controls economically significant genetic traits, such as disease resistance in animals and, in dairy cattle, milk quality and quantity.

Quarantine

(1) Isolation of people with communicable disease or those exposed to communicable disease during the contagious period in an attempt to prevent spread of the illness. (2) The practice of detaining travelers or vessels coming from places of epidemic disease, originally for 40 days, for the purpose of inspection or disinfection.

Quasi-experimental study

(Includes nonrandomized controlled trial or nonrandomized clinical trial.) A design that does not use random assignment to create treatment and control groups but uses other methods to control validity threats so that changes can be inferred or attributed to the experimental treatment.

Quasi-periodic signal

A deterministic signal that is repeated with almost the same time intervals and with almost the same waveshape.

Query language

A computer language to formulate orders for extractions from a database.

Quetelet index

Measure of the weight of a person corrected for his or her length. Syn: body-mass index.

Quick closeout

Q

The settlement of indirect costs for a specific contract in advance of the determination of relevant final indirect cost rates. The use of quick closeout procedures generally is permitted only when the potential for audit differences between final and proposed indirect rates is low and/or the amounts of unsettled indirect costs are insignificant.

Quick-reference

The website's fast access pages.

QuickTime

A standard established by Apple for the integration of digital video, animation and sound. The MooV movie file format is used by QuickTime. System extensions once were required to view MooV files on the Macintosh. They are now incorporated into the system software. Drivers are still required to view Quicktime in Windows.

Quiescence

A period during which an infection is present but not active within a host for example the period between an acute attack of chickenpox (varicella) and a subsequent recrudescence of shingles (zoster); not the same as latency.

R

R wave

The first positive wave in the QRS complex.

R&D

Research and development.

Race specific mortality rate

A mortality rate limited to a specified racial group. Both numerator and denominator are limited to the specified group.

RAD

Rapid application development a system development method that tries to speed up development, e.g., by using prototyping.

Radial keratotomy (RK)

A surgical procedure to correct myopia (nearsightedness) by reshaping the cornea with incisions.

Radiation Therapy or Radiation Oncology

The method of treating cancerous tumors and other cancers by directed radiation, usually photons or electrons, which shrink or destroy the cancerous tissue without doing significant damage to the surrounding healthy tissue. Radiation therapy normally is administered by a machine called a linear accelerator, which is measured in terms of its electron voltage. A standard workhorse unit is 6.0 million electron volts (MEV). The larger machines go up to 25 or 30 MEVs. The more powerful units also have electron beam capability, which is used in treating certain kinds of cancer, such as breast cancer.

Radiography

Conventional X-rays. The imaging of internal body parts through the use of ionizing radiation.

Radiology

The branch of medicine concerned with radioactive substances and using various techniques of visualization, with the diagnosis and treatment of disease using any of the various sources of radiant energy. Three sub-branches of radiology are diagnostic radiology, which concerns itself with imaging using external sources of radiation; nuclear medicine, which is involved with imaging radioactive materials that are placed into body organs; and therapeutic radiology, which is concerned with the treatment of cancer using radiation.

Radiology information system

See RIS.

Radio-opaque

Nontranslucent for certain EM radiation waves, such as X rays.

Radio-pharmaceutical

A substance that is absorbed by the organ that is the subject of nuclear medicine examination, and that contains the radioactive isotope.

Radiotherapy

The treatment of neoplastic disease by using x-rays or gamma rays, usually from a cobalt source, to deter the proliferation of malignant cells by decreasing the rate of mitosis or impairing deoxyribonucleic acid synthesis. Method: Before radiotherapy, the procedure; its purpose and duration, the fact that it is painless; and explained to the patient. Potential sequelae such as erythema, edema, desquamation, hyperpigmentation, atrophy, pruritus or skin pain, altered taste, anorexia, nausea, vomiting, headache, hair loss, malaise, tachycardia, and increased susceptibility to infection may be discussed in response to specific questions raised by the patient. A preliminary visit to the radiology department may be arranged so that the equipment and the room in which the patient will be positioned on a table can be seen. From this position the patient is able to communicate with the radiologist who is in an adjoining booth. Daily hygiene measures are completed before treatment; on returning from irradiation, the patient is

R

placed in a noninfectious environment or, if necessary, in protective isolation; friends, family, other patients and staff members with infections, especially upper respiratory tract infections, are not permitted to visit. Skin care is administered after irradiation and every 4 hours thereafter, but the ink markings placed by the radiologist on the skin to mark the focus of treatment are not removed between treatments, and the treated area is not washed with water; sterile mineral oil, lanolin, or petroleum jelly may be applied if the radiologist approves. The patient wears loose garments and rests on an air mattress, foam or gel pad, or sheepskin; a footboard or bed cradle is used to elevate the top sheet and blanket. Cosmetics are avoided, underarm deodorant or antiperspirants are contraindicated if the axillary area is irradiated. If hair loss occurs, the patient may wear a wig, scarf, cap, or toupee. High-protein supplements, soothing gels, and ice cream are provided, and other food is served when desired by the patient; six small bland feedings may be tolerated more easily than regular meals. Quiet periods are maintained before and after meals. Antiemetics and vitamins are administered as ordered, and tube feedings or total parenteral nutrition may be indicated if the patient's food intake is severely decreased. Oral hygiene, using a soft-bristled brush and dilute mouthwash or, if needed, foam or sponge swabs and a saline rinse, is administered whenever required, and a fluid intake of 2000 to 3000 ml daily is maintained unless contraindicated. In preparation for discharge, the patient is instructed to follow the hospital practices for skin care, oral hygiene, fluid intake, and a high-protein nutritious diet but to avoid eating immediately before and after irradiation. The patient is told to avoid tight clothing, extremes of temperature, exposure to sunlight, tub baths or showers until ordered, and persons with infection; inability to eat; severe diarrhea; increasing headache, fatigue; or increasing redness, swelling, itching, or pain at the site of therapy. Interventions: The nurse offers thorough explanation of the radiotherapy, provides care after treatment, and prepares the patient for discharge and, if indicated, continued therapy on an outpatient basis. Outcome criteria: Radiotherapy can control or arrest the development of a number of forms of cancer and provide palliation in some inoperable tumors; the maintenance of adequate nutrition and meticulous care of the skin may allow the person to avoid the most serious and unpleasant side effects of radiotherapy.

Radiotherapy

Treatment with localized high-energy radiation to destroy tumor tissue.

Radiotherapy planning

The determination of the optimal dose distribution for radiotherapy and the required setting of the radiotherapy equipment to obtain that distribution.

RAID

(Redundant Array of Inexpensive Disks) Any of six arrangements of conventional disk drives to increase data transmission speed and reliability, and better assure safe backup.

RAM

Random Access Memory is the temporary memory a computer uses to store data and process information. The more RAM a computer has, the more data a computer can manipulate. The contents of RAM are cleared when you turn off the computer.

Random access

Access to data by reference to their storage location, independent of their storage sequence. Typical random access devices are central memory, disks. Syn: direct access. Ant: sequential access.

Random access memory

Computer memory accessible by random access.

Random noise

Noise with a random character, in many cases with a normal distribution.

Random sample

A sample derived by selecting individuals such that each individual has the same probability of selection.

R

Randomised Controlled Clinical Trial

A group of patients is randomised into an experimental group and a control group. These groups are followed up for the variables / outcomes of interest.

Randomization

Random division of a group of individuals into subgroups that, for instance, will each receive different treatments.

Range

In statistics, the difference between the largest and smallest values in a distribution. In common use, the span of values from smallest to largest.

Rank correlation test

Test used to analyze whether not normally distributed data are statistically linearly independent by means of a rank score.

Rank score

A score derived from the ranks of the observed data that belong to a group.

Rare-cutter enzyme

See restriction enzyme cutting site.

Raster

Scan line. See NTSC.

Rate

A numeric ratio, often used in the compilation of data concerning the prevalence and incidence of events, in which the number of actual occurrences appears as the numerator and the number of possible occurrences appears as the denominator, when 1 person in 15 fails an examination, the failure rate is said to be 1/15 (or one in fifteen). Standard rates are stated in conventional units of population such as neonatal mortality per 1,000 or maternal mortality per 100,000.

Rate band

The allowable variation in insurance premiums as defined in state regulations. Acceptable variation may be expressed as a ratio from highest to lowest (e.g., 3:1) or as a percent from the community rate (e.g., $\pm 20\%$). Usually based on risk factors such as age, gender, occupation or residence.

Rate ratio

A comparison of two groups in terms of incidence rates, person-time rates, or mortality rates.

Rate review

Review by a government or private agency of a hospital's budget and financial data, performed for the purpose of determining the reasonableness of the hospital rates and evaluating proposed rate increases.

Rate setting

A method of paying health care providers in which the Federal or state government establishes payment rates for all payers for various categories of health services.

Rate variance

A measure of the difference between a particular actual indirect cost rate and the related provisional rate or billing rate.

Rating Class

Means a population segment classified by actuaries as having similar coverage risks.

Ratio

The value obtained by dividing one quantity by another.

R

Rational numbers

A number that can be expressed in the form a/b , where a and b are integers and $b \neq 0$, for example, $3/4$, $2/1$, or $11/3$. Every integer is a rational number, since it can be expressed in the form a/b , for example, $5=5/1$. Rational numbers may be expressed as fractional or decimal numbers, for example, $3/4$ or 0.75 . Finite decimals, repeating decimals, and mixed numbers all represent rational numbers.

RBI

(Relative Benefit Increase) An increase in the rates of good events, comparing experimental and control patients in a trial, also calculated as $|EER - CER|/CER$.

RCC

Read Clinical Classification: a coding system, developed in the United Kingdom, that attempts to cover all terms that may be written in a patient record.

Re T

Name of the case from which much English law on living wills derives. It sets forth the conditions in common law under which an advance directive must be followed.

REA

Rural Electrification Administration.

Read only memory

See ROM.

Real number

(1) Mathematical: a number that can be approached with arbitrary accuracy by a quotient of two whole numbers (2) Informatics: a number that is internally represented in a computer memory by an exponent and a mantissa.

Real numbers

All rational and irrational numbers.

Real time

(1) The capture, processing, and presentation of data, audio, and/or video signals at the time the data is originated on one end and received at the other end. (2) The actual passage of time. Any event that occurs in real time indicates that the event is happening, as we would see it, in actual time. Recording video in real time would require about 30 frames per second.

Real time processing

A form of processing in which information is processed more-or-less immediately as it is input into the system.

Real value

Measurement of an economic amount corrected for change in price over time (inflation), thus expressing a value in terms of constant prices.

Real-time information system

A system that processes transactions fast enough to keep an operation going at the speed required; also means simultaneous performance of a electronic counterpart to a real-world operation.

Real-world problems

Also called real-world experiences. Quantitative problems that arise from a wide variety of human experiences which may take into consideration contributions from various cultures (for example, Mayan or American pioneers), problems from abstract mathematics, and applications to various careers (for example, making change or calculating the sale price of an item).

Reason for encounter (RfE)

The reason why a patient contacts a clinician.

R

Reasonable and customary

A range of fees for specific health services in specific geographic areas that recognizes prevailing reimbursement patterns; this term is most often used to describe standards of fee-for-service physician reimbursement under Medicare and other programs.

Receiver operating characteristic

See ROC.

Recidivism

The frequency of the same patient returning to a provider with the same presenting problems. Usually refers to inpatient hospital services.

Recipient

A person who received a Medicaid service while eligible for the Medicaid program. People may be Medicaid eligible without being Medicaid recipients.

Recognition

To perceive something to be previously known.

Recombinant clones

Clones containing recombinant DNA molecules. See recombinant DNA technologies.

Recombinant DNA

The hybrid DNA produced by joining pieces of DNA from different organisms together in vitro. This is accomplished by inserting a desired DNA sequence into a vector (usually a circular strand of DNA or a virus), which then is introduced into another organism, often a bacterium.

Recombinant DNA technologies

Procedures used to join together DNA segments in a cell-free system (an environment outside a cell or organism). Under appropriate conditions, a recombinant DNA molecule can enter a cell and replicate there, either autonomously or after it has become integrated into a cellular chromosome.

Recombination

The process by which progeny derive a combination of genes different from that of either parent. In higher organisms, this can occur by crossing over.

Record

The smallest logical unit in a file or database system.

Record linkage

Combining data from different databases by linking personal records using direct or indirect identifications.

Recovery

To restore the contents of a database after a disruption.

Recreational therapy

"Play" therapy consisting of games and exercises designed to enhance movement, strengthen muscles and improve coordination of patients who have been injured.

Recrudescence

Reappearance of disease in a host whose infection has been quiescent.

Recurrent expenditure

Items of expenditures that recur year after year, such as the remuneration of health workers and other staff; the cost of food and other goods and services; the cost of vaccines, medicines, appliances and other supplies; the replacement of equipment; and the maintenance of building and equipment.

R

Red neck syndrome (a.k.a. "red man" syndrome)

Histamine-related reaction to vancomycin therapy (usually by rapid infusion) characterized by urticarial flushing of the upper body and may be associated with symptomatic hypotension.

Redesign - Business Process Redesign (BPR)

The transformation of a business process to achieve significant levels of improvement in one or more performance measures relating to fitness for purpose, quality, cycle times, and cost by using the techniques of streamlining and removing non-value added activities and costs. Redesign projects typically take about six months to complete.

Reduced paid-up insurance

A form of insurance available as a nonforfeiture option. It provides for continuation of the original insurance plan, but at a reduced amount.

Redundancy

The inclusion of more information than needed to derive semantic information.

Reengineering

The realignment and restructuring of an organization's work flow and processes, personnel hierarchy, and strategic development in order to create a more efficient, better-positioned and more dynamic organization.

Reference model

A conceptual or generic model that is used for referencing or comparisons. Examples are GALEN and UMLS for medical concepts and models for a class of organizations, such as hospitals or primary care that can be used for comparisons or as a reference for more detailed models, describing both functionality and data.

Referral

Turning for support or referring of patients to an appropriate facility, institution or specialist at the next more central level in a health system, such as a health centre or a hospital, when health workers at a given level cannot diagnose or treat certain patients by themselves, or face health or social problems they cannot solve by themselves. Referral implies a two-way exchange of information and returning patients to those who referred them, for example from the first referral level to the community health worker, furnished with appropriate information about the patient's condition and instructions for follow-up care. In addition, it implies providing guidance to community health workers on ways of dealing with problems referred.

Referral authorization

A verbal or written approval of a request for a member to receive medical services or supplies outside of the participating medical group.

Referral physician

A physician who has a patient referred to him by another physician for examination, surgery, or to have specific procedures performed on the patient, usually because the primary physician is not qualified to provide the needed service.

Referring physician

A physician who sends a patient to another source for examination, surgery, or to have specific procedures performed on the patient, usually because the referring physician is not prepared or qualified to provide the needed service.

Refinement

The correction of relative values in Medicare's relative value scale that were initially set incorrectly.

Reflection

Also called a flip. A transformation which produces the mirror image of a geometric figure.

R

Reflexive Controls

Outcome measures taken on participating targets before interventions and used as control observations.

Region growing

Segmentation performed by taking a seed point that is the starting point of a coherent region. Other points similar to the seed point are assigned to that region.

Region splitting

Segmentation by using discontinuities in the gradient of an image.

Regional strategy for health for all

A mechanism which has been formulated for each of the six WHO regions to help countries within the region overcome obstacles to the fulfilment of their national health strategies and to give effect to regional health and related socioeconomic policies.

Region-of-interest

Part of an image that is selected for further image processing.

Register

Part of a CPU for intermediate storage of instructions, addresses, and data.

Registry

A collection of records containing health information for a population, such as specific diseases, transplants, congenital malfunctions, and immunization, in a region or country. Registries are usually established and enforced by legislation.

Regression analysis

(1) Regression analysis is a tool used by economists and others to estimate the relationships among a dependent variable Y and one (or many) independent variable(s) X. The purpose of regression analysis is the "best fit" data points from a straight line down on an XY graph. (2) Statistical analysis of the relationship between two sets of paired variables. Linear regression analysis is a special case in which the covariables have a linear relationship to a continuous outcome.

Regulatory regions or sequences

A DNA base sequence that controls gene expression.

Rehabilitation

The combined and coordinated use of medical, social, educational, and vocational measures for training or retraining individuals disabled by disease or injury to the highest possible level of functional ability. Several different types of rehabilitation are distinguished: vocational, social, psychological, medical, and educational.

Rehabilitation hospital

A hospital that provides health-related, social, and/or vocational services to disabled people to help them attain their maximum functional capacity.

Reimbursement

The process by which health care providers receive payment for their services. Because of the nature of the health care environment, providers are often reimbursed by third parties who insure and represent patients.

Reinsurance

An insurance agreement whereby the MCO or provider is reimbursed by a third party for costs exceeding a pre-set limit, usually an annual maximum. May also refer to an insurance policy purchased by a MCO from another insurance company to protect itself from losses (also can be known as Risk Control Insurance or Stop-Loss Insurance).

Related condition

A disability other than mental retardation which manifests itself during the developmental period

R

(before age 22) and results in substantial functional limitations in three of six major life activities (e.g., self-care, expressive/receptive language, learning, mobility, self-direction and capacity for independent living). These disabilities, which may include cerebral palsy, epilepsy, spina bifida, head injuries and a host of other diagnoses are said to be "related to" mental retardation in their effect upon the individual's functioning.

Relational data model

A relational data model consists of a series of tables. All tables together constitute the domain of the database. A table is, in fact, a matrix of data consisting of columns (or data fields) and rows. Each column corresponds to a specific data item (in database terms, an attribute). Each row (often referred to as a record) contains one value for each column, and all values for all columns in a row conceptually belong together.

Relational database

Database organization consisting of a series of tables, in which the rows are fixed-length records and the columns represent fields. Corresponding records in different tables are identified by means of keys.

Relative risk

The ratio of the incidence in two populations differing in the exposition to a risk factor.

Relative risk (RR)

The proportion of diseased people amongst those exposed to the relevant risk factor divided by the proportion of diseased people amongst those not exposed to the risk factor. This should be used in those cohort studies where those with and without disease are followed to observe which individuals become diseased.

Relative Risk Reduction (RRR)

The percent reduction in events in the treated group event rate (EER) compared to the control group event rate (CER).

Relative Value

A value that reflects a comparison with a standard. See Relative Value Scale.

Relative Value Scale (RVS)

An index that assigns weights to each medical service: the weights represent the relative amount to be paid for each service. The RVS used in the development of the Medicare Fee Schedule consists of three cost components: physician work, practice expense, and malpractice expense. RVS is the compiled table of relative value units (RVUs), which is a value given to each procedure or unit of service. As payment systems, RVS is used to determine a formula which multiplies the Resource Based Relative Value Scale (RBRVS) - A method of determining physicians' fees based on the time, training, skill and other factors required to deliver various services.

Relative Value Unit (RVU)

The unit of measure for a relative value scale. RVUs must be multiplied by a dollar conversion factor to become payment amounts.

Relaxation

Returning back to an equilibrium state after being exposed to an external force.

Relaxation methods

A variety of techniques to help decrease anxiety and muscle tension; these may include imagery, distraction, and progressive muscle relaxation.

Relevant

Answering the needs and social and health policies and priorities that a programme, activity, etc. has been designed to meet.

R

Reliability

Used to describe a measurement with low inter- and intraobserver variabilities.

Remote sensing

Taking and analyzing measurements on the earth's surface or atmosphere by using aerial or satellite photography.

Rendering methods

Methods in computer graphics to display three-dimensional structures.

Renewable term insurance

Term insurance providing the right to renew at the end of the term for another term or terms, without evidence of insurability. The rates increase at each renewal as the age of the insured increases.

Re-orienting health services

Health services re-orientation is characterized by a more explicit concern for the achievement of population health outcomes in the ways in which the health system is organized and funded. This must lead to a change of attitude and organization of health services, which focuses on the needs of the individual as a whole person, balanced against the needs of population groups. Reference: adapted from WHO (1986) Ottawa Charter. The Ottawa Charter also emphasizes the importance of a health sector which contributes to the pursuit of health. Responsibility for achieving this is shared between all the health professions, health service institutions and government, alongside the contribution of individuals and communities served by the health sector. In most cases this will require an expansion in health promotion and disease prevention action to achieve an optimal balance between investments in health promotion, illness prevention, diagnosis, treatment, care and rehabilitation services. Such an expanded role need not always be achieved through an increase in direct health system activity. Action by sectors other than the health sector may be more effective in achieving improved health outcomes. Governments need to acknowledge the key role of the health sector in supporting such intersectoral action for health.

Replacement cost method

A method used in valuing a business which focuses on valuing specific components of the investment such as individual business assets.

Replacement Insurance

Insurance that substitutes coverage under one policy for coverage under another policy.

Repolarization

Restoration of the potential difference between objects such as in a cell between an isolating membrane after depolarization. Ant: depolarization.

Report Card

A report card is an emerging tool that can be used by policy-makers and health care purchasers such as employers, government bodies, employer coalitions and consumers to compare and understand the actual performance of health plans. This tool provides health plan performance data in major areas of accountability such as; quality and utilization, consumer satisfaction, administration efficiency, financial stability and cost control.

Repository

A mechanism for storing any information that has to do with the definition of a system at any point in its life cycle. Repository services would typically be provided for extensibility, recovery, integrity, naming standards and a wide variety of other management functions.

Representative sample

A sample whose characteristics correspond to those of the original population or reference population.

R

Reproductive ratio

(1) Basic reproductive ratio, R_0 , a dimensionless parameter which encapsulates the biological details of different transmission mechanisms. For microparasites, R_0 , is defined as the average number of secondary cases of infection to which one primary case gives rise throughout its infectious period if introduced into a defined population consisting solely of susceptible individuals. For macroparasites, R_0 , is the average number of female offspring (or just offspring in the case of hermaphroditic species) produced throughout the lifetime of a mature female parasite, which themselves achieve reproductive maturity in the absence of density-dependent constraints on the parasite establishment, survival or reproduction. Also known as the basic reproduction rate, number. (2) Effective reproductive ratio, R , The number of secondary cases (microparasites) or female offspring (macroparasites) produced in a host population not consisting entirely of susceptible individuals (microparasites) or within which density dependent constraints limit parasite population growth (macroparasites). Under conditions of stable endemic infection, $R=1$.

Reprogramming

Revision of a programme if, on the basis of evaluation, it is found that the programme is not acceptable to the people for whom it is intended, is not proceeding according to plan, or is inefficient.

Request for proposal (RFP)

A solicitation from a health care organization, foundation or government agency notifying interested parties that funds are available for selected or specified projects, research, or other undertakings.

Requirements contract

A contract which provides for filling all actual purchase requirements of designated Government activities for specific supplies or services during a specified contract period, with deliveries to be scheduled by placing orders with the contractor.

Reserves

Funds for incurred but not reported health services or other financial liabilities. Also refer to deposits and/or other financial requirements that must be met by an entity as defined by various state or federal regulatory authorities.

Reservoir

The habitat in which an infectious agent normally lives, grows and multiplies; reservoirs include human reservoirs, animals reservoirs, and environmental reservoirs.

Resident

A physician in training after medical school graduation. In the modern era, specialties require at least three years of residency training. Many specialties require four years or more, and it is not uncommon for physicians to undertake fellowships for further specialty training after a residency.

Resistance

(1) The reduction, due to genetic selection, of susceptibility of a parasite or its vector to chemotherapy. (2) The ability of a host to resist a pathogen.

Resolution

(1) Refers to the ability of a device to distinguish between various factors. For example, spatial resolution is the ability to distinguish between adjacent structures. Contrast resolution is the ability to discriminate between shades of gray. (2) Degree of molecular detail on a physical map of DNA, ranging from low to high.

Resolution

The density of pixels in a digital image.

Resource

An object in competition with another like object. A scarce object.

Resource management

The most rational use of manpower, knowledge, facilities, and funds to achieve the intended purposes with the greatest effect with the least outlay. The rate at which and the extent to which a health system based on primary health care can be instituted in a country depends on the availability of resources and their employment to the best advantage. In resource management, a distinction has to be made between capital and recurrent cost.

Resource-Based Relative Value Scale (RBRVS)

A fee schedule introduced by HCFA to reimburse physicians' Medicare fees based on the amount of time and resources expended in treating patients, with adjustments for overhead costs and geographic differences. Established as part of the Omnibus Reconciliation Act of 1989, Medicare payment rules for physician services was altered by establishing an RBRVS fee schedule. This payment methodology has three components: a relative value for each procedure, a geographic adjustment factor, and a dollar conversion factor.

Resourced-Based Relative Value Unit (RBRVU)

A system developed in the early 1990s by the federal government to measure the resources required for physicians to treat a particular disease or perform a particular procedure. Used to calculate Medicare reimbursement for physicians and generally viewed in the industry as a way of ratcheting down payment, especially for those specialties that perform a large number of clinical procedures.

Respite Care

Means short-term care which is: 1. needed in order to maintain your health or safety; and, 2. provides temporary relief from caregiving duties to a member of your Immediate Family or any other person who is your unpaid, primary caregiver. Respite Care includes such services as Home Care, Home Health Care and Adult Day Care. It does not include Nursing Facility Care or Alternate Facility Care.

Responsible

Term used to describe one of the principal criteria that a contractor must meet in order to be eligible for the award of a particular contract. A contractor generally is deemed to be responsible if it has adequate financial resources to perform the contract; is capable of complying with the proposed performance of delivery schedule; has a satisfactory performance record; has a satisfactory record of integrity; has the necessary organization, experience, accounting and operational controls, and technical skills, or the ability to obtain them; has the necessary production, construction, and technical equipment and facilities, or the ability to obtain them; and is otherwise qualified and eligible to receive an award.

