

A Service of

ZBW

Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre for Economics

Hady, Joanna; Leśniowska, Małgorzata

#### Article

# Health care expenditure and the state of health care sector in selected European Union countries

e-Finanse: Financial Internet Quarterly

**Provided in Cooperation with:** University of Information Technology and Management, Rzeszów

*Suggested Citation:* Hady, Joanna; Leśniowska, Małgorzata (2011) : Health care expenditure and the state of health care sector in selected European Union countries, e-Finanse: Financial Internet Quarterly, ISSN 1734-039X, University of Information Technology and Management, Rzeszów, Vol. 7, Iss. 4, pp. 25-36

This Version is available at: https://hdl.handle.net/10419/66751

#### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



# WWW.ECONSTOR.EU





25

## HEALTH CARE EXPENDITURE AND THE STATE OF HEALTH CARE SECTOR IN SELECTED EUROPEAN UNION COUNTRIES

Joanna Hady,<sup>1</sup>Małgorzata Leśniowska<sup>2</sup>

#### Summary

The article deals with the issue of health care, focusing on expenditure allocated to it. The first part of the article reviews some selected European Union countries, analyzing their expenditure on their health care sectors. The second part brings an analysis of expenditure on health care in Poland. Basing on this analysis we determine the state of the Polish health care sector. Moreover, as regards the Polish health care sector, we indicate the expenditure forecasts.

The article concludes with a comparison of the state of the Polish system to the state of the systems in other European countries.

**JEL classification**: 111, 115, 118 **Keywords**: expenditure, health care, European Union

Received: 5.07.2011

Accepted: 22.11.2011

#### Introduction

The approach to management in health care is often based on the premise that the sector is so specific that it is impossible to apply in it any management tools used in other (traditional) sectors of economy (Kautsch, 2010, p. 78). While the health care sector is undeniably specific, we cannot tolerate the noticeable lack of effectiveness explained by this unique character.

This specificity mostly refers to (public) hospitals, as opposed to private institutions which operate in market economy conditions. It was the implementation of market reforms that led to changes in financing health care, and, as a result, to rationalization of service providers' activities – better management and effectiveness in using possessed resources (Dobska, Rogoziński, 2008, p. 16).

In health care sector, regardless of which country we analyze, one thing is certain: health care needs of the society are always much greater than the possibilities of financing them by the state. There have always been a number of controversies related to the sector, such as: where to find savings, where to increase financing and whether all resources are properly allocated? Increasing expenditure on health care is a global phenomenon. It was first recorded in the

<sup>&</sup>lt;sup>1</sup> M.S. Joanna Hady, Institute for Financial Research and Analyses, University of Information Technology and Management in Rzeszów, ul. Sucharskiego 2, 35-225 Rzeszów, jhady@wsiz.rzeszow.pl.

<sup>&</sup>lt;sup>2</sup> M.S. Małgorzata Leśniowska, Institute for Financial Research and Analyses, University of Information Technology and Management in Rzeszów, ul. Sucharskiego 2, 35-225 Rzeszów, mlesniowska@wsiz.rzeszow.pl.





Republic of Poland

USA in mid-1960s. In time, the tendency moved to

Europe, where it was first observed in developed countries. At that time the Polish health care system was based on totally different rules. The change took place only after 1989, following the economic transformation of the country. Since then, the Polish health care system has resembled the systems in developed countries.

The recent forecasts concerning expenditure on health care clearly demonstrate that this expenditure will continue to grow, which may be attributed to the fact that more and more countries are joining the ranks of "aging societies". In March 2011, the World Bank published a report which clearly and precisely presents the situation: average expenditure of EU countries on health care in 2030 may even reach 14% of their GDP. It should be noted that in 2000, it amounted to 8% of GDP.

In this situation we should try to determine whether there is a country whose practice of health care expenditure could be considered an example to follow and a basis for benchmarking. This article tries to answer this question.

