

Economics in health care

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Abstract

Introduction

The development of medicine in the last three decades has brought not only new diagnostic and therapeutic possibilities, but also new thinking about health in its interdisciplinary understanding. It is also a period in which wide-ranging actions for public health were undertaken through decisions made by politicians, economists and health care representatives. Measures expressed mathematically are used in health measurements, especially those concerning the entire population. There are three groups of measures of the health condition of the population: positive, negative and the so-called synthetic measures of health condition which combine, apart from health measures, many other elements.

Aim

The aim of the work is to analyze the economics of health care.

Material and method

Review of the available literature on the subject.

Results

A different approach related to the economic efficiency of access to public goods is the concept of investment in human capital. Grossman developed the theoretical foundations for such an understanding of the choices related to health and its protection in the 1970s. Grossman's theory is treated as a model of human capital. An important element of Grossman's model is the distinction between health treated as a product, i.e. a basic good, which is a source of utility for people, and medical care treated as a factor in the production of health. In Grossman's model, people both demand and produce health. Health is treated as a good produced by humans through various means, such as diet, healthy eating, a healthy lifestyle, and medical care. The efficiency of health production depends on the knowledge and education of the society.

Medical care is only one input into health production. According to the presented model, each person at birth has a specific health resource that exhibits capital characteristics. This health is amortized with age, but it can also be increased (accumulated) by investing in it, e.g. by doing sports, eating healthy and also by protecting health. Grossman's model takes into account two important elements. First, health care is only one of the determinants of health. Second, people do not demand health care for its own sake: the utility of health consumption is derived not from health care itself, but from the health improvement it causes. In this perspective, health care is an economic good, it is human capital and if so, health can also be considered capital. They are often regarded as a fundamental good, being one of the real reasons for patients' expectations of healthcare, for which other, mostly tangible, products and services, such as healthcare, are simply methods of obtaining it.

Conclusions

The contemporary concept of health should be perceived on many levels, including not only biomedical and environmental determinants, but also social and professional functions performed by individuals. As a result of such perception, the value of human life should increase by expanding the meaning of health to include the concept of the ability to lead a meaningful, creative and satisfying life. There is an interrelated relationship between the development of the concept of health and the definition of public health and health policies. The evolution of the concept of health, its extension beyond purely biological-medical meaning, has led to the concept of public health and the involvement of governments in health policy. Financial expenses related to the implementation of state burdens in the implementation of health policy currently exceed the capabilities of many governments.

Key words: Economics; health care

Article

Health economics, as a scientific field, examines the problems of limited financial, infrastructure and human capital resources and optimizes their allocations in the health care sector. One of the basic, and perhaps even the most important, department in the Ministry of Health should be the department of health economics. Many universities in Poland deal with this field of science, but without the possibility of practical implementation [1,2].

Generally, representatives of the medical profession speak about changes in the healthcare system. Their voice should be an important advisory but not a leading one. The scope of contemporary health economics according to Harry Williams includes the definition of health and its value, factors influencing health outside of health care, and the demand and supply of healthcare. The scope of health economics also includes analyzing the market of medical services and drugs, planning, budgeting, regulation and monitoring, and evaluation at the level of the entire system. The World Bank concept assumes that health is a function of the wealth and education of a society. Improving health condition ensures economic growth, and thus increases the wealth of the population and the possibility of better education. In the Bank's concept, health is a form of capital.

The scope of Health Economics:

- a. definition of health and its values (health indicators, life value and its usefulness),
- b. factors influencing health (genetic, professional, consumption, educational, income conditions; human capital; family conditions, etc.),
- c. demand for health care (the impact of factors influencing health on the use of care; barriers to use - price, time, psychological, formal; interdependence of factors; needs; insurance; impact of the demand on health care),
- d. supply of health care (manufacturing costs; alternative methods of generating benefits; input substitution; market conditions of inputs - human factor, equipment, drugs; methods of reimbursement; incentive systems; for profit and non-profit organizations; coordinated health care),
- e. Market analysis (rationing care in the system, use of money prices, non-monetary factors, e.g. access time, waiting lists as equilibrium mechanisms; market effects for doctors and health services),
- f. Microeconomic assessment (cost / effect, cost / benefit, cost / utility of alternative methods of care delivery (type, place, time, scope) at all stages - disease detection, diagnosis, treatment, care etc.),
- g. planning, budgeting, regulation, monitoring (evaluation of tools supporting system optimization; mutual relations between budgeting, human resource allocation, regulation, incentives),
- h. system evaluation (allocative equity and efficiency; interregional and international comparisons of activities; financing methods) [2.5].

Health economics is:

- 1) Related to the answer to the question of how to allocate limited social resources between the resource competing goals.
- 2) Related to the evaluation of costs and benefits of alternative health activities. Evaluation is conducted to help improve practical decisions.
- 3) It does not replace elements of the decision-making process [3,6,7].

Health economics is not only about cash; it uses money as a measure of value and a medium of exchange. It is not the same as accounting: the concept of cost in the economic sense involves sacrificing benefits (those benefits that could be obtained from the most socially beneficial use of the resource), so it is not a cost only as a monetary expense. Cost, in economic terms, includes all the lost benefits of an action, regardless of who they are for. Health economics is not limited to goods that are sold on the market and have a market price. It is not only cultivated by economists, it is embedded in the decision-making processes of all people in their daily lives.

