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**INNOVATION AND INFORMATION TECHNOLOGIES
IN THE SOCIAL AND ECONOMIC DEVELOPMENT OF SOCIETY**

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INNOVATIONS IN SOCIAL HEALTH INSURANCE

Tetyana M. Kaminska
Nataliya M. Martynenko

Abstract. The article dwells upon innovations, advantages and risks in the providing of compulsory medical insurance in Ukraine. Among the advantages of this innovative system for Ukraine, authors mention addressed payments and their rational use; control of insurance companies over the activity of medical workers and limitation of unproductive medical expenses; optimizing of drug costs; the effective use of resources for the development of health care; minimizing of unforeseen expenses for sick people, and elimination of cases of refuse in giving medical care for them, and etc. Authors underline that medical insurance stimulates an effective management in medical institutions, which is the compulsory function of decentralization and getting of autonomy by medical institutions and introduction of new approaches to making of optimal management's decisions in conditions of limited local resources.

Key words: health insurance, market imperfections, unproductive medical expenses, pharma-economics, targeted use, unwarranted benefits.

Introduction. Innovation development is a determinative feature of post-industrial system. Its formation is a target of transitional economics of Ukraine. At the same time, this process is realized slowly and accompanied by contradictions. As a result, many countries yesterday considered backward increase their technological advantage, but Ukraine remains behind. Before the beginning of World Economic Forum in Davos in January, 2018 the rating of different economies of the world according to Global Innovation Index was announced. It shows, that Ukraine just for one year dropped from 42nd to 46th place out of 127 countries, i.e. preservation of the technological backwardness of the national economy is observed.

Usually, innovations are associated with IT-technologies, venture business, support of different industrial startups. In reality innovations of economics assume the support of comprehensive novelty in all socio-economic processes. The world trend consists of outstripping growth of the sphere of services in comparison to material production. And in this sphere not only information and social services are growing rapidly, but also insurance ones. The working out of innovation model of social health insurance is a very relevant, and it should correlates to states' resource potential and needs of human development. A state has to be a qualitative regulator of for the development of insurance and training successful professionals.

Social health insurance is the condition for the fulfilling of the article 49 of Ukrainian Constitution devoted to free medical aid. It involves the formation of united National Health Service. Its funds should be directed to the compulsory

insurance.¹²⁹ National Health Service of Ukraine will sign contracts with health care providers and finance treatment. Moreover, it will reimburse the cost of some medications and medical examinations included into the national health insurance program. It is anticipated that every Ukrainian will know what exactly the state will pay for, and will choose physicians, on their own, at the primary level.

Results of research. The main advantage of this model is a positive effect of a big structure and decreasing of the average production costs. Concentration of resources in a state fund increases the personal responsibility of a top-manager for the insurance, and decreases market abuses. Fund has to work at the basis of long-term contracts, which led to the shortening of transaction costs from the market imperfections (such as unfair competition, raids, fraud, opportunist behaviour of counteragents, and an asymmetry of information on market condition).

The experience of foreign countries proofs that social health insurance increases the amount of resources needed for medicine, as it involves additional contributions from insurers and insured employers and workers. Law is the main regulator of the insurance process. Addressed payments make the variety of their targeted use higher. So they are more suitable for public control. Insurance structures control the activity of medical workers and hold in check unproductive medical expenses. They introduce pharma-economics and optimize drug costs. The effective use of resources for the development of health care, in fact means the increase of its funding.

The compulsory social medical insurance is a part of compulsory medical insurance. It in opposition to contractual insurance (the secondary component) excludes the participation of private companies and minimizes risks of unforeseen expenses for sick people, eliminates cases of refuse in treatment for them. Social insurance contributes to the reduction of regressive health financing, when poor people, who are more likely to be ill, pay a larger share of their revenues for treatment than healthy people. Thus, social insurance is grounded on the principles of social solidarity and minimizes the consequences of the negative situation, when only young and healthy people have the access to the treatment, and insurance companies get extra profits for their activity. Insurance funds control legislative standards of the quality of diagnostic and treatment, which weakens the information asymmetry that always exists on the market of medical services. There are some reasons of this situation, such as patients' low level of compulsory professional knowledge, weak conscious (or absolute unconsciousness) of sick person, and even targeted increasing the number of expensive services or drugs by unscrupulous doctors, etc. Insurance funds control and encourage quality of medical care by the bonus system. Customers also join to the estimation of the quality and choice of medical service by taking polices. The European experience is the best evidence of that.