## **Expenditure on health care in European Union countries**

The problems of financing health care are known to practically all EU countries, including the wealthiest ones. Depending on the level of social and economic development of a particular country, the weight of given factors generating tensions in the system of financing health care differs. For developed western countries the biggest problem is the demographic factor, while in Poland we can observe the dominant effects of the technological factor. Political reaction to appearing tensions is the continuous process of reforms, most of which concentrate on the aspects of financing health care. The effects of reforms are changes in the level and structure of financing health care as well as shifts in expenditure structure between various services and particular providers of these services.

This part of the article compares expenditure on health care in particular European Union countries, based on varied health care systems and tries to analyze the state of these systems in selected EU countries.

In 2008, Austria experienced the highest share of expenditure on health care (per capita), amounting to 3407 euro (Figure 1), while the average figure for EU countries in 2008 was 2192 euro per capita. Expenditure on health care in most countries in the north and west of Europe were far above the EU average. The countries whose expenditure was below the average are mainly eastern and southern European countries. The lowest ratios were observed in Romania, Poland, Lithuania, Estonia and Hungary.







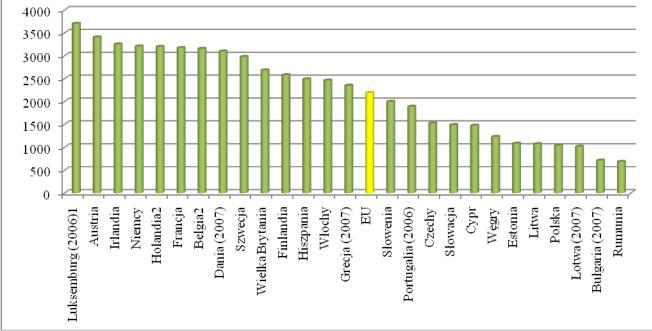


Figure 1: Total expenditure on health care (per capita) in 2008

1. Expenditure on health care (insured population)

2. Current expenditure on health care (excluding investments) Source: OECD Health Data 2010, Eurostat Statistics Database

Among EU countries, Luxemburg has the lowest share of private expenditure in total expenditure on health care. Public expenditure in this country constitutes over 90% of total expenditure on health care (OECD Health Data 2010, Eurostat Statistics Database). Only in Cyprus, expenditure on private health care exceed public expenses. In 2008 it was 622 euro per capita (public health care) to 855 euro per capita (private health care). In 2007 a similar situation could be observed in Greece. Although expenditure on private health care did not exceed public expenditure, in comparison to other European countries expenditure on private health care in 2007 was very high and reached nearly 40% of total expenditure on health care in this country.





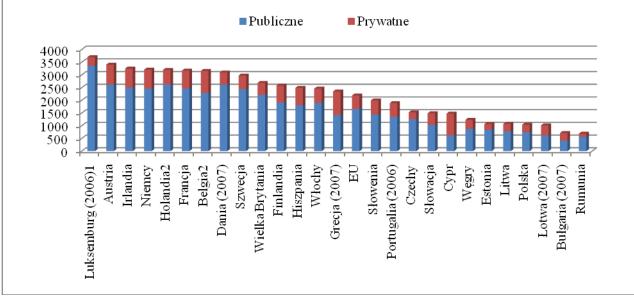


Figure 2: Public and private health care expenditure (per capita) in 2008

1. Expenditure on health care (insured population)

2. Current expenditure on health care (excluding investments) Source: OECD Health Data 2010, Eurostat Statistics Database

