THE IMPACT OF THE ECONOMIC AND FINANCIAL CRISIS ON THE HEALTH CARE SECTOR IN LITHUANIA

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Summary

The aim of the study is to evaluate the impact of the current economic and financial crisis on the health care sector as well as to present information regarding the policy measures taken or planned by the Lithuanian Government in order to mitigate its effects in Lithuania.

Materials and methods. Comparative analysis using the data from January-June 2008 and 2009 were used in order to compare the changes of the indicators before and during financial economic crisis. The structural set of indicators in three groups of possible impact was assessed: financial impact, indicators of quality of life impact and political decisions impact.

Results. **Financial impact.** Health care budget was decreased by 6,4 percent as it was approved for 2009, but has remained the same as in 2008. Cost-sharing and out-of-pocket payments for health care have increased. Funding of health prevention and promotion programs was reduced but in comparison with 2008 even 4 mln LT more is planned for those programs. The first reduction of the budget for health care institutions was performed under the strategy not to increase an unemployment rate. The first reduction of health care budget made minimal impact to the access to health care: total number of treated in the hospitals patients have increased by 1 percent. State health insurance fund reports that the services of long term care was increased by 3.4 percent. **Impact for the quality of life indicators.** The death rate is decreasing from the most courses of deaths by 3 percent except suicide and circulatory system's diseases. Avoidable deaths courses show positive tendency. Reduction in numbers of patients death with communicable diseases by 25 percent also show that there were no critical impact in public health sector as one of the indicator of social economic life changes. Some indicators as increased numbers of acute myocardial infarct and overall cardiovascular system diseases as well as some mental disorders have to be in a special attention analyzing future changes and tendencies. Total medical leave days remained the same. **Impact of political decisions.** In early 2009 the reform the health insurance system by introducing separate health insurance contribution was performed. The reform social and health insurance systems during the period 2009-2010 has started by including persons still not involved in them and unify the principles of involvement of persons in the system under equal conditions. Some political decisions concerning alcohol consumption, tobacco and accidents prevention were accepted. Tax on alcohol and cigarettes were increased, regulation for purchasing was introduced prohibiting selling tobacco products to young people. Smoking was prohibited in cafeterias and public places. There is evidence that quality of life indicators were improving due to the alcohol policy measures in the country. The plan of major restructuring of health care institutions is under preparation now. The plan for rationalization of the price policy and improvement of the access to medicines was approved by the Ministry of Health. Reorganization of public health and state institutions subordinated to the Ministry of Health is currently under implementation. There are plans to introduce supplementary health insurance. **Conclusion.** The impact of financial and economic crisis and the first round of economic stability measures for the two quarters of 2009 had very small impact for health care sector, but the plans of health care sector restructuring might affect it in future.

Keywords: financial and economic crisis, impact of crisis, quality of life indicators.

BACKGROUND

The Lithuanian health care sector is already underresourced. According to the World Bank [1], the State health care expenditure (as a percentage of GDP) is low: in 2008, it totalled 4.6 percent and 3.97 percent is estimated [2] for 2009. The macroeconomic indicators have registered a sharp decline.

The current economic and financial crisis in Lithuania might have a severe impact on the supply and demand of the health care sector. The impact is not especially evident in the current situation. However, it shall reveal itself to a greater extent in the future. The impact will become especially apparent in the forthcoming years as the effectiveness indicators of health care institutions will be supplied, and their tendencies will be compared and evaluated. In 2009, Lithuania

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Table 1. *Comparison of a few effectiveness and efficiency indicators in Lithuania and the EU*

No.	Indicator	Lithuania, 2007	The EU, 2007	Inequity level
1.	Physicians per 100 000 inhabitants	405	253	High
2.	Family doctors per 100 000 inhabitants	76.6	97.7 (2005)	High
3.	Family doctors in PP per 100 000 inhabitants	77.5	65.2	Moderate
4.	Hospitals per 100 000 inhabitants	3.45	2.58	High
5.	Acute care (short stay) beds per 100 000 inhabitants	506	395	High
6.	Hospital beds per 100 000 inhabitants	813	625	High
7.	PHC institutions per 100 000 inhabitants	29	61.3	High
8.	Share of private beds in the total number of beds, %	0.31	6.45	High
9.	Hospitalization rate per 100 inhabitants	21.5	17	Moderate
10.	Average outpatient visits per 1 inhabitant	6.85	6.8	Non
11.	Average length of stay in the hospital/ days	6.6	6.5	Moderate
12.	Bed occupancy rate, %	75	76	Moderate

Source: WHO HFA database, 2008 http://data.euro.who.int/hfadb/; Lithuanian Health Information Centre, http:// www.lsic.lt

is going to implement structural changes of the continuous health care reform, which need to follow the draft national health plan for restructuring of the health care sector. Implementation measures of the plan are approved. Meanwhile, comparison of a few short-term indicators can be presented and assessed. As this exercise will not provide the full view of the present impact, the evaluation should be revised in the future. Some comparison of the indicators pertaining to the effectiveness and efficiency of health care systems in Lithuania and the EU is demonstrated in Table 1.

As Table 1 provides, the difference and inequality between the structural indicators (line 1-8) of health care systems of the EU and Lithuania is much greater than those of some performance indicators (line 9-12). The World Bank mission in Lithuania in May 2009 stated that "although there are achievements made during transitional period in the health care system there are many possibilities to improve effectiveness and efficiency" [1]. This report was taken as a serious warning and the Lithuanian Government publicly acknowledged the need to reform all three – social, health and education – sectors. The Government considered the plan for the health care reform prepared by the Ministry of Health (MoH). The description of the plan is provided under part III of this study.

In the area of public health, some political decisions regarding control of alcohol and tobacco consumption were made in 2008 and 2009. These decisions were taken in line with the program of the Government. These measures produced some positive results in terms of health status of the population even in the short run. In terms of alcohol and tobacco consumption, if these decisions would not have been taken, economic and financial crisis could have produced somewhat negative effects. This is described in the part II of this study.

On the supply side, this study attempted to find whether the economic and financial crisis may have lead to a reduction in the level of funding of health and long-term care services as a result of budget cuts and lower tax revenues. There was a 6.4 percent reduction of the health care budget [3]. The demand for health and long-term care services was investigated to ascertain whether the increase occurred as a result of a combination of factors that contribute to deterioration of the health status of the general population. Those factors are reported in the part I of this study.

