

Country report Russia – December 2014



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I. Structure of Health care in Russia

Russia has formed a three-tier system of healthcare. The first level is medical organisations near residences, work or study place that provide care for common diseases. The second level is inter-municipal or district health organisations primarily for urgent and scheduled specialised care for major causes of mortality. The third level is regional, oblast, republic hospitals and centres that provide specialised and high-tech medical services for the full spectrum of pathology.

In accordance with the federal law and the government “Program of the State Guarantee of Free Medical Care for Citizens” medical care is generally free of charge. According to this program patients’ visits for preventive health checks are a standard medical procedure in all outpatient settings.

The state goal is to improve accessibility and quality of primary health care (PHC) as it accounts for 60% of all medical services. The focus is on non-communicable diseases (NCDs) prevention as a major cause of morbidity and mortality.

The obligatory protocol of the Ministry of Healthcare “The Procedures for Organization and Implementation of NCDs Prevention and Actions to Promote Healthy Lifestyles in Healthcare Settings” operates in the country. The corresponding infrastructure includes 77 regional centres for medical prevention, 30 centres for medical prevention in major cities, 732 health centres (HC), 3440 departments and offices of prevention.

In 2013 funding from the federal budget for NCDs prevention, amounted to 46 billion roubles, including costs of health screening of adult population.

All patients after heart attack or cardiac surgery should undergo rehabilitation in an outpatient setting under the supervision of a cardiologist and a district general practitioner (family physician). Some of these patients, mainly in the working age, immediately after release from a hospital should receive rehabilitation in specialised medical institutions or rehabilitation departments of hospitals free of charge. Only less than 5% of indicated rehabilitations are paid from personal funds or assets of an employer or insurer.

Drug coverage in state hospitals and municipal healthcare system including rehabilitation is free of charge. Free outpatient drug coverage is available only to certain categories of citizens (veterans, disabled, etc.) and is provided to about 16.5 million residents.

Currently a pilot study on free charge drug assurance is conducted for patients with arterial hypertension and ischaemic heart disease (IHD).

II. Risk factor statistics

Despite the fact that in the last decade there was a notable downward trend in the rate of mortality from cardiovascular diseases (CVD), Russia still has one of the highest rates of CVD mortality in Europe (Table 1). It is the main cause of premature death in Russia (53% among all CVD causes in 2012).

Table 1. Standardised mortality rate from CVD among men and women in Russia in 2013 per 100 000.

Age groups	Male	Female
25-29	37.4	11.5
30-34	86.5	25.6
35-39	151.2	43.9
40-44	237.0	70.3
45-49	391.0	108.7
50-54	623.1	163.7
55-59	981.1	298.4
60-64	1612.7	532.3
65-69	2187.2	896.3
70-74	3690.9	1891.3
75-79	5399.7	3418.3

Source: Ministry of Health Russia 2014

The sharp rise in mortality after 60 years of age in both sexes is noteworthy and might reflect changes in lifestyle, income and health services in people after 60 years of age when majority of Russian men and women stop working.

However, the expected length of life for women and men during the past two decades (by NRU HSE*, 2014) shows a remarkable recovery over the past decade:

Year	Men	Women
1990	63.76	74.32
1995	58.13	71.61
2000	59.00	72.24
2005	58.92	72.48
2010	63.08	74.87
2013	65.14	76.31

* Source: NRU HSE (National Research University High School of Economics)

A 2013 survey of representative samples from 11 regions located in different geographic parts of Russia showed prevalence of major behavioural risk factors (Table 2).

Table 2. Prevalence of major risk factors in the regions of Russia in 2013-2014 (%)

	Current smokers	Low physical activity	Obesity	High blood pressure	Total cholesterol ≥ 5 mmol/l	Blood glucose ≥ 7 mmol/l
Female	13.9	40.8	30.4	40.8	56.3	4.1
Male	43.9	36.1	26.0	48.2	58.4	5.4
Total	23.5	38.8	29.1	44.0	57.6	4.6

Source: Muromtseva G, Kontsevaya A, Konstantinov V *et al.*, 2014 (3)

According to epidemiological studies, the prevalence of smoking in the past ten years has declined in men by 13.9%, but in women it actually has increased by almost 50%.

The prevalence of regular daily smoking in women in 2009 has been 16.3% (WHO Global Tobacco Survey, Russia, 2009), which was lower compared to most of the EU countries like Norway (20%), UK (20%), Spain (21.3%) or Germany (17.6%). The prevalence was the highest among women aged 19-24 (28.3%), followed by women of the age group 25-44 (24.1%).

