

Chapter 3

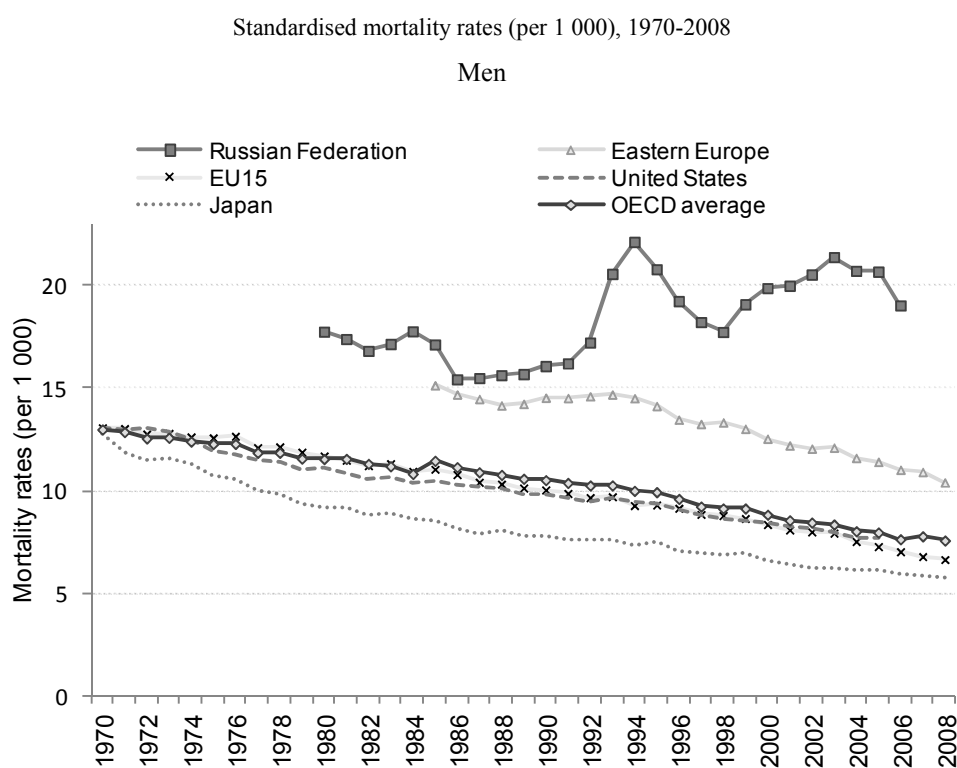
The performance of the Russian health system

This chapter first examines how the Russian Federation compares internationally over a range of health-related indicators. It then looks in more detail at the performance of the health system as seen from four different vantage points that broadly correspond to the key objectives of health systems. The first objective concerns ensuring that patients can access the care that they need under the Government Guarantee Package on a timely basis. The second concerns the quality of care and whether it is adapted to patient needs. The third key goal concerns the resources allocated to the public health care system and whether this is sustainable over the longer haul. The final key issue concerns the scope for easing any overall resource constraints on the public health care system through improved efficiency of health care provision. The chapter concludes with a discussion of policies that can help improve system performance.

Health status in the Russian Federation in an international perspective

Compared internationally, the Russian Federation has very high levels of mortality and short life expectancy, even when compared with countries with similar income levels, such as Chile, Mexico and Turkey (Figures 1.1 and 3.1). What is more striking in the Russian case has been the trends in mortality indicators, especially during the last three decades. While mortality has been constantly decreasing in other countries (Figure 3.1), it began to rise in the middle of the 1980s in the Russian Federation. It then increased sharply during the economic transition (from 1991 to 1994), especially for men. The declining trend observable in the following years was interrupted by the crisis in 1998 which appeared to be associated with another peak in mortality. A decline in mortality began from 2004.

Figure 3.1. Mortality rates over time: Russian Federation and selected OECD country groupings



Note: Data on eastern European OECD countries include the following countries: Czech Republic, Hungary, Poland and Slovak Republic.

Data on EU15 include the following countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherland, Portugal, Spain, Sweden and the United Kingdom.

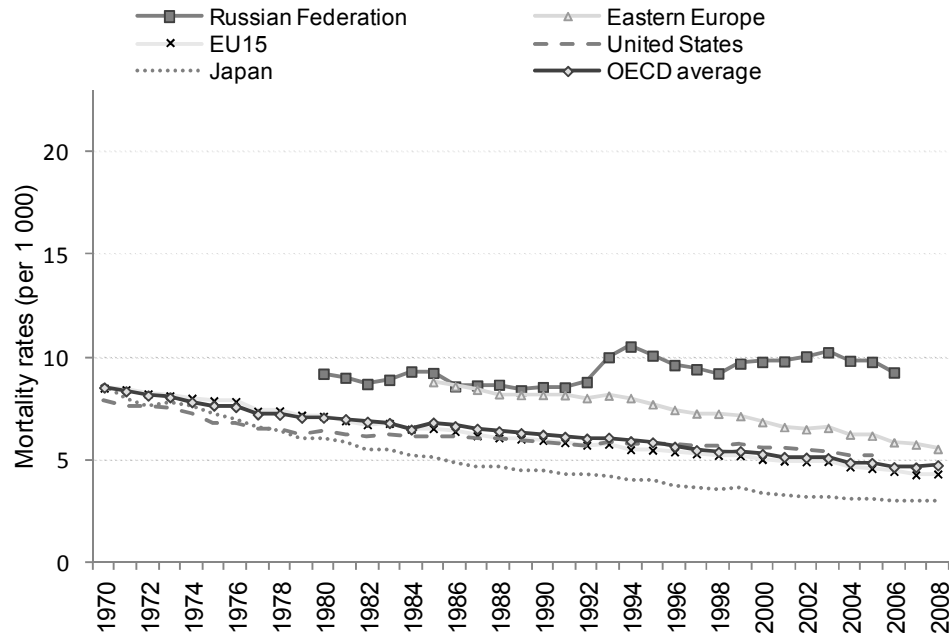
Mortality rates have been standardised to enhance comparability of data, using the structure of the OECD population in 1980.

Source: OECD Health Data 2010 and Rosstat.

Figure 3.1. Mortality rates over time: Russian Federation and selected OECD country groupings (cont.)

Standardised mortality rates (per 1 000), 1970-2008

Women



Note: Data on eastern European OECD countries include the following countries: Czech Republic, Hungary, Poland and Slovak Republic.

Data on EU15 include the following countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherland, Portugal, Spain, Sweden and the United Kingdom.

Mortality rates have been standardised to enhance comparability of data, using the structure of the OECD population in 1980.

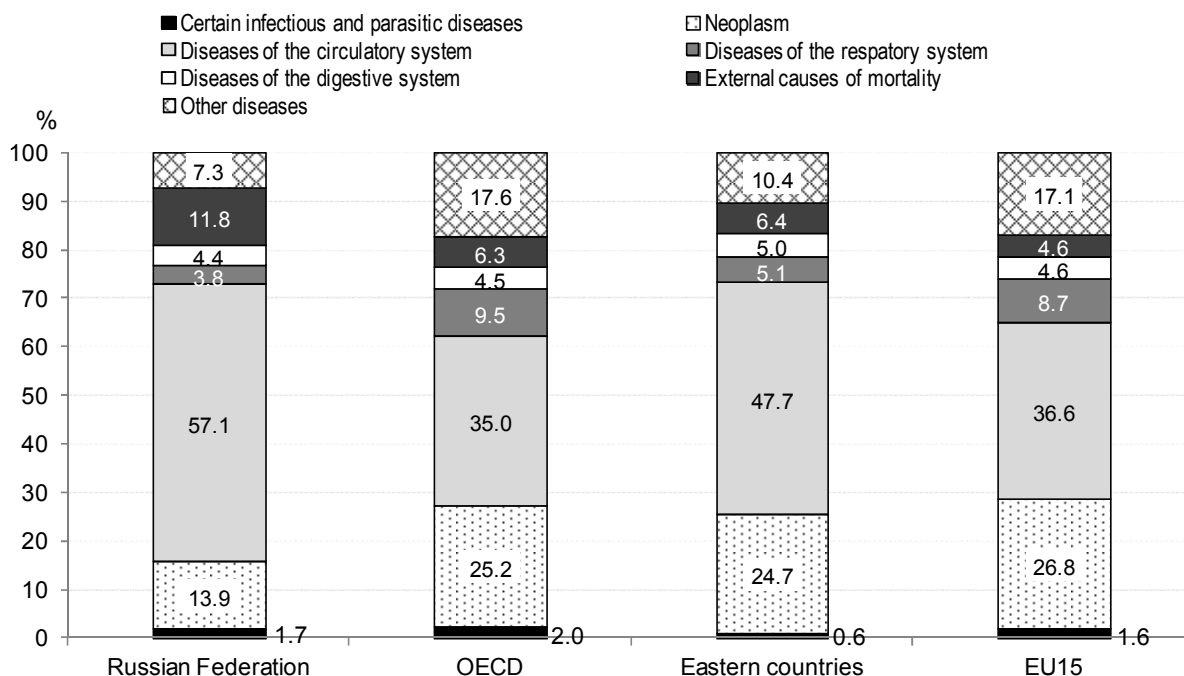
Source: OECD Health Data 2010 and Rosstat.

