

Better Outcomes through Health Reforms in the Russian Federation

The Challenge in 2008 and Beyond

Patricio V. Marquez

February 2008



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THE RUSSIAN FEDERATION:**

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Health, Nutrition and Population (HNP) Discussion Paper

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Better Outcomes Through Health Reforms in the Russian Federation: *The Challenge in 2008 and Beyond*

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Abstract: The purpose of this discussion paper is to discuss selected health challenges in the Russian Federation, focusing on outcomes, expenditures and options for policy and institutional reforms in the health care system. The areas covered in the paper draw on recent studies and reports, and take into account lessons derived from the implementation of the World Bank-funded Health Reform Implementation Project (HRIP) at the federal level and in the Chuvash Republic and the Voronezh Oblast—the pilot regions of the project, over the 2005–2007 period. The primary audience for this discussion paper consists of policy makers, analysts, and managers in the Russian health sector. A secondary audience is internal, particularly managers and staff of the World Bank who are working in the Russian Federation and other middle-income countries..

Keywords: health reform, decentralization, health systems, health financing, service contracts

Disclaimer: The findings, interpretations and conclusions expressed in the paper are entirely those of the authors, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

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FOREWORD

The purpose of this discussion paper is to discuss selected health challenges in the Russian Federation, focusing on outcomes, expenditures and options for policy and institutional reforms in the health care system. The areas covered in the paper draw on recent studies and reports, and take into account lessons derived from the implementation of the World Bank-funded Health Reform Implementation Project (HRIP) at the federal level and in the Chuvash Republic and the Voronezh Oblast—the pilot regions of the project, over the 2005–2007 period. The primary audience for this discussion paper consists of policy makers, analysts, and managers in the Russian health sector. A secondary audience is internal, particularly managers and staff of the World Bank who are working in the Russian Federation and other middle-income countries.

The rationale for investing in health and restructuring health care systems is briefly explored at the beginning of the paper; subsequent sections focus on some of the current health challenges faced in the Russian Federation and identify areas for potential intervention to advance the health care reform agenda.

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The Discussion Paper incorporates advice and suggestions provided by Sergey Shishkin, Igor Sheiman and Nadezhda Lebedeva, leading Russian Health Economists, and Samir M. Suleymanov, Senior Operations Officer, and Zeljko Bogetic, Lead Economist, Russia Country Management Unit (CMU), The World Bank. Additional comments were provided by Shiyao Chao and John Langenbrunner, Health Economists, The World Bank, and Willy de Geyndt and Alberto Gonima, World Bank Consultants. Beth Goodrich contributed to the editing.

The Discussion Paper draws on the 2005 World Bank report “Dying Too Young. Addressing Premature Mortality and Ill Health Due to Non-Communicable Diseases and Injuries in the Russian Federation,” a “Health Policy Note” prepared by the World Bank Russia Health Team in 2004, a background paper on health reform in the Russian Federation prepared by Rifat Atun in 2007, an OECD report on the Russian health system prepared by William Tompson in 2007, and a study by the International Monetary Fund (IMF) on the efficiency of social expenditures in the Russian Federation prepared by David Hauner in 2007. Other related-documentation was also reviewed. Lessons learned from the implementation of health reforms in the *Chuvash Republic and the Voronezh Oblast*, the pilot regions under the *World Bank-funded Russia Health Reform Implementation Project*, over the 2005–2007 period, were also taken into account.

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Overall guidance for the work of the Health Team in the Russian Federation was provided by Armin Fidler, Sector Manager, and Tamar Manuelyan Atinc, Director, Human Development Department for Europe and Central Asia; and Klaus Rohland, Director, and Isak Froumin, Country Sector Coordinator, Russia Country Management Unit, The World Bank.

PART I – THE RATIONALE FOR ACTION:

A. WHY INVEST IN HEALTH?

Empirical evidence from developing and developed countries demonstrates a two-way relationship between health and growth: economic growth improves health but improved health also significantly enhances economic productivity and growth.¹

In its 2001 report, the Commission on Macroeconomics and Health² made a strong economic case for investing in health. Although this has helped raise the profile of health in the eyes of governments, most countries still consider the funds allocated to health to be costs rather than investments for increased productivity and economic growth. This is of particular importance to knowledge-based economies, such as those in Europe, that rely on innovation and on the development of human and intellectual capital. But the health sector also ‘matters’ in economic terms simply because of its size. It represents one of the most important sectors in developed economies, accounting on average for about 7-9 percent of gross domestic product (GDP) in OECD countries, larger than the 5 percent each contributed by the financial services and retail sectors. Hence, improvement in the productivity and efficiency of the health sector will have a large impact on economic output. Moreover, the performance of the health sector will affect the overall competitiveness of the economy via its effect on labor costs, labor market flexibility and the allocation of resources at the macroeconomic level.^{3,4}

B. WHY REFORM HEALTH SYSTEMS?

Health system goals are to improve health outcomes and offer financial risk protection. When achieving these goals, health systems should provide equitable access to effective care delivered in an efficient and responsive manner. However, many health systems are far from achieving these goals and objectives.⁵

Life expectancy at birth or healthy life expectancy for the general population are two indicators commonly used to measure the level of health achieved. These are usually

1 Bloom, D.E., J. Canning, and J. Sevilla. 2004. “The Effect of Health on Economic Growth: A Production Function Approach.” *World Development* 32(1): 1-13.

2 World Health Organization. 2001. *Macroeconomics and Health: Investing in Health for Economic Development*. Commission on Macroeconomics and Health, WHO, Geneva.

3 European competitiveness report, 2004. Available at: http://europa.eu.int/comm/enterprise/enterprise_policy/competitiveness/doc/comprep_2004_en.pdf.

4 Suhrcke, M., M. McKee, R. Sauto Arce, S. Tsoлова, and J. Mortensen. 2005. *The contribution of health to the economy in the European Union*. Brussels: European Commission. Available at URL: http://europa.eu.int/comm/health/ph_overview/Documents/health_economy_en.pdf.

5 World Health Organization. 2000. *The World Health Report 2000 – Health systems: improving performance*. Geneva: World Health Organization.

combined with standardized mortality or morbidity rates for the general population or for specific population groups to give a more detailed picture of achievements. These measures, when possible, are stratified according to social income groups to ascertain the distribution of outcomes in these groups and hence the degree of equity.

‘Fairness in Financial Contribution’ or ‘Financial Protection’ measures the distribution of financial contributions of households to the health system. As the cost of health care can be catastrophically high and health care needs often unpredictable, citizens must be protected against these eventualities. A fairly financed system should ensure financial protection for everyone, so that the risks each household faces due to the costs of the health system are distributed according to ability to pay rather than the severity or the type of illness, and individuals or households are not pushed into poverty or compelled to forgo treatment due to the high cost of health services.

Responsiveness measures how people view their experience when they come into contact with the health system in clearly specified domains: dignity, autonomy, confidentiality (together comprising respect for persons), prompt attention, quality of basic amenities, access to social support networks during care and choice of provider (comprising client orientation). This is an important health system objective as the services must be developed in relation to user expectations and be sensitive to their needs and concerns.⁶

Equity means social justice or fairness.^{7, 8} Health inequities are observed differences in health outcomes that are unnecessary, avoidable, unfair and unjust.⁹ For the purposes of measurement, equity in health is the absence of systematic disparities in health (or in the major social determinants of health) between groups with different levels of underlying social status,¹⁰ whereas equity in health care relates to coverage, access and accessibility to health services. Health and social systems should be structured in a way to reduce health inequities.

Efficiency is variously defined in health systems, as in other economic domains. Technical efficiency (also called productive efficiency) refers to situations where a service is produced at a minimum cost, or when, for a given input, maximum output is produced. Allocative efficiency is achieved when a set of outputs is produced to meet patient satisfaction, or the right mix of services is produced to achieve health system goals: for example to maximize health status gains. Therefore, to achieve allocative and technical efficiency, planners in health systems need to consider what mix of services is delivered and how these services are produced. Empirical evidence suggests that preventive services are more cost-effective than curative services and primary care services are more efficient than hospital in-patient services. Health systems that have

6 World Health Report 2000 – Health Systems: improving performance. Op. Cit.

7 Beauchamp, T.L. and J.F. Childress, eds. 1994. Principles of Biomedical Ethics. New York: Oxford University Press, 326–59.

8 Rawls, J. 1985. Justice as Fairness. *Philos Public Aff.* 14:223–51.

9 Whitehead, M. 1992. The concepts and principles of equity in health. *Int J Health Serv* 22:429–445

10 Braveman, P. and S. Gruskin. 2003. Defining equity in health. *Journal of Epidemiology and Community Health* 57:254–258.

greater primary health care (PHC) orientation are more efficient and have better aggregate health outcomes.¹¹

Effectiveness refers to the extent to which the services and interventions delivered to the end users are evidence-based or informed by the best practice that can be achieved in the country concerned.

