Public health response to emerging health challenges.

RUSSIA’S CONTINUING HEALTH CRISIS AND
THE CASE FOR PUBLIC HEALTH ACTION:
The Example of Preventing Stroke Mortality

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Abstract

The health situation in Russia during the 1990s and since is catastrophic. Social and economic conditions are perhaps the largest contributors to the deterioration of population health, while the health leadership has wasted a decade with ineffectual and probably harmful, reforms that have failed to address the situation adequately. The death rates for most causes of death in Russia are extraordinarily high; this was true even in 1989 before mortality began to increase. Death rates due to infectious diseases, circulatory diseases (heart disease and strokes) and trauma are all three to five times higher than in Europe for men, and the differences are almost as large for women.

Is it possible to achieve a reduction of premature and avoidable death in Russia despite the current decrease in life expectancy due to rising mortality and extremely high present levels of mortality from cardiovascular diseases and trauma. Despite of the basic social breakdown and economical instability, the health system cannot wait for conditions to improve, even though it cannot address these challenges alone. Yet, there are national health policies and public health programs that have proven to be successful internationally. The Russian Federation appears to be highly irresolute regarding the future course of health system development, and has yet to define national targets for health.

The aim of this paper is to identify national health management measures that should be undertaken. The health situation is poor and the reasons are many, but the health system must concentrate on attacking the major public health problems that can be ameliorated. Examples include the development of national health targets; stroke mortality control.
Introduction

Public health has been developed throughout history of human societies as an answer on health threats to populations. Existing Public Health knowledge, skills and experience gave possibilities to manage and even prevent main known diseases, risk factors and sick health conditions.

From the Public Health stand point Health Threats could be classified as known, and therefore manageable; unknown at the moment but expected to be picked up by constantly ongoing research and epidemologic surveillance; and known but denied by society due to inefficient performance of the information function by the public health system.

One of the main problems of the Russian Federation is a denial of the roots and multidimensional content of the health crisis, lack of professional assessments relative to the extent of the health threats. According to predictions of the State Statistics Committee, the Russian population will decline to 134.4 million in 2016, from 148.3 million in 1992. There are concerns about depopulation of certain regions due to low birth and high death rates (as well as migration patterns): in some regions of Russia deaths outnumber births by 3 to 1. Mortality of the working age population continues to rise. The underlying causes of the negative developments in the health status of the Russian population have been debated and discussed, and can be briefly summarized as involving a host of complex and interacting factors: stress, alcohol, violence, improper nutrition, lack of modern health care technology, environmental pollution, and a general depression and anxiety stemming from the dramatic economic decline and political instability since 1990. New threats are emerging, in the form of infectious and parasitic diseases, including sexually transmitted

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diseases, and in particular AIDS, whose incidence as noted earlier has been growing exponentially particularly since the latter half of the 1990s. To this list could be added privatization tendencies in an ailing health care system which is hard pressed to cope with the vast and growing demands being placed upon it.

Deterioration in health imposes an enormous burden on the health care system that is now being called upon to treat increasingly large numbers of people needing medical care. Further, the health care system must respond to the urgency created by the re-emergence of communicable diseases. But what Public Health System could (and should) do now? The health system can be mobilized by the MOH as a responsible for Public Health and must take up the challenge despite of the fact that there persists a clash between the priority attached to improvements in health on an official level and the actual political commitment to such improvements.

**The Need for Development of National Health Targets.**

Despite of the fact that USSR (and Russia as a part of it) influenced the development of the Alma-Ata approach of Health for All (1978), based on setting national health targets and the predominance of primary care services, it was never implemented there. Global Health for All health targets, which were developed as a worldwide framework for health policy by the World Health Organization in 1977, aim to cut premature deaths or reduce cases of specific illnesses within designated time frames. (Tulchinsky and Varavikova, 2000).

This health policy approach proved to be a successful tool in setting national policy but only in some countries has health targeting really moved beyond policy to practice (USA, UK, Spain). However now in most of the European countries the idea of health targeting is gaining political support, an important precondition for further development (Marshall, 2002).

