THE 16TH EDITION OF THE INTERNATIONAL CONFERENCE
EUROPEAN INTEGRATION
REALITIES AND PERSPECTIVES

Concentration Paths of the Compulsory Health care Insurance System in the Republic of Moldova

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Abstract: In recent decades, at both the national and global levels, substantial progress has been made in the field of health care, based on increasing life expectancy, reducing the maternal mortality rate and especially infant mortality. These achievements have become possible due to the efforts of each state by improving the quality of health care provided and ensuring accessibility to quality health services. One of the main options and one of the basic priorities of a society is the development of the human community from the perspective of a healthy and long life.

Keywords: health; costs; benefits

1. Introduction

The health system of the Republic of Moldova is organized according to the principles of universal access to basic medical services, and by combining premiums in the form of salary contributions and budget transfers to a single accumulation fund, contributes to ensuring equity and solidarity within the system.

In accordance with Law No. 263 of 27-10-2005 on the rights and responsibilities of the patient (in the Official Gazette No. 176-181 of 30-12-2005), each person has the right to access health services according to needs; health services must guarantee equal access for all people, without discrimination on financial, domicile, type of illness or time of presentation/treatment grounds.

The financing of medical services through the compulsory health insurance mechanism contributes to the continuous improvement of the population's health through protection against the financial risks associated with health services, equity in their use and distribution, the efficiency of health care regardless of existing resource constraints.

The financial sustainability of the system is volatile in the current conditions, which inevitably influences the preponderant increase in the demand for medical services. For the modernization of the health sector, but also for achieving the global goal – universal coverage with fair and quality medical services, the health system of the Republic of Moldova gradually accedes to the 2030 Agenda for Sustainable Development Goals of the UN.

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2. Methods for evaluating the efforts and direct and indirect effects of public target programmes

The field of health care has become one of the basic pillars of the national economy as well as the world economy. At the current stage, health, like education, is a long-term investment in human capital, and trends in this field are intended for the provision of medical services based on both results and cost control, without compromising their quality.

The methods for evaluating the efforts and direct and indirect effects of public target programmes are different.

The most commonly used are (Boardman, et al., 2004):

- *costs-advantages or cost-benefit analysis*;
- *cost-effectiveness analysis;*
- *multicriteria methods*.

Costs-advantages or cost-benefit analysis and ***cost-effectiveness analysis***

In this method, the benefit represents, in fact, the advantage obtained over the provision of the public service, for which the project drafts were elaborated. The method uses the cost / benefit ratio of public decisions in an updated programme.

The condition of not rejecting a project is:

cost / benefit = minimum or, conversely, benefit / cost = maximum.

Following the prior development of an effectiveness indicator, this analysis is applied in the absence of a monetary assessment of advantages. In certain clearly defined cases, in which the objective is unique, the most cost saving programme will be chosen.

The scope of application of this method is that of socio-cultural expenditures: education, health, social assistance, etc.

Instead, it inevitably uses two different units of measurement:

1) *costs* are expressed in u.m.;

2) *efficiency* can be measured in number of lives saved, number of children vaccinated, etc.

As the different units of measurement cannot be summed up, it is impossible to obtain a single measure of the net social benefit. However, it is possible to calculate the ratio between the two measures, the ratio which can be used as a basis for ordering policy options. This ratio can be calculated in two ways (Boardman, et al. 2004):

1) the cost-effectiveness ratio can be calculated as a unit of resulting efficiency (e.g., u. m. / life saved);

To calculate this cost-effectiveness (CE) rate, the cost of each programme variant *i*, denoted *Ci*, is divided by the efficiency (or benefit) of this variant E_i.

$$\mathbf{CE_i = C_i / E_i}$$

This *CE* rate can be perceived as an average cost per unit of efficiency. The most cost-effective project is the one with the lowest average cost per unit of efficiency. *Projects must be ordered from the highest cost-effective (with the lowest CE rate) to the lowest cost-effective (with the highest CE rate).*

