Terminology

A glossary of technical terms on the economics and finance of health services

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HEALTH SERVICE POLICY

By the year 2000, all Member States should have developed, and be implementing, policies that ensure universal access to health services of quality, based on primary care and supported by secondary and tertiary care.

Keywords

HEALTH CARE REFORM
ECONOMICS – terminology
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Economics and Finance of Health Services

The discussion and debate on health care reforms in Europe, especially in countries of central and eastern Europe has been hampered by some misunderstanding of economic and financial terms. This glossary provides in one place a list of key terms with simple explanations of the ways in which they are technically used.

It has been compiled as an annotated text, building on material from a variety of sources and adapting it to the field of economics and finance of health services. The sources are given where appropriate so that the reader has a point of entry for further reading.

The glossary gives a short definition of each technical term. In many cases this is expanded with an explanation of the theoretical background to the concepts involved and the practical context in which the term is used.

The core of the glossary has been built around the technical terms used in current World Health Organization (WHO) and other international literature on reform of health service finance and economics. The glossary also includes broader economic concepts relevant to health economics and the economics of development, where these are particularly pertinent.

It is hoped that the glossary will become a practical aid for policy-makers and others engaged in reform of health services.

Comments on the text and suggestions for improvements, additions and other amendments should be sent to European Observatory on Health Care Systems, WHO Regional Office for Europe, 8 Scherfigsvej, 2100 Copenhagen, Denmark, (Fax: +45 39 17 18 70 or E-mail: Observatory@who.dk).

Absolute poverty The state where people have insufficient resources to meet their basic needs to maintain life, lacking essential requirements such as adequate food, clothing and shelter. An arbitrary international poverty line is drawn, usually expressed in constant dollars and is used as a basis for estimating the proportion of a population that exists at or below the bare levels of subsistence indicated by this line. People in absolute poverty are unlikely to gain long-term benefit from health services until their poverty is relieved. Poverty is a key factor affecting health status, and the expectation and quality of life *(1-4)*.

Absorptive capacity The ability of a country or an organization to absorb and effectively work with foreign aid. In providing and in receiving assistance, it is commonly recognized that countries and organizations need to develop new capacities to work with assistance programmes and projects. These capacities include political, financial and managerial arrangements which need initial development in all partners. General principles emerging from an analysis of the problems in managing international assistance are pertinent to the better management of aid for health services reform. Improving absorptive capacities takes time, experience, commitment and management skill *(1, 5)*.

Acceptability How far the solutions to a problem are supported by the main partners. In health development the main partners are: political (parliaments and ministers of health); professional (doctors, nurses, lawyers, accountants, economists, managers, etc.);

institutional (health funds, purchasers, providers, ministries and institutions in other sectors, employers, trade unions, companies, media, etc.); and consumer (contributors, patients, community and special interest groups). Developing reforms that are acceptable to all these partners can be a major challenge, for any changes can arouse controversy. Managing the process of change will involve partners in consultation, negotiation and other means of communication before agreement can be reached on what is acceptable. Some partners may press for pilot studies to test ideas for reform, to see how well they work in practice, before they consider them to be acceptable *(6)*.

Access to health services

A measure of the proportion of a population that reaches appropriate health services. This concept is used to detect inequity in the use of services between different populations defined geographically, socially or in terms of their clinical condition. The measure may also define the level of ease with which access is obtained: for example, the proportion that reaches local health services by the local means of transport in no more than one hour. A distinction has been made between access in the sense of accessibility and actual utilization. In this case access is defined as the cost to the consumer of using health services whether the consumer uses those services or not *(7, 8)*.

Accountant

A professional responsible for keeping and inspecting accounts. Accountants may also undertake financial audit of records of income, expenditure and assets, in accordance with legal or professional requirements whether in

the private or public sector (See also *Audit and Auditor*). Accountants may be involved in management audit and performance review of services. With the development of company law and government requirements for public sector financial management, the profession of accountancy has developed considerably in recent years. Professional organizations oversee the curriculum for professional qualification in this field which can entail study and practical experience over 3–5 years. Universities provide undergraduate and postgraduate courses in accountancy. There is a European association of professional accountants with a special interest in the public sector and in health service accountancy. Some health services combine the responsibilities of administration and management with those of financial management and accountancy, requiring directors to be doubly qualified or experienced; other health services separate the function of accounting, engaging professional accountants to provide specialist advice and support to health service managers and boards. Many firms of management consultants engage qualified accountants as consultants to provide advice and support to private and public sector organizations to improve financial and general management, planning, development and investment. Accountants are engaged by governments to review the efficiency of health services providing independent audit services to ministries or to parliaments *(9, 10)*.

Accounting The organized recording of income and expenditure and the balance between them over a period of time. The methods of accounting

are normally undertaken in accordance with approved or legally required systems, under the supervision of qualified and experienced accountants. Accounting practice also includes financial audit, entailing independent checks on the accounting procedures adopted in an organization. There is an important distinction to be made between financial accounting and management accounting. The former is used to report what has happened and the latter to assist in the management of the future. The use of computer-based accounting systems for most transactions, including the calculation of salaries and wages and the provision of tax services for government, has placed added technical requirements on accountants and their staff in recent years, involving new types of training and supervision. Health services in any country are one of the largest employers of labour and commonly spend between 3% and 12% of gross domestic product (GDP). Concern over cost containment and efficiency in the health services in many countries has increased the demand for high quality accounting services and this is reflected in the nature and quality of training and job specifications of accountants *(9-11)*. (See also *Accountants*).

Accreditation The process by which an agency or organization evaluates and recognizes an institution or an individual as meeting standards necessary for providing a particular service. Within health services the process of accreditation may include the issue of a license to practise or to provide services, charge fees, use certain equipment, engage staff, etc.

Accreditation may have the backing of law with sanctions that can be enforced by courts. Enforcement may be put in the hands of professional bodies or government organizations. Accreditation is a common feature for the operation of health service facilities and for the practice of medicine, accountancy, midwifery, pharmacy and certain other paramedical disciplines. The pattern and methods of accreditation vary between countries *(12)*.

Appropriate technology

A method of working that is scientifically valid and fits the local resources, capacities and circumstances. In undertaking reform there is often pressure to take on technologies or systems that work elsewhere but do not fit well within the local circumstances. High technology equipment in medicine and surgery often critically depends upon the reliability of certain environmental services or on highly trained and experienced technical support staff. Moreover the use of high technology equipment in poor countries may also be out of keeping with the need to satisfy other high priority needs. Basic drugs or simple hand equipment may be better and cheaper for most local needs. Investment in reform needs to take into account how appropriate are proposed new systems, and proposed new goods and services for achieving local goals *(1, 3, 6)*.

Assistance

The process of providing technical or financial support. Assistance may come in the form of financial grants, which do not have to be repaid, or loans which do. Financial assistance is often called aid. Assistance may also come in the form of technical advice and support in

kind including human resources, equipment or supplies. Assistance may involve twinning in which one locality or institution develops a special relationship with another to foster support. Experience with assistance over many years has shown that it requires careful planning and supervision to succeed. It is essential that all partners in the assistance process are clear and agreed about its objectives, its financial and resource implications and the managerial arrangements. Loans should be the assistance of last resort in developing economies. The mechanisms for achieving repayments should be carefully assessed *(5, 13, 14).*

Audit

The process of independently checking accounts and other records by auditors professionally trained and accredited for the purpose. The term was originally derived from the audit of financial accounts which is a routine tool of financial control. It has been applied to other fields such as "management audit" and "medical audit". In many countries it is a legal requirement for registered companies. It involves producing for the shareholders or trustees financial statements verifying the validity and accuracy of the companies' accounts. Companies and institutions commonly engage in audit as an internal process within the organization to assist local management and to detect fraud or maladministration. Financial audit in health services has been an important tool in cost-containment and efficiency studies; it is an essential requirement for ensuring public accountability. Audit reports are sometimes

criticized for concealing more than they reveal about the financial management of organizations. The scope and content of audit has itself become the subject of policy review. Management audits and medical audits are now recognized as essential features of good practice in health service management and are incorporated in education and training programmes for managers and for clinical and public health doctors. They may be a requirement for accreditation *(11, 15-17)*.

Auditor

A professional accountant appointed to check the accuracy of company or institutional accounts and to present an independent report to shareholders on whether the accounts present a true and fair view of the affairs of the company or institution. The accountancy professions determine the training and examinations for auditors who may be employed in the public or private sector *(11, 18)*.