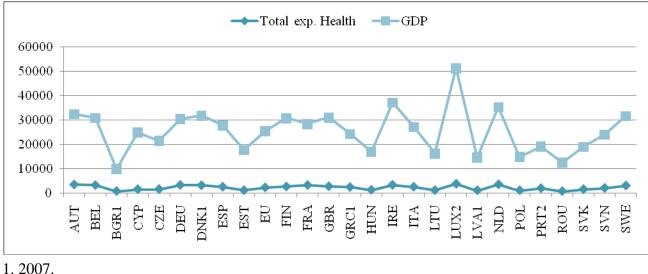
Taking into consideration the period of ten years (from 1998 to 2008), average annual growth rate of real expenditure on health care (per capita) amounted to 4.6% for all EU countries. A very high ratio, significantly exceeding the EU average, was observed in Slovakia (8.5%). In Poland it amounted to slightly over 6%. In many countries, the growth speed reached its peak in 2001-2002 and then noticeably slowed down in the past few years. The lowest average growth rate of real expenditure on health care (per capita) in the analyzed period of ten years was experienced in France (2.3%), Italy and Austria (2.4% (OECD Health Data 2010, Eurostat Statistics Database).

The graph below (Figure 3) shows total expenditure on health care per capita in relation to GDP per capita in particular EU countries. We can clearly see a positive relationship. In general, countries with higher GDP spend more on health care. However, GDP is not the only factor influencing the level of this expenditure. As an example we can quote here countries with similar GDP per capita which demonstrate considerable differences in health care expenditure. Although Spain and France have comparable GDP per capita levels, total expenditure on health care in the former is much lower than in the latter. In France it amounts to nearly 3172 euro, while in Spain it is only 2491 euro (OECD Health Data 2010, Eurostat Statistics Database).





# Figure 3: Total health care expenditure (per capita) and GDP (per capita) in EU countries in 2008



<sup>1. 2007.</sup> 2. 2006.

## Expenditure on health care in Poland

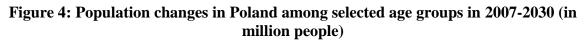
In comparison with most European Union countries, Poland allocates a small part of its GDP for health care. Expenditure per one inhabitant is not impressive, either. It is hard to decide whether expenditure on health care is too small in Poland. The sole comparison of the ratios of financing level does not lead to any conclusions – it does not give us the grounds for evaluating effectiveness of using resources or the quality of the system. As an example we can quote here the German and Swiss systems, characterized by the highest level of health care expenditure per capita in the world (second only to the American system). However, the effectiveness and achievement of health goals were much worse than in Austrian or Greek systems (WHO, 2000).

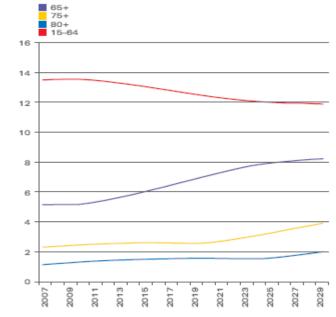
The aging societies of European Union countries require increasing expenditure on health care (increasing expenditure will of course be attributed to expenses on caring for old people). Therefore we can expect that in the longer period of time the expenditure on nursing and caring in Poland will grow. Can the changes in the age structure of Polish society really influence changes in size of expenditure on health care? The answer can be found in Figure 4 below 4.

Source: OECD Health Data 2010, Eurostat Statistics Database









Source: Boni, M. (2009). Polska 2030. Wyzwania rozwojowe, p. 69. Obtained from <u>http://www.premier.gov.pl/files/file/Dokumenty/PL\_2030\_wyzwania\_rozwojowe.pdf</u>

We can notice a clear growth trend in size of population aged 65 and more. How do other countries deal with this? Here we can quote another example. According to the Federal Statistical Office in Germany, in 2060 German society will have between 65 and 70 million people. It is estimated that in 50 years' time, Germany will have the same number of people over 80 as children and youth aged below 20. As we can see in the graph below, Germany is allocating over 10% of its GDP for health care, and in 2003 it was nearly 11%, a much higher figure than in case of Poland, taking into account the aging society aspect.