Restriction enzyme cutting site

A specific nucleotide sequence of DNA at which a particular restriction enzyme cuts the DNA. Some sites occur frequently in DNA (e.g., every several hundred base pairs), others much less frequently (rare-cutter; e.g., every 10,000 base pairs).

Restriction enzyme, endonuclease

A protein that recognizes specific, short nucleotide sequences and cuts DNA at those sites. Bacteria contain over 400 such enzymes that recognize and cut over 100 different DNA sequences. See restriction enzyme cutting site.

Restriction fragment length polymorphism (RFLP)

Variation between individuals in DNA fragment sizes cut by specific restriction enzymes; polymorphic sequences that result in RFLPs are used as markers on both physical maps and genetic linkage maps. RFLPs are usually caused by mutation at a cutting site. See marker.

Retained earnings

The portion of after-tax net income of a corporation not paid out to shareholders in the form of dividends, but which instead is retained for use in the business.

Retention

The amount of liability retained on a given risk.

R

Retrieval

The act of retrieving earlier stored data.

Retrospective reimbursement

Payment made after-the-fact for services rendered on the basis of costs incurred by the facility. See also prospective payment.

Retrospective review

A method of reviewing patient care, after hospital discharge, to determine quality, necessity and appropriateness of care.

Retrospective study

A study in which people are enrolled and then have their history of risks, infections or disease measured.

Return on investment

A measurement of the amount of positive results generated by the investment of effort and allocation of resources toward a specific project or goal.

Revenue

The gross amount of earnings received by an entity for the operation of a specific activity. It does not include any deductions for such items as expenses, bad debts, or contractual allowances.

Revenue share

The proportion of a practice's total revenue devoted to a particular type of expense. For example, the practice expense revenue share is that proportion of revenue used to pay for practice expense.

Reverse video

Part of a screen with colors for foreground and background complementary to the usual colors, intended to draw attention.

Review (of financial statements)

The process of performing inquiry and analytical procedures that provide a certified public accountant with a reasonable basis for expressing limited assurance that there are no material modifications that should be made to a company's financial statements in order for them to be in conformity with generally accepted accounting principles or, if applicable, with another comprehensive basis of accounting. A review provides less assurance than an audit, more assurance than a compilation (which provides no assurance).

Review of system (ROS)

A system-by-system review of the body function. The ROS is begun during the initial interview with the patient and completed during the physical examination, as physical findings prompt further questions. One outline of the system and some of the signs and symptoms that might be noted or reported are as follows: Skin: bruising, discoloration, pruritus, birthmarks, moles, ulcers, decubiti, changes in the hair or nails; Hematopoietic: spontaneous or excessive bleeding, fatigue, enlarged or tender lymph nodes, pallor, history of anemia; Head and face: pain, traumatic, injury, pose. Ears: ringing in the ears, deafness, dizziness; Eyes: change in vision, pain, inflammation, infections, double vision, scotomata, blurring, tearing; Mouth and throat: dental problems, hoarseness, dysphagia, bleeding gums, sore throat, ulcers or sores in the mouth; Nose and sinuses: discharge, epistaxis, sinus pain, obstruction; Breasts: pain, change in contour or skin color, lumps, discharge from the nipple; Respiratory tract: cough, sputum, change in sputum, night sweats, nocturnal dyspnea, wheezing; Cardiovascular system: chest pain, dyspnea, palpitations, weakness, intolerance of exercise, varicosities, swelling of extremities, known murmur, high blood pressure, asystole; Gastrointestinal system: nausea, vomiting, diarrhea, constipation, quality of appetite, change in appetite, dysphagia, gas, heartburn, melena, change in bowel habits, use of laxatives or other drugs to alter the function of the gastrointestinal tract; Urinary tract: dysuria, change in color of urine, change in frequency of urination, pain with urgency, incontinence, edema, retention; Genital tract (female): menstrual history, obstetric

R

history, contraceptive use, discharge, pain or discomfort, history of venereal disease; Genital tract (male): penile discharge, pain or discomfort, pruritus, skin lesions, hematuria, history of venereal disease; Skeletal system: heat, redness, swelling, limitation of function, deformity, crepitation, pain in a joint or an extremity, the neck, or the back, especially with movement; Nervous system: dizziness, tremor, ataxia, difficulty in speaking, change in speech, paresthesia, loss of sensation, syncope; Endocrine system: tremor, palpitations, intolerance of heat or cold, polyuria, polydipsia, polyphagia, diaphoresis, exophthalmus, goiter; Physiologic status: nervousness, instability, depression, phobia, sexual disturbances, criminal behavior, insomnia, night terrors, mania, memory loss, perseveration, disorientation.

RF

Radio Frequency

RFLP

See restriction fragment length polymorphism.

RFP

Request for Proposal.

RFQ

Request for Quote.

RGB

(Red Green Blue) A coding language that controls the electron gun in CRT (Cathode Ray Tube) monitors. The video signal that comes into the monitor is separated into its component parts and converted to RGB; the video images are then rendered on the monitor's screen.

Ribonucleic acid (RNA)

A chemical found in the nucleus and cytoplasm of cells; it plays an important role in protein synthesis and other chemical activities of the cell. The structure of RNA is similar to that of DNA. There are several classes of RNA molecules, including messenger RNA, transfer RNA, ribosomal RNA, and other small RNAs, each serving a different purpose.

Ribonucleotides

See nucleotide.

Ribosomal RNA (rRNA)

A class of RNA found in the ribosomes of cells.

Ribosomes

Small cellular components composed of specialized ribosomal RNA and protein; site of protein synthesis. See ribonucleic acid (RNA).

Rider

A document or form containing special provisions that are not contained in the policy contract.

Rights & Duties / The "Right to Die"

Popular utilitarianism and civil liberty movements tend to argue in the language of "rights". This is not the only course that the voluntary euthanasia movement could take however: "duties" based language is less confrontational, may protect people who don't have the means of asserting their rights and, being broad-based rather than individual-centred, may be a more achievable way forward for society as a whole. "Rights" language tends to get public attention but also tends to polarise the issues; the phrase "a right to die" is difficult to sustain and often has to be translated as "a right to choose when to die" or a "right to choose how to die."

Right-to-Know

Legislation that gives patients the ability to access full information about the financial arrangements between a physician and the HMO, as well as all treatment options.

R

RIS

(Radiology Information System) An integrated system for the processing of radiologic images. Arguably, the quickest, clinical ancillary area to be changing over to a paperless, patient record. RIS is a key part of a clinical information system (CIS), and an area that places a high demand on the HIS in terms of the need for electronic storage and rapid transmission of images. The remote interpretation of radiologic images - teleradiology, is a component of telemedicine.

RISC

(Reduced Instruction Set Computer) Such a computer has a limited set of instructions that can be executed very fast. Complicated instructions are performed as a sequence of these elementary instructions. Ant CISC.

Risk

(1) Refers to finances used for providing patient care. For example, a managed care health plan which offers prepaid care for a given premium is "at risk" because it must provide care within the premium funds available. (2) In risk assessment, the probability that something will cause injury, combined with the potential severity of that injury.

Risk adjuster

A measure used to adjust payments made to a health plan on behalf of a group of enrollees in order to compensate for spending, that is expected to be lower or higher than average, based on the health status or demographic characteristics of the enrollees.

Risk adjustment

(1) Risk adjustment uses the results of risk assessment in order to fairly compensate plans that, by design or accident, end up with a larger-than-average share of high-cost enrollees. (2) Increases or reductions in the amount of payment made to a health plan on behalf of a group of enrollees to compensate for health care expenditures that are expected to be higher or lower than average. (3) A process by which premium dollars are shifted from a plan with relatively healthy enrollees to another with sicker members. It is intended to minimize any financial incentives health plans may have to select healthier than average enrollees. In this process, health plans which attract higher risk providers and members would be compensated for any differences in the proportion of their members that require high levels of care compared to other plans.

Risk approach

A type of approach consisting of identifying and devoting more care to individuals or groups who, for biological, environmental or socioeconomic reasons, are at special risk of having their health impaired, of contracting a specific disease, or of having inadequate attention paid to their health problems.

Risk assessment

(1) Is the means by which plans and policymakers estimate the anticipated claims costs of enrollees. (2) Identifying and measuring the presence of direct causes and risk factors which, based on scientific evidence or theory, are thought to directly influence the level of a specific health problem.

Risk behavior

Specific forms of behavior which are proven to be associated with increased susceptibility to a specific disease or ill-health. Reference: modified definition. Risk behaviors are usually defined as 'risky' on the basis of epidemiological or other social data. Changes in risk behaviors are major goals of disease prevention, and traditionally health education has been used to achieving these goals. Within the broader framework of health promotion, risk behavior may be seen as a response, or mechanism for coping with adverse living conditions. Strategies to respond to this include the development of life skills, and creation of more supportive environments for health.

Risk communication

Activities to ensure that messages and strategies designed to prevent exposure, adverse human health effects, and diminished quality of life are effectively communicated to the public. As part of a broader prevention strategy, risk communication supports education efforts by promoting

R

public awareness, increasing knowledge, and motivating individuals to take action to reduce their exposure to hazardous substances.

Risk contract

An arrangement through which a health provider agrees to provide a full range of medical services to a set population of patients for a pre-paid sum of money. The physician is responsible for managing the care of these patients, and risks losing money if total expenses exceed the pre-determined amount of funds.

Risk factor

(1) Social, economic or biological status, behaviors or environments that are associated with or cause increased susceptibility to a specific disease, ill health, or injury. As is the case with risk behaviors, once risk factors have been identified, they can become the entry point of focus for health promotion strategies and actions. (2) A factor that causes a person or a group of people to be particularly susceptible to an unwanted, unpleasant, or unhealthful event, such as immunosuppression, which increases the incidence and severity of infection, or cigarette smoking, which increases the risk of developing a respiratory or cardiovascular disease.

Risk identification

A Nursing Interventions Classification defined as analysis of potential risk factors, determination of health risks, and prioritization of risk reduction strategies for an individual or group.

Risk management

A function of administration of a hospital or other health facility directed toward identification, evaluation, and correction of potential risks that could lead to injury to patients, staff members, or visitors and result in property loss or damage.

Risk manager

A person who is responsible for risk management which involves: claim management, establishment of management information systems to encourage personnel to report occurrences of actual or potential loss, education of staffs because personnel and medical staffs generally need to improve their understanding of what situations may constitute loss potential, review of policies and procedures, and evaluation of insurance coverage and contracts.

Risk measure

Measure of the expected per capita costs of efficiently provided health care services to a defined group for a specified future period.

Risk or risk factor

Risk is a term used by epidemiologists to quantify the likelihood that something will occur. A risk factor is something which either increases or decreases an individual's risk of developing a disease. However, it does not mean that, if exposed, an individual will definitely contract a particular disease.

Risk pool

(1) A defined account to which revenue and expenses are posted; it attempts to define expected claim liabilities of a given defined account as well as required funding to support the claim liability. (2) A pool of money that is set aside to be used for defined expenses. If the money in the pool is not used in a given year, it is usually returned to the organization or individuals who manage the risk for the health plan. (3) Legislatively created programs that group together individuals who cannot get insurance in the private market. Funding for the pool is subsidized through assessments on insurers or through government revenues. Maximum rates are tied to the rest of the market. (AMA, 1993)

Risk ratio

A comparison of the risk of some health-related event such as disease or death in two groups. The ratio of risk in the treated group (EER) to the risk in the control group (CER): $RR = EER / CER$. RR is used in randomised trials and cohort studies.

Risk selection

(1) The process by which health plans seek to enroll healthy, low-cost subscribers. (2)

R

Enrollment choices made by health plans or enrollees on the basis of perceived risk relative to the premium to be paid. (3) Any situation in which health plans differ in the health risk associated with their enrollees because of enrollment choices made by the plans or enrollees, that is, where one health plan's expected costs differ from another's due to underlying differences in their enrolled populations.

Risk sharing

(1) The distribution of financial risk among parties furnishing a service. For example, if a hospital and a group of physicians from a corporation provide health care at a fixed price, a risk-sharing arrangement would entail both the hospital and the group being held liable if expenses exceed revenues. (2) The process whereby a managed care health plan and contracted provider each accept partial responsibility for the financial risk and rewards involved in cost effectively caring for the members enrolled in the plan and assigned to a specific provider.

Risk-Adjusted Capitation

A method of payment to either an organization or individual provider which takes the form of a fixed amount per person per period and which is varied to reflect the health characteristics of individuals or groups of individuals.

Risk-bearing entity

An organization that assumes financial responsibility for the provision of a defined set of benefits by accepting prepayment for some or all of the cost of care. A risk-bearing entity may be an insurer, a health plan or self-funded employer; or a PHO or other form of PSN.

RLP cholesterol

(Remnant-Like Particle cholesterol) A form of cholesterol found in high levels in patients who have suffered heart attacks and have otherwise normal LDL (low-density lipoprotein) and HDL (high-density lipoprotein) cholesterol counts. Remnant lipoproteins result from the metabolism of very low-density lipoproteins and chylomicrons, the major triglycerides that carry lipids in the blood. Markedly increased RPL cholesterol levels have also been found in patients suffering from type III dyslipidemia.

RNA

Ribonucleic acid, which is similar to a single strand of DNA but with a small chemical difference in the structure of the nucleotides. There are three classes - messenger RNA is the template for decoding the instructions contained in DNA, while transfer RNA and ribosomal RNA (located in structures known as ribosomes inside cells) follow these instructions to make proteins.

Robot

A computer-controlled device that can physically manipulate its surroundings.

Robotics

Creation and training of robots.

ROC

(Receiver Operating Characteristic) A procedure involving statistics used to analyze the ability of a diagnostic tool to determine whether an individual is healthy or diseased. ROC surveys are most often used in observer performance evaluations of the feasibility and performance of diagnostic imaging systems.

Roentgen radiation

See X ray.

Roll forward

Recovering the contents of a database from the last backup and the log file.

Rollabout unit

Common term for a teleconferencing/ telehealth unit where the monitor, CODEC, camera, and other equipment are placed in a cabinet with wheels that can be rolled from room to room.

R

ROM

Read Only Memory is memory with data permanently stored on it. Vital system instructions are stored on ROM, which is retained even with the computer turned off.

Room unit

Common term for a large teleconferencing/telehealth unit, usually with two large monitors, that is placed more or less permanently at a single site.

Rotation

Also called a turn. A transformation which turns a figure about a point a given number of degrees.

Route of exposure

The way in which a person may contact a chemical substance. For example, drinking (ingestion) and bathing (skin contact) are two different routes of exposure to contaminants that may be found in water.

Router

A special-purpose computer, black box or software package that handles the connection between 2 or more networks. Routers spend all their time looking at the destination addresses of the packets passing through them and deciding which route to send them on.

RR interval

The distance in time between successive R waves in the ECG.

RRI

(Relative Risk Increase) Increase in rates of bad events, comparing experimental patients to control patients in a trial, and calculated as for RBI. RRI is also used in assessing the impact of risk factors for disease.

RRR

(Relative Risk Reduction) The proportional reduction in rates of bad events between experimental (experimental event rate [EER]) and control (control event rate [CER]) patients in a trial, calculated as $|EER-CER|/CER$ and accompanied by a 95% confidence interval (CI).

RSA

Rivest, Shamir, and Adelman: the initials of the inventors of an algorithm for a digital signature, using prime-number based encryption techniques.

Rule-based decision-support system

A knowledge-based decision-support system in which all the knowledge is encoded using production rules.

Run length coding

A compression technique for signals with large homogeneous parts. The signal is represented by pairs of data: a level and the number of samples with that level.

Rural health clinic (RHC)

A public or private hospital, clinic or physician practice designated by the federal government as in compliance with the Rural Health Clinics Act (Public Law 95-210). The practice must be located in a Medically Underserved area or a Health Professions Shortage Area and use a physician assistant and/or nurse practitioners to deliver services. A rural health clinic must be licensed by the state and provide preventive services.

Rural Health Clinics Act

Establishes a reimbursement mechanism to support the provision of primary care services in rural areas. Public Law 95-210 was enacted in 1977 and authorizes the expanded use of physician assistants, nurse practitioners and certified nurse practitioners; extends Medicare and Medicaid reimbursement to designated clinics; and raises Medicaid reimbursement levels to those set by Medicare.

R

Rural health network

Refers to any of a variety of organizational arrangements to link rural health care providers in a common purpose.

Ryan White Care Act

Federal legislation which provides support, such as medications and medical treatments, to individuals with AIDS. The Act is named after a young boy who had AIDS and experienced discrimination as a result of his disability.

S

SA node

(Sino-auricular node) The group of cells in the right atrium of the heart that is the pacemaker for a healthy heart.

SAANDs

An acronym for selective apoptotic antineoplastic drugs.

SALT

(Sequential Aggressive Local Therapy) Chemotherapy term.

Sample

(1) A small amount of material for examination, for instance, a blood sample of a patient. (2) A selected subset of a population. A sample may be random or non-random and it may be representative or non-representative. (3) Measurement of a signal at a certain point in time.

Sampling

Measuring the value of the output of a process. *S. Frame* - A large population of cases from which samples for a trial group can be retrieved. *S. Frequency* - Frequency at which samples are taken. Syn: sampling rate. *S. Interval* - Time interval over which the sampling of an analog signal takes. *S. Theorem* - See Shannon Nyquist theorem.

SAS

Statement on Auditing Standards.

Satellite transmissions

Voice, video or data transmissions relayed from a sending earth station to a satellite and back to a receiving earth station. An electronics retransmission device serving as a repeater, normally placed in orbit around the earth in geostationary or low altitude orbit for the purpose of receiving and retransmitting electromagnetic signals. It normally receives signals from a single source and retransmits them over a wide geographic area, known as the satellite's "footprint."

SBA

Small Business Administration.

SBIR

Small Business Innovative Research (contract).

Scan line Raster

See NTSC.

Scanner

(1) Equipment used to obtain images from a patient, e.g., CT or MRI. (2) Equipment used to enter information on documents or film into a computer.

Scatter diagram

A graph in which each dot represents paired values for two continuous variables, with the x-axis representing one variable and the y-axis representing the other; used to display the relationship between the two variables; also called a scattergram.

Scatter plots

Also called scatter diagram or scattergram.

Scattergram

A presentation of bivariate data by plotting each variable as a point with (x,y) coordinates.

Schedule of benefits

Means a schedule of benefit coverage that is provided to each Covered Person which establishes Premium amounts, Premium payment mode and a summary of the benefits and limitations that apply.

S

Scheduled fee-for-service

The maximum negotiated rate a participating provider can collect from a plan for a particular service. Providers usually do not balance bill the patient, but write off the difference between their usual charge and the scheduled fee-for-service payment from the plan.

School Health and Related Services (SHARS)

A Medicaid optional benefit that provides services related to a child's Individual Education Plan (IEP). Services may include audiology, medical services, occupational therapy, physical therapy, speech therapy, psychological services, school health services, assessments and/or counseling.

Scientific notation

A short-hand way of writing very large or very small numbers. A number expressed in scientific notation is expressed as a decimal number between 1 and 10 multiplied by a power of 10, for example, $4.53 \times 10^3 = 4350$.

Scientific review

An exhaustive literature search to define and critically evaluate the knowledge base for pain assessment and interventions.

Scintigram

In nuclear medicine, recording of detected scintillations caused by emission from an organ.

Scintillation

Light emission caused by incident high-energy radiation.

Scintillation camera

A detector of gamma radiation using scintillation.

SCIWORA syndrome

Spinal cord injury without radiologic abnormality syndrome.

Scored savings

Amount of savings expected to be obtained from enacting new legislation. Estimated by the Congressional Budget Office by calculating the difference in spending projected under current law and under the proposed legislation.

SCP

(Standard communications protocol) A standard for the transmission of ECGs and their interpreted data.

Screen

The surface of a display unit, consisting of phosphor that lightens up when hit by the electrode beam, or of liquid crystals that change their orientation when exposed to an electric field.

Screening

The use of quick procedures to differentiate apparently well persons who have a disease or a high risk of disease from those who probably do not have the disease. It is used to identify high risk individuals for more definitive study or follow-up. Multiple screening (or multiphasic screening) is the combination of a battery of screening tests for various diseases performed by technicians under medical direction and applied to large groups of apparently well persons.

SDB

Small Disadvantaged Business.

SDE

See structured data entry.

SDI

(Selective dissemination of information) A service that periodically runs user defined automatic retrieval searches on an NLM database.

SDM

(Shared Decision Making) A style of decision-making in health care where the patient is able to take a more active role in decision making, especially by offering them increased control over the choice of treatment, and, as a result, giving them a greater sense of responsibility for their care and health. Also called SDP, or Shared Decision Programs.

Seamless care

The experience by patients of smooth and easy movement from one aspect of comprehensive health care to another, notable for the absence of red tape.

Search engine

(1) A Web site that indexes an online resource and makes that index available to other users for searching. This term is typically applied to a site that has indexed Web documents, but search engines also index mailing lists and other online resources. An "internal" search engine index only includes the documents of that particular Web site, which permits the user to find information on that site more easily and quickly. (2) A mechanism for finding documents on the Internet. For example, Yahoo and Alta Vista are search engines.

Searching

Selecting and retrieving data from a large data set, especially from a database or a data warehouse.

Seasonality

Change in physiological status or in disease occurrence that conforms to a regular seasonal pattern.

SEC

Securities and Exchange Commission.

SECAM

(Sequential Couleur Avec Memoire) The color television signaling standard with 625 scan lines and 25 interlaced frames/second used in France, Russia, Eastern Europe and some Middle Eastern countries. Like PAL, SECAM is based on a 50 Hz power system, displaying interlaced lines at 50 fields per second. The color information is transmitted sequentially over a frequency modulated subcarrier, thus avoiding the distortion that arises during NTSC transmission.

Second opinion

A medical opinion provided by a second physician or medical expert, when one physician provides a diagnosis or recommends a surgery or treatment to an individual. Individuals are encouraged to obtain a second opinion when a physician recommends surgery, an involved course of treatment, or gives a serious medical diagnosis.

Second surgical opinion

An opinion provided by a second physician, when one physician recommends surgery to an individual. This has become a standard benefit in many health plans, in the hope of eliminating unnecessary surgeries.

Secondary attack rate

A measure of the frequency of new cases of a disease among the contacts of known cases.

Secondary care

Services provided by medical specialists who generally do not have first contact with patients (e.g., cardiologist, urologists, dermatologists). In the U.S., however, there has been a trend toward self-referral by patients for these services, rather than referral by primary care providers. This is quite different from the practice in England, for example, where all patients must first seek care from primary care providers and are then referred to secondary and/or tertiary providers, as needed.

Secondary dissemination (evaluation)

Dissemination of summarized, often simplified findings to audiences composed of stakeholders.

Secondary health care

Care of a more specialized kind than can be offered at the most peripheral level, for example radiographic diagnosis, general surgery, care of women with complications of pregnancy and childbirth, and diagnosis and treatment of uncommon or severe diseases. This kind of care is provided by trained staff in such institutions as district or provincial hospitals.

Secondary insurance

Any insurance that supplements Medicare coverage. The three main sources for secondary insurance are employers, privately purchased Medigap plans, and Medicaid.

Secondary opinions

In cases involving non-emergency or elective surgical procedures, the practice of seeking judgment of another physician in order to eliminate unnecessary surgery and contain the cost of medical care.

Secondary prevention

Early diagnosis, treatment and follow-up. Secondary prevention activities start with the assumption that illness is already present and that primary prevention was not successful and the goal is to diminish the impact of disease or illness through early detection, diagnosis and treatment. For example, blood pressure screening, treatment, and follow up programs.

Second-to-die policy

A life insurance policy that insures two lives with the promise to pay only at the second death, also called survivorship whole life insurance.

Sector

Part of a track of a disk. Syn: physical block.

Sector scan

A scanning method in ultrasound in which each successive beam makes a small angle with the previous one. The resulting two-dimensional image has the form of a sector.

Secular trend

Changes over a long period of time, generally years or decades.

Security

Methods to control access and protect information from accidental or intentional disclosure to unauthorized persons and from alteration, destruction, or loss. See data security.

Security certificate

A block of information, usually stored as a text file, that is used by the SSL protocol to establish a secure connection.

SEDAAR

(Strategic Environmental Distributed Active Archive Resource) A GIS for environmental.

Segment

One of two or more divisions, product departments, plants or other subdivisions of an organization reporting directly to a home office, usually identified with responsibility for profit and/or producing a product or service. The term includes Government-owned contractor operated (GOCO) facilities, and joint ventures and subsidiaries (domestic and foreign) in which the organization has a majority ownership. The term also includes those joint ventures and subsidiaries (domestic and foreign) in which the organization has less than a majority of ownership, but over which it exercises control.

Segmentation

Decomposing a signal or an image into its constituent components.

S

Seinfeld syncope

Syncope caused by hysterical laughter in a patient with cerebrovascular disease, causing a reaction similar to that effected by a Valsalva maneuver, with resultant reduced oxygen flow to the brain.

SEIR model

A class of compartmental prevalence models, with compartments Susceptible, Latent (Exposed), Infectious and Recovered. Takes its name from a common notation. In the notation used in the course, this would be an XYZ model. Many permutations possible.

Seismed

(Secure Environment for Information Systems in MEDicine) A project within the European AIM program on security in medical information systems.

Selective contracting

An option under Section 1915(b) of the Social Security Act which allows states to develop competitive contracting systems for health services, such as inpatient hospital care.

Self funded

A health plan for which the employer sets aside funds to cover employee medical claims and assumes the risk, as opposed to paying premiums to an insurance company. Claims administration is usually handled by a third party.