Balance of payments

A summary statement of national financial transactions with the outside world. Countries involved in major economic and political reform can experience large and growing problems in the balance of trade. This is a particular problem in the former USSR, which hitherto operated largely as a closed common market but whose internal trading arrangements are now undergoing fundamental transformation. Inflation and uncertainties about the reliability of currencies and trading contracts can adversely affect the balance of trade. International debt can also rapidly become a problem if the capacities and the mechanisms for paying back the capital and the

interest on it to other countries have been undermined themselves by economic difficulties *(1, 3, 18, 19).*

Basic needs A term used by the International Labour Organization (ILO) and other United Nations agencies for the basic goods and services (food, shelter, clothing, sanitation, education, etc.) necessary for a minimum standard of living. These basic needs are also incorporated in the WHO concept of prerequisites for health, which are those necessities without which medical care and other investments for improving health, such as health promotion, can have little lasting effect *(1, 20).* (See also *Absolute Poverty*).

Benefit A technical term in economics meaning anything for which someone is willing to pay or to sacrifice something. In health economics, a health benefit is one which is recognized as providing a gain in terms of reduced costs or increased health. It is also a term used in some health systems in the technical sense of a service to which specific people are entitled, whether or not they use the service or, in using it, gain in health from it. In health economics there are two kinds of health benefits. Firstly there are those that can be recognized as direct savings in treatment-related resource consumption. Secondly there are those that are recognized as indirect savings. These are savings that are made when medical or other treatment or prevention gets people back to work, thus avoiding or reducing losses in the production of goods and services. There are other indirect benefits that arise from intangible savings resulting from the alleviation of pain

and suffering, the avoidance of premature death and disability and other improvements in health. Technically, benefits can be measured in a variety of ways; they can be expressed in monetary or non-monetary terms and can be weighted to assist summation for comparison of the benefits of different programmes. For example, improvements in health status can be weighted by the value or utility of the improvement achieved. Examples of the measures employed include days of active living, quality adjusted life–years, and disability adjusted life-years. The way in which benefits are measured and how they are weighted depends on the form of analysis, the viewpoint of the evaluation and the resources available for measurement *(3, 12, 18, 21, 22)*.

Benefits package

The set of services and other advantages in money or kind to which a person or persons are entitled by virtue of meeting particular criteria. In health insurance and social security systems, the benefits package provides entitlement to insured people or covered people, who are defined according to criteria set out in the scheme. These criteria may include the requirements to have made financial contributions to the scheme for a specified period of time; to be living in a particular community; to have reached a specific age; to have no other means of support, etc. The criteria are normally legally defined with or without the discretion of those administering the system to decide on inclusion or exclusion of persons. The schemes may or may not include arrangements for appeal against decisions about qualification for benefits *(23, 24).*

Beveridge system

The system of social security and health services arising out of the Beveridge report in England and Wales, first published in 1943. This report recommended provision for all people, through central taxation and other compulsory financial contributions, of a system of universal benefits to give support during unemployment or sickness and after disability and retirement. It ensured protection against poverty and guaranteed health services and a basic income during sickness. The report of the Beveridge Committee introduced the principle of security for service into British social services policy. It addressed the principal five giants: Want, Disease, Ignorance, Squalor and

Idleness. It was intended that the individual should work and contribute when he could and that when he was unable to work because of sickness, injury, unemployment, old age or death, the state should provide for him and his dependants. The central question that it asked was how to relieve distress without encouraging idleness. The system that was devised under the National Health Service Act of 1946 arising from the Beveridge report was designed to secure improvement of the health of the people by the provision, free-of-charge, of services for the prevention, diagnosis and treatment of disease. The system included primary, medical, dental, optical and pharmaceutical services, community medical services and hospital services, and covered physical and mental health and mental handicap. The British National Health Service has become a model for many other countries. The recent reforms have been directed principally to improve the efficiency and effectiveness of services; they have not altered the source of funding, nor the scope and content of the services *(24, 25)*.

Big bang

What happens when a traditional set of policies and rules are suddenly removed or replaced. The term Big bang has been borrowed from the debate on the origins of the universe in which one theory postulates that the universe was created from one initial explosion of primal elements which set in train the evolutionary process. The term has been used to describe the sudden introduction of transition from a centralized planned economy to a market-led economy in Poland in 1990. (This was also

referred to as shock therapy.) It has been applied to the events when stock market trading rules were changed in October 1986 in London and in May 1975 in New York, also known as Mayday. The approach that was adopted in Poland involved the rapid simultaneous introduction of a number of market elements into the economy. These included a free exchange rate, the development of privatization, the creation of a stock market, laws to allow the use of privately employed labour, the reintroduction of commercial banking and international competition. The Big bang in Poland contrasts with the slower approach adopted in the Russian Federation *(19)*.

Bismarckian system

A system of national social security and health insurance introduced into the 19th century Austro-Hungarian empire under the then Chancellor Bismarck. This scheme involved establishing sickness funds for administering the compulsory financial contributions paid by people to receive entitlements to health services and social security benefits under the scheme. For those not in work, the Government paid contributions on behalf of the insured person to guarantee their entitlement to benefit. The scheme was seen as a principle means of avoiding the adverse impact of unemployment, poverty and sickness affecting large sections of the population and the former capitalist system. It is seen as a political response to the growing interest at the time in the works of Karl Marx and his followers, who saw the oppression of the people of the world by harsh industries, as an inevitable consequence of the capitalist

system. Under Bismarck the state intervened with social security and sickness measures to avoid the political catastrophe predicted by the Marxist analysis. Schemes of social and health insurance based on the Bismarckian system are common in many parts of the world *(6, 12, 25, 26).*

Budget A plan or estimate of expenditure for a future period of time. It may be linked to a statement in financial terms for carrying out a programme of activities or for running a service during a defined period of time or for a specific purpose. In the reform of health services, the basis on which budgets are provided has become a central focus of attention. Some budgets are linked to the nature and volume of the services to be provided; some to the cost of the inputs for a facility; others are largely derived from the size of the budget in the previous year (the historical principle). Some budgets are adjusted for inflation and in relation to planned developments; some are open-ended with no upper limit on expenditure, their size determined entirely by the cost of the services provided; other budgets are capped to avoid overspending if the demand for services increases. In periods of economic restraint, budgets may include requirements for cuts on previous levels of expenditure. This presents special challenges to health service managers to achieve reduced expenditure while minimizing the adverse impact on health, on patient care and on service capacity *(10, 21, 27).*

Capital An accumulation of financial resources not required for current consumption, which allows a contribution to be made to productive activity

by investment in physical capital (such as buildings, machinery, equipment) and in human capital (such as education and training). Capital is one of the three main factors in production, the others being labour and natural resources. All three are necessary for economic growth *(18)*.

Capital expenditure The expenditure that is required for financing permanent or semi-permanent facilities or equipment, such as buildings, major items of machinery and equipment, engineering works, and vehicles. Most organizations have local definitions of what is to be included in the definition of capital and how the financial management of capital and revenue is to be arranged, including rules for assessing the current value of capital equipment and the replacement costs. These rules may also identify how far the installation costs of capital equipment are to be included in the capital cost items and how the running costs of capital purchasers are to be included in budgets and funding arrangements *(10)*.

Capitation A tax or fee levied per head, or a grant or budget provided per head of a given population who are entitled to a certain service. Capitation is common as one basis for providing the budget for health facilities or for health workers like primary care physicians. It may be used in combination with other methods of payment such as fees-for-service *(12, 23)*.

Centralized planning Planning governed centrally by the state covering all the goods and services that will be produced and how factors of production shall be allocated between sectors of a business or an economy. Centralized planning was the

common practice in the former USSR for all sectors and has also been used in other countries within the public sector, for example, in those national health services principally funded from central taxation. Centralized planning can offer many advantages for management. It can provide a mechanism to achieve specific goals such as equality in resource allocation and access to services. It can assist in providing even levels of development of existing services and a rapid system-wide introduction of new services determined by political commitment. It can promote chosen standards and patterns of care. It can centrally direct patterns of capital investment independently of local capacities and views. However, experience shows that centralized planning can have major disadvantages. It can discourage innovation and the development of services particularly suited to meet local needs. It can hold back development that would take place without central planning. The practice of central planning in some countries has also encouraged a distrust in official statistics, which may have been produced from local figures presented in ways to support the requirements of the plan, but which inadequately represent the local realities. The flaws in some forms of centralized planning can lead to a profound distrust in planning as a whole. This may bring with it an unrealistic confidence in alternative "market mechanisms". Planning is not confined to socialist economies since businesses in market-led economies commonly depend upon planning as a business tool. Achieving a balance between market-led innovation and

	central planning, is the core of modern development economics and management whether at the level of the firm or for a country as a whole. Some form of planning is likely to remain as a tool in all sectors, including health services, whether in the private or public domain *(4, 18, 19, 25).*
Charge(s)	A price imposed on goods or services. Charges imposed on health services or drugs, for example, may be used to recoup the cost of providing the services and to influence demand for these products. They may also be used as a tax with the objective of raising revenue for government investment *(6, 23).*
Compulsory health insurance	Health insurance under an obligatory public scheme, enforced by law. Payment for such insurance amounts to a tax. The obligation may be placed on employers to pay contributions on behalf of employees. Contributions may be income-related and progressive. Compulsory health insurance is usually administered by public bodies *(6, 23, 28).*
Concessional loan	Credit extended on terms that are more favourable to the borrower than are available on the money markets. International sources of finance such as the International Monetary Fund (IMF) and the World Bank can provide concessional loans for development purposes, however, the concessions come with conditions. IMF conditions may include requirements for fiscal, monetary and commercial reforms. World Bank loans within the health sector are usually tied to agreements to specific plans that have been developed with external technical assistance and may include conditions of joint funding, specified time

scales for development, particular managerial arrangements for development work and the continued use of external technical assistance. These conditions are negotiated and are part of the overall agreement between the parties to the loan *(1, 3, 5)*.