Health systems can be restructured so as better to attain these goals and objectives. This restructuring should draw on evidence and take into account the local context to modify key health system functions to:

- (i) *Put in place appropriate governance structures* to ensure that the overall stewards of resources and decision-makers at different levels (regional, district and provider level) use the powers entrusted to them appropriately and interact in an efficient manner to meet the expectations of the users. Governance structures should be such that they ensure accountability to management and to users, but also encourage inclusiveness (especially of users and vulnerable groups).
- (ii) *Streamline funding arrangements*, by efficiently raising, pooling and allocating resources to develop services according to needs.
- (iii) *Deliver cost-effective personal and non-personal health services*, by (a) restructuring the hospital sector, (b) enhancing the role of primary health care, (c) developing responsive emergency services, (d) establishing intermediate care facilities to effectively manage transition between healthcare levels, (e) strengthening diagnostic capability at both primary and secondary levels to enable early diagnosis and monitoring, (f) building capability to provide long-term rehabilitation and home-care services, and (g) introducing evidence-based care guidelines for improving the quality of management for key conditions.
- (iv) *Effectively use provider payment systems and contracting to create incentives* for providers to encourage structural change, improve service quality, increase productivity and enhance user responsiveness. And,
- (v) *Invest in people* to recruit and retain high quality human resources with appropriate knowledge, competences and attitudes to skills to manage the health system and deliver services.

These changes should be guided by *strategic plans* at regional and organizational level and underpinned by *robust clinical, financial and management information systems* that

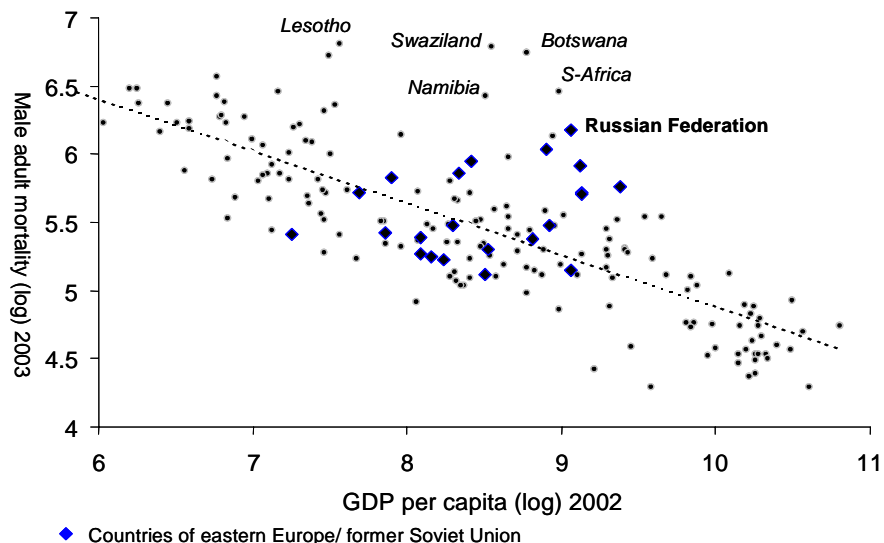
11 Atun, R.A. 2004. "What are the advantages and disadvantages of restructuring a health care system to be more focused on primary care services?" World Health Organization Health Evidence Network. Copenhagen: World Health Organization Regional Office for Europe.

enable pooling of data from different levels of the health system and within levels, and analytic capacity to provide reliable and timely information for decision making, monitoring and evaluation.

PART II— THE HEALTH CHALLENGES IN THE RUSSIAN FEDERATION

Poor Health Outcomes.¹² There is a large health gap between the Russian Federation and other G-8 countries. Life expectancy at birth at 66 years in Russia lags behind that of Japan by as much as 16 years and the European Union average by 14 years. The gap is even more pronounced in terms of healthy life expectancy (HLE):¹³ in Russia, HLE for women is about 10 years less than in France, and 16 years less for men than in the United Kingdom. Mortality rates for adult males are extraordinarily high in Russia relative to other countries at similar income and development levels (Figure 1). These outcomes are often worse than in other Eastern European and Commonwealth of Independent States (CIS) countries. It is indicative that other countries that show comparable or worse mortality rates are several African countries recently devastated by the AIDS epidemic (Figure 1). The main causes of poor health outcomes—death, ill health and disability—among adults in the Russian Federation, are: (i) *noncommunicable diseases* (e.g., heart attacks, strokes, cancer), and (ii) *injuries* due to traffic accidents (NCDI).

Figure 1: GDP Per Capita and Male Adult Mortality in Russia and Other Countries



Alcohol occupies a prominent place in many explanations of Russia’s health crisis. It can explain part of the huge difference in male and female life expectancy. Lower alcohol

12 This section draws on: (i) World Bank. 2005. *Dying Too Young. Addressing Premature Mortality and Ill Health Due to Non-Communicable Diseases and Injuries in the Russian Federation*. Washington, DC: The World Bank and (ii) Marquez, P, M. Suhreke, M. McKee, and L. Rocco. 2007. “Adult Health in the Russian Federation: More than Just A Health Problem,” *Health Affairs* 26 (4): 1040–52.

13 HLE is a summary measure of mortality and morbidity of a population. It is better understood as life spend in full health, i.e., without disability.

consumption in the early years of Mikhail Gorbachev's anti-alcohol campaign coincided with a temporary reversal of the negative trend in male life expectancy. Evidence continues to mount to the effect that alcohol may indeed be a primary culprit. A recent study of 1700 cases of male deaths between the ages of 25 and 54 in Ishevsk presents what may be the most convincing case. The study was able to link clearly an astonishing 38% of these deaths to problems of alcohol abuse.¹⁴ A large portion of these deaths concerns individuals who drank surrogate alcoholic beverages or had frequent binge drinking episodes (zapoi). Studies in other countries, including Finland and Canada, have also found persuasive evidence that the pattern of drinking large amounts of ethanol on single occasions is strongly related to mortality, including cardiovascular disease.

The Russian Federation also has the highest road accident death rate (per 100,000 population) of all former Soviet countries. In 2004, 208,558 reported road crashes resulted in 34,506 deaths, roughly half of which were in the most economically active part of the population (15-44 years old). Along with a 260% increase in the car fleet since the early 1990s, Russia has witnessed a dramatic deterioration in road safety. Problems in the mix of road user traffic, high vehicle speeds, poorly maintained roads, and low vehicle crash protection have been contributing to a growing road safety crisis in Russia. The continued rapid growth in the number of motor vehicles on the road implies that the challenges will become even greater in coming years.

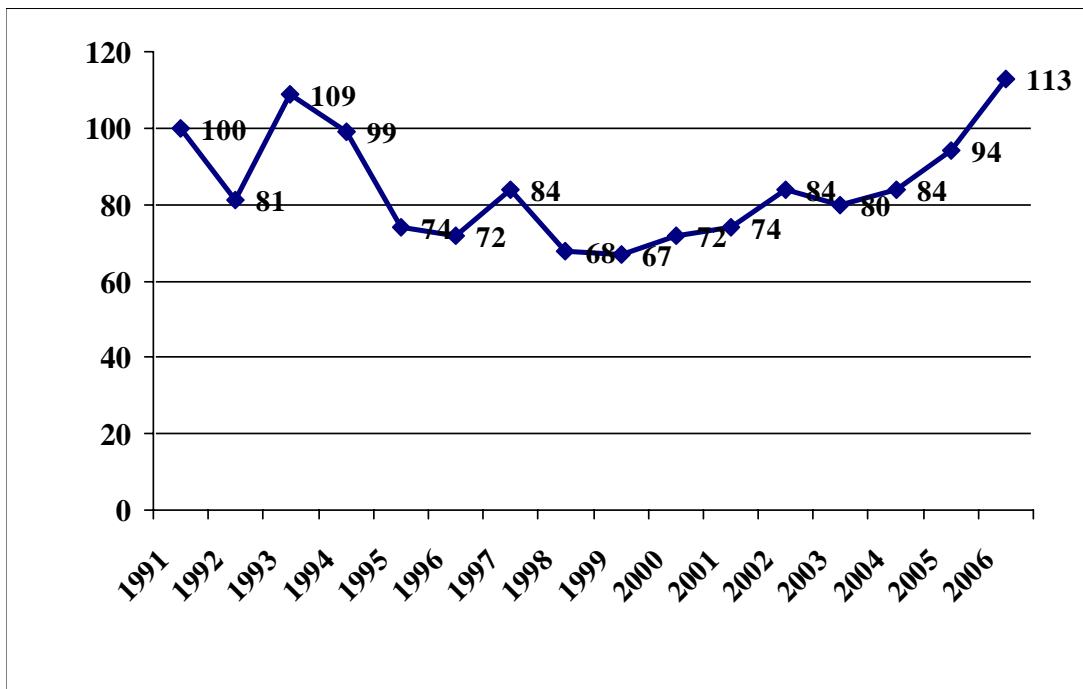
A Declining and Aging Population. In addition to direct welfare implications, high mortality and morbidity among the Russian working-age population present threats to economic development and national security. Labor supply is bound to become an ever greater constraint on economic growth, as Russia faces a general demographic crisis of even more serious magnitude than that of Western Europe. Russia's population has declined by 6 million since 1992, to an estimated 143 million. Most expert opinions project a decline in the population on the order of 30 percent by 2050, although this projection does not include potential impact of immigration and better living conditions that could provide a countervailing force in a scenario of strong, long-term growth of the Russian Federation. Nevertheless, the expected decline in the working-age population is even more severe, and experts estimate that an annual inflow of roughly one million working-age migrants will be needed to fill the gap after 2007.¹⁵ In addition, poor health among the working population has economic costs in the form of low productivity, early retirement, and high medical expenditures. A rapidly growing dependence on migrant labor raises national security questions for Russia, as does poor health in the military. The Russian population is also aging, as reflected by a shrinking youth base and an expanding proportion of the population aged 60 and over.