Health targets in health policy derived from "management by objectives" approach used in the business world and refers to efforts to identify individual steps and targets necessary to achieve common goals. The underlying assumptions when common goals specified (in consensus) and identified as explicit targets, it will result in more focused and efficient efforts. It was seen as cyclical process with step-by-step implementation and monitoring, evaluation and redefinition of
the objectives, etc. The pioneer of management by objectives to health was McGinnis (1985), who established and guided the implementation of the "Objectives for the Nation" in the United States. "In building the management by objectives approach to the health sector, an important idea was born: health systems could be evaluated in terms of output as population health gains - the output of health policy would be healthier people" (Marshall, 2002).

The United States Public Health service has set national health targets since 1979 (Healthy people). These are increasingly accepted at all levels of national public health complex. They highlight areas of concern that require effort by all levels of government and the health care system. They also serve as social and educating role for health providers and the community. Some of the progress made in reducing morbidity and mortality from epidemiologically important diseases is the result of that wider awareness and growing concept of "self-care". Regular review of "Healthy people" - national health targets health policy framework showing progress being made toward over more then 300 separate objectives designed to prevent disease and injury and to promote health in United States. An example of health target achievement include:

"Heart disease and stroke mortality continue to decline, in both the white and black populations; however the excess mortality for blacks as compared to whites has increased".

A very interesting publication by BMJ Books of this year "Health Targets in Europe: Polity, Progress and Promise" (Marshall, 2002) looked at the experience of health targeting in eight European countries and regions, focusing on improving health throughout Europe, and highlighted some common problems encountered. It was found that some governments’ policies have increasingly focused on healthcare expenditure. This is in contrast to health targets, which have public health improvement as the underlying goal.

Privatisation and Health Policy Development
Less then a decade ago the notion that a publicly financed health system would be competing with a privatised alternative would be unthinkable. Today governments everywhere, including the social market economies of Western Europe, have a new-found interest in privatising services and redrawing the boundaries between the public and private (Boyer and Drache, 1996). The assumption that private market somehow on its own could foot the bill for a comprehensive delivery system for Russia unfortunately prevails in the country. Economists and policymakers narrowly focused of deficit reduction and spending controls have dominated health care reform agenda all over the world. By contrast, no country other than the US relies primarily on private markets to meet a comprehensive range of health needs, and the US system is the most expensive in the world. But all the developed countries that are showing health gain continue to support publicly funded systems and programs as a matter of principle and steadfast in their commitment to shared responsibility in the field of health (Drache and Sullivan, 1999).

For Russia the development of clear government health policy is a painful problem. Current crisis relates not only on the period of economic transition, but goes deep into the former Soviet health system. This state operated service provided free, universal health care with ample, indeed excessive resources in medical personnel, hospital beds, policlinics, and other services, but with quantity compromise quality. The system operated as a state monopoly, with a central government controlling budgets, setting mandatory norms, and totally controlling manpower training and research. It lacked mechanisms for epidemiologic or economic analysis and accountability to the public.

The epidemiologic transition from predominance of infectious to non-infectious diseases was address by further increases in the quantity of services. Policy and funding favoured hospital over primary care and individual routine check-ups of entire population over community oriented preventive approaches (Tulchinsky, Varavikova, 2000). Reform since 1991 has centred on national health insurance and decentralized management of services following recommendations of the World Bank Another major recommendation of the WB along with decentralizations was privatisation of health services. Unfortunately these recommendations were poorly thought over and unprepared. Sudden decentralizations brought chaos to the 89 regions, which end up for some better then for others, but overall there were and are no regions where mortality of adult men and women
declining. IMF estimated that when the Soviet Union imploded the ratio of budgetary income per person between the richest and the poorest regions was 11.6. It has since climbed to 30. All the regions were put in charge of implementing social policies as early as 1994 - but only a few were granted taxing privileges. There are regions where situation is still worsening and even infant mortality started to rise, not to say about CVD and violence (for example Tver region).

