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Healthcare as a link in the public finance system. Existing and desired directions of change

Summary. *Healthcare is one of the largest sectors of the economy, and an important and problematic link in the public finance sector. The problem of proper and effective functioning of the public healthcare is primarily of a financial nature or, more broadly – of economic and financial nature. It is magnified by demographic and epidemiological factors that have a larger negative financial impact on public finances.*

The author identifies the problems that currently trouble the healthcare system, leads to their critical assessment, and points out the ways to overcome them. The paper also presents already prepared future system operations, as well as other necessary changes that aim to improve the financial and organizational efficiency in the healthcare sector.

Keywords: *healthcare system, medical indebtedness, restructuring, improvement of organizational and financial effectiveness*

1. Introduction

The crisis of public finances made it necessary to re-take a critical look at the work of public sector entities and their effectiveness. The increasing costs of servicing this sector in the face of a shortage of funds collected in the state budget are an excellent opportunity to plan and make necessary changes. One of the particularly important sectors of public finance, with considerable financial problems and thus requiring adjustments and changes, is the health sector.

2. Place of health care in the public sector and in the public finance system

The health system, because of its objects, tasks, and variety of entities, both public and private providers of medical services, is a fairly specific link in the public sector. The public sector is in fact the part of the economy which relates to transactions made by the government. The government derives revenue from taxes and other revenues, and thus affects the functioning of the economy through its own spending and investment decisions, and by its control (through monetary and fiscal policy) in spending and investment decisions of other economic sectors.[1] The idea of the public sector relates to the notion of "public goods", which refers to the concept of A. Wagner from the nineteenth century, or to "social products". According to the Collins dictionary[2], social products are goods or services provided by the State to all or a majority of citizens (education, health, housing, etc.). In contrast to private products, there is no direct link between the consumption of public goods and paying for them. Social products are paid from with the proceeds of general taxation and not by the individual consumer, who buys them in accordance with the position in the market. In regard to health, this relationship is maintained or not, depending on the model of health care financing in the country in question.

Recently, there have been attempts to connect the definitions of the public sector with the term "public utility". In this perspective, the essence of this sector is to be the provision of goods and public services irrespective of the form of the ownership of their providers (public, private, municipal, federal, other).[3] All those abovementioned elements show the "derogations" in the traditional definition of the public sector in the context of the health sector.

Quite often, the concept of the public sector is replaced with the term "public finance sector". Public finances generally include subsidies and grants provided to public entities, but also to public sector entities or charitable organizations. Therefore, such a substitution of the definition has been widely criticized by the scientific experts.[4] However, clear attribution of the term "public finances" to

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[1] C. Pas, B. Lowes, L. Davies, *Collins Reference Dictionary: Economic*, London – Glasgow 2000, pp. 439-440.

[2] Ibidem, p. 84.

[3] *Sektor publiczny w Polsce i na świecie*, ed. J. Kleer, CeDeWu, Warszawa 2006, p. 60.

[4] Prof. S. Owsiak considers such an exchange of definitions as incorrect, S. Owsiak, *Stan i perspektywy sektora publicznego w gospodarce rynkowej – wnioski dla Polski*, Olympus, Warszawa 2004, p. 53.

the health insurance fund[5] has become a cornerstone in decisions concerning the management of such funds.

Economic theory has always had trouble defining the scope of the public sector, clearly specifying its rules, and above all, presenting the goals and tasks that have to be implemented.[6] Most disputes concerned and still concern in two areas: first, which identifies the nature of goods/services that are or should be assigned to the state (pure public goods, general goods mixed (independent), or specific mixed goods of a public nature); the second disputed area is associated with the functions of the public sector, which pertains to the degree of state involvement in the selected areas:

– goods/services assigned exclusively to the public sector, that is, those that should not be delegated to private sector entities,

– the types of goods/services that may be commissioned to companies or other private sector entities, maintaining supervision over the activities of private entities,

– projects which, while they belong to the tasks of the state, may be implemented by the private sector.