14 Leon, D, E. Andreev, N. Kiryanov, M. McKee, V. Suburova, V. Shkolikov, and S. Tomkins. 2005. "Izhevsk Family Study." Interim Report. London School of Hygiene and Tropical Medicine.

15 Mkrtchian, N.V., Zubarevitch, N.V. (2005) "Typology of Russian regions by migration and socio-economic development" ["Tipologiiia regionov Rossii po pokazateliam migratsii I sotsialno-ekonomitsheskogo razvitiia"], Tsentr strategitsheskikh razrabotok, Moscow, Mimeo, April.

Low Level of Funding for Health. While attributing causality is difficult, the decline in health status in the Russian Federation came at the same time as decreases in public sector health care expenditures, in real terms (Figure 2). Government expenditures for health care declined by one-third in the 1990s due to significant drops in the early years of the transition. Many secondary and rural facilities that were tied to old Soviet enterprises were closed and service discontinued, increasing utilization of costly hospital services while private sector growth in health service provision has not yet picked up the slack. Spending rose above pre-transition levels in real terms only in 2006 with the infusion of resources from the National Priority Health Program in 2006-2007.

Figure 2: Public Expenditures on Health, Russian Federation, in Real Terms, 1991–2006 (1991 = 100)



Note: Includes budget and health insurance contributions.

Source: Goskomstat database using index deflators of GDP. – IET, (2007) - Russian Economy in 2006. Moscow: IET, p. 495.

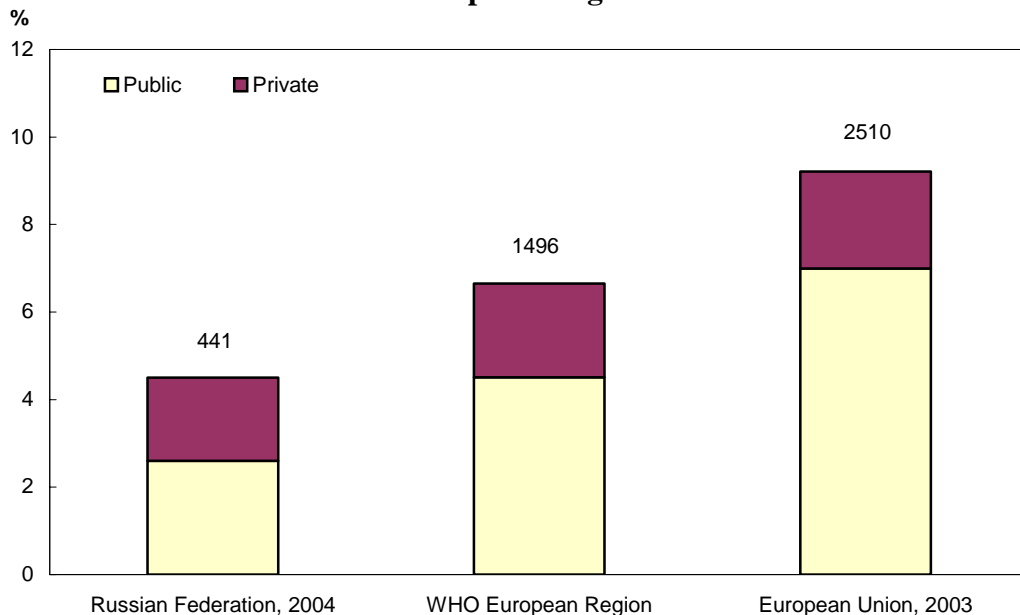
http://www.iet.ru/files/text/trends/2006_en/2006_en.pdf

Public sector expenditures, measured as a share of (GDP), have fluctuated between 2.7 and 3.6 percent since 2001. Russia’s public sector spending for health care, as measured by share of GDP, is low if compared with EU countries, which spend from 6 to 8 percent of GDP on average (Figure 3). Compared with middle-income countries, Russia spends similar amounts in terms of public sector spending as a share of GDP but somewhat less than the median CIS country. Internationally, total (public plus private) health spending as a share of GDP generally increases with GDP, with the lower-to-middle-income

countries (GDP <\$10,000 per person) allocating less than 6 percent of GDP, whereas higher income countries all spend more than 7 percent. Russia’s total spending, both public and private, at 5.3 percent of GDP, remains below the level of countries with a similar per capita income.¹⁶ The large share of private expenditures reflects out-of-pocket payments for informal charges in health facilities and the purchase of pharmaceuticals that tend to hinder the access to quality health services, particularly among the poor.

Rapidly rising incomes with real growth expected to average over 5 percent in the medium term, aging population, poor health outcomes and demands of the growing middle class will continue to put pressure on demand for health services. As a result, total and public expenditures on health as a percentage of GDP are likely to increase in Russia over the medium to long term even with efficiency gains that will need to be generated within the existing health system.

**Figure 3: Health care spending
As a percentage of GDP**



Note: The figures above columns represent per capita health care spending, US\$ PPP.

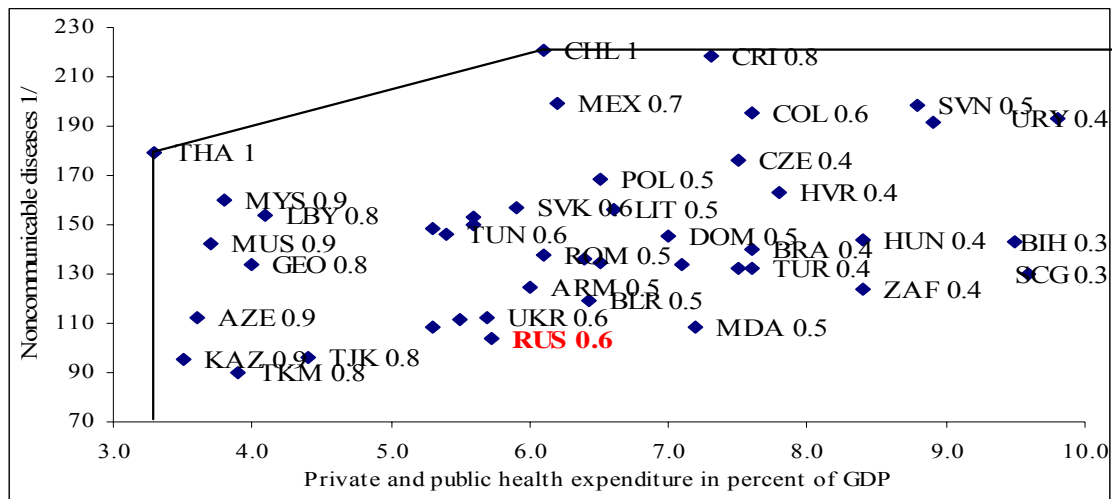
Source: Adapted from Tompson (2007); data from WHO, Federal Service for State Statistics, OECD calculations.

Efficiency of Health Care Spending. Notwithstanding low levels of spending, it is clear that Russian health care expenditure is also poorly allocated and inefficiently administered within regions. As a result, there is an urgent need to improve the structure

16 Tompson, W. 2007. “Healthcare Reform in Russia: Problem and Prospects.” OECD Economics Department Working Papers, No.538, OECD Publishing, doi:10, 1787/327014317703.

of health care spending, while simultaneously enhancing efficiency. A recent study¹⁷ assessed the efficiency of social expenditure in the Russian Federation, including health care expenditure, related to outcome indicators and compared with other countries.¹⁸ Although the comparisons of expenditure and mortality are not controlled for other factors that affect mortality, the results suggest that similar health outcomes as in Russia are observed in the countries spending 30-40% less on health (Figure 4). The main implication of the above is that *to improve health outcomes, as discussed in the following sections, additional resources for health care are needed but they must be accompanied by reforms to improve efficiency and effectiveness of health care organization and delivery.*¹⁹

Figure 4. Efficiency of Private and Public Health Spending
Standardized Mortality Rate Noncommunicable Diseases 1/



Sources: Adapted from Hauner (2007); data from WHO, IMF, WEO database, and IMF staff calculations.

17 Hauner, D. 2007. "Benchmarking the Efficiency of Public Expenditure in the Russian Federation." IMF Working Paper WP/07/246.

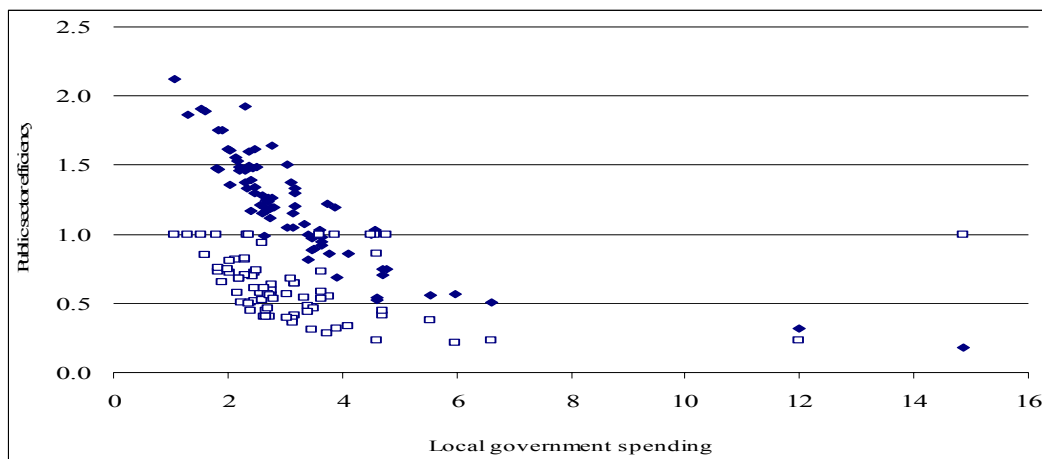
18 The efficiency of public spending is measured by comparing actual spending with the minimum spending theoretically sufficient to produce the same actual output. Inputs are measured by public spending in specific functional areas, while outputs are represented by indicators of the impact of public spending in these areas. Health outcomes are measured by indicators such as infant mortality, life expectancy, the number of hospital beds, physicians relative to population. For local governments, public sector performance (PSP) and public sector efficiency (PSE) scores are used.

