FINANCING HEALTH CARE IN ROMANIA AND IMPLICATIONS ON THE ACCESS TO HEALTH SERVICES *

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Abstract:
The aim of the paper is to assess how the health financing system influences the access to health services in Romania. Although the funds allocated to the health system have increased in the last years, the access to health services remains a serious issue for many persons. We found that there are major differences regarding the access to health services in urban and rural areas. Among the factors that explain this difference we noticed the low number of medical staff, poor infrastructure, low personal income, and poor education. In order to offer better access to health services and to improve health outcomes, Romania has to use efficiently the current public resources and to attract private financial resources in the system.

Key words: financing, health care, access to health services, health sector reform.

JEL classification: H11, H51, I12

INTRODUCTION

Health care systems from Central and Eastern European (CEE) countries have faced profound reforms after the 1990s in the context of political, social, and economic changes that have marked these countries. The reforms have focused on all functions of the health system – financing, provision, stewardship and resource development (Anton & Onofrei, 2012). The features of health care systems and reform experiences vary substantially across emerging economies from Central and Eastern Europe (International Monetary Fund, 2010). Despite these reforms and increasing financing available, the performance of these health systems and the access to health services is still low compared to that reported for industrialized countries.

The aim of the paper is to analyze the influence of health financing system on the access to health services in Romania relative with other Central and Eastern European countries.

The differences in the access to health services between rural and urban areas in Romania have been documented by Predescu (2008) and Vlădescu *et al.* (2008). Predescu (2008) found that the major barrier of access are: very low salaries of the medical staff, poor health services covering, the absence of primary medical assistance in certain rural areas and the existence of poorly equipped medical units.

DATA AND METHODOLOGY

Our analysis uses annual data for twelve Central and Eastern European countries member of the European Union (EU-12): Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, and Slovenia. Due to the lack of data availability, we construct our database by using health related data provided by several international organizations for the period: 2006 - 2010. These are years for which data are available across a sizeable sample of countries from the CEE region.

We have analyzed three set of data: health outcomes, real health resources and health inputs.

In the literature the most used health outcomes (or health status variables) are: life expectancy at birth, infant mortality rate (per 1,000 live births), child mortality rate (per 1,000 live births), maternal mortality rate (per 100,000 live births) and incidence of tuberculosis (per 100 000 population per year).

As health inputs we have chosen total expenditure on health (in % of GDP)[i], public expenditure on health (PHE) as % of total expenditure on health (THE), and total expenditure on health/capita at Purchasing Power Parity (NCU per US$). For this data we have computed an average for the last four years available (2006-2009). Selected real health resources, as health input, are hospital beds (per 100,000), practicing physicians (per 100,000), pharmacists (per 10,000) and, as utilization rates, we have chosen immunization measles (percentage of children ages 12-23 months) and births attended by skilled health staff (% of total).

Eurostat provided data on the number of practicing physicians (per 100,000 inhabitants) and hospital beds (per 100,000 inhabitants). World Bank (WB) provided data for immunization measles from its most popular dataset, World Development Indicators (WDI). World Health Organization (WHO) provided most of the data we have used in the analysis.

EVOLUTION OF HEALTH EXPENDITURES AND IMPLICATIONS ON ACCESS TO HEALTH SERVICES

Romania spent on average about 5.31 percent of its GDP on health care during the period 2006-2009, which is lower than any of the EU-12 countries (see table no.1). Moreover, Romania has the lowest level of total expenditure on health per capita at PPP (712.15 USD) from EU countries. The level of this indicator is two times lower than the average for EU-12 countries (1,601.79) and four times lower than the average for EU-27 countries.

Health care in Romania is mainly financed (around 79.19%) from public resources. Only 20% of total expenditure on health comes from other sources such as co-payments, informal patient payments and payments from other insurance companies. For comparison, while EU-12 countries, on average, spend more on health care than Romania, much larger shares of their spending are privately financed. The health care system is not financially sustainable and runs persistent deficits: 1.9 billion lei in 2008, 2.15 billion in 2009, and 4.2 billion lei in 2010 (0.7% of GDP). These deficits have been covered starting 2008 from the national budgets.

Under the existing health insurance system, (very) low level of co-payments in combination with widespread exemptions from contributions to the health fund have increased the demand for health services. In 2010, the number of persons that paid contributions to the fund was 6.7 million, while 21.5 million people used million benefits of health services. Starting 2011, the number of payroll taxpayers has increased to 8.7 million, while 21.5 million people benefits of health services to the same extent.

