

# Global Health Services Market in the New Economic Conditions

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**Abstract** — In the last years there is an active development of the global health services market. This process is due to the social and economic indicators growth. Supply of medical and health services in the market is carried out in one of four ways: cross-border supply, consumption abroad, commercial presence abroad, the physical presence of domestic specialists abroad. Consumption abroad (health tourism) takes the major volume of the market. However, there is a huge growth of trade in health services through cross-border supply, commercial and physical presence abroad. Social and economic indicators (innovative development of the country, life expectancy, fertility, purchasing power parity, personal spendings on health care among the population, qualitative and quantitative characteristics of medical personnel, the cost of treatment and rehabilitation in the country, reducing transport costs, etc.). In the context of globalization, the formation of two main flows of health services becomes obvious: from developing countries to countries with a developed market of services for high-tech and innovative types of diagnosis, treatment and rehabilitation; from developed countries to countries with a developing market for high-quality health services at competitive prices.

**Keywords**—healthcare system, health and medical services, global market, delivery terms

## I. INTRODUCTION

The human capital has become one of the main sources for economy development during the globalization. It improves the region competitiveness. There is a direct correlation between public health and economic growth. Thus, the global health services market and national health systems affect the well-being of individual economies and the world as a whole. Investing in health care means maintaining the population health by reducing incidence and increasing productive period of life. The health level largely depends on the qualitative characteristics of the health system at different levels.

On the one hand, national health systems face a number of challenges such as average life expectancy rise, population aging, low physical activity, leading to various diseases, the emergence of new (Zika virus, influenza

A/H1N1, etc.) and the activity of previously known (HIV) viruses resistant to existing treatment protocols, the complexity of prevention, detection and treatment of many diseases (cancer, cardiac, gastrointestinal). On the other hand, the period of globalization was characterized by rapid development of bio - and nano-, genetic engineering, cellular, tissue, immunobiological technologies. The processes of targeted drug delivery, 3-d organs printing, rehabilitation cybersystems are to increase the duration and quality of life.

## II. UP-TO-DATE TENDENCY ON THE GLOBAL MEDICAL



Fig. 1. Current health expenditure per capita in 2000 - 2015, current US\$ [1]

The demand increase on the medical and health services market has the tough connection with living standards in a country. As Table 1 the growth of such social and economic indicators as purchasing power parity, life expectancy, as well as decrease in a birth rate contribute to the the rise in personal health spending among the population [1,

2]. Moreover, it boosts the country attractiveness for international medical service consumers

Country	GDP per capita (current US\$)		Life expectancy at birth, total (years)		Birth rate, crude (per 1,000 people)		Private Health Care Expenditures (share in GDP, %)	
	'00	'17	'00	'17	'00	'17	'00	'17
Switzerland	37868	80190	80	83	11	10	4,4	4,6
Greece	12043	18613	78	81	10	9	2,8	3,2
Chile	5101	15346	77	80	17	13	3,3	3,2
Canada	24124	45032	79	82	11	11	2,5	3,1
USA	36450	59531	77	79	14	12	7,0	3,1
Portugal	11502	21136	76	81	12	8	2,5	3,1
South Korea	11948	29743	76	82	13	8	1,8	3,0

The major factors for international patients to choose one or another country for treatment are the following:

- high living standards and economic indicators,
- high level of technology development,
- qualitative and quantitative characteristics of available medical personnel,
- medical services costs.

### III. DELIVERY TERMS ON THE GLOBAL MEDICAL SERVICES MARKET

Considering the impact of social and economic indicators the health and medical services can be delivered by one of the following terms: consumption abroad, presence of national specialists abroad, commercial presence abroad, cross-border delivery.

#### A. Consumption Abroad

Since ancient times, people have traveled long distances to get high-quality medical care. The stages of medical services market development reflect the historical development of society. The growth rate of the world medical and health tourism sector at the present stage is one of the highest compared to other tourism segments.