Work-related factors – such as a job insecurity and stress at a workplace, lower employment prospects and disposable income, unemployment and etc. – have a direct influence on living conditions (nutrition, housing, education, transportation and environment) and life-style choices (alcohol and tobacco consumption, and substance abuse) of the general population and may lead to the worsening of its physical and mental health status, behaviour and well being.

This study aims to provide some evidence of the impact of the current economic and financial crisis

on the health care sector as well as information regarding the policy measures taken or planned by the Lithuanian Government in order to mitigate its effects in Lithuania

MATERIALS AND METHODS

Comparative analysis using the data from January – June 2008 and 2009 were used in order to compare the changes of the indicators before and during financial economic crisis. The structural set of indicators in three groups of possible impact was assessed: financial impact, indicators of quality of life impact and political decisions impact. The most vulnerable indicators for the time of crisis were chosen for evaluation. Financial impact was evaluated by comparing overall financing of health care from the State insurance fund, cost sharing and out of pocket payments, funding of health prevention and promotion programs and also long term care as well as changes in the number of people not covered by the compulsory medical insurance. Inpatient care indicators as number of treated patients and number of working personnel were assessed in order to compare access to health care during crisis period. Impact for the quality of life indicators was evaluated by comparing death rate of the population and death rate from the various courses of death. Also morbidity rate, changes in number of alcohol related diseases, changes in medical leave indicators were compared and evaluated. Impact of political decisions was evaluated by describing what decisions were taken or the policy measures are planned by the Lithuanian Government in order to mitigate effects of financial and economic crisis in Lithuania.

RESULTS AND DISCUSSION

I. The impact of the economic and financial crisis on health care expenditure during the period 2008-2009

I.1. Funding of the health care sector

The State Health Insurance Fund (SHIF) – the key financial recourse of the health care system – is approved and amended by the Parliament on an annual basis. Prior to the economic and financial crisis, the growth of GDP resulted in a considerable increase of the SHIF budget. The increase was mostly related to the growth of medical staff salaries. Accordingly, the budget of SHIF for 2008 amounted to LTL 4 386 776 thousand (EUR 1.284 billion); and LTL 4 686 979 thousand (LTL 300 203 thousand or 6.84 percent more) were approved for 2009 [4]. At the end of 2008, it became obvious that macroeconomic indicators in Lithuania were deteriorating. The reduction in tax collection and increase of unemployment aggravated the collection of SHIF budget. At the end of December 2008, the State budget was amended and LTL 4 388 415 thousand (LTL 298.6 million 6.4 percent less) were approved [5]. As Table 2 provides, different budget items were reduced.

Consequently, the SHIF budget for 2009 has remained the same as the budget planned for 2008. Although theoretically and legally this would not necessarily create negative outcomes for the health care system, in practice the main problem emerged when health care institutions had to pay the increased salaries in line with the new payment regulations adopted in May 2008. Although this increase was not anticipated in the budget for 2008, it has to be reflected in 2009. Consequently, the same amount for 2009 meant that health care institutions were lacking money to pay the increased salaries. As the State Patient Fund reduced payments for all services by cutting down the point value from 1 to 0.89, in 2009 health care institutions fell short of the budget by approximately 11 percent on the average. To survive, health care providers made plans involving reduction of expenses including salaries. The greatest expenditure cuts were made in the area of property acquisitions. A number of institutions had to design norms and standards regarding the medications and other means used for treatment of patients. Others had to increase

Table 2. *Reduction in the approved SHIF expenditure for different types of services in 2008 and 2009*

Type of expenditure	Reduction in percentage
Overall decrease in expenditure	6.4
Personal health services	6.23
Compensations for medications and medical aids	4.0
Compensations for stays in sanatoria and rehabilitation centres	10
Medical aids and centralized purchasing expenditure	4
Orthopaedic aids	9
Expenses for health services programmes	14.85
Administrative expenses	6.37

Source: data of the State Health Insurance Fund, 2009.08.26

Table 3. *Changes in the budget for prevention and promotion programmes*

Screening program	Budget for 2009, after reduction, in thousand LTL	Comparison with the budget for 2008, in LTL	Change in percentage
Cervical cancer	6542.8	742.8	12.81
Breast cancer	4439.4	439.4	10.99
Prostate cancer	8720.4	420.4	5.07
Prevention of cardiovascular diseases	7574	1774	30.59

Source: Information of the State Health Insurance Fund, August 2009

some service rates for their patients asking them to buy some medications out of their own pocket. As acquisitions of new technologies were planned from the EU structural funds and national programmes of investment, institutions refused acquiring new equipment from their own budgets. Still, some health care providers had to cut staff numbers, offer employees an unpaid leave or take other similar measures.

I.2. Funding for health prevention and promotion programmes

Health prevention and promotion programs are financed from the line "Expenses for health services programmes" of the budget of the State Health Insurance Fund. In comparison to 2007, expenses for prevention in 2008 were increased by 1.6 times (the greatest increase among all budget items) [2]. LTL 24 million were spent for preventive programs in 2008. Following the reduction of the budget in 2009, LTL 28 million were planned [6]. This budget item is not only intended for prevention but also targets such programmes as organization of acute care consultations, orthodontic programs and etc. The funding for the latter was reduced even more than the budget for prevention. As Table 2 demonstrates, the total reduction of funding for all programmes totalled 14.8 percent. Nevertheless, the priority was given to health prevention and promotion programmes, making a decision regarding the types of expenses that should be reduced. The budget for the programme for screening and detecting cancer of cervix uteri was reduced only by 1.12 percent; breast cancer screening programme budget cuts amounted to 6.14 percent; the reduction of the budget for cardiovascular diseases prevention programme totalled 7.9 percent; and prostate cancer screening – 5.8 percent.

Comparison with the planned and approved budget for 2009 before reduction revealed some reduction in funding for health promotion and prevention. However, comparison of budgets for 2008 and 2009 demonstrated that prevention and promotion programmes were provided a greater funding this year (Table 3).

This allows providing more prevention and promotion services in 2009. The State Patient Fund reports that during the first 6 months of 2009, preventive services were provided to 39 thousand people more than in 2008 [6]. In 2009, the attention is focused on organization and quality of screening programs. The results are somewhat positive: many more women were checked for breast (4592 more) and cervix uteri (20 percent more) cancer, more cases were detected in early stages and less – in stages II-IV. In comparison to the same period of 2008, prostate cancer screening was provided to a larger group of men with the increase amounting to 7693 people.