Approximately one third of the population has insufficient physical activity, with women somewhat more sedentary than men. Perhaps this corresponds to greater prevalence of obesity among the female population.

Over the years prevalence of hypertension in men has increased to the extent to affect the overall prevalence of hypertension, which reached 44% in 2013 versus 39.5% in 2003-2004.

Regarding nutrition, the "Russian diet" if compared to today's guidelines and dietary advice, is a typical "Western diet" with excessive consumption of fat (32-36%), saturated fat (14-17%), added carbohydrates (14%), salt (12g) and low consumption of vegetables and fruits. The incidence of obesity (BMI $30 \text{ kg} / \text{m}^2$) has increased significantly over the past decade (from 13.1% to 26.0% for men and from 27.8% to 30.4% for women).

Prevalence of elevated cholesterol levels increased slightly but it is the most prevalent risk factor in the Russian population. The frequency of elevated levels of glucose which is considered an equivalent of diabetes mellitus (DM) is relatively low. Notably prevalence of DM is significantly lower in Russia than in other countries. Among the Russian CVD patients included in the register CLARIFY diabetes is registered at 16.7%, whereas in other countries the proportion of such patients reaches 30.1%.

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III. Main actors and Prevention methods

The obligatory protocol of the Ministry of Healthcare of the Russian Federation "The Procedures for Organization and Implementation of NCD Prevention and Actions to Promote Healthy Lifestyles in Healthcare Settings" pay particular attention to the development of the organisational and functional aspects of prevention including strengthening human resource capacity to ensure complete coverage, quality and effectiveness of preventive measures. NCDs prevention tasks are included in functional responsibilities of health care workers at all levels of care in outpatient, inpatient and rehabilitation institutions. General practitioners remain the key persons in providing preventive counselling.

The priority is to increase the availability and quality of PHC that provides 60% of all medical services. All PHC organisations have prevention units, in total there are 3440 departments or offices for prevention and assistance for smoking cessation. The process of organisation of preventive structures in hospitals, sanatorias and health resorts has also started.

In 2014 the Russian government approved the State Program "Development of Healthcare" which included 11 sub-programs. The first is titled "Disease Prevention and Promotion of Healthy Lifestyle. Development of Primary Healthcare". This document was developed by the Ministry of Healthcare in collaboration with the scientific and medical community through public discussions including platforms of Open Government. One of the main developers of the program was the National Research Centre for Preventive Medicine (NRCPM) (www.gnicpm.ru). Under this program all entities of the Russian Federation have developed and are currently implementing their regional programs for NCDs prevention and promotion of healthy lifestyles. The main aim of the program is providing better availability to and increase of efficiency of medical services. The quality of this should correspond to advanced technologies. It is running according to time table.

Since 2005 Russia began adopting numerous legal documents that formalised the primary role of prevention in healthcare. The country also ratified international agreements including the WHO Framework Convention on Tobacco Control.

Essential tool in primary and secondary prevention of CVD are professional medical organisations, in particular the Russian Society of Cardiology (RSC) and the affiliated societies united for the purpose of improvement of the situation with CVD in Russia (www.scardio.ru). In 2007 the National Society for Cardiovascular Prevention and Rehabilitation (now the Russian National Society of Preventive Cardiology - RNSPC) was created (www.cardioprevent.ru). In 2011 the first Russian National Guidelines for Cardiovascular Prevention were developed by the initiative of the Society and approved by RSC. In 2013 the Russian Society for Prevention of Non-communicable Diseases (RSPND) (www.ropniz.ru; *Russian language only*) was established.

Key component of the positive achievements of Russia in CVD prevention has been international cooperation. One such example is a long-standing cooperation of the European Society of Cardiology (ESC) and the RSC, European Association for Cardiovascular Prevention and Rehabilitation (EACPR) and RNSPC which enable Russia's

participation in multicenter studies of great scientific and practical value such as HeartQoL, EuroCaReD, ECRIS, EUROASPIRE III, EUROASPIRE IV, SURF, INTERSTROKE.

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IV. Main Prevention activities

Systematic health screening: in 2009-2010 new preventive structure began functioning in Russia. Health centres (HC) were created to promote healthy lifestyle and prevent NCDs . Currently there are 732 HC in the country, including 228 HC for children. Annually they examine and provide counselling on risk factors to more than 4 million people. Since 2013 health screening of children and adults has been implemented in the country. Screening of adults begins at age of 18 and is organised in PHC based on two-step methodology (screening and in-depth survey). Based on results of the health screening differential prevention or treatment measures are conducted along with active follow up surveys of patients with NCDs or at risk for those diseases.