Self-care

(1) The person and medical care performed by the patient, usually in collaboration with and after instruction by a health professional. The patient's need for assistance and ability to develop a higher level of self-care must be evaluated in forming any nursing care plan. Maximal self-care appropriate to the condition and to the patient is often the ultimate goal of nursing care. Occupational therapy services also help restore, develop, or maintain the skills necessary to permit physically and mentally disabled people to perform the daily living tasks of self-care; (2) The health care by laypeople of their families, their friends, and themselves, including identification and evaluation of symptoms, medication, and treatment. Self-care is self-limited, voluntary, and wholly outside professional health care systems but may include consultation with a physician or other health care professional as a resource; (3) Personal care accomplished without technical assistance, such as eating, washing, dressing, using the telephone, and attending to one's own elimination, appearance, and hygiene. The goal of rehabilitation medicine is maximal personal self-care.

Self-funded insurance

When an employer funds benefit plans from its own resources.

Self-funding/self-insurance

An employer or group of employers sets aside funds to cover the cost of health benefits for their employees. Benefits may be administered by the employer(s) or handled through an administrative service only agreement with an insurance carrier or third-party administrator. Under self-funding, it is generally possible to purchase stop-loss insurance that covers expenditures above a certain aggregate claim level and/or covers catastrophic illness or injury when individual claims reach a certain dollar threshold.

Self-help

In the context of health promotion, actions taken by lay persons (i. e. not health professionals) to mobilize the necessary resources to promote maintain or restore the health of individuals or communities. Reference: modified definition. Although self-help is usually understood to mean action taken by individuals or communities which will directly benefit those taking the action, it may also encompass mutual aid between individuals and groups. Self-help may also include self care-such as self-medication and first aid in the normal social context of people's everyday lives.

Self-insurance

The practice of an employer or organization assuming responsibility for health care losses of its employees. This usually is accomplished by setting up a fund against which claims can be made. The claims are often processed by an independent third party.

Self-Insured Health Plan

Employer-provided health insurance in which the employer, rather than an insurer, is at risk for its employees' medical expenses.

Self-reliance

The capacity of an individual, a community, or national authorities to take initiative in assuming responsibility for their own health development, adopting measures that are understood by them and acceptable to them, knowing their own strengths and resources and how to use them, and knowing when and for what purpose to turn to others for support and cooperation.

Self-sufficiency

The capacity of an individual, a community, or national authorities to take initiative in assuming responsibility for their own health development, adopting measures that are understood by them and acceptable to them, knowing their own strengths and resources and how to use them, and depending solely on those strengths and resources.

Self-theory

A personality theory that uses one's self concept in integrating the function and organization of the personality.

Semantic

Relating to the meaning of a sign or a set of signs.

Semantic error checking

Checking data on errors by using their semantics (meaning), for instance the plausibility of data, possibly in relation to already available data.

Semantic network

A representation of knowledge of a domain by means of a network of concepts (object classes) with attributes that provides semantic relationships among the concepts.

Senior plan

Refers to a benefit package offer by an HMO or other insurer to beneficiaries eligible for Medicare parts A & B.

Sensitivity

(1) Extent to which the criteria used to identify the target population results in the inclusion of persons, groups, or objects at risk. (2) The ability of a system to detect epidemics and other changes in disease occurrence. The proportion of persons with disease who are correctly identified by a screening test or case definition as having disease. (3) The ability of a test to work on people you know have the infection. More precisely $TP/(TP+FN)$, where TP is the number of true positives and FN is the number of false negatives.

Sensitivity

See true positive.

Sensitivity analysis

Analysis of the change of an outcome of a calculation when input variables are changed.

Sentinel event

An adverse health event that could have been avoided through appropriate care. An example would be hospitalization for uncontrolled hypertension that might have been avoided.

Sentinel GP

General practitioner belonging to a relatively small group of highly motivated, geographically distributed physicians who provide the data for epidemiological monitoring.

Sentinel surveillance

A surveillance system in which a pre-arranged sample of reporting sources agrees to report all

cases of one or more notifiable conditions.

Sequence

See base sequence.

Sequence tagged site (STS)

Short (200 to 500 base pairs) DNA sequence that has a single occurrence in the human genome and whose location and base sequence are known. Detectable by polymerase chain reaction, STSs are useful for localizing and orienting the mapping and sequence data reported from many different laboratories and serve as landmarks on the developing physical map of the human genome. Expressed sequence tags (ESTs) are STSs derived from cDNAs.

Sequencing

Determination of the order of nucleotides (base sequences) in a DNA or RNA molecule or the order of amino acids in a protein.

Sequential access

A storage method in which the data must be read in the same order as they were written, such as for magnetic tape. Ant. random access.

Serial comparison

Comparison of biosignals (e.g., ECGs) over certain time intervals to detect intraperson change.

Serology

The study of antigen-antibody reactions. More generally, the use of serotype data to infer an individual's history of infection.

Seropositive n.

An individual whose serotype suggests that they have experienced infection in the past.

Seroprevalence

The proportion of a population who are seropositive.

Serotype

The range of antibodies which an individual possesses, usually based on sampling from blood serum or saliva. Different strains of a pathogen can sometimes be distinguished by the different antibodies they induce in a host, or with which they can be made to react in vitro; thus the word serotype has also come to be applied to a particular strain ('the virulent serotype'). This is the more common clinical usage.

Server

(1) A computer program that provides services to other computer programs in the same or other computers. Specific to the Web, a Web server is the computer program (housed in a computer) that serves requested HTML pages or files. (2) A computer that provides a specific kind of service to client software running on other computers. The term can also refer to a single server machine that could have several different server software packages running on it, thus providing many different servers to clients on the network.

Service area

A geographic area serviced by a provider organization or health plan.

Service carve-outs

A service carve-out provides a set of specific services outside a mainstream plan; these services might be administered separately and reimbursed on either a capitated or a fee-for-service basis.

Service life

The period of usefulness of a tangible capital asset (or group of assets) to its current owner. The period may be expressed in units of time or output. The estimated service life of a tangible capital asset (or group of assets) is a current forecast of its service life and is the period over which depreciation cost is to be assigned.

S

Service period

Period of employment that may be required before an employee is eligible to participate in an employer-sponsored health plan, most commonly one to three months.

Service plan

Means a written description of the Long-term Care services appropriate to meet your needs. The Service Plan will identify the type and frequency of services you need. It will also indicate any benefits you will receive under the Plan for the services rendered.

Settings for health

The place or social context in which people engage in daily activities in which environmental, organizational and personal factors interact to affect health and well-being. Reference: new edition. A setting is also where people actively use and shape the environment and thus create or solve problems relating to health. Settings can normally be identified as having physical boundaries, a range of people with defined roles, and an organizational structure. Action to promote health through different settings can take many different forms, often through some form of organizational development, including change to the physical environment, to the organizational structure, administration and management. Settings can also be used to promote health by reaching people who work in them, or using them to gain access to services, and through the interaction of different settings with the wider community. Examples of settings with the wider community. Examples of settings include schools, worksites, hospitals, villages and cities.

Severity of illness

A risk prediction system to correlate the "seriousness" of a disease in a particular patient with the statistically "expected" outcome (e.g., mortality, morbidity, efficiency of care). Most effectively, severity is measured at or soon after admission, before therapy is initiated, giving a measure of pretreatment risk.

Sex chromosomes

The X and Y chromosomes in human beings that determine the sex of an individual. Females have two X chromosomes in diploid cells; males have an X and a Y chromosome. The sex chromosomes comprise the 23rd chromosome pair in a karyotype. Compare autosome.

Sex-specific mortality rate

A mortality rate among either males or females.

SGML

(Standardized General Markup Language) A subset of SGML is HTML, the language used to create Web documents.

Shadow controls (evaluation)

Expert and participant judgments used to estimate net impact.

Shadow prices (evaluation)

Imputed or estimated costs of goods and services not valued accurately in the marketplace. Shadow prices also are used when market prices are inappropriate due to regulation or externalities.

Shadow pricing

Within a given employer group, pricing of premiums by HMO(s) based upon the cost of indemnity insurance coverage, rather than strict adherence to community rating or experience rating criteria.

Shannon-Nyquist theorem

A theorem stating that a signal should be sampled at least at twice the highest-frequency component present in the signal to avoid the loss of information.

S

Shannon's formula

A formula that defines the information content of a message as the negative logarithm (base 2) of the probability of occurrence of that message.

Shared care

Clinicians (general practitioners, specialists and nurses) jointly treating the same patient.

Shared Savings

A provision of most prepaid health care plans where at least part of the providers' income is directly linked to the financial performance of the plan. If costs are lower than projections, a percentage of these savings are referred to the providers.

Shared services

The coordinated, or otherwise explicitly agreed upon, sharing of responsibility for provision of medical or nonmedical services on the part of two or more otherwise independent hospitals or other health programs. The sharing of medical services might include an agreement that one hospital provide all pediatric care needed in a community and no obstetrical services while another provide obstetrics and no pediatrics. Examples of shared nonmedical services would include joint laundry or dietary services for two or more nursing homes.

Sharps

Sharp objects such as syringes, needles, lancets, razor blades, etc. Sharps containers are generally made of thick plastic - often PVC - and are usually discarded when they are full to protect the safety and health of waste handling employees. One new sharps disposal system features reusable sharps containers that are emptied mechanically and then returned to use.

Shell

(1) A software layer separating the user and the operating system. (2) A framework for a decision-support system without the domain knowledge.

Shock

An abnormal condition of inadequate blood flow to the body's peripheral tissues, with life-threatening cellular dysfunction. The condition is usually associated with inadequate cardiac output, hypotension, oliguria, changes in peripheral blood flow resistance and distribution, and tissue damage. Causal factors include hemorrhage, vomiting, diarrhea, inadequate fluid intake, or excessive renal loss, resulting in hypovolemia. Kinds of shock include anaphylactic shock, septic shock, cardiogenic shock, diabetic shock, electric shock, hypovolemic shock and neurogenic shock. Observations: Hypovolemic shock is the most common. There is decreased blood flow with a resulting reduction in the delivery of oxygen, nutrients, hormones, and electrolytes to the body's tissues and a concomitant decreased removal of metabolic wastes. Pulse and respirations are increased. Blood pressure may decline after an initial slight increase. The patient often shows signs of restlessness and anxiety, an effect related to decreased blood flow to the brain. There also may be weakness, lethargy, pallor, and a cool, moist skin. As shock progresses, the body temperature falls, respirations become rapid and shallow, and the pulse pressure (the difference between systolic and diastolic blood pressures) narrows as compensatory vasoconstriction causes the diastolic pressure to be elevated or maintained in the face of a falling systolic blood pressure. Urinary output is reduced. Hemorrhage may be apparent or concealed, although other factors, such as vomiting or diarrhea, may account for the deficiency of body fluids. Intervention: Fluid volume must be restored quickly so there can be a rapid return of oxygenated blood to the perfusion-deprived tissues. Supplemental oxygen should be administered. Blood volume is expanded with intravenous fluids, such as a lactated Ringer's solution or a 5% dextrose in normal saline solution. Packed red blood cells, plasma, and plasma substitutes are also given for shock of hemorrhagic origin. Metabolic acidosis may result from anaerobic metabolism. Nursing considerations: After vital functions are restored and diagnosis has been carried out, the patient in shock must be monitored continuously until recovery is assured. The patient should remain flat in bed, but if there are no head injuries, the lower extremities can be raised to improve venous return (modified Trendelenburg position). The Trendelenburg position should be avoided because it tends to push the abdominal organs against the diaphragm and increases the work of breathing. Position changes should be made slowly. Vasoactive drugs may be ordered when the blood volume is adequate. The patient's skin

S

color, temperature, vital signs, intake and output, pulse oximetry, and level of consciousness should be monitored closely.

Short stay hospitals

Those hospitals in which the average length of stay is less than 30 days. The American Hospital Association and National Master Facility Inventory (a NCHS dataset) define short-term hospitals as hospitals in which more than half the patients are admitted to units with an average length of stay of less than 30 days.

Shotgun method

Cloning of DNA fragments randomly generated from a genome. See library, genomic library.

SI units

Système Internationale d'unités: a system of internationally accepted units, whose use is mandatory in many countries. SI is based on the metric system with as basic units the meter, the kilogram, and the second, extended with units for current, temperature, and so forth. From the basic SI units other units can be derived, such as becquerel for the radioactivity of a substance and pascal for pressures.

Signal acquisition

The measurement of a signal by using transducers or electrodes.

Signal analysis

Processing of signals to derive further information.

Signal classification

Interpretation of the features of a signal.

Signal detection

Assessment of the presence of a phenomenon in a signal, for instance the QRS-complex in an ECG.

Signal transformation

Reshaping a signal to facilitate the derivation of features.

Signal-to-noise ratio (SNR)

The ratio between the variance of the signal and the variance of the noise.

Significance level

The maximal level for the probability of a type-one error in hypothesis testing.

Significant digit

A digit in a number that has significance for the description of the result of a measurement or a calculation.

Significant health risk

Circumstances where people are being or could be exposed to hazardous substances at levels that pose an urgent public health hazard or a public health hazard; public health advisories are generally issued when urgent public health hazards have been identified.

Silent PPOs

You may call these voluntary PPOs, wrap-around PPOs or blind PPOs. They act like brokers by selling your discounts to parties that don't guarantee you volume. For example, a PPO that you contract with sells your discounts to an insurer, which applies the discounts to your bills.

Similarity

Objects or figures that are the same shape are similar figures. They are not necessarily the same size. If two figures are similar, we say that there is similarity between the figures.

Simulation

A method of representing the actions of one system by those of another, as a computer program that represents the actions of something in the real world. Simulation enables a computer to explore situations that might be too expensive, dangerous, or time consuming in real life.

Simultaneous playing of pre-recorded tape and recording of conference

Concerns the ability to have one VCR playing a pre-recorded tape into the system as a video source, while simultaneously having another VCR connected and recording the videoconference in progress. This is necessary for those telemedicine programs that maintain a policy of recording all consults and which periodically use pre-recorded tapes of patient procedures or educational tapes as part of a video conference.

Single Payer System

(May be known as the Canadian System) A single, government fund pays for everyone's health care using tax revenue.

Single premium whole life

A whole life policy in which the initial premium, together with interest earnings, is sufficient to pay the cost of the policy over its lifetime.

Single Session CD-ROM Drives

CD-ROM drives that are capable of reading only the first session that was recorded on a ISO 9660 CD-ROM.

Single State Agency

The Social Security Act requires each state to designate a single agency to administer or to supervise the administration of the state's Medicaid plan.

Single-payer

A system under which the government would act as an insurer for necessary health care for everyone with specially earmarked tax dollars. Government would set prices and regulate, but doctors, hospitals and other providers would remain in the private sector. Details for implementing a single-payer plan in the U.S. can be found in the section on Our Proposal. This is the system of national health care found in Canada.

Single-Specialty Group Practice

Physicians in the same specialty pool their expenses, income, and offices.

Site-of-Service Differential

The difference in the amount paid when the same service is performed in different practice setting, for example, an outpatient visit in a physician's office or a hospital clinic.

Site-Specific Surveillance

Epidemiologic surveillance activity designed to assess the specific occurrence of one or more defined health conditions among a specific population potentially exposed to hazardous substances in the environment.

Size standards

Measures established by the Small Business Administration for the purpose of determining whether a business qualifies as a small business for purposes of implementing the socioeconomic programs enumerated in Part 19 of the Federal Acquisition Regulation. SBA size standards establish ceilings on either number of employees or the amount of annual revenue for each industry code contained in the Standard Industrial Classification Manual published by the Government.

Skewed

A distribution that is asymmetrical.

Skewed data

Data that have a bias.

S

Skewed distribution

A distribution that is not symmetric, that is, its skewness is not equal to 0.

Skewness

Parameter that describes the asymmetry of a statistical distribution.

Skier's tear

A rupture of the ulnar collateral ligament of the thumb.

Skilled nursing care

Level of care which: 1. requires the training and skills of a Registered Nurse; and 2. is prescribed by a doctor for the medical care of the patient; and 3. may not be provided by less skilled or less intensive care, such as Custodial Care or Intermediate Care.

Skilled nursing facility

A facility which primarily provides 24-hour inpatient skilled care and related services to patients requiring convalescent and rehabilitative care. Such care must be provided by either a registered nurse, licensed practical nurse or physical therapist performing under the supervision of a physician.

SLIP

(Serial Line Internet Protocol) A standard for using a regular telephone line (a serial line) and a modem to connect a computer as a real Internet site. SLIP is being replaced by PPP.

Slippery slope

The slippery-slope argument says that once legalisation were to be obtained, abuse would gradually landslide. In spite of claims to the contrary, there is a lack of hard evidence that this has happened in other countries. Sociologists point out that the term is frequently misused in the euthanasia debate.

Slow-scan Video

A device that transmits and receives still video pictures over a narrow telecommunications channel, such as standard telephone lines.

Small Business Administration (SBA)

The Government agency that has primary responsibility for the advancement of small business. The SBA serves as a small business advocate through its many programs designed to assist small businesses in areas such as training, financing, and the identification of opportunities.

Small business concern

A concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on government contracts, and qualified as a small business under the criteria and size standards in 13 CFR Part 121.

Small business innovative research (SBIR) contract

A type of contract designed to foster technological innovation by small businesses. Eligibility for SBIR contracts is limited to for-profit businesses with 500 or fewer employees. The SBIR contract program provides for a three-phased approach to research and development projects. The first phase is used to establish technological feasibility and ability of the contractor to fully develop the concept or idea; Phase I contracts generally are for six months and are limited to \$50,000. Phase II contracts embody the primary research effort; this phase is usually limited to two years with a funding maximum of \$500,000. Phase III entails the effort to convert the technology to a commercial application. Phase III efforts are not funded by the Government; instead, funding is provided by third parties such as venture capitalists or large corporations.

Small disadvantaged business concern

A small business concern that is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business that has at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals and that has management and daily business controlled

S

by one or more such individuals.

Small Market Insurance Reform

Changes in the marketing of insurance to small businesses that increase the availability and affordability of coverage.

Small purchase

An acquisition of supplies, nonpersonal services, and construction in the amount of \$25,000 or less using small purchase procedures.

Small-group market

The insurance market for products sold to groups that are smaller than a specified size, typically employer groups. The size of groups included usually depends on state insurance laws and thus varies from state to state, with 50 employees the most common size.

Smart card

A card with an embedded microchip. The size of credit cards, these cards function to transfer data when placed within a reader. Smart cards may be designed to carry an entire health record or simply some selected information such as medication, allergies, etc. Although high security is normally required to assure confidentiality, smart cards provide benefits such as preservation of paper and storage space, prevention of duplication and drug interaction errors, provision of the patient and physician with access to all relevant information quickly in emergency situations, and easy transfer of data from one location to another. Syn: chip card.

SMAS layer

Superficial musculoaponeurotic system (transcribed as SMAS). Anatomical layer referenced in rhytidectomy (elimination of wrinkles) and other plastic surgical procedures. See SMAS.

SMDS

(Switched Multimegabit Data Service) Equivalent of LAN communications, but in a wide area with speeds of up to 34 Mbps. SMDS is a high speed, fast packet-switched service provided in a campus, or ring, type arrangement situated within a 50 mile radius.

SMTP

(Simple Mail Transport Protocol) The main protocol used to send electronic mail on the Internet consisting of a set of rules for how a program sending mail and a program receiving mail should interact.

SnNout

When a sign/test has a high sensitivity, a negative result rules out the diagnosis; e.g. the sensitivity of a history of ankle swelling for diagnosing ascites is 92 per cent, therefore if a person does not have a history of ankle swelling, it is highly unlikely that the person has ascites.

SNOMED

Systematized Nomenclature of Human and Veterinary Medicine: a multiaxial nomenclature system for the coding of several aspects of a diagnosis.

SNOP

Systematized Nomenclature of Pathology: a nomenclature system of the College of American Pathologists based on four coding axes: topography, morphology, etiology, and function. It is a predecessor to SNOMED.

SNR

See signal-to-noise ratio.

SOAP

(Subjective - Objective - Action - Plan) - Acronym for the subjective (patient's complaints), objective (physician's findings), assessment (interpretations and conclusions), and plan (medical policy), ordering of the description of a problem in the problem-oriented medical record. SOAP is the brainchild of Laurence Weed, M.D. who some call "the father of the electronic medical

record.”

Social capital

Social capital represents the degree of social cohesion which exists in communities. It refers to the processes between people which establish networks, norms and social trust, and facilitate coordination and cooperation for mutual benefit. Reference: new edition. Social capital is created from the myriad of everyday interactions between people, and is embodied in such structures as civic and religious groups, family membership, informal community networks, and in norms of voluntarism, altruism and trust. The stronger these networks and bonds, the more likely it is that members of a community will cooperate for mutual benefit. In this way social capital creates health, and may enhance the benefits of investments for health.

Social control

The involvement of individuals and communities in maintaining the cohesion of the health system and in ensuring that it functions in compliance with agreed policies. This is done at community and other levels, in a manner that is commensurate with the country's political, social, cultural and administrative traditions.

Social HMO

An HMO that incorporates social services with medical services for a membership composed solely of senior citizens; Medicare funding is used with the aim of prolonging wellness among the elderly and thus reducing the need for alternate health care.

Social Indicator

Periodic measurements designed to track the course of a social problem over time.

Social networks

Social relations and links between individuals which may provide access to or mobilization of social support for health. Reference: modified definition. A stable society is far more likely to have established social networks which provide access to social support. De-stabilizing influences such as high unemployment, re-housing schemes, and rapid urbanization can lead to considerable dislocation of social networks. In such circumstances action to promote health might focus on support for re-establishing social networks.

Social responsibility for health

Social responsibility for health is reflected by the actions of decision-makers in both public and private sectors to pursue policies and practices which promote and protect health. Reference: The Jakarta Declaration. The policies and practices pursued by the public and private sectors should avoid harming the health of individuals; protect the environment and ensure sustainable use of resources; restrict the production of and trade in inherently harmful goods and substances, as well as discourage unhealthy marketing practices; safeguard the citizen in the marketplace and the individual in the workplace, and include equity-focused health impact assessments as an integral part of policy development. (See also Healthy public policy).

Social security administration (SSA)

Federal agency responsible for determining eligibility for SSI benefits in Texas and most other states. See also Supplemental Security Income.

Social support

That assistance available to individuals and groups from within communities which can provide a buffer against adverse life events and living conditions, and can provide a positive resource for enhancing the quality of life. Reference: modified definition. Social support may include emotional support, information sharing and the provision of material resources and services. Social support is now widely recognized as an important determinant of health, and an essential element of social capital.

Socialization

(1) The process by which an individual learns to live in accordance with the expectations and standards of a group or society, acquiring the beliefs, habits, values, and accepted modes of behavior primarily through imitation, family interaction, and educational systems; the procedure

S

by which society integrates the individual. (2) The process of adjustment that begins in early childhood by which the individual becomes aware of the need to accommodate inner drives to the demands of external reality.

Socialized medicine

The organization and control of medical practice by a government agency, the practitioners being employed by the organization from which they receive standardized compensation for their services, and to which the public contributes usually in the form of taxation rather than fee-for-service. This is the system of national health care found in the United Kingdom.

Socially disadvantaged individuals

Individuals who have been subjected to racial or ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their qualities as individuals.

Soft Torque™ uterine catheter

Radiopaque tip allows for fluoroscopic visualization for accurate placement of the catheter and injection of contrast, dye or washed sperm. Mfg: Conceptus. Source: Soft Torque™.

Software

Computer programs and their documentation. Ant hardware.

Software engineer

A person who does software engineering.

Software engineering

The workmanship used to analyze, design, build, or maintain information systems.

Sole Community Hospital

A hospital which (1) is more than 50 miles from any similar hospital, (2) is 25 to 50 miles from a similar hospital and isolated from it at least one month a year as by snow, or is the exclusive provider of services to at least 75 percent of its service area populations, (3) is 15 to 25 miles from any similar hospital and is isolated from it at least one month a year, or (4) has been designated as an SCH under previous rules. The Medicare DRG program makes special optional payment provisions for SCHs, most of which are rural, including providing that their rates are set permanently so that 75 percent of their payment is hospital-specific and only 25 percent is based on regional DRG rates.

Sole source acquisition

A contract for the purchase of supplies or services that is entered into or proposed to be entered into by an agency after soliciting and negotiating with only one source.

Solicited-advice decision-support system

A decision-support system that gives advice only on request of the user.

Solo Practice

Lawful practice of a health occupation as a self-employed individual. Solo practice is by definition private practice but is not necessarily general practice or fee-for-service practice (solo practitioners may be paid by capitation, although fee-for-service is more common). Solo practice is common among physicians, dentists, podiatrists, optometrists, and pharmacists.

Somatic cells

Any cell in the body except gametes and their precursors.

SONET

(Synchronous Optical NETWORK) (1) A broadband, wide area communications service capable of transmitting extremely high capacity data, such as interactive video, at very high speeds ranging from 150 Mbps to 10 Gbps. SONET services are convenient for real-time digital telemedicine applications. (2) A fibre optic dedicated connection. Many levels of SONET connections are available: OC1 (51.84 Mbps), OC3 (155.52 Mbps), OC12 (622 Mbps).

S

Sorting

Ordering groups of data in a sequence, according to given criteria.

Source code

List of program statements (instructions) in the language in which that program was originally written. Ant: object code and machine code.

Source-oriented medical record

Medical record in which the contents are ordered according to the method by which they were obtained. Within each section data typically have a chronological order.

Southern blotting

Transfer by absorption of DNA fragments separated in electrophoretic gels to membrane filters for detection of specific base sequences by radiolabeled complementary probes.

Spam/Spamming

An inappropriate use an e-mail list, usually to advertise a product or service - The Internet version of junk mail. The term probably comes from a famous Monty Python skit which featured the word spam repeated over and over. Spam is also a registered trademark of Hormel Corporation, for its processed meat product. They tried stop their name from being used in such a derogatory manner but soon gave up due to the negative publicity generated by their silly campaign.