Key patterns of mortality

As noted, the Russian Federation is marked by a relative high share of deaths caused by cardiovascular diseases and by external causes. The former account for almost 57% of all deaths, against 35% in the OECD area; the latter contributes by 12% to overall mortality, against 6% in OECD countries (Figure 3.2). More importantly, the Russian Federation ranks first in the WHO European Region for premature mortality due to cardiovascular diseases as well as for external causes (injuries and poisoning) and fourth for premature mortality due to cancer.¹

Though non-communicable diseases (NCDs) and injuries impose the highest burden to the health of the Russian population, infectious diseases, and more specifically tuberculosis and HIV remain a problem. Similarly, infant and maternal mortality, though improving, could be further reduced. These issues will be addressed below.

As in all countries, there is a strong social gradient across a range of different illnesses and, in general, the poorest part of the population is affected the most. There are also wide geographic disparities – which is perhaps not surprising given the size of the country and the differences in wealth per capita across regions. Indeed, the Russian Federation cannot be considered as a homogenous territory with identical health profiles everywhere.

Figure 3.2. Shares of selected causes of mortality, Russian Federation and OECD, 2006

Note: Spain, Portugal, the Slovak Republic and the United States: 2005; Australia, Denmark, Germany, Israel*, Korea, Luxembourg and New Zealand: 2006; France, Italy, Mexico, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom: 2007. The OECD average excludes Belgium, Canada, Chile and Turkey.

Data on eastern countries include the following countries: the Czech Republic, Hungary, Poland and the Slovak Republic. The EU15 comprised the following 15 countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

Mortality rates have been standardised to enhance comparability of data, using the structure of the OECD population in 1980.

Source: OECD Health Data 2010 and Rosstat.

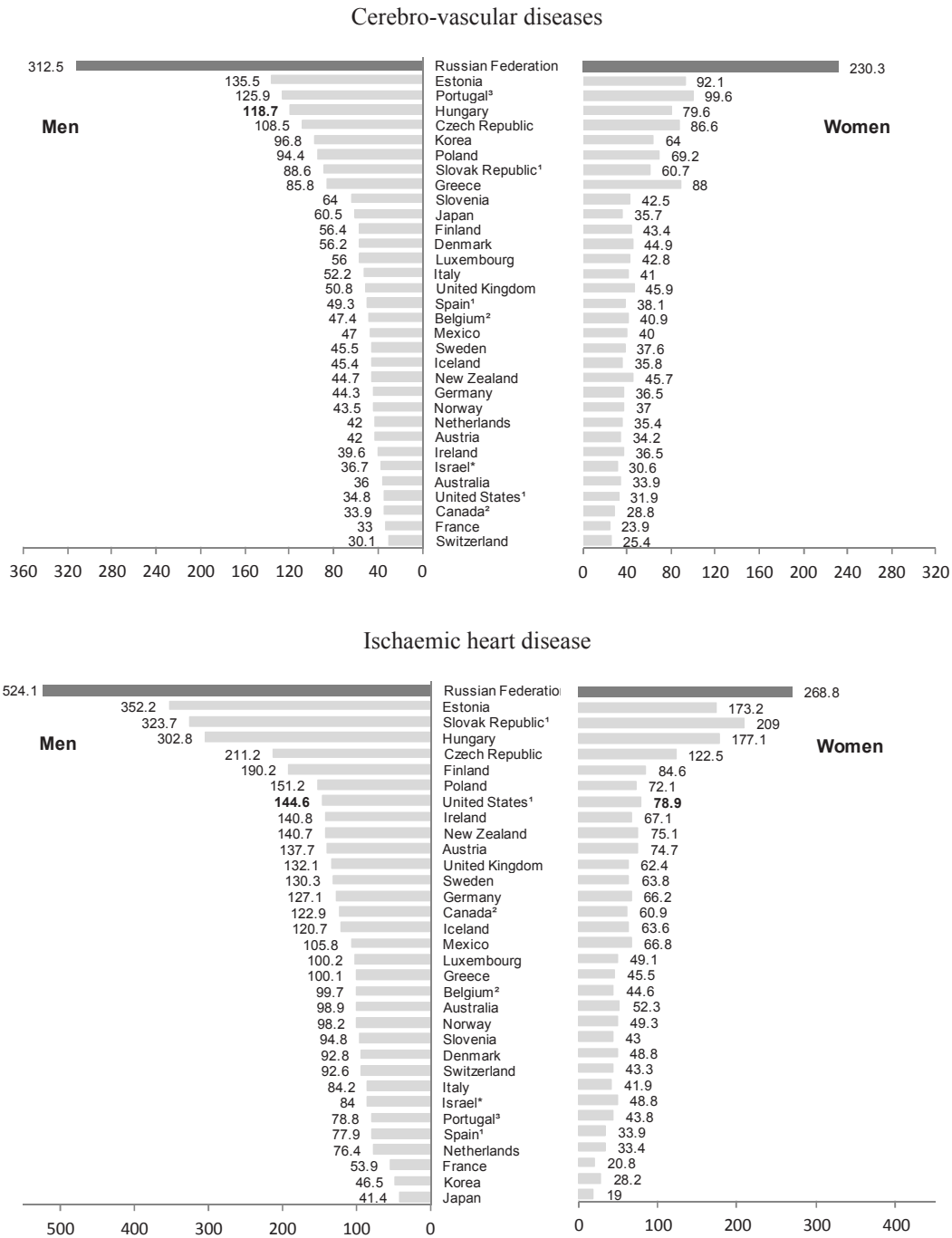
The high burden of non-communicable diseases

Non-communicable diseases (NCDs) and injuries are particularly high in the Russian Federation. Taken individually, different categories of NCDs and injuries make up the ten leading causes of death in the Russian Federation and account for 90% of deaths in the Russian population as a whole (Rosstat, 2008).

Mortality due to cardiovascular diseases is exceptionally high in the Russian Federation by comparison with OECD countries. Standardised mortality rates (SMR) for cerebrovascular diseases and ischaemic heart diseases are twice as large as the OECD average and are ten times larger than the best performing OECD countries (Figure 3.3).

Cancer is the second most important cause, partly because it tends to be more lethal in the Russian Federation, with a large number of deaths in the year after diagnosis, particularly for men (World Bank, 2005).

Figure 3.3. Standardised mortality rates for cerebro-vascular and ischaemic heart diseases, Russian Federation and selected OECD countries, 2006



Note: Mortality rates have been standardised to enhance comparability of data, using the structure of the OECD population in 1980.

Deaths per 100 000 population.

1. 2005; 2. 2004; 3. 2003.

* Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Source: OECD Health Data 2010 for OECD countries and WHO Database for the Russian Federation.

The role of risk factors

Many non-communicable diseases appear to be associated with lifestyle factors. According to various estimates, alcohol kills – either directly or indirectly – half a million persons per year while smoking is estimated to kill between 330 000 and 500 000 persons. Almost 24 000 persons die in traffic accidents per year (MHSD, 2008; and Rosstat, 2009a).

The Russian Federation has one of the highest smoking rates among men: in 2009, 60% of males smoked – more than twice the rates in the United Kingdom and the United States – while the same rate was 22% for women (GATS, 2009).² Some declines in smoking by men in recent years, particularly among the better educated, have been more than offset by rapid increases among women and adolescent men (Bobak *et al.*, 2006).

The levels of overall alcohol consumption are reported to be not much different from other European countries, but are probably underestimated significantly.³ In addition, it is most often consumed as spirits (*e.g.* vodka) and there is a high prevalence of binge drinking. According to the RLMS,⁴ about three quarters of the Russian population consume some kind of alcohol, with more being consumed on average by males in all age groups and in the persons belonging to the 25 to 55 age group. There also tends to be wide differences in the type of alcohol consumed: the most frequently consumed is beer, followed by spirits which is consumed by 60% of men and 37% of women. Twelve percent of men and five percent of women drink homemade alcohol (CEFIR, 2010).

