

## The history of public healthcare in Russia

*Vladimir A. Reshetnikov<sup>1</sup>, Natalia V. Ekkert<sup>1</sup>, Lorenzo Capasso<sup>2</sup>, Evgeny V. Arsenyev<sup>1</sup>, Maria S. Mikerova<sup>1</sup>, Irina I. Yakushina<sup>1</sup>*

<sup>1</sup>I.M. Sechenov First Moscow State Medical University, Moscow, Russian Federation; <sup>2</sup>MIUR, USR Abruzzo, Chieti, Italy

**Abstract.** The article presents the historical evolution of healthcare system in Russia, from early Soviet times until the fall of the Soviet Union and the end of the communist era. The development of the healthcare system is described and analyzed in relation to key public health indicators, and the role of developed principles in modern Russian healthcare system. The paper deals with a peculiar system: in international literature four healthcare models are identified, the so called Semashko model was developed and firstly structured in the USSR and secondary applied in other communist countries. Considering that nowadays most of the world countries, including Russia, use Bismark or Beveridge systems, a serious historical reconsideration appears be useful.

**Key words:** public health, history of healthcare, soviet healthcare system, Semashko model, russian healthcare

The Russian healthcare system originated from district healthcare\* (*Russian: земская медицина*) in the early XX century. It is during this period that forward-thinking ideas of healthcare provision were born. District healthcare was present in 34 provinces of the European part of the country. Its goals included free healthcare with free medicine distribution via outpatient clinics, free medical care in hospitals, free surgeries and obstetric services as well as prevention of and sanitary measures against epidemics. In 1910, these 34 provinces took almost 50% of the area of the European part of the Russian Empire with Caucasian territories (2 490 000 sq. verst\* out of 5 000 000 sq. verst) and were the home to 60% of the population of these areas (74 million people, rural population). At the core of district healthcare were the principles of universal access and equal use of district healthcare centers by the populace with careful consideration of the local environment and conditions. By following these principles district healthcare earned and maintained the trust of the people and was gradually developing with new medical stations, outpatient centers and hospitals appearing where they were most

needed. The growth of district healthcare had a profound influence on the making of the whole Russian healthcare. The principles of district healthcare were used to establish healthcare in cities. However, in cities sanitary measures were prioritized (1).

Apart from the forward-thinking district healthcare, the country had municipal (*Russian: муниципальная*), factory (*Russian: фабрично-заводская*) and private healthcare. Thus, at the beginning of the XX century, healthcare provision was a complex system with varying governing bodies. Along with state medical facilities it featured municipal, factory and private healthcare. Medical institutions were managed by multiple ministries, government agencies (*Russian: ведомство*), country and city self-governing bodies as well as private, charity and public offices. In emergency situations during epidemics the government was forced to establish inter-institutional committees to deal with medical issues concerning the whole country. Healthcare was especially poor at the periphery of the Russian Empire where it was only accessible to the wealthy.

\* **Versta** (sing), **verst** (pl) (*Russian: верста*) is an obsolete Russian unit of length equal to 1.0668 kilometers.

Sanitary conditions in the Russian Empire were among the worst in Europe at the time. The country was constantly ravaged by outbreaks of infectious diseases, especially epidemic typhus with over one million people infected from 1907 to 1917. In 1915 approximately 800,000 cases of epidemic diseases were registered in the Russian Empire including 43,000 cases of cholera and 178,000 cases of typhoid fever. Smallpox killed 32,000 people in 1909. Social diseases like syphilis, trachoma, gonorrhoea and tuberculosis were widespread. Total mortality was 25-30 per 1,000 individuals and average life expectancy was approximately 40 years. Of about 6 million babies born annually, 2 million died of diseases and due to malnutrition. Average infant mortality at the end of the XIX century and beginning of the XX century was 250 per 1,000 live births. In Western Europe and the USA demographic characteristics and health indicators were far better. In 1910, total mortality was 17.7 in France, 13.5 in Great Britain, 16.2 in Germany and 15.9 in the USA (per 1,000). Average life expectancy in these countries exceeded 50 years for both sexes. However, birth rates were 20-30% lower than in the Russian Empire (45 per 1,000 before 1914). In 1910, in several less economically developed countries (India, Egypt, Thailand, Costa Rica etc.) birth rates and mortality rates were 30-45 and 25-33 per 1,000 individuals respectively. The main driving forces behind high mortality rates in the Russian Empire were infectious diseases (smallpox, epidemic typhus, tuberculosis, pneumonia etc.), while in developed European countries and the USA the major causes of death were noncommunicable diseases like cardiovascular disorders and cancer (2).