19 Vishnevskiy, A.G., Y.I. Kuzminov, V.I. Shevskiy, I.M. Sheiman, S.V. Shishkin, L.I. Yakobson, E.G. Yasin. 2007. "Russian Healthcare: Way Out of Crisis." [Авторы: Вишневский А.Г., Кузьминов Я.И., Шевский В.И., Шейман И.М., Шишкин С.В., Якобсон Л.И., Ясин Е.Г. Российское здравоохранение: как выйти из кризиса Доклад Государственного университета – Высшая школа экономики]. Moscow: Report of State University - High School of Economics. Mimeo.

1/ Inverted (following Afonso, Schuknecht, and Tanzi 2005), because better outcomes have to be reflected in higher values.

This study also suggests that, at the local government level, comparing spending and outcomes across regions, on average, the current outcomes in health could again be produced with about two-thirds of the present inputs if the less efficient regions would emulate the more efficient ones. Local governments account for about 85 percent of health expenditure. Local government expenditure on health varies substantially relative to gross regional product (GRP), mostly between 2 and 4 percent of GRP, but can extend to 15 percent (Figure 5).

**Figure 5. Local Governments—
PSP, PSE, and DEA Scores vs. Spending in Percent of GRP
PSE (filled markers) and DEA (empty markers)
Health**



Sources: Adapted from Hauner (2007); Rosstat; and IMF staff calculations.

In spite of the fact that local government spending as a percentage of GDP varies considerably across regions, the different spending does not seem to translate into materially different outcomes: whether it is health, education, or social protection, outcomes are similar, regardless of the associated level of expenditures. This indicates the large efficiency differences among regions. Statistical measures also underscore the contrast between the small variation in public sector performance (with a coefficient of variation of only 0.10–0.17) and the much larger one in public sector efficiency (coefficient of variation is 0.38–0.42). However, minimum and maximum public sector performance still reveals a remarkably wide range: 0.60–1.30 in health; in other words, public sector performance is about twice as good in the best as in the worst region.

At the same time, the National Survey of Household Welfare and Program Participation (NOBUS) survey of social protection policies and impacts conducted by Goskomstat in 2003 of over 45,000 households found that the poorer income groups, particularly in

rural areas, pay more as a percentage of their consumption overall. Rural households generally pay more for unofficial medical care and a greater percentage of consumption. This suggests many families may be falling into poverty—or deeper into poverty—as a result of health care needs.

PART III – HOW TO ADDRESS KEY HEALTH CHALLENGES

Getting better health outcomes in the Russian Federation will require more and better spending of public resources. To be sustainable, however, the allocation of additional funds must be accompanied by a number of policy and institutional reforms that need to proceed in *tandem* to ensure overall coherence of effort. Specifically, the following three broad lines of actions should be considered in addressing Russia's health crisis.

1. **Developing Multisectoral Actions to Address the Causes of Russia's Health Crisis.**

Few would argue that the roots of the health crisis in the Russian Federation are entirely, or even primarily, in the state of the health care *system*. Indeed, some studies find little evidence of a link between health outcomes and access to health care in Russia.²⁰ High levels of mortality and morbidity due to NCDI reflect many other factors that transcend the health system, as they are related to the aging of the population, rapid urbanization, changing lifestyles and risky behaviors. As a result, overwhelming international evidence suggests that a multisectoral strategy is most cost-effective to address the NCDI challenge²¹. In Russia, nationwide multisectoral strategies and measures should be supported to *confront the leading health risk factors by focusing on the following priority lines of interventions*:

- (i) *controlling excessive alcohol consumption* by targeting supply (e.g., regulation of production, distribution, prices, access, and advertising) and demand (e.g., information, education and communication campaigns);
- (ii) *controlling tobacco consumption* (e.g., development of policies for smoke-free worksites and public places, taxation, legislation for banning tobacco advertising and promotion, as well as sale to minors in accordance with the International Framework Convention on Tobacco Control, which has not yet been signed by the Government);
- (iii) *promoting changes in diet and physical activity* (e.g., public health policies incentives to promote dietary guidelines for healthier eating, school programs on the importance of healthy nutrition and physical activity); and
- (iv) *improving road safety by promoting the use of seat belts and helmets, enforcing laws to prevent traffic accidents* due to drunk driving, and retrofitting current road infrastructure with low-cost safety design features (e.g., medians, separation for pedestrians and cyclists) and systematic maintenance to remediate road hazards.

Political leadership and funding would be required to scale up current efforts at the federal and regional levels. Broad public-private partnerships should be developed to advance the health

20 Brainerd, E., and D. M. Cutler. 2005. "Autopsy on an Empire: Understanding Mortality in Russia and the Former Soviet Union." NBER Working Paper 10868. National Bureau of Economic Research, Cambridge, MA.

21 Puska, P, J. Tuomilehto, A. Nissinen, and E. Vartiainen (eds.). 1995. The North Karelia Project: 20 Year Results and Experiences. The National Public Health Institute. Helsinki, Finland.

promotion and disease prevention agenda. The poor health of employees has a short-term impact on the financial bottom line of every company, as well as a longer-term impact on the prospects for profitable growth. For this reason alone, business will have a vested interest in participating and investing in actions to reduce this cost burden with the encouragement of tax credits by the Government. Employers can have a strong influence on the behavior of their staff and can make them aware of the health risks through health programs in the workplace. The involvement of stakeholders such as major Russian companies and multinational corporations that have a wealth of international experience in employee- and community-directed health programs would be critical to the success of future policies. The participation of food producers and retailers would also be of particular importance in helping tackle poor dietary habits and obesity.

2. Increasing Level of Funding for Health²². A key challenge facing the Russian health system is the relative lack of public sector funding at its disposal to cover the cost of services that are already promised by the Government under the Program of State Guarantees of free, medical services to the whole population. The content of the package is quite extensive for a country that spends a relatively low share of GDP on health care. Access to health care has been compromised consistently over the last 15 years as available resources have been insufficient to cover the guaranteed package. Indeed, Russia probably needs to spend more on health care than it currently does, and the major long-term drivers of health care spending – rising incomes,²³ technological change and demographic change – all point to a significant, long-term rise in health care expenditure. It is reasonable to assume that part of this increase could and should be met by public provision of health service that is likely to remain an important pillar of the system, despite the expected growth of private provision and finance.

The impact of demography will be particularly important. As noted above, the Russian population is aging fast: the proportion of the population above the age of 60 is projected to rise from 17 percent in 2005 to 31 percent by 2050. Since health care spending per capita on pensioners (women over 55 and men over 60) is typically estimated to be roughly triple the level for working-age adults and double the level for children, the system will come under enormous pressure with aging unless the healthy life expectancy of Russians increases. Russian women, in particular, tend to suffer much worse health than either Russian men or western women, and the gap increases with age. This is one reason why the success of reform of the health care system will depend on broader initiatives aimed at improving Russians' health as discussed above. Unless healthy life expectancy (HLE) increases, the system risks becoming overburdened by a rapidly aging, increasingly ill population.

Given the above considerations, probably the Russian Government would need to gradually increase aggregate public funding on health above the current 3-5 percent of GDP level in 2006 to a 4.5-6.0 percent of GDP level as in other middle-income countries within the next five to ten years (Table 1). Private spending is also expected to increase from the current 1.8 percent of GDP to 2.5-3 percent of GDP in the long term. Russia's health care system in the long term should rely on both strong public sector core and rising a private sector provision and finance pillar.

22 For a detailed discussion see: (i) World Bank. 2004. "The Health Sector: Russia Health Policy Note." The World Bank, Washington, D.C., March, http://194.84.38.65/esw/files/Health_PN_eng.pdf; (ii) and Tompson (2007). Op. Cit..

23 In both OECD and emerging market economies, health care expenditure exhibits a tendency to rise faster than real GDP.

Table 1: Russia: Projected Public Expenditures on Health, 2008-2020
(average annual percentage of GDP)

2006-2007	2008-2010	2011-2015	2016-2020
3.5	4.5	5.5	6

This increase in public expenditures would help to address some long-standing problems: (i) raise the base salaries of physicians and nurses, (ii) introduce incentives for improving performance by differentiating remuneration depending on the volume and quality of health services; (iii) ensure free drug provision for hospital care and fund targeted outpatient drug programs for children and the elderly, and (iv) rehabilitate health facilities, replace outdated equipment and train personnel.²⁴

Where should additional public resources come from? The short answer is from improved composition of public expenditures toward long-term needs of social sectors such as health, education and pensions and away from less productive categories of public expenditures (e.g., untargeted subsidies and transfers, general administration expenditures and unproductive public investments). As the Russian health care financing system is based mostly on general budget revenue rather than on earmarked payroll taxes, mechanisms should also be explored to raise additional funding from regional budgets – as contributions to mandatory health insurance (MHI) of the non-working population. Another area that merits further analysis is the channeling of additional private expenditures for health through the development of voluntary health insurance (VHI) to complement MHI.