Health economics includes several key concepts. The concept of costs as lost benefits (costs and benefits). Distinguish between average and extreme values; for example, marginal or marginal cost is generally the only appropriate starting point for decision making.

Demand for goods and services, which depends on individuals' willingness to pay ("paying" applies not only to goods and services that have a money price, but also to eg wasted time). Supply of goods and services which depends on the income received by suppliers. A market where goods and services are traded. There is usually a market equilibrium price, ie a price that equates supply and demand. Efficiency, both operational (fixed goals, minimization of costs) and allocation efficiency (maximization of benefits with available resources). Equality understood as justice.

There are specific problems in interpreting some of the concepts listed in the context of health care. For example, the problem of allocating health care resources and distributing medical services in line with the willingness of service users to pay fees. Given the specific position of physicians in the healthcare system, we note that supply mechanisms may not respond to specific stimuli as expected. Where there are health care markets, we can see that they may not function "normally" [3, 4, 12].

It should be appreciated that although health economics may be treated as a scientific discipline, branch of science, or scientific knowledge, it is better, perhaps, a way of thinking, and it certainly should not be seen as a "tool bag". In health care, it is a research field closely related to the subject of research in other disciplines, in particular with epidemiology and medicine [1,13,14].

Health economics should potentially provide information necessary to make allocation decisions:

- a) information about limited resources (structure, degree of limitation),
- b) enabling prioritization in the allocation process in accordance with the principle of investment efficiency,
- c) increasing the efficiency of health care [5,6].

Health economics is not used to a satisfactory degree because there are barriers to use in practice:

- lack of understanding,
- misunderstanding of tools,
- no reference to the practice,
- lack of flexibility of health care budgets,
- limited access to information on the results obtained [7, 15].

Health politicians should create formal links between the research sphere and practice in the field of health economics. Increasing the effectiveness of health services is beyond discussion. The development of the pharmaceutical industry should be based on the achievements of health economics [4,8,9].

In Poland, the development of health economics took place in the 1970s, when the costs related to health care increased in developed countries. To take action in this area health protection tools are necessary - economic analysis and evaluation. The most common analyzes used in health economics include:

- CEA - cost-effectiveness analysis, cost-effectiveness analysis,
- CBA - cost-benefit analysis, cost-benefit analysis,
- CUA - cost-utility analysis, cost-utility analysis also taking into account the quality and preferences resulting from health programs,
- *Cost of illness*, analysis of disease costs, assessment of the economic effects of a given health condition [11, 12, 15].
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In making economic decisions, the Health Technology Assessment is also used Agency for Health Technology Assessment, a unit reporting to the Ministry of Health) and techniques for evaluating treatment methods EBM - Evidence Based Medicine. EBLM - Evidence Based Laboratory Medicine and EBHD - Evidence Based Hospital Design are less known. The aforementioned analyzes are aimed at rational spending on health care [3,7,9].

The act on health care establishments states that health services are actions aimed at preserving, saving, restoring and improving health as well as other medical actions resulting from the treatment process or separate provisions regulating the principles of their implementation. The starting point for research in the field of the functioning and use of the health care system is the recognition of the needs of the population shaped by its health, socio-economic and psychological conditions. Recognizing these needs is the basis for establishing the norms necessary to plan and organize health care activities to meet them. In each health system, the relationship between health needs and the demand for health services, which is the basis of social policy and planning, is subject to fundamental economic assessment [3, 10, 11].

Economic research in the healthcare sector also addresses supply-side problems. Most often they relate to: determining the supply factors and the economic efficiency of the functioning of the entire medical infrastructure or its components referred to as markets. Supply factors determine the possibilities of providing health services, which include: human resources, premises, material resources, organization of health care, efficiency or effectiveness of activities and attitudes of the medical personnel themselves. The market of medical services is subject to particular observations. It is commonly believed that doctors create demand for a specific type of services. The market of nursing services is also being monitored. The appearance of a need is associated with its expression. They can be expressed subjective, behavioral and objective. In psychological terminology, need means the lack of something and is a stimulus to act towards changing this state. Health needs are understood as a deviation in the health state of an individual in a given population from the level optimal for the age and gender of this individual. These deviations are revealed in the form of known and expressed health needs [10, 12, 15].

In the Regulation of the Minister of Health of June 16, 2003 on the conditions to be met by voivodship health plans and the scope of data necessary to prepare such a plan, health needs are defined as resulting from the assessment of the health condition of citizens, by determining the number of health services according to those indicated in the regulation types of health benefits per 10 thousand insured. The health needs of the patient are often subjective. For this reason, the real health needs of the population are extremely difficult to observe and quantify. This necessitates constant observation and construction of special research tools [2,5,11].

Taking into account the aspect of the necessity of actions related to health, three groups of health needs can be distinguished. The first group consists of needs defined as subjective or perceived needs that would exceed the possibilities of health care. The second group consists of objective needs expressed by patients and confirmed by a doctor or other people. The third group consists of objective needs not expressed by the patient, but they have been included in the health policy and are treated as the amount of health services financed by the payer. The group of needs that creates the most problems in the planning of health care organizations are real needs, often unidentified and not recorded in medical reporting [5,9,14].

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