Medical insurance stimulates an effective management in medical institutions. It is a compulsory function in the process of decentralization and getting of an autonomy by medical institutions, introduction of new approaches to making of optimal management's decisions in conditions of limited local resources. Insurance

¹²⁹ Про утворення Національної служби здоров'я України. Проект Постанови КМУ. URL. http://www.moz.gov.ua/ua/portal/Pro_20161020_0.html#2 (дата звернення: 24. 08. 2017).

companies have a special position in state-private partnership at local markets. They also provide better logistics for pharmaceutical companies. Contemporary management is a challenge for the globalization, when a medical tourism is developing and the market of medical services gets an international status.

These functions of health insurance all together provide the advantages in compare to the development of health care at the expense of tax revenues to the state budget. Because of that it is necessary to introduce health insurance in Ukraine. The urgency of curbing the inefficient, useless expenses on the treatment is intensifying because of rising of public debt of Ukraine and forced military expenditures. Moreover, the transparency of cash flows undermines the pharmaceutical mafia, which has been receiving significant profits for a long time and opposes reforms. It is not amazing that for the period of the existence of independent Ukraine, 21 legislative acts devoted to the insurance had been worked out, but were not adopted as well. More than 20 ministers of public health had changed, but the number of Ukrainians decreased.

There are some disadvantages of medical insurance, which did not give a chance for the full realization of civil rights of Ukrainian citizens. The only customer (payer) of medical services is acting similar to monopsony, which always strives to set prices below the competitive, equilibrium level. Here there is a danger of decreasing of the quality of treatment that is not socially expedient. Moreover, the competition of many health care providers for a single buyer, in the conditions of poor work of state anti-monopoly committee is leading to unfair competition and corruption. History of market economy formation in Ukraine many times has demonstrated that the concentration of money in a single fund (for the purpose of accumulation insurance policies) and outdated hierarchical management of large structures leads to bureaucratization and formation of persistent corruption schemes. The increasing of administrative costs, the deterioration of the moral climate of large groups, the contradictions between the upper and lower levels of government, the pressure of local authorities on the activity of regional funds, their subordination to their own separate interests – all these points could have a negative effect of scale and increase the average costs of providing insurance services.

The prevalence of the shadow economics in Ukraine also contributes to the risks and threats of social insurance. If State Statistic Service of Ukraine estimates its volume at the level of 15,5% of GDP, then the study of the authoritative International Association of Chartered Certified Accountants in 2017, leads a much higher figure – 45.96% of GDP or 1.95 trillion hryvnias.¹³⁰ Cash flows have not transparent for society yet, it is still difficult to control them and to prove that money is being squandered. Additional payments from the wage bill of enterprises for insurance, in turn, cause the growth of the shadow market, pushing investors away. We have to take into account the spread non-formal norm like compensation to insurance entities the part of the funding for providing unwarranted benefits to particular medical institutions (so-called “back-ups”). There is a danger of obtaining such a variant of

¹³⁰ Державна служба статистики України, с. 2. URL: <http://www.ukrstat.gov.ua/> (дата звернення: 31. 01. 2018).

the market of medical services, which will be more expensive with insurance than without it.

With regard to deductions for social health insurance against employee incomes, it also has limitations due to their low level. Most of these revenues are directed at basic necessities.

Table 1 – Specific weight of expenditures of households in Ukraine on health care, food and non-food products (% of total consumption expenditure)¹³¹

	2010	2011	2012	2013	2014 ¹	2015 ¹	2016 ¹
Average cost per month per household, UAH	3073,3	3458,0	3592,1	3820,3	4048,9	4952,0	5720,4
Out of them							
Food and non-alcoholic beverages	51,6	51,3	50,1	50,1	51,9	53,1	49,8
Non-food products and services	34,9	35,4	37,2	36,6	36,3	36,5	40,5
Out of them							
Housing, water, electricity, gas and other fuels	9,2	9,6	9,9	9,5	9,4	11,7	16,0
Health care	3,2	3,2	3,4	3,4	3,6	3,7	4,2

¹ Without taking into account the part of the territory of ATO, temporary occupied territory Autonomy Republic of Crimea and Sevastopol

Thus, the rational consumer choice of households within their income in 2010-2016 fell on food and non-alcoholic beverages: these products had the greatest utility for the population. At the same time, the share of expenditures for non-food products increases from 34,9 up to 40,5%, but the expenditures for housing and communal services had increased from 9,2 up to 16,0% of total expenditures. Health expenditures allegedly also increased from 3,2 up to 4,2%, but they are still much lower than the cost of goods with low elasticity of demand. The introduction of additional insurance tax will reduce the income of people and will either further increase the Engel coefficient, or the transit of income to the informal economy. Consequently, the introduction of the classical model of social health insurance, like the models of many European countries, has a limit in Ukraine due to low household incomes.

