

Health economics – Strategy and policy

Health has no price, yet it is invaluable both to the individual and to society as a whole. At the same time, preserving and restoring health costs the state a considerable amount of money. In addition, health care organizations are involved in producing and selling drugs, medical equipment and services aimed at promoting health. All this allows us to say that health is not only a social category but also an economic one. In this article, we will discuss what health economics is and how economic modelling helps impact budgets.

What is health economics

Health economics refers to the branch of economic science concerned with studying gained health outcomes and how it is compared to cost of treatment or prevention programs.

Principles of health economics are also used to:

- Evaluating value-based drug price and expected increase in budget;
- Making decisions about reimbursement;

Health economists are involved in:

- research and economic evaluation of new drugs and technologies;
- pricing of drugs and equipment;
- health insurance and reimbursement issues;
- cost and budget impact assessments;
- cost-benefit and cost-effectiveness analysis;
- equitable distribution of budget funds.

Also one of their tasks is forming health sector strategy and policy at the national and international level.

Formation of the strategy of health care development

Developing any system or company is impossible without setting goals, drawing up objectives and a program for their implementation. Also, it is necessary to have clear indicators, which allow controlling of the efficiency of achieving these goals. Just all this is spelt out in the strategy of health care development.

In other words, the development strategy is a long-term plan for achieving the goals set out in the form of a document. It describes not only areas for action and specific tasks, but also the resources that allow these tasks to be accomplished.

The key steps for the formation of such a document are:

1. Analysis of the current state of the health care system or the results of the company's activities related to medicine.
2. identification of key problems of system or tasks of the company.
3. Setting goals, defining priorities.
4. Formation of mechanisms for solving the set tasks, determination of resources required for implementation, as well as indicators for controlling the implementation of the strategy.

Qualitative, temporal and quantitative parameters can be indicators of control, the achievement of which means the achievement of the set goals.

Analysis, determining the current state of the system and existing problems, is the most important stage for the formation of the Strategy.

Health System Analysis – 7 Key Issues

The key tasks of the analysis of the current state and activities of the health care system are to determine the results of the system, the way of life of the population, the quality and accessibility of medical care, the resources of the health care system, efficiency, equity. In other words, during the analysis specialists try to answer the following questions.

Are the inhabitants of the country (region) healthy, or what are the results of the health care system?

To answer this question researchers analyze demographic indicators:

- life expectancy at birth (LE);
- the difference between the LE of men and women;
- total and age-standardized mortality rates;
- infant mortality;
- mortality patterns by cause;
- fertility.

It is also necessary to make an analysis of population health indicators:

- morbidity;
- disability;
- occupational traumatism;
- occupational diseases.

What way of life do the citizens of the

country (region) lead and in what conditions do they live?

For this purpose, an analysis of factors that affect health and life expectancy is carried out:

- lifestyle and bad habits (use of tobacco, alcohol, sports, nutrition control);
- state of ecology;
- the welfare of the state and the population;
- Health and safety at work.



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What resources does the health care system have?

The researcher describes:

- the structure and sources of funding for the health care system;

- the order of accumulation and distribution of public funds for health care;
- the number, structure and wages of medical workers;
- the availability of material and technical resources and equipment.

What kind of medical care do the residents receive?

There is an analysis of such indicators:

- the principle of organization, types and conditions of medical assistance;
- the volume of medical care under the State Guaranteed Benefit Package (SGBP) and compliance of the standards of this program with the needs of the population;
- provision of the population with medicines in outpatient settings;
- provision of the population with high-tech medical care;

Also within the framework of this study, it is necessary to find out what quality of medical care the citizens receive.

How effectively the resources of the system are used?

This is done by analyzing the correct prioritization and economical use of funds.

Are taxpayers getting equal access to care?

A comparison is made of the availability and quality of health care for the population living in different conditions, in different regions.

What factors have a greater impact on health care outcomes?

Methods of econometric analysis allow revealing the degree of influence of various factors on the health and longevity of the population. As a result of this work the researcher gets an answer to the main question – on which factors it is necessary to concentrate efforts. This is how health economics strategy and policy are determined.

Global Digital Health Strategy 2020-2025

In April 2019, the WHO (the most influential international organization that moderates and structures the entire healthcare industry) published a draft [Global Digital Health Strategy 2020-2025](#). The goal of the project is to set the organization's direction and specific methods for improving health for everyone and around the world. The WHO has prioritized making health care more accessible and at the same time reducing its costs. By addressing this challenge, the WHO identified the acceleration of the implementation of digital health, which was found to be the most efficient and cost-effective.

Digital health refers to the use of technology to improve health, which includes:

- information and communication technologies;
- connected software solutions;
- artificial intelligence (AI);
- automated data analytics;
- access to analytics and knowledge that will allow patients to make informed health care choices.

The strategy outlined 3 main principles:

1. Spreading a unified strategy for digital health initiatives.
2. Recognising the adoption process as the country's solution.
3. Promoting the adoption and use of digital technology in healthcare systems across the country.

These principles are broken down into several strategic goals, for which 2 to 4 specific actions are described.

Health economics – modelling strategy and budget impact

The use of digital economic models is one method of making health services more accessible to all segments of the population without losing the quality of care.

Already today, consulting companies offer their services to develop digital economic models of various types:

- decision tree modeling;
- Markov and semi-Markov modeling;
- sectioned survival;
- conceptual simulation modelling of discrete events;
- regression modelling.
- models of efficiency, utility, and cost minimization;
- [budget impact model](#);
- and many others.

A business case allows manufacturers to decide whether to produce or refine a product and helps with sales. It is also necessary for public health decision makers. For example, the economic model is a powerful argument in the decision-making process for market admission and reimbursement assessment. Therefore, the development of reliable and appropriate economic models directly impacts the budget.