Consumer sovereignty

The overall power that consumers can have in a market to control the nature, quality and volume of goods and services produced, by the act of purchasing only those goods and services for which they are willing and able to pay. By contrast in a centrally planned economy the goods and services provided are not determined by the mechanism of consumer sovereignty but by central planning decisions. Belief in consumer sovereignty is a notion central to neo-classical western economic theory. It assumes that a market works efficiently in so far as consumers are free to exercise their sovereignty and thus determine what and how much shall be produced in an economy. The market adjusts the supply of goods and services to consumer demand through prices. With complex services like legal services, real estate, equity investment and health care, it is common for the consumer to work with an agent or "buyer" to advise on the exercise of consumer choice. Some health systems have corporate purchasers at primary care level or covering larger populations to exercise these functions on behalf of the consumers. The efficient operation of consumer sovereignty, whether at individual or corporate level, depends upon the consumer having complete knowledge of personal welfare needs and of the market, together with the expertise to discriminate

between the quality of different goods and services on offer for the resources available. In certain markets, where monopoly or oligopoly operate, producers are so much more powerful than consumers that they control the market in terms of supply, prices, quality and delivery. In health care this can be so. But some health systems operate as monopsonies in which a small number of corporate purchasers, such as insurance companies, dominate the market with many competing providers trying to survive *(18, 29)*.

Consumer welfare Measure of the utility enjoyed by consumers in a market.

Consumption That part of total national income devoted to expenditure on final goods and services by consumers during a given period of time, usually one year *(18)*. The history of the development of such measures of value is long and complex. It includes the Utilitarian approach which assumed that aggregation of individual welfare was possible; the approach of Pareto which denied the Utilitarian assumptions and focused on those circumstances where no one person's utility was reduced as a result of any change. More recently, consumer welfare has been explored in terms of the compensation principle proposed by Kaldor and by Hicks. This principle examines two elements in change – the extent of compensation necessary to balance the gains against the losses; and secondly the distribution of those gains and losses *(7, 18, 22, 28)*.

Contract model The system of health service provision which involves contracts between three separate

parties: (a) the beneficiaries; or patients; (b) the fundholders or purchasers acting on behalf of the beneficiaries; and (c) the providers of services. The term contract model can be applied to describe compulsory or voluntary insurance systems for health services which involve direct payments, under contract, from insurers or third parties to the providers of the services for the insured persons. Benefits or services are supplied in kind to patients, and may be free-of-charge to them. The providers are independent and the contractual payments to them are paid either by capitation or by fee-for-service, or by another means by the health service funding bodies. The contract model is normally administered independently of direct state control, but in accordance with legally enforceable regulations. The managed competition system has some elements common to the contract model, in particular the separation of purchasers and providers, but it generally includes more state involvement in management, financial control, planning, health policy, priorities and targets *(12)*.

Contributions A tax payment levied for compulsory health insurance, often as part of a social security scheme; or a payment made in a voluntary scheme the size of which is determined by regulations agreed to by the parties involved. The payment of the contributions provides entitlements to specified services for the contributors and perhaps for others such as close relatives; the scope, content and volume of the services may be determined by the size of the contributions, the length of period of membership of the scheme or by some other

criterion such as need *(12, 23)*.

Costs Resources spent in carrying out activities; also the benefits sacrificed through a particular event or choice of action rather than another. The latter definition is called by economists the opportunity cost *(7, 18)*.

Cost analysis The process of enumerating and valuing the impact of a product, service, change, or other phenomena in terms of the resource commitments involved and the opportunities sacrificed. These costs may include direct costs, such as the use of labour and equipment and indirect costs, such as the external impact on those people not directly party to the transaction. Cost analysis may be one part of cost-benefit analysis or cost–effectiveness analysis in considering the value of certain changes proposed or already experienced. Standard costing is a term used to cover the preparation and use of standard costs, their comparison with actual costs and the analysis of variances. The standards may be derived from averages over large numbers of organizations or by assessment of targets which are in principle achievable. Unit costing is a method whereby costs are broken down to single measures of output, thus providing the cost of producing a given unit of service; for example, the cost of laundry per item laundered; the cost of heating per cubic metre of space; the cost per occupied bed/day in a hospital *(10, 11)*.

Cost–benefit analysis (CBA) A technique for enumerating and evaluating the total costs and total benefits associated with an undertaking. CBA involves answering four key questions: (a) which costs and which benefits

are to be included; (b) how are the costs to be evaluated; (c) what interest rate is to be used for assessing the relative weight to give to the parts of the stream of present and future costs and benefits arising in the undertaking; and (d) what constraints are to be recognized within the analysis such as the legal, administrative and budgetary factors which may affect the overall feasibility or impact of the undertaking or the actual distribution of costs and benefits. Those undertakings yielding the highest benefit to cost ratio are generally considered to be the most worthwhile. CBA can be very complex, time consuming and expensive and this has influenced the extent to which it is used within the health sector. It also has certain deficiencies from a policy point of view in that it does not necessarily take into account the social and geographical distribution of costs and benefits, and its results may not be readily transferable from one health system or one country to another. It also requires very careful specification, if the values given highest weight by the partners to the policy decisions, are to be adequately and transparently incorporated in the analysis itself. Interpretation of results can present special challenges for policy makers *(18, 21, 22)*.

Cost–effectiveness analysis (CEA)

An analysis which considers the level of provision of a good or service achieved from a given level of inputs. CEA is used in assessing undertakings where it is not possible to use CBA which normally requires that the value of both the inputs and the outputs is put in money terms. Difficulties arise with CEA in the health sector in the assessment of the health impact of

goods and services, and in identifying the costs to be included and in their appropriate valuation *(18, 21)*.

Cost containment

Measures taken to reduce expenditure or the rate of growth of expenditure, or the unit cost of services. Many western health services have experienced periods of time when the rate of growth of health services expenditure substantially exceeded the rate of economic growth in the country as a whole. At such times cost containment becomes a central focus of government policy and of professional financial management. It has included a range of control tools which includes the regulation of the supply of services, financial controls on the disbursement of funds, regulation of the supply of key inputs such as staff, and pay; scrutiny of the efficiency of service delivery; control on the demand for services such as waiting lists, user charges and the exclusion of certain people from entitlement to services. The particular mechanisms adopted have included programme budgets, standard costing, service–related budgets, budget capping, works study and organization and methods, economic appraisal of capital and service programmes, staff establishment control, cost improvement schemes, efficiency savings, privatization and managed competition *(10, 30)*.

Criteria

Standards by which something is judged. Health systems are often judged in relation to a set of criteria. These may include equity, effectiveness, level of funding, acceptability, etc. In order to apply the criteria it is useful to have defined indicators which are consistently used for assessing the standards, and to agree

on targets or target levels for those indicators which are considered obtainable and which allow comparison between and within countries over periods of time. A criterion for health services in the Health for all strategy is equity of health status. One indicator that is used is expectation of life and the target that relates the indicator and the criterion in the European Region of WHO is Target 1 *"By the year 2000, the differences in health status between countries and between groups within countries should be reduced by at least 25%, by improving the level of health of disadvantaged nations and groups" (4).*

Decision analysis The assessment of options of deploying resources in the pursuit of specific interests. A variety of methods exist, including cost–benefit, cost–effectiveness and decision–tree assessments of alternative courses. The analysis of complex public issues has become the subject of new approaches to decision analysis that can involve interactive role playing, consensus forums and simulation games. These model the essential features of the real problems incorporating risk assessments, political factors, misinformation and certain opportunities for irrational response under the pressure of time. The results of these processes, which can reveal a foretaste of what might happen, can then become an aid to decision–making *(31, 32).*

Deductible A sum, fixed or variable, specified in an insurance policy, that is deducted from any claim made under that policy; that sum is then paid by the beneficiary, the remainder being paid by the insurer, subject to any co-payment,

user charge or co-insurance arrangement. A tax–deductible payment is one which can be allowed as nontaxable expenditure by an individual or a corporate body and may include health insurance contributions or premiums. Deductibles of both kinds are a common feature of health insurance and other funding systems for health services.

