

Problems of Modernization of the Health Economics in the Russian Regions

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Abstract: This article describes the problems of the development of the health system in the regions of Russia; suggests a classification of the indicators of the regional health system; provides the comparison of parameters of the health system of the Republic of Tatarstan with the national ones; suggests an action plan on improvement of the regional health system; and shows the necessity to keep statistics on such an indicator as the coefficient of the reproduced population of the labor capital of the country for timely accounting of the simmering problems in the country.

Key words: Health economics • Regional health system • Organization of the regional health system
• Macroeconomic parameters of the regional health system

INTRODUCTION

The problems of economics and organization of the health system are the first priority of the country development. Influence of medical service on the economics is as strong as influence of economics on the health state [1]. Medicine is not only the main factor of ensuring high standards of the population's life quality, improvement of labor efficiency in the sectors of the post-industrial economy, but has become the largest business in the world.

Primarily, it is determined by the fact that it forms the parameters of growth of the main resource of the post-industrial society-the human capital. Most economists while interpreting the concept of human capital emphasize the priorities of the population's health parameters; particularly, they notice [2] that human capital is the certain reserve of health, knowledge, skills, which are used in the course of labor aiding to improve its efficiency, which capital was formed as a result of investments and accumulated by the humankind.

The economic aspects of the population's health are based on the fact that it forms the parameters of labor resources of the society while being the main condition for reproduction of the labor potential as well as the necessity to provide economic resources of the government and private business.

The special difficulty at studying the health system economics resides in the fact that the main choice is done based on the quality, rather than the price or the quantity. It is necessary to find out, which exactly services need to be invested in the circumstances of limited money, to study the existing resources in the country (region), i.e. the physical infrastructure, the personnel recruitment and so on; how to optimize the health system in order to achieve the maximum effect and to identify the problematic issues with the Russian health care system.

Most often, the ratios of population morbidity, bed-day turnover, population of doctors per 1,000 people, availability of equipment, as well as the birth-death ratio and others are associated with the health system indicators. We find it necessary to keep statistics on such an indicator as the coefficient of reproduced population of the labor capital of the country for timely accounting of the simmering problems in the country.

The whole variety of existing approaches to the organization of health systems can be grouped by the attributes of the prevailing legal structure of the medical services to population; the extent of the government control of the system; the criteria of the level of social development and methods of controlling the social sphere; the subject of financing the health system; and the share of expenditures for health care in the GDP.

RESULT

According to WHO, in the countries with low income, the expenditures for healthcare per capita are estimated at \$32 (or approximately 5.4% of the GDP) and in the countries with high income - at \$4,590 (or approximately 11% of the GDP). Countries with high income have about 10 times more doctors per capita, 12 times more nurses and obstetricians and 30 times more dentists, than countries with low income [3].

By the share of expenditures for the health system in the GDP, the largest share is shown by the USA. They spend approximately 18% of the GDP for health care. (17.9% in 2011). Many developed countries spend between 8 and 12 percent of the GDP for health care. Japan and European countries assign less share of the GDP for health care; still they sometimes show better results than the USA.

In 2011, the largest share of health expenditures in the GDP was allocated by the USA (17.9%), France (11.6%) and Canada and Denmark (11.2% each). Also, high percentage of the GDP was shown by countries with moderate GDP value: Liberia (19.5%), Sierra Leone (18.8%) and Tuvalu (17.3%) [4]. The least expenditures were shown by Zimbabwe (0.7%), South Sudan (1.6%) and Qatar (1.9% of the GDP). Russia's value was 6.2% in 2011. By the expenditures per capita, the largest values in 2007 were shown by Norway (\$7,354), the USA (\$7,285) and Switzerland (\$6,108). The least expenditures for health care per capita are present in Somali (\$8), Ethiopia (\$9) and Bangladesh (\$15). Russia has \$493 per capita [5].

