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The Crisis Impact on the Romanian Health System and Population Health

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Alin Iulian TUCMEANU⁴, Ileana ANTOHE⁵

Abstract

The global crisis has affected the Romanian economy during 2008-2014 being a key factor with a significant negative impact on the health system and population health. The aim of this study is to assess the impact of the crisis upon the Romanian health system as the main socio-economic determinant of population health and to explore the results of the austerity policies meant to control the negative consequences of the crisis. We have investigated the crisis impact on socioeconomic determinants of health taking into account the main macro-economic indicators registered during crisis period of time. In our analysis we used the population health indicators as health system outcomes. Romania occupied the last place in the EU as regards the health spending share from the Gross Domestic Product, with 5.68% in 2009, while the EU health spending grew up towards 8.9%. We pinpoint the decrease of the nominal spending of hospitals in 2010 comparing with 2009 (-10.55%), after the closure of 69 public hospitals. In 2009, the family medicine received a budget 24% lower than in 2008. The allocated revenue for medicine consumption in 2009 was of 2.18 billion RON (with 29.5% less than in 2008). The degradation of the health of the population was caused by the Romanian significant decrease of the economy, the economic crisis and its negative impact upon the Romanian health system. These factors generated the depreciation of the population health, the underfunding of the health system and impairment of the quality of health services.

Keywords: health system, economic crisis, determinants of health, financing, poverty.

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Introduction

The financial crisis began in USA in the autumn of 2008 and rapidly degenerated by contagion everywhere, becoming a global economic crisis in the next year. The causes generating the crisis were not corrected, despite all declared efforts (Georgescu, 2012). The Commission on Social Determinants of Health of the World Health Organization (WHO) has examined the global conditions of the economic crisis and elaborated a Report on the crisis impact upon vulnerable groups, addressed to the governments (Parry & Humphreys, 2009). The economic crisis in Romania had an important negative impact because the Romanian health system had already a lower than needed resources level (Forna & Gribincea, 2014; Agheorghiesei *et al.*, 2013).

Methodology

The aim of the present study was to analyze the impact of the crisis upon the Romanian health system and to reveal the efficacy of the austerity policies implemented to control the negative consequences of the crisis. The specific objectives of the study were: (1) To assess the crisis impact upon the Romanian health system (main social determinant of health); (2) To describe the effects of the changes in the Romanian labor market and the working force factors (unemployment, reduced perspectives of re-engagement, low revenue after paying taxes) on life conditions, life style and the health of population; (3) To evaluate the results of the austerity policies and anti-crisis measures on the health system.

In the present retrospective study, the vulnerable indicators of the crisis were selected and classified into two categories: indicators evaluating the crisis impact on the health system and indicators evaluating the impact of the anti-crisis measures and austerity policies. The first part of the paper highlights the crisis impact on some socio-economic determinants of health discussing the most important macro-economic indicators registered in Romania during 2008-2014 period of time with the aid of descriptive statistics and comparative analysis. The second part of the paper pinpoints through comparative analysis the crisis impact on the population health status, depicted by the European Core Health Indicators (ECHI) as health system outcomes.

The economic-financial impact of the crisis was studied using comparative analysis of the health services financing, the health programs financing and the consumption of compensated medicines from the National Health Insurance Fund (NHIF). The political impact was evaluated by the analysis of the efficacy and consequences of the austerity policies targeted at lowering the global crisis effects. The study was limited to the available European and national data sources.

Results and discussions

The determinants of health are classified into four groups: factors concerning human biology; environmental factors; macro-economic and socio-economic, cultural, educational; health system factors (Zanoschi, 2003). Each group includes direct and indirect determinants. The main direct determinants refer to human biology, life style (smoking, diet, alcohol drinking, drugs intake), physical and social environmental conditions (housing, the access to potable water and the hygienic conditions) and social group behavior (violence). Social determinants of health are those social conditions (and their population distribution) which influence individual and group differences in health status. The main social determinants of health are: unemployment, low social status, poverty/social exclusion, Gross Domestic Product (GDP), the socio-demographic alterations in the population structure, crisis situations etc.