Demand The want, need, or desire for a product combined with the evident willingness and ability to pay. Demand is affected by price and by information about the availability and quality of the product. Demand for health services is often difficult to assess and surveys of willingness to pay may be necessary to estimate it. Seminal explorations of demand for health has emphasised the importance of the stock of health that individuals have and the way in which they use their time and skills to affect how that stock is maintained or depleted. One of the main implications of this model for policy is the greater importance it gives to the role of providing information about the relative value of services in achieving specific objectives or satisfying needs, whether for improvement in health, or other social values such as improvement of the environment. These concepts have been further developed by Mooney and Cohen and Henderson. An important aspect of these developments has been the linked concepts of prevention goods and hazard goods, for which there may be two separate demand functions. Education, attempts to alter the demand for prevention goods and hazard goods, using information and guidance which highlights the benefits of reducing the

risks of damage *(7, 31)*.

Development The process of providing the conditions that offer opportunities for improving the quality of human life in a community. Development normally covers three aspects of change. Firstly it tries to raise people's living standards, including improvements in food, housing, education, employment, sanitation, and environmental protection and health services. Secondly it tries to create conditions which can increase growth in self-esteem through improving or introducing social, political and economic systems and institutions which promote human dignity and respect. These changes can include the introduction of participative government, fresh provisions in education and professional and occupational training, justice, careers open to opportunity, trade unions, freedom of speech through open media and freedom of religious, social and political affiliation. Thirdly development tries to increase people's freedom to choose by enlarging the range of available goods and services, travel, social and political contact and by decentralizing government decision-making, to achieve greater local participation. Because health services are large and socially significant institutions, the way in which health services develop can serve both as an illustration and a model for the style, principles and values a country adopts for development in general. The Human Development Index of the United Nations Development Programme (UNDP) is now also commonly used for international comparisons of the relative development status of whole countries. This index combines three

standard indicators: real GDP per person (which adjusts the standard GDP according to country-specific purchasing power parity calculations), adult literacy rate and life expectancy *(1, 3, 20, 33)*.

Development economics

The branch of economics that is concerned with the process of development. In recent years development economics has taken greater note of investment in health as a key element in building the capacity of countries to achieve economic growth. This new attention to health has highlighted three issues. Firstly it is concerned with the variation in size of the health sector in different countries – which ranges from 2% in some poor countries to nearly 15% in some rich countries. Secondly it recognizes that the health of communities varies greatly even within those groups of countries spending similar amounts on their health sectors. Thirdly it recognizes that intervention in sectors other than medical care can have a significant impact on health. The focus on investing in health of the World Development Report of the World Bank in 1993 highlighted these concerns and drew attention to the importance of health development as a key component in the relief of poverty. The report suggested that for under US $50 per head at 1991 prices, all basic health services could be provided in a developing country and that this level of investment would make a substantial contribution to reducing preventable death and disability if well directed and efficiently managed; health sector reform should build on these principles. The types of health development given priority in the World

Bank report are consistent with those in the WHO regional strategy for attaining Health for all by the year 2000 *(1, 3, 4, 20).*

Development project

A group of planned specific activities agreed to be undertaken within a defined budget, time scale and under specified managerial arrangements that are directed towards the attainment of defined objectives consistent with more general plans for achieving development goals. Examples of development projects can be the building and commissioning of a health centre, the construction of a sewage disposal system, or the provision of a trained team of community workers for the rehabilitation of people addicted to drugs or alcohol. A key aspect of achieving success in development projects is taking account of the local cultural, social and economic circumstances and devising changes which are appropriate and acceptable to the local community through participation of local people *(1, 20).*

Diagnosis-related groups (DRGs)

The division treated cases into groups according to their diagnosis, determined using the international classification of diseases. The purpose of grouping is to assist in the comparison of costs or in calculating the price to be charged for a quantity of cases conforming to a particular pattern of groupings. Studies have shown that variations in case–mix affect the cost of providing services. Cases grouped by diagnosis tend to require similar types and volumes of services and thus incur similar costs. It is possible to set budgets for health services by using DRGs for analysis of expected expenditure. Proponents of this approach argue that providers are then more

careful in their use of resources than under alternative systems of retrospective reimbursement of costs or of global budgets *(11, 34)*.

Direct patient expenditure

Expenditure that relates directly to the individual care of a patient such as drugs, specific treatments received, and food. Direct patient expenditure contrasts with indirect patient expenditure which consists of the items of expenditure that cannot be attributed to the care of individual patients such as lighting, heating, capital equipment, support staff and services. The distinction between direct and indirect expenditure relates closely to the distinction between variable and fixed costs in business finance management. Fixed costs do not vary, in the short term, with the level of output; variable costs do.

Disability adjusted life–years

A measure of the disease burden of a population which combines the loss of life from premature death, with the loss of healthy life from disability. This burden-of-disease variable is measured in units of disability-adjusted life–years. The method was developed for the World Bank and WHO to assess the relative disease burden of 100 different disease or health problems world-wide, the results of which were published in the World Development Report of the World Bank in 1993 *(3)*. The calculation of the disease burden by this method involves a number of stages. The key elements are: the potential years of life lost as a result of death at a given age; the relative value of a year of healthy life lived at different ages; the discount rate used to indicate a time preference for human life and health (the

World Bank report uses a 3% discount rate); and disability weights to convert life lived with disability to a common measure with premature death *(3)*.

Distribution of gains and losses

How the gains and losses of any undertaking are shared between different sectors in the community and different players in the market. The design of any health system includes mechanisms for the distribution of the costs of the services and the delivery of benefits. These commonly involve some redistribution in favour of certain social groups; but the study of the impact of policy on redistribution presents some formidable analytical problems. The principle of solidarity between social groups has underpinned the financing arrangements for the major health systems in Europe. This has the intention that the rich pay towards the relief of the poor. The financing arrangements in the Shemasko, Beveridge and Bismarckian systems of health services are designed so that those people who are well pay for those who are sick; those who are working pay for health care for those who are not. Whilst there is economic growth and little unemployment, and a low proportion of people who are economically dependent on others, this principle works well enough and generally receives public support. It protects the whole community against the social conflicts that come from large inequalities in wealth and access to services. But such mechanisms for redistribution are not always efficient and may not work as intended. Moreover in times of economic recession problems arise, especially if the economic difficulties are exacerbated by immigration,

with large proportions of people economically dependent on others for survival. Then the mechanisms may become less politically and socially acceptable. Charges and risk-related premiums or contributions may be used as an immediate response to this problem. But they can only provide short-term relief before the fundamental macro economic and political problems have to be resolved. The present design of social and health insurance systems and pensions in Europe is being re-examined in the light of the growing proportion of people surviving beyond retirement age, which overburdens current mechanisms for inter-generational redistribution of costs and benefits *(6, 28).*

Economic instruments

Measures taken by governments, agencies or managers to alter the operation of the market and which involve the stimulation or suppression of demand or supply of goods and services, often by the manipulation of prices. Taxes, subsidies, prices for licences, and incentive payments are examples that are commonly used. Such instruments have been widely used in the interests of public health to promote healthier lifestyles and to protect people from pollution. But because an instrument of control is defined as an economic instrument this does not in itself guarantee that it is effective or efficient in achieving a policy objective. The production of perverse effects or unanticipated side effects contrary to the policy objective is not uncommon. The impact of any instrument of economic control varies from economy to economy. Pilot schemes can provide useful information for developing

reliable policy *(35)*.

Economic model — A construct incorporating two or more variables that describes the relationships between the variables and predicts the outcome of their interaction, in defined circumstances. Many countries use computer-based models for simulating the future impact of changes in their economy. Models have been used in health services planning and management *(18, 31)*.

Economic systems — Theoretical constructs that describe the relationship between interdependent resource elements involved in the performance of economic tasks in a country where the mechanisms of control of scarcity and choice are defined, within an organizational and institutional structure. The constructs are used to explain past performance and to predict the future. Examples of such systems are economic capitalism, socialism, and subsistence economy. Most countries have mixed systems which conform to no theoretical pattern but have evolved with many forms of intervention to adjust for the flaws of theoretical systems in practices *(1, 18)*.