Despite disputes, health care and the services it provides always remain an interest to the public finances and, therefore, to the public sector. It stems from the nature of the goods/services, which is health (public good or commodity), and from the functions and responsibilities of the state. In the new approach, the key trait of the public sector should be the approach that the goods within the scope of interest of the public sector are goods due to everyone who meets the criteria set by the legislature.[7]

The health sector is subject to all the issues that are mentioned in the context of the public finance sector, where the main forces conditioning the behaviour of the entities of this sector include:

– the state, because it has to implement certain universal tasks, which in turn causes the need for regulations,

– supply of goods which the supplier, at least to a large extent, is the public sector,

– relationships which are a result of the degree of openness of countries, international economic, financial, political and cultural relations (the flow of ideas, techniques and technologies),

– the scope of crises, which include: those related to civilization, globalization, integration and transformation.

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[5] Act of 27 August 2004 on health care services financed from public funds, DzU. No. 210, pos. 2135.

[6] *Sektor publiczny w Polsce i na świecie*, op.cit., p. 9.

[7] Ibidem, p. 61.

This raises the following questions: how independently can the health sector function, and how much its activity is determined by external forces, including the financial conditions? What is the possibility of the industry to make corrections within itself? Does the sole identification of the need for change influence the decisions about their implementation, or are external stimuli necessary? The existing practice of the Polish health care indicates no action and decisions within the organization without external stimuli.

3. Financial resources in the healthcare system. The need for change

Without delving into in the issue of the essence of the public finances and public services, assuming the health sector is a link in the public finance sector, special attention should be paid to public funds flowing into the sector and to the way of managing them. Health care[8] is probably the most important and one of the largest sectors of the economy, which consists of many industries and markets, and therefore correlations and financial flows. The most important markets are associated with patients, and they deal with medical services, pharmaceuticals and rehabilitation equipment. Implementation of medical services in Poland is based on public money, that is health premium. Of course, analyzing the determinants of rationality in health care in recent years it seems that one should assess three factors: epidemiology, demography and economics. However, only the latter and its financial aspect is subject to discussion in the article.

The funds generated in the system are supposed to meet the health needs reported by the public. However, there are large differences in the sizes of funds collected for this purpose in different countries, assuming the same demand for the service. The level of expenditure on health as % of GDP in selected countries is illustrated by the Figure 1.

Health expenditures represent a significant and growing share of GDP in the OECD economies.[9] The level of expenditure of health appears to be growing in all countries of the European Union. The average value of these expenditures as % of GDP in OECD countries in 2008 was 8.8, and in 2009 9.5%. As stated in the OECD report[10], almost all countries spend on average twice more on health

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[8] E. Nojszewska, *System opieki zdrowotnej w Polsce*, LEX, Wolters Kluwer business, Warszawa 2011, p. 60.

[9] See P. Białynicki-Birula, *Zmiany w systemie finansowania ochrony zdrowia w Polsce. Perspektywa międzynarodowa*, Wyd. AE w Krakowie, Kraków 2006.

[10] *Raport OECD*, Health Data 2011, www.oecd.org [16.06.2012].