After the start of World War I amid the growing discontent with government policies, healthcare institutions often had no coordination with the military. Socio-economic problems and epidemics drew public healthcare even deeper into deterioration. Under circumstances such as these the government showed special interest in establishing a central healthcare governing body to unite the disconnected medical centers. As a result, on 21 September 1916, the Central Board of Health (*Russian: Главное управление здравоохранения*) was established. It can be rightfully considered the first ever prototype of a ministry of health in the world. However, several days before the February Revolution of

1917 the Central Board of Health technically ceased to exist due to strong criticism on the part of the Russian MPs (State Duma Deputy, *Russian: депутат государственной думы*) (3).

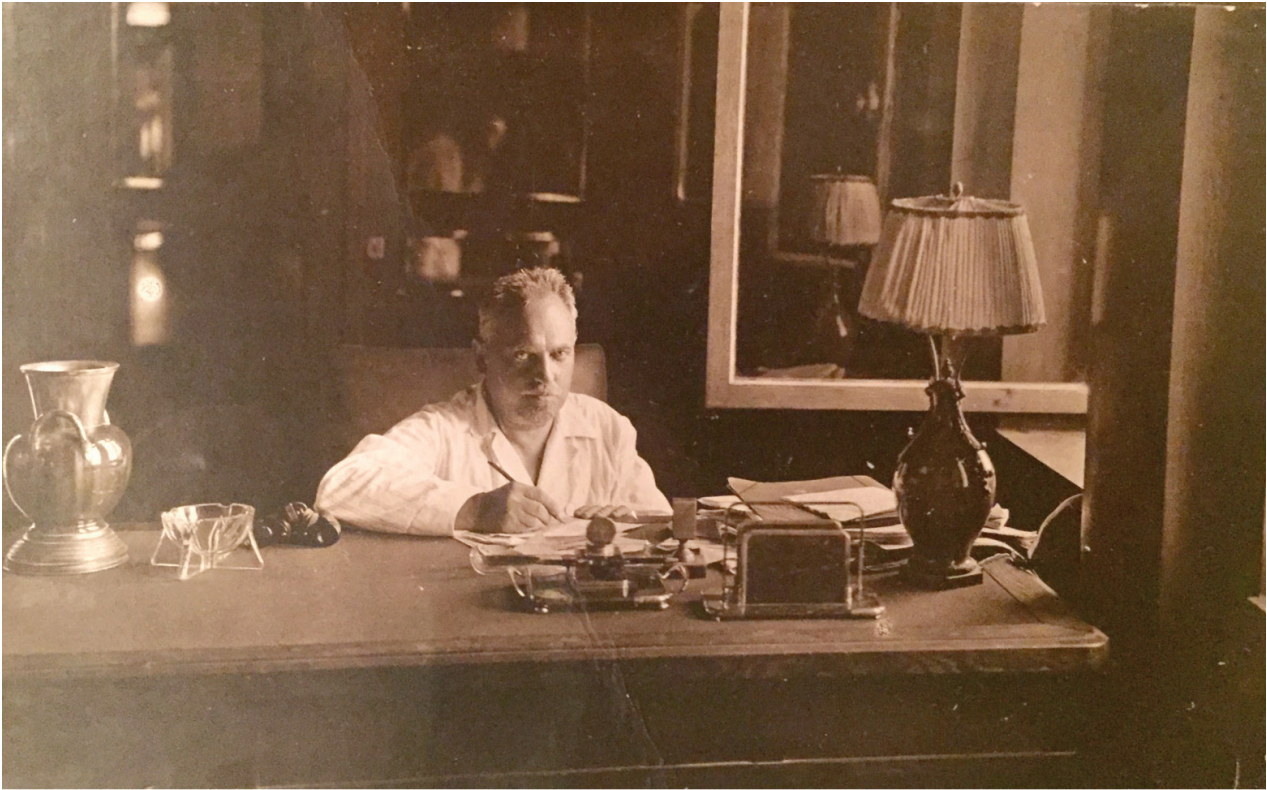
The aftermath of World War I and the following February and October Revolutions of 1917 was not limited to chaos in Russian politics and economy. Public health was also affected. Epidemics of typhoid fever, epidemic typhus, cholera and other infectious diseases ran rampant. With insufficient funding, healthcare relied on district budgets. There was a lack of qualified medical professionals, healthcare centers and medication.