Mortality directly linked to alcohol consumption has been monitored by Rosstat since 2005. These data do not represent the total death toll attributable to alcohol as they do not include injuries and violent deaths caused by alcohol or deaths from chronic diseases for which alcohol is a risk-factor. However, they enable policy makers and epidemiologists to monitor the impact of reforms and policies. According to Rosstat (2009b), the number of deaths directly linked to alcohol consumption decreased by 40% between 2005 and 2008. Nonetheless, 76 268 people died in 2008 due to over-consumption of alcohol.

Poor diet has been reflected in high levels of blood cholesterol. This, in turn, has contributed to higher levels of cardiovascular diseases and other ailments, and these effects may have become more marked with the transition to a market economy (Herzfeld *et al.*, 2009).

Injuries and suicides

Deaths from external causes are also exceptionally high in the Russian Federation. Many of them cannot be attributed to inefficiencies of the health sector. As noted, traffic deaths at 18.2 deaths per 100 000 (around 24 000 deaths in 2008) are about double that of the other G8 countries, even though there are fewer cars per capita in the Russian Federation.

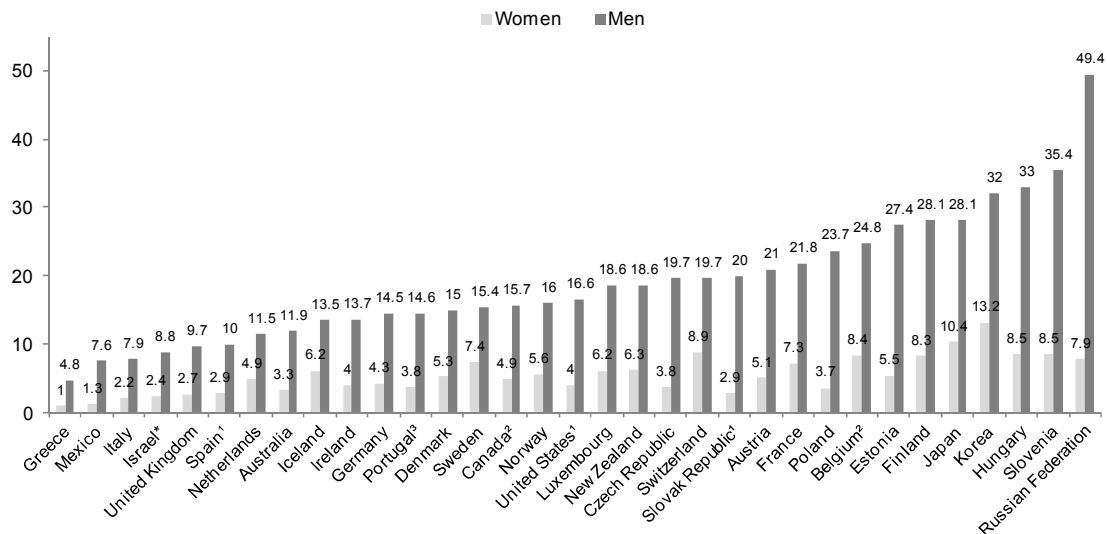
The standardised suicide rate in the Russian Federation is 2.7 times the OECD average for men and 1.5 for women (Figure 3.4). Suicides were particularly common during the transition period: in 1985, the suicide rate for men aged 40-59 years reached 96.3 per 100 000 population. While it has declined since then, it remains high for adolescents.

Alcohol poisoning has always accounted for a significant part of alcohol-related deaths. The mortality rate from poisoning reached its highest level in the beginning of the 2000s (Stickley *et al.*, 2007; and Rosstat, 2009b). It then almost halved between 2005 and 2008. However, its current level (16.9 deaths per 100 000 people, 28.4 for men and 7.0 for women) has not yet reached its lowest level experienced in 1988-89 (8.7), thanks to the anti-alcohol campaign launched by M. Gorbachev but interrupted a few years later. In 2008, poisoning still accounted for one-third of male deaths directly linked to alcohol and one-fourth of female ones. Death by alcohol poisoning is particularly frequent in rural areas and includes the

effects of local unregulated production which can contain solvents that are dangerous to health. However, the main problem is not local production. Rather it appears to be the consumption of large quantities of “good quality” spirits (vodka).

Violence, as measured by the homicide rate (Chervyakov *et al.*, 2002), in the Russian Federation increased rapidly during the 1990s, with much of the increase associated with alcohol consumption. This, in turn may have reflected the increase in stress as a result of economic and social dislocation over this period.

Figure 3.4. Standardised suicide rates per 100 000 population in selected OECD countries and the Russian Federation, 2008 or latest available year



Note: No data are available for Chile and Turkey.

1. 2005; 2. 2004; 3. 2003.

* Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Source: OECD Health Data 2010 for OECD countries and WHO Database for Russian Federation.

Remaining concerns about infectious diseases

As elsewhere, deaths from infectious diseases represent only a small fraction (1.7%) of total mortality. However, tuberculosis (TB) and HIV/AIDS remain problems of serious concern in the Russian Federation.

In 2010, around 109 900 people contracted tuberculosis and 21 800 died from it.⁵ The incidence of TB rose rapidly in the 1990s to reach a peak in 2000. Since then, the incidence rate has been declining to reach 77.4 per 100 000 people in 2010. Since 2003, the TB/AIDS Control Project in the Russian Federation, supported by the World Bank, WHO and other international partners, has improved detection and treatment of TB in the Federation (Marquez *et al.*, 2010). Three-quarters of TB patients now receive standardised treatment regimens – against less than half in 2004. Prevalence of tuberculosis – *i.e.* the number of people living with the disease in a given year – has decreased by 40% since 2000 and TB-related mortality has decreased by one-fifth from its highest level in 2005 (Rosstat, 2009a). Despite these improvements, the appearance of drug-resistant strains is becoming commonplace (Keshavjee, 2007; Stuckler *et al.*, 2008; Balabanova and Coker, 2008).

There has also been a significant spread of AIDS. In the decade to 2008, there was an increase in the number of infected people to just over 436 000 officially registered cases. However, international organisations consider that the number of actual infections – including undetected cases – is more likely to be comprised between 630 000 and 1.3 million (WHO, UNAIDS, UNICEF, 2009).⁶ The overwhelming number of infections is concentrated among individuals aged 15 to 49 who are the most economically-active and a growing share of these are women.

In 2008, 54 046 new cases were reported, 20% more than in 2007 (Vartanova *et al.*, 2010). Until recently, HIV transmission was broadly confined to drug users using syringes: in 2001, 93% of reported HIV cases were drug users and in some big cities, half of this population was infected by HIV. However, the proportion of cases reporting heterosexual contact as their only exposure increased from 6% in 2001 to 25% in 2004 (Burchell *et al.*, 2008).

Access to anti-retroviral drugs has improved since 2005, the percentage of registered patients in need of treatment who actually receive treatment has increased to 60% in 2008 (Marquez *et al.*, 2010). However, more pessimistic estimates consider that only 16% of patients who need treatment – including unregistered ones – actually receive it (WHO, UNAIDS, UNICEF, 2009).

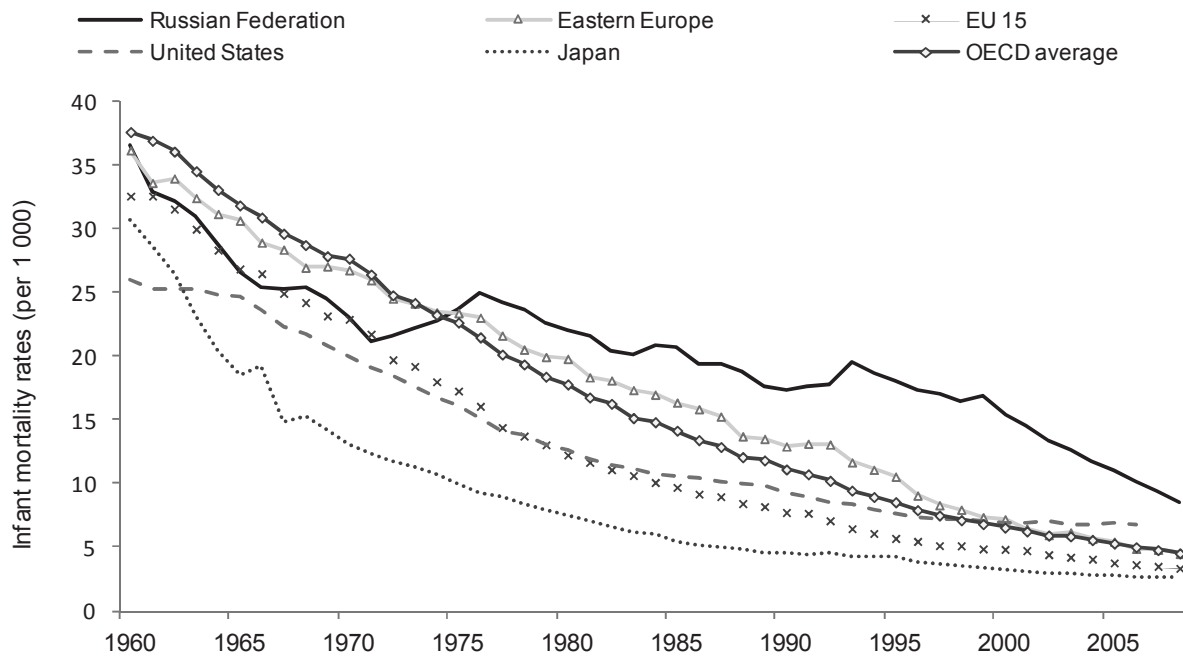
There are a range of estimates of the number of deaths due to HIV/AIDS. The same unofficial sources estimate as many as 40 000 deaths from AIDS per year.⁷