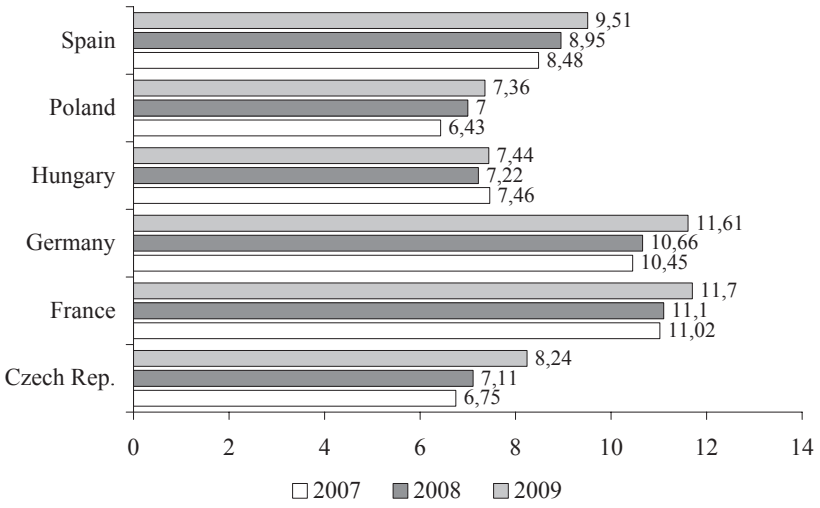

Figure 1. The level of expenditure on health as % of GDP (selected countries)

Source: own study based on www.oecd.stat.

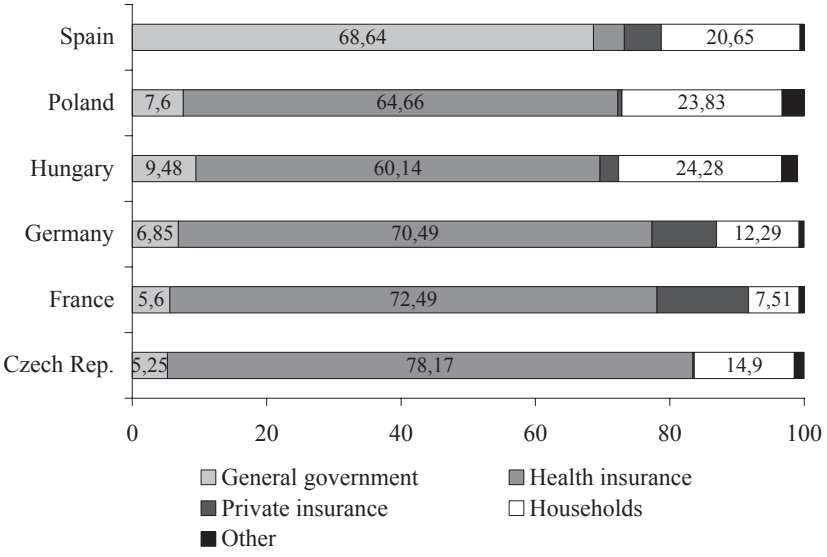

Figure 2. The level of expenditure on health by groups in %, in 2009 (selected countries)

Source: own study based on www.oecd.stat.

than growth in GDP per capita in these countries. The leaders are Portugal (ratio of 5.8) and Italy (4.8). The increased spending on health was respectively almost six times, and nearly five times faster than growth in GDP of these countries. The Polish rate is 1.8 – which means that spending on health in our country grew nearly twice the growth rate of GDP in 2000-2008. In this period, the average for OECD countries was 1.9. However, Poland, with the expenditure per capita of 1041 euro, spends two times less than the countries of the European Union, and also less than Slovakia, the Czech Republic and Hungary. This difference – as evidenced by the report – is primarily due to the health financing from public funds, which is lower than in other countries. Health systems are financed differently from country to country, but there is no effective health system in the world that would not connect the public and private money. The level of expenditure by group is illustrated by the Figure 2.

The level of expenditures made by households for healthcare is relatively high, despite the implementation of insurance systems with universal characteristics in those countries. This demonstrates the need to cover the lack of ability to finance services with private money.

4. Identification of key financial problems in the Polish healthcare system and their critical assessment

Polish health care system, despite the allocation of increasing amounts of money on the implementation of health services, is unable to obtain financial stability. When in 1999 there was implemented the health insurance system, the budget of the payer collected 25 billion zl. Currently, the amount is over 60 billion zl, thus more than twice as much as it was at the beginning of the systemic changes. Is the public perception of the system and the benefits it is supposed to provide also as successful? Unfortunately, no, which is proven by the CBOS research.[11] Therapeutic entities demand continuous increase of the funds transferred in connection to their activities. Unsatisfactory level of funding in respect of the reported demand for medical services causes the increase in liabilities, and also in debt of the Polish healthcare. This situation is shown in the Figure 3.