The crisis impact on the main socio-economic determinants of health

Starting with 2008, on the international market there were signals announcing that “*the economy is facing a new economic-financial crisis...*” (Lin, 2008). These signals came from the economic evolution of developed countries (USA, Great Britain, Spain, etc.), but Romania did not understand these signals. Romania faced a significant economic decline during the global crisis. The recession began in the third trimester of 2008, and continued in 2009 and 2010. Romanian economy gave signs of stabilization in 2011 (due to a good agricultural production), but after the 2011 end there were registered two consecutive trimesters of economic regress, meaning recession (Georgescu, 2012). Also, the economic situation was characterized by micro-economic unbalance for the real economy and also by a precarious macro-economic balance, after the impact of the fiscal consolidation policies implemented to attenuate the crisis effects.

The impact of the crisis on the economic growth

The synthetic indicator of the economy evolution is represented by the Gross Domestic Product. Romania had an increased rhythm of GDP during 2007–the former half of 2008, greater than other EU countries. The data published by National Institute of Statistics (INS) indicate that, after a 7.34% real increase in GDP, in 2008 compared with the previous year (Table 1), the economic crisis has been stronger in Romania than in other EU countries and slowed down the growth of the GDP to 6.576%, in 2009 (*Figure 1*).

Table 1. The Gross Domestic Product of Romania

Indicators:	Year						
	2008	2009	2010	2011	2012	2013	2014
GDP (Billions RON)*	503.9	491.3	523.6	556.7	587.5	623.3	669.5
GDP (USD Billions)	204.335	164.345	164.436	189.775	169.395	169.180	189.660
GDP (Billions €)	139.765	118.196	124.328	131.327	131.747	144.2	151.9
The annual variation (%) of GDP	+ 7.34	- 6.576	- 1.149	+ 2.159	+ 0.689	+ 3.53	+ 2.9

Source: *National Institute of Statistics (NIS); World Bank (2013): data.worldbank.org/indicator NY, GDP

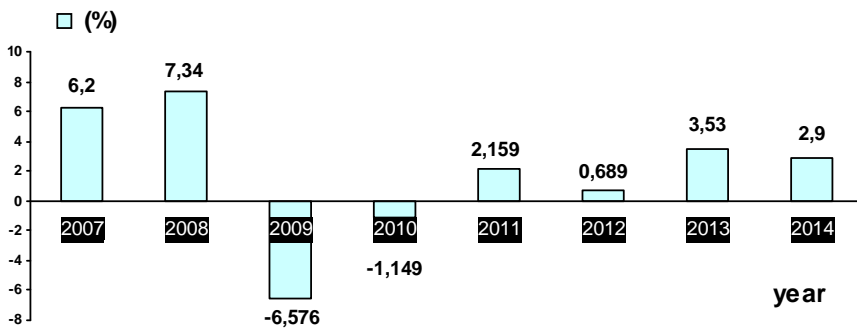


Figure 1. The annual variation (%) of the Romanian Gross Domestic Product-during 2007-2014 period of time

Source: World Bank (2013): data.worldbank.org/indicator NY, GDP

The straightening out rhythm of GDP remained low during the following years, due to the contagion effect within the Euro-zone (Sinca, 2013). This slow recovery suggests that the crisis left lasting scars in the Romanian economy. The Gross National Income *per capita* indicator (GNI/*capita*) best reflects the country well-being. This indicator registered one of the lowest values in 2010 (€5.689); in Romania, it registered lower values (49%) than the EU-27 average. Significant differences in the GNI/*capita* value are to be found between the Romanian regions. The North-East region recorded the lowest value; there were only two regions (Bucuresti-Ilfov and the West Region) which exceeded the national average to this indicator.

The crisis impact upon the work force

The global crisis had an important negative impact on the structure of the work force, bringing about the rise of unemployment alongside with the reduction of the occupied population. Romania registered the lowest level of the work force occupation in the EU-27 during the analyzed period of time. After the economic rise, registered during 2005-2008, starting with 2009 the occupied population began to fall reaching in 2011 the lowest ever registered value (9,138,000 persons). In 2012, data published by the National Institute of Statistics (NIS) showed that the occupied population was 9,263,000 persons; 55.3% were male, 54.8% were from urban areas (NSI, 2012). The private sector represents the engine of Romanian economy. It absorbs most of the work force. The number of employees decreased dramatically during 2008-2011 period (*Figure 2*), the most significant drop in number of employees in EU-27.