Until recently, prevention policies aimed at a better understanding of the nature and transmission modes of HIV were lacking. In 2007, only 34% of young people (15-24) had a proper understanding of HIV infections and how the virus is transmitted. As part of the NPPH, the government implemented about 400 prevention projects with the objective of improving understanding of at least 95% of young people. However, the epidemic is still spreading and more needs to be done in terms of information and education (UNAIDS, 2009).

Infant mortality and abortion

Infant mortality,⁸ which is often taken as a key measure of public health, has recorded a significant fall over the past 50 years. Up until around the early 1970s, the performance of the Russian Federation was in line with European countries and better than the United States and Japan. But by 1975 it had worsened substantially in relative terms and has since remained well above the other country groupings in Figure 3.5. However, it is now rapidly converging to the OECD average.

In practice, the Russian average hides wide variations across regions and geographical areas. For instance, infant mortality is lower in urban areas (7.5 per 1 000 live births in 2008) than in rural ones (10.1). Variations between regions are probably higher than in countries with more homogeneous territories: infant mortality ranges from 4.5 in the City of Saint-Petersburg (just below the IMR in the United Kingdom) to 17.0% in the Chechen Republic (the level of the IMR in Turkey). Some rural areas seem to deserve particular policy attention given that the level of the IMR is startlingly high. (For example, it is 38% in the rural areas of the Madagan region).

Figure 3.5. Infant mortality rates in the Russian Federation and selected OECD country groupings

Note: Data on eastern European OECD countries include the following countries: Czech Republic, Hungary, Poland and Slovak Republic.

Data on EU 15 include the following countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherland, Portugal, Spain, Sweden and the United Kingdom.

Source: OECD Health Data 2010 and Rosstat.

The abortion rate has been historically high in the Russian Federation with adverse consequences on women's health and maternal mortality (Zhirova *et al.*, 2004). Although the rate of abortion fell sharply and steadily from its highest level in 1993 (2.1 abortions for one live birth), it is still one of the highest in the WHO European region. In 2008, there were 0.81 abortions for each live birth in the Russian Federation compared with an average of 0.23 for countries of the European Union and 0.49 for CIS countries (WHO, 2010; Rosstat, 2009b). This progress is partly explained by the fact that the fertility rate has increased by 44% between 1999 and 2008 (from 30.9 live births for 1 000 women aged 15-49 to 44.6) which suggests that pregnant women are more willing to keep their babies. The new restrictions imposed on abortion in 2003 may have contributed to this fall (Parfitt, 2003), as have current policies providing social and psychological support to women seeking abortions.

Social gradient in mortality and morbidity

As is the case elsewhere, the patterns of mortality and morbidity have a strong social dimension in the Russian Federation (Walters and Suhrcke, 2005). Both the likelihood of chronic illness and the probability that illness leads to early retirement are negatively correlated with income (see World Bank, 2005 and 2008a). Mortality is higher among the "marginalised" social groups such as the unemployed, homeless, ex-prisoners, and migrant populations. The share of these groups in the total population increased during the transition to a market economy and this partly explains the sharpness of the increase in mortality during that period (United Nations in Russia, 2008).⁹

Mortality among young people is concentrated among the unemployed (55% to 70%) and unskilled labourers (20-30%). In contrast, the share of mortality among “socially adapted” groups aged 20-39 is extremely low (5-10%).¹⁰ The patterns of mortality between “marginalised” and “socially-adapted” groups are also quite different. For example, among the age group 20-39, the marginalised have a higher share of deaths from injuries, intoxications and tumours, as well as cardiovascular, respiratory and infectious pathologies. These people are also prone to deaths from external causes, – *i.e.* from accidental alcohol poisonings and suicides and traffic accidents (United Nations in Russia, 2008).

Life expectancy and healthy life expectancy

As noted, life expectancy in the Russian Federation has fallen from the mid-1980s when it peaked at around 65 for men and 74 for women (Figure 1.1). It then declined by two years for women and six years for men until 2004. These trends are in sharp contrast with the steady rise in life expectancy among OECD countries (and even with countries in central Europe). In 2008, the Russian Federation lagged behind the EU 15 countries by roughly 16 years for men and just under 9 for women.¹¹ Behavioural factors are estimated to account for more than half of the life expectancy gap between the Russian Federation and other developed countries (Andreev *et al.*, 2003).

In addition, the Russian Federation has lower healthy life expectancy and this is particularly so in the case of women where the gap with western European countries is very wide. Their average life expectancy at any given age is higher than that of Russian men but they also tend to spend much more of their lives in ill-health (Andreev *et al.*, 2003).

Nonetheless, life expectancy at birth has since recovered by 3.9 years for men and 2.4 for women over the period from 2004 to 2009 reflecting declines in death rates. While it is probably too early to judge whether this is a reversal in the trend, the recent improvements in mortality have been widely based across all age groups, a feature that contrasts with earlier periods of recovery in life expectancy in the 1980s and 1990s.¹² Furthermore, recent improvements in life expectancy have continued even during the most recent economic downturn.

Rapid economic growth in recent years and the increase in health expenditure may well have led to some improvement in health indicators over the current decade or may appear in the next decade with a lag (Table 1.2). For example, there has been a significant rise in the average life expectancy of persons diagnosed with chronic illnesses in the first half of this decade (Tompson, 2007).

Despite this improvement, the overall situation of mortality and life expectancy remains grim and a broad-based effort to improve the Russian Federation’s health outcomes is needed. Part of the responsibility for these very poor health outcomes has to do with the weak performance of the health care system in a range of dimensions (see below). But both the importance of mortality among the working-age population and the strong social dimension of mortality suggest that a central part of any strategy to improve performance must involve greater efforts in the area of prevention of chronic diseases and, underlying this, more healthy lifestyles. Sole reliance on the health care sector will not be sufficient.¹³

Assessing the performance of the Russian health system

As noted, this chapter examines in greater detail how the Russian health system performs in four dimensions of health care: access to care; the quality of care; the financial sustainability of the system; and efficiency in the provision of health care services and their impact on health outcomes.

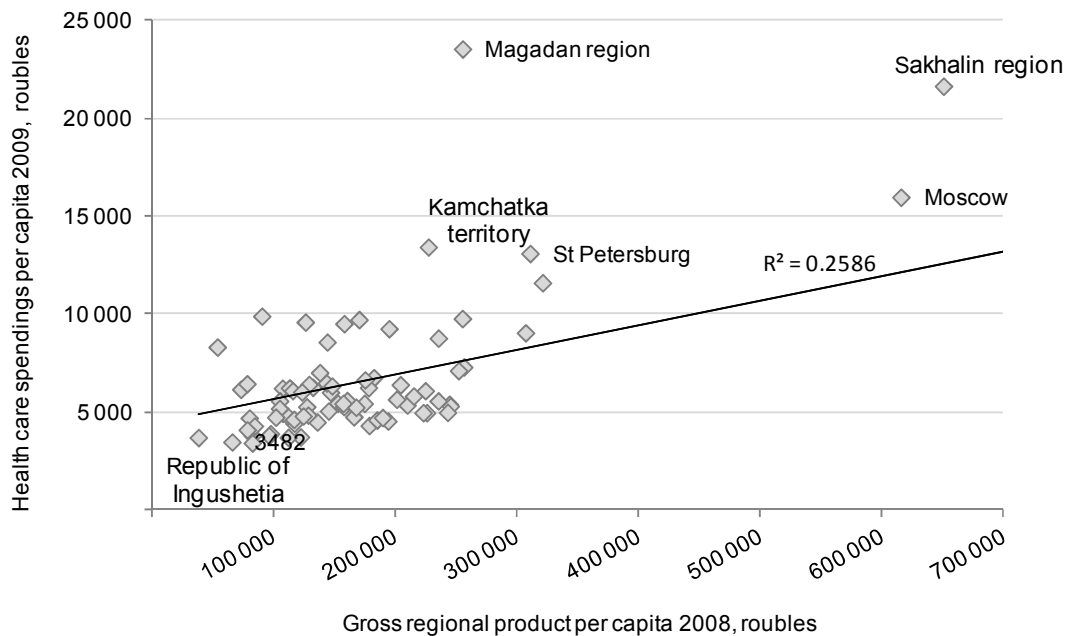
Access to care

The creation of a network of health care services was one of the important achievements of the Soviet period, providing at least minimum services to the bulk of the population. Russians have the right to free health care for a wide range of services as defined in the Government Guarantee Package and the Constitution. But the true degree of access differs in a number of dimensions and for a variety of reasons.