The sad state of affairs was further aggravated by the Civil War, military action, epidemics, famine as well as collapse of manufacture and agriculture. The critical situation with healthcare coupled with inadequate infection control and unsanitary conditions all over the country forced the Bolsheviks to give absolute control over all healthcare aspects to a single authorized governing body that would be under full protection of the Bolshevik government.

In July of 1918, the government of the Russian Soviet Federative Socialist Republic (RSFSR) passed a decree to establish the People's Healthcare Commissariat (*Russian: Об учреждении Народного комиссариата здравоохранения*), the world's first governing body overseeing all public health in the country. Nikolai Aleksandrovich Semashko (*Russian: Николай Александрович Семашко*) became the first People's Commissar of Health (Fig. 1). He envisioned a free professional healthcare system that would be readily available to everyone. The Bolsheviks also urged the people to take an active part in organizing healthcare.

The memoirs of the first People's Commissar of Health contained the following reasoning behind centralization of healthcare: "... centering all public health on a single authorized governing body, the People's Healthcare Commissariat. Instead of fragmented district management, scattered material and human resources, lack of coordination between various medical agencies in charge of public health, we created a single governing body aimed at combating diseases with maximum conservation of resources and acting in accordance with a developed plan" (4).

Establishing a single center for managing healthcare of the republic became a turning point in how



**Figure 1.** N.A. Semashko at the workplace in the People's Healthcare Commissariat (mid-1920s) (published for the first time ever).

medical professionals viewed the new government. Witnessing the Bolsheviks' dedication to improving public health, doctors and nurses supported the efforts of the People's Healthcare Commissariat to combat epidemics.

During the Civil War, the lack of medical staff in the areas under Bolshevik control became critical. It was a problem that the People's Healthcare Commissariat was tasked with solving promptly. So, from 1918 to 1922, sixteen medical faculties were opened and higher medical education became free and available to all citizens of the RSFSR. Apart from that, in order to provide as many areas of the country with medical help as possible, all medical professionals started mandatory labor service in 1918. It provided an effective solution to the imbalance in healthcare workforce deployment across the country. The USSR eventually adopted a more liberal way of distributing medical graduates.

In March of 1919, RSFSR healthcare reached another equally important milestone. The VIII Congress of the Russian Communist Party (b) defined the pri-

mary objectives for and development strategies of soviet healthcare. Disease prevention through extensive national campaigns to improve health and hygienic conditions became top priority. Later the People's Healthcare Commissariat established the Department of Public Health Education. Public health education became the foundation of all preventive strategies and was not only limited to improving material conditions of the populace. Periodic screening (*Russian: диспансеризация*) became the main tool of preventive medicine. A whole network of specialized early treatment and prevention centers (*Russian: диспансер*) as well as healthcare facilities for preventing and treating occupational diseases was created. Systematic screenings were carried out in factories with safety hazards and unsafe working conditions (5).

New prevention facilities appeared, namely specialized early treatment and prevention centers, night sanatoria, consulting centers (*Russian: консультации*), infant-feeding centers (*Russian: молочные кухни*), day nurseries, child welfare organizations, child health-

care organizations, public health education centers, etc. Public health education was widely spread with multiple houses and “corners” of public health education (*Russian: дома и уголки санитарного просвета*) and propaganda via speech, printed materials, cinema and radio. Moreover, prevention strategies were seen as means to reduce the workload of medical facilities and therefore to cut down on healthcare expenses in the republic (6).

In Soviet Russia, specialized early treatment and prevention centers (*Russian: диспансер*) not only provided medical help to the people, but were also responsible for sanitary conditions of their area. They kept records and statistics and carried out inspections. The functions of specialized early treatment and prevention centers included establishing constant communication with workforce organizations, offering social aid in outpatient departments and at home, early disease detection during screenings and public health education in their areas. In Russia today, any citizen with compulsory health insurance has free access to screening.

One of the key contributing factors to improving public health in the RSFSR was the district principle (*Russian: участковый принцип*). Given the geography of the country with low population densities and vast territories, the district principle became the foundation for all rural healthcare. The district principle in the RSFSR evolved in new conditions across the whole country. The district physician was given a certain populated area where he or she basically gained the functions of a family doctor. The district principle grew into its ultimate and complete form in the system of soviet specialized early treatment and prevention centers. These centers – apart from treating patients seeking medical help – were proactive in detecting diseases during screenings, examining the population of their area and starting early treatment. They also closely inspected and improved the working environments and living conditions, identified causes of and conditions for various disorders and prevented diseases from spreading. The union of preventive medicine and treatment strategies in the casework of specialized early treatment and prevention centers played a major role in soviet healthcare: healthy people were also subjected to thorough monitoring. Most importantly, specialized early treatment and prevention centers in the USSR were state institutions responsible

for all the population of their respective regions (not only for select categories of citizens) (7).