Although the funding for health prevention and promotion programmes was reduced in Lithuania, the reduction did not scale up to the overall budget cuts. Besides, in comparison to 2008, this year the programmes were allocated an additional LTL 4 million.

I.3. The number of employees in the health care sector

There were 13 403 doctors (40,01 per 10 000 inhabitants), 2 287 dental care doctors (6,83 – 10 000) and 32 093 specialists with higher education including nursing specialists (95,8 – 10 000) in Lithuania in 2008 [7]. In general, there was no lack of doctors and nurses in the country, but inequalities by distribution among rural and urban health care institutions prevail. There is no data regarding the changes in the numbers in the time of financial and economic crisis, because the statistics on employees of the health care sector will be collected at the end of the year.

As the value of the point used for calculation of payments disbursed for health care services was reduced from 1 to 0.89, in 2009 health care institutions fell short of the budget by approximately 11 percent on the average. Analysis of randomly selected health

care institutions and the changes in health staff structures revealed that most personal health care institutions chose strategies involving cuts in salaries and other expenses rather than reduction of the number of health care personnel. Public health institutions were undergoing merger due to the restructuring. Following the merger of the Health Information Centre with the Hygiene Institute, the Centre of Communicable Diseases with the AIDS Centre, the Centre of Disaster Medicine with the institution for storage of medicines, and Alcohol Control Agency with the Drug Control Department, the overall number of employees will be reduced by 20-30 percent. As health care restructuring in personal care institutions has not started yet and an additional reduction of the budget is approaching, more changes are expected in future.

In 2009, the budget of the Ministry of Health (MoH) as the state health care institution was reduced by 22 percent. The budget lines for salaries and social insurance contributions were reduced by 10 percent, property acquisitions – by 45 percent and other expenses – by 18 percent. According to the information of the MoH, salaries for civil servants employed in the Ministry of Health and subordinated institutions were reduced by 13.5 percent; salary cuts for other employees of these institutions amounted to 7 percent [8].

The first budget cut in health care institutions was aiming to avoid the increase in the unemployment rate. The weekly overview prepared by the Ministry of Economy reports that on 28 August 2009, the unemployment rate in Lithuania totalled 10.1 percent. 216.9 thousand people registered with the Lithuanian Labour Exchange Office [9].

I.4. Use of cost-sharing and out-of-pocket payments for health care

Even though there was no official political decision to increase cost sharing for patients, the analysis of information supplied by the State Patient Fund shows that health care institutions collected more money from the patient's direct payments. During the first six month of 2009, revenues of health care institutions from all sources including the State health insurance fund were 6.66 percent greater than in 2008. Analysis of separate types of revenues revealed, that the increase of income from health insurance totalled 6.05 percent, meanwhile other sources demonstrated a growth amounting to 16.8 percent (more than twice than from health insurance). This allows a conclusion that health care institutions are trying to balance out their budgets by charging more patients for some health care services. A separate study is needed to research this fact in more detail. However, interviews with executives of randomly selected institutions support this fact. The general observation also shows that more patients are approaching the State Health Insurance Fund to exercises their rights for free medical care compensated by the State. This can be regarded as an indication of increased cost-sharing and out-of-pocket payments for health care.

I.5. Changes in the number of people not covered by the compulsory medical insurance

According to the Law on the Health System and the Law on Compulsory Health Insurance, every person in Lithuania has to be covered by health insurance. Employed people are insured through the system of income and social insurance taxes, self-employed residents have to pay contributions directly, and certain groups of people are insured by the State (i.e. unemployed, pensioners, children, pregnant women, or other socially vulnerable groups). This system permits the State increasing or decreasing the number of people insured by the State and ensures some stability of the health insurance fund during crisis. In the past, the number of people insured by the State was decreasing due to low unemployment. However, with the number of employed people is decreasing due to the impact of financial and economic crisis and the Parliament has to approve the number of the State insured people according to the statistics of unemployment. The number of people insured by the State has been changing: in 2007, it amounted to 1908.5 thousand, meanwhile in 2008, it totalled 1825.8 thousand. It is prognosticated that the figure should escalate to 1975.3 thousand in 2009. Before the crisis only 1780.2 thousand were expected.

II. The impact of the economic and financial crisis on health and quality-of-life indicators in the period 2008-2009

II.1. Activities of health care institutions and quality-of-life indicators

The first reduction of the health care budget had a minimal impact on the access to health care. Even though health care financing was reduced by 6.4 percent in 2009, it was mostly managed through reduction of salaries of health care personnel as well as cuts of some other expenses less related to the direct treatment process. Therefore, there was no obvious reduction in the access to health care institutions. Some inpatient care indicators – such as the total number of treated patients – increased by 1 percent. Besides,

Table 4. *The comparison of indicators of inpatient care during January-June in 2008 and 2009 in Lithuania*

Indicator	Jan-Jun 2008	Jan-Jun 2009	Change	
			In abs. numbers (+, –)	In percentage (%)
The total number of inpatient patients	404 817	408 938	4121	1.0
Out of them: males	170 803	172 914	2111	1.2
females	234 014	236 024	2010	0.9
The number of deaths	10 232	10 064	–168	–1.6
Out of them: males	4881	4898	17	0.3
females	5351	5166	–185	–3.5
Death rate (%)	2.53	2.46		–2.6
males	2.86	2.83		–0.9
females	2.29	2.19		–4.3
Average length of stay	9.38	9.08	–0.3	–3.2

Source: Data of the Health Information Centre based on the State Patient Fund's database SVEIDRA

Table 5. *Comparison of numbers of deaths by causes in January-June of 2008 and 2009 in Lithuania*

Cause of death (according to ICD-10)	2008	2009	Change	
	Jan-Jun	Jan-Jun	In numbers (+, –)	In percentage (%)
Total	22 491	21 819	–672	–3,0
Communicable diseases	292	218	–74	–25.3
Malignant neoplasm	4143	4096	–47	–1.1
Diseases of circulatory system	12 234	12 261	27	0.2
Diseases of respiratory system	935	880	–55	–5.9
Diseases of digestive system	1285	1178	–107	–8.3
External causes of deaths	2440	2063	–377	–15.5
Transport accidents	262	214	–48	–18.3
Random drowning	169	102	–67	–39.6
Random alcohol intoxication	249	172	–77	–30.9
Suicide and self-inflicted injuries	541	568	27	5.0
Homicide and intentional injuries	122	90	–32	–26.2
Other external death causes	1097	917	–180	–16.4
Other death causes	1162	1123	-39	-3.4

Source: Department of Statistics, 2009

Table 4 demonstrates that the prevalence of diseases diagnosed in health care institutions has increased. It should be underlined that hospital care indicators – the number of treated patients, hospital death rate and the average length of stay – were improving (see Table 4). The total number of treated patients could have increased because of some impact of prophylactic health programs (e.g. the program for prophylactics of non-communicable diseases).