Regional inequalities

First, the regional capacity to provide free services differs because of variation in regional financial capacity. At the time of the reforms to the health system in the early 1990s, it was hoped that the new insurance system would lead to better access to care. In the event, regional differences in the access to care widened substantially as a result of regional variations in the level of economic activity and, as a consequence, the revenues of both the MHI system and regional and municipal budgets.¹⁴ Despite the attempts by the federal authorities to reduce inequalities through equalisation transfers from the federal MHI fund, the levels of per capita public spending (budget and MHI combined) varied from RUB 3 430 to 23 559 in 2009 and the differences were even larger for total health care spending (Figures 1.5 and 3.6).

Figure 3.6. GDP per capita and public health care spending by region



Source: Independent Institute for Social Policy and Rosstat.

These differences in resources have permitted richer regional governments to broaden the coverage provided beyond minimum levels specified in the Guarantee Package, which should, in principle, be reached by all regions.¹⁵ This has meant that patients in poorer regions have been obliged to increase private payments if they wish to receive care at the same level as provided by the richer regions. Available data suggest that the aggregate level of private spending has been increasing (Chapter 1). While there are no reliable cross-regional data on the level of private health care spending, some surveys suggest that the share of persons who did pay for private health care services is higher than average in:

- Richer regions where the population can afford to pay for better health care provision and, hence, enjoy greater provider choice; and,
- Less wealthy regions where public medical facilities are in poor condition and chargeable services in private clinics or parallel-health care systems are the sole source of health care services of reasonable quality (Shishkin, 2003).

Physical access to health care

Patterns of population density across the Russian Federation create additional challenges to the organisation of health care provision and can limit the scope for restructuring the system. As noted, such problems can arise for example where minimum level of provision is needed in rural areas, even though cost and quality would be better served in larger hospitals or polyclinic units. This can lead to low use of capacity and high costs per bed and per case. The situation is made worse when limited local supply combines with poor transport facilities and networks. Medical aviation was not well developed during the Soviet period and completely died out during the transition due to lack of financing. Patients with severe chronic conditions may require visits to specialist third-level services. In this case, transport costs may be prohibitive. While this may be changing – partly as a result of the NPPH – most of the high-tech medical centres are concentrated in the European part of the Russian Federation (more precisely in Moscow and Saint-Petersburg). Travel costs from Siberia and the Far East could exceed average monthly wage levels in these regions by several times. In addition, an increase in the permanent population in areas with extraction industries operating in extreme climatic conditions also poses particular problems because health care services are often lacking in such localities, diet is poor and pollution is extensive.

Access to health care in rural areas

A relatively large share of the population does not seek medical care in the case of a medical problem and this type of behaviour is more marked among those living in rural areas. This may reflect differences in the organisation of primary-care provision between rural and urban areas (see Chapter 1). Persons living in rural areas may not have doctors who they can consult and patients have to be satisfied with paramedical services which are limited in the care that they are allowed to provide. Surveys show that the access to health care in rural areas is worse than in urban areas, both in terms of the presence of medical facilities and in the quality of health care provision (Bremzen *et al.*, 2007) (Table 3.1). The widespread depopulation of rural areas – in the wake of the move to a market economy – has been reflected in the ageing of the remaining inhabitants who tend to have health problems of a chronic nature. At the same time, it has become more difficult for regions to maintain the system of health care provision in rural areas:

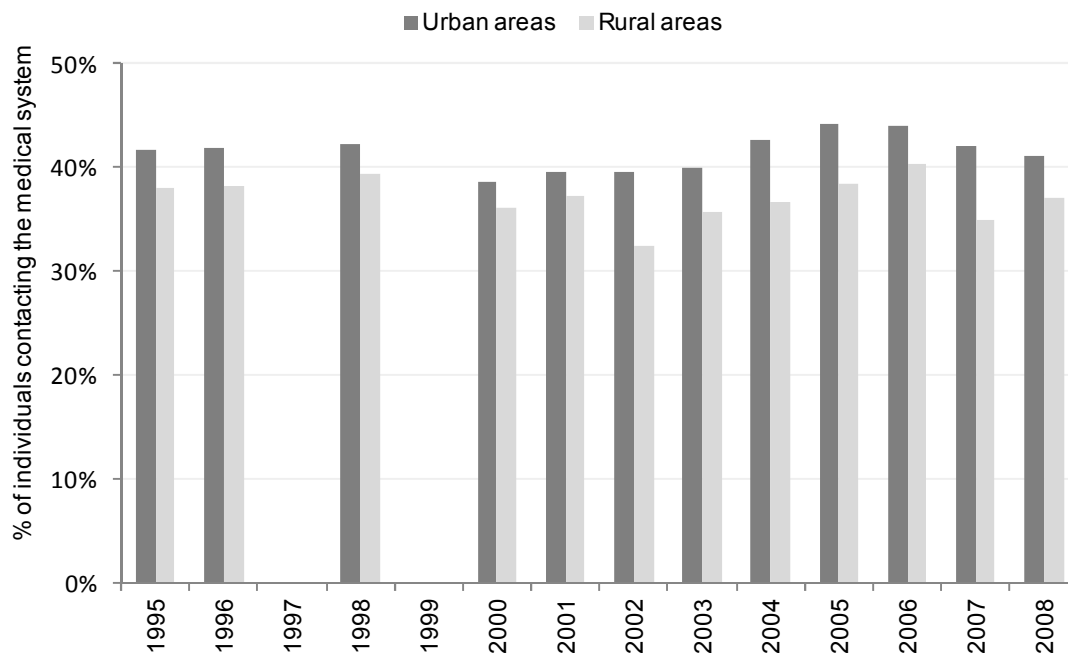
- Regional authorities are confronted with problems of attracting medical staff to rural areas. Many regions have special programmes for (young) doctors (including free housing, transport and additional bonuses). But results have been only partially successful; and
- Municipalities and regional authorities – who are, nearly always, the owners of paramedical offices and central district hospitals – do not have enough funds to renovate the medical facilities and quite often buildings are in very poor condition with equipment that is either broken or outdated.¹⁶

Table 3.1. Reasons for not receiving medical care during the past year, 2004

Reasons why the person did not see the doctor during last year, %	Urban areas	Rural areas
Did not have health problems	65.5	66.9
No medical professionals of required specialisation in the settlement	0.7	6.3
Difficult to make an appointment or get a referral to see doctor	3.4	1.2
The required medical services are chargeable and cannot pay for them	6.6	5.4
Other reasons	23.8	20.2

Source: “Reforming Family Healthcare: Estimating Potential Effects of a Shift to a General Practitioner (Family Therapist) System”, CEFIR.

As a result, the share of the rural population that goes to see a doctor if they have health problems is lower than in towns (Figure 3.7) and it leads to higher rates of hospitalisation after the first visit to the doctor in rural areas (Bremzen *et al.*, 2007). Current arrangements may lead patients to make contact with the medical system at a later stage of disease when costs of the episode of care may be higher.

Figure 3.7. Share of individuals contacting the medical system among people who experienced health problems in the last 30 days

Note: Survey was not conducted in 1997 and 1999.

Question in the RLMS survey: “What did you do to solve your health problems in the last 30 days? (For those who had health problems)”.

Went to medical institutions or health workers.

Did not go to health workers, but treated themselves.

Source: CEFIR estimations based on the Russian Longitudinal Monitoring Survey.