The history of disease prevention in soviet healthcare would be incomplete without sanitary and disease control measures, an instrument that proved critical for public health. The USSR built an orderly system of national sanitary and disease control agencies that was tasked with preventive measures and sanitary control. It supervised countrywide procedures aimed at pollution prevention and environmental protection, as well as improvement of the working environments and living conditions. It also monitored sanitary and hygienic conditions and antiepidemic activities on the part of various agencies, enterprises, organizations and the population. Health improvement and antiepidemic measures were based on careful study of sanitary and antiepidemic conditions of populated areas and objects under control located there, as well as monitoring incidence of infections, infestations and occupational diseases (8). The efficacy of soviet preventive strategies and sanitary measures was acknowledged abroad: professors Oskar Vogt and Lipmann who visited the USSR in 1924 witnessed outstanding achievements in prevention and sanitary conditions brought about by the People’s Healthcare Commissariat (9).

Today the importance of sanitation and epidemiologic services is acknowledged worldwide. The World Health Organization’s International Health Regulations have legal effects in 196 countries across the globe. The main aim of these regulations is to prevent diseases that may cross borders, respond to health risks and take measures against the spread of diseases.

Thus, the People’s Healthcare Commissariat introduced revolutionary principles of healthcare organization for the time: unity of national healthcare services, guarantee of free medical care for every citizen and prevention-oriented measures. Novel organization approaches to delivering medical help were introduced along with new healthcare institutions. Despite the harsh conditions after the Civil War and military intervention, new public health and microbiology research institutions and laboratories were established. Experimental institutions for biology, biochemistry, tuberculosis etc. were also created.

The People’s Healthcare Commissariat managed to substantially reform the principles of healthcare pro-

vision across the RSFSR: healthcare institutions were nationalized and united, free home care service was established, ambulance service was optimized, public health education was employed and measures were taken to eradicate social diseases and epidemic typhus. Soviet sources estimated that approximately 10 million people were infected with epidemic typhus and relapsing fever at that time. A solid antiepidemic system was born while the country was combating epidemics. As mentioned earlier, it was the foundation of national sanitary and disease control agencies (4).

Another critical social and economic factor in the USSR was maternity and child welfare services. They provided an opportunity for women to combine child care with community work and a proper environment for children to develop physical and mental strength. Maternity and child welfare services ensured that all women and children could receive free expert medical aid through outpatient consultations for pregnant women and children under 3 years of age, children's homes (*Russian: дом ребенка*), mother-and-baby homes (*Russian: дом матери и ребенка*), day nurseries and infant-feeding centers. Maternity and child welfare centers also provided public health education on hygiene in women and children and took preventive measures that concerned the whole population. In 1922, the Central Research Institute for Maternity and Infanthood was established in Moscow. Similar facilities were opened in Kharkiv (1922), Baku (1927), Kiev (1929), Minsk (1931), Rostov-on-Don (1932), Almaty (1932) and other cities. In 1928, the country boasted over 2,000 consulting centers for women and children, 27,000 beds in maternity hospitals and a rapidly growing system of day nurseries. Maternity and child welfare services were also on the rise in rural regions with establishment of consulting centers for women and children, *kolkhoz* (*Russian: колхоз*) maternity hospitals, obstetric centers and day nurseries. Within only two years, over 600 maternity hospitals, 1,600 day nurseries (for 100,000 children) and about 200 infant-feeding centers were built. At the end of 1940, maternity and child welfare services were a well-organized state-run system that prioritized preventive strategies. In 1940, the country had over 8,000 consulting centers and outpatient clinics for women and children, 90,000 beds for children, over 147,000 beds for pregnant and parturient

women and employed 19,400 pediatricians, 10,600 obstetrician-gynecologists and 68,100 midwives. In 1980, there were over 12,000 pediatric outpatient clinics, 10,000 consulting centers for women and many nursery schools for 14 million children (10).