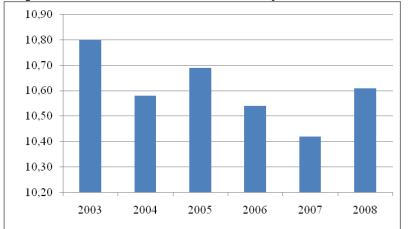


Figure 5: Expenditure on health care in Germany in 2003-2008 as % of GDP

Source: Own elaboration, on the basis of: Eurostat Statistics Database

Another vital issue in health care sector concerns "tightness" covering subjects obliged to pay contributions. The problem of expenditure on health care in Poland does not take into account the subject of "impregnation" of the financing system. The World Health Organization believes a fair system is the one in which every inhabitant contributes for health care the same part of their income exceeding the amount needed to purchase necessary food (Sowada, p. 5). The main objection raised against Poland is the fact that various professions enjoy different treatment, which contrary to the goals determined by World Health Organization (WHO) and violate the principle of financing health care in harmony with payment capabilities. In Poland, some citizens are exempted from making any payments, just because they are farmers, irrespective of the size of their income. Also various types of income are exempted from contributions towards health care, for example income from capital or property, task-specific contracts, etc. Instead of maintaining this specific schizophrenia, we should change the system and resign from using health insurance as an instrument of redistributing income or get rid of politically motivated privileges (Sowada, 2004, p. 5).

However, the problems of expenditure on health care versus the number of subjects obliged to make contributions are not the only issue troubling the health care sector. A vital issue here is whether expenditure on health care is effectively and efficiently used. This constitutes an element of a long-lasting debate on financing health care from public and private expenditure. On one hand, we have the voices calling for increasing public expenditure, on the other hand, we have indignation of people who want higher private expenditure.

In European countries we can observe a growing trend for increasing private expenditure. However, we should mention that the ratio of private expenditure to public one is not only the result of a precisely designed economic strategy. We should not forget all historical and ideological reasons as well as institutional development.

As late as in the 1980s, the Netherlands was a country with a great example of health care system, devoid of competitiveness. 2/3 of the Dutch society were covered by the public system, while the remaining 1/3 belonged to the private system. The change of the system, which became more effective and efficient, has become visible after some years, and only



Ministry of Science and Higher Education Republic of Poland



after twenty years we could observe some improvement. One of the key factors in this case was the shift of public expenditure to private one, and increased expenditure on health care measured in relation to GDP (%). It is worth mentioning that expenditure on health care per capita in USD (taking into account the purchasing power parity) also grew remarkably over the years.

The table below (Table 1) contains all the above-mentioned information.

Table 1. Experimente on nearth care in the rectionands						
	1988	1991	1998	2001		
Share of expenditure on health care	8.5	8.2	8.6	8.9		
in relation to GDP (%)						
Share of public expenditure in total	68.2	69.0	69.7	63.3		
expenditure						
Expenditure per capita in USD	1157	1409	2070	2626		
(taking into account the purchasing						
power parity)						

#### Table 1: Expenditure on health care in the Netherlands

Source: OECD, Health Data 2003

We should remember, however, that the application of the methods used in the Netherlands is not the remedy for "all evil". In light of what we presented before, namely historical reasons and institutional development, it is impossible to implement a formula or model which proved its effectiveness in another country. In case of Poland it means that it should be adjusted to the current economic situation or we should at least take into account the principle guaranteeing equal access to health services that all citizens should have. What is then expenditure on health care in Poland? This issue is presented in Table 2.



Republic of Poland



Wyszczególnienie	2007		2008	
	mln zł	% PKB	mln zł	% PKB
PRODUKT KRAJOWY BRUTTO	1 176 737	100	1 272 838	100
Publiczne wydatki bieżące	50 016	4,25	60 170	4,73
z tego:				
Wydatki budżetu państwa	4 779	0,41	5 347	0,42
Wydatki budżetów jednostek				
samorządu terytorialnego	970	0,08	1 014	0,08
Fundusze ubezpieczeń społecznych	44 268	3,76	53 809	4,23
Prywatne wydatki bieżące	20 872	1,77	23 224	1,82
z tego:				
Wydatki bezpośrednie gospodarstw				
domowych	18 337	1,56	20 025	1,57
Inne wydatki prywatne na ochronę				
zdrowia	2 535	0,22	3 199	0,25
Razem wydatki bieżące	70 888	6,02	83 393	6,55
Terrestraio	3 585	0.20	5 877	0.46
Inwestycje	5 385	0,30	58//	0,46
Wydatki ogółem na ochronę zdrowia	75 665	6,43	89 270	7,01