2) efficiency-cost (EC) rate, which is the ratio between the efficiency resulting from the application of the programme variant i and its cost.

$$EC_i = E_i / C_i$$

This *EC* rate can be perceived as the average efficiency per cost unit. The project with the highest unit of cost-efficiency is the project that has the highest average efficiency per cost unit. When using this rate, *projects must be ordered from the one with the highest unit of cost-efficiency (with the lowest value for EC) as long as* $\boldsymbol{ECi \geq 0}$ *for any i.*

The technique of *cost-effectiveness* analysis tends to explain how to achieve a maximum benefit against a minimum cost. Economists Anthony E. Boardman and David H. Greenberg demonstrate, by a classic example, how a public health service program, being subject to *cost-effectiveness* analysis, makes sense in some circumstances, and may not make sense in others. For this scope, three variants of the health project for saving lives are analyzed (see Table 1). The only costs (measured) are the budgetary ones (expressed in u. m.), and the chosen efficiency indicator is the number of lives saved. *CE* rates show the average cost of a life saved.

Table 1. Effectiveness of Health Programmes

Costs and efficiency	**Health programmes**		
	A	***B***	***C***
Costs, u. m.	100000	100000	100000
Efficiency (number of lives saved)	10	12	15
CE rate (cost of life saved)	10000	8333,33	6666,66
EC rate (lives saved at 1000 u. m.)	0,1 life	0,12 life	0,15 life

Table 1 shows that variant *C* saves the most lives. It does not even matter whether the rate is calculated as a cost per life saved or as a number of lives saved per 100000 u. m. Because all project variants involve the same level of expenditure, they can be perceived as different ways of spending a *fixed budget.*

Similarly, the project size grid is neglected if the efficiency level is constant for all analyzed project variants. This is illustrated in Table 2 which shows three options for saving the same number of lives, namely 10.

Table 2. Effectiveness of Health Programs

Costs and efficiency	**Health programmes**		
	A	***B***	***C***
Costs, u. m.	500000	100000	150000
Efficiency (number of lives saved)	10	10	10
CE rate (cost of life saved)	50000	10000	15000
EC rate (lives saved at 1000 u. m.)	0,02 life	0,1 life	0,066 life

Table 2 shows that variant *B* saves the most lives. It does not matter whether the rate is calculated as a cost per life saved or as a number of lives saved per 100000 u. m. Situations in which the level of efficiency is considered to be the same for all variants of the analyzed programmes can be perceived as different ways to achieve a *fixed efficiency.*

From the above we can conclude that in the case of cost-efficiency analysis (CEA) with fixed efficiency, CEA corresponds to a simple problem of minimizing costs, while in the case of CEA with a fixed budget it corresponds to a problem of maximizing efficiency. Both tables contain examples of *dominant variants* – by maintaining a constant characteristic it is ensured that the variant that dominates in relation to the fixed characteristic is exactly the same variant that dominates in relation to the other characteristic.

It is possible for one variant to dominate the other even if neither of them has the same cost or the same efficiency, as long as it is better in relation to both characteristics. Obviously the dominant variants do not have to be selected. If one variant dominates all the others, then it must be selected.

The examples of analysis of public spending programmes outlined above refer to health where it is very difficult to determine its cost and impact on the benefit obtained. In this case, the result should refer to the goal achieved in the interest of the individual and the community. As the services provided by the public sector are very wide and diverse, the management of public financial resources remains a current problem.

The compulsory health care insurance system in the Republic of Moldova tends to align with internationally recognized good practices, focusing on:

▪ ***increasing the coverage of the population.*** During 2018 there is an increase of 1,3% compared to 2017 from point of view of the degree of coverage of the population with compulsory health insurance, this index reaching the share of 88,2%, in 2019 shows a decrease of 0,4% compared to 2018 from point of view of the degree of coverage of the population with compulsory health insurance, this index reaching the share of 87,8%;

▪ ***diversification and expansion of health services provided to insured persons from the account of compulsory health insurance funds (hereinafter – FAOAM).*** The unique programme includes an exhaustive list of diseases and conditions for which a significant volume of insured healthcare provided by FAOAM is foreseen;

▪ ***covering a wider range of services that would reduce health costs for each insured person, so that their own contribution to this scope is reasonable and does not present a financial risk for the insured.*** During the financial reference period, the share of FAOAM health expenditures per beneficiary was about 86%, amounting to an absolute value of 1,900 thousand MDL of those allocated from the national public budget.