As for contractual medical insurance, it provides for the contracting between clients and private insurance companies. In Ukraine, it is planned that “The sole national customer will enter into contracts with providers of medical services of all levels and forms of ownership”.¹³² De-bureaucratization and de-monopolization of insurance market are the advantages of this model, the dynamic development of infrastructure, and the increase of the general financial funds. Commercial insurance companies are prone to modern management and effective organization of information flows, technological innovations in the IT field – for example, the

¹³¹ Ibid.

¹³² Про утворення Національної служби здоров'я України. Проект Постанови КМУ. URL. http://www.moz.gov.ua/ua/portal/Pro_20161020_0.html#2 (дата звернення: 24. 08. 2017).

introduction of electronic document management system in the company and in medical institutions, monitoring of medical personnel's activities, and the quality of treatment. This model tends to competition, not only for its comparative, but also differential advantages. Insurers manage by the company's risks, struggling for clients and contracts with the best hospitals, improve marketing strategies, which on the other conditions, contribute to lowering of policy prices, differentiation and uniqueness of the proposed insurance products. They often use reinsurance, which increases their financial sustainability.

All these positive signs encourage some scholars to make the unequivocal conclusions: "Compulsory health insurance should be carried out exclusively on a commercial basis in insurance companies that have appropriate licenses"¹³³. However, this model, in our opinion, is not innovative and balanced. In fact, its risks are imbalance between economic and social efficiency, especially in the oligarchic economy, when players in the insurance market are prone to excess profits at any price. There is a danger that they will use public money to implement offshore schemes, unscrupulous reinsurance, and obtain large-scale shadow revenues. 20-year experience of health care insurance in Russia gives the best evidences in this field. Big private companies, in the opinion of a scholar Y. Mikhailova, "transformed the social idea into the commercial business on bones".¹³⁴ They even participated in the ambulance activity, the demand for which has low elasticity. The Member of Russian Parliament (State Duma) M. Gerasimenko points on the billion of subscripts in polyclinics and hospitals, formal way of giving of insurance policy, the nakedness of patients in front of the insurers, who do not analyze a patient's case history, and do not take into account the quality of medical care¹³⁵. The number of cases, when insurance companies and banks bankrupted increased nowadays, it causes inability of paying money for patients' treatment and hopes for refunding.

Consequently, before the introduction of compulsory contractual health insurance, it is necessary to form the appropriate institutes in the national economy that prevent abuses.

We have to emphasize that modern Ukrainian insurance companies that sell voluntary health insurance policies have not ready to participate in compulsory health insurance yet. There are a few of them, and they are not very active. So, according to the MERTU on 30. 09. 2016 the number of insurance companies in Ukraine, which cares for health insurance, there were only 45 ones, accounting for about 14% of the total number of insurance companies. They have got 40% of the total amount of premiums received by all insurance companies, however, payments on insurance cases accounted for only 13,5% of the total.¹³⁶ That is, the deductions for health insurance substantially exceed the insurance payments. The level of payment for all kinds of insurance by all insurance companies in Ukraine is also higher than the level

¹³³ Гончарук С. М., Приймак С. В., Даниляк Л. Я. (2016) Сучасний стан і проблеми фінансування установ охорони здоров'я в Україні, с. 193.

¹³⁴ Ibid, p. 193.

¹³⁵ На парламентских слушаниях в Госдуме обсудили проблемы и перспективы обязательного медицинского страхования. URL: <http://www.duma.gov.ru/news/273/1446712/#photo1> (дата звернення: 03. 01. 2017).

¹³⁶ Міністерство економічного розвитку і торгівлі України. Офіційний веб-сайт. URL: <http://www.me.gov.ua/?lang=uk-UA> (дата звернення: 03. 10. 2017).

of health insurance payments and equals 19,27%.¹³⁷ Many companies are only formalizing a genuine voluntary health insurance, but in fact it is a payment in case of a critical condition and hospitalization of the patient.