The analysis of the abovementioned graph clearly shows that after a period of stabilization in the growth of liabilities in the period 2007-2010, it begins to increase again. Based on the data on the voivodships in the years 2009-2011, the trend is shown more clearly.

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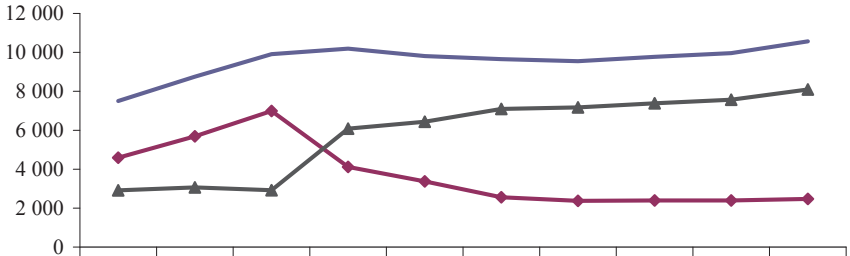
[11] Opinions on the functioning of the healthcare system, CBOS, No. BS/34/2012, Warsaw, March 2012.



	III 2003	III 2004	III 2005	III 2006	III 2007	III 2008	III 2009	III 2010	III 2011	I 2012
Total	7 501	8 749	9 908	10 195	9 808	9 653	9 550	9 774	9 961	10 566
Due	4 589	5 685	6 987	4 115	3 370	2 560	2 374	2 393	2 396	2 472
Optional	2 912	3 064	2 921	6 080	6 438	7 093	7 176	7 381	7 565	8 094

Figure 3. Debt of the Health Care Centres in the years 2003-2012 (mln zl)

Source: own study based on: The dynamics of total liabilities of independent public health care in the years 2003-20012, Ministry of Health, www.mz.gov.pl, The dynamics of payables in the independent public healthcare in the years 2003-20012, Ministry of Health, www.mz.gov.pl.

Table 1. The size of liabilities and provisions for liabilities and payables in the voivodships in the years 2009-2011

Name of the voivodeship	Liabilities and provisions for liabilities			Payables		
	2009	2010	2011	2009	2010	2011
Podkarpackie	256 395.0	303 757.0	448 309.0	37 881.0	54 791.7	59 728.3
Warmińsko-mazurskie	67 902.0	89 935.0	51 867.0	275.0	47.0	35.0
Małopolskie	244 007.0	225 695.0	126 604.0	9 637.0	850.0	3 690.0
Kujawsko-pomorskie	90 940.0	102 143.0	85 585.0	7 638.0	16 175.0	13 957.0
Podlaskie	209 715.0	268 775.0	266 583.0	51 206.0	53 938.0	55 676.0
Pomorskie	383 209.0	392 625.0	389 004.0	51 636.0	29 203.0	60 889.0
Mazowieckie	429 433.0	499 904.8	707 508.2	69 580.0	78 099.3	123 102.7
Śląskie	574 398.9	634 055.0	734 149.2	151 969.4	136 266.4	202 584.1
Wielkopolskie	271 942.4	302 415.2	292 037.4	15 630.6	19 419.8	3 203.9
Świętokrzyskie	155 899.0	192 339.0	237 414.0	43 117.0	41 446.0	42 459.2
Dolnośląskie	452 826.2	332 821.7	384 254.9	106 018.8	21 120.0	27 673.1
Łódzkie	384 942.4	435 178.2	563 461.0	52 869.1	57 427.0	59 678.3
Opolskie	86 160.0	89 068.0	97 250.0	0.0	0.0	0.0

Source: own study based on the data from the Department of Health and www.medicalnet.pl, UMWD.