Population aging is likely to exert further upward pressure on public finance, including through spending on health care. This challenge is strongly correlated with the decrease in the number of persons that are contributing to the health fund.

Romania has the lowest level of health expenditure as percentage of GDP in Europe, even if its growth rate for 2003-2008 was the highest. In addition, empirical evidence shows that these resources are used inefficiently. Despite the increasing resources allocated to the health sector, statistical analysis shows that health system efficiency, as measured by under-5 (child) mortality rate, is still low (Anton & Onofrei, 2012).

Health outcomes have improved considerably in Romania in the last ten years. The infant mortality rate has decreased from 19 to 10 per 1,000 live births in 2009 (see table no. 2), but the values are different between regions, urban/rural areas, and ethnicity. Under -5 (child mortality rate) has decreased from 22 to 12 cases per 1,000 live births and the maternal mortality rate improved significantly. We have noticed that there are large regional differences in health indicators that the national average masks. For example, the infant mortality rate at county level varies between 9 (Bucharest) and 25 (Ialomița county) deaths per 1,000 live births. This gap can be explained by large socio-economic differences between the regions and also by the differences in the public resources allocated for health in these regions. Furthermore, infant mortality rate in the rural areas has been two times higher than the infant mortality rate in the urban areas. In Romania, infant mortality among the Roma is nearly three times the average for the country (United Nations, 2009).

Table 1. Central and Eastern European Countries: Health Expenditures and Outcomes

Country	Total Expenditure on Health (in % of GDP)	Public expenditure on health (PHE) as % of THE	Total expenditure on health / capita at PPP	Life expectancy at birth	Infant Mortality Rate (per 1,000 live births)	Child Mortality Rate (per 1,000 live births)	Maternal Mortality Rate (per 100,000 live births)	Incidence of tuberculosis (per 100 000 population per year)
Bulgaria	6.53	54.87	822.58	74	10	11	13	40
Cyprus	6.07	40.77	1755.43	81	3	3	10	4.4
Czech Republic	7.12	81.47	1739.55	77	3	4	8	6.8
Estonia	5.84	75.55	1195.37	75	4	5	12	25
Hungary	7.54	69.05	1468.65	74	5	6	13	15
Latvia	6.37	60.13	1047.55	72	7	8	20	39
Lithuania	6.41	66.75	1137.75	73	5	6	13	69
Malta	7.66	75.89	4228.79	80	6	7	8	12
Poland	6.69	66.76	1159.39	76	5	6	6	23
Romania	5.31	79.19	712.75	73	10	12	27	116
Slovakia	7.90	66.78	1675.28	75	6	7	6	8
Slovenia	8.34	68.89	2278.37	79	2	3	18	11
EU-27 average	8.36	70.91	2697.74	78.33	4.22	5.11	9.56	-
EU-12 average	6.81	67.17	1601.79	75.75	5.50	6.50	12.83	12.83
Source, year	WHO, averages for 2006-2009	WHO, averages for 2006-2009	WHO, averages for 2006-2009	WHO, 2009	WHO, 2009	WHO, 2009	WHO, 2008	WHO, 2010

Compared to the European Union countries, Romania has performed worse than most EU-12 countries. Romania's performance is worse than the average for EU-12 countries in terms of all selected outcomes indicators: life expectancy at birth, infant mortality rate, child mortality rate, maternal mortality rate, and incidence of tuberculosis (see table 1).

Romania has registered the highest incidence of tuberculosis (per 100 000 population per year) in the European Union, even if the trend is downward in the last years. Also, Romania has the largest number of cases of other infectious diseases such as syphilis, hepatitis, rubella and mumps as consequences of low education and low living standards.

Table 2. Romania –Selected Health Outcomes in the period 1995-2009

Health Outcome/Year	1995	2000	2005	2009
Life expectancy at birth	-	71	-	73
Infant mortality rate	-	19	-	10
Under-five mortality rate	26	22	18	12
Maternal mortality ratio	72	52	31	27

Source: World Health Organization (http://www.who.int/nha/en/)

Life expectancy at birth in Romania (73 years) is the lowest in European Union, except Lithuania. As expected, life expectancy in the urban areas is higher as in the rural areas.