3. Advancing Policy and Institutional Reforms to Enhance Efficiency, Equity and Effectiveness in the Health System. Spending more money, while necessary, will not be sufficient to improve Russia's health outcomes on a sustainable basis. As noted above, it is critical that increased health investments and expenditures in the Russian health system be accompanied by *structural reforms* to improve the efficiency and effectiveness of health care organization and service delivery. Specifically, the following three broad lines of actions should be considered in addressing Russia's health crisis.

- (a) establishing a single source of funding for public health services,
- (b) revising the state guaranteed medical benefits package,
- (c) developing new payment mechanisms for health services, and
- (d) restructuring health care delivery.

3.1. Centralizing the Pooling of Revenues. The health financing system in Russia is currently very fragmented and much more decentralized than in most middle- or high-income countries. It is also inefficient, as it unnecessarily duplicates administrative efforts and increases transaction costs. Funding comes from federal, regional, and municipality budgets, in addition to the MHI established in 1993. Budget funding accounts for about 60 percent of total public health spending in Russia and the MHI for the rest. Most public sector funds, over 85 percent, are raised and allocated at the regional level through general revenues and the 3.1% rate of payroll tax. The equalization of budget transfers from the federal level, however, have never been earmarked for

²⁴ For a detailed discussion see Ref. 19. Op. Cit.

health, and regions have mostly been unwilling to either contribute for nonworking groups or to pool necessary funds under the regional health insurance funds, as called for in the legislation. Budgeted funds allocated for health have been kept with the regional health departments and municipalities. The role of intermediate health insurers has never been fully developed. Regions vary in the number, role, and effectiveness of health insurers acting as purchasers for the territorial mandatory health insurance funds (TMHIFs). These organizations, both public and private, do not compete; often, they act only as “pass-throughs” for bill claims, using their covered population to market private insurance policies and bearing little risk. However, they create administrative costs of about 3 percent by acting as mere intermediaries.

The division of services as financed from the budget and from the MHIF is carefully divided by sources in the regulation on state guarantees: the budget finances emergency services, including ambulatory and inpatient care provided to patients with socially significant diseases, including AIDS, while the MHI covers ambulatory, polyclinic, and hospital care provided to patients with contagious and parasitic diseases, excluding venereal diseases, tuberculosis (TB), and AIDS, and to patients with cancer, endocrine system diseases, and skin diseases. However, in practice, there are problems with the lack of coordination between the two health care financing sources that leads to a fragmented provision of health services. Indeed, it is hard to ensure systematic management of diseases and create new incentives when services are funded from different sources and performance payments cover only certain types of services. For instance, as TB control is funded from the budget, and general practitioners (GPs) from MHI, if a GP is good at diagnosing and treating TB cases, he cannot be rewarded for his work – barriers between two sources preclude this. Or if a GP works hard in responding to the needs of the patients and decreases emergency calls, he cannot be rewarded for this outcome.

The gradual integration of financial resources from federal and regional government transfers and the MHI would enable the establishment of a single-payer funding for public health services. In turn, this would enable development of more meaningful strategic plans for the regional health systems as a whole, encourage integration and coordination, reduce barriers to intra-sectoral activities, and provide greater flexibility with transfer of funds between services.

3.2. Revising the Guaranteed Package of Medical Benefits. While health care spending is expected to go on rising, both in absolute terms and relative to GDP, the balance between commitments and resources cannot be restored merely by increasing the latter. The guaranteed package of medical benefits itself will have to be re-examined. This will involve more than an assessment of what the Russian state can actually afford, although resource constraints will clearly be a critical factor. If the state guarantee is to have any meaning at all, the package must be transparent to both providers and patients by specifying the types, volumes, procedures and conditions of health care provision, and must provide mechanisms for citizens to assert their rights if the commitments in the package are not met. A set of services and drugs should be established for priority diseases to be provided free based on the Government guarantees. It would also be better if the Package of State Guarantees were funded from a single source, thus preventing perverse incentives for unjustified shifting of costs from one funding source to another. A priority setting process should be used to adjust the Package of State Guarantees to ensure these services reflect the current and emerging health needs of the Russian population.

When tackling the question of matching state guarantees to available resources, there is a need to focus on more effective, equitable mechanisms to contain pharmaceutical costs. Pharmaceuticals account for an extremely high share of total health care expenditure, but public pharmaceuticals expenditure remains at relatively modest levels. This is largely the result of cost-sharing arrangements. Any serious attempt to give substance to the formal guarantees could result in

rapidly rising public expenditure on pharmaceuticals, unless the guaranteed package is carefully defined and is accompanied by other measures to manage expenditure on drugs. In the United States, for example, the increased use of generic drugs, which, on average, have much lower prices than similar brand-name drugs, helped restrain drug spending growth in 2006.²⁵ This trend was largely influenced by the following factors: (i) the continued use of incentives such as tiered copayment structures, copayment waivers, and step therapy, which encourages the use of generic drugs; (ii) the loss of patent protection for a number of brand-name drugs that became available in generic form in 2006; and (iii) substantial rebates negotiated by state programs and health insurance plans with the drug manufactures.

The design of the benefits package should be linked with other processes, such as licensing and accreditation, selective contracting, and incentive-based payment systems. Federal clinical practice guidelines (CPGs) can be helpful in the design and implementation of such package by setting the minimum standards of care. And, the role of those who ensure implementation of the guarantees (e.g., doctors, health facility, insurer) should be clearly defined as well. As discussed below, the design of the benefits package should also be linked with other processes, such as selective contracting, licensing and accreditation, and incentive-based payment systems.

Contracting Arrangements. Regulations in the Russian health care system should better define governance structures, the roles and responsibilities of regional and municipal authorities, health service purchasers and providers. In particular, the regulations should define how these organizations should interact and decisions should be made for effective planning and production of health services.

One limited development to date in the Russian health system has been the lack of selective contracting from among both public and private sector providers. On one hand, insurers have a legislative mandate to contract with both public and private providers, but contracts with the latter are rare. Low payment rates discourage private providers from seeking contracts, while public providers are often local monopolists. Nevertheless, whether purchaser or provider driven, this has prevented competition. The managerial and financial autonomy of health service providers, who directly contract with purchasers, should be expanded to enable them to respond to incentives aimed at improving service quality and productivity. To this end, particular care should be placed in ensuring quality of care, by ensuring the specific activities and targets of outcomes are specified in the contract with providers.

Accrediting Health Care Providers. Common quality standards should be established to accredit health service providers wishing to contract with purchasing agencies. To be accredited organizations should demonstrate: (a) satisfactory service quality; (b) suitable location, building and infrastructure; (c) appropriate equipment; (d) high-quality record keeping and patient records; (e) teamwork and continuum of care; (f) systems to safeguard patient confidentiality; (g) continuing professional development for staff; and (h) user participation in decision making. A quality development agency should be established at the Federal level to perform accreditations and register all public and private health care institutions accredited to provide health services.

Mechanisms for Licensing Health Professionals. Licensing and relicensing of health professionals, widely practiced in most advanced health systems, helps ensure consistent high-quality standards. This practice compliments academic competence (demonstrated by university

25 Catlin, A., C. Cowan, M. Hartman, S. Heffler, and the National Health Expenditure Accounts Team. 2008. "National Health Spending in 2006: A Year of Change for Prescription Drugs. *Health Affairs* 27(1): 14-29.

qualifications) and should be a prerequisite to enter and remain in practice and/or a specialty. A competent regional level authority should be created and criteria defined for licensing and relicensing. Continuing professional development should be integrated with licensing and relicensing. Each year, health professionals should develop a “personal improvement plan,” elaborating their learning needs and activities to meet them.

Creating an effective licensing and relicensing system involves clarifying institutional roles and responsibilities and the process; establishing a register of professionals licensed to provide health care services; defining the competencies and the competence levels needed for licensing and relicensing; defining personal development activities required for relicensing; and clarifying how poorly performing health care professionals will be managed.

3.3. Developing Provider Payment Systems with Incentives to Enhance Service Quality and Efficiency. There is robust empirical evidence demonstrating how different provider payment systems can be used to create incentives to modify behavior of health care providers to improve efficiency and quality. Building on the new contracts introduced in the *Chuvash Republic* and *Voronezh* with the support of the *World Bank-funded Health Reform Implementation Project*, incentives should be introduced to expand the scope of services provided and to improve service quality at the primary health care level (PHC). Per capita payments should be combined with performance-related pay linked to achieving quality standards or providing new services. For example, additional (bonus) target payments could be provided for reaching certain quality and efficiency targets (such as expanded coverage for immunization, cervical screening, annual health promotion advice to men and women, smoking cessation, alcohol reduction, elderly checks, and developmental checks for infants and children). Alternatively, fee-for-service payments could be used to strengthen existing services and to expand service scope, by introducing new services for general health promotion, dedicated chronic disease management programs (for diabetes mellitus, ischemic heart disease, heart failure, hypertension, asthma, chronic obstructive pulmonary disease, epilepsy, stroke) and minor surgery. The payment systems for PHC should be modified so that a proportion of the payment for PHC units (20-25 percent) is related not to inputs but outputs and outcomes: with clearly defined quality targets for key noncommunicable illnesses (e.g., cardiovascular diseases, cancer, diabetes, chronic lung diseases) that constitute the greatest disease burden for Russia.