Analysis of the quality-of-life indicators and death rates by different causes (see Table 5) demonstrated that in case of the most causes of deaths the death rate is

Table 6. *Prevalence of diseases in January-June of 2008 and 2009 in Lithuania*

Diagnosis	Code according to ICD-10	Jan-Jun 2008	Jan-Jun 2009	Change	
				In numbers (+, –)	In percentage (%)
Mental disorders, out of which:	F00-F99	131 143	130 921	–222	–0.17
Mood disorders	F30-F39	33 295	33 344	49	0.15
Cardiovascular system diseases, out of which:	I00-I99	503 845	522 381	18 536	3.68
Ischemic heart disease out of which:	I20-I25	119 092	121 211	2119	1.78
MI (Acute and repeated heart infarction)	I21-I22	4069	4152	83	2.04
Cerebrovascular diseases	I60-I69	69 562	70 642	1083	1.56
Neurological system diseases	G00-G99	163 227	166 195	2968	1.82
Tumours	C00-D48	89 306	93 025	3719	4.16

Source: Health Information Centre, 2009

decreasing by 3 percent except for suicide and circulatory system diseases. During the last years, Lithuania has been among the countries with the highest rates of injuries and suicide in the EU. It was extremely disturbing that this problem was becoming more and more associated with the youngest inhabitants of the country. Avoidable mortality has become the focal point for the political debate since 2007. In its' report to the Parliament, the National Health Board has focused on this problem as well [10]. Some political decisions concerning alcohol consumption, tobacco and prevention of accidents were taken.

Comparison of mortality indicators of 2008 and 2009 (Table 5) reveals some positive changes. Avoidable death causes have especially positive trends. Suicide rate was very high in Lithuania during the past decade. Unfortunately, negative trends have been noticed during the current year of financial crisis as well. It is possible that economic and financial crisis had an effect on this indicator, besides it might have acted as one of the related factors. Further scientific investigation is needed in order to find out the reasons for these changes. Diseases of the circulatory system do not demonstrate a significant increase, which could be related to the somewhat successful programme for prophylactics of cardiovascular diseases financed by the European Union structural funds and SHIF.

A 25 percent reduction in the numbers of patient deaths with communicable diseases also shows that there was no critical impact in the public health sector as one of the indicators of socio-economic life changed.

Nevertheless, there is some increase in prevalence of diseases (see Table 6). In Lithuania, the morbidity prevalence rate is increasing by 2-3 percent annually due to a variety of reasons. It would be difficult to relate the aforementioned increase to the recent financial and economic crisis basing on analysis of changes recorded during this short period of time. However, some indicators – such as the growing numbers of cases of acute myocardial infarction and other cardiovascular system diseases as well as some mental disorders – have to be considered while analysing the future changes and trends. Nevertheless, as it was mentioned before, the increase could also be related to the political decisions regarding implementation of the programme for early detection of non-communicable diseases.

Analysis of alcohol consumption rates demonstrated that alcohol was responsible for the majority of death of the Lithuanian population. In 2007, 2008 and the beginning of 2009, numerous political decisions in terms of reduction of alcohol and tobacco consumption were taken in Lithuania [11]. A wide public movement was organized by the NGO entitled The Tobacco and Alcohol Control Coalition, which fights alcohol and tobacco use. The general public supported amendments to the Law on Alcohol Control, which resulted in new regulations. In comparison to 2007, there was a one-third increase in seizures of illegally produced alcohol in 2008, which might explain the reduction in the number of alcohol poisonings and alcoholic psychosis admissions. Besides, non-governmental organizations (NGOs) have become

very active during this period, thus in November, 2008 The Baltic Tobacco and Alcohol Control Coalition – which unites Estonian, Latvian and Lithuanian NGOs – was founded. 2008 – The Year of Sobriety – became the first year registered by the Lithuanian Health Programme as the year of reduction in alcohol consumption: i.e. from 14.3 litres of absolute alcohol per person in 2007 to 13.2 litres in 2008. Despite the decreasing demand for alcohol, in 2008, introduction of the higher excise duty increased tax revenues from alcohol by LTL 54 million (approx. €15,6 million) [12]. These funds could be used for treatment of alcohol-related diseases and prevention activities. Although The Year of Sobriety produced obvious results, the absolute amount of alcohol per capita in Lithuania is still nearly twice greater than the safe limit suggested by the World Health Organization. The positive changes are likely to continue with successful implementation of scientifically-based alcohol control measures, which are likely to result in significant improvements in the health of Lithuanians. Excise duties on alcohol and cigarettes were increased, regulations prohibiting sale of tobacco products to young people were introduced, smoking in cafeterias and public places was prohibited. As the result of these political decisions, health care providers report very promising data (Tables 7, 8 and 9) and compliment the Lithuanian Parliament for the courage to take such steps in the face of the economic crisis. It is obvious, that if not for these changes in legislation, the economic and financial crisis would have boosted the consumption of alcohol and cigarettes in Lithuania.