All activities related to screening are implemented as a part of the State guaranteed free provision of healthcare. In 2013 20.5 million people underwent health screening. Forty four percent of adults had NCDs and 23% were at high risk of CVD, follow up surveys proved necessary for twice the number of people than were monitored prior to screening. Preventive counselling became an integral part of the screening of the patients known to have disease or regarded at high risk for it. To the date preventive counselling was provided to 3.6 million citizens. Systematic screening of the adult population will continue in subsequent years. Screening of children has just begun; the procedure includes amongst others a special questionnaire for behavioural risk factors.

The following guidelines describe methodology in administering preventive measures including health screening: "Organization of Dispanserization and Preventive Screenings of Adult Population", "Prevention of NCDs", "Clinical Follow-up of Patients with NCDs and Patients at High Risk of Their Development". The guidelines were developed on the basis of international and national experience.

Continuous monitoring of the quality and coverage is conducted to evaluate the efficacy of preventive efforts and are analyzed on a monthly basis. The results of this analysis are discussed at monthly video-conferences with regional representatives and determine operational management decisions.

Yet, Russia is a very large country and unfortunately we have difficulties with cardiovascular preventive activity in some areas due to some limitations (low population density in Far East, Easter Siberia, remote areas and so on). As to our data prevalence of high cardiovascular risk calculated by the SCORE evaluation system was found higher in rural men than in urban men (44.2% and 39.8%, respectively), but not in women (8.5% and 7.1%).

According to the Federal Law N 15-FZ of February 23, 2013 "On Protecting the Health of Citizens from the Effects of Second-hand Tobacco Smoke and the Consequences of Tobacco Consumption" in Russia smoking is fully banned in all indoor and outdoor public places, including health care and educational, cultural and sport institutions, governmental institutions, workplaces, parks and playgrounds, as well as all types of transport, cafes, bars and restaurants.

In 2009-2011 great efforts were undertaken throughout the country with the implementation of the all-Russian educational project HEALTHY HEARTS. It included a one-day training course for physicians and a one-day screening and counselling on risk

factors for general population. The project was aimed at promotion of healthier lifestyles. The action was conducted in 25 major cities and involved more than 55 000 people. Since 1997 the journal "Profilakticheskaya Meditsina" ("Preventive Medicine") (<http://www.mediasphera.aha.ru/journals/prof>; in Russian language only) is published in Russia. The journal highlights the problems in health promotion, prevention and treatment of NCDs and injuries. The readers of the journal are a wide range of both medical and non-medical professionals.

In addition to the National Congress of Cardiology 3-5 major conferences on the prevention, treatment and rehabilitation for CVD and other NCDs take place in Russia annually. Since 2011, EuroPREvent (<http://www.escardio.org/europrevent>), which is the annual congress of the EACPR and the leading European congress on prevention, has been conducting joint scientific sessions and running a joint RNSPC-NRCPP display. The EACPR is an important partner in NCDs prevention and health promotion in Russia. The primary means of cooperation is the education of professionals and exchange of information through participation of Russian representatives at the EACPR conferences as well as the publication of articles by Russian scientists in the European Journal of Preventive Cardiology (<http://cpr.sagepub.com/>), the official journal of the EACPR.

International cooperation in the field of education resulted in joint Russian-European courses for physicians on cardiovascular prevention and rehabilitation. Such courses were conducted in 2003-2011 in different Russian cities (Moscow, St. Petersburg, Perm, Kazan, Barnaul).

Over the last 15 years the NRCPP has conducted training courses for decision-makers regarding planning, implementation and the evaluation of regional programs for NCDs prevention. They teach methodology of evidence-based prevention of NCDs to policy makers, chief specialists of preventive medicine at Ministries of Healthcare in Russian regions, professors of medical schools to assist them in the development of effective prevention programs and evaluation of their effectiveness.

The NRCPP regularly trains physicians and other specialists in primary and secondary prevention of CVD and other NCDs and promotion of healthy lifestyle via telecommunication. In 2012-2013 a total of 2879 professionals were trained.

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V. Cardiac rehabilitation

Russia's first department of cardiac rehabilitation (CR) was organised in 1968. In 1981 the State system of step-by-step rehabilitation of patients after myocardial infarction (MI) was established, however this system ceased to exist in late 1990s. Russia began developing a new system of rehabilitation in 2008. In 2012 the Ministry of Healthcare of the Russian Federation issued Order number 1705 regarding the organisation of medical rehabilitation in Russia.

The Russian Ministry of Healthcare plans to cover 25% of those in need for CR by 2015 with subsequent annual expansion by 10-15%. In 2013 the number of rehabilitation beds increased by 15%, 153 rehabilitation centres were opened across the country. Yet, the proportion of enrolled patients is still around 15%, even though the service is free of charge. Of these, it is estimated that 40% of the patients remain committed to lifestyle changes even on the long term.