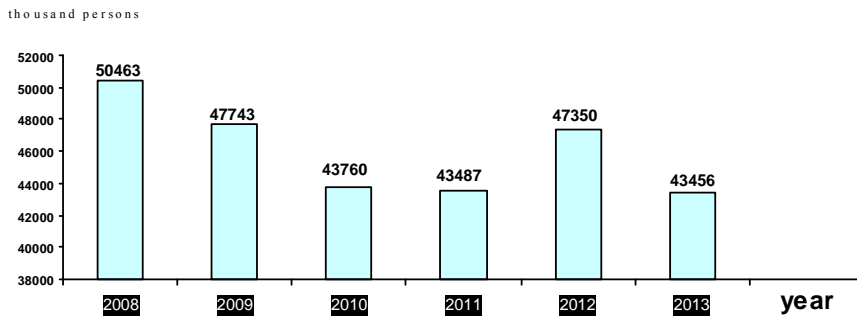


Figure 2. The number of employees in Romania during 2008-2013
Source: NIS

The decrease was the result of many causes, as following: economic crisis that led to bankruptcy of many companies; the movement of certain companies with foreign capital in other areas with lower level of the taxes etc. About half a million work places (especially in industry and constructions) disappeared. The number of employees from the public sector registered a decrease starting with February 2009. The private sector accounted for 66.2% of the employees in 2011 (NSI, 2012). For the next period a slow increase of the number of employees is expected, due to the hope on the Romanian economy revival.

All aspects related to the work force have an important influence on the population health. Unemployment is associated with increased poverty risk/social exclusion, poor mental health and suicide (Dima-Cozma *et al.* 2014). There is a circular relation between employment and health. “A poor health status has an

impact upon the work possibilities; at the same time, unemployment contributes to poor health through more circuits: social, emotional, behavioral, material". The lack of revenue has the strongest effect (European Commission, 2011). The number of unemployed people was 709,383 in Romania, in December 2009 (Table 2). There was a decrease of the unemployed to 493,775 persons until December 2012. The registered rate of unemployment in 2011 and 2012 was established to 5.12%, respectively 5.59%. This was partially due to the elimination of the school and faculty graduates, whose period of payment expired (ANOFM, 2012).

Indicators:	Year						
	2008	2009	2010	2011	2012	2013	2014
Registered unemployed (persons) December	403,441	709,383	626,960	461,013	493,775	512,333	478,338
Registered unemployment rate (%) ANOFM	4.4	7.8	6.87	5.12	5.59	5.85	5.29
Unemployment rate (%) ILO report	5.79	6.89	7.28	7.40	7.04	7.31	7.17

Table 2. The unemployment in Romania in the period 2008-2014
 Source: <http://www.anofm.ro>

The unemployment rate published by the International Labor Office (ILO) differs, because the unemployment rate is calculated as a percentage of the unemployed from the active population.

The crisis impact on poverty risk

In European view, “there are considered to be poor, those persons, families or groups, whose resources (material, cultural or social) are so limited that excludes them from the minimal life standards considered to be acceptable in the societies where they live”. The European Union used a relative definition of poverty: a person is poor if he/she has “an income under 60% of the mean national income available” (Antuofermo & Di Meglio, 2012). Poverty is one of the most important social determinants of health. In case of illness, the poor persons make important direct expenses for health and associated services, exceeding 40% from the entire household expenses. These people are exposed to the risk of losing the health rights, because they can’t afford to sustain the private expenses associated to health care (Dragomiristeanu, 2010; Gavrilovici & Oprea, 2013).

According to the latest data from EUROSTAT, in 2013, 24.5% of the population (or 122,600 thousand people), in the EU-27 were at risk of poverty or social exclusion. In 2012, 24.8% of the population (124,200 thousand people), were at risk of poverty or social exclusion, compared with 24.3% in 2011, but is higher than in 2008 (23.6%). One of the five headline targets of the Europe 2020 strategy is to reduce the number of people living at risk of poverty or social exclusion by 20 million by the year 2020. The Eurostat data shows that in the

2008-2013 period, Romania registered highest rates of poverty risk or social exclusion, but the at-risk-of-poverty/social exclusion rate has slightly decreased from 2008 to 2013 (from 44.2% to 40.4%) - *Table 3*.