To assess the amount of the issue a man should distinguish the health and medical tourism. According to the authors, health tourism is a set of diverse services, ranging from SPA visits to surgery, which are undertaken in order to obtain more qualified medical care. While medical tourism is a set of just medical services for which the patient is sent to another region / country.

By estimate, the health tourism market volume exceeds the medical tourism market by more than 8 times. In fact, the total market of medical and health tourism accounts for more than 50% of the world tourism market and is the

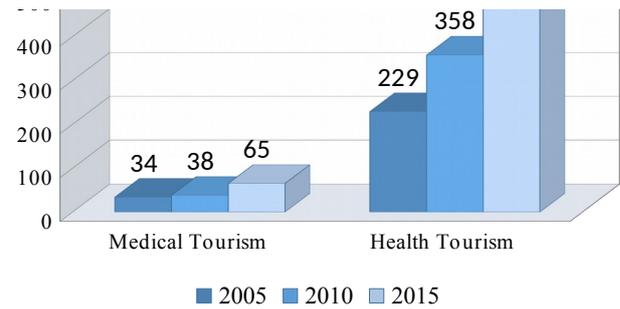


Fig. 2. Capacity of the international market of medical and health services in 2005-2015, billion dollars [4]

The International Health Research Institute identifies the world's leading countries by the medical tourism index (MTI) [5]. The top five include Canada, USA, Israel, Singapore, India. This index includes an assessment of the

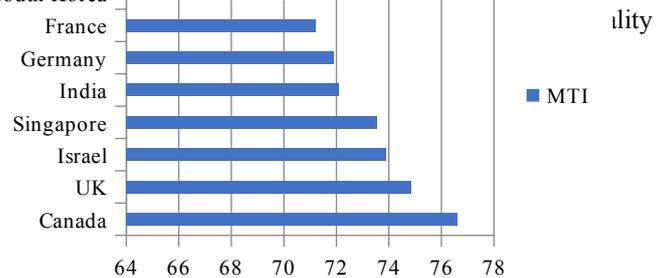


Fig. 3. Capacity of the international market of medical and health services in 2005-2015, billion dollars [4]

Thus, the health tourism is a phenomenon that has a significant impact on the development of the entire tourism sector.

#### B. Presence of National Specialists Abroad

The physical presence of national specialists abroad involves the movement of individuals and their presence associated with medical practice implementing or training on the foreign labor market. The physical presence of national specialists abroad is limited in time. Individuals can either provide services independently or work in a foreign company as specialists on the contract basis.

According to the World Health Organization (WHO), there are currently about 60 million health workers in the world [6]. However, the professionals density is unequal. For example, in 57 countries, one third of which are developing countries, national health systems face workers shortage [7].

International migration of medical personnel has reached its peak while modern globalization processes. The driving factors for this phenomenon are the differences in the working and payment conditions.

When looking at migration, from the host country point of view, it implies the whole range of advantages. Indeed, migration processes on the health care market can bring significant economic benefits. However, there are also some challenges. Let us scrutinize both

**Advantages**

**Disadvantages**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• <b>highly qualified personnel shortage control without additional investment in the training of health workers</b></li> <li>• <b>innovative health care system development stimulated by foreign scientists</b></li> <li>• <b>foreign workers are more likely to occupy empty niches in the domestic labor market</b></li> <li>• <b>highly skilled workers contributes to the reduction of expenditure on wages and compensation packages, as well as the replenishment of the labour market in geographically remote areas of the country, due to the higher mobility</b></li> </ul> | <ul style="list-style-type: none"> <li>• cultural differences among non-residents, especially in traditionally homogeneous societies with a sense of national identity</li> <li>• the technological backwardness in the donor country results in a lack of knowledge among immigrants to work with innovative equipment</li> <li>• additional training costs for newly arrived medical personnel are borne by the host country</li> </ul> |
|--|---|

So, during the international migration of highly skilled health workers, the recipient country benefits directly reflect the losses of the donor. The positive economic effects can be estimated by calculating benefits of the recipient country and additional costs. However, to estimate the loss of the host country seems to be difficult and depend on the country's existing immigration policy and tools [8].