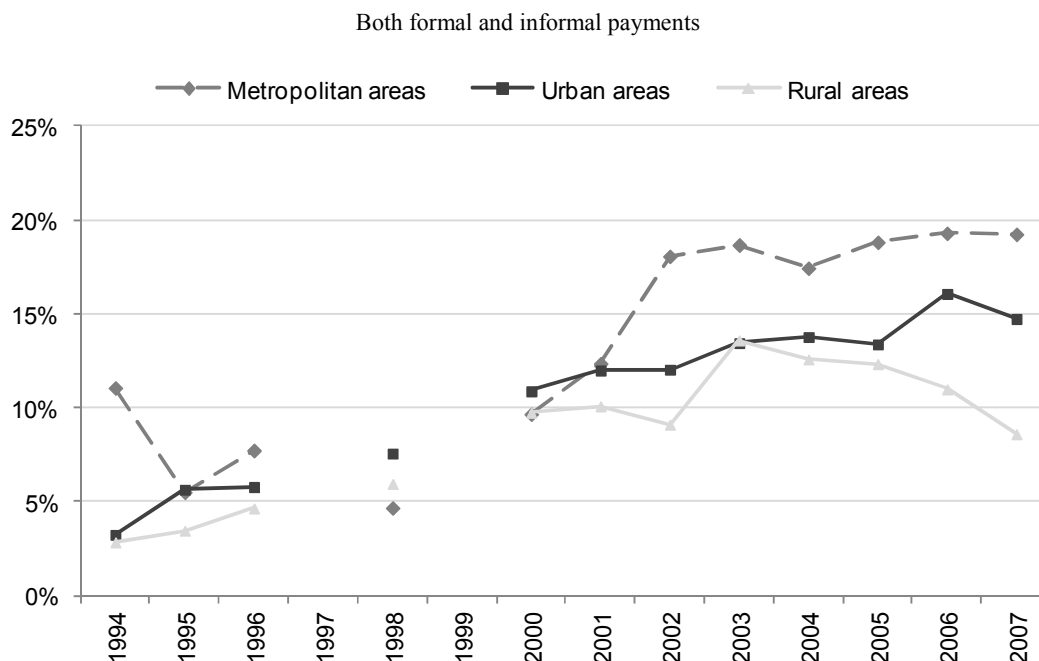
In addition, there has been a major shift in population from high-to-low unemployment regions and from rural to urban areas. These shifts can have implications for access to the government's basic package of health care as those individuals in transit or working in unregistered unemployment may not be covered adequately (Andrienko and Guriev, 2005).

In response to these patterns, a number of regions have started to develop a system of GP practices in the rural areas to replace the existing system of paramedical offices and there seems to be widespread agreement that such a policy could improve access to care. But the cost of constructing and equipping the centres is high and it remains difficult to attract doctors to these more remote areas, as in many other countries (Canada, Australia and some of the Nordic countries). For example, in the Yaroslavl region, the department of health has found it difficult to fill the vacant places in the newly-built GP offices in rural areas, even with 30% bonuses to the salaries and provision of free housing (Rese *et al.*, 2005). There is also a problem with pharmaceutical drug provision in the rural areas. A quarter of rural settlements do not have pharmacies and most of the paramedical offices do not have licenses to sell drugs to the population.

Access to care for different income groups and out-of-pocket payments

As noted, the aggregate share of private spending in total health care expenditure increased in the 1990s until 2001 and began to decline from 2003 (see Chapter 1). During this period, paid medical services became increasingly prevalent. According to the Russian Longitudinal Monitoring Survey, between 1994 and 2007, the share of the population which paid for medical services increased from 4% to 15% for doctors' consultation; from 8% to 26% for diagnostic procedures and from 30% to 50% for hospital stays (with a peak of 60% in 2002).¹⁷

Figure 3.8. Share of those who paid for an ambulatory care consultation by residential status, 1994-2007

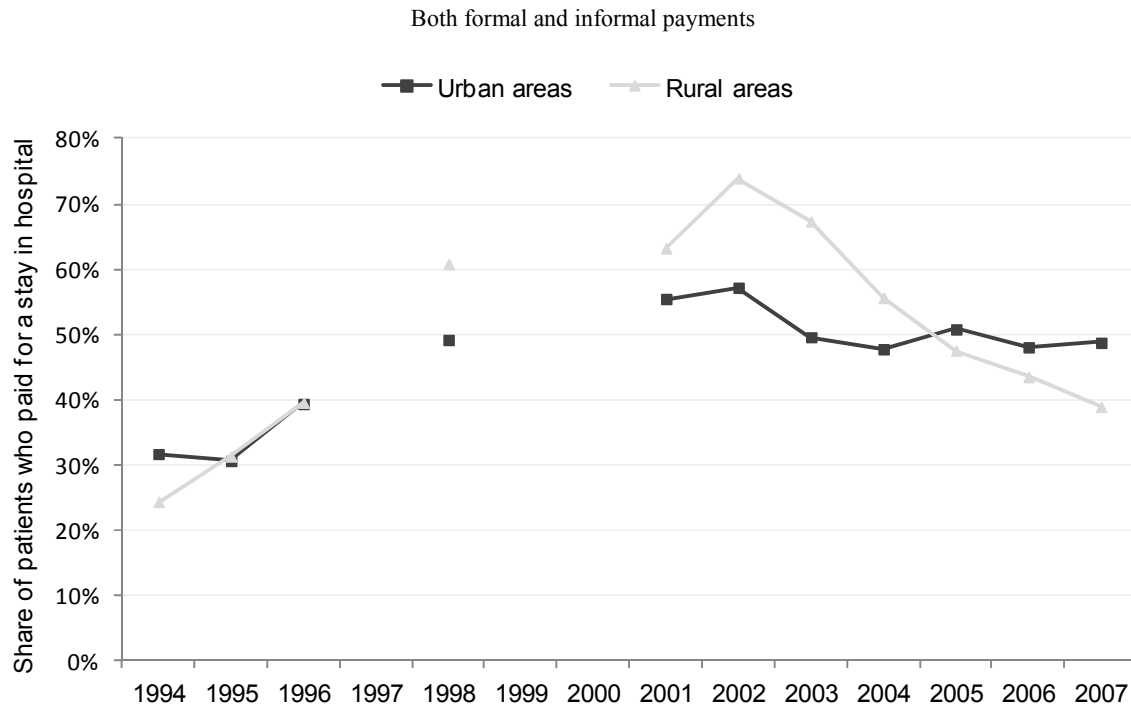


Note: Survey was not conducted in 1997 and 1999.

Source: CEFIR estimations based on the Russian Longitudinal Monitoring Survey.

In recent years, the behaviour in rural and urban areas has begun to diverge with a decline in the share of the rural population paying for visits to doctors, while the share of the population who paid for visits to a doctor in large cities remained stable and high (Figure 3.8). Roughly 50% of patients paid something for hospital stays, although the average size and distribution of the payment is not known (Figure 3.9).

Figure 3.9. Share of patients who paid for a stay in hospital, 1994-2007



Note: Survey was not conducted in 1997 and 1999; the questions on formal and informal payments in hospitals were stated differently in 2000.

Source: CEFIR estimations based on the Russian Longitudinal Monitoring Survey.

Patients usually pay for services:

- That are provided in addition to the basic package, such as: hospital hotel services (single room with amenities, TV, etc.); diagnostic procedures using advanced technologies; or,
- That could be obtained at no charge, but may be of better quality and received under better conditions (*e.g.* jumping queues or receiving more rapid referrals, etc).¹⁸

The data suggest that a significant share of individuals decide not to pay for additional services because they fear that their private costs will be too high. According to the RLMS, almost 43% of people would like to purchase paid services but choose not to do so for financial reasons (Table 3.2).

This effect appears to be more marked for low-income groups. With easier access to paid health care services, higher income groups may have had more opportunities for preventing disease and for getting treatment at an early stage of the illnesses. A Rosstat study (2009b) shows that the share of the population which has, for example, cardiovascular disease is almost twice as high (41.2%) among low income as it is among high-income groups (21.5%).

Shishkin (2007b) reports that the share of the population who paid for medical services increased the most for the higher income groups: the share of those who paid for visits to doctors was markedly higher in the fifth (the highest) income group than in the fourth quintile group. Nonetheless, the largest group paying for hospital care was in the first and second quintiles which suggest that lower income groups are most likely to face higher spending in the case of serious illness.