Indicators	2008	2009	2010	2011	2012	2013
EU27- poverty risk (<i>thousand persons</i>)	115,694	113,773	116,206	119,758	124,200	122,600
EU27- poverty risk/social exclusion rate (% from EU population)	23.6	23.1	23.5	24.3	24.8	24.5
EU27- Severe material deprivation (%)	8.5	8.2	8.4	8.8	9.9	EU28- 9.6
Romania- poverty risk (<i>thousand persons</i>)	9,420	9,112	8,890	8,630		8,600
Romania- poverty risk/social exclusion rate (%)	44.2	43.1	41.4	40.3	41.7	40.4
Romania- Severe material deprivation (%)	32.9	32.2	31.0	29.4	29.9	28.5

Table 3. Indicators of the poverty risk/social exclusion

Source: Eurostat. ec.europa.eu

According to the Europe 2020 Strategy, the Government of Romania has set an ambitious national target of reducing the number of poor and socially excluded by 580,000 people (Eurostat, 2014). The main causes with a negative impact on poverty are the high level of unemployment and the lower level of the income. Romania had the highest rate of poverty risk of the working persons from Europe (17%) in 2008, before the crisis debut. The situation was more difficult in 2012, when the poverty rate of the working persons was double compared with the EU27 average. Romania continues to be the bottom of the table of minimum wages in Europe, show the Eurostat report (Eurostat, 2013). Poverty has an important territorial dimension in Romania, affecting especially the population from the N-E, S-E and S-W regions. Besides maintaining a low level of income among members of a community, poverty includes limiting access to services such as education, health, decision-making and lack of communal facilities like water, sanitation, roads, transport and communication. In 2010 Romania ranked fifth in the EU in regard to income inequality. With a Gini Coefficient of 33.3, Romania was placed among the most unequal countries in EU, having a level of income inequality significantly higher than the EU-27 average (30.4) (Eurostat, 2013).

The crisis impact on the real revenue

An important decrease of the real salary in most European countries (15 from 27) was registered during the analyzed period. Romania was the country with the greatest salary decrease from UE. The decrease of the real incomes had a negative economic impact, because the population consumption was 60% from GDP. Due to crisis context, the total home spending of the population was 9% lower than the 2008 one (NIS, 2013). A huge disparity of the real income was expected by the National Commission for Prognosis (NCP) on Romanian territory. Bucuresti-

Iffov region registered the highest level of mean monthly net salary (2,330 RON in 2013) and the lowest was encountered in the N-E region (1,404 RON in 2013). The estimated average value of the mean monthly net salary for the entire country was 1,660 RON in 2013 (NCP, 2012).

The crisis impact on the Romanian Health System

The Romanian health system was financially sustainable despite a long period of transition. A continuous decrease of the number of contributors to health revenue occurred after 2008. This was registered because of changes in the economy structure caused by the economic crisis. The number of the employees progressively decreased from about 9,000,000 in 2000, to 5,040,000 in 2008 and respectively 4,370,000 in 2010. The sub-financing of the health system is an old issue. The *health spending share* in 2008 placed Romania on the last place in Europe. The same situation was maintained in 2009 and 2010, when the health spending share was respectively 5.68% from GDP (WHO, 2011: 132). The health spending share from the GDP rose to 8.9% in the EU, in 2010. The relevant indicator of the financing of the health system is the *health spending per capita (per inhabitant)*. The total spending for health *per capita* was 400.8 \$USA in 2008, placing Romania on one of the last places in EU. The financing of the health sector in Romania is mostly provided by the public sector (82% in 2008, 79% in 2009 and 78.1% in 2010) (WHO, 2011: 132). The participation of the private sector in the health financing in Europe (EU27) is 27%. In Romania, the participation of the private sector was lower (18% in 2008 and 21% in 2009), representing 1% from GDP. The biggest part of the revenue came from direct payments. Three quarters of the public financing of the Romanian health system comes from the National Health Insurance Fund (NHIF) - *Table 4*. A critical analysis reveals that Romania decreased the level of the contribution to the social health insurances in the economic crisis period, in 2008 (from 12.5% to 11%) and 2009 (to 10.7%).