Table 7. *The number of patients with the first diagnosis of alcohol-related effects in January-June of 2008 and 2009 in Lithuania*

Diagnosis	Code according to ICD-10	Jan-Jun 2008	Jan- Jun 2009.	Change	
				In numbers (+, –)	In percentage (%)
Toxic effect of alcohol	T51-T51.9	1333	993	–340	–25.5
Acute alcohol intoxication	F10.0	206	117	–89	–43.2
Alcoholic psychosis	F10.4-F10.7	2091	1653	–438	–20.9

Source: Data of the Health Information Centre based on the State Patients Fund's database SVEIDRA

Table 8. *The number of males with the first diagnosis of alcohol-related effects in January-June of 2008 and 2009 in Lithuania*

Diagnosis	Code according to ICD-10	Jan-Jun 2008	Jan- Jun 2009.	Change	
				In numbers (+, –)	In percentage (%)
Toxic effect of alcohol	T51-T51.9	1032	761	–271	–26.3
Acute alcohol intoxication	F10.0	171	93	–78	–45.6
Alcoholic psychosis	F10.4-F10.7	1725	1361	–364	–21.1

Source: Data of the Health Information Centre based on the State Patients Fund's database SVEIDRA

Table 9. *Number of females with the first diagnosis of alcohol-related effects in January-June of 2008 and 2009 in Lithuania*

Diagnosis	Code according to ICD-10	Jan-Jun 2008	Jan-Jun 2009	Change	
				In numbers (+, –)	In percentage (%)
Toxic effect of alcohol	T51-T51.9	301	232	–69	–22.9
Acute alcohol intoxication	F10.0	35	24	–11	–31.4
Alcoholic psychosis	F10.4-F10.7	366	292	–74	–20.2

Source: Data of the Health Information Centre based on the State Patients Fund's database SVEIDRA

The number of alcohol-related fatal road accidents has been decreasing from 18.4 percent in 2000 to 12.2 percent in 2008 [13]. Positive changes have clearly demonstrated that implementation of scientifically-based alcohol control and other measures have a significant influence on the overall road traffic safety and help saving lives and preserving health.

In comparison to 2007, the increase in the excise duty provided the State budget with the additional LTL 54,3 billion, yet the total sale of alcohol decreased by 7.6 percent. In all, the increase of the excise duty on alcohol resulted in the increase of the State revenues amounting to 5.2 percent [14].

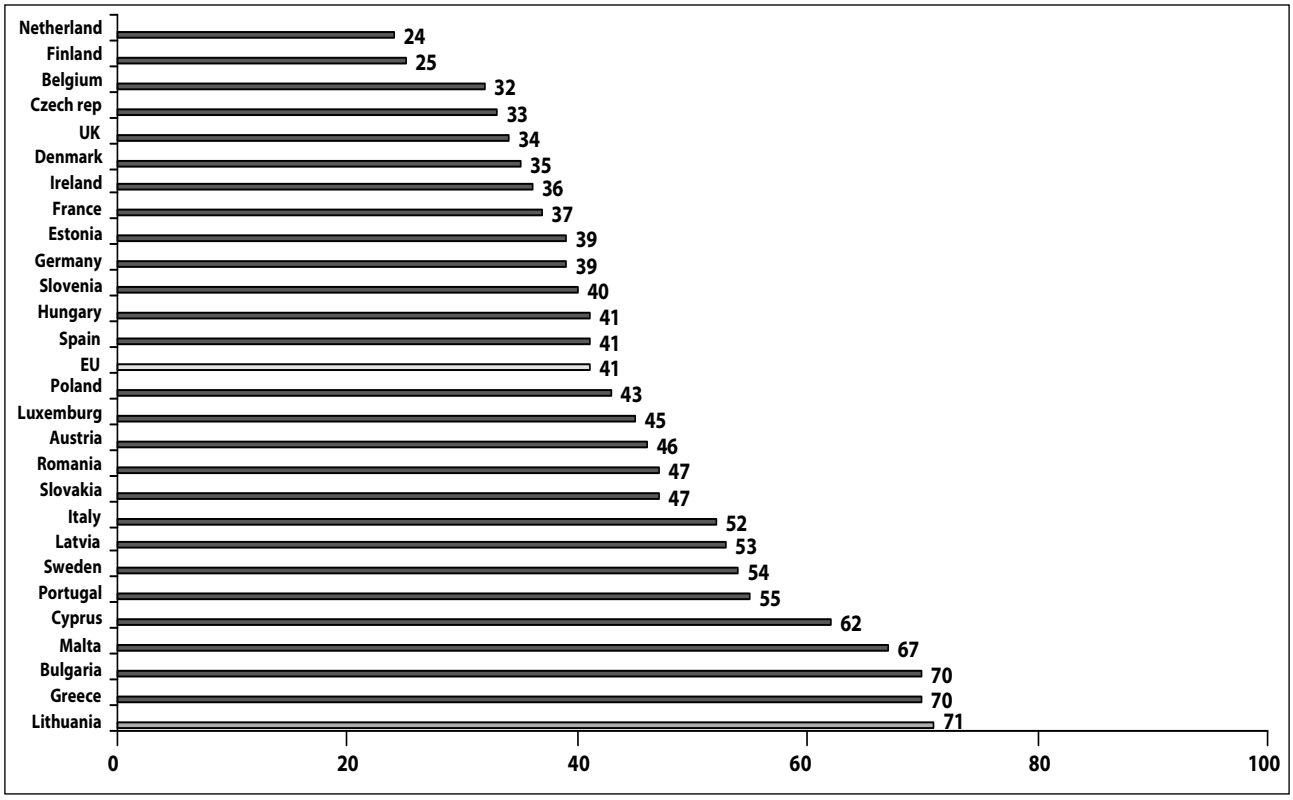
Hence, there is evidence that quality of life indicators were improving due to the alcohol policy measures that were undertaken in the country.

Restructuring of health care institutions

Major steps in the field of restructuring of health care institutions were taken in 2003-2005 when the Government adopted the restructuring strategy [15]. Certain changes are implemented in the structure of public health institutions: the Health Information Centre is merging with the Hygiene Institute, the Centre of Communicable Diseases – with the AIDS Centre, the Centre of Disaster Medicine – with the institution for storage of medicines, and the Alcohol Control Agency – with the Drug Control Department. The plan for restructuring of hospitals is currently under preparation [16]. The process has not commenced yet, thus impact of restructuring shall be measured in future.

Numerous scientific international studies have demonstrated that an incorrect management of the change process may result in considerable consequences as well as have a negative impact on public health status. A recent publication in a scientific journal on public health in Lithuania presented scientific evidence regarding potential effects of the restructuring on people who lost their jobs – "survivors" of layoffs – and their families as well as managers of the process and the general public. The probable after-effect of restructuring includes the psychosocial environmental changes, physical and psychological impairment as well as somatic illnesses [17]. The plan involving a major restructuring of health care institutions is currently being prepared. The warning from the scientists maintains that change management is one of the top issues in saving the health of people.

The sociological study of a representative sample Eurobarometer [18] reports that the majority of employees in Lithuania consider their job to be too demanding and stressful in comparison with other Europeans (see Slide 1).