**C. Commercial Presence Abroad**

Commercial presence abroad involves service provider moving to the consumer territory, as well as implementing various forms of medical organizations by foreign operators (subsidiary, branch, representative office, joint ventures, partnership, merger, acquisition, etc.).

As the population health has an economic input, providing health services seems to be a profitable investment. Companies entering the foreign market have the opportunity to sell their services on the foreign market with additional profits. On the other hand, a state receives the following positive effects from the liberalization of the capital market. First of all, the income received in the form of taxes can be invested in the development of the internal health sector, infrastructure and technologies modernization. The use of private capital helps to reduce and/or reallocate public health expenditure in a country. Moreover, foreign companies create new jobs on the local labor market for residents and reduce unemployment. The growth of competition contributes to the introduction of more effective enterprise management methods improving service quality.

However, the benefits of market liberalization can be offset by initial public expenditure reallocated from the public health system to attract foreign investments. Also, the presence of foreign competitors in the market, forming more attractive working conditions and infrastructure, contribute to the so-called internal "brain drain": moving highly qualified health professionals from public health to the corporate segment.

The last decade has been unique in terms of the volume of private capital transactions on the international market. It reached the peak in 2006-2007. After the crisis and serious fall of the market in 2008, the gradual recovery of medical services investments has seen. In 2016, despite of the

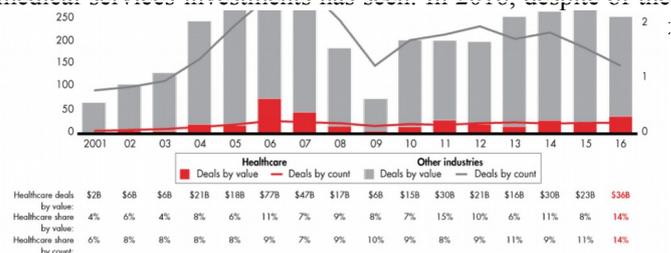


Fig. 4. Private investments in health care in the total volume of private foreign investments in 2001-2016, billion dollars. [9]

The commercial presence is actively implemented by leading companies in the field of healthcare. American companies are the leaders in the international market of medical services. They operate in various fields: medical insurance, pharmaceuticals, medical services, etc. However, the volume of transactions is far from similar enterprises indicators operating in the technology industries.

**D. Cross-Border Delivery**

Cross-border supply concerns the use of information and communication technologies that contribute to key health issues in the world. The increase in this delivery method

contributed to the information search and exchange improvement.

The official definition of the phenomenon adopted by the World Health Organization (since 1998) at the international level. The telemedicine is “healing at a distance, signifies the use of information and communication technologies to improve patient outcomes by increasing access to care and medical information” [10]. According to the WHO, telemedicine has the following characteristics:

- clinical support as the main objective,
- overcoming geographical barriers,
- using different types of information and communication technologies,
- improving public health [11].

The estimated volume of the telemedicine market in 2015 amounted to 23.88 billion dollars. For 5 years the growth of 50% was demonstrated [12]. According to forecasts of

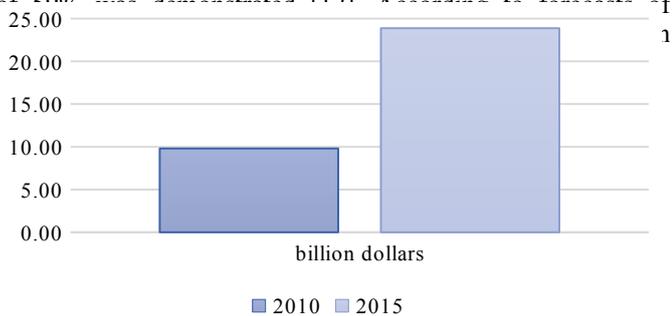


Fig. 5. Global telemedicine market growth in 2010 – 2015 гг., billion dollars [9]

According to the World Health Organization, more than a quarter of the participating countries have national agencies for the telemedicine development and adhere to a certain strategy in this direction [13]. The telemedicine allocation at the national and international levels indicates the importance of this industry for the human capital development.