Compared with the averages for EU-12 countries, Romania performed worse in terms of all available outcomes indicators. In these conditions, healthcare reform (including the system of financing) is absolutely necessary.

In terms of **intermediate output indicators**, the performance is mixed. Romania's ratio of hospital beds per 100,000 inhabitants is higher than the average for EU-12 and EU-27 countries (see table no. 3). The number of hospital beds (per 100,000 inhabitants) varies from 300 in Ialomița county to 1.110 in Bucharest and 1.020 in Cluj county. This difference is obvious through the contrast between health outcomes.

Table 3. Central and Eastern European Countries: Selected Real Health Resources

Country	Hospital Beds (per 100,000)	Practicing physicians (per 100,000)	Pharmacists (per 10,000)	Immunization, Measles (percentage of children ages 12-23 months)	Births attended by skilled health staff (% of total)
Bulgaria	661.6	370	1.3	97	99.6
Cyprus	377.2	285.6	1.89	87	100
Czech Republic	710.1	355.5	5.75	98	99.9
Estonia	543.9	326.7	6.55	95	100
Hungary	715	302.3	5.76	99	99.5
Latvia	638.3	300.4	5.9	93	100
Lithuania	682.4	366.2	7.66	96	100
Malta	482.6	304.4	5.6	73	99.9
Poland	665	217	6.13	98	100
Romania	662.6	225.9	0.42	95	98.7
Slovakia	649.7	300	4.66	98	99.5
Slovenia	462.1	240.1	4.95	95	99.9
EU-27 average	550.9	-	-	93.63	-
EU-12 average	604.21	299.51	4.71	93.67	99.75
Source, year	Eurostat, 2009	Eurostat, data are for the latest year available during 2008-2009	WHO, data are for the latest year available during 2007-2009	WB, 2010	WHO, data are for the latest year available during 2006-2009

The number of practicing physicians per 100,000 inhabitants (225.9) is the lowest in EU-12 except Poland and it is also below the average for EU-12 countries (299.51). Moreover, Romania's ratio of pharmacists per 10,000 inhabitants (0.42) is eleven times lower than the average for EU-12 countries (4.71).

At country level, we noticed a gap between urban and rural areas. In rural areas, the number of practicing physicians is five times lower than in the urban areas. There are also significant differences in the number of medical institutions (pharmacies, hospitals, health centers). Many villages have no pharmacy in their neighborhood.

The lack of health personnel is becoming a chronic issue of the Romanian health system as long as more and more physicians and nurses are choosing to work abroad for different reasons. Even if the data on medical doctor's migration are scarce, some estimations show that over 9,000 doctors (from a total of 48,000) have requested verification certificates since 2007. In these circumstances, the access to health services is decreasing especially in the rural areas, while the functioning expenses of the health system are increasing.

The only indicators for which Romania outperform the average for EU-12 countries is immunization measles.

Low financial resources together with low real health resources (hospital beds, practicing physicians and pharmacists) have a significant influence on the access to health services. Many persons, especially in the rural areas, have no access or difficulties in accessing health services. We found many factors that explained/hindered the access to health services: unpaid contribution to the insurance fund, low income, and lack of health services in the area of residence or limited number of health units or hours of operation. The transport to nearest medical facility open is usually difficult, preventing access. Furthermore, pharmacies are rare in rural areas.

Also, access to health services is influenced by ethnicity. For example, only 47% of Roma women and 50% of Roma men said they had health insurance compared to 84% and 80% of total population (Sava and Menon, 2007).

CONCLUSIONS

Although in Romania the health outcomes have improved in the last ten years, the health system is facing numerous challenges. One of the most important challenges is to ensure greater access of citizens to basic medical services. In the rural area the poor infrastructure and insufficient medical personnel hinder the access to basic health services.

Romania has to reform its health financing system in order to offer better access to a range of needed services and to improve health outcomes. From a financial perspective, the challenges are how to find the financial resources the system needs and how to use them optimally. In the same time, a special attention should be paid to the preventive health services and to the primary health care, especially in the rural area. Another important step in assuring greater access to health services is to facilitate a higher competition among health care providers.

[1] *Total health expenditure is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. Total expenditure on health as a percentage of gross domestic product provides information on the level of resources channeled to health relative to a country's wealth and therefore it is often used in comparison between countries at international level.*

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