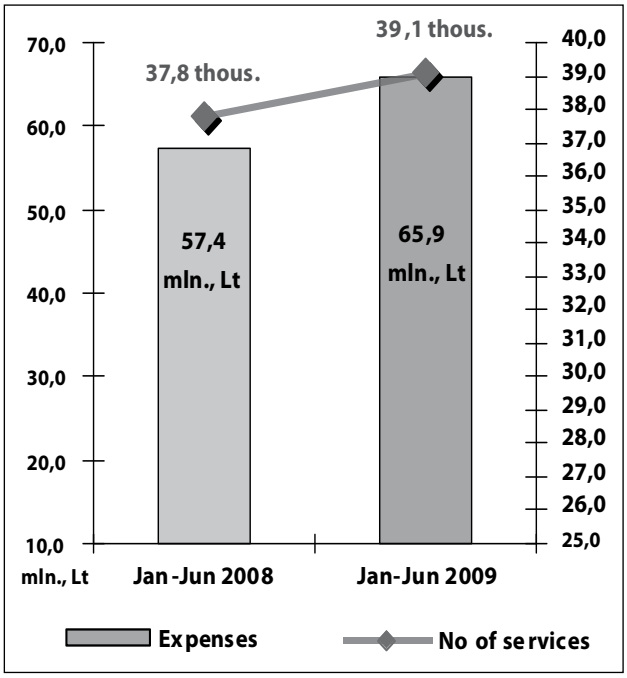
Slide 1. *The answer to the question "…Is the job too demanding and stressful" in EU countries (by opinion of respondents in percent)*

Source: the EC Special Eurobarometer, 2007 "European Social Reality".

Table 10. *The number of patients in random long term nursing and palliative care hospitals in Lithuania during January-July of 2008 and 2009*

	Hospital	Jan-Jul 2008	Jan-Jul 2009
1.	Jurbarkas hospital	169	192
2.	Raseiniai hospital	175	194
3.	Pasvalys hospital	144	154
4.	Ukmergė hospital	233	231
5.	Lazdijai hospital	250	227
6.	Prienai hospital	93	111
7.	Ignalina hospital	177	166
8.	Radviliškis hospital	154	153
9.	Plungė hospital	188	169
10.	Jonava hospital	20	57
11.	Molėtai hospital	206	207
12.	Širvintos hospital	136	124
13.	Šilalė hospital	90	74
14.	Kretinga hospital	77	58
15.	Kelmė hospital	56	141
	Total	**2168**	**2258**

Source: The Association of Lithuanian Hospitals, 28 July 2009



Slide 2. *Inpatient long-term nursing treatment indicators in Lithuania Jan-Jun of 2008 and 2009*

Source: SPF database SVEIDRA, August 2009

The most vulnerable social groups – i.e. single parents, children, the elderly, people with disabilities – may find their access to health and long-term care services curtailed further by budget cuts and the increasing recourse to cost-sharing and out-of-pocket payments on the part of the health care and social services providers. Unfortunately due to the lack of information we cannot research this issue in Lithuania.

II.2. Health and long-term care

Ordinarily rural areas with predominant elderly population should have the least access to long-term care. The quantities of applications to health and long-term care units have remained more or less stable during the recent year. The comparison of data from randomly selected rural long-term health care institutions does not show a big difference (Table 10). Furthermore, there is even a slight increase in the number of treated patients.

The State Health Insurance Fund reported that the funding for the long-term care was increased by LTL 8,5 million (14.8 percent). This allowed increasing the number of long-term care services (3.4 percent) even though the price is increasing. 1300 cases more were treated in the long-term nursing hospitals in Lithuania during the same six month period in 2008 and 2009.

II.3. Sick leave among the total working population

In Lithuania, sick leave is covered by the Social Insurance Fund and employers. Apart from the financial and economic crisis, sick leave among the working population depends on a number of factors, which might affect the related indicators within a certain period of time. It depends on a season, legal requirements related to provision of sick leave benefits, procedures as well as abuse of the system by patients and doctors.

The financial and economic crisis had a tremendous effect on expenditure of the Social Insurance Fund. The expenses are growing much faster than the revenues. Some political decisions were taken in order to resolve this issue. One of the changes implemented since May 2009 concerned the payment system for sick leaves [19]. The first 2 days of a sick leave are covered by the employer. During these 2 days, the benefit can range from 80 to 100 percent of the average salary. From the 3rd to the 7th day of the sick leave the payment is provided by the Social Insurance Fund, which pays 40 percent of the average salary. Starting from the 8th

Table 11. *Indicators of sick leave among the working population*

Indicator	2008 Jan-Jun	2009 Jan-Jun	Change in %
Expenses for sick leave in thousand LTL	320 497	408 311	+27.4
Cases of illnesses	408 393	349 966	–14.3
Total sick leave days	4 964 682	4 961 201	–0.1
Cases of illness per 1000 employees	306,3	284,7	–7.1
Days per 1 insured person	3,7	4,0	+8.3
Average length of illness in days	12,2	14,2	+16.2
Average medical leave expenses for 1 day (in LTL)	64,6	82,3	+27.4

Source: Information of the Social Insurance Fund, 21 August 2009

day, the benefit amounts to 80 percent and is provided by the Social Insurance Fund.

Those changes have affected the indicators listed in the Table 11. The total number of sick leave days remained unchanged. The amount of cases of illnesses with a sick leave per 1000 employed people has decreased by 7 percent. The number of cases of illnesses with a sick leave has decreased by 14 percent. However, the average length of illness has increased by 16 percent as well as expenses per case.

As interventions are still very recent, is too early to make conclusions regarding possible outcomes of the legal changes and impact of the financial and economic crisis.

III. Policy measures taken or planned by the national government in order to reduce the impact of the economic and financial crisis on health of the population during the period 2008-2009

Lithuania is a small country, therefore its economy is relatively more dependent on export. Thus, the economic situation is highly dependent on the demand in export markets. Although export rate in April 2009 plunged, in May and June it started improving and returned to the levels of 2006 [20]. At the same time, import is somewhat inflexible: Lithuania imports almost 90 percent of its primary energy. Import flexibility will be further reduced at the end of 2009 due to decommission of Ignalina Nuclear Power Plant, generating up to 70 percent of electricity. At the same time 85 percent of the registered share capital in the Lithuanian banking sector is the non-resident capital (mainly Scandinavian), which had no bankruptcy procedures. These developments have a major effect on the financial and economic crisis.