Table 3 presents the evolution of the main indicators of FAOAM, for the period 2015-2019, based on the Annual Report on the Execution of the Compulsory Health Insurance Funds. Government of the Republic of Moldova, National Medical Insurance Company, 2019:

Tabel 3. Evolution of the Main Indicators of FAOAM, 2015-2019, Thousand Lei

Indications	U.M.	2015	2016	2017	2018	2019
FAOAM income	million lei	5 062,9	5 764,2	6 256,6	6 877,4	7 636,3
Share of FAOAM in gross domestic product	%	3,4	3,4	3,5	3,5	3,6
Share of state budget transfers in FAOAM revenues	%	42,0	41,1	40,4	38,3	36,8
FAOAM expenditures	million lei	5 152,5	5 673,4	6 260,8	6 714,1	7 489,6
Share of FAOAM expenditures in	%	3,5	3,5	3,5	3,5	3,6

gross domestic product						
Share of expenditures in national public budget	%	79,8	87,2	86,1	86,1	88,5
Insured persons	number of persons	2 571 960	2 575 586	2 608 426	2 642 969	2 626 691
Degree of insurance	%	85,6	85,8	86,9	88,2	87,8
Employed persons	number of persons	850 107	852 124	860 261	874 643	874 661
Individually insured persons	number of persons	48 307	40 113	53 684	55 451	60 340
Persons insured by the Government	number of persons	1 673 546	1 683 349	1 694 481	1 712 875	1 691 690
Amount of percentage premium	%	9	9	9	9	9
Amount of the fixed value premium	lei	4 056,0	4 056,0	4 056,0	4 056,0	4 056,0

The degree of coverage with compulsory health insurance (hereinafter – AOAM) in 2019 was 87,7%, registering a slight decrease of 0,5% compared to 2018 (88,2%), but also an increase of 0,8% compared to 2017 (86,9%). It should be mentioned, however, that the degree of coverage with AOAM in 2019 increased by 1,9% compared to the initially planned level.

The number of insured persons in the AOAM system at the end of 2019 amounted to 2,626,691 persons, of which: employed insured persons – 874,661, persons insured by the Government – 1,691,690, individually insured persons – 60,340. Detailed information on persons insured during the years 2017-2019 is further presented.

Compared to the previous year, the number of people employed and insured individually increased by 0,2%, and compared to 2017 – by 0,3%. At the same time, the number of persons insured by the Government decreased by 0,4% compared to the previous year and by 0,6% compared to 2017. Thus, during the last three years there is a slight tendency to increase the number of individually insured persons and of the employed persons and, at the same time, to decrease the number of persons insured by the Government, the structural analysis is further exposed.

The analysis of the degree of insurance with AOAM of the categories of persons insured by the Government shows that the largest share belongs to children up to 18 years of age (37,2%), pensioners (34%) and full-time students, including those studying abroad (18,2%), and the smallest share goes to beneficiaries of international protection included in an integration programme, living organ donors and people caring at home for person with a severe disability who requires permanent care and/or supervision from another person.

3. Summary

The health system of the Republic of Moldova is organized according to the principles of universal access to basic medical services, equity and solidarity in financing medical services both by the state and by citizens through AOAM mechanisms.

Compulsory health care means that every person can benefit from quality medical services in order to prevent disease, treatment itself, but also rehabilitation and palliative care.

The year 2019 continued to be a challenge for the compulsory health insurance system, both in order to increase access to health services and to improve their quality, having as benchmarks demographic trends, expectations of society and the rapid development of information technologies.

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