The years used for analysis in Table 1 (2009-2011) are especially important. It was a period of finishing one of the most important restructuring plans in the sector conducted by the Ministry of Health.[12] The end result was supposed to be a complete leveling of payables and suppression of their growth. Unfortunately, their objectives were not achieved.

The total value of the financial results achieved in the years 2009-2011 by the entities appointed by the voivodship government (those that submitted their data) is illustrated by the Figure 4.

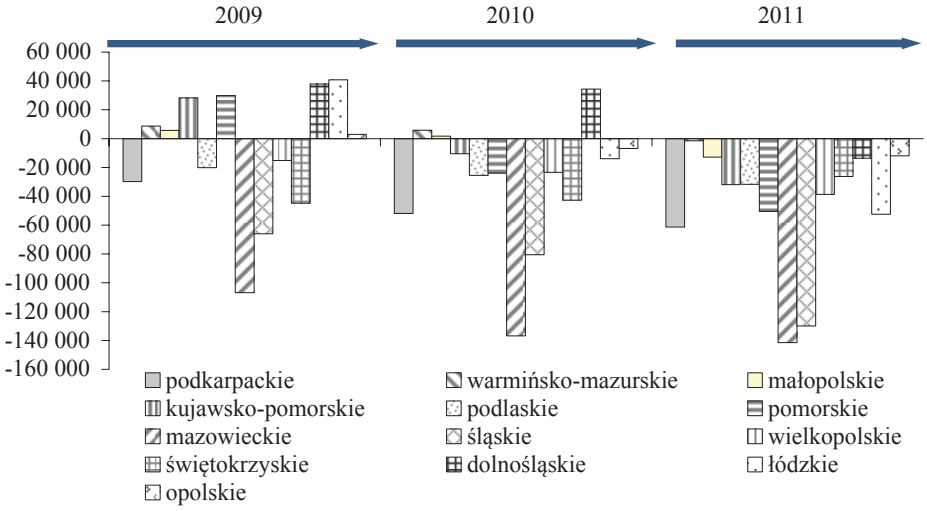


Figure 4. The total value of the financial results achieved in the years 2009-2011 by the appointed by the voivodship government, in the following voivodships

Source: own study based on the data from the Department of Health and www.medicalnet.pl.

The financial information confirms the negative nationwide trend of deterioration of the economic and financial situation of public healthcare institutions. When, in 2009, as many as 7 out of 13 voivodships (which provided the data) showed a positive net financial result, in the year 2010 only three regions (warmińsko-mazurskie, małopolskie oraz dolnośląskie), but in 2011, unfortunately, none of the provinces showed positive net financial results.

[12] Act of 15 April 2005 on public aid and restructuring of public health, Dz.U. No. 78, pos. 684, with further amendments.

5. Corrective actions taken to increase the organizational and financial performance

Given the nationwide nature of the problem, for several years there have been undertaken certain tasks by the Ministry of Health, whose goal is to inform about potential scenarios which could be implemented to improve the financial situation of the healthcare institutions. All these actions are intended to improve the rational management of the sector.

An important and already implemented program was the above mentioned "plan B". On April 27, 2009, the government passed a resolution no. 58/2009 on the adoption of the multiannual program under the name "The support of local governments in actions to stabilize the healthcare system", i.e. plan B.

The main goal of the program was for the local government to be able to apply for grants for their own tasks, in the amount which included public liabilities of independent public healthcare facilities, seized by the government on the day of the completion of liquidation, but no higher than those known on the day of 31st December 2008. It was meant, among other things, to help healthcare institutions in obtaining financial stability by getting rid of "old" commitments and to start a rational process of restructuring. Unfortunately, too few entities joined the program[13] for it to become a nationwide stimulus of the economic and financial situation of the healthcare sector. Eventually, in 2009-2011 the Program was provided with the financial resources of 1 381 000 zl, where in 2009 – the plan was 41 123 zl, the execution was 41 045 zl; in 2010 – the plan was 171 815 zl, the execution on 31.12.2010; according to the RB 28 report – 169 780 zł, and in 2011 – the plan was 976 000 zl.