Table 3.2. People's perception of their need for medical services and their ability to pay for them

Share of population, in %				
Year	2005	2006	2007	2008
People planning on using chargeable services in the near future	6.0	7.2	6.8	6.9
People who would like to obtain chargeable health care services but are unable to do so for various reasons	47.7	47.1	46.6	44.4
<i>Of which: Because of financial restrictions</i>	45.4	45	45.4	42.9
<i>For other (non-financial) reasons</i>	2.3	2.1	1.2	1.5
Respondents who do not see a need for additional medical services	46.2	44.9	46.0	48.7
Total	100.0	100.0	100.0	100.0

Source: Rosstat household survey, www.gks.ru/bgd/regl/b09_44/IssWWW.exe/Stg/d2/10-26.htm.

Administrative barriers

In principle, the municipalities finance care for groups not covered by insurance in the case of medical emergency. In practice, some groups may fall through the cracks: illegal immigrants, individuals or families moving from one region to another (and who are not yet registered with the city that they have moved to) or who are working in the grey-market (Andrienko and Guriev, 2005). With a large share of the population working on an informal basis, this can have significant implications for population coverage under the Guarantee Package.

Access to high-tech medicine

High-tech medical services appear to be largely provided in federal centres that are often linked to medical research institutions, although certain types of imaging equipment and advanced surgery are also provided in a growing number of regional hospitals. Each year, the federal ministry allocates quotas for different types of costly treatments and both federal and regional hospitals receive federal funds for certain high-tech diagnostic procedures, surgery and other high-tech treatments. High-tech treatments outside the quotas are provided on a paid basis only. If the patient did not receive one of the places within the quota and cannot wait, she or he will have to pay for these services privately. Thus, it is difficult to evaluate the length of waiting lists or the transparency in the allocation of the federal quotas. It is not uncommon however, that low-income groups and inhabitants of remote areas have no access to these types of treatment at all.

While there are no reliable estimates of the volumes of different types of high-tech medical services needed to meet the needs of the population as noted above (see Chapter 2), the government has initiated a programme of construction of new high-tech medical centres in a number of regions under the NPPH as a means of – at least partly – compensating for the unmet demand. Nonetheless, the volumes of high-tech diagnostic procedures and surgery still appear insufficient, especially for low-income groups.

The quality of health care provision

Achieving quality-of-care objectives requires putting in place institutions that oversee the process of care and the quality of providers so that high-quality care is provided on a timely basis. At the level of institutions, this means ensuring that quality standards are met and that patients receive the care that they need rapidly and effectively and are treated with dignity. For individual health professionals, it means keeping medical knowledge and skills at a high level. Quality also means ensuring appropriate co-ordination of care such that patients are followed as they move through various care settings. For institutional providers, it requires enhanced systems of quality control for care and ensuring that patients are satisfied with the care they receive. However, quality is often highly subjective and difficult to assess in a quantitative manner.

Regulatory oversight and quality

The system of regulatory oversight of the public health care provision is complex and not always transparent. The strong role of the former san-epid system in overseeing health care provision and the epidemiological situation has been weakened by the increased role of regional authorities in formulating health care policy. The changing legal framework and the introduction of new regulatory bodies (see Chapter 2) in the health care sector resulted in blurred and overlapping functions across: different state agencies responsible for oversight; regional and federal authorities; and, insurance companies, leading to overlaps in their areas of responsibility. In recent years, the insurance companies operating within the MHI system have been the institutions most closely involved with controlling the quality of care provided by hospitals and polyclinics.

From the mid-1990s, there has been growing awareness on the part of the Ministry of Health and Social Development of the need for quality control and the standardisation of public sector medical services. In the light of this, the ministry introduced, in addition to the existing federal law, a system of internal and external controls. This was followed by requirements for the standardisation of the quality of medical services in 1998. From 2001, medical organisations have been subject to a licensing (accreditation) procedure and this was accompanied by definitions to be used for the certification of medical services and of doctors. However, there is little information available to the OECD Secretariat regarding whether these measures have been implemented in a widespread and consistent manner.

There have been continuing efforts to establish a unified system of quality standards of medical care beginning in the late 1990s. These protocols introduced requirements for the technology that doctors use to treat patients after diagnosis. A large number have been put in place and additional quality measures have been established in 30 of the regions (24 000 standards). This diversity could lead to some differences in the care provided across regions. The MHSD declared the need for developing the system of unified medical standards or protocols at the national level in 2008. Such measures should take into account existing international “best practice” treatment protocols adapted to the circumstances of the Russian Federation.

In practice, however, the control of the quality of medical services is usually organised at the level of individual medical organisations (the so-called “internal controls” or self-regulation); by regional authorities who are usually the owners of hospitals and polyclinics (thus raising potential conflicts of interest), or by the regional branches of the Federal Service on Surveillance in Health Care and Social Development (*Roszdraznadzor*). The policy of regional authorities in the sphere of quality control differs from region to region: some regions started introducing a unified system of medical standards while others still prefer to use the pre-transition approach which made the head doctors largely responsible.

This absence of a clear demarcation of the responsibilities and powers of federal and regional regulatory bodies over the quality of health care provision (plus the lack of qualified staff) has often led the authorities to delegate quality control to private insurers where they exist. These can fine medical care provider organisations for inadequate quality of health care provision or where regulations have not been complied with.¹⁹ Insurance companies have hired experts and organised inspections to fulfil this role. However the key objective of the insurers is to reduce their cost of treatment to the insurer rather than to improve the quality of care the patient receives *per se*.²⁰

According to the MHS, roughly half of the regions of the Russian Federation currently collect data about the quality of their medical care and more than 30% of all the regions were developing and deploying such systems by 2005. The introduction of electronic systems for collecting information on quality of health care provision at the patient level – through, for example, the use of electronic data files – has begun over the past several years but only in a limited number of regions. They have not yet received the support of the medical professionals. According to a survey of the Federal Service on Surveillance in Health Care and Social Development, three quarters of doctors found no sense in introducing such systems.

As regards health care professionals, the system for medical education may not have adapted to the shift towards chronic non-communicable diseases. More generally, the medical education system may not have fully embraced the international trend towards “evidence-based” medicine (EBM). Courses on international experience of EBM and the ways of organisation and management of health care provision are very seldom covered in the university medical programmes.

Thus, the federal authorities have taken several steps to introduce a unified system of accreditation for the medical institutions, the certification of doctors and quality control during the past ten years. But it is difficult to know to what degree the measures have been implemented. There has been a lack of coherence in introducing these systems and this has resulted in overlapping responsibilities of different regulatory bodies. In addition, regions have very different attitudes towards these issues, partly reflecting financing and the lack of individuals with skills in this area. As a result, the regional systems of control are *ad hoc*, the role of federal surveillance agencies is weak and neither regional authorities nor federal regulatory bodies have the administrative power to implement a coherent policy of improving the quality of health care provision.

Redress for malpractice

There does not appear to be a strong legal framework permitting patients to receive redress for malpractice. Malpractice leading to serious harm to a patient’s health or causing his or her death is punishable through the criminal courts, but the legal procedures are long and the court awards small. The legal framework for protecting patient rights for less serious cases of malpractice is not developed because these cases are simply not covered by the Administrative Code and a system of personal responsibility of doctors does not exist. In addition, the insurance companies very seldom inform the patients of the results of their planned inspections or reveal cases where there have been violations.

Patient satisfaction

Different surveys show that the Russian population is, in general, dissatisfied with the health care system. According to surveys (Levada Center), less than 20% of population are satisfied with the health care system in the Russian Federation and up to three-quarters of respondents answered that the quality of health care provision was either unchanged or falling (Table 3.3).

Table 3.3. Survey concerning the population satisfaction with the Russian health care system

Survey question: Are you satisfied with the health care system in Russia? (%)	2002	2003	2004	2005	2006	2007	2008
Yes/Rather yes	11	14	11	12	17	14	18
Uncertain	23	20	21	16	22	20	23
No/ Rather no	62	65	65	70	59	64	58
Found it difficult to answer	4	2	3	2	2	3	1

Survey question: How did the quality of medical services change during the last year? (%)	2002	2005	2006	2007	2008
Increased significantly	3	3	3	2	3
Increased slightly	11	19	20	21	20
Did not change	37	36	44	45	48
Decreased slightly	28	22	18	17	17
Decreased significantly	14	16	10	10	7
Found it difficult to answer	7	6	5	6	4

Source: Levada Centre, www.levada.ru/sites/default/files/levada_2009_rus.pdf, consulted on 16 April 2012.

