

# RUSSIAN & USA HEALTH SYSTEM: THE BENCHMARKING RESEARCH

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## ***Introduction***

Population's health is the most important factor of successful social development and main resource for ensuring state stability. By social standard of living and population's health it is possible to judge an efficiency of a state policy in the public health service sphere.

## ***National Health Service in USA***

The most expensive health system in the world is the USA system. According to Medicine Institute of United States National Academy of Sciences statistics the USA is the only developed industrial country of the world which doesn't have universal health system. About 83% of citizens have a health insurance and 17% of citizens have insurance within the state program.

For the National Health Service in USA is usual a private entrepreneurship system with the elements of the national and insurance medicine and for this reason the control of National Health system in the USA is exercised by the Public Health department formally.

Public Health department includes of the Service of Public Health care which address the issues of the organization of out-patient and stationary medical aid only to special categories of the population: veterans of war, members of armed forces, public employees.

The private entrepreneurship system is financed from personal means of the population where the medical care is provided on a paid basis.

In the USA there is no uniform system of medical insurance.

Private and state medical insurance programs are differ from each other in quantity and quality of the provided services and a different sources of financing. In the USA 74% of the population have a private medicine insurance and others have or have not the state insurance.

The citizens who don't have a health insurance receive medical care in the state hospitals and clinics through health care programs [1].

## ***State Programs***

Many of Americans, not having a private insurance, get under action of the government Medicare and Medicaid programs.

Medicare is a state program of medical care for the aged and unemployable people. The persons which reached 65 years and who are receiving a benefit on social security and having length of service from 5 to 10 years depending on kind of work have the right for use of this program.

Also persons more young than 65 years receiving within at least 2 years benefit on disability according to the social security program, and also the people who worked a certain number of years at government work can receive privileges on this program. Medicaid is a state program of medical care to families with the low income. It covers

10% of the population and subsidized with the federal governments, but regulated by laws of states.

The family has the right to privileges according to this program if its income is lower than the level established by each staff but only provided that someone from a family at the same time are or aged people, unemployable or having children [2].

### ***Advantages & Disadvantages of the U.S. Health System***

Advantages:

1 Considerable financial investments;

2 High quality of medical care

It is reached thanks to the adjusted system of medical care and its organization.

3 High level of productivity of scientific researches

Medical institutions in the USA are provided with the most perfect medical equipment, medicaments and expendables. The most part of Nobel Prizes in the medicine sphere is got by 18 of 25 representatives of the USA [3].

Disadvantages:

1 Provided services are paid

The medical care is provided mainly on a paid basis and financed from personal means of the population.

2 Enormous financial expenses

On medicine expenses the USA have a first place in the world — as in absolute figures (2,26 trillion dollars), as a percentage to GDP (16%)

3 Lack of obligatory medical insurance

### ***Health System in Russia***

Health care of Russian Federation is a form of social protection directed on preservation and improvement of health of citizens and rendering highly skilled, specialized medical care to them.

The Federal law "About medical insurance of citizens in Russian Federation" is the cornerstone No. 1499-1 of June 28, 1991 with additions and changes of 1993. Since 1991 the uniform state system is Compulsory Health insurance (CHI) is a type of general insurance. The purpose of health insurance is backing the medical care in the insured events by expense of accumulated funds and funding of preventive measure [4].

### ***Achievement of the Russian Medicine***

At the last years the serious investments are invested in medicine sphere. For example, more than one hundred large centers put into operation in the last two years, over four thousand establishments received capital repairs. Modern technologies are intruded whether for treatment processes, or diagnosis of diseases. Great success in IT allowed creating the high-informative diagnostic methods. Today in Russia to replace standard radiological, ultrasonic and endoscopic researches come a spiral and multiplanar tomography.

### ***Problems of the Russian medicine:***

Today in health system of the Russian Federation, despite achievements of last years, serious problems, such as collected:

1 Insufficient financing of the state health system at least by 1,5 times.

2 Deficiency and unorganized structure of healthcare manpower.

3 Unsatisfactory qualification of healthcare manpower and as a result is poor quality of medical care [5].

### ***Reform of Health Care in Russia***

Reform is directed on creation of conditions which will allow to carry out not only treatment and prevention of diseases, but also to provide rendering high-quality and available medical care, and also to support and develop material base of health system in Russia.

#### ***Purposes:***

1 Excess of health care financing by 2020 is 5% of GDP.

2 Stop the declining of population and increasing the number of population to 145 million people by 2020.

3 Formation the healthy lifestyle of population, decreasing the using tobacco to 25% and decreasing the drinking alcohol to 9 litre a year per capita.

4 The main goal is providing the population with a free and guaranteed state medical care.

#### ***Within this Reform:***

1 The national Health project is developed (The national Health project is a program for improvement of medical care's quality)

2 Federal laws are adopted: "About bases of protection of public health in the Russian Federation", "About obligatory medical insurance".

3 Within the State program of health care development till 2020 is planned to spend 30 trillion rub.

4 Active introduction of private entrepreneurship system.

### ***Advantages & Disadvantages of health system in Russia:***

#### ***Advantages:***

1 Existence of obligatory medical insurance

2 Considerable investments promoted development of material technical base of establishments recently.

#### ***Disadvantages:***

1 Insufficient financing from the state

2 Quality of the provided services doesn't conform to state standards

3 Shortage of skilled personnel [6].

### ***Conclusion***

1 Each of systems has the experience of education and the level of social and economic development of the state

2 The medicine in America has higher rates than in Russia

3 The USA it is allocated bigger financing on health care, than in Russia is considerable

4 The American patients quite often pay for treatment much more, than the Russian patients, as treatment in America always the paid.

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## DISTRIBUTED GENERATION AND ITS FUNDAMENTALS

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### **Introduction**

Owing to the scientific research from year to year new devices that allow getting the electricity from renewable energy sources are being increasingly designed. These smart grids have got the wide utilization in different industrial sectors. Also these technologies are being used by individual entrepreneurs to reduce energy costs. The connection presence to electric network allows compensating the lack of energy. Furthermore, entrepreneurs can activate the power installation to bring under the power plant emergency by operator command. The capacity of alternative energy units is determined by consumer. Renewable energy power plants have impact on energy system: the unbalances between the electricity generation and energy consumption result regularly, so their common contribution into the energy network cannot be disregarded. That is why the definition of distributed energy is coming up.

### **Distributed generation (DG)**

DG – electricity and heat energy generation on the capacities are located near the consumer [2]. The sources of distributed generation allows owners to send generated energy into the network by way of getting the income or in case of power plant emergency when the additional sources of capacity are required to reduce the network load. All the communications are realized by way of complicate network which is based on the Smart Grid technologies such as smart meters etc. A rural radial distribution system incurs above-average costs when energy has to be transmitted long distances from the remote generating plant. The need to supply isolated locations