Since the commencement of the Programme, the Ministry of Health received only 72 requests for allocation of special purpose subsidy from the state budget on the own tasks of local government units. Out of them, 69 were carried out for an amount of 753 923.20 zl (after taking into account returns from 2010) and 1 217.75 zl to assess the BGK and the NHF. A total of approximately 755 140.95 zl, that is almost 550 000 zl less than expected at the beginning of the program. During the revision it was found that the boundary conditions existing in the program were too difficult to meet for many local governments and their subordinate units.

Another action undertaken in the health sector in order to improve the efficiency are consolidations, mergers and liquidations of medical facilities which

[13] Information on the implementation of the multiannual program under the name "The support of local governments in actions to stabilize the healthcare system" in the years 2009-2011, www.mz.gov.pl.

are considered unnecessary or too difficult to maintain. The unique density of medical institutions has historically taken place on the so-called "Western wall" of the country, in the context of security in the event of war in the "Eastern Bloc". And so, in the dolnośląskie voivodship in 1999, at the moment of the implementation of the health insurance system there were 65 units subordinate to UMWD, apart from the institutions subordinate to the counties. An interesting fact is the existence of up to five hospitals in one of the districts in dolnośląskie. This fragmentation and high density of medical facilities require a much greater level of funding to ensure the financial balance of the entities. Obviously, it did not happen. Funding was dependent on the number of people living in the area, and now it depends on the completed medical procedures, or simply put, on the satisfied health needs of local communities. The so-called "economy of scale" finds its application in this case. It was a rational action, therefore, to responsibly consolidate the facilities or to lead to their complete elimination. These actions were initially taken in the voivodships with the highest density of medical facilities, but after experiencing the positive effects of these activities, they became a good example to follow. In doing so, it is important to ensure the preservation of complete access to benefits. The number of medical entities and their changes for which the forming entity is the voivodship government in the years 2009-2011 are presented in Table 2.

Table 2. Number of medical entities for which the forming entity is the voivodship government in the years 2009-2011

Name of voivodship	Number of medical entities in 2009	Number of medical entities in 2010	Number of medical entities in 2011	the change 2011/2009
Podkarpackie	15	15	15	0
Warmińsko-mazurskie	14	14	14	0
Małopolskie	21	18	18	–3
Kujawsko-pomorskie	28	27	25	–3
Podlaskie	16	16	16	0
Pomorskie	28	27	26	–2
Mazowieckie	30	30	25	–5
Śląskie	56	50	48	–8
Wielkopolskie	no data	no data	no data	no data
Świętokrzyskie	9	8	8	1
Dolnośląskie	30	27	26	–4
Łódzkie	18	18	17	–1
Opolskie	13	13	13	0

Source: own study based on the data from the Department of Health and www.medicalnet.pl.

The current law on medical activity[14] has introduced new provisions intended to affect the rationalization of management in the health sector. The most important changes affecting the financial position of the public entities compared to the state in force by the end of June 2011 under the act on healthcare pertain to the increase of the accountability of the funding entities for the liabilities of independent public healthcare entities. The introduced regulations pertain to:

– the need to cover the negative financial result of independent public healthcare within three months from the date of the financial statements in the case where the entity itself has not done the activity in question,

– the obligation to liquidate independent a public healthcare entity or change its organizational and legal form if the abovementioned activity is not performed within 12 months from the date of the acceptance of the financial statement. The obligation of the forming entity pertains to the change of the organizational and legal form of the independent public health entity, or its liquidation occurs for the first time for the fiscal year started after the entry into force of the law on medical activity, i.e. in 2013.