CR is conducted routinely in a three-tier system of healthcare. It is carried out in three phases by a multidisciplinary team lead by a cardiologist. The rehabilitation system for patients after MI is state regulated and is financed from the Fund of Obligatory Medical Insurance.

CR is part of a comprehensive program for improvement of care for patients with CVD and includes:

- patients' education through schools for patients after acute coronary syndrome or acute MI and their caretakers
- individual counselling for patients
- patients' participation in various programs of physical rehabilitation
- expert assisted psychological re-adaptation and stress reduction
- changes in lifestyle of patients
- risk factor modification
- drug therapy as secondary prevention

Applicable programs are designed in accordance with the [European Guidelines on CVD Prevention in Clinical Practice](#) of the European Society of Cardiology and the Russian recommendations for CVD prevention and rehabilitation of patients after MI.

The first phase of CR - early hospital phase - starts at a hospital's intensive care unit and continues further when a patient is moved to a department of cardiology either of the same hospital or regional or primary vascular centre. The legislation stipulates that **phase I** of CR covers 100% patients hospitalised with acute coronary syndrome after endovascular intervention and coronary artery bypass surgery with rehabilitation potential. The duration of hospitalisation for patients with MI is 16-18 days, unstable angina – 12 days. At present Russian cardiologists are strongly engaged to reduce this lengthy duration as in-patients.

The second phase of CR - hospital phase - takes place in a hospital's department of CR rehabilitation or at a Rehabilitation Centre and lasts up to 3 weeks. About 30% of the patients, who completed rehabilitation at the first phase need in-hospital rehabilitation at the second phase due to severity of their clinical condition and manifestation of the functional disorders.

Phase II is designed for patients who successfully completed phase I and are able to perform exercise stress test and have positive prognosis for functional recovery of their cardiovascular system (rehabilitation potential).

The third phase of CR - outpatient rehabilitation -is performed in CR departments of polyclinics, or cardiology clinics or medical centers for (cardiac) rehabilitation. Patients with the prospect of complete functional recovery of their cardiovascular system are moved to this phase. Duration of **phase III** and continued clinical observation of a patient is up to 1 year with active management of patients for 3-4 months (in some cases up to 5-6 months). During this phase dynamic observation of patients including monitoring of blood pressure, heart rate, electrocardiogram, stress tests (if indicated) is performed.

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VI. The Future

The fundamental aim of prevention in Russia is to reduce the rate of mortality from NCDs, primarily from CVD. The goal could be achieved by ensuring necessary conditions for healthy lifestyles (population strategy) and identifying those who are at high risk (high risk strategy).

Options:

Prerequisites for success are:

- Proactive approach of the Federal Government towards prevention as well as Federal and regional Ministries of Healthcare; existence of state and regional programs for healthy lifestyle promotion and NCDs prevention
- Appropriate legislative framework
- Development of preventive structures in all regions of the country and strengthening interagency cooperation in the regions in promotion of healthy lifestyles
- Increasing motivation of citizens to lead healthy lifestyles
- Procedures to identify people at high risk of CVD in primary care centres that are provided free
- Increasing activity of volunteers, community and religious organisations
- Active monitoring of risk factors and diseases epidemiology as a source of information for policy makers (planning and evaluation of effectiveness of preventive measures)

Obstacles:

- A lack of motivation of citizens, particularly in men past 40 years of age
- Insufficiency of state efforts to create an adequate physical, social and economic environment to support healthy lifestyles
- Effective control of CVD is hampered by the absence of drug insurance and the limited structures and personnel in cardiac rehabilitation programmes
- Lack of regular and comprehensive data on risk factors and diseases prevalence, necessary for decision making (modeling, planning and evaluation).

Plans for the next five years:

- Creation of inter-sectoral commissions in all regions of the country, routine training of decision makers and the development of roadmaps for interagency cooperation in promotion of healthy lifestyles
- Reaching targets recommended by the WHO in reduction of prevalence of risk factors such as the complete elimination of tobacco use in all health organisations
- Increasing the proportion of people receiving intensive counselling on healthy lifestyles and provide medical management of risk factors within a system of drug insurance.
- Create cardiac rehabilitation services in all major hospitals and clinics, as well as specialised centres in the major cities of the country.
- Further development of the cooperation with the ESC for education and exchange of information through participation at EuroPrevent, the EACPR's annual congress, as well as publication by Russian scientists in the European Journal of Preventive Cardiology.