Hospitals in Russia are paid mostly on the basis of treated cases, but some expenditure items (mostly fixed) are not included in MHI tariffs but instead are covered directly from budgets controlled by governments of various levels. This combination is inefficient as line item budgeting pays for inputs, providing little incentive for providers to improve efficiency. Funds provided through line item budgeting should be incorporated into the existing tariffs, which in turn should be modified to incorporate quality and efficiency standards (for example, stipulating average length of stay in line with those that can be achieved through the use of more cost-effective medical interventions). Further, as case-based payment methods are inflationary (because they encourage providers to increase activity levels to generate maximum revenues), they should be combined with cost and volume contracts that specify a level of activity for a given year and for a given specialty.

Managing Performance. The need to promote the development of performance management systems in the Russian health system is prompted by the devolution of responsibilities from the federal to the regional and the municipal levels and the associated need to develop explicit models of accountability and performance measurement. The development of performance management systems should be integral to the restructuring of regional health care systems. In

contrast to simple performance measurement, performance management is a systemic quality improvement process that drives institutional change for the attainment of predefined objectives and quantifiable targets. Recent and relevant experience in the United Kingdom's National Health Service (NHS) suggests that performance management could be developed in Russia by focusing on four areas:^{26 27}

- **Guidance:** this entails the development of service agreements between health and financial authorities linking resource allocation to the achievement of predefined objectives. Objectives may include reduced mortality rates; narrower health disparities; in-time treatment; reduced waiting time; improved patient satisfaction; high-quality preadmission and rehabilitation services to ensure continuity of medical care; rapid access to primary care; and better value. The objectives are transmitted to local organizations and individual providers. Under clinical governance principles, different actors in the system must ensure quality of care and operate within financial limits. Implementing guidance programs requires: national standards of care for specific conditions to be established, detailed guidance on the use of new technologies issued, and setting of detailed annual targets.
- **Monitoring:** the progress of health care organizations needs to be monitored and evaluated through performance assessment frameworks, e.g., performance indicators grouped under domains of performance—health improvement, fair access, effective delivery of appropriate care, efficiency, patient/care giver experience, and health outcomes.
- **Response:** performance management arrangements also include incentive instruments, rewards for good performers in the form of a system of earned autonomy, and a performance ratings system for assessing success that is publicly available to the general population.
- **Results:** annual assessments need to measure performances in meeting a range of government-set targets and standards and should also provide the public, patients, and staff with information about the quality of local health services. The standards should describe the overall level of quality that health care organizations are expected to meet across a range of areas. Well-developed, patient-based case management information systems and efficient revenue cycle processes linked to the health insurance funds are critical for this task.

3.4. Addressing the Structural Imbalances in the Organization of Health Care Services.

The delivery of health care services in the Russian Federation is a regional and municipal responsibility. Currently, the Russian regions need significant capital investment to restructure, renew and appropriately equip the health provider infrastructure. Although there are special issues of geographic dispersion and severe climatic conditions, making some additional infrastructure necessary, this does not necessarily mean building new facilities, but rather *modernizing the existing network* as it is currently being done in United Kingdom's NHS and

26 Smith, P.C. 2002. "Performance Management In British Health Care: Will It Deliver?" Health Affairs 21(3): 103-115.

27 Seddon, W. M. S.Dunn, R.T. Edwards, J. Pearse, and J.V. Tu. 2007. "Measuring And Reducing Waiting Times: A Cross-National Comparison Of Strategies." Health Affairs 26(4): 1078-1087.

elsewhere. With judicious investment in hospital, intermediate care centers, primary care facilities, emergency medical services, upgrading competences of human resources, and strengthening management systems, including the widespread introduction of electronic medical records, the number of admissions and the length of stay in Russian hospitals can be substantially reduced while expanding the coverage of ambulatory services. This will enable substantial right-sizing of the costly hospital infrastructure as many facilities have unused capacity, improvement in the quality and utility of the existing capital stock and the creation of a suitable environment that can apply new medical technologies to address current and emerging health needs. Such an investment program must be informed by a *formal needs assessment exercise* to inventory existing capacity, ascertain needs and demand patterns and identify imbalances among need, demand and supply. Attention would also be required on how to strengthen the organization and financing of long-term care services, including nursing home and home care, for people who depend on ongoing help with the activities of daily living caused by aging and chronic conditions of physical or mental disability.²⁸

Strategic Plans for Restructuring. Regional strategic plans should be developed at corporate level, jointly by regional ministries or directorates of health and finance and territorial insurance funds. The corporate strategic plan should be used to communicate the values guiding the reforms, the strategic intent, objectives of restructuring, and the tactics for achieving these. The corporate plan should be cascaded down to rayon, hospital, and PHC levels to inform, coordinate and guide development at these levels to ensure these institutions do operate with autonomy but function as a coherent whole.

A major barrier to successful scale-up and sustainability of reforms is limited communication with key stakeholders. A *well-developed communication strategy—aimed at users, health professionals, managers and decision makers*—should be part of the strategic plans to widely share the objectives of health reforms and to inform stakeholders of the expected benefits.

Health Technology Assessment. People tend to believe in high-tech medicine and to want rapid adoption of new medical technologies and medicines. This presents policy makers with a dilemma: while they recognize that investment in these innovations is necessary to improve health and meet user demands, they also see the need to manage rising costs. The challenge is particularly acute in the Russian Federation, where much of the health care technology currently in use is obsolete and funds for capital investment are limited.

Investment in new technologies should be guided by technology assessment to ensure investments are directed at cost-effective technologies. Institutional arrangements for conducting health technology assessments should be developed to guide investment decisions in new technologies, including the development of objective criteria for investment decisions (such as a business case) and the identification of a range of mechanisms for funding high technologies (for example public-private partnerships, use of international finance facilities).

Using Health Accounts Data. Data generated by the health accounts system that has been established by the Russian Ministry of Health and Social Development (MOHSD) should be used to demonstrate in a transparent manner how resources are applied and how funds flow between and within levels, and to cost different elements and functions of the health system. Health

²⁸ For a detailed cross-country assessment see OECD. 2005. Long-Term Care for Older People. Paris: The OECD Health Project.

accounts can be used to estimate economic costs and benefits of restructuring and to benchmark and monitor whether these benefits are realized.

Restructuring the Hospital Sector. Policy makers, health planners and health care managers in Russia have identified the need to restructure the current hospital infrastructure, which is too costly to maintain and not suitable for current and future needs. There is also agreement (with supporting evidence) that many of the hospital admissions are unnecessary and need to be reduced in number. Further, when admitted, the length of hospital stays are excessive (average length of stays in Russian hospitals is twice that in Western Europe) and need to be shortened.

In most hospitals existing physical capacity (in terms of acute care beds) can be reduced and the remaining capacity reconfigured to improve care processes, patient flow, and throughput. A large proportion of the acute care beds can be converted to short- and long-term rehabilitation beds with staffing adjusted accordingly.

In hospitals identified for restructuring and refurbishment, investment should be made in cost-effective diagnostic and therapeutic technologies. It should, in particular, be targeted to information technologies, laboratory diagnostics, imaging diagnostics, and equipment for minor surgery. Efficient use of new technologies would help achieve substantial improvements in hospital quality and productivity. For example, up to 80% of elective surgical procedures can be undertaken as day surgery and result in improved health outcomes and substantial economic benefits. Savings gained through efficiency could be used to invest in upgrading infrastructure, health technologies, and human resources.

Restructuring and refurbishment of the hospital sector must be accompanied by investment in high-quality information technologies and clinical management information systems to enable the capture of standard data from hospital providers to enable comparative benchmarking of utilization, cost, and outcomes. This investment needs to be accompanied by analytic capacity so that each hospital can undertake comprehensive analysis of the costs of its services per diagnostic group and per patient (with varied case mix). Linking cost and utilization data will enable hospitals to identify cost-volume-revenue relationships. In turn, this analysis will inform capacity planning, as the hospitals will have a more transparent and objective way of assessing their costs and revenues at different levels of service volumes. Assessing outcomes will enable hospitals and purchasers to monitor the quality of the services provided. When pooled, this information can be used (by the hospitals, purchasers, quality assurance agencies, and policy makers) for longitudinal benchmarking of performance over time for a particular hospital unit and comparative benchmarking among hospitals to encourage continuous monitoring and quality improvement.

Building a Family Medicine-Led Primary Health Care (PHC) System. The coverage of primary health care services provided by family physicians or district physicians and general practitioners that have received specialist training should be gradually expanded at the regional level of the Russian Federation.

Regulations should define “Core Family Medicine (FM) Team” and “FM Group Practice,” providers that can contract with health insurance entities. In urban areas the Core FM Team should typically comprise an FM physician and two FM nurses, and in rural areas an FM physician and an FM nurse. Patients within a defined geographic area should have the choice to enroll with different FM teams. Each FM team should be able to enroll a minimum of 1200 and a maximum of 2000 patients. FM Group Practices should be composed of up to five FM teams and be able to enroll up to a maximum of 10,000 patients.

These providers should have the choice of providing only “core” (defined below) or core and “additional” PHC services within a given geographic area. The composition and competences of FM teams will vary and influence the type of contract secured with the health insurance fund and the services provided.

FM group practices should be able to employ narrow specialists or other health professionals to provide an expanded scope of services and achieve secondary to primary service shift. The FM teams should be able to subcontract narrow specialists, community-based specialist nurses (patronage nurses), and allied health professionals (such as physiotherapists) to provide additional services in PHC.