Another milestone in public healthcare was establishment of the first Department of Social Hygiene at the medical faculty of the First Moscow University in 1922. For several decades to come, it steered the development of medical science in the RSFSR. The need for a solid scientific base for fundamental and practical approaches to solving social problems and improving hygiene was apparent to many soviet medical professionals. A social approach to explaining and combating many diseases was essential for improving public health. However, a department popularizing progressive – for the time – preventive strategies was alien to the conservative minds of the medical society in soviet Russia. The key aspect of soviet social hygiene was prioritizing social factors over biological ones: creating a healthy environment was paramount. Social factors were deemed the primary driving force behind diseases (11).

Development of the state healthcare system in the USSR charted a course for higher medical education. For the first time in Russia medical education became available to everyone. High-achieving students were allowed a stipend; dormitories and canteens were opened. The network of medical universities was spread across the USSR to provide remote areas and republics with medical professionals. State higher education institutions emphasized the importance of training members of indigenous communities to become healthcare professionals. In 1946, the country had 72 medical higher education institutions (in contrast to 13 medical faculties in 1913) with 116,000 students (in contrast to 8,500 in 1913). Mandatory distribution of medical graduates across the network of medical facilities allowed for staffing even the most remote rural areas and played an important role in organizing national healthcare (12).

Scientific work played a major part in public health in the USSR. Soviet healthcare providers envisioned that medical science would blaze the trail for soviet healthcare. Scientific work was deeply ingrained into medical practice and penetrated healthcare institutions. Healthcare centers had academic advisors who offered consulting services to medical professionals on

obstetrics, internal medicine, surgery, as well as combating cancer, tuberculosis and other disorders. The key property of research efforts in the USSR was complex organization: scientific institutions were managed by a unified governing body and worked in close contact and collaboration.

Occupational health and safety regulations also contributed to improving healthcare in the USSR. Child employment was prohibited in factories and plants, teenage labor was only allowed if it had no health hazards and was limited to 4-6 hours a day. For adults, the working day was cut down to 8 hours or 6 hours in hazardous industry. It is interesting to note that while Australia was the first country to legally acknowledge the eight-hour work day in 1848, the majority of industrialized countries adopted it much later. Certain labor unions and manufacturing companies started limiting working hours as early as the XIX century. However, legal acts were introduced later: in France in 1936, in the USA in 1937, in Japan only in 1947. Germany only adopted the eight-hour work day following the revolution of 1918.

Social security insurances guaranteed that women were offered paid maternity leave of 12 weeks for those involved in intellectual labor and 16 weeks for those involved in demanding physical labor. Mothers with infants were allowed to leave the workplace every 3 hours to feed them. Nursing mothers had financial aid so that they could buy child care items and had priority in food supply distribution. According to law, medical examination was mandatory for those seeking employment (especially in hazardous environments). Routine health screenings were also required for those with harmful labor conditions.

Resorts and sanatoria in the soviet republic underwent massive reorganization. At the beginning of the XX century, Russia had 36 resorts with 60 sanatoria (3,000 beds) and several koumiss-cure centers (*Russian: кумысолечебница*). However, in the Russian Empire, only the well-to-do upper echelons of society could afford them. The soviet era saw the recovery and rapid growth of resorts and sanatoria. The decree on Therapeutic Resources and Lands of National Importance that was passed on 4 April 1919 was the most important among them as it basically transferred the management of all resorts to the People's Healthcare Commis-

sariat of the RSFSR in accordance with the principal of unity of all soviet healthcare. The decree became the foundation for all future medical practice in resorts and sanatoria. The RSFSR was the first government in the world to take the responsibility of providing healthcare in resorts and sanatoria to the populace as a separate free type of medical aid (13).

In 1923, the government established the Central Resort Department (*Russian: Главное курортное управление*) of the People's Healthcare Commissariat headed by N. A. Semashko. For the first time, industry-sponsored sanatoria appeared in resorts and labor unions were actively involved in healthcare provisions. To increase patient capacity of resorts and sanatoria, they remained open for longer periods of time and resorts of national importance were operational throughout the year.

With the advent of the first five-year plans (*Russian: первый пятилетний план*) for the national economy at the end of 1920s, the country began building new recreational facilities. At the beginning of 1940, the USSR had a total of 3,600 sanatoria and holiday vacation centers for 470,000 people. During World War II, the sanatoria were converted into a network of base hospitals. In the 1980s, there were 14,000 sanatoria for 2.5 million patients. A wide network of healthcare-oriented resorts and sanatoria can be rightfully considered the crown jewel of soviet healthcare (14).