In 2011, the leaders by the government share in the total expenditures for health care were Niue (99.2%), the Cook Islands (92.5%) and Cuba (94.7%). Among developed countries, the largest share of government expenditures exists in Norway (85.6%), Denmark (85.2%) and New Zealand (83.2%). In the USA, the government expenditures were 45.9%, which is less than half of the total expenditures of this country for health care. The least share of government expenditures are in Myanmar (13%), Yemen (20.9%) and Azerbaijan (21.5%). In Russia, this value was equal to 59.7% in 2011. As for the share of health expenditures in the total government expenditures, New Zealand and the USA spend 19.8% of the total expenditures for the health system, Switzerland spends 21% and such developed countries as the UK, Spain, Norway, Germany, France, Canada, Denmark and others spend between 15% and 19%. In the government

expenditures of Russia, only 10.1% are spent for the health system [4].

There are various explanations for the tendency of significant growth of the expenditures for health care. The growth of the population prosperity results in spending more money for goods and services. Extra expenses for health care follow the expenses for food and housing by their size. Technological development has made the contemporary medicine more attractive. The ageing population prefers medical services to other commodities.

The other factor explaining the growth of expenditures for health system resides in the fact that certain usual, acute (short-term) diseases have become treatable or preventable and medicine pays more attention to chronic diseases, which have been treated as hopeless before. This transition from conventional treatment to a technologically complex treatment affected the structure of expenditures: more money is spent for treatment in hospital environment, as well as for private hospitals and asylums, where the share of individual service by doctors has become less.

The share of health system money assigned for production of such commodities as medicines has decreased and, at the same time, the share of money for time-consuming services has increased. The price of the permanent innovations and changes in medical services is extremely high, but the price of refusal from the opportunity and innovations is a lot higher [1].

The source of money for health care is taxes and funds of medical insurance. Insurance and government funding guarantee that solvency of a person will not be an obstacle for him to receive medical aid. However, the total scope of expenditures for health care is limited by the amount of total tax liabilities and insurance contributions of the population; and in this case, the budget amount plays the decisive role rather than the demand in medical aid. For example, in most countries, the expenditures for the senior population are 2 or 3 times higher than for the people of young and middle age. Richer countries spend more for health care and their population suffers from diseases less often.

However, we cannot unambiguously conclude that if certain countries assign more funds for financing the health system, their population will suffer from diseases less often. Other factors affecting health of population include nurturing, sanitary environment, education, the rate of economic growth and of the GDP and the medicine

development as a whole. However, for the past 20 years, the duration of life in many poor countries has extended and the quantity of doctors and the GDP value have decreased. Research carried out in various countries has shown that allocation of income is more important rather than its absolute amount [6]. There is little surprise in the fact that the countries, which allocate income more evenly, have better state of health the population in general. The dependence of health on income is not of linear type.

Population of countries with lower values of income face problems not typical of rich countries-infectious diseases, backwardness, non-availability of medical aid for the population living in the rural territories and adverse terrains. At the same time, life of government officers who live in capitals and large cities can be the same as the life of the population of developed countries. The uneven allocation of resources leads to the situation when in some regions of a country there are medical centers equipped with the latest technology, where, in other territories, there are no qualified personnel, which results in failures to vaccinate children and in regular epidemics of infectious diseases.

Every year, the World Health Organization announces the best health system in their opinion. The WHO rating names France, Italy and San Marino to be the countries with the best health systems. However, such indicators cannot prove the efficiency of investments; therefore, the health system of each country requires a thorough analysis.

In 2012, countries of the world were attracted by the experience of Cuba, which took 34th place in the rating, ahead of many other more developed countries. Experts were attracted with the fact that in the country, high quality medical aid is rendered to all citizens free of charge. Along keeping its healthcare at an adequate level, Cuba provides teaching foreign specialists and helps their colleagues in more than 32 countries [7]. Life duration in Cuba is 77.8 years (As a comparison, in Russia, it is 70.3 years) and the level of child mortality, including infant mortality, is very low: 4.3 children per 10,000 in the age of between 1 and 4 years and 2.7 per 10,000 children for school-aged children.

After the revolution of 1959, two main principles of social development of the country were formulated: education and medicine must be available and free for every citizen. Medicine on the island is governmental; it is supervised by the specially established Ministry of Health. The system of medical education in Cuba is mainly

based on the experience of the former USSR: in order to receive a degree in medicine, one needs to study for 6 years in a medical institution and pass a 3-year specialization. Despite considerable achievements, there are quite a lot of problems, mainly financial ones, in the Cuban health system. All-round the country, there is a lack of bare essentials, including antibiotics, disposal gloves, disposal syringes and X-ray film. Private medical practice is strictly forbidden in Cuba; there is criminal responsibility for violating this principle [8].