Spatial visualization

(Also called spatial reasoning) A type of reasoning in which a person can draw upon one's understanding of relationships in space, the three-dimensional world. For example, spatial reasoning is demonstrated by one's ability to build a three-dimensional model of a building shown in a picture. A person who uses spatial visualization is said to have spatial sense.

Specialist

A physician, dentist, or other health professional who is specially trained in a certain branch of medicine or dentistry related to specific services or procedures (e.g., surgery, radiology, pathology); certain age categories of patients (e.g., geriatrics); certain body systems (e.g., dermatology, orthopedics, cardiology); or certain types of diseases (e.g., allergy, periodontics). Specialists usually have advanced education and training related to their specialties.

Specialty care

Services delivered by a health care provider who has received advanced training in a specific field of medicine. Specialty care also includes care provided by specialty facilities and emergency care.

Specialty hospital

A hospital with a narrow focus, for example, treating only psychiatric patients, maternity patients or pediatric patients. Children's hospitals or rehabilitation hospitals are examples of specialty hospitals.

Specification

A description of the technical requirements for a material, product, or service that includes the criteria for determining whether these requirements are met. Specifications shall only state the Government's actual minimum needs and be designed to promote full and open competition, with due regard to the nature of the supplies or services to be acquired.

Specificity

(1) Extent to which the criteria used to identify the target population results in the exclusion of persons, groups, or objects not at risk. (2) The ability of a test to fail on people you know don't have the infection. More precisely $TN/(TN+FP)$, where TN is the number of true negatives and FP is the number of false positives. (3) The proportion of persons without disease who are correctly identified by a screening test or case definition as not having disease.

Specificity

See true negative.

Specified Low-Income Medicare Beneficiary (SLMB)

Refers to an individual who meets the QMB criteria for Medicaid assistance, except for having slightly higher income. Medicaid must pay the Medicare Part B premiums for people who meet the SLMB standard.

SPECT

(Single-Photon Emission Computed Tomography) A method in nuclear medicine of obtaining three-dimensional reconstructions in a way similar to that used in CT.

Speculoscopy

Procedure for visualizing the vagina and cervix during pelvic examinations.

Speech recognition

Computer transform of voice input into data.

Speech-based input

See speech recognition.

Spend down

The amount of expenditures for health care services, relative to income, that qualifies an individual for Medicaid in States that cover categorically eligible, medically indigent individuals. Eligibility is determined on a case-by-case basis.

Spider Graphs/Charts

A technique or tool developed by Ernst & Young, to combine analyses of a market's level of managed care evolution with an internal readiness review. It involves three steps: Market Assessment, Internal Analysis and Gap Analysis. Components of the graph include: Network formation, Managed care penetration, Utilization levels, Reimbursement, Excess inpatient capacity, Geographic distribution, Commercial premium, Physician integration, Managed care characteristics, Employer and purchaser base, Outcomes management, Strategic alignment, Organization and Governance, Access to markets, Delivery systems, Medical management, Finance, Performance management, and Information technology.

SPIE

(The International Society for Optical Engineering) SPIE is a nonprofit society dedicated to advancing engineering and scientific applications of optical, electro-optical, and optoelectronic instrumentation, systems and technology. Its members are scientists, engineers, and users interested in the reduction to practice of these technologies. SPIE provides the means for communicating new developments and applications to the scientific, engineering, and user communities through its publications, symposia, and short courses.

Spirogram

Measurement of the lung volume, air pressures, and respiratory flows.

Spondyl(o)

Vertebra.

Spooling

As one image or data set is being reviewed, additional images can be received and stored for sequential review without "locking up" the computer.

Sporadic

A disease that occurs infrequently and irregularly.

Spot map

A map that indicates the location of each case of a rare disease or outbreak by a place that is potentially relevant to the health event being investigated, such as where each case lived or worked.

S

SpPin

When a sign/test has a high specificity, a Positive result rules in the diagnosis; e.g. the specificity of fluid wave for diagnosing ascites is 92 per cent. Therefore, if a person has a fluid wave, it is highly likely that the person has ascites.

Spreadsheet

A computer program in which the screen is divided into cells. Data are entered and shown in the cells, and the cells may contain algorithms to perform operations with the contents of other cells.

SPSS

(Statistical Package for the Social Sciences) A commonly used set of programs for performing statistical analyses of data.

SQL

(Structured Query Language) A specialized programming language for sending queries to databases. Most large database applications can be addressed using SQL.

Square root

That number which when multiplied by itself produces the given number. For example, 5 is the square root of 25, because $5 \times 5 = 25$.

SS7

(Signaling System 7) A recent development in control systems for the public telephone network. It allows telephone company computers to communicate with each other, making telephone call processing faster and more efficient and enabling more services to be made available to consumers.

S-Series

A 20-channel system for clinical use in sleep labs.

SSL

(Secure Socket Layer) Many commerce transaction web sites that request credit card or personal information use SSL. A protocol designed by Netscape Communications to enable encrypted, authenticated communications across the Internet. SSL provides privacy, authentication, and message integrity.

SSRI

(Selective Serotonin Reuptake Inhibitors) Relatively new group of antidepressant agents found to be as effective as other antidepressants available with fewer and less severe side effects. See also SSRI.

ST depression

Lowering of the signal in an ECG between QRS complex and T-wave, often indicating ischemic heart disease.

Stable endemicity

Is where the incidence of infection or disease shows no secular trend for increase or decrease.

Staff

(1) The people who work toward a common goal and are employed or supervised by someone of higher rank, such as the nurses in a hospital; (2) A designation by which a staff nurse is distinguished from a nurse manager or other nurse; (3) The nonprofessional employees of the institution, such as librarians, technicians, secretaries, and clerks; (4) The units of the organization that provide service to the line, or administratively defined hierarchy; for example the personnel office is staff to the chief nurse executive and the nursing service administration.

Staff development

A process that assists individual nurses in an agency or organization in attaining new skills and knowledge, gaining increasing levels of competence, and growing professionally. Various resources outside the agency employing the nurse may be used. The process may include such

S

programs as orientation, in-service education, and continuing education. Many fields other than nursing also develop and use programs for staff development that are specific to their needs.

Staff Model HMO

(1) The managed care model that employs physicians to provide health care to its members. All premiums and other revenues accrue to the HMO, which compensates physicians by salary and incentive programs. (2) An HMO in which physicians practice solely as employees of the HMO and usually are paid a salary.

Staffing

The process of assigning people to fill the roles designed for an organizational structure through recruitment, selection, and placement. Centralized staffing involves a system whereby a master plan is developed at the top level of the organization. Cyclical staffing is a system in which workdays and time off for personnel are repeated in regular cycles, such as every 6 weeks.

Standard

(1) An evaluation that serves as a basis for comparison for evaluating similar phenomena or substances, such as a standard for the preparation of a pharmaceutical substance or a standard for the practice of a profession. (2) A pharmaceutical preparation or a chemical substance of known quantity, ingredients, and strength that is used to determine the constituents or the strength of another preparation. (3) Of known value, strength, quality, or ingredients. (4) Predetermined criteria used to provide guidance in the operation of a health care facility to ensure high-quality performance by the personnel.

Standard

(1) A specification or requirement established by recognized bodies such as the International Organization for Standardization (ISO). Standards provide rules, guidelines or characteristics for activities or their results aimed at the achievement of a maximum degree of performance in a given context. Standards should be based on the consolidated results of science, technology and experience, and are aimed at the promotion of optimum community benefits. (2) A document that establishes engineering and technical limitations and applications of items, materials, processes, methods, designs, and engineering practices. It includes any related criteria deemed essential to achieve the highest practical degree of uniformity in materials or products, or interchangeability of parts used in those products.

Standard Benefit Package

A minimum set of identical health care benefits provided universally and uniformly across an entire population; the term has usually been used to describe a minimum benefits package set mandated by law under a federal or state health care reform plan.

Standard cost

Any cost computed with the use of preestablished measures.

Standard death rate

The number of death per 1000 people of a specified population during 1 year. This rate is adjusted to prevent distortion by the age composition of the population. A standard population is used for determining this rate.

Standard deviation (SD)

The most widely used of dispersion of a frequency distribution, equal to positive square root of the variance. A mathematic statement of the dispersion of a set of values or scores from the mean. Each sample value is subtracted from the sample mean and squared, and the squares are summed. The square root of the summed squares gives a mathematically standardized value so that sample deviations can be compared.

Standard error

In statistics, the standard error is defined as the standard deviation of an estimate. That is, multiple measurements of a given value will generally group around the mean (or average) value in a normal distribution. The shape of this distribution is known as the standard error.

Standard Industrial Classification code (SIC)

A code representing a category within the Standard Industrial Classification System administered by the Statistical Policy Division of the U.S. Office of Management and Budget. The system was established to classify all industries in the U.S. economy. A two-digit code designates each major industry group, which is coupled with a second two-digit code representing subcategories.

Standard of care

A written statement describing the rules, actions, or condition that direct patient care. Standards of care guide practice and can be used to evaluate performance.

Standard Precautions

Guidelines recommended by the Centers for Disease Control and Prevention (CDC) to reduce the risk of transmission of blood-borne and other pathogens in hospitals. The Standard Precautions synthesize the major features of Universal (Blood and Body Fluid) Precautions and Body Substance Isolation (designed) to reduce the risk of pathogens from moist body substances) and applies them to all patients receiving care in hospitals regardless of their diagnosis or presumed infection status. Standard Precautions apply to (1) blood; (2) all body fluids, secretions, and excretions excluding sweat regardless of whether they contain blood; (3) nonintact skin; and (4) mucous membranes. The Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection in hospitals.

Standardization

Activity of establishing a standard.

Standardized amount

An amount used as the basis for payment under PPS. It is intended to represent the national average operating cost of inpatient treatment for a typical Medicare patient in a reasonably efficient hospital in a large urban or other area. Standardized amount are based on Medicare costs reported by hospitals for cost reporting periods ending in 1982, adjusted for geographic location and certain hospital characteristics, such as teaching activity. The adjusted amounts are updated to the year of payment by an annual update factor.

Standardized test

Any empirically developed examination with established reliability and validity as determined by repeated evaluation of the method and results.

Standards

Accepted measures of comparison having quantitative or qualitative value.

Star

A network of computer devices where communication between devices is coordinated through a central computer device.

Start bit

A bit signaling the start of an asynchronous serial transmission.

Stat report

A report of a laboratory examination that has been declared urgent by the requester.

State Medicaid Office

Division of the Texas Health and Human Services Commission responsible for administering the Medicaid program in Texas.

State Population Survey

Survey conducted by the State of Washington to provide more accurate information than the U.S. Census Current Population Survey. Last conducted in 1998 and scheduled again for the year 2000.

Statement of cash flows

S

A financial statement that reports net cash provided or used as a result of a company's operating, investing, and financing activities and the net effect of those cash flows on cash and cash equivalents for a given period in a manner that reconciles beginning and ending cash and cash equivalents.

Statement of income

A financial statement whose purpose is to show the results of a company's operations, i.e., whether or not the business has earned a profit for a specific period of time. The statement of income lists the various revenue and expenses of the business along with related net income.

Statement of retained earnings

A financial statement that illustrates the change in equity resulting from earnings or losses and dividends declared. The statement of retained earnings is often combined with the income statement or incorporated into the statement of shareholder's equity.

Statement of shareholder's equity

A financial statement that illustrates the change in the various components of shareholder's equity for a given period, including change in the capital stock and retained earnings accounts.

Statewideness

In general, a state must offer the same benefits to everyone throughout the state. Exceptions to this requirement are possible through Medicaid waivers and special contracting options.

Static image

An image whose characteristics do not change. In the past, this was achieved by exposing film to light. Static images now are created with digital cameras and "freeze frame." Static images generally are of high resolution. They require less bandwidth and storage than video.

Stationary signal

A stochastic signal whose statistical properties do not change over time. Ant. nonstationary signal.

Statistical decision-support system

Decision-support system based on statistical methods and making use of training populations; features are selected by using statistical methods as well. Ant. symbolic decision-support system.

Statistical error

Variations between two measurements caused by natural fluctuations. Ant. Systematic error, bias.

Statistical pattern recognition

Pattern recognition in which objects are classified by numerical features.

Statistical power

(1) In hypothesis testing, a statistical parameter that gives the probability of a false-negative (2) In stepwise selection, the probability that a predictor is selected if it indeed has a predictive value.

Statistical signal

See stochastic signal.

Statistical significance

In statistics, after appropriate analysis of the data, the conclusion that the event being investigated had a certain probability due to chance, but the probability was so slight that it is presumed that the event was not caused by mere chance. Probability is referred to as the p value; and, if the analysis indicated that there was only a one in 20 chance or less (i.e., p equal to or less than 0.05) that the observed results occurred due to chance, then the study results are arbitrarily considered to be statistically significant.

S

Statistics

(1) The branch of mathematics which is the study of the methods of collecting and analyzing data. The data are collected on samples from various populations of people, animals, or products. Statistics are used in many fields, such as biology, education, physics, psychology, and sociology. (2) A number that describes a property of a set of data or other numbers.

Step Down Unit (aka Telemetry Unit)

A patient care unit treating persons who no longer require intensive care, but are still too ill to be placed on a routine medical/surgical unit. Patients' cardiac functions are monitored through telemetry, rather than hard-wired monitors.

Stepwise selection

A selection of features one by one starting with the feature explaining the highest (or lowest) amount of variance for a statistical or pattern recognition.

Stochastic model

A mathematical model which takes into consideration the presence of some randomness in one or more of its parameters or variables. The predictions of the model therefore do not give a single point estimate but a probability distribution of possible estimates. Contrast with deterministic. We might distinguish demographic stochasticity which arises from the discreteness of individuals and individual events such as birth, and environmental stochasticity arising from more-or-less unpredictable interactions with the outside world.

Stochastic signal

Signals that can only be described in statistical terms. Ant: deterministic signal; Syn: statistical signal.

Stom

Mouth, opening

Stop Bit

A bit signaling the end of an asynchronous serial transmission.

Stop-loss

The practice of an HMO or insurance company of protecting itself or its contracted medical groups against part or all losses above a specified dollar amount incurred in the process of caring for its policyholders. Usually involves the HMO or insurance company purchasing insurance from another company to protect itself. Also referred to as reinsurance.

Stop-loss insurance

Insurance coverage taken out by a health plan or self-funded employer to provide protection from losses resulting from claims greater than a specific dollar amount per covered person per year (calendar year or illness-to-illness). Types of stop-loss insurance: 1. Specific or individual-reimbursement is given for claims on any covered individual which exceed a predetermined deductible, such as \$25,000 or \$50,000; 2. Aggregate-reimbursement is given for claims which in total exceed a predetermined level, such as 125% of the amount expected in an average year.

STOR

An early computer-based patient record developed at the University of California, San Francisco.

Storage

(1) A device of medium that can accept, hold and deliver data. (2) The act of storing data.

Store and Forward

(1) Captured audio clips, video clips, still images, or data that is transmitted or received at a later time (sometimes no more than a minute). Email is a store-and-forward system. Enables dissynchronous communication, with the advantage of not needing concurrent participant involvement. Compare to real time. (2) A telemedicine interaction type that creates a multimedia electronic medical record. Data and images are captured and stored for later transmission, consultation or downloading. These static images or audio-video clips may be transmitted to a remote data storage device, from which they may be retrieved by a medical practitioner for

review and consultation at any time, obviating the necessity of simultaneous availability of the consulting parties and reducing transmission costs due to low bandwidth requirements.

Strategic Business Process Reengineering (SBPR)

A contract vehicle sponsored by the Department of Defense. The contract provides business process reengineering support services focused on the higher order strategic and management assessment functions. Reengineering services include fully qualified BPR experts with functional knowledge in all aspects of process engineering, state-of-the-art analytical tools and time-tested methodologies for comprehensive process improvement.

Strategic planning

The process of evaluating an organization's strategic options and alternatives in an ongoing future-oriented manner.

Stress

In medicine, the result produced when a structure, system, or organism is acted on by forces that disrupt equilibrium or produce strain. In health care, the term denotes the physical (gravity, mechanical force, pathogen, injury) and psychological (fear, anxiety, crisis, joy) forces that are experienced by individuals. It is generally believed that biological organisms require a certain amount of stress in order to maintain their well-being. However, when stress occurs in quantities that the system cannot handle, it produces pathological changes. This biological concept of stress was developed by Hans Selye, who intended originally for stress to indicate cause rather than effect. Through a linguistic error, however, he gave the term stress to effect and later had to use the word stressor for the cause. The amount of stress humans can withstand without having a pathological reaction to it varies from individual to individual and from situation to situation. Based on data obtained in World War II, individuals exposed to combat stress became nonfunctional at different stress levels, but there was a level of combat stress of such intensity and duration that no one could experience it and remain functional. In physical sciences, stress may be equated to certain types of forces (e.g., impact, shear, torsion, compression, and tension) that result in deformation or fracture of the material being stressed or tested. In dentistry, the pressure of the upper teeth on the lower teeth in mastication produces stress. Mechanical forces of tension, compression, shear or torsion may all be applied to teeth or dental prostheses during the movements of mastication and represent stress. *Oxidative S.* - The cellular damage caused by oxygen-derived free radical formation. The three most important are superoxide (O_2^-), hydrogen peroxide (H_2O_2), and hydroxyl ions; these are produced during normal metabolic processes as well as in reaction to cell injury. The extent of their damaging potential can be decreased by antioxidants. SEE: antioxidant.

Stress management

Method of controlling factors that require a response or change within a person by identifying the stressors, eliminating negative stressors, and developing effective coping mechanisms to counteract the response constructively. Examples include progressive muscular relaxation, guided imagery, biofeedback, breathing techniques, and active problem solving.

Stress Test

The monitoring of a heart rate through electrocardiograms taken during exercise.

Structured data entry (SDE)

Context-sensitive data entry in which the clinician completes part of a form presented on a screen by selecting from the screen a term that is related to the patient's problem or to the answer to a foregoing question.

ST-T complex

Part of the ECG waveform immediately after the QRS complex, including the ST-segment and the T-wave. It describes the repolarization of the heart ventricular muscle.

Subacute care

(1) Is usually described as a comprehensive inpatient program for those who have experienced a serious illness, injury or disease, but who don't require intensive hospital services. The range of services considered subacute can include infusion therapy, respiratory care, cardiac services,

S

wound care, rehabilitation services, postoperative recovery programs for knee and hip replacements, and cancer, stroke, and AIDS care. (2) A level of care that is "below" that of an acute care facility or unit. Generally speaking, patients requiring sub-acute care are those who need to be hospitalized, but no longer need the combined level of nursing and physician attention that acute care patients do. Sub-acute care units are closely related to skilled nursing units.

Subacute care facility

An intermediate medical facility used in lieu of a hospital to care for patients too ill to be released to long-term care or homes, and not so ill that they require ongoing hospitalization.

Subclinical infection

An infection in which symptoms are sufficiently mild or inapparent to escape diagnosis other than by positive confirmation of the ability to transmit the infection or serologically.

Submitted Charge

The charge submitted by a provider to the patient or a payer.

Subroutine

Part of a program called by another program. Syn: procedure.

Subroutine library

A library of procedures; in some programming languages procedures are called subroutines.

Subscriber

An individual meeting the health plan's eligibility requirement, who enrolls in the health plan and accepts the financial responsibility for any premiums, copayments, or deductibles. Synonymous with member and enrollee.

Substance abuse

The taking of alcohol or other drugs at dosages that place a person's social, economic, psychological and physical welfare in potential hazard, or endangers public health, morals, safety or welfare, or a combination thereof. Also called chemical dependency.

Substance-Specific Applied Research

A program of research designed to fill data needs. Activities may include laboratory and other studies to determine short-term, intermediate, and long-term health effects from human exposure to a given substance; laboratory and other studies to determine organ-, site-, and system-specific acute and chronic toxicity; laboratory and other studies to determine the manner in which a substance is metabolized or to develop an understanding of the biokinetics of the substance; and, where there is the possibility of obtaining human exposure data, collecting that information.

Sucrase-isomaltase deficiency

A genetic metabolic disorder characterized by an inborn deficiency of the enzyme sucrase-isomaltase. This deficiency causes diarrhea if table sugar (sucrose) or certain other carbohydrates are eaten. Synonyms: congenital sucrose-isomaltose malabsorption, disaccharide intolerance I, congenital sucrase-alpha-dextrinase deficiency, congenital sucrase-isomaltase deficiency, congenital sucrose intolerance.

Sufficient cause

A causal factor or collection of factors whose presence is always followed by the occurrence of the effect (of disease).

Suicide clause

Clause in some life insurance policies that disqualifies beneficiaries in the event of suicide; it usually only applies to the physically fit who have recently taken out cover.

Super stress test

Similar to an exercise stress test, this cardiac test is used to detect T-wave alternans in order to identify patients at high risk for sudden cardiac death.

Supercomputers

High-performance computing equipment capable of handling massive amounts of research and clinical data at speeds more than 1000 times that of most calculating equipment. Supercomputer hardware and software may offer a potential of connecting thousands of research facilities and transmitting data at rates up to one billion bits per second. Proposed high-performance computers could quickly analyze archived medical data about worldwide populations, determining, for example the "normal" human blood pressure on the basis of records of millions of patients.

Supervised classification

A technique in which an unclassified object is assigned to a class known beforehand.

Supervised learning

Learning a computer (pattern recognition or decision support) to find the features with the most discriminatory power using a training set with given categories. Ant. unsupervised learning.

Supervised pattern recognition

Supervised learning applied to pattern recognition. Ant. unsupervised pattern recognition.

Supplemental agreement

A contract modification that is accomplished by the mutual action of the parties.

Supplemental benefits

Benefits contracted for by an employer group which are outside of, or in addition to, the basic health plan.

Supplemental insurance

Any private health insurance plan held by a Medicare beneficiary, including medigap policies and post-retirement health benefits.

Supplemental Medical Insurance (SMI)

The part of the Medicare program that covers the costs of physicians' services, outpatient laboratory and X-ray tests, durable medical equipment, outpatient hospital care, and certain other services. This voluntary program requires payment of a monthly premium, which covers 25 percent of pro-ram costs. Beneficiaries are responsible for a deductible and coinsurance payments for most covered services. Also called Part B coverage or benefits. (PPRC, 1996).

Supplemental Security Income (SSI)

A federal cash-assistance program which is based on certain eligibility criteria relating to disability or age and income. Disability under SSI means having a physical or mental impairment that prevents the individual from being gainfully employed and is expected to last for at least a year or result in death.

Supplier

A provider of health care services, other than a practitioner, that is permitted to bill under Medicare Part B. Suppliers include independent laboratories, durable medical equipment providers, ambulance services, orthotist, prosthetist, and portable X-ray providers.

Supportive environments for health

Supportive environments for health offer people protection from threats to health, and enable people to expand their capabilities and develop self-reliance in health. They encompass where people live, their local community, their homes, where they work and play, including people's access to resources for health, and opportunities for empowerment. Reference: Adapted from WHO (1991) Sundsvall Statement on Supportive Environments. Action to create supportive environments for health has many dimensions, and may include: direct political action to develop and implement policies and regulations which help create supportive environments; economic action, particularly in relation to fostering sustainable economic development; and social action.

Surveillance

(1) Supervising or observing a patient or a health condition. It may include the use of closed circuit television cameras and monitors to cover unattended locations from a central office. (2) A detailed examination or investigation for the accurate collection of data to record changes in the character of a population as at a particular time or, in a prospective or longitudinal surveillance, over a period. Retrospective surveillance might study the characteristics of a population in which a previous event occurred. The collection of data may include hospital records, morbidity and mortality statistics, death certificates, records of immunization, age groups, and various ecological and weather factors for the period of investigation, particularly if insect vectors are possible influences.

Surveillance activities

Those activities that evaluate exposure or trends in adverse health effects over a specified period of time. Surveillance activities address the ongoing systematic collection, analysis, and interpretation of health data in the process of describing and monitoring a health event. Data obtained through surveillance are very important for appropriate decisions regarding the planning, evaluation, or implementation of public health interventions.

Survey

An investigation in which information is systematically collected. A population survey may be conducted by face-to-face inquiry, by self-completed questionnaires, by telephone, by postal service, or in some other way. Each method has its advantages and disadvantages. The generalizability of results depends upon the extent to which those surveyed are representative of the entire population.

Survival curve

A curve that starts at 100% of the study population and shows the percentage of the population still surviving at successive times for as long as information is available. May be applied not only to survival as such, but also to the persistence of freedom from a disease, or complication or some other endpoint.

Survivor whole life

A life insurance policy that insures two lives with the promise to pay only at the second death, also called "second-to-die" policy.

Susceptible

An individual accessible to or liable to infection by a pathogen.

Suspension

An action taken by a suspending official to disqualify a contractor temporarily from Government contracting and Government-approved subcontracting.

Sustainable development

Sustainable development refers to the use of resources, direction of investments, the orientation of technological development, and institutional development in ways which ensure that the current use of resources does not compromise the health and well-being of future generations. Reference: adapted from WHO (1990) Gesundheitsfoerderungs Glossar. In health promotion, sustainable development is particularly important in terms of building healthy public policy, and supportive environments for health in ways which improve living conditions, support healthy lifestyles, and achieve greater equity in health both now and in the future.

Sustainable Growth Rate

A revision to the Volume Performance Standard system, proposed by the Congress and the Administration. This system would provide an alternative mechanism for adjusting fee updates for the Medicare Fee Schedule. The mechanism would use a single conversion factor, base target rates of growth on growth of gross domestic product, and change the method for calculating the conversion factor update to eliminate the two-year delay. See Volume Performance Standard System, Conversion Factor Update. (PPRC, 1996)

S

Swing-Bed Hospital

A hospital participating in the Medicare swing-bed program. This program allows rural hospitals with fewer than 100 beds to provide skilled post-acute care services in acute care beds. (HCFA).