Overall health reforms in Russia in the beginning were intent to preserve national health system, with its declared by Constitution guarantees for free of charge and equal access to health services. However, state guarantees and available financial resources are absolutely not balanced and oriented only on curative service. Now top officials proposing the legitimisation of paid medical services, despite of the fact that their official duties consist of maintaining and improving the standards of universally accessible health care. The prices of medical services are rising more quickly then inflation. This will result in worse preventive care and medical treatment. Health of the population deteriorating but it did not reflect in increasing in federal and local health budgets.

Speaking on 30 January 2002 at the meeting of the State Council devoted to national health and sport issues, President Vladimir Putin said the decline of the population’s health has seriously harmed Russia’s economy and demographic balance. He added that as a result of the poor health of Russia’s workforce, the country is spending 3 percent of salary funds on sick pay. In addition, the number of people suffering from chronic diseases continues to grow, and the number of men up to age 40 who smoke has increased from 25 to 70 percent over the last five years.

A Rand Corporation study entitled "Dire Demographic Trends Cast a Shadow on Russia’s Future." Dire Demographics: Population Trends in the Russian Federation (Julie DaVanzo, Clifford Grammich, 2001) showed that funding has been declining for the Russian health care system since the 1960s. In the mid-1990s, the new Russia was spending per capita 4 cents for every dollar that the United States was spending on health care; many physicians earn less than bus drivers or baby-sitters. Such findings spell disaster for a country with an aging population and a decline in working-age males.
Due to a shrinking public financing of health care it substituted by the payments of the population. According to the latest research by the INDEM Center For Applied Political Studies, one of Moscow's leading think tanks, Russia’s nominally free medical system actually cost patients some $600 million in bribes last year. Admission to universities was close second, costing an estimated $520 million. But the biggest sums by far are exchanged in the business sector.

Now health care managers officially suggest that patients should pay for services that by law should be provided free of charge (Shishkin, 2000). In some regions of the Russian Federation there have been attempts to legalise co-payments, in spite of their obvious contradiction to the Federal legislation. For example, in Perm oblast (region) a fixed fee for each visit to a doctor and each day in hospital was introduced by order of the Health Care Department of the Regional Administration. Only after protests by the District Attorney's Office this order was withdrawn. Co-payments also planned in current draft legislation in Kaluga region. In the Republic of Karelia, hospitals receive 80% of the pensions of inpatient pensioners. People have to pay for medical assistance that is formally free of charge and the poorest are in the worst situation. "The continued gap between the costs of the constitutional guarantees of the free medical services to the population and the funding of this guarantees leads in practice to the substitution of public expenditure on health care by private expenditure and to increased social injustice" (Shishkin, 2000).

**Health Reform - Targets and Strategies**

Russia more then ever needs to define its health goals and solutions to current growing problems. In the present state of weakened central authority, this will not be an easy process. Economic constraints, lack of mechanisms for cost analysis, lack of trained health administrators, and lack of policy analysis at the central level make the challenge even more complicated.

Health reform approach should include three major objectives. First, preserving universal access to care, which will necessitate increased basic funding and substantive restructuring within the health care system. Secondly, establishment of national health targets, adapted from health targets of the
European Region of the World Health Organization. Thirdly, raising standards of medical care to international levels.

Decentralized management of health services is needed to carry out such reforms, but at the same time strengthening epidemiologic and professional standards and establishing cost-accountability in managing health services. Reorienting the system toward prevention and away from institutional care will require defining health targets and appropriate strategies to achieve them. Population and community-oriented prevention programs based on health promotion and risk reduction are needed at the national, regional and local levels.

For example, reduction of maternal mortality from 3-4 times European rates will require revised standards of prenatal care, especially high-risk pregnancy identification and care. Promotion of modern birth control by education and improved availability of services, reduced use of abortion for birth control, and transfer of maternity services from delivery homes to general hospitals.

**Reduction of Cerebrovascular Diseases Mortality in the United States**

Mortality from cerebrovascular disease should receive highest possible priority with well-planned national, regional and local programs to reduce first of all risk factors: cigarette smoking, alcohol abuse and untreated hypertension. Hypertension screening and management programs are relatively inexpensive and achievable within the existing health system, but will be dependant on new standards for screening and follow-up management, with in-service training for doctors in primary care and for the general public to be aware of this “silent epidemic”.