Table 4. The revenue of the National Health Insurance Fund

Indicators	2008	2009	2010	2011	2012	2013 Jan-Sep
Contributions from engagers (<i>billions RON</i>)	7.02	6.83	6.52	6.64	7.25	5.70
Contribution from insured persons (<i>billions RON</i>)	6.84	6.34	5.97	6.62	6.62	5.56
Contribution from pensioners (<i>billions RON</i>)	0.20	0.24	0.28	2.03	1.22	0.64
State budget (<i>billions RON</i>)	0.20	0.24	3.49	2.03	1.39	3.46
Total revenue (<i>billions RON</i>)	15.78	14.62	17.26	17.82	19.45	16.08

Source: <http://www.cnas.ro/>

The National Health Insurance Fund was difficult to manage during the analyzed period, because of the decrease of the revenue (caused by the lowering of the contribution level and the impact of the crisis), and the increase in spending (due to the problems with the compensated medicines). Alongside with NHIF, the Romanian public health system has also used its own revenue from the Ministry of Health (HM). These came from taxes on alcoholic beverages and smoking products (“*the vice tax*”) and from “*the claw-back tax*”. In 2011, *the vice tax* generated revenue of 1,2 bln. RON for the HM budget, and *the claw back tax* brought 240 million RON (CNAS, 2012).

The financing of the primary health services

The primary health services are provided in Romania by the individual family health offices. Social Health Insurances settled contracts with 11,388 family doctors (GPs) in 2009. Over 94% of the total population was registered to GPs. The primary health assistance received limited revenue during the crisis period: in 2008 the primary health services received 1.13 bln. RON (10.28% from NHIF); in 2009, 1.1 bln. RON and 1.19 bln. RON (12.4% from NHIF), in 2012. All these values were under EU27 average value of 25%. Family medicine received in 2009 a budget lower with 24% than 2008. The diminishment of the revenue was generated by the decrease of the value of the point, from 4.66 RON (in 2008) to 4.25 RON (in 2009), and the decrease of the fee service from 2.34 RON (in 2008) to 1.50 RON (in 2009). During the former half of the year 2012, the point values, used to calculate the primary health services payments, were of 3 RON and 3.5 RON for the last 2 terms.

The financing of the secondary medical assistance

The secondary health assistance is formed of specialty and laboratory medical services offered in outpatient settings, in consulting rooms, ambulatory sanitary units, medical laboratories, diagnostic and treatment centers and multifunctional medical centers. All these sectors settled contracts for the delivery of medical services with the social health insurances. The National Health Insurance Fund settled 2,744 contracts with specialty offices and ambulatory medical units (including 11,400 physicians) during 2009. The revenue used by NHIF in 2009 for secondary health services was 2.15% (320,000 000 RON) and 2.15% (380,000 000 RON) in 2012 (CNAS, 2012).

The financing of the dental medicine services

The public providers of dental medicine services activate together with the private providers in Romania. The outpatient dental services are delivered by 14,529 dental offices, 90% with private practice. The public expenses for oral health during 2009 were of 97,516 000 RON (0.44% from NHIF), representing 4.54 RON *per capita*, meaning 20 times lower than in the majority of the European countries. In 2012 the value of the dental medicine ambulatory services was 57,879 thousand RON (0.32% from NHIF). The national mean value/dentist specialist/month was of 1,050 RON in 2012, for a daily program of 3 hours/day with the duty of the dentist physicians to solve the dental medicine emergencies over the entire program (CNAS, 2012). Romania is the only EU country where children do not receive free or partly compensated oral healthcare, including prevention. Worse even, in the middle of 2013, the public financing for dental medicine services was stopped.

The financing of hospital services

The third level of medical assistance is delivered in sanitary units with beds (hospitals), under the form of continuous assistance or day care. This is the domain with the greatest population addressability, and the most expensive sector of the Romanian health system. The health system had inherited an over-dimensioned hospital sector, together with inflexible financial and institutional rules. There were 503 hospitals, 430 of which being public hospitals (370 subordinated to the County Council and Mayor's Office) in 2010, in Romania. The hospitals sector spent the most part of the NHIF budget (44.8% in 2008 and 47.7% in 2009), augmented by HM funds for infrastructure interventions, medical equipment supply, together with the local public authorities given funds. The spending was 7.58 bln. RON (41.9% from NHIF), from which 7.49 bln. RON (41.63%) for general hospitals, but half of this spending was allocated to the 67 emergency hospitals in 2012. In table 5 we underline the significant decrease of the nominal spending of the hospitals. In Romania there existed 12 private hospitals in 2006, but in 2012 their number increased to 86. Forty private hospitals were in contractual relationship with NHIF in 2009, but in 2010 there were 52. The private hospitals received from NHIF 150,703,000 RON in 2011, increasing with 40% the next year, in 2012 getting to 213,500,000 RON (CNAS, 2012).