Switch

A mechanical or solid state device that opens or closes circuits, changes operating parameters, or selects paths or circuits on a space or time division basis. In the 'olden' days done manually at a 'switchboard.' SEE Centrex system.

Switched line

Communication link for which the physical path, established by dialing, may vary with each use.

Switched line or network

A telecommunications option that operates like a dial-up phone line (which is, in fact, a switched line-as are ISDN, ATM, switched 56). There is often a usage charge for switched services, particularly for long distance connections such as phone lines. Compare to leased line, where the connection is continuously open and charges are usually on a flat, monthly rate.

Switched Network

A type of system where each user has a unique address (e.g.,a phone number), which allows the network to connect any two points directly. A network in which a signal is sent between the sending and receiving devices over any number of alternative routes based on the available circuits. SEE Packet Switching.

Switched-56

Digital data telephone lines with a much greater data capacity than normal telephone lines. Their speed is 64 kbps, although 8 kbps is often reserved for signalling, leaving 56 kbps for data. Switched-56 lines are often used in parallel to achieve higher speeds; for example, six Switched-56 connections running parallel produce 384 kbps of bandwidth.

Switching

The process of establishing temporary interconnections between two or more stations of a communication system. Currently achieved through the use of switches and packet switching.

Switching Office (Central Office)

A local telephone company facility that houses the switching system and related equipment needed to interconnect telephone calls for customers in the immediate geographic area. Every LATA must have at least one central office.

Symbolic decision-support system

Decision-support model that uses features defined by experts or based on clinical studies. This type of decision-support methods uses logical reasoning. Ant statistical decision-support system.

Symbolic logic

See Boolean logic.

Symbolic method

See qualitative decision-support system.

Symbolic reasoning

Logical deduction.

Symmetry

The correspondence in size, form, and arrangement of parts on opposite sides of a plane, line, or point. For example, a figure that has line symmetry has two halves which coincide if folded along its line of symmetry.

Sympathetic system

Part of the autonomic nervous system that decreases secretion, the contractility of smooth

muscles, and the dilatation of blood vessels. Ant. parasympathetic system.

Symptom

Any perceptible change in the body or its functions that indicates disease or the kind or phases of the disease. Symptoms may be classified as objective, subjective, cardinal, and, sometimes, constitutional. However, another classification considers all symptoms as being subjective, with objective indications being called signs. Aspects of general symptom analysis include the following: *onset*: date, manner (gradual or sudden), and precipitating factors; *characteristics*: character, location, radiation, severity, timing, aggravating or relieving factors, and associated symptoms; *course since onset*: incidence, progress and effects of therapy. ABDOMEN: the abdominal area may be distended, rigid, flat, flabby, adipose, tympanitic, shiny, enlarged, or bulging in certain areas with certain discolorations, stripings, or markings. The muscles may be tensed and little affected by pressure. Cold or hot areas may be noted. Various sounds may be heard, such as splashings, roarings, and rumblings (borborygmi, also known as intestinal flatus). *Pain* is closely associated with abdominal symptoms. The exact area affected should be located and the nature, duration, time when it arises, and any causes that might be responsible noted. Also the effect of movement or pressure on the pain, and the alteration in the pain if the pressure applied to the area is suddenly released, should be noted. *Emesis* is another condition associated with symptoms pert to the abdominal region. It may consist of simple regurgitation of the stomach contents or may be extremely forcible. In the latter case, it is called projectile vomiting. Emesis may be watery, clear, or contain mucus or undigested food; it may be stertorous, bilious, frothy, profuse, purulent, colored from food or medication, or contain blood (hematemesis). If blood is present in large quantity and has been acted on by gastric juices, it may resemble coffee grounds. Emesis may be sour, may have the odor of feces or garlic, may be ammoniacal, or may have an odor characteristic of some food or drug. The patient may complain of abdominal distention, gas, pain caused by gas, and interference with respiration. Heartburn may be present, as may gastritis and regurgitation. Pain may be felt when food enters the stomach or may be relieved by eating or shortly after eating or by changing body position. Distention after eating and the desire to eructate or expel flatus should be noted. Colicky pains in the abdomen may be accompanied by pain in the shoulder. Pain at the pit of the stomach and in the lower right quadrant may indicate appendicitis. When pains are over the lower right ribs or a little below, disease of the gallbladder may be suspected. BACK: The dorsal side of the body may reveal edema, deformities, irregularities of the spine, discolorations, eruptions, impaired motion, decubitus, or any condition affecting the skin. BREATH: The breath may have a fecal, sweet (acetone), wet hay, fishy, ammonia, urine, blood, or pus odor. Respiration may be abdominal or thoracic and show dyspnea, orthopnea, apnea, or it may be normal (eupnea). CHEST: The chest may show abnormalities and deformities. It may move asymmetrically with one lung being inflated much less than the other. Coughing may be whooping, hacking, crowing, hoarse, dry, rasping, or hysterical. There may or may not be expectoration. A cough may be spasmodic or occur on awakening. During sleep, it may awaken the patient. It may or may not produce sputum. It may occur when swallowing food, when the patient is in a horizontal position, or when the patient is subjected to temperature changes. Hiccapping should be noted if and when it occurs. Sputum may be mucoid, yellowish, thick, tenacious, ropy, gelatinous, dark green, offensive in odor, copious, streaked with bright (brick red) or dark blood (hemoptysis), or it may resemble cheesy lumps. It may be clear and watery, scanty, or profuse. Frequency of coughing and clearing the throat should be noted. The patient's respirations may be shallow. Dyspnea, an inability to expand the lungs, complaints of irritation, sticking pains, or catchy pains on inspiration may be present. There may be an accumulation of phlegm in the air passages or a tickling in the throat. The patient may not be able to take deep inspirations or may yawn constantly. There may be migrating knifelike pains in the region of the heart or throughout the chest. Heart-consciousness, a fluttering feeling about the heart, or cardiac pain may be present. Queer sensations, the loud beating of the heart, and heaviness in the cardiac region are other symptoms. DEFECATION: Symptoms to observe are the frequency of defecation; the presence of constipation; hemorrhoids; the nature of the feces such as formation (ribbonshaped, soft, semiformed, hard or scybalous, cylindrical) and whether watery, liquid, or semiliquid; the color, whether dark brown, light brown, clay-colored, green, yellowish, black, bloody; and whether lienteric, serous, mucous, purulent, tarry, or containing membranous shreds, calculi, or foreign substances. The amount should be noted, as small, medium, large, or copious. The odor may be characteristic of various conditions: sour, putrid, offensive, or fetid. The nature of the evacuation should be noted, as natural, difficult, involuntary, or painful. SEE: stool. DENTITION: Teeth may

S

be discolored, irregular, missing, misshapen, or affected by caries. There may be a partial or complete denture. Dental hygiene may be good or poor. There may be a loosening of teeth, a film over them, or they may show the presence of sordes. EARS: Tinnitus aurium (ringing in the ears) occurs in certain diseases. Pain in or about the ears, or swelling under either or both, should be noted. Impacted cerumen, foreign bodies, or insects may be present in the auditory canals. EYES: The eyes may stare, look excited, or be expressionless. Nystagmus, strabismus, and coma vigil may be present. Pupils may be contracted or dilated, or one pupil may be affected. The patient may keep the eyes closed constantly, or keep one open and the other closed. Eyes may be sunken or protruding. Lacrimation may be present. Eyelids may be edematous. The eyeball may be soft to the touch or extremely hard. Accommodation may be faulty. Nictitation, squinting, or tremor of the eyelids should always be recorded. Blurring of vision usually is associated with other symptoms. The patient may complain of colorless or colored specks dancing before the eyes (*muscae volitantes*). GAIT: The gait may be faltering, scissors, festinating, unsteady, staggering, weakened, or swaying; or movements may be stiff, awkward, or unusual. There may be total disability or immobility. GENERAL APPEARANCE: The face may show an expression of anxiety or have a pinched look or a drawn expression. The patient may have an air of apathy, a distorted or blank look, an emotional expression, a *risus sardonicus*, or lack of all expression (*masklike*). GENERAL SYMPTOMS: Burning sensations may be complained of in various parts of the body, as in the head, throat, arms, chest or abdomen. They may or may not be accompanied by tenderness. The complaint may be feeling too hot or too cold without apparent cause, or of having a general feeling of distress. Anorexia and nausea upon taking food, at the thought of food, or with no reference to food are significant and should be noted. When the nausea occurs should also be noted: on awakening, when taking fluids, after eating, when changing a position, when taking medication, or in the presence of odors. There always should be an explanation for nausea, either somatic or psychiatric. Fear of death (*angor animi*), anxiety, agitation, or panic may be present. LIMBS: the symptoms pertain to the skin, of course, also apply to the skin of the limbs. Deformities, abnormalities, impaired motion, discolorations, sensitivity, and varicosities should be noted. LIPS: these may be pale, dry, cyanotic, edematous, drawn, deformed, out of proportion, motionless and expressionless, flushed or fissured; or they may show other lesions or growths. MOUTH AND GUMS: the patient's mouth and gums may be pale or ulcerated, highly inflamed and red, infected, discolored, edematous, or abnormally shaped. Pyorrhea or edema may be present. The patient may complain of bitter, sweet, salty, sour, fishy, or flat tastes, or an absence of taste. Medication may have much to do with temporary disorders of taste. NOSE: the nose may appear deformed, discolored, edematous, or enlarged. The nostrils may discharge or show obstruction. There may be an inability to breathe through one or both nostrils. The patient may complain of odors not usually manifested as objective symptoms or for which there is no known cause. PAIN: one should determine if the patient's perception of pain is local or referred so that the exact area affected can be ascertained. The wording of the patient's complaint of pain must be charted or reported. One should note if the pain is in the nature of a cramp or a spasm; if it is dull, superficial, deep, remittent, shifting, shooting, lancinating, gnawing, fixed, or sharp; or if there is an absence of pain, esp. in conditions in which pain usually occurs. Whether pain is relieved or increased by pressure, heat, cold, change of body position or environment, or other conditions should be noted, as should when the pain is experienced, how often the same type of pain recurs, and whether it awakens the patient from sleep, esp. at night. The patient's facial expression during an attack of pain should be observed and the patient's description listened to carefully. The patient may locate a *headache* around the eyes and nose, in the center of the forehead, above the nose, in one or both temples accompanied by throbbing, at the top of the head, or at the base of the skull. It may be felt as a tight, bendlike sensation around the head above the eyes. It may be in the center of the forehead above the eyebrow line, in the upper region of the center forehead, all over the top of the head, over one or both ears., or the back of both ears. The pain may be sharp, dull or shifting. It may accompany head noises, or a roaring in the head may be experienced without pain. Vertigo or a sensation of fainting may be present. Pulsations may be felt in the occiput or in the temporal region. A patient may be very sensitive to light and sound, and headaches may be accompanied by nausea, vomiting, the sensation of flashing lights, and chills. Tenderness or soreness may be associated with rigidity. SEE: pain. POSITIONS AND POSTURES: An inability to lie down; to arise; or to lie on one side, on the back, or in any special position reveals much to the physician. Whether the patient lies on the affected or the unaffected side is also important to observe. Left or right legs, or both, may be flexed, or there may be an inclination to lie with the arms above the head. The legs may be restless. SKIN: the skin may appear pale, flushed all over or in spots; may be cyanotic,

S

jaundiced, shiny, erupted, burned, blistered, sunburned, wrinkled, lacerated, nodular, bruised; may exhibit dermatographia, lesions, growth, or deformities; or may be puffy and edematous, ashy, gray, wet with perspiration, or discolored. THROAT: the throat may show abnormalities, discoloration, swelling, inflammation, diseased tonsils and presence of adenoids. Dysphagia and hoarseness or aphonia and other conditions affecting the voice may be present. A lump in the throat (globus hystericus) or a dry, scratchy irritation or fullness or pulsations may be present. TONGUE: the tongue may be coated, clean, smooth, atrophic, shiny, dry on top and moist on the sides or dry all over. It may look like raw beef or appear furry, glossy, tremulous, or sharp-pointed. It may be edematous or abnormal in size. Fissures may be present. The papillae may have disappeared. The patient may have a strawberry tongue, or the tongue may have various colors. The tongue may deviate from the midline. URINE: the urine may be blue, milky, pale, lemon, smoky, brick-colored, clear, amber, straw-colored, orange, or almost any other color. Hematuria may be present. Polyuria, oliguria, or frequent urination of small amounts may occur. The odors may be ammoniacal, aromatic, stercoraceous, or like that of new-mown hay, ripe apples, or violets. There may be retention, suppression, or dribbling, and urination may be painful. *Accessory S.* - A minor symptom, or a nonpathognomonic one. *SYN: assident s.* *Accidental S.* - A symptom occurring incidentally during the course of a disease but having no relationship to the disease. *Assident S.* - Accessory s. *Cardinal S.* - A principal symptom in the diagnosis of a disease. *Concomitant S.* - A symptom occurring along with the essential symptoms of a disease. *Constitutional S.* - A symptom caused by or indicating systemic disease. *SYN: general s.* *Delayed S.* - A symptom appearing sometime after the precipitating cause. *Direct S.* - A symptom resulting from direct effects of the disease. *Dissociation S.* - Anesthesia to heat, cold, and pain without loss of tactile sensibility; seen in syringomyelia. *Equivocal S.* - A symptom that may occur in several diseases. *Focal S.* - A symptom at a specific location. *General S.* - Constitutional s. *Indirect S.* - A symptom occurring secondarily as a result of a disease. *Labyrinthine S.* - A group of symptoms, such as tinnitus, vertigo, or nausea, indicating a disease or lesion of the inner ear. *Local S.* - A symptom indicating the specific location of the pathological process. *Negative pathognomonic S.* - A symptom that never occurs in a certain disease or condition; hence, its occurrence rules out the existence of that disease. *Objective S.* - A symptom apparent to the observer. *Passive S.* - Static s. *Pathognomonic S.* - A symptom that is unmistakably associated with a particular disease. *Presenting S.* - The symptom that led the patient to seek medical care. *Prodromal S.* - Prodrome. *Rational S.* - Subjective s. *Signal S.* - A symptom that is premonitory of an impending condition such as the aura that precedes an attack of epilepsy or migraine. *Static S.* - A symptom pert to the condition of a single organ or structure without reference to the remainder of the body. *SYN: passive s.* *Subjective S.* - A symptom apparent only to the patient. *SYN: rational s.* *Sympathetic S.* - A symptom for which there is no specific inciting cause and usually occurring at a point more or less remote from the point of disturbance. *Withdrawal S.* - one of the symptoms following sudden withdrawal of a substance to which a person has become addicted.

Synchronous transmission

The method by which bits are transmitted at a fixed rate with the transmitter and receiver synchronized, extinguishing the need for start/stop elements, with the result of providing increased efficiency.

Syndrome

A characteristic, concurrent combination of symptoms that cannot yet be connected to a disease causing the symptoms.

Syntactic

Relating to the syntax.

Syntactic error checking

Checking data on errors by using their syntactical aspects such as domain or value.

Syntactic pattern recognition

Pattern recognition, consisting of identification of the primitives, followed by identification of the object class.

Syntax

The rules (the grammar) for the description, storage, and transmission of messages or for the composition of a program statement.

System

(1) A collection or assemblage of parts that, unified, make a whole. Physiologic systems, such as the cardiovascular or reproductive system, are made up of structures specifically able to engage in processes that are essential for a vital function in the body. (2) A set of computer programs and hardware that work together for some specific purpose.

System of care

A framework within which health care is provided, comprising health care professionals; recipients, consumers, or patients, energy resources or dynamics; organizational and political contents or frameworks; and processes or procedures. Current theory recognizes that an analysis of the provision of health care requires knowledge of the system of care.

System theory

A holistic medical concept in which the human patient is viewed as an integrated complex of open systems rather than as semi-independent parts. The health care approach in this theory requires the incorporation of family, community, and cultural factors as influences to be considered in the diagnosis and treatment of the patient.

Systematic error

An error caused by an intrinsic difference in results between two measurement methods. Syn: bias; Ant: statistical error

Systematization

A methodical arrangement of material or immaterial things. For the systematization of computer applications. Syn: Classification.

Systems analyst

A person who examines an activity to determine what should be accomplished and how the necessary operations should be performed by using computers.

Systems designer

A person who analyzes the transformation of the information flows described by the information analyst into a system.

Systems integration

The realignment of the health care provider field from an overall pattern of fragmentation and individuation of provider organizations to a pattern in which organizations come together in larger, integrated networks, both affiliated and owned, in order to deliver more efficient and better patient care and optimize their operations.

Systems software

A group of computer utilities programs that control the execution of applications programs.

Systems theory

As used in clinical medicine, an approach that considers the human being as a whole as opposed to his or her parts. Human beings are considered open systems constantly exchanging information, matter, and energy with the environment. There are three levels of reference for systems: the system level on which one is focusing, such as a person; the suprasystems level above the focal system, such as the person's family, community, and culture; and the subsystem, that below the focal system, such as the bodily systems and the cell. Those involved in health care must view persons as being affected constantly by suprasystems and subsystems. Health care, in the systems approach, transcends the idea of treating illness and addresses the larger issue of attaining and maintaining health through assessment and treatment of the total person. SEE: holism.

T

T

See Tera.

T cell

A white blood cell responsible for cell-mediated immunity in particular and immunoregulation in general.

T wave

Last wave of the ECG waveform (see ST-T complex).

T&M

Time and materials (contract).

T.120

A standard for audio and graphics exchange, supporting higher resolutions and pointing and annotation (which the H.320 standard does not).

T1

(Also known as DS1 or SMDS - Switched Multimegabit Data Service) Refers to a digital carrier capable of transmitting 1.544 Mbps of electronic information. It is the general term for a digital carrier available for high volume, voice, data, or compressed video traffic. A dedicated connection consisting of 24 digital signals level "O" and having a total capacity of 1.544 Mbps, this is currently the most popular means of linking large computer networks and, as such, is the de facto standard for Internet connections. Remote medical consultations, including videoconferencing and real-time image transfer, are well supported by this type of network. The cost of a T1 line is more than 10 times the cost of an ISDN line for installation alone. A leased T1 line, marketed and serviced by LECs, provides 1.544 Mbps data rate (in N. America; the European T1 provides 2.048 Mbps). T1 is available almost everywhere, and can be fractionated. Fractional T1 services are less expensive than full T1. Typical interactive video-mediated telemedicine programs transmit video images at "1/4 T1" rates (384 Kbps).

T3

(Also known as DS3 - Digital Signal Level 3) - A digital transmission system for high volume voice, data, or compressed video traffic, with a transmission rate of 44.736 Mbps. A very fast and very expensive dedicated connection, consisting of 28 DS1s (i.e. 672 DS0 lines), T3s are most commonly used as "backbone" connections between major Internet sites.

Table

(1) Collection of data arranged in rows and columns, which is a form suitable for quick referencing. (2) Part of a relational database, consisting of records with identical structures.

Table shell

A table that is complete except for the data.

TACT

Total Audit Concept Technique.

Tactile strategies

Strategies that provide comfort through the sense of touch, such as stroking or massage.

Tandem repeat sequences

Multiple copies of the same base sequence on a chromosome; used as a marker in physical mapping.

TANF

(Temporary Assistance for Needy Families) Federally-sponsored public assistance program that replaced Aid to Families with Dependant Children (AFDC) in 1996.

T

Tangible capital asset

An asset that has physical substance, has more than minimal value, and is expected to be by an enterprise for continued use or possession beyond the current accounting period for the service it yields.

Target

(1) An intermediate result towards an objective that a programme seeks to achieve. A target is more specific than an objective and the period within which it is to be attained is usually specified. It also lends itself more readily to being expressed in quantitative terms. (2) The unit (individual, family, community, etc.) to which a program intervention is directed.

Tariffs

Price guidelines for communication facilities, governed by federal or local governments, intended to permit telephone companies (LATA, see local access and transport areas) a fair rate of return on their capital investments.

Tautology

A logical operation between two logical expressions that is always TRUE.

Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA)

Legislation that established target rate of increase limits on reimbursements for inpatient operating costs per Medicare discharge. A facility's target amount is derived from costs in a base year updated to the current year by the annual allowable rate of increase. Medicare payments for operating costs generally may not exceed the facility's target amount. These provisions still apply to hospitals and units excluded from PPS.

Taxonomy

(1) The study of classifications, including its bases, principles, procedures, and rules. (2) The resulting classification in related groups of a taxonomic process.

TBSR

Total Business Systems Review.

T-carrier

A time division, multiplexed digital transmission facility, usually provided by a phone company and operating at an aggregate rate of 1.544 Mbps and above. Series of transmission systems using pulse code modulation technology at various channel capacities and bit rates to send digital information over telephone lines, including optical fiber lines, or another transmission medium.

TCO

Terminating Contracting Officer.

TCP

(Transmission Control Protocol) An important protocol upon which the Internet is based. TCP is more limited than IP and it is often combined with IP to form a package of protocols called TCP/IP.

TDM

(Time Division Multiplexing) Transmission of more than one lines of information in one high-capacity communications channel using time as the means to separate channels.

Team-Based Pay

Is a base or variable program that recognizes group efforts and results.

Technical analysis

The examination and evaluation by personnel having specialized knowledge, skills, experience, or capability in engineering, science, or management of proposed quantities and kinds of materials, labor, processes, special tooling, facilities, and associated factors set forth in a proposal in order to determine and report on the need for and reasonableness of the proposed

T

resources assuming reasonable economy and efficiency.

Technical assistance

A technical assist is a written or an oral response to requests for technical information and public health recommendations. This information is frequently incorporated into a health consultation.

Technical cooperation among developing countries

Voluntary agreements among governments of developing countries to work together in such fields as the sharing of expertise and training facilities, the joint generation of appropriate technology, and the exchange of information and experience that contribute to the improvement of the health situation in the countries. The headquarters focal point for the promotion and use of the Technical Cooperation among Developing Countries is the Division of Intensified Cooperation with Countries (ICO), effective 1 March 1994.

Technology assessment

(1) A comprehensive form of policy research that examines the technical, economic, and social consequences of technological applications. It is especially concerned with unintended, indirect, or delayed social impacts. (2) In health policy, a synthesis of information on the safety, effectiveness, and cost of a service or technology to predict how providing it would affect patients and the health care system. Technology assessment is the evaluation process of new or existing diagnostic and therapeutic devices and procedures, including clinical outcomes such as the effect on a patient's quality of life and the effect on society.

Technology transfer

The process of ensuring the wide application of scientific discoveries, and of methods, procedures, techniques and equipment that will promote health and socioeconomic development. The concept includes the export of technology and its exchange among countries. WHO accordingly seeks to provide valid information on all forms of health technology, to discover technologies that are appropriate to the social and economic conditions of the countries concerned, to support developing countries in their efforts to become self-reliant in health research and development, and to promote collaborative research between developed and developing countries in areas of particular concern to the latter, such as tropical diseases, diarrhoeal diseases and human reproduction.

TELCO

Telephone Company.

Telecommunications

(1) The use of wire, radio, visual, or other electromagnetic channels to transmit or receive signals for voice, data, and video communications. (2) A system of communication that differs from broadcast communications in that it is traditionally used for private communications. Present-day telecommunications technology offers five standard media over which to transmit information - copper wire, fibre optic cable, co-axial cable, satellite and microwave.

Teleconferencing

Interactive electronic communication between two or more people at two or more sites, which make use of audio equipment, audiographics computers, video systems and high grade dedicated lines that allow for voice, data, and/or video transmission.

Teleconsultation

The physical separation between multiple providers during a consultation.

Teledermatology

A branch of medicine dealing with skin diseases, with diagnosis necessitating examination of the affected area. High-resolution colour television is now being used successfully to obtain consultations from a dermatologist remotely.

Telediagnosis

The detection of a disease as a result of evaluating data transmitted to a receiving station from instruments monitoring a remote patient.

T

Telehealth

The use of electronic communications networks for the transmission of information and data focused on health promotion, disease prevention, diagnosis, consultation, education, and/or therapy, and the public's overall health including patient/community education and information, population-based data collection and management, and linkages for health care resources and referrals. Although telehealth is sometimes considered broader in scope than telemedicine, there is no clear-cut distinction between the two.

Teleimaging

An image transmission and receiver unit that operates over communication facilities where the transmission unit includes a direct digital imaging device or film digitizer and the receiver has basic image processing capabilities.

Tele-learning

Access to educational or training programs using a combination of online information, multimedia and networks.

Telematics

Contraction of telecommunications and automatic information processing: the use of information technology over wide-area networks. The use of computer-based information processing in telecommunications and the use of telecommunications to allow computers to transfer programs and data to one another.

Telemedicine

(1) The provision of health care and education over a distance, using telecommunications technology. (2) The delivery of care to patients anywhere in the world by combining communications technology with medical expertise. Telemedicine encompasses six essential elements - geographic separation, use of telecommunications, use of computer technology, appropriate staffing, development of clinical protocols and development of normative standards. (3) The use of audio, video, and other telecommunications and electronic information processing technologies for the transmission of information and data relevant to the diagnosis and treatment of medical conditions, or to provide health services or aid health care personnel at distant sites.

Telementoring

The use of audio, video, and other telecommunications and electronic information processing technologies to provide individual guidance or direction. An example of this help may involve a consultant aiding a distant clinician in a new medical procedure.

Telemetry

The science and technology of automatic measurement and transmission of data via wires, radios, or another medium from stations based in remote locations to receiving stations for recording and analysis.

Telemetry unit

See Step Down Unit.

Telemonitoring

The process of using audio, video, and other telecommunications and electronic information processing technologies to monitor the health status of a patient from a distance.

Telenursing

The use of telecommunications for nursing care. For a current index of telenursing resources connect with the International TeleNurses Association. See also CIS and Medical Informatics.

Teleoperation

Surgery in which the surgeon guides an operation or operates via robotic equipment on a patient at a distant location.