Let us look at the process of achieving a decline in heart disease and stroke mortality in USA as it presented in "Achievements in Public Health, 1900-1999: Decline in Deaths from Heart Disease and Stroke -- United States, 1900-1999" (MMWR, 48(30), 649-656.August 1999). Heart disease has been the leading cause of death in the United States since 1921, and stroke has been the third leading cause since 1938; together they account for approximately 40% of all deaths. Since 1950, age-adjusted death rates from cardiovascular disease (CVD) have declined 60%, representing one
of the most important public health achievements of the 20th century. This has also been the trend in the industrialized western countries throughout Europe and the rest of the world.

Age-adjusted death rates per 100,000 persons (standardized to the 1940 U.S. population) for diseases of the heart (i.e., coronary heart disease, hypertensive heart disease, and rheumatic heart disease) have decreased from a peak of 307/100,000 in 1950 to 135/100,000 in 1996, an overall decline of 56% (1). Age-adjusted death rates for coronary heart disease (the major form of CVD contributing to mortality) continued to increase into the 1960s, and then declined. In 1996, 621,000 fewer deaths occurred in the US from coronary heart disease than would have been expected had the rate remained at its 1963 peak. See figure 1.

----- Figure 1 here ----

Age-adjusted death rates for stroke have declined steadily since the beginning of the century. Since 1950, stroke rates have declined by 70%, from 89/100,000 in 1950 to 27 in 1996. Total age-adjusted CVD death rates for stroke have declined 60% since 1950 and accounted for approximately 73% of the decline in all causes of deaths during the same period.

**Cardiovascular Disease Epidemiology**

Intensive investigation into the CVD epidemic largely began in the 1940s following World War II. Causal hypotheses about CVD and recognition of geographic differences in disease rates occurred earlier (Epstein, 1992, 1996). Landmark epidemiologic investigations, including the cross-country comparisons (Stambler, 1992), and the Framingham Heart Study (Dawber, 1980), established the major risk factors of high blood cholesterol, high blood pressure, and smoking and dietary factors (particularly dietary cholesterol, fat, and sodium).

The risk factor concept—i.e. particular biologic, lifestyle, and social conditions were associated with increased risk for disease—developed out of CVD epidemiology (Epstein, 1992). In addition to the major risk factors (i.e., high blood pressure, high blood cholesterol, and smoking), other
Stroke risk factors include; cardiac disease, atrial fibrillation, systolic hypertension, left ventricular hypertrophy, diabetes and cigarette smoking, as well as previous stroke or transient ischemic episodes. Reduction of stroke deaths is dependant on detection and management of hypertension and its control by changes in lifestyle and by supportive medication with long-term management and follow-up. Where stroke mortality is high, public health and medical services need to cooperate in developing education, screening and management programs to reduce risk factors.

**Advances in Prevention**

Early intervention studies in the 1960s sought to establish whether lowering risk factor levels would reduce risk for CVD (Epstein 1992, 1996). During the 1970s and 1980s numerous clinical trials showed the efficacy of antihypertensive and lipid-lowering drugs, and community trials sought to reduce risk at the community level (Rose G, 1992). Public health interventions to reduce CVD have benefited from a combination of the "high risk" approach--aimed at persons with increased risk for CVD--and the population-wide approach--aimed at lowering risk for the entire community (Healthy people 2000, 1997). National programs that combine these complementary approaches and that are aimed at health-care providers, patients, and the general public included programs such as the National High Blood Pressure Education Program (Higgins and Thom, 1989), initiated in 1972, and the National Cholesterol Education Program, initiated in 1985 (Kaplan, Keil 1993). Although earlier CDC community demonstration projects focused on cardiovascular health, CDC established its National Center for Chronic Disease Prevention and Health Promotion in 1989, with a high priority of promoting cardiovascular health.

**Factors Contributing to the Decline in Cardiovascular Disease Deaths**

The reasons for the declines in heart disease and stroke may vary by period and across region or socio-economic groups (e.g., age, sex, and racial/ethnic groups). Prevention efforts and improvements in early detection, treatment, and care have resulted in a number of beneficial trends [MMWR, August 1999, 48(30), 649-656], which may have contributed to declines in heart disease and stroke in the US. These trends include a decline in cigarette smoking among adults aged greater than or equal to 18 years from approximately 42% in 1965 to 25% in 1995.
This is in part due to substantial public health efforts to reduce tobacco use began soon after recognition of the association.