These records are very strict and they assume that the change of the organizational and legal form improve the functioning of medical facilities. However, a research conducted by the Institute for Market Economics in 2008[15] clearly showed no association between the introduction of another, new legal form of medical care and improvement of the management of tasks. It is not the organizational and legal that has a direct impact on improving efficiency, but rationality and proficiency. It is hoped that the changing political and economic conditions will improve the proposed transformational changes and their consequences.

Another important aspect of the Polish reorganization of public health institutions is to improve the management and budgetary discipline by the managers.[16] The explanation for the improper conduct is the assumption entertained by managers that the high level of debt poses no threat to the functioning of hospitals, and uncertainty of their financial problems will be solved by additional funding from public funds. Administrative intervention by external funds, consisting primarily of financing further debt redemption programs, helped to solve current problems, but at the same time, due to its repeatability, discouraged the hospitals from making attempts to solve their financial problems themselves.

However, the improvement of management in the health sector will not happen if we do not make a comprehensive analysis and rationalization of the public activities of the payer, that is of the National Health Fund. One of the most im-

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[14] Act of 15 April 2011 on medical activity, Dz.U. No. 112, pos. 654.

[15] E. Malinowska-Misiąg, W. Misiąg, M, Tomalak, *Zarządzanie środkami publicznymi w polskich szpitalach*, IBnGR, Warszawa 2008, p. 121.

[16] Ibidem, p. 119.

portant tasks of this entity is contracting healthcare. The premise states that all those entering the competition are equal before the law, both public and private. The competitions that win, therefore, should cover similar ranges of services for similar prices. Practice has shown, however, that it is not always the case. A study done in 2012 by the University of Gdansk[17] confirmed the well-known thesis in the community.

This thesis mentions contract-signing by non-public entities only in the most financially interesting areas, without penalties known as complications or infections. These medical events always "return" to the public institutions, despite the lack of consumption of the money for the initial execution of the service, which results in a complication. Costs associated with treatment complications are additional costs incurred by medical institutions. Given the "life threatening" state and the constitutional[18] commitment to perform the medical services, the public healthcare facilities cannot refuse to accept the patient. Research conducted by the scientists at the University of Gdansk also showed that some areas are not contracted by non-state institutions at all, because of their low profitability. These include, for example, internal diseases, pneumunology, neurology, and pediatrics. Although the National Health Fund cannot force private institutions to join in unwanted areas of contracting, it might be worth considering service packages.

Another important aspect of the recovery of the healthcare sector, including Polish healthcare facilities, seems to be a need for parallel execution of several other purposes. Therefore, next to the impact on the economic and financial situation, we should also aim to:

– improve the efficiency of the health care system, in particular, the improvement of the quality and accessibility of medical services,

– adapt healthcare for long-term demographic trends and epidemiological studies, in particular the development of the base of long term care and rehabilitation,

– adapt the healthcare requirements to be met in terms of technical and sanitary facilities and equipment of healthcare facilities.

6. Recapitulation

The economic situation of Polish healthcare is very difficult. On the one hand, there is strong public pressure to improve accessibility to services. There has

[17] Report prepared by the academic staff of the Medical University of Gdańsk, Gdańsk 2012, Report MUG: private hospitals heal "viable" patients. Although the study includes a small number of medical facilities, they provide confirmation of the method of contracting services.

[18] The Polish Constitution, art. 65.

been a rise in expectations among potential patients, but also the vulnerability of patients facing the "great medical machine." On the other hand, the level of GDP achieved by Poland is too low to provide "everything to everybody, in the highest quality." Therefore, actions which rationalize the system are now absolutely necessary, and the directions indicated in the paper are necessary for implementation. The big problem in the process of reorganization of the Polish healthcare system is the influence of politics into the rational management policy, and the need to cover the reported healthcare needs. This problem, according to the author, could/should become the basis for scientific research.

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