At the end of 2008, the Government introduced the Crisis Management Plan [21]. First of all, the State reduced its expenditure (salaries for public servants and investments) by approx. EUR 1,5 billion. Calculation method pertaining to salaries of politicians, judges, public servants and officials was adjusted to avoid the net increase of their salaries following a reduction of the personal income tax. The VAT rate was raised from 18 percent to19 percent (later to 21 percent) and preferential rates were abolished for almost all services and goods including pharmaceuticals. Besides, excise duties was increased personal income tax was reduced from 24 percent to 21 percent, meanwhile the corporate income tax was increased from 15 percent to 20 percent. Lithuania is a 87(3)(a) region, therefore relies mostly on the EU structural assistance to help tackle the crisis [22]. Consequently, prices for medicines that are not compensated by the State have increased. Since September 2009, VAT was further increased to 21 percent [23].

Some measures were introduced before the crisis, other were foreseen or adopted under the National Economic Recovery Plan. The key measures in force for the period 2007-2013, are most likely to become the most effective incentives for economic recovery. These measures include the regional aid measure for energy (approx. EUR 260 million; modernization and development of the power transmission, power distribution, heating supply and gas systems; enhancement of energy generation efficiency; utilization of renewable energy resources for energy generation); regional aid (to date: approx. EUR 300 million); and the State aid for R&D (to date: approx. EUR 300 million).

The EC was notified about the Law on Financial Stability (guarantees, recapitalization, asset relief and

nationalization). The State approved the National Economic Recovery Plan aiming:

- To improve access to financing for business (SMEs);
- To improve energy performance in buildings;
- To accelerate the use of EU structural assistance;
- To improve business environment;
- Investment and export.

It is expected to total EUR 1,5 billion. This plan is financed by the EU structural funds, the European Investment Bank (loan; provided for the national co-financing), private banks and the national budget [22].

The decision to increase VAT for medicines to 19 and later – to 21 percent would cause the deficit of the Health Insurance Fund. Thus, this decision was postponed and VAT for medicines compensated by State remained at its preferential rate.

The first round of economic stability measures had an insignificant impact on the health care sector. In early 2009, the reform of the health insurance system introduced separate health insurance contribution, which assured some stability of the Health Insurance Fund. The system of the Lithuanian health insurance revenues is somewhat flexible. The State regulation to increase or decrease the number of people insured by the State also guarantees a certain stability of the Health Insurance Fund. During the period 2009-2010, the reform of the social and health insurance systems commenced with inclusion of individuals that were not involved in the systems to unify the involvement principles and assure equal conditions for all. This means that the State Health Insurance Fund will collect greater revenues.

Reduction of the health care budget by 6,4 percent – aiming to keep it at the same level as in 2008 – does not affect the system much. However for 2010, due to the current macroeconomic situation LTL 4168 million are planned for State health insurance fund, which is 220 million or 5 percent less than in 2009 [12].

The financial and economic crisis has a much smaller impact on the health care sector and health indicators in Lithuania due to of alcohol control policies introduced prior to the crisis. The period of 2007-2008 became the time of legislative work focused on alcohol-control policies. The year 2008 was designated as 'The Year of Sobriety'. Despite the enormous pressure from the alcohol industry, daytime advertising was banned on radio and television, the excise duty on alcohol (including cider) was increased and the tax relief was abolished for small breweries. At the end of 2008, legislative amendments were enacted establishing restrictions on opening hours since 2009. The recent amendment of the Law on Alcohol Control provides that alcohol-related commercial activity will be forbidden in trade stalls from 2010. Not only was the fine for drink driving increased, the law also authorized confiscation of vehicles and even administrative arrests. The permissible alcohol concentration in blood was reduced from 0,4 to 0,2 parts per million (p.p.m.) for novice drivers [12]. New measures against illegal import of alcohol were introduced in customs, which assure a reduced access to harmful and cheep alcohol products.

New traffic safety measures, various road safety education programs in schools, social advertisement campaigns and other measures were implemented in Lithuania during the past few years. LTL 93,6 million are planned for traffic safety in 2007-2013. Last year the lowest number of deaths due to the traffic accidents was registered. In the first quarter of 2009, the number of deaths due to traffic accidents was 25 percent lower [24]. All of the efforts made in 2008 gave clear results with substantial effects on reduction of injuries.

In July 2009, the Ministry of Health introduced the new strategic health care development plan entitled The Outline for the Health System Restructuring to the Government [26]. The majority of activities are planned in the field of the inpatient care restructuring as well as development of primary care and outpatient care. Day surgery, ambulatory rehabilitations and day care services are planned to be developed to replace a certain part of expensive inpatient care. The effectiveness and efficiency criteria for hospitals are going to be approved and introduced in the state, regional and district level hospitals. Hospitals failing to conform to the criteria will be closed or transferred to the lower level with less financing. Savings amounting to LTL 100 million are planned as a result of this measure. New regulation for hospitalization of patients and financing of hospitals according to the new effectiveness and efficiency criteria will be introduced.

The plan for rationalization of the price policy and improvement of the access to medicines was approved by the Ministry of Health on 16 July 2009. This plan contains specific means to improve the pricing system of wholesale medicines and ensure that the price of import does not exceed the EU level. In the group of therapeutic alternates, the refund is based on the lowest priced prescription drug in the group. Following the universal market principle 'greater sales – lower

prices', it is planned to negotiate special price arrangements with the pharmaceutical manufacturers most heavily funded from the Compulsory Health Insurance Fund on the quantity of compensated medicines sold to the public to. Furthermore, measures for regulations and control of sale of medicines, analysis and control of prescriptions and etc. are planned.

Population is invited to get involved in the control of the pharmaceutical market. For that purpose a monitoring system in State Pharmaceutical Control Agency was introduced since August 2009. A free telephone line (8-800 735 68) was installed for the public to inform civil servants about problems related to organization of supply, purchasing or pricing of medications [27].

Reorganization of public health and state institutions subordinated to the Ministry of Health is currently under implementation. After the decisions to merge the Health Information Centre with the Hygiene Institute, the Centre of Communicable Diseases with the AIDS Centre, the Centre of Disaster Medicine with the institution of storage of medicines, and the Alcohol Control Agency with the Drug Control Department, it is planned to close the Department of Pharmacy, which was an independent institution, and to open a respective structural unit it in the structure of the Ministry of Health. Besides, the Centre of Environment Safety will be closed as well. Institutions for training of nurses and public health specialists will be reorganized.