Heart disease and stroke are the leading and rising causes of disability and death in Russia, which are second in the world after rates of the Bulgarian population. In Moscow alone everyday about 20 people registered as suffering from stroke, while medical care delayed and treatment inefficient. Policlinics could not cover all the sufferers and it reflects inefficient rehabilitation and luck of the attention to the prevention.

Persons of lower socioeconomic status have higher mortality, morbidity, and risk factor levels for heart disease and stroke than persons of higher socioeconomic status (Kaplan, Keil, 1993). The social class gap in heart disease deaths may be increasing as the rates of heart disease decline faster among higher social classes (19). Geographically, declines in heart disease deaths did not occur at the same time for all communities. Areas with poorer socioeconomic profiles were more likely to experience higher rates of heart disease (Kaplan, Keil, 1993).

At the same time it should be taken in account that there are regions with "endemic" high level of CVD (Karelia), there are regions with twice higher mortality from cerebrovascular diseases: with highest rate for men in Nizegorodskaya region - 528.7 per 100.000 of population (348.6 for Russian men) and 408.3 for women in Karelia Republic (298.2 for Russian women). It is interesting that Karelian men have mortality rate placed them in 3rd place after Nizegorodskaya region, Tver and Ivanovo. Example of Karelia is very important for Russia. Chronic diseases risk factors and health behaviors were studied in the Republic of Karelia, Russia in 1992 and 1997, in population surveys, connected with the National FINRISK Study of Finland. As a whole the risk factor levels in the Republic of Karelia are high. However, some slight improvement in mortality and risk profile were seen during the intervention of "Pitkaranta Project". The aim of the program has been to decrease chronic disease especially CVD mortality and morbidity, by changing major risk factor levels in the population through general changes in lifestyle. And it possibly have it's impact in declining CVD mortality there from 1995 to 1997, however this study stated that since smoking and elevated blood pressure levels as well as alcohol consumption are still highly prevalent, there is a great need for effective interventions (Laatikainen at all, 2002).
Public health programs at the state level for heart disease and stroke have been limited. The Russian Ministry of Health needs to initiate, finance and monitor programs targeted at regions with the highest CVD mortality rates to plan, develop, and implement state-based efforts for CVD prevention. Programs including surveillance, policy and environmental interventions, both social and physical, aimed at promoting and sustaining positive health behavior change.

For example, even in the US with decades of attention to hypertension management, still some 70% of persons with hypertension do not have the condition controlled at levels below 140/90 mm Hg, and death rates for stroke have not declined in recent years.

Major public health challenges for Russia include:

- Identifying and reducing risk factor levels and preventing the development of adverse risk factors.
- Research to understand the determinants (social, psychological, environmental, physiologic, and genetic) of CVD risk factors.
- Reducing the geographic/ethnic disparities in heart disease and stroke mortality.
- Increasing the ability to reach underserved groups with appropriate and effective public health messages.
- Promoting policy and environmental strategies to enhance healthy behaviour.
- Determining the relation between genetics and disease to prevent CVD.
- Identifying new or emerging risk factors and determining their potential for public health intervention.
- Address new risk factors that have been associated with CVD include elevated levels of total homocysteine, fibrinogen, and C-reactive protein, and infectious agents such as Helicobacter pylori and Chlamydia pneumoniae.
- Food fortification e.g. of flour with folic acid to reduce neural tube defects and cardiovascular diseases, as in Canada and the United States since 1998.
• Focusing on secondary prevention and disability.

• Identify and care for persons with existing cardiovascular conditions who are at increased risk for future life-threatening events related to those conditions.

• International collaboration to improve cardiovascular health to continue to reduce the burden of CVD worldwide.

Many studies of CVD mortality have shown racial, sex and regional differences, but there may be many other contributing factors to these differences, which are important to identify so as to be able to plan suitable intervention programs. Such factors include education, diet, and access to health care, knowledge, attitudes and practices.