Economist — A professional analyst concerned with evaluation of the use of scarce resources between competing ends. Economists are engaged at international, national and sectoral levels within the public and private sector. They tend to specialize in macro (national and international economic issues) or micro (sectoral or specialist) issues. Economists within the health sector have traditionally concentrated on the economics of medical care. More recently they have linked with economists working in other sectors such as

environment, transport, energy, employment or labour market, and agriculture, to consider wider intersectorial issues that can have an impact on health. Fiscal controls, such as taxes on energy, tobacco, food, alcohol and transport, have recently become of special interest to economists concerned with health. Research in health economics is a growing field of study financed by government, research foundations and sectoral industries such as the pharmaceutical industry. Health economics is studied in Europe at postgraduate level and courses of study are available to health service managers to enable them to be more acquainted with the principles involved in research and policy analysis in this field. Health economists are making a prominent contribution to the study of health service reform and to management training. Health economics is a distinct discipline from health service accountancy although the two professions often work closely together. The economist's concept of cost and benefit differ distinctly from those commonly adopted by accountants and cannot usually be derived from the figures that accountants compile *(7, 18).*

Efficiency

In economics, efficiency is a concept concerned with the relationship between inputs and outputs in the production of goods and services. This relationship can be measured in physical terms (technical efficiency) or cost terms (economic efficiency). The concept of allocative efficiency adds the further consideration of consumer demand and consumer welfare and considers the allocation of resources so as to produce the combination

of goods and services which best meets the pattern of consumer demand. Since the seminal contributions of Archie Cochrane in his Rock Carling Lectures of 1972 on the evaluation of health services, a distinction has been commonly made between efficiency and effectiveness in the health sector. Cochrane defined the latter as a measure of output from those health services which contribute towards an improvement in length or quality of life. This definition has been carried through in many public health assessments of health service performance and is incorporated in the WHO strategy of Health for all. In financial cost terms, efficiency can be defined as the financial costs incurred by an activity divided by the units of output obtained; this gives the financial cost per unit output. This definition, however, relies on a common quality or standard of output. In financial terms greater efficiency can be said to have been achieved where: (a) the same amount and standard of services are produced for less cost; (b) improved amounts and/or standards of service are produced for the same cost; (c) a more useful activity is substituted for a less useful one at the same cost; (d) needless activities are eliminated. An economist would add to this financial definition of efficiency by requiring that; and (e) all costs be taken into account including those incurred, for example, by the patient travelling to the place where the health services were provided, the capital costs of the land and equipment involved in the services, and any external costs that the production, distribution, sale or use of goods and services has on other people; (f) that the focus be on the

costs and output at the margin and not merely the average costs and overall output; (g) that the costs be measured as opportunity costs and not just as financial expenditures; (h) that streams of costs over a period of time be discounted to the present; and (i) that the demand for services be considered. The economist's concept of efficiency thus differs in important respects from that of the financial manager *(6, 7, 18, 21, 28)*.

Elasticity The ratio of substitution between two factors such as quantity of goods demanded and its price to the consumer. (Price elasticity of demand) *(18)*.

Equity The quality of being fair or equal; equality of status in respect to some identifiable and controllable quality of importance, such as health, access to services or exposure to risk. Equity in health implies that ideally everyone should have a fair opportunity to attain their full health potential and more pragmatically, that no one should be disadvantaged from achieving this potential. The term inequity refers to differences in health which are not only unnecessary and avoidable but, in addition, are considered unfair and unjust *(4)*.

Evaluation The systematic assessment of the relevance, adequacy, progress, efficiency, effectiveness and impact of a course of action. A course of action is relevant if it answers the needs and the policies and priorities it has been designed to meet; it is adequate if it meets its requirements; it makes progress if its activities are being carried out in accordance with a planned schedule; it is efficient if it uses the resources devoted to it in the best possible way; it is

effective if the results obtained are in accordance with the objectives and targets for reducing the dimensions of a problem or for improving an unsatisfactory situation. The impact of a programme is its overall effect on people and the environment. All these issues can be embraced in evaluation *(32, 36).*

Externalities Factors that are not included in the primary economic transaction. Examples include: the health risks to others of alcohol use, which are not included in the purchase price of the alcohol; the adverse health effects from industrial pollution not included in the price of the industrial products produced nor in charges imposed on the producer; and the impact on the economy of depleting natural resources not included in the calculation of national income or national product. Innovations in accounting practice at national level and at the level of the firm can attempt to remedy the deficiency by pricing production to include external impacts and in calculating national product net of impact on public health and the environment *(18, 22, 31, 37).*

Fee-for-service A payment per item of service provided. This is a common feature of some health insurance systems. It can have the disadvantage that it encourages high volumes of service provision which may be unrelated to the benefits derived from them. Global budgets can include a system of fee-for-service to contain this tendency. When the budget is exhausted, either the level of fees for each item of service is reduced to contain total expenditure within the budget, or the service facility is closed *(23-25).*

Financial gains The gains, purely in money terms, arising from an undertaking. These do not take into account indirect benefits or the costs or benefits to the population in general or to the environment.

Fixed Costs Production costs that are unaffected by variations in the volume of output. Health facilities such as hospitals have high fixed costs which may only be reduced by closure of the facility itself. This presents particular problems in achieving cost improvements, but it can be an advantage in providing low variable costs when volumes of work can be increased within fixed facilities. The use of five-day wards and the development of day care has been one response to the problem of high fixed costs of inpatient care *(10, 11, 15).*

Foreign aid The international transfer of public funds in the form of loans or grants either directly from one government to another (bilateral aid) or indirectly through international or multilateral agencies such as the World Bank, the European Union's PHARE and TACIS programmes, and the United Nations Development Programme. Some foreign assistance organizations

specialize in financial aid, such as IMF, the World Bank, and the European Bank for Reconstruction and Development, while others like the WHO provide technical assistance and do not have budgets to provide extensive financial aid *(5, 13, 14)*.

Goal

A general aim towards which to strive. Within the health sector, WHO has defined the goal of Health for all by the year 2000, which means the pursuit of the goal that "as a minimum all people in all countries should have at least such a level of health that they are capable of working productively and participating actively in the social life of the country in which they live".

Moreover WHO recognizes "that to attain such a level of health every individual should have access to primary health care and through it to all levels of a comprehensive health system". Within the WHO strategy, targets have been defined with indicators to assess progress towards the overall health goal. Member States of WHO have generally endorsed the health goal and the adoption of the targets and the use of the indicators system for assessing progress in health development *(4, 36)*.

Goods

Tangible economic products that contribute to the satisfaction of demand. Health services tend to combine the use of goods and services to meet demand. For example, pharmaceuticals are combined with diagnosis and prescription as complementary parts of health care.

Grants

Funds given for a particular purpose or to a particular person or institution which do not have to be repaid, but which may not be

	recurring. Grants usually entail some obligation on the part of the beneficiary at least for the proper accounting for the money provided and the results of the activities or services for which the grant was given. Conditions may be attached to grants. These conditions may involve complementary local funding, report-writing, specific delivery of services, or use for particular purposes. The conditions may also specify the time period for spending the grant or the locality in which it is to be used. Grants should be carefully distinguished from loans which have to be repaid *(1, 14)*.
Gross domestic product (GDP)	The total money value of all final goods and services produced in an economy over a period of one year *(1, 3, 18)*.
Gross national product	The total money value of all final goods and services produced in an economy over a period of time (usually one year), plus net property income from investments abroad *(1, 18)*.
Guidelines	Sets of the steps which can be taken in performing a task or implementing a policy and the manner of so doing. Guidelines are frequently built up from reviews of practice; they are not prescriptive or enforceable but are published to assist managers in devising local means of implementing policy *(14, 38, 39)*.
Health	As defined by WHO, a state of complete physical, mental and social wellbeing, and not merely the absence of disease. Different approaches to the definition of health are common. Perceptions of health vary and beliefs about what may improve or damage health change. Different health systems define health

in different ways according to the legal, social and economic implications of official recognition of health and or disease states, for example, whether ill-health is sufficient to justify sickness benefit; whether disability is sufficient to qualify for a special disk for car parking at privileged locations. Health status measurements commonly incorporate two elements: the length of time that a person is well, remains alive, is off sick etc.; and the quality of life or the severity of illness or disability. Research to develop a systematic index for the measurement of health status in communities is a major aspiration of some of those involved in health research. Some health services are limited to the delivery of medical care and do not consider the pursuit of health gain by other methods as an objective. Some are limited to the diagnosis and treatment of sickness and not the prevention of sickness, or the promotion of health or rehabilitation of people after receiving medical care. Some systems may not allow investment in services other than medical care even where these could have a bigger impact on health gain than medical care itself, e.g. accident prevention, smoking cessation, improvements in water supplies or housing, or family planning. Some aspects of reform of health services are specifically directed to overcome this problem and to allow health service managers to use scarce health service resources to maximize health gain, using a variety of services including medical care but not limited to it *(3, 14, 26, 36, 40).*

Health development The process of continuous, progressive improvement of the health status of a population. The notion of development as a managed process has been derived from work in the field of economic and social development studies and is now being applied to health systems *(20, 36, 41)*. (See also *Development, Development economics, and Health system*).