Cuba chose the path of re-orienting medicine from the healing to prophylactic one. Most actions are oriented to prevention of diseases. The health system is arranged to prevent diseases before they reach the extensive stage and require expensive treatment.

Currently, despite efforts of the government, development of the health system in Russia faces a series of critical issues. They include low quality of medical aid in many regions of the country, unequal access to medical aid in various regions, the restricted nature of the Program of Government Guarantees, low salaries of doctors, lack of funds for payment for high technology medical aid, which causes long queue of patients expecting for required medical aid. New government programs, such as the Health National Project and Modernization of Health Care programs show that the country requires drastic changes of the system. Obviously, transformations on the government level cannot ensure instant results; however, even at the initial stage, we can estimate if there is any, even insignificant, effect of investments.

CONCLUSIONS

Increasing funds for supporting the regional health system seems to be the main way to solve its economic issues. However, the problematic nature of this approach is obvious; therefore, it is necessary to assess the efficiency of the decisions to be taken and the return on each invested ruble. Often, the allocated limits of funds are not spent according to their intended purpose, which is the undoubted defect of the governmental health system. The development of the private health system, as exemplified by many countries, results in occurrence of other problems: companies, which render medical services, try to make profit by any methods; insurance companies refuse to insure problematic patients; the society stratifies by income level; private organizations are not controlled; and there are many other problems, as well.

This determines the necessity to achieve optimal combination of legal forms of medical services for the population of the region, which would include the governmental, municipal and private levels of the health system with the domination of the government system, in line with the world trend.

It is also necessary to follow the prospects of efficient implementation of the social (mixed) approach to managing the regional health system, which approach contributes to the understanding of the necessity of regulation of the sphere in the circumstances of market economy and within which the attributes of government and private approaches and economic and social principles of health system management are combined. The disadvantages of the government approach are the standardization of services, which results in complicated access to the services and queues for treatment (wait lists) and the restrictions in choosing doctors, as well as others. The disadvantages of the private approach are the lack of access to medical services of certain vulnerable groups of population (incomplete coverage of the population by insurance), the uncontrolled growth of expenses for the health system, the deprivation of the social nature of health care (accessibility and universality), the decentralized administration and others. The historically formed unique peculiarities of the economics and social sphere of the region require searching for special models of the health system organization with the priority of the financing method. The level of socio-economic development of Russian regions assumes searching for an optimal balance of approaches for each region, which balance to be based on the principle of “the single payer” and “medical insurance at the workplace”.

The model based on “the single payer” system is applied in Scandinavian countries, Ireland, the UK and the Southern Europe countries (Greece, Spain, Italy, Portugal), which acknowledge the role of the government sector as the main source of financing, thus ensuring the universal access of the population to the health care services. It assumes medical services rendered to citizens to be financed by the government. The government is also engaged in collecting taxes, administering and regulating medical aid and pays for the aid without any intermediates. This approach restricts the possibility to form a regional model of health care arrangement. These restrictions can be compensated to some extent by development of the system of regional medical insurance at workplaces. Insurance funds can act within one or

several sectors of economy with the government stating the sizes of insurance fees and premiums. At that, medical establishments of the region remain independent and the remuneration they receive for their services is determined as a result of negotiations with the funds.