Each institution including the Ministry of Health is revising and rationalizing its structure and staff functions.

Efforts to change the working hours and duration of the annual leave to make equal conditions for all medical workers have failed due to social movements and disagreement of medical workers their organizations.

There are plans to introduce supplementary health insurance. This topic has been undergoing a long lasting discussion for many years.

Some changes in assistance received from the EU structural programmes are under implementation as well. One of the goals aims to unburden the implementation and funding procedures of projects. The Ministry of Health is looking for the ways to expand the support for private primary health care institutions.

The social insurance calculation method for compensated wages as well as requirements for the calculation of maternity/paternity benefits on the basis of income for a longer period – taking into consideration interests of young mothers with little work experience due to studies or research – were introduced.

Child benefits for children under three years of age were reduced as well as older children in families with the total net income per capita below three state-supported income limits. The decision of the Government regarding free meals for schoolchildren in preschool and primary education was amended to provide for schoolchildren in grades 1-4 from families with income per capita below 1,5 state supported income were limited [28].

Reform for science and high education has commenced. It targets the quality and access to high education and aims assuring that the system of science and education would catalyze the wellbeing of the State and the population [29].

In the second quarter of 2009, the Lithuanian GDP was 20.2 percent less than in the same period of 2008 [9]. However, financial measures planned for the first quarter of 2009 and the forthcoming period have significantly contributed to the stability of the financial sector in Lithuania and created more advantageous conditions to gain access to financial sources and credit lines required for preservation and development of businesses without increase in the fiscal deficit. It has been publically announced that the economy of Lithuania has survived the deepest recession and no further drop should take place.

Nevertheless, the health care budget for 2010 will be less than that of 2009, thus the health care sector is worried about the future health effects of the entire population. The state sector's employee's salaries are reduced once again. Fortunately it doesn't affect State health insurance fund and services for patients. Increase of Social insurance tax is under discussion.

CONCLUSION

1. Financial and economic crisis and the first round of economic stability measures for the two quarters in 2009 had very small impact for health care sector in Lithuania.
2. The Ministry of Health is planning to reorganize health care institutions and heavily reduce inpatient care services, which might also impact on the health status of the population.
3. Same kind of assessment will be needed in the future to ascertain the effects of this financial and economic crisis on the health of the population.

Received 10 September 2009,
accepted 30 September 2009

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Finansų ir ekonomikos krizės įtaka Lietuvos sveikatos sektoriui

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Santrauka

Šios studijos **tikslas –** išnagrinėti finansų ir ekonominės krizės įtaką sveikatos sektoriui bei apžvelgti pagrindinius valdžios sprendimus, kurie galėtų sušvelninti krizės padarinius.

Medžiaga ir metodai. Palyginamosios analizės metodas naudotas lyginant 2008 ir 2009 m. pirmo pusmečio finansų ir gyventojų sveikatos rodiklius matuojant tris pagrindines dimensijas: ekonominės ir finansų krizės įtaką sveikatos finansams, įtaką gyventojų sveikatai ir politinių sprendimų įtaką krizės padariniams.

Rezultatai. **Įtaka sveikatos finansams.** Privalomojo sveikatos draudimo biudžetas buvo sumažintas 6,4 proc., tačiau liko 2008 m. lygio. Gyventojų apmokama biudžeto dalis padidėjo. Profilaktinių sveikatos programų biudžetas, nors ir sumažintas, buvo 4 mln. Lt didesnis nei 2008 m. Sveikatos priežiūros institucijos, mažindamos biudžetą, stengėsi neatleisti sveikatos apsaugos darbuotojų. Biudžeto mažinimas turėjo minimalios įtakos sveikatos paslaugų prieinamumui, o stacionare gydytų pacientų skaičius padidėjo 1 proc. Iš PSDF biudžeto finansuojamos slaugos ir ilgalaikio gydymo paslaugos padidėjo 3,4 proc. **Įtaka gyventojų sveikatos rodikliams.** Mirtingumas nuo visų mirties priežasčių, išskyrus savižudybes ir mirtis dėl kraujotakos sistemos ligų, sumažėjo vidutiniškai 3 proc., ypač mirtingumas nuo išvengiamų priežasčių. 25 proc. sumažėjęs mirtingumas nuo infekcinių ligų taip pat rodo, jog krizė didesnės reikšmės visuomenės sveikatos rodikliams nepadarė. Kai kurie rodikliai, susiję su sergamumu, kaip padidėjęs miokardo infarkto bei kardiovaskulinių, taip pat kai kurių psichikos sveikatos ligų atvejų skaičius, rodo, kad ateityje nagrinėjant krizės poveikį vertinimas gali šiek tiek keistis. Nedarbingumo atvejų dienų skaičius liko nepakitęs. **Politinių sprendimų įtaka krizės padariniams.** 2009 m. pradžioje buvo įvestas atskiras privalomojo sveikatos draudimo mokestis. Į sveikatos ir socialinio draudimo sistemą įtraukta dalis žmonių, prieš tai nemokėjusių šių mokesčių. Teigiamos reikšmės krizės padariniams turėjo prieš tai priimti sprendimai dėl alkoholio, tabako ir nelaimingų atsitikimų kontrolės. Gyvenimo kokybės rodikliai, susiję su alkoholio vartojimo sumažėjimu, pakito teigiama linkme. Patvirtintas planas dėl vaistų prieinamumo gerinimo ir jų kainų reguliavimo. Pritarta sveikatos priežiūros įstaigų restruktūrizavimo planui, tačiau kol kas jis nepradėtas vykdyti. Reorganizuojamos visuomenės sveikatos institucijos, pavaldžios Sveikatos apsaugos ministerijai. Rengiamasi įvesti papildomą sveikatos draudimą ir sustiprinti pirminę sveikatos priežiūrą. **Išvada.** Pirmasis ekonomikos stabilizavimo etapas finansų ir ekonomikos krizės sąlygomis 2009 m. I pusmečio laikotarpiu turėjo kol kas nedidelę įtaką sveikatos sektoriui, tačiau efektas gali labiau pasireikšti būsimo sveikatos priežiūros įstaigų restruktūrizavimo metu.

Raktažodžiai: finansų ir ekonomikos krizė, krizės poveikis, gyvenimo kokybės rodikliai.

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Straipsnis gautas 2009-09-10, priimtas 2009-09-30