Health economics The discipline of economics applied to the topic of health. Questions that health economics address include the following: How much of society's resources are devoted to health and to health services? What priority is given to different aspects of health and health services? What health services are people willing to pay for? What choices are made in the pursuit of health and the improvement of health services? What are the results of these choices in terms of resource use and their impact on health? What are the direct and indirect costs? What is the relation between the economy as a whole and health? What impact do health services have on the economy as a whole? How far do changes in the environment and the state of natural resources affect health and what are the costs? How efficient and effective are health services and how are they distributed in the community *(7, 34, 42)*?

Health education The planned and managed process of investing in education to achieve improvement in health of a population. It involves consciously constructed opportunities for learning, which are designed to facilitate changes in behaviour towards a predetermined health goal. Health

education is one aspect of health promotion. It is an activity to be found in schools, in work places, in health care premises and as part of community health services. It also involves the use of mass media and may include the use of educational methods to change the knowledge and influence the attitudes of professionals and policy-makers. Since much learning takes place in informal settings, people working in health education may be found working with youth groups, with community organizations, and with television, radio and press journalists. Techniques may include written educational materials or participatory approaches that include theatre, song and dance. Nowadays health education and the broader field of health promotion are a standard and important part of any system of health services and are increasingly subject to assessments of their investment value. The World Bank report, Investing in Health *(3)* includes lists of key investments such as promoting vitamin A and iodine supplements in India and Indonesia, antismoking campaigns in China, and policies to reduce traffic injuries in urban areas of Sub-Saharan Africa. These are investments which the World Bank considers to have the largest payoff in the field of public health world-wide. Reduction in the AIDS epidemic is another priority field for investment in health education since it is principally concerned with education and promotion of safer sex practices. Much of child and infant health depends upon the literacy of parents, especially of mothers, and their education in personal and child care to provide protection against the major diseases, including motivation to take up breastfeeding

and to use available immunization services for their children *(3, 31, 40).*

Health gain An increase in the measured health of an individual or population, including length and quality of life. In many countries the goal of health gain is becoming the principal goal of health services. Improving the length and quality of life is incorporated in the Health for all strategy of WHO. This is a departure from the arrangements for certain health services in the past which were concerned principally with the funding and delivery of specific medical care services or facilities without an explicit corporate goal of improving their impact on health. The adoption of health gain as a goal results in re-examination of the costs and the benefits to be derived from different health services. It involves a widening of the perspective of health service managers to consider investment in other services beyond medical care. These may have a greater and less costly contribution to make to achieving health gain for individuals or communities. The economic concept of opportunity cost is a central feature of intersectoral analysis of investment in health gain and can give rise to directing resources to improved housing, poverty relief, education, water and sanitary services to complement investments in medical care services and to reduce avoidable and preventable death and disease *(3, 21).*

Health insurance A mechanism by which money is raised to pay for health services by financial contributions to a fund; the fund then purchases health services from providers for the benefit of those for whom contributions are made or who are

otherwise covered by the scheme. Health insurance contributions may be combined with a payment for other social benefits, in which case the scheme is then called social insurance. The payments may be voluntary or compulsory. The funds raised through the insurance payments may be supplemented by funds from elsewhere such as government taxes to pay for all or part of the benefits *(23, 38)*.

Health policy A set of decisions or commitments to pursue courses of action aimed at achieving defined goals for improving health. Policies usually state or infer the values that underpin the policy position. They may also specify the source of funding that can be applied to the action, the planning and management arrangements to be adopted for implementation of the policy, and the relevant institutions to be involved *(4, 28, 36)*.

Health promotion The planned and managed process of encouraging and assisting improvement in the health of a population as distinct from the provision of health care services. It operates through the process of enabling individuals and communities to increase control over the determinants of health and thereby improve their health. Health promotion has been an evolving concept in the last twenty years in health policy. It encompasses fostering lifestyles and other social, economic, environmental and personal factors conducive to health. Health promotion can involve a variety of activities including promoting healthy public policies, supportive environments for health, healthy lifestyles, community action for health, improving

personal knowledge and skills; and the development of health services concerned with health rather than merely focused on disease and disability. Health promotion includes many aspects of preventive medicine and public health. The framework of ideas that today comprises the field of health promotion was defined at an international conference sponsored by WHO in Ottawa in 1986. This conference declared in a charter named after the conference venue, that the process of health promotion includes advocating health-promoting conditions for living; enabling people to achieve their fullest health potential; and mediating between the interests of different sectors of society to achieve health goals for all. A subsequent policy conference in Adelaide in 1988 extended this framework and put special emphasis on creating supportive environments to enable people to lead healthy lives *(4, 40)*.

Health resources

The means available for the operation of health systems. Health resources include human resources within the health sector and other sectors; buildings and engineering services such as sanitation, water and heating systems for community use and for the use of medical care institutions; equipment and supplies; finance; and knowledge and other technology. These resources within the framework of policies, institutional and management arrangements form the health infrastructure. The quality of health resources is an important factor in comparing health systems. It is normally defined by standards, regulations and in many cases by law. The standards can define the professional qualifications required for staff

to be licensed as doctors and nurses, for example, and the physical requirements of buildings to be registered as hospitals or dwellings; regulations may also specify the performance standards of facilities or equipment to meet health requirements, for example, the quality of water after treatment, the level of pollution from motor vehicles or chimneys, the sterility of medical equipment after autoclaving, and the time that fire-doors would take to burn through in the event of a fire *(4, 26)*.

Health services Any service which can contribute to improved health or the diagnosis, treatment and rehabilitation of sick people and not necessarily limited to medical or health-care services. Health services are often formally organized as a system of established institutions and organizations to supply services to respond to the needs and demands of the population within a defined financial and regulatory framework. Health services can include health education, health promotion, and environmental services such as housing, sanitation, etc., which have a known health benefit. Appraisal of the costs and benefits of investment in appropriate services that contribute to health is an important field of study for health economists working with epidemiologists *(3, 4, 40)*.

Health status A general term for the state of health of an individual, group or population measured against defined standards. The WHO health indicators provide internationally accepted standards for various aspects of health status. In Europe there are some 200 indicators in the set which monitor progress towards the WHO

European regional targets for Health for all by the year 2000. Originally set in 1985 *(43)* these were revised in a new international agreement of 1991 *(4)*. Health for all by the year 2000 is a strategic policy adopted by WHO in the 1980s to guide health policy in Member States towards priority health problems, the use of solutions known to them, and relevant directions for problem-orientated research to improve the effectiveness and efficiency of investment for health development. The European Region of WHO has elaborated on the original global strategy in the development of 38 European targets and related indicators for measuring progress towards those targets. A detailed data bank exists to demonstrate the latest official position for each European Member State in relation to these indicators *(4, 36).*

Health system A formal structure for a defined population, whose finance, management, scope and content is defined by law and regulations. It provides for services to be delivered to people to contribute to their health and health care, delivered in defined settings such as homes, educational institutions, workplaces, public places, communities, hospitals and clinics, and may affect the physical and psychosocial environment. A health system is usually organized at various levels, starting at the most peripheral to the state government, known as the community or primary level. It may include district, regional and central elements at a national level and provision for international contact and service delivery. In response to international strategies for health,

health systems are becoming more concerned with investment that produces health gain as the central goal rather than merely the efficient management of existing medical care institutions and services *(3, 14, 20, 24, 36, 41)*.

Implicit valuation

The assessment of values implied by the decision to proceed with particular undertakings. For example, the fact that the US Environmental Protection Agency (USEPA) was prepared to go ahead with the imposition of certain stringent environmental standards for air pollution control implied, according to Pearce and his colleagues, that the cost of a life saved was in the region of US $110 000, compared with the valuation derived from the provision of mobile coronary care units, where a life saved was by implication valued at US $8300. The finding suggested that the level of USEPA smoke control was excessive *(7, 22)*.

Indicators

Identified and measured variables which help to show changes directly and indirectly relevant to goals, objectives and targets. Within the WHO Health for all strategy, efforts have been made to identify quantifiable and other indicators for each target *(4, 36, 40)*.

Integrated model

The term used for the systems of health service finance and management in which both the financing and provision of health services are supplied by the same organization with no separation between purchasers and providers. This is commonly found in so-called national health services under the

Beveridge and Shemasko systems *(12)*.

Intersectoral action

Action in which the health sector and other relevant sectors of the economy collaborate, or interact to pursue health goals. In some cases the interaction is through collaboration with other sectors, but intersectoral interaction can involve intersectoral competition and conflict. The history of public health and the development of certain medical services provide examples in which the health sector, in order to achieve health objectives, has had to promote legislation, regulations and agreements in the face of industrial, and sometimes social opposition. For instance, in many countries there have been opportunities to achieve greater control of safety on the road, control of tobacco, development of birth control education and services, and the provision of safe and fluoridated water supplies. Cooperation between sectors tends to have been greater in actions to promote exercise and leisure facilities, provision of housing and in securing airline safety *(4, 36, 40, 44)*.