#### Table 2: Total expenditure on health care in Poland in 2007-2008

Source: Koziński, M. (2008). Główny Urząd Statystyczny, Narodowy Rachunek Zdrowia za 2008 rok, p. 2. Obtained from

http://www.stat.gov.pl/cps/rde/xbcr/gus/PUBL\_zos\_narodowy\_rachunek\_zdrowia\_2008.pd f

Million zloty, % of GDP, Gross Domestic Product, Current public expenditure, including: State budget expenditure, Territorial self-government budget expenditure, social insurance funds, Current private expenditure, including: Direct expenditure of households, Other private expenditure on health care, Investments, Total expenditure on health care.

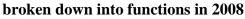
Having analyzed the above information, we can clearly see that current expenditure accounted for an overwhelming majority (as much as 93.4%). The structure of current expenditure covers expenditure made by government and self-government institutions as well as by private sector.

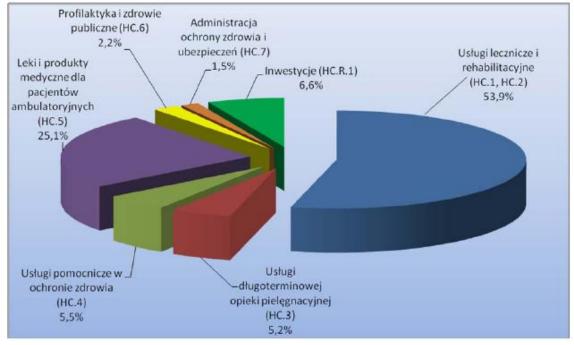
It is important to indicate what expenditure on health care was allocated for (Figure 6).



**Republic of Poland** 

Figure 6: Total expenditure on health care





Source: Koziński, M. (2008). Główny Urząd Statystyczny, Narodowy Rachunek Zdrowia za 2008 rok, p. 3. Obtained from <u>http://www.stat.gov.pl/cps/rde/xbcr/gus/PUBL\_zos\_narodowy\_rachunek\_zdrowia\_2008.pd</u> f

Figure 6: Medical treatment and rehabilitation services (HC.1, HC.2) 53.9%, Long-term nursing services (HC.3) 5.2%, Auxiliary services in health care (HC.4) 5.5%, Medicine and medical products for outpatients (HC.5) 25.1%, Prevention and public health (HC.6) 2.2%, Administration of health care and health insurance (HC.7) 1.5%, Investments (HC.R.1) 6.6% As we can see, expenditure on individual health care (covering medical treatment and rehabilitation services, long-term nursing services and auxiliary services) plays a dominant part in the breakdown of expenditure into functions. This directly relates to what we have already noticed, namely that a growing number of people aged 65+ will generate higher expenditure in health care.

### Conclusions

An ideal system of health care, adjusted to every country and balancing the amount of public resources allocated for health care with the amount and scope of services that could be delivered free of charge or for partial payment to the population, is still to be discovered. However, there are some examples of countries which successfully cope with the problems of health care sectors. What is more, their systems are considered efficient and worth imitating. The analytical center in Brussels called Health Consumer Powerhouse – specializing in health care and patients' rights issues, every year publishes the "Euro Health Consumer Index" ranking analyzing the quality of health care systems in 31 European countries. The index

Financial Internet Quarterly "e-Finanse" 2011, vol. 7, nr 4 <u>www.e-finanse.com</u> University of Information Technology and Management Sucharskiego 2 35-225 Rzeszów ISSUE CO-FINANCED BY THE MINISTRY OF SCIENCE AND HIGHER EDUCATION



Republic of Poland



takes into account six most important areas for patients: patients' rights and information, waiting time for treatment, treatment outcomes, range and reach of services provided, availability of pharmaceuticals and e-health.