In the telemedicine market, North American and European countries occupy more than 3/4 of the market [12]. The Joint Research Centre of the Commission of the European communities ranks the leading countries according to the level of telemedicine development (Telemedicine Development Index), while assessing factors such as infrastructure, the share of institutions involved in the telemedicine market, the information flows volume, the private data safety. Malta, Denmark, Estonia, Finland and Sweden are leaders on the telemedicine market [14].

The development of information technology allows to provide medical services, train staff, consult while being at a

considerable distance from the recipient of the service. However, this term delivery is young and faces some difficulties. While in developing countries, the main obstacles are primarily the lack of resources (high cost, lack of infrastructure, lack of technical knowledge), in developed countries there are issues related to confidentiality and the formation of active demand in the market.

#### IV. THE RUSSIAN FEDERATION ON THE GLOBAL MEDICAL SERVICES MARKET

The Russian Federation has also been an active participant in the international market of medical and health services over the past decade: the world-famous Russian clinics receive patients from foreign countries on a regular basis; the methods of treatment and technologies developed by Russian medical scientists are used in various spheres of health care; the international medical community recognizes the innovations of domestic specialists; the Russian telemedicine market is boosting. The low cost of medical procedures provided according to international standards with the results at the level of the world’s leading clinics is the main competitive advantage for Russia.

However, there are a number of challenges in the Russian market of medical and health services: the backlog in certain areas of health care, the acute situation with the availability of skilled care in remote regions of the country, and the absent infrastructure. Thus, the solution to the problem of increasing competitiveness and maintaining high quality of medical care is a priority for the entire Russian health care system and occupies a leading place in the totality of social tasks of the state. An integrated approach to increasing the competitiveness of Russian companies in the international market of medical and health services, the implementation of Russian international specialization in certain areas, for example, Spa treatment, Oncology, Hematology, Ophthalmology, Orthopedics, etc. It will allow to increase the economic efficiency of the national health care system: to rise the quantitative and qualitative results of treatment, to attract additional funds (including foreign capital) necessary for research and updating of the technological base.

Given the significant increase in the volume of medical and health tourism, there is a need to implement a comprehensive assessment of its impact on the health system as a whole, as well as the establishment of international standards in this area. The main challenge will be to develop an appropriate strategy that will significantly reduce risks and improve the effectiveness of health care system in Russia.

#### V. CONCLUSION

The study findings demonstrate the active growth of the international market of health and medical services as a separate segment of international economic relations. This factor is related to the challenges faced by national health systems: increased life expectancy, ageing of the population, low physical activity of citizens. It leads to the growth of some diseases, the emergence of new and previously known strains of viruses resistant to existing treatment protocols, the

complexity of prevention, detection and treatment of diseases, etc.

Supply of medical and health services in the market are carried out in one of four ways: cross-border supply, consumption abroad, commercial presence abroad, the physical presence of domestic specialists abroad. The main volume of the market falls on consumption abroad (health tourism). However, the tremendous growth of trade in health services through cross-border supply, commercial and physical presence abroad suggests the potential of these types of supply.

The impact on the development of world trade in medical and health services has a set of socio-economic indicators, as well as market regulation tools in both exporting and importing countries: innovative development of the country, the level and life expectancy, fertility, purchasing power parity, increase in personal spending on health care among the population, the qualitative and quantitative characteristics of medical personnel, the cost of treatment and rehabilitation in the country, reducing transport costs, etc. Given the crucial role of health on the social and economic well-being choosing the best health system combining the tools of state regulation with elements of private funding should be a national priority.

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