When the first five-year plans for the national economy were completed or nearing completion, the availability of healthcare skyrocketed. In 1929 the country possessed 246,100 hospital beds, 40% more than in 1914 (175,600 beds). The number of beds in children's hospitals and maternity hospitals increased by 60%, from 89,200 in 1914 to 143,600 in 1929. The number of medical professionals increased threefold from 19,785 in 1914 to 63,219 in 1929. Medical universities produced 7 times more graduates (900 in 1914 vs 6,200 in 1928). The number of home visits by medical professionals of all agencies and organizations in cities grew from 391,400 in 1913 to 7,304,100 in 1930, which is 18 times greater (15).

Despite inherent disadvantages of the five-year plans for the national economy of the USSR, by 1940 the growth of material resources, equipment and manpower in healthcare greatly exceeded that of the Russian

Empire. The number of physicians increased sixfold to 130,400 and the number of nurses – to 412,000. Hospital capacity grew fivefold and the number of outpatient centers increased from 1,230 in 1913 to 13,000 in 1940. Instead of 4,282 rural medical centers and 5,111 feldsher's stations (*Russian: фельдшерский пункт*) before the revolution, in 1941 the country had 13,500 medical centers and over 18,000 feldsher's stations. Moreover, a wide network of sanatoria and holiday vacation centers capable of housing 45,000 people was created. No developed country in the world could match this number of medical facilities at that time. By 1940, the USSR had a half (or even more) of all physicians and hospitals in Europe. It is especially worth mentioning that during World War II the surplus of material resources, equipment and manpower in soviet healthcare was enough to offer adequate medical aid to both the armed forces and civilians. When the war ended, the whole USSR, including its healthcare and national economy, entered the restoration period which lasted until 1950. Despite that, the numbers of medical facilities, hospital beds and physicians were even higher than before the war. In 1950, the country had 265,000 physicians, 719,400 nurses, 18,300 hospitals with 1,010,700 beds. By 1965, the number of physicians increased to 23.9 per 10,000 population (vs 14.6 in 1950), the number of nurses increased to 73.0 per 10,000 population (vs 39.6 in 1950) and the number of hospital beds increased to 96.0 per 10,000 population (vs 57.7 in 1950) (2).

At the beginning of the 1990s, the USSR possessed over 3.6 million hospital beds, trained over 1.3 million physicians and established hundreds of higher education institutions (16).

The soviet healthcare system was not without its drawbacks. One of the biggest mistakes of the government was its conservative strategy aimed at extensive growth from 1950 to 1990. It failed to correspond to reality of the time when the rate of renewal of medical technologies exceeded one generation of people, for the first time in human civilization. Moreover, once the five-year plans for the national economy of the USSR were met, the healthcare system became funded residually which often translated into lack of modern equipment and drugs in medical facilities.

Another equally serious disadvantage of the evolution of soviet healthcare was that the government had

no long-term plans for the healthcare system. Even the main policy of soviet healthcare in the second half of the XX century – prevention – kept focusing its attention solely on sanitation and antiepidemic measures failing to pay proper attention to noncommunicable diseases. In the first half of the XX century, when infections and infestations were the most prevalent and responsible for the highest mortality rates, preventing them was reasonable and justified. However, the second half of the XX century required drawing the attention of healthcare services to noncommunicable diseases.

Human wellbeing is another crucial factor one has to take into account when discussing healthcare in the USSR. As of today, income inequality in the Russian Federation is incredibly great which is noted by experts worldwide.

Despite its drawbacks, the soviet healthcare system (Semashko model) is considered by the majority of Russian experts to have been one of the best in the world, because overall it met the requirements of quality, availability and provision of healthcare services, drugs and materials. After the collapse of the USSR, the healthcare system was stagnant: funding was greatly limited, highly-skilled medical professionals emigrated, medical research came to a halt and manufacture of drugs and medical equipment declined dramatically.

Crisis phenomena in the socio-economic life of Russia in the 90s of the XX century adversely affected the health of the population – decrease in the life expectancy of citizens (65.3 years in 2000), low birth rate (8.7 per 1000 in 2000), high death rate (15.3 per 1000 in 2000), rapid increase of mortality due to cardiovascular diseases, accidents, poisonings and injuries, an increase in the incidence of tuberculosis and other socially significant diseases.