T

Telepathology

Pathology in which the image of the specimen is digitally transmitted and examined by a pathologist at a remote location.

Telephone system

A communications system consisting of lines, switches and customer premises equipment (CPE), e.g., amplifiers, bridges, computer networks, faxes, PBXs, modems, telephones, video, etc. At the smallest level, a telephone system might consist of a telephone and a voice grade circuit connected to a local service. At the global level, a telephone system encompasses transmission of voice, data, and video via satellite, fiber optic lines, and packet switched networks (PSNs).

Telepresence

The method of using robotic and other instruments that permit a clinician to perform a procedure at a remote location by manipulating devices and receiving feedback or sensory information that contributes to a sense of being present at the remote site and allows a satisfactory degree of technical achievement. For example, this term could be applied to a surgeon using lasers or dental handpieces and receiving pressure similar to that created by touching a patient so that it seems as though s/he is actually present, permitting a satisfactory degree of dexterity.

Teleradiology

The transmission of radiology images using telemedicine systems. In its oldest form, teleradiology used analog slow-scan to transmit images, a slow process resulting in less-than-optimum reproduction of the transmitted image at the other end. In modern teleradiology, these plain radiographs are first scanned and digitized, the resulting digital information then being compressed and transmitted. Various processes have been developed to accomplish the latter, such as CT scans and MRIs.

Teletext

A broadcasting service using several otherwise unused scanning lines (vertical blanking intervals) between frames to transmit information from a central database to receiving television sets.

Television camera

Equipment that transduces a two-dimensional optical image into a time-varying electrical signal, which can be digitized.

Telnet

A program that permits users to logon to any computer on the Internet. It is a user command and an underlying TCP/IP protocol for accessing remote computers.

Telomere

The ends of chromosomes. These specialized structures are involved in the replication and stability of linear DNA molecules. See DNA replication.

Temporary Assistance for Needy Families (TANF)

Replaces AFDC, places a time limit on benefits, and requires recipients to be involved in work or work-related activities.

TENS

(Transcutaneous Electrical Nerve Stimulation) A method of producing electroanalgesia through electrodes applied to the skin.

Tera

Abbreviation for 1,000,000,000,000 (10^{12}).

Term

The length of time covered by a policy or a premium.

T

Term insurance

The type of life insurance policy that provides protection only for a specified period of time.

Terminal

Computer I/O station. A device that allows you to send commands to a computer somewhere else. At a minimum, this usually means a keyboard and a display screen and some simple circuitry.

Terminal emulation

Imitating the functionality of a terminal by software.

Termination contracting officer (TCO)

A contracting officer having responsibility for settling one or more particular contracts. In some cases the term is used to identify a contracting officer who specializes in the settlement of terminated contracts.

Termination for convenience

The termination of a contract by the Government for reasons other than nonperformance or default when the Government deems it to be in its interest to do so. A termination for convenience is a unilateral contract action undertaken by the Government under the provisions appearing at FAR 49 and the various termination for convenience contract clauses. In a termination for convenience action, the contractor generally is entitled to negotiate a settlement agreement for the purpose of providing an equitable recovery of costs reasonably incurred by the contractor in anticipation of fulfilling the contract, and a reasonable profit thereon.

Termination for default

The termination of a contract by the Government for failure to perform the contract in accordance with its requirements. A termination for default is a unilateral contract action undertaken by the Government under the provisions appearing at FAR 49 (and especially FAR 49.4). In a termination for default action, the contractor generally is not entitled to any payment for undelivered items, and may be liable to the Government for the repayment of progress payments or advances, liquidated or other damages, and the excess cost of acquiring the undelivered items from another source.

Terrestrial Carrier

A telecommunication transmission system using land-based facilities such as microwave towers, telephone lines, coaxial cable, or fiber optic cable as differentiated from satellite transmission.

Tertiary care

Services provided by highly specialized providers (e.g., neurologists, neurosurgeons, thoracic surgeons, intensive care units). Such services frequently require highly sophisticated equipment and support facilities. The development of these services has largely been a function of diagnostic and therapeutic advances attained through basic and clinical biomedical research.

Tertiary care physician

A highly specialized physician, such as a neurosurgeon, thoracic surgeon, radiologist, etc.

Tertiary center

A large medical care institution, usually a teaching hospital, that provides highly specialized care.

Tertiary health care

More specialized care that requires highly specific facilities and the attention of highly specialized health workers, for example for neurosurgery or heart surgery.

Tertiary prevention

Prevention activities which focus on the individual after a disease or illness has manifested itself. The goal is to reduce long-term effects and help individuals better cope with symptoms.

Test

(1) An examination. (2) A method to determine the presence or nature of a substance or the

T

presence of a disease. (3) A chemical reaction. (4) A reagent or a substance used in making a test. *Acetic acid T.* - A test for albumin in urine. Adding a few drops of acetic acid to urine that has been boiled causes a white precipitate if albumin is present. *Acetone T.* - A test for the presence of acetone in the urine; made by adding few drops of sodium nitroprusside to the urine along with strong ammonia water. The presence of acetone causes the formation of a magenta ring at outline of contacts. *Agglutination T.* - A widely test in which adding an antiserum containing antibodies to cells or bacteria causes them to agglutinate. *Alkali denaturation T.* - A test for hemoglobin F (fetal hemoglobin) in the blood. Spectrophotometry is used in this test. *Allen-Doisy T.* - A test to determine the amount of estrogen content in female blood serum by its reaction in secretions of mice. *Apprehension T.* - A test of chronic joint instability. If this is present, the patient displays apprehension or discomfort when a joint is put in a position of risk for dislocation. There is an obvious facial display of discomfort; the patient may try to resist the maneuver by muscle contraction. *Patella:* The patient lies supine with a relaxed quadriceps, and the examiner places digital pressure on the patella, attempting to locate it laterally. *Shoulder:* The arm is abducted to 90° and rotated externally. With continued external rotation, the patient with an unstable shoulder complains of pain and expresses fear of dislocation. *Aptitude T.* - A test used to determine an individual's capability in various areas, esp. specific occupations. *Aschheim-Zondek T.* - A test for pregnancy performed by injecting the patient's urine subcutaneously into immature female mice. If the patient is pregnant, the ovaries of the mouse begin to mature prematurely. *Association T.* - A test used to determine an individual's response to word stimuli. The nature of the response and time required may provide insight into the subject's personality and previous experiences. *Autohemolysis T.* - A test of the rate of hemolysis of sterile defibrinated whole blood incubated at 37°C. Normal cells hemolyze at a certain rate and blood cells from persons with certain types of disease hemolyze at a faster rate. *Biuret T.* - A test to determine the presence of proteins or urea. *Block design T.* - A neuropsychological test involving the placement of wooden blocks according to three-dimensional drawings. The test assesses the presence of constructional apraxia, often exhibited in patients with brain lesions. *Box and block T.* - A standardized, timed test of manual dexterity and endurance, used in rehabilitation, in which the subject transfers small blocks from one side of a box to another. *Caries activity T.* - Any laboratory test that measures the degree of caries activity in a dental patient. The tests may identify the number of cariogenic bacteria or the acid production from saliva samples. *Challenge T.* - Administering a substance in order to determine its ability to cause a response, esp. the giving of an antigen and observing or testing for the antibody response. *Chromatin T.* - A test for genetic sex in which blood or tissue cells are examined for the presence or absence of Barr bodies. *Coin T.* - A test for pneumothorax. A metal coin is placed flat on the chest and struck with another coin. The chest is auscultated at the same time. If a pneumothorax is present, a sharp, metallic ringing sound is heard. *Concentration T.* - A kidney function test based on the ability of the person to produce concentrated urine under conditions that would normally cause such production, as in intentional dehydration. *Conjunctival T.* - An allergy test in which the suspected antigen is placed in the conjunctival sac; if it is allergenic for that patient, the conjunctiva becomes red and itchy and tears are produced. *Cover T.* - A test for strabismus. The eyes are observed and the patient is asked to focus on an object. A cover is placed first over one eye and then the other. If either eye moves, strabismus is present. *Creatinine clearance T.* - A laboratory test to determine the ability of the kidneys to remove creatinine from the blood for excretion into the urine. It is the best indicator of renal function and is therefore useful for a physician prescribing medications that are excreted by the kidneys. The normal creatinine clearance for men ranges from 95 to 135 ml/min. For women, the value is slightly less. As a person ages, the creatinine clearance decreases. *Developmental T. of visual motor integration* - A test of visual perception and motor planning requiring the copying of shapes and forms. *Effort-independent T.* - A test whose accuracy or success does not depend on patient compliance. *Finger-to-finger T.* - A test for coordination of the movements of the upper extremities. The patient is asked to touch the tips of the fingers of one hand to the opposite fingertips. *Finger-nose T.* - A test of cerebellar function wherein the patient is asked to, while keeping the eyes open, touch the nose with the finger and remove the finger, and repeat this rapidly. The test is done by using a finger of each hand successively or in concert. How fast and well this is done is recorded. *Friedman T.* - One of the first tests for pregnancy in which the patient's urine was injected into unmated mature female rabbits; a positive reaction was indicated by formation of corpora lutea and corpora haemorrhagica. This test is no longer used. *Galactose tolerance T.* - A test of the ability of the liver to metabolize galactose. A standard dose of galactose is administered to the fasting patient, and the amount of galactose excreted in the

T

urine in the next 5 hr is determined. If the liver is damaged, the galactose is not metabolized to glycogen but is instead excreted in the urine. *Glucose tolerance T.* - SEE: glucose tolerance test. *Guaiaac T.* - A test for occult blood in the feces. An alcoholic solution of guaiac resin and hydrogen peroxide is mixed with the specimen. The appearance of a blue color indicates a positive test. This test is effective in detecting tumors of the colon. The feces should be tested twice daily for 3 days to enhance detection of occult blood. *Hardness T.* - A test designed to determine the relative hardness of materials by correlating the size or depth of an indent produced by a particular instrument with a known amount of compressive force. *Histamine T.* - 1. Injection of histamine subcutaneously to stimulate gastric secretion of hydrochloric acid; 2. A test for vasomotor headache; a histamine injection precipitates the onset of a headache in persons with this disease. *Human repeated patch insult T.* - the serial application of substances to the skin to test for reaction. The material is applied fresh to the same skin site every other day for 10 applications. Each application remains on for 48 hr. After a rest period of about 2 weeks, the test material is applied again for 48 hr. to a different skin site than that originally used. This area is examined daily for the next 4 days for evidence of irritation. The test measures the ability of the test substance to cause sensitization or irritation reactions or both. *In-home T.* - A test done in the home to provide information about an individual's health status. Examples include tests to measure blood sugar (glucose), cholesterol, occult blood in feces, and blood pressure, as well as ovulation predictors and pregnancy tests. The materials and devices needed for in-home tests are available over the counter (i.e., a prescription from a health care professional is not needed). *Intelligence T.* - A test designed to assess the intelligence of an individual, used as a basis to determine intelligence quotient (IQ). It is now believed that some of the standardized tests of intelligence were more nearly achievement tests. SEE: intelligence. *Intracutaneous T.* - A test done by injecting an antigen intracutaneously and observing the response. *Limulus ameobocyte lysate T.* - ABBR: *Lal T.* - A test used to detect minute quantities of bacterial endotoxins and to test for pyrogens in various materials; it is also used to detect septicemia due to gram-negative bacteria. Limulus ameobocyte lysate is formed from the lysed circulating ameobocytes of the horseshoe crab (*Limulus polyphemus*). *Liver function T.* - A blood test for a specific aspect of liver metabolism. Because of the diversity of liver functions and the disorders that may affect those functions, no single test provides a reliable measure of overall liver function. The ability to excrete bile pigments is measured by determining the serum bilirubin level; the levels of serum enzymes such as the aminotransferases aspartate (AST) and alanine (ALT) may be used to assess damage to the liver cells and biliary tract obstruction or dysfunction. Levels of the serum proteins albumin and globulin and their ratio are used to judge the extent of liver damage. Certain blood clotting factors are synthesized in the liver, and abnormalities can be determined by measuring the rate of conversion of prothrombin to thrombin by the one-stage prothrombin time test. Blood ammonia levels are elevated in some patients with either acute or chronic liver disease; marked elevations usually indicate severe necrosis of the liver cells. *Loading T.* - The administration of a substance to determine individual's ability to metabolize or excrete it. Thus, a glucose tolerance test is one form of this test. *McMurray T.* - A test for a torn meniscus of the knee. The examiner flexes the patient's knee completely, rotates the tibia outward, and applies a valgus force against the knee while slowly extending it. A painful click indicates a torn medial meniscus. If a click is felt when the tibia is rotated inward and a varus force is applied against the knee during extension, the lateral meniscus is torn. *Motor-free visual perception T.* - A standardized test of visual perception that does not require motor performance. *Multiple-puncture T.* - Any skin test, but esp. a tuberculin test, in which the material is placed on the skin and multiple superficial punctures are produced under the material, thus allowing the material to enter the skin. *Neutralization T.* - A test of the ability of an antibody to neutralize the toxic effects of an antigen. *Ninhydrin T.* - A neurological test of sensation following peripheral nerve injury; used to detect a sympathetic response as indicated by sweat. *Nonstress T.* - ABBR: NST. An external electronic monitoring procedure to assess fetal well-being. An acceleration in fetal heart-rate should be evident in response to fetal movement. *Reactive T.* - Two criteria indicate satisfactory fetal status. The monitor records a minimum of two episodes of heart rate acceleration accompanying fetal movement within one 20-min period, and accelerations of 15 beats per minute persist for a minimum of 15 sec per episode. *Nonreactive T.* - The monitor record does not meet either criterion for reactivity. This indicates the need for a second test within the next several hours, contraction stress testing, a fetal biophysical profile, or all three. *Inconclusive T.* - The monitor records less than one acceleration in 20 min or an acceleration less than 15 bpm lasting less than 15 sec. *Patch T.* - A skin test in which a low concentration of a substance is applied to the skin under an occlusive dressing for 48 hr to assess for hypersensitivity to a suspected allergen. If the concentration of the agent is too high or an allergy

T

exists to the material used in the dressing, false-positive reactions can occur because of local irritation. False-negative reactions may result if the concentration of the suspected allergen is too low. Intradermal injection may be used instead of patch testing as another form of delayed hypersensitivity skin testing. *Pinprick T.* - A test for cutaneous pain receptors. A small, clean, sharp object such as a pin or needle is gently applied to the skin and the patient is asked to describe the sensation. One must be certain the patient is reporting the sensation of pain rather than that of pressure. Usually, application of the sharp object is interspersed with application of a dull object, and the patient is asked to state each time whether a sharp or dull sensation was felt. The patient is not, of course, allowed to observe the test procedure. Caution: The sharp object should not penetrate the dermis, and to prevent passage of infectious material from one patient to another, the test objects should be either discarded after use or sterilized before their use on another patient. *Precipitin T.* - An antigen-antibody test in which a specific antigen is added to a solution. If the solution contains the antibody to that antigen, a precipitate is formed. *Prothrombin consumption T.* - A test for the amount of thromboplastin present in the plasma that reacts with prothrombin. This is determined by quantitating the prothrombin that remains in the serum after coagulation is complete. *Psychometric T.* - A measurement technique used to assist in diagnosing cognitive and behavioral difficulties in infants and children. Several different tests are available. *Pulp vitality T.* - A determination of the vitality of a tooth pulp by the application of hot, cold, or electrical stimuli. Also called vitalometry. *Radioimmunosorbent T.* - ABBR: RIST. Use of radioimmunoassay to measure the immune globulin E (IgE) antibody in serum. *Rapid surfactant T.* - Shake t. *Rubin T.* - The original test for patency of the fallopian tubes by insufflation with carbon dioxide; used in investigating the cause of sterility. SYN: tubal insufflation. *Schiller's T.* - A test for detection of cancer of the cervix by painting the tissue with iodine solution; areas that contain glycogen are stained by the iodine. Those sites that do not stain, but become white or yellow, are assumed to be abnormal. Tissue is taken from those areas for microscopic examination. *Scratch T.* - An allergy test in which the antigen is applied to skin that has been lightly scratched. *Secretin injection T.* - A test performed by injecting secretin intravenously and then measuring changes in gastrin in the serum when attempting to diagnose gastrinoma, or measuring changes in the duodenal fluid when investigating pancreatic insufficiency and malabsorption. *Sensory integration and praxis T.'s* - ABBR: SIPT. A standardized battery of assessment tests to identify motor planning and sensory processing deficits in children 4 through 8 years of age. It includes 17 subtests. *Serologic T.* - Any test done on serum. *Shake T.* - A quick test to estimate fetal lung maturity. A sample of amniotic fluid is diluted with normal saline, mixed with 95% ethyl alcohol, and shaken for 30 sec. The continued presence of small foamy bubbles in the solution after 15 min confirms the presence of pulmonary surfactant. SYN: foam stability t.; rapid surfactant t. *Sickling T.* - A test for the ability of red cells to sickle. The red cells are placed in an atmosphere of reduced oxygen tension. If they contain hemoglobin S, they will sickle. *Standardized T.* - A test that has been developed empirically, has adequate norms, definite instructions for administration, and evidence of reliability and validity. *Starch-iodine T.* - A test for the presence of starch. When an iodine solution is applied to a substance or material that contains starch, a dark blue color appears. *Sulfosalicylic acid T.* - A test for protein in the urine. *Thematic apperception T.* - A projective test in which the subject is shown life situations in pictures that could be interpreted in several ways. The subject is asked to provide a story of what the picture represents. The results may provide insights into the subject's personality. *Three-glass T.* - A test to identify the site of a urinary tract infection. On awakening, the patient empties the bladder by passing urine sequentially into three test tubes (glasses). The amount of cellular debris visible to the naked eye in the glasses helps to determine whether the infection is located in the anterior urethra, posterior urethra, or prostate. If the first glass is turbid and the other two are clear, the anterior urethra is inflamed but the rest of the urinary tract is clear. If the initial specimen is clear and the second and third ones are turbid, the posterior urethra or prostate is inflamed. If only the third specimen is turbid, then only the prostate is inflamed. *Tolerance T.* - A test of the ability of the patient or subject to endure the medicine given or exercise taken. *Tourniquet T.* - A test for capillary fragility. A blood pressure cuff is inflated sufficiently to occlude venous return from the arm. It is kept in place for a set time. After the cuff is removed, the skin distal to the cuff is examined for petechiae. *Up and go T.* - A timed test of lower-extremity mobility. It measures the time required to rise from a chair, walk 10 ft, turn, and return to the sitting position. Performance on this test is affected by abnormal gaits that increase the risk of falling. *Urea balance T.* - A test of kidney function by measuring intake and output of urea. *Wrinkle T.* - A test of sensibility following complete transection of or damage to peripheral nerves based on the characteristic sympathetic response of skin following extended immersion in water.

T

Test population

A set of cases independent of the learning set, to assess the performance of a classification algorithm. Ant. Learning population.

Test set

(1) A set of input data to validate a program or a classification. (2) A test population.

Testing

Validation or evaluation of the performance of a computer system (hardware or software) decision-support system, or pattern recognition system by means of test procedures or a test set.

Texture

Perceived structure of a surface.

Thallium Stress Test

A method of monitoring cardiac function through electrocardiograms taken during exercise, followed by a nuclear medicine scan using the isotope thallium.

The Health Plan Employer Data and Information Set (HEDIS)

A set of performance measures developed for employers to use in assessing health care plans.

Therapeutic substitution

The substitution of one drug for another.

Therapy

Actions to treat a health problem.

Thesaurus

Set of frequently used standard terms for a certain application area.

Third Party Administrator (TPA)

An organization that administers health care benefits, mostly for self-insured employers. Services may include claims review and claims processing.

Third Party Payer

Any organization, public or private, that pays or insures health or medical expenses on behalf of beneficiaries or recipients.

Third Party Payment

A term used to describe the monetary reimbursement for medical services from someone other than the member or the member's insurance plan.

Threshold

(1) (In decision-support systems) A quantity for which a statement is false or true if the value of a feature is below or above that quantity, respectively. (2) (In signal detection) The signal level above which the presence of an event is assumed.

Threshold standards

Rate or level of illness or injury in a community or population which, if exceeded, should signal alarms for renewed or redoubled action.

Thresholding

Segmentation by cutting off all values above or below a threshold. Syn: histogram segmentation.

Throughput

The amount of data that is actually transmitted over a network in a given period of time expressed in bits per second. Throughput rates are related to baud rates, but are generally a little lower due to imperfect transmission conditions. Usually, higher baud rates will permit higher throughput.

T

Thumbnails

Miniature pictures of images using very small, low resolution data files. These download for display very quickly, and can be compared on-screen to select the proper high-resolution image.

Thymine (T)

A nitrogenous base, one member of the base pair A-T (adenine- thymine).

Tie Line (Tie Trunk)

(1) A leased or dedicated telephone circuit provided by common carriers that links two points together without using the switched telephone network. (2) A telephone circuit leased or dedicated to an individual, which is provided by common carriers that connect two points together without using the switched telephone network.

Tiling

An artifact of digitization and compression. Portions of the on-screen video image break into smudged squares. Tends to happen when there is too much on-screen motion, overwhelming the ability of the compression algorithm adequately to apportion system resources to both motion handling and resolution. See ghosting.

Time lag

Time interval between two not necessarily consecutive samples of the same or different signals.

Time series analysis forecast

A method that uses statistical techniques and relies on historical data, emphasizing patterns and pattern changes for forecasting.

Time-sharing

Use of a computer system by many users who may use the system in time slices in turn.

Time-and-materials (T&M) contract

A contract which provides for acquiring supplies or services on the basis of (1) direct labor hours at specified fixed hourly rates that include wages, overhead, general and administrative expenses, and profit and (2) materials at cost, including, if appropriate, material handling costs as part of materials costs.

Time-oriented medical record

Medical record with a chronological order of the data.

Times interest earned

Earnings before interest and taxes (EBIT) divided by interest expense (measures a company's ability to generate sufficient funds to pay interest expense).

Time-series analysis

Reflexive designs that rely on relatively long series of repeated outcome measurements taken before and after an intervention.

TIPS

(Transjugular Intrahepatic Portal Shunt [procedure]) Minimally invasive procedure for treatment of bleeding complications in patients suffering from some forms of liver disease.

TMR

See transmyocardial revascularization.

TN

See true negative.

TO-BE Model

Models that are the result of applying improvement opportunities to the current (AS-IS) business environment.

T

Tomographic

See CT.

Tomography

A form of radiography that permits the imaging of the body in planes or slices at right angles to the spinal cord or long bones, rather than producing flat images. See CT.

Toolkit

A set of procedures and stand-alone programs for the development or maintenance of a specific application or group of applications.

Total fertility rate (TFR)

The number of children an average woman would have assuming that she lives her full reproductive lifetime.

Total margin

A measure that compares total hospital revenue and expenses for inpatient, outpatient, and non-patient care activities. The total margin is calculated by subtracting total expenses from total revenue and dividing by total revenue.

Total performance

A measure for the performance of a decision-support method, expressed in one number.

Total Quality Management/Total Quality Leadership (TQM/TQL)

Both a philosophy and a set of guiding principles that represent the foundation of the continuously improving organization. TQM/TQL is the application of quantitative methods and human resources to improve the material and services supplied to a organization, all the processes within an organization, and the degree to which the needs of the customer are met, now and in the future. TQM/TQL integrates fundamental management techniques, existing improvement efforts and technical tools under a disciplined approach focused on continuous improvement.

Touch screen

Input device, consisting of a visual display unit with a screen that detects where the user touches the screen.

Toxicological profile

A document about a specific substance in which ATSDR scientists interpret all known information on the substance and specify the levels at which people may be harmed if exposed. The toxicological profile also identifies significant gaps in knowledge on the substance, and serves to initiate further research, where needed.

TOXNET

Information about toxic substances made electronically available by NLM.

TP

See true positive.

tPA

(Tissue Plasminogen Activator) For dissolving clots in coronary arteries to prevent myocardial ischemia; refer to Activase (alteplase). Often used in combination with other thrombolytic agents, i.e., streptokinase, urokinase, heparin; additional applications include treatment of intracranial clots and thrombosed hemodialysis grafts. Note: Documented in references also as t-PA and TPA. See FDA-TPA.

Track

Circular part of a disk that can contain data. A track can be written or read without moving the read-write head after initial positioning.

Tracking ball

A pointing device like a mouse consisting of a rotatable ball.

T

Traditional whole life

Provides level premiums and level insurance coverage. It generally costs more than term in the earlier years of the policy and less in later years. Nontaxable dividends may be paid on the policy.

Training set

See learning population.

Transaction

A set of computer operations that performs a specific activity in the real world, e.g. the registration of a patient.

Transaction processing

Processing of one transaction immediately after input of all necessary data. Ant batch processing.

Transcription

Compare translation.

Transducer

A device that transforms an input signal into an output signal of a different type.

Transfer function

Function that describes mathematically the transformation of the source signal by a system (e.g., a biological process) into the output signal.

Transfer RNA (tRNA)

A class of RNA having structures with triplet nucleotide sequences that are complementary to the triplet nucleotide coding sequences of mRNA. The role of tRNAs in protein synthesis is to bond with amino acids and transfer them to the ribosomes, where proteins are assembled according to the genetic code carried by mRNA.

Transgenic organism

An organism formed by the insertion of foreign genetic material into a germ cell.

Transgenic technology

Human DNA is inserted into animal cells so that a targeted protein, or drug, is secreted in the milk of female offspring.

Transient signal

A signal caused by a sudden change in conditions that persists for a relatively short time after the change.

Transitional care

Care that is provided to patients to help them move from one stage of illness to the next.

Transitional Medicaid Assistance (TMA)

A short-term program which provides Medicaid coverage to people who lose their eligibility for cash benefits due to their work activity but their job does not offer health benefits.