The 2009 ranking places Poland on the 26<sup>th</sup> place, with total 565 points, which is not very impressive. We are still behind such countries as Estonia and Slovenia, not to mention Hungary or Czech Republic. The lowest places in the ranking were occupied by Romania, Bulgaria and Latvia. The winners are the Netherlands (863 points), Denmark (813 points), Iceland (811 points) and Austria (795 points).

#### **Final comments**

There is no doubt that financing health care in contemporary countries is one of key economic, social and political issues. Decisions concerning sources and principles of financing health care affect the quality of the whole health care system. Countries should follow good examples of the Netherlands (although each imitation of the system should be carefully and reasonably implemented) and remember that increasing expenditure on health care does not guarantee instant success and does not solve all problems related to the health care sector, although in favorable conditions it may facilitate improvement of the sector.

What will the future health care system look like? Will the issues currently constituting the ailments of European systems be solved? It is not easy to answer these questions. **Economist Intelligence Unit (EIU)** – a well-known analytical center in a report published in March 2011 indicates a number of directions in which the health care sector will develop.

Apart from growing expenditure on health care, the above-mentioned report indicates a likely scenario in which all European Union countries will create a common health care system, covering all member states. The report also indicates another possible scenario – of privatizing the whole health care together with its sources of financing, or focusing on treatment of those patients who are most defenseless.

One thing is sure, though. The society will have to take up more responsibility for health and treatment, while governments will have to pay more attention to streamlining the systems of gathering and processing data in order to appropriately evaluate their priorities.

### References

Björnberg, A., Cebolla Garrofé, B., Lindbad, S. (2009). Health Consumer Powerhouse Report. Euro Health Consumer Index, pp. 13-15. Obtained from

http://www.healthpowerhouse.com/files/Report-EHCI-2009-090925-final-with-cover.pdf. Boni, M. (2009). Polska 2030. Wyzwania rozwojowe. Obtained from

http://www.premier.gov.pl/files/file/Dokumenty/PL 2030 wyzwania rozwojowe.pdf.

Dobska, M., Rogoziński K. (2008). *Podstawy zarządzania zakładem opieki zdrowotnej*. Warszawa: PWN.

Eurostat Statistics Database. Obtained from

http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/.

Kautsch, M. (2010). Zarządzanie w opiece zdrowotnej, Warszawa: Wolters Kluwer.

Koziński, M. (2008). Główny Urząd Statystyczny, Narodowy Rachunek Zdrowia za 2008 rok. Obtained from

> Financial Internet Quarterly "e-Finanse" 2011, vol. 7, nr 4 <u>www.e-finanse.com</u> University of Information Technology and Management Sucharskiego 2 35-225 Rzeszów ISSUE CO-FINANCED BY THE MINISTRY OF SCIENCE AND HIGHER EDUCATION



Ministry of Science and Higher Education Republic of Poland



http://www.stat.gov.pl/cps/rde/xbcr/gus/PUBL\_zos\_narodowy\_rachunek\_zdrowia\_2008.p df.

OECD Statistics Database, Obtained from

http://www.oecd.org/document/0,3746,en\_2649\_201185\_46462759\_1\_1\_1\_1,00.html.

Sowada, Ch. (2004). Forum Ochrony Zdrowia. Wyzwania i Możliwości Rozwiązań, Warszawa, Prezentacja "Finansowanie opieki zdrowotnej - źródła i metody". [Health Care Forum. Challenges and Possible Solutions, Warsaw, Presentation "Financing Health Care – Sources and Methods"]

WHO, The World Health Report, 2000, Health Systems: Improving Performance. Obtained from <u>http://www.who.int/whr/2000/en/</u>.