Each FM team or group practice should be accredited before receiving a legal status as an independent service provider and to secure a service contract from the health insurance fund (see Table 2). A critical component of this model is the direct contracts between the health insurance fund and the FM teams or group practices. This is a significant change from current practice and will require legal frameworks to enable direct contracting.

Table 2: New Organizational Entities in PHC

Legal Entity	Team Composition	Key Characteristics
Family Medicine Team	1 FM Physician 2 FM Nurses	Number of patients registered can vary between 1,200-2,000 Defined geographic boundaries (rural and urban) Provide core plus additional PHC Services Accreditation necessary as a team Public, private for-profit, or private not-for-profit
Family Medicine Group Practice	2–5 FM Teams	Number of patients registered can vary between 2,001–10,000. Provide core plus additional PHC Services aimed at achieving secondary to primary shift Defined geographic boundaries (rural and urban) Accreditation necessary as a group Narrow specialists and other PHC professionals can work within the team as subcontractors Public, private for-profit, or private not-for-profit

Competencies, Roles and Responsibilities of FM Teams, Family Physicians, and Family Nurses. Russia needs to scale up FM-centred PHC systems to manage the current and emerging disease burden. The role of family physicians should be expanded to enable them to manage their patients more actively and not merely act as referral agents to secondary care. The competences, roles and responsibilities of family physicians should be redefined and aligned with the broader role they will play in the health system. Similarly, the role of family nurses should be defined and expanded to include health education, health promotion, disease prevention, consultation and triage, diagnostic services, and curative functions.

Developing PHC Centers. Purpose-built PHC facilities, appropriately provided with clinical equipment and information technologies, are necessary to create the right conditions to expand PHC services and enable provision of more integrated approaches to service delivery. With investment in new technologies, polyclinics in urban areas can be upgraded to serve as diagnostic

and ambulatory care centers to provide day-care services. Technical assistance can be utilized for advice on the development of purpose-built PHC units that are ‘fit-for-purpose’ and equipped to meet current and future health needs.

Expanding the Scope of PHC Services Provided by Family Physicians. PHC services in Russia are basic and limited mostly to managing common acute conditions. Much of chronic disease management, children’s services, and obstetrics and gynecological services takes place in hospitals and is provided by narrow specialists, leaving much room for expanding the scope of PHC services, especially in health promotion, disease prevention, and management of chronic illnesses. Core PHC services provided by trained family physicians should be expanded beyond that available. This core set of services should emphasize holistic care, take a person-centered approach, and provide continuity of care for common acute and chronic conditions, including relevant health education and promotion advice, disease prevention (primary and secondary), and referral as appropriate. The core service package should have well defined quality indicators to measure effectiveness and efficiency of service delivery and include regular clinical audit as a key activity to be undertaken by all practices and clinicians to demonstrate achievement of key quality standards.

In areas with greater population density—for instance managing key chronic illnesses—additional services should be offered to reduce the number of referrals to hospitals. Chronic disease management programs should be established for common chronic diseases that are the source of high disease burden, such as ischemic heart disease (including heart failure), cerebrovascular disease, diabetes mellitus, chronic pulmonary disease (including asthma) and mental health. These programs should be patient focused, aimed at improving continuity of care, aligned with evidence-based guidelines, supported by data obtained through the establishment of disease-specific registries, and oriented towards clear targets for quality and outcomes that determine performance-related payment (Table 3).

Development of core and additional services will allow better differentiation between urban and rural PHC models. In rural areas, where population density is low, it would not be feasible to provide a comprehensive range of PHC services due to limited access to human resources and technologies. The design of extended PHC through an ‘additional’ service package that focuses on effective management of NCDs is critical to Russia, as most of these conditions can be effectively managed by integrated approaches that address the main risk factors, especially when population-based public health strategies are combined with health-care interventions that target ‘high-risk’ individuals.²⁹

²⁹ WHO. 2005. Preventing chronic diseases: a vital investment, World Health Organization, Geneva Available at URL: http://www.who.int/chp/chronic_disease_report/en/index.html (Accessed 2 April 2007).

Table 3: Types of Service Contracts

Service Contract	Key Components
Core	<p>Essential set of services: universal coverage</p> <ul style="list-style-type: none"> • History taking, physical examination, and application of common medical techniques • Diagnosis and management of common acute health problems • Screening • Health education • Health promotion • Disease prevention (primary and secondary) • Assessment of health risks and individualized advice on risk management • Diagnosis and ongoing management of common chronic illnesses, including mental illness • Management of common communicable illnesses • Children’s services <ul style="list-style-type: none"> ○ Child health surveillance ○ Immunization • Women’s health and family planning <ul style="list-style-type: none"> ○ Antenatal and postnatal care ○ Family planning • Elderly surveillance and annual checks • Services for people with disabilities • Counselling • Home visits • Continued care at home • Management of referral and counter-referral to narrow specialists • Collaborative management of patients in the community (in cooperation with specialist doctors, nurses, midwives, social services and local government) • Statutory duties (certification, recording and reporting of key health data and notifiable illnesses, emergency preparedness)
Additional	<p>Essential set plus additional services, including, for example:</p> <ul style="list-style-type: none"> • Specific disease prevention programs • Dedicated specialized chronic disease management services (e.g., for diabetes mellitus, chronic pulmonary disease, ischemic heart disease, heart failure, and mental health) • Management of tuberculosis • Palliative care • Minor surgery • Specialist nurse services (e.g., patronage/community nurses) • Physical rehabilitation services • Management of substance abuse (including injecting drug use)

Developing and Implementing Evidence-based Guidelines. Evidence-based care guidelines can improve the quality of services, encourage integrated care provision, and help improve referral and counter-referral systems. When they are combined with integrated care pathways that focus on optimization of the care process, substantial efficiency gains can be achieved.

Successful development and implementation of guidelines depend on close engagement with professional groups and provider organizations. Evidence strongly suggests that guidelines developed in a top-down manner are not effectively taken up. Local adaptation and local ownership of guidelines are prerequisites to effective implementation.

Effective implementation requires organizational development and change management skills, and regional guidelines development and implementation groups should be established to adapt national guidelines and systematically implement them. This group should comprise user groups (such as physicians, nurses, and allied health personnel), planners (regional health departments), payers (health insurance companies), patient groups, and professional associations.

Guidelines implementation should be linked to: (a) continuing professional development programs for health professionals that include training on guidelines implementation and clinical audit (to check own practice against these); (b) performance-related pay for effectively implementing guidelines (with metrics for measuring performance that map onto the targets defined in each guideline); (c) clinical audit to regularly review success with implementing guidelines, improving in quality, and achieving better health outcomes; and (d) health technology assessments to guide the introduction of new technologies into the health system.

Strengthening Referral and Counter-referral Systems. Strengthening referral and counter-referral systems would ensure that, except for emergency conditions, no patients are seen at any hospital without referral from the PHC level. Ideally, anyone coming to a hospital as a self-referral should assume the cost of consultations and treatment. There should be incentives for PHC providers to reduce hospital referrals, especially for ambulatory-care sensitive conditions for which evidence-based guidelines will be developed to define referral thresholds. Systems should be put in place to ensure that patients discharged from a hospital have a counter-referral letter or electronic record addressed to the PHC level with a treatment plan. Without such a counter-referral record, health insurance companies should not pay hospital providers for the episode of care provided. Referral and counter-referral systems must be underpinned by good patient-based information systems that ensure linkage between and within tiers of the health system and with the payers.

Creating Intermediate Care Facilities. Restructuring the hospital and PHC sectors should be accompanied by investment to create “step-down” facilities, intermediate care units that will accept patients who have been discharged from a hospital and who do not need acute hospital care, but need rehabilitation and support for full recuperation. Such units will enable provision of dedicated services for patients in a safer environment, reducing the risk of hospital-acquired infections (a growing problem worldwide). Transferring such patients to these facilities will also allow more cost-effective utilization of expensive hospital beds and highly specialized resources. These facilities will also enhance the continuum of care, enabling effective management of demand flows across the system, reducing hospital readmissions, and preventing the “blocking” of acute-care beds that leads to cancellation of admissions and surgeries. This is a new and expanding intervention that would benefit from international support in the planning, design, and implementation of intermediate care services.

Particular attention should also be placed at the regional level on how to best respond to the demand for long-term care (e.g., nursing home care, catastrophic care) and advanced home health care (e.g., post-operative care, intravenous infusion therapy, home dialysis) for the chronically ill, the elderly and the disabled.

Establish Ambulatory Diagnostic and Care Centers. Ambulatory diagnostic and treatment centers (DTCs), including those at hospitals, are increasingly used to provide high-quality elective surgery for many routine conditions, as well as diagnostic investigations (such as endoscopies) and therapeutic interventions (such as chemotherapy) for short-term stay patients. DTCs only provide planned services and can hence utilize resources (such as beds, operating theaters, diagnostic equipment, and staff) efficiently.

At a traditional hospital, elective diagnostic and therapeutic interventions are often postponed due to unpredictable demand by emergency cases, which take precedence. Hence elective interventions can be cancelled at short notice, leading to suboptimal utilization of capacity and low user satisfaction. At DTCs, where only elective investigations and treatments are undertaken, emergencies do not disrupt service provision. DTCs' efficient service and additional capacity enable downsizing of hospitals and hospital beds, help reduce average length of stay, improve productivity (such as increased throughput), provide shorter waiting times than hospitals, and improve health outcomes (as the quality of elective procedures are standardized through the use of evidence-based guidelines and care pathways).