Translation

(1) A transformation that moves a geometric figure by sliding. Each of the points of the geometric figure moves the same distance in the same direction (also called a slide). (2) The process in which the genetic code carried by mRNA directs the synthesis of proteins from amino acids. Compare transcription.

Translator

A broadband network operation. A translator is an instrument, located in a central retransmission facility to filter incoming microwave signals and retransmit them in a higher frequency band.

T

Transmission

The process by which a pathogen passes from a source of infection to a new host. There are two major types: horizontal and vertical transmission. The majority of transmission processes operate horizontally.

Transmission channel

See channel.

Transmission facilities

Facilities where the compressed digital signal can be sent through to its destination.

Transmission of infection

Any mode or mechanism by which an infectious agent is spread through the environment or to another person.

Transmission rate

Amount of information / unit of time that a technology such as a regular (POTS) or digital (ISDN or T1) phone line, satellite or wireless technology, or local area network (LAN) can transmit. A typical POTS-based modem can transmit 33.6 thousand bits (Kbps) of information/second. In *Telemedicine Today's 3rd Annual Program Review* (vol. 4, no. 4), 7 of the top 10 North American telemedicine programs conducted some or all of their teleconsultations at 384 Kbps.

Transmission Speed

The speed at which a message passes over the line. This can be defined in either bps (bits per second) or baud (number of discrete electrical signals sent in a unit of time).

Transmission threshold

Occurs for a parasite when the basic reproductive rate R_0 is equal to 1. Below this threshold level the disease is unable to maintain itself within the host population.

Transmitter

Transducer that transfers its signal by radio waves.

Transmural

Care for an individual in a setting that is not limited to one health care organization.

Transmyocardial revascularization (TMR) procedures

TMR procedure uses the laser to create channels from inner portions of the heart to allow oxygen-rich blood to reach portions of the heart which are oxygen starved.

Transplantation

(1) The grafting of living tissue from its normal position to another site or the transplantation of an organ or tissue from one person to another. Organs and tissues that have been successfully transplanted include the heart, lung, kidney, liver, pancreas, cornea, large blood vessels, tendon, cartilage, skin, bone, and bone marrow. Brain tissue has been implanted experimentally in treating parkinsonism. The most important factor in successful transplantation is the matching of histocompatibility antigens that differentiate one individual's cells from another's. Cyclosporine has been used to attempt to prevent rejection of the transplant. (2) (in dentistry) The transfer of a tooth from one alveolus to another. *Allogeneic T.* - Transplantation of material from a donor to another person. *Autologous T.* - Transplantation of material from one location in the body to another site. *Autoplastic T.* - Transplantation of tissue from one part to another part of the same body. SYN: homoplastic transplantation. *Combine liver-small intestine T.* - An experimental procedure in which both the liver and small intestine have been replaced. The procedure has been done successfully. *Hair T.* - A surgical procedure for placing plugs of skin containing hair follicles from one body site to another. This technique is very time consuming but has some success in treatment of alopecia of the scalp. *Heart T.* - Surgical transplantation of the heart from a patient who died of trauma or a disease that left the heart intact and capable of functioning in the recipient. This procedure was performed frequently in the 1970s, after which very few were done. As techniques for matching the donor and the recipient have improved, the procedure is now done in many hospitals but is limited by the availability of donor hearts. *Heteroplastic T.* -

T

Transplantation of a part from one individual to another individual of the same or a closely related species. *Heterotopic T.* - Transplantation in which the transplant is placed in a different location in the host than it had been in the donor. *Homotopic T.* - Transplantation in which the transplant occupies the same location in the host as it had in the donor. *Small intestine T.* - An experimental procedure in which the small intestine is replaced. The procedure has been done successfully. *Syngeneic T.* - A specific type of allogeneic transplantation of material between identical twins.

Transplant registries

A registry of patients in need of an organ or tissue transplant.

Transponder

A microwave repeater (receiver and transmitter) in a satellite that receives signals being sent from earth, amplifies them, and sends them back down to earth for reception purposes. Domestic communication satellites use either 12 or 24 transponders, equivalent to a single channel, which usually have a 36 MHz bandwidth.

TRASOP

Tax Reduction Act Stock Ownership Plan.

Trauma Center

An emergency room that is equipped and staffed to care for serious traumatic injuries. Emergency rooms are classified as Level 1, 2 and 3 trauma centers, with Level 1 being the highest care level (the opposite of neonatal intensive care units). Generally, a Level 1 trauma center will be a large emergency room that has most medical specialties (especially trauma, surgery, orthopedics and neurosurgery) available on-site or on short notice, has good access to CT Scanning and other technology such as MRI, and is able to care for multiple traumatic injuries of both a blunt and penetrating nature.

Traverso-Longmire technique

Procedure developed for resection of a malignant tumor of the pancreas.

Treatment

Action on a patient intended to improve his or her state.

Trend

A long-term movement or change in frequency, usually upwards or downwards.

Trend analysis

Analysis of a variable over time to detect or investigate long-term changes.

Trending

A calculation used to anticipate future utilization of a group based on past utilization by applying a trend factor, a rate at which direct and indirect medical costs are changing.

Triage

(1) The classification of sick or injured persons according to severity in order to direct care and ensure the efficient use of medical and nursing staff and facilities. (2) The intervention of a trained health professional - increasingly referred to as a telenurse in the U.S. - who staffs a help-line. By asking a caller a series of questions, the trained health professional can determine whether the problem is serious enough to warrant a patient's visit to a clinic or an emergency department or, in the event of an emergency, calling an ambulance.

Trial group

A group of cases selected to perform a clinical trial.

Tri-Association

The Association of Washington Cities, the Washington State Association of Counties, and the Washington Association of County Officials are, collectively, the Tri- Association. Responsibilities of the Tri-Association under the Health Services Act of 1993 include analyzing the membership

T

of local public health department/district governing bodies and developing recommendations regarding the appropriateness of Motor Vehicle Excise Tax financing of local public health.

TRICARE

(Formerly CHAMPUS) Insurance program for Veterans and civilian dependents of members of the military.

Trigger

(1) The precedence with respect to time between activity types. (2) An event that causes a sequence of other events. (2) The button on a joystick.

Trigonometric ratios

The ratios of the lengths of pairs of sides in a right triangle. There are three basic trigonometric ratios used in trigonometry: sine (sin), cosine (cos), and tangent (tan).

Trigonometry

A branch of mathematics that combines arithmetic, algebra, and geometry. Trigonometry is used in surveying, navigation, and various sciences such as physics.

tRNA

See transfer RNA.

True negative (TN)

Measure of the quality of a decision. The percentage of objects that do not have some attribute and for which a decision procedure correctly rejects this attribute.

True positive (TP)

Measure of the quality of a decision. The percentage of objects that have some attribute and for which a decision procedure correctly detects this attribute.

Trunk

A large capacity, long distance channel used by common carriers to transfer information between its customers. The physical medium that connects the major components of a telecommunication system, both of which are switching centers or individual distribution points (the private branch exchange, central office, points of presence, etc.)

Truth In Negotiations Act (TINA)

A public law enacted for the purpose of providing for full and fair disclosure by contractors in the conduct of negotiations with the Government. The most significant provision included in TINA is the requirement that contractors submit certified cost and pricing data for negotiated procurements above a defined threshold.

Truth table

(1) A table containing the values of a logical expression for all possible combinations of its logical variables. (2) In decision-support system, making a qualitative decision by setting up a table to use all decision units (logical expressions) simultaneously.

TSC

Technical Service Center.

TSNA

(Tobacco-Specific N-nitrosamines) Recognized as the most powerful and abundant carcinogens in tobacco and tobacco smoke.

T-test

Statistical test used to compare the results of two normally distributed samples with identical standard deviations.

Tumarkin crisis (otolithic crisis of Tumarkin)

A sudden drop attack that occurs without warning and without loss of consciousness

T

experienced by approximately 1% to 2% of patients with Ménière's disease. These attacks are thought to be associated with a mechanical disturbance in the otolithic organs of the ear that are felt to be responsible for sensing gravity.

Tumor

(1) A swelling or enlargement (2) Swelling, one of the four classical signs of inflammation. The others are calor (heat), dolor(pain), and rubor(redness). (3) A spontaneous new growth of tissue forming an abnormal mass. It is, with few exceptions of unknown cause, noninflammatory, and develops independent of and unrestrained by normal laws of growth and morphogenesis. SYN: neoplasm. SEE: cancer. Types: *Myeloid sarcoma* or *giant-celled sarcoma*: This consists of elements formed chiefly of protoplasm containing two or more nuclei, up to 20 or even 50, with a varying number of round, spindle, or mixed cells. Consistency varies from that of jelly to that of muscle. The tumors more frequently occur on the lower jaw, femur, and tibia. *Round-celled sarcoma*: This is usually soft, vascular and rapidly growing, becoming large, and it gives rise to metastatic deposits in distant parts and in viscera. Tumors occur in periosteum, bone, lymphatic glands, subcutaneous tissue, testicle, eye, ovary, uterus, lung, and kidney, although they may occur wherever fibrous tissue exists. *Glioma*: This grows from the connective tissue of nerve centers and its basic substance resembles that structure. It occurs in retina and brain. *Melanotic sarcoma*: Cells may be either the round or the spindle variety. This type of tumor is extremely malignant. *Spindle-cell sarcoma*: Cells vary greatly in size, from small oat-shaped cells to greatly elongated bodies with long, fine, tapering extremities. These occur chiefly in bones. *Endothelioma*: This may occur in different forms, in the testicle, pia mater, pleura, and peritoneum. *Acinous or spheroidal-celled carcinoma*: This occurs in two forms: 1) hard, spheroidal-celled (scirrhous or chronic carcinoma) and 2) soft, spheroidal-celled (encephaloid or acute carcinoma). It resembles brain tissue in appearance and consistency. It may occur in the testicle, liver, bladder, kidney, ovary, fundus oculi, and more rarely breast. *Colloid carcinoma*: this is one of the preceding varieties that has undergone mucoid degeneration and so distended the alveoli that they may be seen by the naked eye. It occurs in the stomach, intestine, omentum, and ovary. *Epithelial carcinoma*: The squamous-celled epitheliomata always develop from the skin or mucous membranes or their glands, esp. at junctions of mucous and cutaneous surfaces. They are not encapsulated and commence as a wartlike growth. flattened tubercle, or fissure; ulceration in all these forms sets in early. Cylindrical or columnar-celled epitheliomata are a less common form of carcinoma. They originate from either the cylindrical surface epithelium of a mucous membrane or its glands, closely imitating these structures in microscopic appearance. These growths form indurated infiltrating masses in the walls of the organs attacked, producing considerable stenosis of lumina of hollow viscera such as rectal and small intestinal obstruction. These occur in the uterus and intestinal tract. *Warty or villous growth (papillomata)*: These resemble in their structure hypertrophied papillae of the skin or mucous membrane. These include condylomata nad mucous tubercles and occur about the anus and genitals or in the mouth and throat. Warts and warty growths arise on the skin of the hands and genitalia and on the mucous surface of the larynx, and vilous growths of the bladder, rectum, and larynx may occur. *Teratoma*: these tumors contain bone, hair, or teeth and are usually situated in the ovaries or testicles but may also be present in other tissues. *Carotid body t.* - A benign tumor of the carotid body. *Connective tissue T.* - Any tumor of connective tissue such as fibroma, lipoma, chondroma, or sarcoma. *Desmoid T.* - A tumor of the fibrous connective tissue. *Erectile T.* - A tumor composed of erectile tissue. *Ewing's T.* - A malignant tumor of bone. *False T.* - An enlargement due to hemorrhage into tissue or extravasation of fluid into a space but not due to a neoplastic growth. *Fibroid T.* - A benign fibrous tissue tumor of the myometrium. *Giant cell T. of bone* - A benign or malignant tumor of bone in which the cells are multinucleated and surrounded by cellular spindle cell stroma. *Giant cell T. of tendon sheath* - A localized nodular tenosynovitis. *Granulosa T., Granulosa cell T.* - An estrin-secreting tumor of the granulosa cells of the ovary. *Granulosa-theca cell T.* - An estrogen-secreting tumor of the ovary made up of either granulosa or theca cells. *Heterologous T.* - A tumor in which the tissue differs from that in which it is growing. *Hürthle cell T.* - A benign or malignant tumor of the thyroid gland. The cells are large and acidophilic. *Islet cell T.* - A tumor of the islets of Langerhans of the pancreas. *Krukenberg's T.* - A tumor of the ovary caused by metastases from a tumor in the gastrointestinal tract. *Lipoid cell T. of the ovary* - A masculinizing tumor of the ovary. It may be malignant. *Mast cell T.* - A benign nodular accumulation of mast cells. *Melanotic neuroectodermal T.* - A benign tumor of the jaw, occurring mostly during the first year of the life. *Mesenchymal mixed T.* - A tumor composed of tissue that resembles mesenchymal cells. *T. of pregnancy* - The abdominal swelling produced

T

by the growing conceptus of pregnancy. *Phantom T.* - An apparent tumor due to muscular contractions or flatus seen in hysteria. *Sand T.* - Psammoma. *Turban T.* - Multiple cutaneous cylindromata that cover the scalp like a turban.

TUNA

Transurethral needle ablation.

TURBT

Transurethral resection of bladder tumor.

Turnkey

A ready-to-use system containing all the hardware, software, and training required to run an application.

Turn-key system

A system of telecommunications in which all of the installation services and components needed for operations teleconferencing have been provided by a single vendor or contractor.

TURP

Transurethral resection of the prostate.

Tutor, tutor dative

Formal way of nominating a person to speak on your behalf should you become incapacitated whilst resident in Scotland. The person thus nominated can be granted legal authority by the courts to enforce your health care wishes, up to the limits of the law - this has not been tested in the courts however with regards to refusal of life-sustaining treatment. VESS no longer recommends it as a reliable method of attempting to enforce a "proxy".

TVH

Total vaginal hysterectomy.

TVRO

(Television Receive Only) An earth station capable of receiving satellite TV signals but not of transmitting them; a "downlink."

T-wave alternans

A subtle every-other-beat variation in T waves that is prognostic of patients at high risk for life-threatening cardiac arrhythmias and sudden cardiac death.

Twenty-Four Hour Coverage

Integrated health, disability and workers' compensation insurance coverage designed to coordinate and manage on and off the job claims more efficiently, cost-effectively and with an emphasis on appropriate medical care and return-to-work.

Twisted pair

Two or four strands of copper wiring twisted to minimize signal distortion. This transmission medium is inexpensive, can transmit both data and voice communication and is used in most telephone networks. It can transmit voice and data and, in some cases, low grade video. It is the most prevalent type of medium in PSTN's local loops. The size of the wire strands wrapped around each other typically range from 19 to 26 gauges. Cables with as many as 2,700 pairs of 26 gauge wire are used in urban areas.

Type ahead

Entering data before the computer asks for it.

Type-one error

Also known as "false positive" or "alpha error". An incorrect judgment or conclusion that occurs when an association is found between variables where, in fact, no association exists. In an experiment, for example, if the experimental procedure does not really have any effect, chance or random error may cause the researcher to conclude that the experimental procedure did have

T

an effect. A false rejection of a null hypothesis.

Type I mortality

A mortality schedule in which all hosts are assumed to live for a fixed number of years equal to the life expectancy.

Type-two error

Also known as “false negative” or “beta error.” An incorrect judgement or conclusion that occurs when no association is found between variables where in fact, an association does exist. In a medical screening, for example, a negative test result may occur by chance in a subject who possesses the attribute for which the test is conducted. Falsely accepting the null hypothesis, although the alternative hypothesis is true.

Type II mortality

A mortality schedule in which all hosts are assumed to die at a constant rate. This constant rate is equal to the inverse of the life expectancy.

U

Ultrasonography

An imaging modality that uses high-frequency sound waves (as opposed to X-rays) to image internal body parts.

Ultrasound

(1) Sound with a frequency far above the capability of human hearing (1-10 Mhz); it is used as a signal for patient imaging. (2) An investigative technique that uses sound waves to study anatomical structures or organs and measure their size, location and shape. This technique is employed to evaluate and diagnose diseases.

Umbrella liability insurance

A form of excess liability insurance available to individuals and businesses protecting them against claims in excess of the limits of their primary policies or for claims not covered by their insurance program, subject to a large deductible.

UMLS

(Unified Medical Language System) Contains a metathesaurus with medical concepts and a semantic network.

UN/ECE

United Nations Economic Commission for Europe.

Unallowable cost

Any cost which, under the provisions of any pertinent law, regulation, or contract, cannot be included in prices, cost-reimbursements, or settlements under a Government contract to which it is allocable.

Unary operator

An operator on one variable.

Unbundling

The accounting practice of coding separately the individual units of a medical or surgical procedure, rather than as an overall group, in order to achieve the maximum reimbursability under a particular payment system, such as Medicare.

Uncompensated Care

Service provided by physicians and hospitals for which no payment is received from the patient or from third-party payers. Some costs for these services may be covered through cost-shifting. Not all uncompensated care results from charity care. It also includes bad debts from persons who are not classified as charity cases but who are unable or unwilling to pay their bill.

Uncompensated overtime

"Hours worked in excess of an average of 40 hours per week by direct charge employees who are exempt from the Fair Labor Standards Act without compensation". In actual practice, the term is often used more broadly to describe any situation in which an employee who is involved directly or indirectly in the performance of Government contracts works hours in excess of a standard amount (usually eight hours per day or 40 hours per week) without additional compensation above the employee's regular salary.

Undergraduate Medical Education

The medical training provided to students in medical school. See Graduate Medical Education.

Underinsured

People with public or private insurance policies that do not cover all necessary health care services, resulting in out-of-pocket expenses that exceed their ability to pay.

Underinsured motorist coverage

Similar to uninsured motorist coverage, it can be added to your auto policy to cover property damage and bodily injury caused by a driver whose liability limits are too low to cover adequately the damages you have suffered.

U

Underwriting

The process by which an insurer determines whether and on what basis it will accept an application for insurance. Some insurers use medical underwriting to exclude individuals, groups, or coverage for certain health conditions that are expected to incur high costs.

UNDP

United Nations Development Program.

Unearned premium

Means a Premium amount paid by you for coverage that extends over a period of time during which your coverage is no longer in force.

Unified insurance

Health insurance coverage that is provided through a single insurance policy. (PPRC, 1996)

Uniform benefits package

The subset of the "Uniform Set of Health Services" (see below) that is guaranteed to all Washington State residents through an insurance mechanism. This package will be defined by the Health Services Commission by December 1, 1994.

Uniform claim form

All insurers and self-insurers would be required to use a single claim form and standardized format for electronic claims. (AMA, 1993)

Uniform Set of Health Services

A broad range of health services including: (1) a comprehensive and affordable "Uniform Benefits Package" (see above) of personal health services delivered by competing certified health plans; (2) a variety of services provided through the public health system; and (3) health system support, such as clinical research and health personnel education.

Uninsured

People who lack public or private health insurance.

Uninsured motorist coverage

Coverage in a personal automobile policy providing for losses when another motorist does not carry liability insurance.

Uninsured population

An estimated 35-37 million Americans. 56% are workers. 28% are children. 16.5% are nonworking adults. 83% of workers have private insurance. (AMA, 1993)

Unique users

The number of unique individuals who visit a site within a specific time period.

Unit dose system

A method in which drugs are packed and labeled individually for each patient and for each dose to prevent distribution errors.

Universal access

The right and ability to receive a comprehensive, uniform, and affordable set of confidential, appropriate, and effective health services.

Universal C-mount

Enables a video camera to be attached to any medical peripheral device that uses the same connector. These are increasingly common.

Universal coverage

A type of government-sponsored health plan which would provide health care coverage to all citizens. This is an aspect of President Clinton's original health plan in the mid-1990s and is an attribute of national health insurance plans similar to those offered in other countries such as

U

Canada.

Universal identifier

A means to provide positive recognition of a particular individual for all people in a population. A universal health care or patient identifier provides the identifier for use in health care transactions.

Universal life

A flexible premium life insurance policy under which the policyholder may change the death benefit from time to time (with satisfactory evidence of insurability for increases) and vary the premium payments.

Universal precautions

Recommendations issued by CDC to minimize the risk of transmission of bloodborne pathogens, particularly HIV and HBV, by health care and public safety workers. Barrier precautions are to be used to prevent exposure to blood and certain body fluids of all patients.

UNIX

An operating system widely used in computers, from mainframes to personal computers.

Unsolicited advice decision-support system

A decision-support system that gives advice independently of a request of the user.

Unsolicited proposal

A written proposal that is submitted to an agency on the initiative of the submitter for the purpose of obtaining a contract with the Government and which is not in response to a formal or informal request (other than an agency request constituting a publicized general statement of needs).

Unsupervised classification

See clustering.

Unsupervised learning

Establishing into what classes and with what features a given unclassified set of cases can be clustered.

Unsupervised pattern recognition

See clustering.

Update Factor

The year-to-year increase in base payment amounts for PPS and excluded hospitals and dialysis facilities. The update factors generally are legislated by the Congress after considering annual recommendations provided by ProPAC and the Secretary of HHS. ProPAC's update factors are intended to reflect changes in the prices of inputs used to provide patient care services, as well as changes in productivity, technological advances, quality of care, and long-term cost-effectiveness of services. ProPAC recommends separate update factors for PPS hospital operating payments, PPS hospital capital payments, the TEFRA target amounts for PPS-excluded hospitals and distinct-part units, and composite rate payments to dialysis facilities.

Uplink

The link, or path, from a transmitting earth station to the satellite. The term is typically referring to a transmitting earth station.

Upload

Transferring files or software from one computer to another.

Uracil

A nitrogenous base normally found in RNA but not DNA; uracil is capable of forming a base pair with adenine.

Urgent needs

U

Urgent public health problems and unmet needs in Washington communities. The Health Services Act of 1993 allocated \$20 million to enable the public health system to respond to these urgent health needs.

Urgent Public Health Hazard

Sites that pose a serious risk to the public health as the result of short-term exposures to hazardous substances.

URL

(Uniform or universal Resource Locator) The standard way to give the address of any resource on the Internet that is part of the World Wide Web (WWW). The URL provides information on the protocol, the system, and the file name, so that the user's system can find a particular document on the Internet. An example of a URL is <http://excaliburfilms.com/>, which indicated that "hypertext transfer protocol" is the protocol and that the information is located on a system named "excaliburfilms.com," which is the Excalibur Films Web server. This example does not need a particular file name, since the Web server is set up to point to the company's home page if no file name is used.

Usability

The effectiveness and efficiency of a system and the user's attitude toward a system.

USENET

A world-wide system of discussion groups, with comments passed among hundreds of thousands of machines. USENET is completely decentralized, with over 10,000 discussion areas, called newsgroups.

User interface

The part of the computer system that communicates with the user.

User programs

Computer programs purchased or written by the user to support his information processing needs,

Usual, Customary and Reasonable (UCR)

Most insurance plans that provide benefits out-of-network will pay for out-of-network expenses according to their UCR schedule. Rather than paying a set percentage of the amount billed, the health plan will pay a set percentage of expenses based on the usual, customary and reasonable fee for that particular service in the zip code in which it is provided. The member is left to pay the difference between the amount billed and the amount covered by the insurance plan. UCR schedules are a means of cost control for the insurance plan and encouragement for members to use network providers, who provide discounts to the health plan, when available.

Utility

(1) An assessment of the value of the expected result of a diagnostic and therapeutic treatment, expressed in units such as life expectancy or quality-adjusted life years (QUALYs). In general, the alternative with the highest utility will be preferred. (2) A software program that performs a task (e.g., sorting a file).

Utilization

The extent to which members of a covered group use a program or obtain a particular service or category of procedures over a set period of time. This is usually expressed as the number of services used per year per numbers of persons eligible for the services. Also, the frequency with which a benefit is used - for example 3,200 doctor's office visits per 1,000 HMO members per a year. Utilization experience multiplied by the average cost per unit of service delivered equals capitated costs.

Utilization management

The process of evaluating the necessity, appropriateness and efficiency of health care services against established guidelines and criteria. UM integrates review and case management of services in a cooperative effort with other parties, including patients, employers, providers, and

U

payers.

Utilization Review

(1) Evaluation of the necessity, appropriateness, and efficiency of the use of health care services, procedures, and facilities. In a hospital, this includes review of the appropriateness of admissions, services ordered and provided, length of a stay, and discharge practices, both on a concurrent and retrospective basis. Utilization review can be done by a peer review group, or a public agency. (2) The review of services delivered by a health care provider to evaluate the appropriateness, necessity, and quality of the prescribed services. The review can be performed on a prospective, concurrent, or retrospective basis.

UUENCODE

(Unix to Unix Encoding) A method for converting files from Binary to ASCII (text) so that they can be sent across the Internet via e-mail.

Vaccine

A drug intended to induce active artificial immunity against a pathogen. Vaccines may be live or dead. Live vaccines are usually attenuated versions of the wildtype pathogen, such as the MMR vaccines, which are strains of measles mumps and rubella viruses repeatedly passaged through cell lines until non-pathogenic. Typically, live vaccines need only be given as a single dose to induce a full immunological response, inducing specific memory. Dead vaccines are either killed whole parasite, as with the Salk polio strain and pertussis vaccine, or some highly immunogenic fraction of the parasite, as in toxoid vaccines. Killed vaccines and toxoids which do not multiply in the host must usually be administered in multiple doses to induce a full immunological response. Vaccination should be distinguished from passive immunization in which concentrated specific antibodies which can be used therapeutically to abrogate an ongoing infection or to provide short term protection (of the order of months), for example against hepatitis A. Passive immunization does not induce immunological memory.

Validity

The degree to which a measurement actually measures or detects what it is supposed to measure.

Validity check

A check on the correctness of data by using their semantics.