Table 5. The indicators of inpatients hospital discharges

Reported cases in:	2008		2009		2010		2011		2012	
	No.	%	No.	%	No.	%	No.	%	No.	%
Continuous hospitalization	5,118,416	69.34	4,860,200	67.57	4,289,817	68.02	3,896,163	69.16	3,758,370	63.53
Day hospitalization	1,262,686	30.66	2,332,713	32.43	2,016,805	31.98	1,737,051	30.84	2,157,875	36.74

Source: <http://www.cnas.ro/>

The movement of funds from the public sector towards the private one determined the reduction of the NHIF spending for public hospitals with 10% in 2012.

Spending on medicines

The allocated fund for medicines in 2009 was of 2.18 bln. RON (29.5% less than in 2008). The elimination of the limits for the compensated medicines in 2008 generated an increase of the consumption. Together with the reduction of the total revenue, this generated great debts in 2009 and 2010. In order to pay these debts, the NHIF was subsidized from the state budget with over 4.0 bln. RON, used to pay the medication consumption of the previous year (in 2010 for 2009, in 2011 for 2010). The payments for 2011 (6.0 bln. RON) were bigger than the yearly medication consumption, because the debts from 2010 were paid out. The spending on compensated medicines represented 18.5% (3.09 bln. RON), in 2008, 14.5% (2.18 bln. RON), in 2009 and 22.2% (3.9 bln. RON, in 2010). In Romania the spending with medicines, as percentage from the total health allocated budget, are bigger than EU27 average. Considering the medicines spending *per capita* (in €), and taking into account the population purchasing power, Romania has the lowest EU value (156 €).

The financing of the national health programs

The national programs have the legal aim to prevent and treat some illnesses with major impact on the population health and in some cases (AIDS, tuberculosis) with high epidemiological risk. These programs are financed from the State Budget and NHIF after the Budget Law is adopted every year. The spending on the health programs was 10.8% in 2008, 14.1% in 2009 and 12.8% in 2010 from the total NHIF, as shown in *Table 6*.

Table 6. The Financing of National Health Programs

Spending with national health programs	Year	State Budget (thousand RON)	Own revenue (thousand RON)	Total Budget (thousand RON)	Of which: NHIF transfer (thousand RON)
Total	2008	346,810	1,239,864	1,586,674	1,238,364
	2009	406,813	932,534	1,339,347	852,976
	2010	468,034	1,237,262	1,705,296	1,264,851
	2011	471,360	1,214,137	1,685,497	1,183,973

Source: <http://www.cnas.ro/>

The greatest number of beneficiaries from the health national programs in 2009 was enrolled in the Diabetes Program (565,000 patients), followed by the Oncology Program (97,000 beneficiaries). The subprogram for Treatment of Tuberculosis included 42,000 people, the Program for Cardiovascular Diseases included 29,000 patients and the Program of Endocrinology included 22,000 patients. Other beneficiaries were included in the Subprogram for Persons with AIDS Treatment and Monitoring (15,000 patients), in the Orthopedics (11,000 patients) and Renal Dialysis (10,500 patients) (CNAS, 2012).

The crisis impact on the long term sustainability of the social health insurances

The Romanian population uses more medical services than the social insurances availability allows. The NHIF, the main financing source of the Romanian health system, proved not to be financially sufficient. A deficit of 1,900,000 million RON it was registered in 2008, 2,150,000 million RON in 2009 and 4,290,000 million RON in 2010 (0.7% from GDP). These sums were covered by transfers from the State Budget.

The crisis impact on the human resources from the health domain

People are the only strategic resource of the Romanian health system and in spite of this there are no coherent policies for human resources. This lowers the motivation and the stability of the medical staff and determines serious imbalance. The analysis of the indicators related to providing the population with specialized medical human resources shows inequalities between urban and rural areas. Sixty three percent of family physicians, 87.5% of the dentists, and 84.8% of the pharmacists are working in urban areas (Dragomiristeanu, 2010).

One main problem of the Romanian health system consists in the level of the salaries. An acceptable salary for a physician within Europe should be three times greater than the average salary on economy. A specialist physician working in the Romanian public health system receives as much as 1.5 average salary on economy. Significant salary differences exist within the same medical specialty regarding the professional degree, and between the different specialties with the same professional degree (Duma & Rosu, 2012). The average of the real salary income in the public sector was 86% from the average national gross salary during the analyzed period. In Romania this was worsened by the 25% reduction of the public system salaries, starting with 2009, as an austerity policy. This policy was stopped in 2012 but the average gross salary from the public health system did not come back after the recovery of the salary decrease of 25% (1,387 RON in 2008, respectively 1,344 RON in 2012).