Hypertension, labile or fixed, systolic or diastolic, mild or severe, for any age or sex group, is an independent contributor for CHD. Further, glucose intolerance and diabetes are atherogenic, especially for women. Familial history of CHD also confers excess risk, as does smoking, physical inactivity and have fatty diet.

Multi-variate analysis has firmly established risk factors for simple intervention programs. Early and good quality medical care during and after an AMI can reduce case fatality rates. Secondary prevention after a first Acute Myocardial Infarction (AMI) can reduce the risk or delay repeat MIs and improve long-term survival. Primary prevention to reduce risk factors is also an important aspect of reducing the burden of CVD disease. A review of the literature and computer model of experience in the United States, published in 1997, attributed less than 1/3 of the reduction of mortality rates between 1980-1990,

While improved treatment accounted for 1/2 the reduction, secondary prevention, such as routine use of aspirin and beta blockers following AMI for the rest. Diffusion of medical interventions is sometimes seen as too rapid, but use of simple medical technology, such as aspirin and beta-blockers, both proven to be highly effective in reducing risk of second AMIs, are not adopted by
a majority of practitioners in a late 1990s survey in the United States. However, using a key informant approach of respected local physicians, a marked increase in the percentage of local doctors using these secondary prevention medications rose sharply.

**The Missing Role of Health Promotion**

Epidemiologic data was regarded as state secrets in the Soviet era, so that the study of diseases other than infectious conditions was effectively prohibited. Services in the field lacked the data, the authority and appropriate forums for meaningful professional debate, and while the centralized management system understood that an epidemiologic transition was under way, they saw the increasing cardiovascular disease as a failure of the whole society in its struggle against "social diseases". The response was to focus on a medicalized approach with increased bed supplies and prophylactic check-ups. It is still existing highly ineffective practice of overburdening health system, resent order of Ministry of Health of Russia is to perform check-up of entire population of "children" - from 0 to 18 years old, within existing budget.

Lifestyle issues were understood in the Soviet Union to be important but the national health strategy focused almost exclusively on the medical care system. The individual focus placed the onus of prevention of chronic disease on the health care provider. The Ministry of Health played no significant role in promoting government policies to reduce risk factors for disease, such as in nutrition, smoking, alcohol abuse and trauma, with the state benefits from alcohol and tobacco sales so it lacks interest in reducing their consumption.

The cost, supply and quality of foods has left many groups in the population vulnerable to micronutrient deficiencies and even starvation among the elderly. Since 1989 there has been a decline in consumption of meat, vegetables, milk products, fish and fruit, while average Russian families use of vegetable oils, eggs, bread and potatoes have increased, fostering obesity and nutrition of poverty, especially for women. The most frequent foods for children are grains, spaghetti, sugar and pastry, with low levels of use of fruit and vegetables (CDC/Stanford University School of Medicine). Worldwide efforts to improve heart health: a follow-up of the
In 1949, the Framingham Heart Study identified the contribution of diet and sedentary lifestyles to the development of cardiovascular disease, and the effect of elevated serum cholesterol on the risk for coronary heart disease. With increased awareness, public health nutrition programs have sought strategies to improve diets. By the 1970s, the United States population has significantly decreased their dietary intakes of total fat from approximately 40% of total calorie intake in 1977-1978 to 33% in 1994-1996, approaching the recommended 30%. Reduced saturated fat intake and serum cholesterol resulted from changes in diet and lifestyle. Early detection and improved treatment, especially of hypertension, have contributed to impressive declines in mortality from heart disease and stroke (Epstein, 1993). A diet rich in fruits and vegetables that provide vitamins, antioxidants (including carotenoids), other phytochemicals, and fiber is associated with additional health benefits, including decreased risk for cardiovascular disease.

**Creating an Environment for Change**

Information systems, accountability and planning based on priorities related to current needs of the population are essential for health reform. Informed discussion of health issues requires provision of information to the media and interest groups to develop higher levels of health consciousness. The issues are complex issues in health reform. Professional organizations can help, but may succumb to the temptation to serve as interest groups. Public forums are essential to informed discussion and consensus building regarding health policy issues.