Changes in the socio-economic and political conditions in the country led to the need to reform the health care system and move to a new way of financing. In Russia, in the early 1990s, a system of compulsory medical insurance of citizens was introduced, basic regulatory documents were adopted (Federal Laws No. 323-FZ of 21 November 2011 «On the Protection of Citizens' Health in the Russian Federation», No. 326-FZ of November 29, 2010 «On Compulsory Medical Insurance» and other laws). These laws state gave a new status to medical institutions, expanded the rights of

patients to choose a treating doctor and medical institution, to receive quality and safe medical care, and others.

The Program of State Guarantees of Free Medical Care to the Citizens of the Russian Federation (September 11, 1998) was also implemented, that allowed to transform the principles provided by domestic health-care leaders – general accessibility of medical care, priority of prevention and of maternal and child health, and other principles.

In the early 2000s, National Project «Health» (January 1, 2006) developed priority areas for the health protection in the Russian Federation and additional funds were allocated for the prevention and treatment of cardiovascular, oncological and other non-communicable diseases, as well as for the implementation of Federal programs to combat socially significant diseases.

Also, on the basis of the Decrees of the President of the Russian Federation, the main directions of the “Concept of the demographic policy of the Russian Federation up to 2025” (Approved Presidential Decree Russian Federation dated October 9, 2007 No. 1351) and measures for their implementation were developed. The key priorities are: reducing the mortality rate of the population, raising the birth rate, reducing the maternal and infant mortality rates, strengthening the reproductive health of the population, improving the health of children and adolescents, increasing the active life of the elderly, creating the conditions and motivation for healthy lifestyle, significant reduction in the incidence of socially significant diseases, improving the quality of life of patients suffering from chronic diseases and people with disabilities.

In 2014, the State Program of the Russian Federation “Healthcare Development” was adopted (April 15, 2014 No.294). It provided medical and organizational measures aimed at increasing the provision of high-tech medical care to the citizens, staffing and material and technical equipment of medical organizations providing primary health care, introducing modern telemedicine technologies, reproductive technologies and others.

The results of the National Projects and Federal Target Programs successfully implemented since the mid-2000s in the context of the transition of the health system to compulsory health insurance were an increase in the life expectancy of citizens, which in 2017 reached

a national historical maximum of 72.6 years, a decrease in mortality due to all the main causes, including oncological diseases, reduction of maternal and infant mortality, which also reached the lowest in the entire history of our country.

The message of the President of Russian Federation, Vladimir Putin to the Federal Assembly (March 1, 2018) noted that one of the priority areas should be an increase in the life expectancy of Russian citizens to 80 years by 2020, creating conditions for active longevity of older people.

Thus, despite the fundamental changes that have been taking place in the organization, management and financing of the health care system of the Russian Federation in recent decades, many of the theoretical propositions proposed by the prominent health care organizer N.A. Semashko have not lost their topicality. These areas are the priority development of primary health care for the population, the system of maternal and child welfare, priority for the prevention of non-communicable diseases, clinical examination of the population, active promotion of healthy lifestyles and others.

The study of the history of development and reform of the health care system of the Russian Federation makes it possible to see new perspectives for increasing the efficiency of the system, improving the quality of medical care, and increasing the duration and quality of life of the population.

## Conclusion

1. The reforms carried out in recent decades and the reorganization of the health care system of the Russian Federation were aimed at preserving the priority principles in the provision of medical care to the population laid down by the prominent Soviet health care leader N.A. Semashko. These principles are the general availability of medical care to citizens, social equality in obtaining medical services, and an emphasis on the preventive focus of medical organizations.
2. The implemented Program of State Guarantees of Free Medical Care to Citizens of the Russian Federation, the National Project “Health”,



“Concepts of the Demographic Policy of the Russian Federation for the Period until 2025”, the State Program of the Russian Federation “Health Care Development” contributed to a decrease in the mortality rates of the population of the Russian Federation from major NCDs (cardiovascular, oncological and other diseases), increase fertility rates, increase life expectancy of the population, increase accessibility services for citizens and patient satisfaction with medical care.

3. Currently, the Russian health care system is faced with the following tasks: further reducing mortality rates from NCDs and preventable diseases, increasing birth rates, reducing maternal and infant mortality rates, increasing the life expectancy of citizens, creating conditions for active longevity of older people, and improving quality and availability of medical care, the introduction of modern medical technologies for effective prevention, early diagnosis and treatment of the most important NCDs (cardiovascular, cancer, COPD, diabetes mellitus and others) and reforming of system of medical education.

## Acknowledgment

The authors are grateful to Elena Gavrilovna Farobina for providing materials.