The exodus of the physicians became worrying because of the under financing of the public health system compared with other countries. The public health system employees are working in improper conditions, in inadequate spaces for medical activities and without the necessary protection materials. The workload and the length of the work time are greater in the medical sector than those in other domains of activity. Other specific factors such as stress, the over solicitation at the work place, the lack of recognition and respect for the importance of the activity done by the medical staff and the low salary level explain the reasons for the professional emigration in the Romanian public health sector. The National College of Physicians reports that Romania lost 10,000 physicians before joining the EU (CMR, 2013). Afterwards the emigration tendency increased (*Table 7*). The greatest number of leaving physicians was from the specialties: general practitioner, general surgery and anesthesia–intensive therapy.

Table 7. The number of the physicians that left the country

Year	No of persons
2008	1,252
2009	1,900
2010	2,779
2011	2,841
2012	2,000

Source: <http://www.cmr.ro>

The physicians request from the Ministry of Health a notification about the diplomas legality and a professional certificate (*good standing*) in order to work abroad. The HM delivered in 2012 a number of 6,160 notifications for physicians and 3,509 notifications for nurses.

The crisis impact on the health of the population

Romania suffered great economic, political and social imbalance during the crisis, with significant impact on the population health. The degradation of the health of the population was due to the economy fall, determined by the crisis itself and its consequences (the increase of the unemployment, the worsening of the life level, the sub-financing of the health system, and the impairment of the quality of the health services). The performance of the Romanian health system is one of the lowest in the EU, especially regarding the main European Core Health Indicators (ECHI) as health system outcomes (WHO, 2010). The consequences are evident at the general population level. The crude birth rate had a decreasing tendency during the analyzed period. The new socio-economic reality generated the decrease of the crude birth rate and maintained it at low values. The EU27 average value of this indicator was 10.7 ‰ (in 2009); while in Romania the value was under the average European level (10.4‰ in 2009 and 9.2‰ in 2011) (INSP, 2011). This aspect is explained by the precarious socio-economic conditions, the low living level of the population (Untu *et al.*, 2015) and the emigration increase.

Romania is among the countries with high mortality level, even if during 2009–2012 the crude mortality rate was stabilized around the value of 12‰. Infant mortality is an important demographic phenomenon and also a significant indicator of the socio-economic development (INSSE, 2013). Romania had one of the highest infant mortality rates in Europe (9.4‰ in 2011). This indicator had great regional disparities; the N-E region registered the greatest value of this indicator (14.2‰). The values for rural area are greater (11.8‰) than those of urban area (7.5‰) for the same indicator (Dragomiristeanu, 2010). The age-adjusted mortality rate through all causes (954.4/100000 inhabitants in 2009, respectively 1198.8 in 2012) was greater than the EU27 average (601.2/100000 in 2009). The cause-specific mortality rates by cardiovascular diseases, cancers and digestive diseases were high in Romania starting with 2009 (INSP, 2011). The cardiovascular diseases represented the first mortality cause (548.4/100000 inhabitants in Romania towards the EU27 average of 216.8/ 100000 inhabitants). A quarter of this value was registered in persons under 60, in 2009. Although in EU the cancer mortality trend decreased, in Romania the standardized mortality rate value for cancer significantly increased from 181.3/100000 inhabitants in 2009 to 230.2/ 100000 inhabitants in 2012. The standardized mortality rate through digestive diseases was high (75.4/100000 inhabitants in 2009) compared with the average level in EU27 (62.0/100000 inhabitants in 2009). The mortality through hepatic diseases was the highest in EU27 in Romania, in 2009.