Value added activity

An activity in a process that adds value to an output product or service, that is, the activity merits the cost of the resources it consumes in production.

Value addition code

A code consisting of one number that is a combination of different codes such that the individual codes can be derived from that number, for instance by using a power of 2 for each answer to code a number of yes/no answers.

Values history

Similar to a living will, but concentrating on underlying values rather than refusals of specific medical treatments.

Vanishing premium policy

A participating whole life policy on which dividends are allowed to accumulate until accumulated dividends plus future dividends are sufficient to pay all future premiums under the policy.

VAR

(Value Added Reseller) Adds functionality to product(s) from OEM(s). Compare integrator.

Variability

Variations in the results of a measurement, an observation, or an assessment. It is discerned in interobserver variability (differences between observers) and intraobserver variability (differences between repeated observations of the same observer).

Variable

A quantity that may assume any one of a set of values. In the equation $2x+y=9$, x and y are variables.

Variable annuity

An annuity contract under which the amount of each periodic payment fluctuates according to the investment performance of the insurer.

Variable Cost

A cost that varies in direct proportion to changes in volume, but which is uniform for each unit. In practice, some variable costs are difficult to distinguish from fixed costs; it has been said that all costs are fixed in the short run and variable in the long run.

Variable life

Life insurance under which the benefits are not fixed but relate to the value of assets behind the contract at the time the benefit is paid.

T cell

A white blood cell responsible for cell-mediated immunity in particular and immunoregulation in general.

Variance

A measure of the dispersion shown by a set of observations, defined by the sum of the squares of deviations from the mean, divided by the number of degrees of freedom in the set of observations.

VCG

Vectorcardiogram: the representation of the ECG as a three-dimensional signal visualized as three two-dimensional Lissajous figures in three orthogonal planes.

VCR

(1) Video Cassette Recorder. (2) Simultaneous playing of pre-recorded tape and recording of conference. Relates to the ability to have one VCR playing a pre-recorded tape into the system as a video source, while simultaneously having another VCR connected and recording the videoconference in progress. This is necessary for those telemedicine programs that maintain a policy of recording all consults and which periodically use pre-recorded tapes of patient procedures or educational tapes as part of a video conference.

VDU

See visual display unit.

Vector

(1) A quantity which has both magnitude and direction. Vectors may be interpreted as physical quantities such as velocity and force. (2) An animate intermediary in the indirect transmission of an agent that carries the agent from a reservoir to a susceptible host.

Vectorcardiogram

See VCG.

Vectorial capacity

In vector-borne infections such as malaria, the vectorial capacity is a concept analogous to the contact rate in directly-transmitted diseases. It is, thus, a function of (a) the vector's density in relation to its vertebrate host, (b) the frequency with which it takes blood meals on the host species, (c) the duration of the latent period in the vector, and (d) the vector's life expectancy.

Vehicle

An inanimate intermediary in the indirect transmission of an agent that carries the agent from a reservoir to a susceptible host.

Vendor drug program

A Texas Medicaid program that pays for up to three prescriptions a month per adult client living in the community to pharmacies participating in the program. Nursing facility residents and children are not subject to the three prescription limitation.

Venn diagram

A graphical representation of all objects of a class (a set) by closed figures showing the relationships between subsets.

Ventricle

(1) Cavity in the body. (2) Heart chamber. (3) Cavity in the brain.

Vertical integration

Organization of production whereby one business entity controls or owns all stages of the production and distribution of goods or services.

V

Vertical transmission

Vertical transmission occurs when a parent conveys an infection to its unborn offspring, as occurs in syphilis in man or in many arboviruses of arthropods. Perinatal infection is a special form of vertical transmission.

VGA

(Video Graphics Array) A measure of image size, representing the capacity to display 640×480 lines, such as on viewing monitors for personal computers.

VHF

(Very High Frequency) A radio frequency in the very high range of the radio spectrum, from 30 to 300 MHz.

Viatical settlement

Selling a life policy to use the benefits for your own terminal care.

Video CD

Format that allows the viewing of MPEG 1 video on CD-ROM. Playback of these CDs requires a computer with MPEG hardware and software, a Video CD player or a CD-i player. Video CD is based on the White Book standard developed by Philips and other industry leaders.

Video conferencing

Real time, usually two-way, transmission of digitized video images between two or more locations. This requires a wideband transmission facility (frequently satellite) and bandwidths from 56 Kbps (freeze frame) to T1 rates (full motion).

Video for Windows

A standard established by Microsoft for the integration of digital video, animation and sound. The AVI file format is used by VFW. Software drivers once were required to view AVI files in Windows. These drivers are now incorporated into the latest versions of Windows.

Video format

NTSC, PAL, HDTV, SECAM.

Video frame grabber

An instrument that changes an analog video signal into a set of digital values.

Video on demand

The ability to provide instantaneous access to remotely stored sources of video. A video server stores and manages large amounts of multimedia data and delivers it on demand to one, or many, users. Limitations to deployment are bandwidth availability, video server price, and video compression protocols.

Video output

Composite, S-video.

Video Signal

Currently there are three, established standards in the world for composite, color encoded video: NTSC, PAL, SECAM. HDTV is a new international standard that has been developed and adopted in Japan. More recently, MPEG has appeared as a world standard for digital television broadcasting. The adoption of a common, international standard for video transmission has been one primary focus of the IETF.

Video teleconference

A conference with remotely located participants by telecommunication of sound and images.

Videoconferencing

Actual-time, generally two way transmission of digitized video images between multiple locations; uses telecommunications to bring people at physically remote locations together for

V

meetings. Each individual location in a videoconferencing system requires a room equipped to send and receive video.

Videodisk

An optical disk with images or movies.

Videophone

Small, stand-alone video appliance with a small camera and circulation, not part of a computer or larger videoconferencing system, that enables interactive audio-video communications over POTS or ISDN.

Vigilance

Assessment and prevention of adverse drug reactions or monitoring of medical devices.

Viraemia

The presence of virus in the blood.

Virion

A mature and infectious virus particle.

Virtual Circuit Packet

Switched network facilities that appear to be an actual end-to-end circuit.

Virtual hospital

A WWW server providing a large amount of information about health care.

Virtual reality

(1) A computer-based technology for simulating visual, auditory, and other sensory aspects of complex environments to create an illusion of being a three-dimensional world. That world is designed by the computer, and viewed through a special headset that responds to your head movements while a glove responds to your hand movements. For example, while in a virtual room you may move your hand up in order to fly or tap to change the color of a wall. (2) A technique that creates simulated experience, generally used as a generic term for an entire platform of virtual technologies and products. Key elements of VR systems include virtual environments, interactivity, three-dimensional and stereoscopic simulation and Total Sensory Presence. (3) Imitation of reality, usually with the help of a computer, which provides the user with a combination of visual, auditory, and possibly, tactile information reflecting the actions of the user, giving the user the impression of being present in some reality.

Virulence

(1) The case mortality rate of an infection or the proportion of persons with clinical disease, who after becoming infected, become severely ill or die. (2) The extent to which a pathogen harms its host. These are different usages: what they have in common is that they refer to the effect on an already infected host, not to the degree of transmissibility to a subsequent susceptible.

Virus

A noncellular biological entity that can reproduce only within a host cell. Viruses consist of nucleic acid covered by protein; some animal viruses are also surrounded by membrane. Inside the infected cell, the virus uses the synthetic capability of the host to produce progeny virus.

VISCA

The Video System Control Architecture is a platform independent protocol designed by Sony to provide computer control of multiple video devices.

VISTA

A prepared Health Plan providing services to Medicaid recipients in Travis County.

Visual display unit (VDU)

A computer input/output device that allows presentation of characters and pictures on a screen.

Visualization

Sophisticated techniques to render a two dimensional image of more complex phenomena, for

V

instance, a three dimensional image.

Vital signs

The most important parameters describing the condition of a patient, such as heart rate, blood pressures, respiration rate and volume, and blood gas levels.

Vital statistics

Statistics relating to births (natality), deaths (mortality), marriages, health, and disease (morbidity). Vital statistics for the United States are published by the National Center for Health Statistics.

VLSI

Very large-scale integration allowing over 100,000 transistors on a chip.

Voice activated-switching

Automatic switching. An algorithm uses changes in the audio signal to determine who is the current speaker and all endpoints are then presented with the video signal that this point is transmitting.

Voice grade channel

A telephone circuit of adequate bandwidth to carry signals in the voice frequency range of 300 to 3400 Hertz. This is the bandwidth of a POTS line.

Voice input

See speech recognition.

Voice recognition

The ability of a computer to interpret auditory information in the form of spoken words.

Voice switching

An electronic method for opening and closing a circuit, such as changing from one microphone to another microphone or from one video camera to another video camera, responding to the presence or absence of sound.

Volatile memory

Computer memory whose content is lost when the power is switched off.

Volatile Organic Compounds (VOCs)

Substances containing carbon and different proportions of other elements such as hydrogen, oxygen, fluorine, chlorine, bromine, sulfur, or nitrogen; these substances easily become vapors or gases. A significant number of the VOCs are commonly used as solvents (paint thinners, lacquer thinner, degreasers, and dry cleaning fluids).

Volume

The measure of the interior of a three-dimensional figure. A unit for measuring volume is the cubic unit.

Volume and Intensity of Services

The quantity of health care services per enrollee, taking into account both the number and the complexity of the services provided.

Volume Performance Standard (VPS) System

The VPS system provides a mechanism to adjust fee updates for the Medicare Fee Schedule based on how annual increases in actual expenditures compare with previously determined performance standard rates of increase.

Voluntary euthanasia

Euthanasia; the word voluntary emphasises the express intent of the person wanting to die, and distinguishes it from mercy killing or any other form of killing.

V

Voluntary residents tracking system

A collection of persons who are contacted periodically, for a limited time, for the purpose of disseminating information or of coordinating other health-related services.

Voluntary standard

A standard established by a private sector body and available for public use.

VPAP

Variable positive airway pressure.

VPN

(Virtual Private Network) Usually refers to a network in which some of the parts are connected using the public Internet, but the data sent across the Internet is encrypted, so the entire network is "virtually" private.

VR

See virtual reality.

VRAM

Memory chips designed specifically for use with computer video displays. Increasing VRAM in a computer system or graphics card increases the color depth viewable as well as increases the number of pixels that can be displayed.

VSAT

Very Small Aperture Terminal

VZV

(Varicella-zoster virus) A herpes virus which causes chickenpox (varicella) and shingles (herpes-zoster).

W

WAIS

(Wide Area Information Servers) A commercial software package that allows the indexing of huge quantities of information, and then making those indices searchable across networks such as the Internet. The search results are ranked according to how relevant the hits are. Subsequent searches can find more information like the last batch and thus refine the search process.

Wait Period

Means the number of days of eligible, covered Long-term Care services which must be received before benefits are payable under this Plan. The Wait Period can be met by any combination of eligible, covered Long-term Care services (except Respite Care Benefits and Care Advisory Benefits) described in this Group Long-term Care Plan. The services need not be continuous but must be received during a period of 12 consecutive months. The Wait Period is 90 days.

Waiting period

(1) A provision designed to eliminate disability claims for the first number of days specified for each period of disability; the waiting period may run from three days to as long as one year. (2) The amount of time between when the insured enrolls in a plan and is entitled to benefits under the plan.

Waiver

An exception to the usual requirements of Medicaid granted to a state by HCFA.

Wallet

Carrying wallet for living will. Supplied as part of the VESS living will pack.

Walsh-Healy Act

A public law designed to prevent the practice of "bid brokering", i.e., the practice of buying items and then reselling them to the Government without the adding of any value to the item by the reseller. The Act provides that contracts subject to its provisions (generally contracts over \$10,000) may be awarded only to "manufacturers" or "regular dealers", as defined.

WAN

Wide Area Network - Data communication networks that link together distant networks and their computers to provide long-haul connectivity between separate networks located in different geographic areas. Also defined as any internet or network that covers an area larger than a single building. A WAN is wider in geographic scope than a LAN. It provides digital communications (voice/video/data) over switched (ISDN, switched 56) or unswitched (fractional T1, T1) networks. Some consider commercial dial-up networks (America OnLine, the Internet) to be WANs.

Waterfall model

See cascade model.

WATS

(Wide Area Telephone Service) A telephone service with a flat rate for measured bulk-rate, long distance services given on an incoming or outgoing basis. WATS allows a consumer, by use of an access line, to make telephone calls to any telephone number that is able to be dialed in a specific zone for a flat or bulk monthly rate using an 800 number.

Wavelet transform

Transformation of a signal into a linear composition of time-limited components (wavelets).

Wavelets

An image compression technique that enables more or less lossless compression ratios of 10:1 or even 20:1, compared to the standard 3:1 maximum for lossless JPEG compression.

WBC

White blood cell.

W

WBS

Work Breakdown Structure.

Web / WWW

Generally accepted shorthand for the World Wide Web. Also called W3. The world's universe of hypertext servers (HTTP servers) which allow text, graphics, sound files, etc. to be mixed together.

Web server

A system capable of continuous access to the Internet (or an internal network) through retrieving and displaying document and files via hypertext transfer protocol (http).

Web site

The virtual location for an organization's presence on the Worldwide Web, usually made up of several Web pages and a single home page designated by a unique.

WebCrawler

A search engine that searches the Web by document title and content, archiving the information for searching purposes.

Webzine

A magazine on the World Wide Web.

Weighted average cost

An inventory costing method under which an average unit cost is computed periodically by dividing the sum of the cost of beginning inventory plus the cost of acquisitions by the total number of units included in these two categories.

Wellness

(1) A dynamic state of physical, mental, and social well-being; a way of life which equips the individual to realize the full potential of his/her capabilities and to overcome and compensate for weaknesses; a lifestyle which recognizes the importance of nutrition, physical fitness, stress reduction, and self-responsibility. Wellness has been viewed as the result of four key factors over which an individual has varying degrees of control: human biology, environment, health care organization (system), and lifestyle. (2) A concept of medical benefits designed to encourage fitness and the early detection of illnesses.

West Nile virus

West Nile virus is an arbovirus closely related to St. Louis encephalitis virus, but generally causes a milder disease in humans. Both viruses are transmitted through the bite of a mosquito that becomes infected with the virus by feeding on an infected bird. Like St. Louis encephalitis, West Nile virus is not transmitted from person to person or from bird to person. West Nile virus never before has been recognized in the United States or any other area of the Western Hemisphere; it has also been called "Old World St. Louis encephalitis." If not specifically looking for the West Nile virus, tests will return positive for St. Louis encephalitis. The virus strain recently discovered in birds in the New York metropolitan area has been called "West Nile-like virus" as it has all the characteristics of the West Nile virus, but requires additional testing for confirmation.

West Nile-like virus

See West Nile virus.

Whiteboard Shared notebook

The shared whiteboard feature provides the electronic equivalent of an onscreen blackboard. This feature's greatest utility is when a video call is established but the audio portion is not functioning. One can then write a note on the white board for one end to make a phone call to the other to discuss the problem.

WHO

W

World Health Organization: a United Nations organization having public health as its main concern.

Whole life

Insurance payable to a beneficiary at the death of the insured whenever that occurs; premiums may be payable for a specified number of years or for life.

WHOSIS

WHO's statistical information system.

Wide area network

See WAN.

Wilcoxon signed rank test

Test to compare two observations from the same sample that do not have a normal distribution.

Wilcoxon-Man-Whitney test

Test to compare two distributions that are not normally distributed.

Window

Area on a computer screen that organizes data input and output and control data from a given program.

Windowing

A software manipulation technique, using mathematical algorithms, to compensate for a teleradiology monitor's inability to provide the same contrast and bit depth as the original hardcopy X-ray. Pixels within a certain range of bit-depth values are assigned the full range of possible grayscale values, while those outside that range are either white or black. This allows emphasis of contrast for those structures that lie within the grayscale "window".

Windows

A windows-oriented operating system for PCs manufactured by Microsoft.

Windows-oriented interface

Graphical user interface that makes use of windows.

Wireless ethernet-monitoring network

Central station monitoring system, which integrates hard-wired bedside monitoring information with portable ambulatory telemetry transmitters in one centralized surveillance location.

Withold

(1) A form of compensation whereby a health plan withholds payment to a provider until the end of a period at which time the plan distributes any surplus based on some measure of provider efficiency or performance. (2) The portion of the monthly capitation payment to physicians withheld by the HMO until the end of the year or other time period to create an incentive for efficient care. The withhold is at risk; i.e., if the physician exceeds utilization norms, he does not receive it. It serves as a financial incentive for lower utilization.

Word

The name of a word processor.

Word length

The number of bits in a computer word.

Word processor

Program used to enter and manipulate texts.

WordPerfect

The name of a word processor

W

Workbench

A coherent set of computer programs used to support the design or development of information or knowledge systems.

Worker's compensation

- (1) A system of providing for the cost of medical care and weekly payments to injured employees or to dependents of those killed in industry in which absolute liability is imposed on the employer.
- (2) Insurance against liability to pay benefits for injuries incurred by employees in the course of or arising out of their employment.

Workflow

A system whose elements are activities, related to one another by a trigger relation, and triggered by external events, which represent a business process starting with a commitment and ending with the termination of that commitment.

Workflow Management Systems

Integrated software tools for supporting the modeling, analysis, and enactment of business processes.

Working capital

The sum of an institution's short-term or current assets including cash, marketable (short-term) securities, accounts receivable, and inventories. Net working capital is defined as the excess of total current assets over total current liabilities.

Workstation

A computer, somewhat more powerful than a PC. Workstations are used for specialized tasks that involve many computations or complicated graphical manipulations like 3-D reconstruction or presentation of CT-data or MRI-data. They are also used as a facility to connect to various systems or databases.

Work-up

The total patient evaluation, which may include laboratory assessments, radiologic series, medical history, and diagnostic procedures.

World Bank

An international bank with activities for developing countries.

World Health Organization

See WHO.

World Wide Web (WWW)

An application on the Internet that facilitates access to information available at sites distributed throughout the world. Also known as "the Web." An internet information resource for international hypertext linking which offers graphics, sound, text, and in some cases video clips giving information. This is the newest (1993) and fastest growing aspect of the Internet because of its ability to offer more than just plain text online.

WORM

An optical disc format (Write Once, Read Many) that can be written to once, but read many times. WORM systems are often used for backup and archiving of data. Based on the Orange Book standard published by Philips.

Worm burden

The number of worms an individual host carries. Sometimes directly measurable (*Ascaris*), sometimes only indirectly (*schistosomiasis*).

Writing tablet

Computer input equipment that accepts human handwriting.

WSU

W

(Working Storage Unit) A file server that provides enough capacity and speed to combine the functions of short term and local workstation storage by using disks (magnetic media) operating in parallel. Digital images are stored redundantly so that single bit errors (e.g., a single disk failure) can be detected and corrected without any loss of RIS operations. Total capacity and retrieval bandwidth should be sufficient for peak requests from multiple workstations (CR image equivalent requests per minute).

X

X

A windows-oriented graphical user interface developed for UNIX.

X.25 and Frame Relay

A “bandwidth-on-demand” connection similar to ATM in concept, but implementing the packet systems using less expensive technology. Like ATM, it has no fixed transfer speed; however, it is generally slower than ATM.

X11

A UNIX standard for an X-type of graphical user interface.

Xenotransplantation

The use of live, nonhuman animal cells, tissues, and organs in humans.

X-Motif

A set of standardized high-level interaction components based on X (graphical user interface for UNIX).

XOR

A logical operation between two logical expressions that is then and only then TRUE when both expressions are TRUE.

X-ray

EM radiation of high energy (short wavelength). Its absorption by biological material depends on the kind of tissue.

X-ray image

Image obtained by means of X rays.

X-terminal

A terminal with the graphical user interface X (often used in UNIX) embedded in hardware.

X-Windows

A graphical user interface for UNIX.

Y

YAC

See yeast artificial chromosome.

YAG laser

Yttrium-aluminum-garnet laser.

Yearbook of Medical Informatics

A yearly publication under the auspices of IMIA with invited articles on a yearly theme and republished articles on key medical informatics issues.

Years of potential life lost

A measure of the impact of premature mortality on a population, calculated as the sum of the differences between some predetermined minimum or desired life span and the age of death for individuals who died earlier than that predetermined age.

Yeast artificial chromosome (YAC)

A vector used to clone DNA fragments (up to 400 kb); it is constructed from the telomeric, centromeric, and replication origin sequences needed for replication in yeast cells. Compare cloning vector, cosmid.

Young's syndrome

Occurs in men with bronchiectasis and is characterized by azoospermia due to epididymal obstruction. Now rarely seen, but was particularly prevalent in England and Australia between 1960 and 1980.

Z

Z score

A statistical test for normal distribution.

Zeiss

Microscope and ophthalmologic instruments: lens loupe, slit lamp.

Zero-based budgeting

The process of preparing an operating plan or budget that starts with no authorized funds. In a zero-based budget, each activity to be funded must be justified every time a new budget is prepared.

ZIP disk

A removable disk with the size of a floppy disk, but with a much larger storage capacity (typically 100 MB).

Zoonoses

An infectious disease that is transmissible under normal conditions from animals to humans.

Z-plasty

Plastic surgical technique.

References

1. Dictionary of Epidemiology. University of Cambridge, 1999.
<http://www.kings.cam.ac.uk/~js229/glossary.html> (accessed May 10, 2000).
2. Dorland's Illustrated Medical Dictionary, 28th Edition, Philadelphia: W. B. Saunders Co., 1994.
3. Evidence-Based Medicine Glossary. <http://cebm.jr2.ox.ac.uk/docs/glossary.html> (accessed: March 11, 2000)
4. Glossary of Epidemiology Terms, Centers for Disease Control and Prevention.
http://www.cdc.gov/nccdphp/drh/epi_gloss.htm (accessed: April 26, 2000)
5. Glossary of Internet Terms - Excalibur films.
<http://www.excaliburfilms.com/glossaryofit.htm> (accessed May 28, 2000).
6. Health Care Benefits Handbook. <http://www.state.oh.us/das/dhr/hcb/hcb29.html> (accessed March 24, 2000)
7. Health Care Insolvency Manual - Glossary of Health Care Terms.
<http://www.abiworld.org/committees/health/healthmanualglossary.html> (accessed January 23, 2000).
8. Insurance Glossary - Insuring Against the Unknown by Deloitte & Touche OnLine.
<http://www.dtonline.com/insur/insglss.htm> (accessed May 17, 2000).
9. Medicinski leksikon. Babić M. (Editor). Obeležja, Beograd, 1999.
10. Mosby's Medical Dictionary (5th Ed). Kenneth N. Anderson (Editor), Lois E. Anderson (Editor), Walter D. Glanze. Mosby - Year Book. 1997.
11. New Challenges in Health Care. Momčilo Babić and Russ Zajtchuk (Editors). Medical Center "Bežanijska kosa", School of Medicine, University of Belgrade, Belgrade, 1999.
12. Taber's Cyclopedic Medical Dictionary. Clayton L. Thomas (Editor). F.A. Davis Co., 1997
13. Telemedicine glossary. http://www.hscsyr.edu/~telemed/a_def.html (accessed April 3, 2000)
14. The Government Contractor's Glossary, Guide to Terms You Should Know, prepared by: Donald Kenintz, CPA.
<http://www.axptbs.com/specialties/gc/terms/gcterms.htm> (accessed: April 17, 2000)
15. The World Book - Rush-Presbyterian-St. Luke's Medical Center. Medical Encyclopedia: Your Guide to Good Health. Updated and Expanded Eighth Edition. World Book, Inc., Chicago, Illinois, 1998
16. Webster's New World/Stedman's Concise Medical Dictionary, Williams & Wilkins, Baltimore, Maryland, USA, 1987
17. WHO Terminology Information System (WHOTERM).
<http://www.who.int/terminology/ter/wt001.html> (accessed: May 14, 2000)

Program and Goals of the Cancer Foundation Yugoslavia

The Cancer Foundation Yugoslavia was promoted by the Medical Center "Bežanijska kosa", one of the most eminent health centers in Yugoslavia. This center treats more than 10,000 patients and renders more than 100,000 specialist check ups per annum. A part of the Medical Center "Bežanijska kosa" is its new Oncology Center, which provides all necessary health services for patients suffering from malignant diseases.

Physicians, molecular biologists, oncologists, health care and cancer prevention professionals participate in the actions of Cancer Foundation as well as all people of good will, ready to help the ones in need of help.

The program and goals of this Foundation are:

- campaign for prevention and early detection of malignant diseases;
- publishing and distribution of leaflets, posters and books (one of which is the Modern Health Care Glossary), diagnostic and therapeutic protocols and health education materials;
- making videos and TV clips on the possibilities of cancer prevention in the campaign against cancer;
- encouraging and promoting priority research in the anti-cancer campaign;
- screening method effectiveness analysis for an early cancer detection;
- clinical trials for certain localities such as lungs, breasts, prostate, colon and malignant melanoma as a specific form of cancer;
- international cooperation - financing the hosting of foreign experts in the country and domestic experts abroad for an exchange and transfer of knowledge and technology.
- making the examinations and consultations of the best foreign experts in the field available to the citizens of Belgrade and Yugoslavia.

We would be pleased if you could help our humane mission.

You may become founders or donators of the Cancer Foundation. Your name will be engraved on the Memorial Wall of the Medical Center "Bežanijska kosa" as a token of our gratitude. All donations are welcome and we thank you in advance. The Cancer Foundation Office will provide all the necessary information to interested parties.

The numbers of those who are no longer with us, of those who need help and who don't know that they are ill, oblige us to help.

Helping others will make you feel good as well!

Cancer Foundation Yugoslavia

Bežanijska kosa bb

11080 Belgrade, Serbia, Yugoslavia

e-mail: kcbkosa@ptt.yu, cancerfound_yu@yahoo.com

Home page: <http://www.bkosa.edu.yu>

Account No: 40805- 678-8-118651