## References

1. Ulyanova GN. Zdravookhraneniye i meditsina. Rossiya v nachale XX veka [Health and medicine. Russia at the beginning of the XX century]. Moscow: Novyy khronograf; 2002: 624-51. (in Russian).
2. Lisitsyn YP. Istoriya meditsiny [History of medicine]. Moscow: GEOTAR-Media; 2011. (in Russian).
3. Poddubnyy MV, Egorysheva IV, Sherstneva EV, Blokhina NN, Goncharova SG. Istoriya zdravookhraneniya dorevolutsionnoy Rossii (konets XVI - nachalo XX v.) [The history of health care in pre-revolutionary Russia (end of the 16th - early 20th centuries)]. Moscow: GEOTAR-Media; 2014. (in Russian).
4. Semashko NA. Obshchie usloviya deyatelnosti Narodnogo komissariata zdravookhraneniya. V sb. Zdravookhranenie v Sovetskoy Rossii (stat'i k s'ezdu Sovetov) [General conditions of activity of the People's Commissariat of Healthcare. In: Healthcare in Soviet Russia (articles for the Congress of Soviets)]. Moscow: Gosizdat; 1919: 3-5. (in Russian).
5. Semashko NA. Profi lakticheskoe napravlenie v lechebnoy meditsine (Doklad na plenum Tsentral'noy vrachebnoy sekcii) [Prevention in curative medicine (Report at the plenary meeting of the Central Medical Section)]. Vestnik sovremennoy meditsiny 1928; 1:33-9. (in Russian).
6. Semashko NA. Profilaktika i dispanserizatsiya. Osnovy profilaktiki v meditsine 1927:7-16. (in Russian).
7. Reshetnikov VA, Nesvizhskii IV, Kasimovskaia NA. Vklad NA. Semashko v razvitiye meditsinskoy profi laktiki v Rossii (k 140-letiyu so dnya rozhdeniya) [The contribution of N.A. Semashko in the development of medical prevention in Russia (to the 140th anniversary of his birth)]. Sechenovskiy vestnik 2014; 3:29-33. (in Russian).
8. Vinogradova NA. Rukovodstvo po sotsial'noy gigiyene i organizatsii zdravookhraneniya [Guide to social hygiene and health organization]. Moscow: Meditsina; 1974(1-2):400-15. (in Russian).
9. Zapad i Vostok: Sbornik Vsesoyuznogo obshchestva kul'turnoy svyazi s zagranitsey [West and East: Collection of the All-Union Society for Cultural Relations with Foreign Countries]. Moscow; 1926. (in Russian).
10. Bol'shaya Meditsinskaya Entsiklopediya (BME), pod redakt. siyey Petrovskogo B.V. 3-e izdaniye. TOM 18 [Big Medical Encyclopedia (BME), edited by B.V. Petrovsky. 3rd edition. Volume 18]. Moscow; 1982. (in Russian).
11. Semashko NA. Sotsial'naya gigiyena v SSSR (obzor) [Social hygiene in the USSR (review)]. Nauka i tekhnika v SSSR. 1928; 2:33-45. (in Russian).
12. Semashko NA. Ocherki po teorii organizatsii sovetskogo zdravookhraneniya [Essays on the theory of organization of Soviet healthcare]. Moscow; 1947. (in Russian).
13. Reshetnikov V.A., Nesvizhskii Iu.V., Kasimovskaia N.A. N.A. Semashko – teoretik i organizator zdravookhraneniya [N.A. Semashko – theorist and organizer of public health]. Istoriya meditsiny 2014; 3: 24-9. (in Russian).
14. Borisova AV, Yerusalimskiy YY. Istoriya razvitiya sanatorno-kurortnogo dela v Rossii [The history of the development of spa business in Russia]. Sovremennyye problemy servisa i turizma 2009; 3:31-4. (in Russian).
15. Arsenyev EV., Reshetnikov VA. K biografii NA. Semashko [To the biography of N.A. Semashko] Istoriya meditsiny 2017; 4:447-60. (in Russian).
16. Lisitsyn YP. Meditsina i zdravookhraneniye XX-XXI vekov [Medicine and Healthcare of the XX-XXI centuries]. Moscow: GEOTAR-Media; 2011. (in Russian).

Correspondence:  
 Prof. Lorenzo Capasso  
 MIUR, USR Abruzzo, Chieti, Italy.  
 E-mail: lorenzo.capasso@unipv.it