A high level of the avoidable deceases was also registered. Alcohol abuse also generates circulation accidents, cardiovascular diseases, hepatic cirrhosis (INSP, 2011) and homicides (2.2/100000 inhabitants in 2009, compared with the average EU27 of 0.9/100000 inhabitants). Romania registered a high morbidity rate as a direct consequence of poverty, low educational and living standards (Anton, 2012). Infectious diseases, such as hepatitis (type A—17.35 new cases/100000 inhabitants, compared with EU27 average of 3.47, in 2009), tuberculosis (108.2 new cases/100000 inhabitants compared with the EU27 average of 15.9 in 2009) and sexually transmitted diseases, especially syphilis (18.7 new cases/100000 inhabitants, compared with EU27 average of 3.7 new cases/100000 inhabitants) were high as before crisis. The Romanian state paid more than 2 million sick leaves, with over a thousand million RON, for morbidity with temporary work incapacity in 2012. Life expectancy at birth is one of the key indicators which measure the health and the development state. In Romania, life expectancy at birth for women was 77.4 years and for men 69.8 years (in 2009 life expectancy at birth in the EU was of 76.4 years for men and 82.4 for women) (INSSE, 2013). A study of the Economic Prognosis Institute (IPE, 2011) of the Romanian Academy, with the aid of PhRMA-Local American Working Group, shows that Romania loses about €18,600 000 million, representing 15% from the 2010 GDP, because of the precarious health state of the population. Romania could have a plus of €6,700 000 million in revenue if the health state of the population were the same as the EU27 average. This could happen if the Romanian health system will receive 8.5% from GDP in the next ten years.

The austerity and anti-crisis measures

The Government introduced some budgetary and structural reforms, trying to lower the crisis effects during 2009 and 2010, but these were not enough to resist against the global pressures and to attract foreign investors. In 2010 the Romanian Government signed a financial accord with the International Monetary Fund (IMF), the European Commission (EC) and the World Bank, with a value of €19,950 000 million, for 24 months (IMF, 2013). The program helped to regain confidence in the Romanian economic perspectives. The governmental measures taken in Romania in order to lower the crisis effects and to stimulate the economy were: the allocation of 6.3% from GDP for investments in 2009 and 6.4% in 2010, the state warranties (2,600 000 million RON in 2010) for the co-financing of the infrastructure projects from European funds. Social policies were implemented to reduce unemployment and to sustain the business environment, like reducing the social contributions of the firms engaging unemployed people.

The austerity policies and their effects

Austerity policies were implemented in Romania to reduce the effects of the crisis, but the population's perception was that these were fragmentary, implemented without much analysis and relatively inefficient.

Salaries were the first target of the austerity measures, Romania being among the countries with the greatest salary fall from the EU. The salary reduction was "*a key instrument or a correcting mechanism within internal devaluation politics*"... *This tendency did not solve the competitive problem, but worsened the existing problems, affecting the most vulnerable*". McKee Martin, from the European Observatory on Health System and Policies declared that one of the important challenges concerns "*the ignorance of the medical effects of the crisis, even if they are very visible*" by the governmental factors (Karanikos *et al.*, 2013). The efforts of the government to reduce the impact of the crisis make people less healthy, causing high morbidity and mortality rates, because the Romania people search medical support in an advanced stage of their diseases (when it is too late, or too costly). Health is the key factor for the economic and social well-being. The health state of the general population and of the work force is essential for a competitive country. A good health state determines the increase of the productivity, and this is the engine of the long term economic increase. Employees with precarious health cannot work with their whole potential. This generates negative outcomes in the economic activity, and supplementary costs for social budgets.

Conclusions

The oscillating evolution of the GDP during 2009–2012, the inflation rate, the unemployment, the external debt (of over €98,000 million), the deficit collection of the revenue for the budget, the significant decrease of the salary per hour, the rise of the poverty risk are some of the crisis consequences which determined the decrease in the health of the general population, the fall of the living level and of the quality of life. The NHIF, the main financial source for the public health system in Romania, has been proved financially inefficient. It registered a deficit of 1,900 000 million RON in 2008, and 2,150 000 million RON in 2009, and 4,200 000 million RON in 2010 (0.7% from GDP). Social Health Insurances received transfers from the state budget to cover the financial deficit, starting with the end of the year 2008. The crisis had negative impact on the human resources from the public health system: 25% decrease of the personal salaries, and high increase of emigration of the physicians and nurses. The Ministry of Health reorganized the public health institutions and reduced the continuous hospitalization, facts that could have long-term negative consequences on the general

population health. The austerity policies did not resulted in the expected outcomes. Contrary to this, the European and national austerity policies worsened the population health problems and added the dimensions of a “social crisis” to the existing economic crisis. Investment in Romanian health system is vitally important for health of the general population, as a key strategy for boosting the economic development.

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