Incentive tax

A tax imposed to promote a particular course of action, for example, a tax on tobacco to reduce consumption, or a tax on fuel to reduce waste *(31, 35)*.

Investment for health

Health is not simply an end in itself, but a resource for individuals and society. The promotion of health is brought about and sustained by actions which take place in many sectors of society.

The concept of Investment for health requires health to be put at the core of social,

economic and human development. This ensures that the fundamental arguments about economic and social development maximize their contribution to better health and minimize adverse impacts on the promotion of health. The task is to examine public policies with the aim to enhance their health yield in a manner which benefits the primary intent of those policies while achieving specific health promoting objectives.

Managed competition

Government regulation of a health market which uses competition as the means to promote efficiency. The system which is being developed in the United Kingdom uses competition between providers; that which is proposed under the Dekker reforms in the Netherlands uses competition between purchasers as well. Both types of systems use contracts for clinical services. The providers of which are in competition with price, quality and volume of services being taken into account. The regulatory framework within which the competition operates in such systems is controlled by the government. It is designed to achieve a number of policy objectives apart from improved efficiency. These include control of patterns of service provision, greater accountability of local managers, cost-containment, political support for redeployment of and closure of surplus facilities, control of powerful professional groups and greater equity in service access *(12, 24).*

Management

The measures taken to plan, organize, operate and evaluate all the many elements of a system and the personnel involved in the

management task. The task includes formulating policies and defining priorities; setting up programmes to translate the policies into strategy, clearly stated objectives, targets and action; preparing budgets to govern the allocation of resources for the programmes; implementing the programmes; monitoring the results; and monitoring the process to ensure the delivery of all of these elements. The discipline of management is now a mature field of study and research and a popular topic of teaching. It has well developed theories and a large body of empirical studies relevant to most sectors of social and commercial activity. The health sector is no exception. Management education and training in the health sector is a growing industry. Professional managers are normally graduates with two or three years postgraduate training undertaken in association with an academic institute. Most western countries have associations of professional health service managers; some of the associations define and supervise the professional examinations for health service managers. Certain areas of specialization are recognized in health service management, including finance, purchasing and planning, supplies, medical records and informatics *(4, 10, 41, 45)*.

Marginal cost The extra cost of increasing output by one unit. Marginal cost commonly decreases with initial increases in the production of any product; this is referred to as the diminishing unit cost of increasing production. Once fixed capital and human resources are fully

employed, then the marginal cost may increase as new capital is required or new levels of labour or the volume of production produces logistic or other difficulties; this stage results in decreasing marginal return to investment *(7, 10)*. (See also *Cost analysis* and *Opportunity cost*).

Market mechanism

The interaction of buyers and sellers in an economy which determines the nature and volume of goods and services produced and their distribution. This mechanism operates in market and mixed economies. It is distinguished from the planning system of state economies where decisions about production and distribution are decided by the state and expressed in central periodic plans, e.g. "five-year plan". The market mechanism tends to ignore external factors which are not the direct concern of the immediate buyers and sellers. Health promotion groups, environmental protection groups and consumer organizations, support a preference for those goods and services that appear to conform with the principles of health and environmental protection – "health" and "green" products. This has affected the health market in two ways. Firstly producers have taken into account certain health and environmental factors either in the products themselves or in their marketing. Secondly governments or trade organizations have intervened to promote health and environmental protection, in recognition of the failure of the market mechanism to do this in a timely or sufficient way. In many countries, regulations have been introduced to

overcome weaknesses in the market mechanism to protect health interests. For example, tobacco advertisements carry a health warning, certain nutritional values have to be included in the labelling of foods, and safety aspects of goods and services have to be labelled *(1, 28, 31)*.

Monitoring The continuous oversight of an activity to assist in its supervision and to see that it proceeds according to plan. Monitoring involves the specification of methods to measure activity, use of resources, and response to services against agreed criteria. This process in itself can help to clarify management objectives and the expected patterns of services, thus promoting greater transparency in planning and in the implementation of plans. Monitoring can be undertaken as part of service delivery or as an independent activity. As monitoring itself involves resources, decisions about the level of investment required for monitoring have to be taken with care. They should depend on the value to be derived from the information provided by the monitoring and its impact on the efficiency and effectiveness of the services studied *(21, 36)*.

Opportunity cost A measure of the sacrifice made in using scarce resources for one particular purpose (buying or producing a product) rather than another *(7, 18, 32)*. (See also *Cost analysis* and *Marginal cost*).

Pareto improvement The improvement in the welfare of one individual without adversely affecting the welfare of others. Alfredo Pareto, who died in 1923, was an Italian engineer who became

Professor of Economics at Lausanne University and used mathematical principles derived from mechanics to construct his theories of economics. Whilst acknowledging that utility was not measurable in cardinal values, he developed his theories on relative welfare of individuals. The calculation of a potential Pareto improvement is common in cost–benefit analysis; it falls short of actual Pareto improvement as it may include calculations of the benefits that would allow compensation to be paid to some losers to cover the value of their losses; but it may not require those compensations to be paid or may not calculate the cost of implementing compensation, such as the legal costs of settling disputes. Moreover other matters such as the impact of income redistribution may not be included in a potential Pareto improvement calculation *(22, 32)*.

Planning A process of organizing decisions and actions to achieve particular ends, set within a policy. Planning usually includes the production of written plans which identify the aims, objectives and mechanisms for making decisions and taking action; resources to be committed; participants and partners in the process; criteria for judging results; time-scale for implementation; management arrangements; and reporting and contracting procedures to be adopted. Planning is a common feature of management in all economic systems *(3, 11, 36)*.

Polluter pays principle The principle incorporated in laws of some countries that those producers who are responsible for pollution should pay the costs

of compensation for damage and for the cost of "cleaning up" the pollution afterwards. The same economic principle underlies the pricing of goods and services and of natural resources to take into account the environmental impact of their use. An extension of this practice is found in the development of tradable permits for pollution which can promote the most economical development of pollution control, avoiding the use of mandatory standards imposed by law irrespective of the relative costs and benefits of their implementation *(35, 45)*.

Primary health care (PHC)

The first level of contact with people taking action to improve health in a community. The concept of PHC world-wide has been transformed by the WHO policy of Health for all. This defined PHC more broadly than hitherto and saw it as an integral part of social and economic development. As the central part of the Health for all strategy, PHC is essential health care made accessible at a cost the country can afford, with methods that are practical, scientifically sound and socially acceptable. Everyone in the community should have access to it and everyone should be involved in it. Related sectors in addition to the health sector should also be involved. At the very least it should include education for the community on the prevalent health problems and on methods to prevent health problems from arising or to control them; the promotion of adequate supplies of food and proper nutrition; sufficient safe water and basic sanitation; maternal and child health care, including family planning; the

prevention and control of local endemic diseases; immunization against the main infectious diseases; appropriate treatment of common diseases; and the provision of essential drugs. WHO sees PHC as the central function and the main focus of a country's health system. It is an integral part of the social and economic development of a country. The essential difference between the WHO concept of PHC and the concept of basic health services is that PHC is a process concerned with equity, intersectoral action, community participation and involvement in order to secure health gain. It is not merely the professional delivery of medical care at local level. Involvement means that individuals and families assume responsibility for their own, and for the community's health and welfare, and develop the capacity to contribute to their own and to the community's development. The WHO concept of PHC assumes that investment in this process is more efficient, effective, acceptable and sustainable than other ways of promoting health gain within local communities. The concept is consistent with the core values increasingly seen as essential to development: life sustenance, self-esteem and freedom to be able to choose *(4, 20).*

Reform A significant sustained change introduced by national or regional government legislation to the financing, organisation or functioning of health care services or to patients rights.

Regressive tax A tax whose burden falls less as income rises; as distinct from a progressive tax whose burden falls more as income rises. A

progressive tax serves to redistribute wealth from the rich to the poor, if the social benefits paid for out of the tax benefit the poor as much as or more than the rich *(18)*.

Resource cost The resources that are used in the production of goods and services. This approach to counting only the factors involved in production excludes the external costs and the costs to the consumer of using the goods and services. Resource costs generally exclude the costs of environmental impact unless these have been internalized in the resource cost calculation in terms of insurance against environmental risk, pollution tax, environmental control inspection, etc. The modern use of economic instruments for promoting environmental concern amongst producers is aimed at ensuring that most of the environmental cost is internalized in production cost calculations. These will then be passed on to the consumers and the demand for environmentally hazardous products will decline *(18, 35)*.

Secondary health care Hospitals and outpatient specialist clinics to which people go, after referral from primary health care services. These services are generally more specialized and further from where people live. They often include a greater range of diagnostic services such as X-ray and pathological laboratory services; they may also include specialized treatment such as operating theatres, radiotherapy and certain drug therapies not normally available in primary care. The principal difference between primary and secondary services is in the range and specialization of the staff

available *(4)*.