REFERENCES

1. Getzen, T.E., 2000. Health Economics: Fundamentals and Flow of Funds.
2. McConnel, K.R. And S.L. Brew, 2003. Economics: Principles, Problems and Policy. Moscow: INFRA, pp: 452.
3. Report by WHO for 2011. The official website of the Ministry of health care and development of the Russian Federation.
4. The official website of the World Health Organization. Date Views 12.07.2013 www.apps.who.int/gho/data/node.main.75
5. World health statistic, 2010. Date Views 20.07.2013 www.who.int/whosis/whostat/RU_WHS10_Full.pdf
6. Rodgers, G.B., 1979. ‘Income and Inequality as Determinants of Mortality: An International Cross-Section Analysis’ *Population Studies*, 33, 2(1979): 343-351.
7. Cuban healthcare named world quality standard. MADdaily.ru Date Views 10.07.2013 www.meddaily.ru/article/28mar2012/ccool.
8. Kantsidailo, T., 2009. Cuban Healthcare: Example to Follow for Many Countries. *Healthcare of Ukraine*, 8: 25.
9. Brown, G. and C. Raymond, 2007. The relationship between Place Attachment and Landscape Values: Toward Mapping Place Attachment. *Applied Geography*, 27(2): 89-111.
10. Power, M., 2004. Counting, Control and Calculation: Reflections on Measuring and Management. *Human Relations*, 57(6): 765-783.
11. Glebova, I., D. Rodnyansky, R. Sadyrtinov, R. Khabibrakhmanova and Y. Yasnitskaya, 2013. Evaluation of Corporate Social Responsibility of Russian Companies Based on Nonfinancial Reporting. *Middle-East Journal of Scientific Research*, 13: 143-148.
12. Safiullin, L.N., N.G. Bagautdinova, N.Z. Safiullin and I.R. Gafurov, 2012. Influence of Quality of the Goods on Satisfactions of Consumers. *International GSTF Business Review (GBR)*, 2(2): 225-232.

13. Grandgirard, A. and T. Kalivas, 2009. Mapping Community Values for Natural Capital and Ecosystem Services. *Ecological Economics*, 68(5): 1301-1315.
14. Raymond, C.M., B.A. Bryan, D.H. MacDonald, A. Cast, S. Strathearn, N.G. Bagautdinova, I.R. Gafurov, N.V. Kalenskaya and A.Z. Novenkova, 2012. The Regional Development Strategy based on Territorial Marketing (the Case of Russia). *World Applied Sciences Journal*, 18: 179-184.
15. Safiullin, M.R., L.A. Elstin and A.I. Shakirova, 2012. Evaluation of Business and Economic Activity as a Short-term Forecasting Tool. *Herald of the Russian Academy of Sciences*, 4: 290-294.
16. Safiullin, L.N., G.N. Ismagilova, D.Kh. Gallyamova and N.Z. Safiullin, 2013. Consumer Benefit in the Competitive Market. *Procedia Economics and Finance*, 5: 667-676.
17. Zhi, H., 1995. Risk Management for Overseas Construction Projects. *International Journal of Project Management*, 13(4): 231-237.
18. Pesaran, M.H., T. Schuermann and S.M. Weiner, 2004. Modeling Regional Interdependences Using a Global Error-Correcting Macroeconometric Model. *Journal of Business and Economic Statistics*, 22(2): 129-162.
19. Audretsch, D.B. and E.E. Lehmann, 2005. Does the Knowledge Spillover Theory of Entrepreneurship Hold for Regions? *Research Policy*, 34(8): 1191-1202.
20. Larionova, N.I. and Yu.A. Varlamova, 2013. The Trends of Household Economic Behavior in International Comparison. *Procedia Economics and Finance*, 5: 737-746.
21. Novenkova, A.Z., N.V. Kalenskaya and I.R. Gafurov, 2013. Marketing of Educational Services: Research on Service Providers Satisfaction. *Procedia Economics and Finance*, 5: 667-676.
22. Kamasheva, A., J. Kolesnikova, E. Karasik and E. Salyakhov, 2013. Discrimination and Inequality in the Labor Market. *Procedia Economics and Finance*, 5: 386-392.
23. Bagautdinova, N.G, I.V. Goncharova, E.Y. Shurkina, A.V. Sarkin, B.A. Averyanov and A.A. Svirina, 2013. Entrepreneurial Development in a Corrupted Environment. *Procedia Economics and Finance*, 5: 73-82.
24. Fritsch, M. and G. Franke, 2004. Innovation, Regional Knowledge Spillovers and R&D Cooperation. *Research Policy*, 33(2): 245-255.
25. Sohngen, B., R. Mendelsohn and R. Sedjo, 1999. Forest Management, Conservation and Global Timber Markets. *American Journal of Agricultural Economics*, 81(1): 1-13.