There are many research institutes in Russia (Moscow, St Petersburg and other centres) that focus on specific elements of public health. But postgraduate training centres based on the model of western schools of public health are urgently needed. Training the current and new generation leadership in modern public health and health management will require at least 4-6 regional schools. External financial and professional assistance is needed in this endeavour to create or upgrade postgraduate training in this and other fields, including training abroad and increased teaching and
professional exchanges. Some progress is being made in this field. There are 4 Schools of Public Health developing in the Russian Federation: in Moscow, Tver, St. Petersburg and Cheliabinsk. In some of them research on local public health needs and solutions already developing. The publication of a textbook of public health in the Russian language and its posting on the Internet is helping to spread concepts of the New Public Health\textsuperscript{6}.

**Conclusions**

Tragically, all health indicators in Russia are grim and getting worse. This is partly due to the socio-economic crisis since the 1991 collapse of the Soviet Union, but also to previous and new deficiencies in the under-funded and over-medicalized health care system. The health system has however within its power to adapt from widespread experience of the industrialized countries in health promotion and diseases prevention. Specific example discussed - a prevention of stroke via management of hypertension.

Russia needs to define its health goals and solutions to these problems. In the present state of weakened central authority, this will not be an easy process. Economic constraints, lack of mechanisms for cost analysis, lack of trained health administrators, and lack of policy analysis at the central level make the challenge even more complicated.

Health reform approach should include three major objectives. First, preserving universal access to care, which will necessitate increased basic funding and substantive restructuring within the health care system. Secondly, establishment of national health targets, adapted from health targets of the European Region of the World Health Organization. Thirdly, raising standards of medical care to international levels.

Decentralized management of health services is needed to carry out such reforms, but at the same time a strong central health authority is needed. Freed from the responsibility to operate health

services, the central health authority (i.e. the Ministry of Health) must define national health goals, targets, and assure access, equity and standards and regulate standards of health services. The ministry needs international assistance to increase its attention to basic public health measures for which legislative powers are essential. Privatisation and public health are subjects of deep-rooted tensions between publicly funded health systems and privately financed health care. International authorities in the field lay bare limitations of marked-led health reform and unlike Russian officials demonstrate the indispensable role of public authority in renewal of modern health care system.

The existing Russian health system must change. Decentralization has already developed a process of local initiative seeking health reform. The Ministry of Health is in urgent need of a program of building guidelines, standards and regulatory mechanisms to assist the local reform process. External consultation and financial assistance to provide grants would help to promote local health reform within national standards. Health financing reform will possibly help to raise the level of resources, but this is unlikely at present. The search for needed resources will have to take place as it occurs in other countries, i.e. by reallocation of priorities and expenditures within the system. One of the major fields of potential changes is prevention (and promotion) of stroke. Smoking cessation, healthy life styles, cost-effective secondary prevention (treatment of hypertension) and rehabilitation, education and other discussed measures - will help to decrease rising level of morbidity, disability and mortality.

Defined health targets need political, moral and financial support. Establishing targets is a complex process, but the success achieved in this process in many countries over the past 3 decades can serve as guidelines. Strong health education and community prevention approaches are essential to change the epidemiologic pattern and reduce the large-scale loss of life in the young adult and middle-aged population in Russia.

References

Figure 2:

0090802 +SDR, cerebrovascular disease, all ages/100000

![Graph showing the trend of cerebrovascular disease from 1970 to 2005 for different countries.](image-url)
FIGURE 1. Age-adjusted death rates* for total cardiovascular disease, diseases of the heart, coronary heart disease, and stroke,† by year — United States, 1900–1996

*Per 100,000 population, standardized to the 1940 U.S. population.
†Diseases are classified according to International Classification of Diseases (ICD) codes in use when the deaths were reported. ICD classification revisions occurred in 1910, 1921, 1930, 1939, 1949, 1958, 1968, and 1979. Death rates before 1933 do not include all states. Comparability ratios were applied to rates for 1970 and 1975.

Source: Adapted from reference 1; data provided by the National Heart, Lung and Blood Institute, National Institutes of Health.