Social safety net

Basic arrangements to ensure that any person in a society can obtain financial and material help from the state to avoid absolute poverty and ensure survival. The safety net is an important mechanism to assist those who do not benefit from economic growth or human resources development. It includes transfers, usually out of government funds at the central or local level, for those who are chronically unable to work because of age or handicap, and those temporarily affected by natural disasters or economic recession. Different types of operational policy for safety nets are appropriate in different countries. Some may need common systems where poverty is widespread; in others some form of targeting may be justified to increase the efficiency of the use of scarce resources. In some countries families and local communities run informal safety nets of their own, independently of the state, to assist family and community members in need. Because of the increasing proportion of people in western countries over retirement age, new approaches to policies on safety nets are being explored to provide incentives to families and community groups to develop more cost-effective safety nets than can be managed by the state. These include grants to carers, subsidies for sheltered housing, etc. *(2, 28)*.

Social security

The provision of social protection against a number of risks, such as incapacity to work resulting from disease or disability, unemployment, old age, or family maintenance. Social security systems are

devised by governments to provide a funding mechanism from some form of taxation so that specified services can be made available to meet the needs of people who satisfy the criteria for receiving benefits. Such schemes include provision for the most needy who are in poverty and have no other means of survival. Social security schemes have a long history in Europe dating back many centuries and funded from central or local taxation of one kind or another. They form the core of state welfare systems *(18, 28)*.

Strategy A statement of the broad lines of action required for the pursuit of a goal with an indication of the problems to be encountered and the ways in which these problems can be dealt with. The Health for all strategy of WHO sets out the broad lines for action to achieve the goal of Health for all, the intersectoral nature of the challenges to be met, and the range of interventions and services that are likely to be needed for the pursuit of the concept of health as defined by WHO. A strategy does not identify the action to be taken but it can incorporate the ways in which the results should be evaluated to assess whether progress has been made towards the goal. For this purpose the WHO strategy incorporates the definition of targets to measure achievement and indicators to be used to provide comparisons of performance within and between countries. Strategy does not define the form or the finance arrangements for systems best suited to implement the strategy. Such matters are defined in the plans for implementing strategy

and the tactics adopted by managers *(4, 11, 36).*

Subsidy A payment made by the government with the object of reducing the market price of a particular product, or of maintaining the income of the producer. The aim of a subsidy may be to sustain demand for a particular product; or to protect a particular industry; or to ensure that those consumers, especially the poor, who would otherwise not purchase a product or whose demand for it would decline, maintain their previous level of consumption *(2, 18).*

Supply The amount of a product made available for sale at a particular price. Generally as the price of a product rises demand declines. The relationship between price and quantity demanded at that price is a central feature of economic study *(7, 18).*

Sustainability The capacity to meet the needs of the present without compromising the ability to meet future needs. This concept is central to current thinking on global protection and overcoming the threats to health presented by industrial growth and exploitation of natural resources. The idea of sustainable development contains two basic concepts, as defined by the World Commission on Environment and Development – the Brundtland Commission (1987) *(46).* These are: the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and secondly the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs. The

Brundtland Commission went on to say that physical sustainability cannot be secured unless development policies pay attention to such considerations as changes in access to resources and in the distribution of costs and benefits. The notion of physical sustainability implies a concern for social equity between generations, a concern that must logically be extended to equity within each generation. It is now generally well accepted in development policy that poverty, health, environmental degradation and population growth are inextricably related and that none of these fundamental problems can be successfully addressed in isolation. They are all part of the challenge of sustainable development. A special aspect of sustainability is sustainability of development programmes; this can be said to have been achieved when a programme continues to deliver intended recurring benefits after the cessation of the original development assistance on which the development at first depended. Achieving sustainable health development through foreign aid is a special challenge in the health sector *(20, 46).*

Third-party payers An entity that pays for the cost of health care service provision but which is not directly tied to either the patient or the provider. Typical examples are a governmental tax-based agency and/or a statutory (publicly accountable) insurance agency, a voluntary not-for-profit private insurance carrier, a for profit commercial insurance company, or as in the US, an employer.

Taxes Charges imposed by government on the

income of persons (direct or income tax) and on goods and services (indirect taxes). Taxes are used for a variety of purposes. These include raising income for the government; changing the distribution of wealth in the community; controlling the amount of spending rather than saving in the economy; controlling the volume of imports and exports; controlling the specific demand for particular products. Taxes have an increasingly important role in health services by raising money from the population in general to pay for the sickness and health services needed to respond to disease and to promote health. Taxes are also used for health and for environmental protection by altering the demand for products according to their potential hazard or benefit to health and to the environment (18, 31).

Tertiary care Specialized care that offers a service to those referred from secondary care for diagnosis or treatment, and which is not available in primary or secondary care. This kind of care is generally only available at national or international referral centres. Tertiary care has become a common feature in certain specialities for rare conditions, or where the diagnostic or treatment facilities are scarce or require scarce combinations of resources, or which remain essentially the subject of research. These facilities are commonly found in medical schools and teaching hospitals. The presence of such rare conditions, and facilities can have an adverse impact on teaching if the principle operational role for most health professionals, once qualified, is

primary care *(4)*.

User cost The cost to the user of purchasing or making use of a product. This may entail transport costs, time, technical and other installation costs. The health service user may bear all the costs of these factors which are not apparent in the general statements of health service costs. The distribution of user costs within the community and the capacity of people to pay affects use of health services and may reduce use by those people who could most benefit. In developing countries and those with a large rural population, the cost of transport to use health care services can be a large economic barrier to access, which adversely affects people in rural communities if they lack local health services *(2, 7)*.

Utility The satisfaction that is derived by an individual or group from the consumption or use of a product. Economists have differed in their views as to whether utility can be measured as an absolute value or merely on an ordinal scale. The latter approach has been generally adopted. It recognizes the fact of diminishing marginal utility in the consumption of most products and the importance of relative preferences between products which vary between individuals and with relative price *(7, 18, 22)*.

Valuing life The process adopted for assessing the loss encountered when people die before their time or encounter injury, illness, disability, physical or mental suffering. Four approaches have been commonly adopted: (a) implied values approach which uses past decisions or circumstances that have given rise to known

levels of death, injury, etc. as a means of arriving at the value of life and limb; (b) assessing the loss of living, wages or direct expenditure resulting from the injury; (c) "willingness to pay", in which survey methods are used to assess what people are prepared to pay to avoid certain types of loss, how much they would pay for safety measures, what insurance premium they would pay, etc.; and (d) using the decisions of courts in granting compensation following civil or criminal prosecutions for damages following loss of life or limb. These latter rest upon a variety of considerations including loss of earnings, pain and suffering, and the cost of any continuous care and support required for a disabled person. Paradoxically the courts may give greater damages in the case of a disabled person who requires continuous care than in the case of someone who is killed *(7)*.

Variable cost A cost which varies with the volume of output, unlike a fixed cost which remains constant with variations in output *(10, 15, 18)*.

Welfare The satisfaction of preferences which gives rise to a sense of wellbeing. This is experienced by an individual or group by their consumption of products and by the impact of nature on them and by their involvement in community activities. This concept embraces the impact of external factors beyond the direct control of the individual or group as well as their economic activity in the market economy *(18, 28, 31)*. (See also *Welfare economics* and *Utility*).

Welfare economics The discipline which studies the way economic activity can best be arranged to

maximize economic and social welfare. Welfare economics has been concerned in particular with problems that arise from the failures of the market and of planning in satisfying human needs. It examines both the allocation of resources and the distribution of benefits within a community. It particularly focuses on the methods for assessing the outcome of choices for the community as a whole and the resulting mechanism of compensation to overcome inequities. Welfare economics has special relevance to health services and to environment and health, where traditional market and planning mechanisms for allocating scarce resources to meet human needs fail to take adequate account of externalities, user costs and long-term opportunity costs. It also has an important role in examining the trade-off between the welfare gain from investment in health services per se, and other services which may have an impact on health or welfare. But it has struggled with formidable problems in aggregating the welfare of individuals within a community and deriving sound policy guidance from the results *(18, 22, 42).*

Wellbeing Part of the concept of health within the WHO definition (See also *Health*). It combines the subjective assessment of health both in terms of biological function and self esteem; it also includes a sense of social integration. Like the positive WHO definition of health, wellbeing infers achieving social, emotional and physical potential. It is a key element in the social model of health commonly adopted in the new public health strategies and incorporated in the WHO Health for all policy *(36)*.

Willingness to pay How far a person or group is prepared to pay for particular goods or services. Proponents of this approach to valuing outputs defend it because it offers a way to promote consumer sovereignty in assessing public services; but in health care this approach is deeply controversial and can prove unacceptable to health care professionals and epidemiologists to whom politicians have traditionally turned for advice in these matters *(7)*.

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