The urgent task for insurance companies that carry out voluntary health insurance and have innovation potential to participate in compulsory health insurance is to invent in the market infrastructure, namely, to expand the activity of assistance services, to open call centers, where specialists will work, to ensure the improvement of their qualification. But without the attractive investment climate in Ukraine and the established formal rules for the development of the insurance market, its large players are not interested in reorienting to compulsory health insurance. The probability of investment in Ukrainian health care by foreign insurance companies is low due to the long payback period of the start-up capital and the instability of economic and political development. This is evidenced by the dynamics of direct foreign investment.

Table 2 – Direct foreign investments in the economy of Ukraine by types of economic activity (USD million)¹³⁸

Fields	Years		
	01. 01. 2005	01. 01. 2010	31. 12. 2016
In total	9047,0	38992,9	37655,5
Wholesale and retail trade and repair of motor vehicles	1657,5	4341,1	5485,5
Manufacturing of food products, drinks and tobacco production	1127,6	1909,9	2550,9
Real estate operations	674,3	2371,3	3670,6
Health care and social assistance	163,5	49,8	45,7

The share of investments in health care (with social assistance) by the end of 2016 was 0,12% and decreased for 1,7% in comparison to 2005. These investments in absolute terms decreased by 3,6 times, while total investments increased for 4,2 times, in particular, in the food industry, wholesale and retail trade, real estate transactions – respectively in 2,3; 3,3; 5,4 times.

So, introduction of social medical insurance in Ukraine can be based mostly on the own resources. It is necessary to realize an objective standardization and tariffication of medical services, taking into account the high wages of health workers and the solvency of health care providers. In accordance to the economic rules of pricing, tariffs for medical services also include fixed costs – depreciation of equipment, utility costs, rent, transport costs, etc. All tariffs must be grouped into Diagnostic Related Group, which is used by developed countries. Discussion is about the implementation of international treatment protocols. At the very least, it is necessary to create conditions for a consistent solution of this issue in order to improve the quality of treatment.

¹³⁷ Міністерство економічного розвитку і торгівлі України. Офіційний веб-сайт. URL: <http://www.me.gov.ua/?lang=uk-UA> (дата звернення: 03. 10. 2017).

¹³⁸ Державна служба статистики України. URL: <http://www.ukrstat.gov.ua/> (дата звернення: 31. 01. 2018).

The introduction of social health insurance will bring the society closer to obtaining the civil rights guaranteed by the Constitution of Ukraine on equal access to medical care and real human development. Taking into account benefits and risks of a new institution, the need for a transitional innovation model is increasing. It involves the development of just social insurance without the participation of private companies. Innovations are in that the source of funding of the national insurance fund should initially be the state budget expenditures, without additional payments from employers and workers. On the one hand, this fund will ensure the targeting of taxes and control over cash flows, and, on the other hand, will not allow the abovementioned risks. So, a classical solidarity model is being restored: regardless of citizens' income and taxes, each one receives medical assistance in accordance to Article 49 of the Constitution of Ukraine.

However, there are new risks caused by the high level of the informal sector of the economy of Ukraine and tax evasion of the part of employers and workers. If they get into a hospital, they receive treatment at the expense of good-faith citizens who pay taxes. Here there is another problem that requires immediate resolution outside of health care. In 2017, the government made a number of steps in this direction: increased the minimum wage, created conditions for a certain business deregulation, and implemented a pension reform that encourages people to work officially. Administrative pressure is added to economic incentives to turn shadow revenues into official ones. Practice shows that there is a definite result. According to the State Treasury Service of Ukraine, revenues to the State Budget of Ukraine in 2017 compared to 2016 increased by UAH 192.187 billion, or 32%. The receipt of a single social contribution paid from the wage bill of firms and incomes of individual entrepreneurs in 2017 compared to the same period in 2016 increased by 51,075 UAH, or by 58%¹³⁹. It is also urgent to include the costs of the taxpayer for health insurance before the tax deduction, which should be reflected in the Tax Code of Ukraine.

Conclusions. As the further shadow economy shrinks, increasing of private incomes of citizens and increase of rates of economic growth, minimization of corruption and unjustified tax press for employers of the source of filling of funds of the National Health Service of Ukraine, the source of the insurance fund's filling will be supplemented by traditional insurance contributions from individuals and legal entities. The problem of the participation of commercial companies in compulsory health insurance is currently debatable. A more relevant program is the effective use of financial flows from the National Health Service in primary, secondary and tertiary medicine and the formation of innovative methods of insurance protection for Ukrainian citizens.

¹³⁹ Державна казначейська служба України. Офіційний веб-сайт. URL: <http://www.treasury.gov.ua/main/uk/publish/category/76973> (дата звернення: 31. 01. 2018).

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