Strengthen Emergency Medical Services and Telemedicine Networks. In Russia, injuries—especially those caused by road accidents—heart attacks and cerebrovascular events (leading to stroke) are the major causes of premature death and disability. A well functioning emergency medical service network, able to respond to emergencies in a timely manner and provide evidence-based care, can substantially reduce the number of deaths and extent of disability from these conditions. Investment in the PHC and hospital sectors should be accompanied by capital spending on emergency ambulance services. Especially needed are new ambulances and motorbikes appropriately equipped with new technologies that enable effective management of acute emergencies. Investment in the PHC and hospital sectors should be accompanied by capital spending to strengthen pre-hospital on emergency systems ambulance services. Especially needed are new ambulances and motorbikes appropriately equipped with new technologies that enable effective management of acute emergencies operated and staffed with para-medical and medical personnel with proper training in basic and advanced life support systems. Investment in new transport systems infrastructure must be underpinned by information technology and communications systems that incorporate global positioning systems (GPS) to enable rapid dispatch and accurate response, and staff trained to use these new technologies.

Effective management of acute emergencies also depends on the receiving hospital emergency units. As with the ambulance services, these accident and emergency centers must be appropriately equipped with medical and communications and staff trained to ensure a seamless, rapid response.

Investment in emergency services should be accompanied by investment in telemedicine technologies to enable hospitals and PHC units to communicate with specialist units and centers of excellence in order to seek advice when transporting patients can be difficult and dangerous. Establishing a telemedicine network will require investment in communications technology platforms to link specialized urban centers with rural provider units; in addition, staff must be trained to effectively use new equipment.

Last, investment will be needed to make available well-trained technical support teams at dedicated maintenance and repair centers to optimize the availability and functionality of both vehicles and equipment.

Adopting Quality Assurance and Control Systems for Providers. Each provider organization and doctor should undergo clinical audit to demonstrate good clinical practice and rational prescribing. In hospitals, when electronic health record systems are available, standard operating procedures should enable regular utilization reviews for managing admissions, length of hospital stay, and rational use of pharmaceuticals. Clinical audit should be a team-led and focus on areas covered by evidence-based guidelines. Clinical audit should be an integral part of the continuing professional development program.

THE RESOURCES:

Developing a Human Resource Strategy. The skill mix and distribution of human resources in Russia are not in line with current and future needs. The average health worker's age is increasing, and some specialties face substantial shortages with impending retirements.

A comprehensive human resource strategy should map existing gaps and resource needs and identify the optimal mix of human resources that would sustain the reformed health care system. The strategy should identify: (a) the number of health professionals needed to appropriately staff the PHC level (doctors, nurses, allied health professionals, and managers) and other specialties over the next fifteen years (taking into account current workforce, intake, retirement, attrition, and emigration); (b) the number of undergraduate medical and nursing students needed each year to meet future needs; (c) number of residents needed to enter specialist training; (d) the number of FM residents needed each year and where they will be trained; (e) short- and long-term tactics to recruit and retain a balanced workforce; (f) strategies to attract and retain health professionals in rural areas; and (g) health management requirements and qualifications physicians and nurses need to assume managerial roles. Once that exercise is completed, the government should identify funds to provide scholarships to attract medical graduates to FM specialty training and to remunerate universities and training centers involved in training these residents.

Strengthening Continuing Professional Development (CPD) Program. Continuing education programs for doctors and nurses should be modified to meet health system needs and should be a prerequisite for relicensing of doctors and nurses. These programs should emphasize adult learning methods (especially self-directed learning), problem identification, options generation, and problem solving—with greater use of simulation-based training and education that helps develop these critical skills but can also be used as a tool to conduct teamwork training. These programs should use innovative technologies, such as web-enabled learning or teleconferencing to expand distance learning. Training should include strong, service-based training elements and encourage cross-disciplinary team training.

For PHC physicians the CPD programs should be aligned with the core competencies of a family physician, as articulated by EURACT (European Academy of Teachers in General Practice), including: (a) an HR strategy that identifies primary care management; (b) person-centered care; (c) problem-solving skills; (d) comprehensive approach; (e) community orientation, and (f) an holistic approach. Similarly, for FM nurses, the CPD programs should be modified to focus one core competencies of such nurses.

Strengthen Management Capacity. Health reforms need significant managerial resources at all levels; in particular, they require a critical mass of middle- and senior-level managers and health professionals who can act as change agents.

Management training programs are needed for policy makers, managers, and health professionals in the areas of strategic management, organizational development, financing, budgeting, contracting, new care delivery models, quality improvement, team work, and information management to support implementation of health reforms.

Training in health management currently confers no advantages in terms of career progression, so regulations should be changed to ensure that this training is recognized and that those appointed to managerial roles have received appropriate training.

THE TOOLS:

Health Information (IT) Systems. Health IT is now pervasive, affordable, and known to improve both the quality and efficiency of health services. Most European governments are implementing fully integrated digital health information systems comprising: (a) electronic health records (EHR) capable of integrating data from multiple sources, capture data at the point of care, fully support the clinicians and other health care providers in their decision-making process; (b) electronic prescribing, (c) electronic registration, (d) electronic surveillance, and (e) digital images. These systems have defined core data sets and indicators (aligned with international practice); appropriate technical platforms (aligned with internationally adopted standards); and suitable infrastructure to allow intra- and inter-organizational data sharing and two-way information flow between and within different tiers of the health system. The main benefits of the EHR are to improve the quality of health care at the point of service and to allow the online exchange of healthcare data and referrals between providers.

Full EHR capacity and IT platform should allow the integration and online access to existing and proposed repositories and source systems capturing patient based clinical, demographic, birth and death registries, communicable and noncommunicable disease registries and surveillance systems, financial, administrative and insurance data from the insurance funds and internal departmental records from laboratory orders and results, medication orders and pharmacy records, diagnostic imaging (X-ray, ultrasound, cardiac catheterization, CT, MRI, pathology), signal tracing data (EKG, EEG, EMG) and other targeted disease registries.

There should be investment to develop: (a) standard specifications of hardware and software to establish appropriate infrastructure for these systems; (b) electronic health records; (c) a central digital archive (repositories) of medical documents and disease registries that can be shared by different tiers and by different providers within each tier; (d) systems that will allow migration from an analogue to a digital environment interfacing analyzers from laboratory and diagnostic imaging equipment with the EHR system; (e) medical classifications and implementation of intelligent language technologies; (f) central administration of medical guidelines and their integration into medical software; (g) electronic laboratory results service; (h) appropriate infrastructure and specifications for imaging diagnostics and picture archiving and communication systems; (i) internet access and connectivity for provider units (to enable provision of real time, online access to imaging and laboratory results at the point of service); (j) telemedicine networks; and (k) specifications and implementation of global positioning systems and geographic information systems for ambulance services and surveillance.

Investment in IT and HMI systems should include favorable EHR legal framework development of data protection laws and rules regarding patient confidentiality, validating electronic signature³⁰ and other needed legislation, aligned with international best practice, and training to implement these regulations and other ethical concerns. In addition to adequate funding to cope with required investments and operational costs, EHR development will require effective implementation strategies, leadership and work flow re-engineering to overcome health professionals' resistance from transitioning from a paper-based system to an electronic one.

Monitoring and Evaluation (M&E) Systems. Harmonization of M&E systems with international frameworks is a priority for Russia. This effort would initially involve a mapping exercise to benchmark Russian datasets (and the indicators within them) with key international datasets (such as those of OECD, WHO Health for All, and the EU Health Monitoring Framework).

The roles and functions of key institutions involved in collection and analysis of data should be clearly defined and responsibilities delineated. Core datasets and indicators should be defined along with rules for data sharing and dataflow between key institutions—and for all key institutions—and to reduce duplication and create synergies. Continuing surveillance of levels and patterns of mortality, morbidity and risk factors is of fundamental importance to planning and evaluation of preventive activities. Health monitoring provides a powerful tool to define disease burden, identify populations at highest risk and determine the prevalence of health risks. Analytic capacity should be strengthened to ensure data are used to produce timely and relevant intelligence to inform operational and policy decisions. In particular, the M&E system should be designed so as to provide feedback to health care providers on their activities and outcomes, enabling them to reflect on their performance and modify their behavior.

Currently, the data collection systems are organized in ways that prevent linking of data on broad health determinants (such as lifestyle and risk factors), provider activities (such as integration of services), costs, and outcomes (such as service quality, morbidity, and mortality levels). Hence, it is not possible to generate appropriate intelligence on cause-effect relationships and identify impact of policy interventions. Integration of different data collection and analysis systems is therefore a priority.

³⁰ In electronic health records, an "original" document may be created in a variety of ways but ultimately is viewed on a computer screen. Responsible health care practitioners then authenticate (or sign) entries in the record. Electronic signatures are created when the user enters a unique code, biometric, or password that verifies the identity of the signer, thus creating an individual "signature" on the record. (For more ^{information} see American Health Information Management Association (AHIMA) web site: <http://www.ahima.org/e-him/>.)

PART III – CONCLUSION

This Discussion Paper argues that most health challenges in the Russian Federation could be addressed through broad policy and institutional reforms at the federal, regional, and municipal levels covering many sectors and not only the health system. Improving health outcomes by implementing the proposed reforms in *tandem* to ensure overall coherence of effort is a very complex, medium- to long-term undertaking that should begin to be addressed forcefully today.

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