A more detailed survey organised by one of the largest insurance companies (Svetlichnaya, 2008) showed that 60% of patients (in the MHI system) are satisfied with the quality of medical care provided, but 70-80% are not satisfied with the organisation of health care provision (time spent in the queues, work of the reception desk, etc.). At the same time, the share of patients who are satisfied with the quality of medical care can vary significantly, even within one region. For example, in the Moscow region, this share varied from 40% to 80% across different districts. The high intraregional variation in patient satisfaction could reflect the high concentration of care in one or two institutions – even in primary care. If the population is not satisfied, for example, by the district polyclinic, it cannot choose another provider. In any case, consumer satisfaction surveys should always be interpreted with caution since variations in satisfaction with care can reflect different levels of expectations.

The financial sustainability of the Russian health care system

The level and patterns of health care expenditure have been addressed in Chapter 1. This section first examines available information on the degree of underfunding in the Government Guarantee Package and then examines longer-term population trends that are likely to affect the level of spending in the future as the population ages.

Meeting the requirements of the existing Government Guarantee Package

Looking ahead, three sets of factors will affect the longer-term cost of the health care system. First, there is need to cover the full costs of the services included in the existing Government Guarantee Package for health care. There is general agreement that the current resources available to the government and the MHI funds are inadequate to finance the Government Guarantee Package as it was anticipated in the 1993 reforms. While the exact size of the additional financial resources is unknown, it may be substantial. Government estimates suggest that only 11 regions with 20.5% of the population (combined) had achieved full financing of the Guarantee Package in 2006 (Shishkin, 2007a). There were particularly severe shortfalls in the provision of high-tech medical procedures. The Ministry of Health and Social Development estimates that, in 2005, the system covered around 10% of the demand for coronary angiography and heart-valve replacement, about 7% of the demand for joint replacements and roughly 35% of the demand for treatment of congenital heart defects. However, it is likely that some of the latent demand has been satisfied as a result of the re-equipment programme under the NPPH.

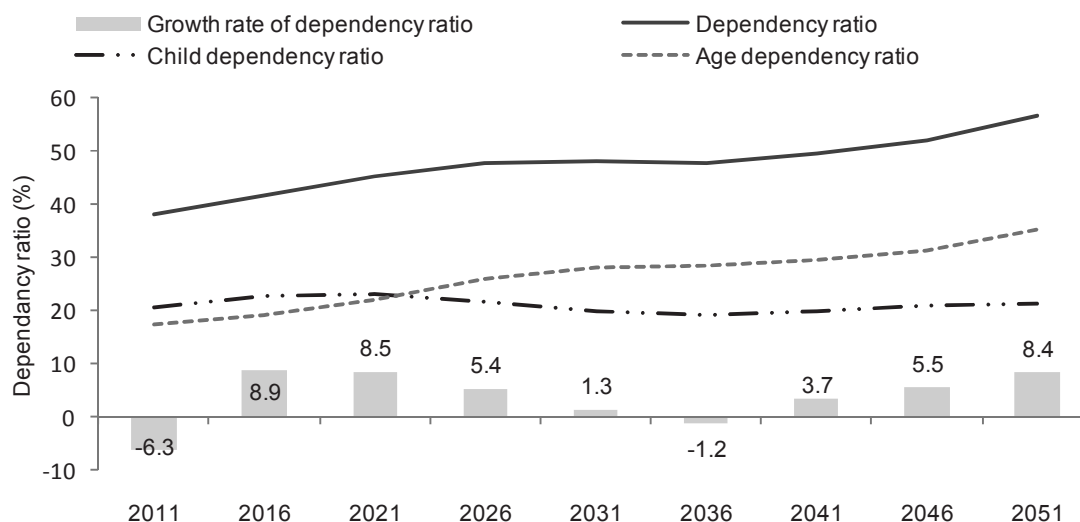
What is generally believed is that payments to providers from the MHI system tend to be currently small relative to the overall cost of services and inadequate to cover the cost of care included in the Government Guarantee Package. Vishnevskiy *et al.* (2007) suggest that the additional spending needed to cover the guarantee could lie in the range of 1-1½ percentage points of GDP.

As discussed in Chapters 1 and 3, an increase in health insurance contributions to 5.1% from 2011 would make an important contribution to filling any financial gap. With wide differences in financing and supply across regions, this would probably need to be accompanied by increased equalisation payments to the weaker regions from the federal authorities, something that the authorities are actively considering.

The impact of a declining workforce and a rapidly ageing population

Second, longer-term sustainability will also be affected by demographic changes over the coming decades. There will be a major shift in the age structure of the Russian population (Figure 3.10). The old-age dependency ratio is projected to rise significantly from around 18 now to 26 in 2026 and 35 in 2051. Dependency will increase sharply in the decade starting in 2015. The arrival of the post-war baby boom into the 65+ age group will boost the number of elderly people and the need for health care, as the prevalence of chronic diseases is correlated with age.²¹

Figure 3.10. Dependency ratio for the Russian Federation, 2006 to 2051



Note: Dependency ratio = $\{[(\text{persons } <15) + (\text{persons } 65+)] / (\text{persons } 15-64)] \times 100$.

Child dependency ratio = $[(\text{persons } <15) / (\text{persons } 15-64)] \times 100$.

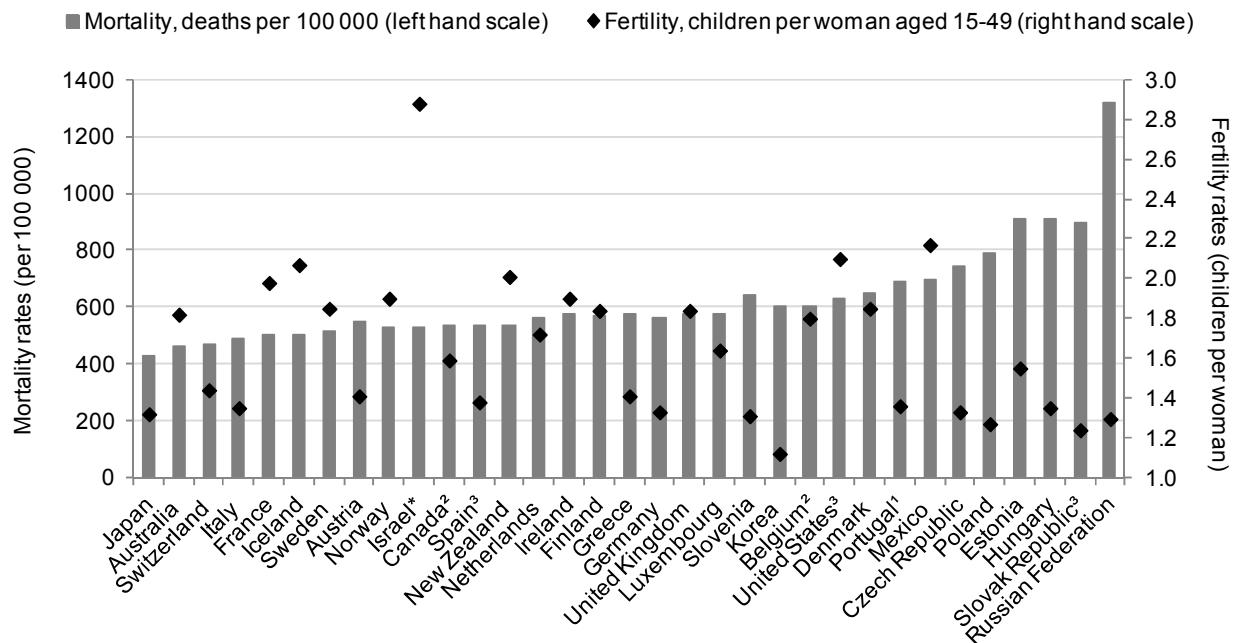
Age dependency ratio = $[(\text{persons } 65+) / (\text{persons } 15-64)] \times 100$.

Source: Estimations based on <http://demoscope.ru/weekly/app/progn01.php>

This shift is taking place against a background of a decline in the total population. For the past 16 years, deaths have exceeded births by a total of 12 million persons, partly offset by increased in-migration of 5.5 million persons (mainly of ethnic Russians living in the former states of the USSR). The inflow of ethnic Russians is not expected to repeat itself. The fertility rate has progressively declined and, despite some marginal recovery in the early years of this century and in 2007, it is still, at 1.3, considerably below the natural replacement level

of 2.14.²² The population of the Russian Federation peaked in 1992 at 148.5 million persons, and has now fallen to 142 million in 2007 (-4.3%) (Rosstat, 2008). In spite of the recent trend reversal in mortality, the capacity to finance the health care system and other social programmes for the elderly in the medium term will be weakened (Figure 3.11).

Figure 3.11. Mortality and fertility rates in selected OECD countries and the Russian Federation, circa 2006



Note: Data on Chile and Turkey were not available.

* Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

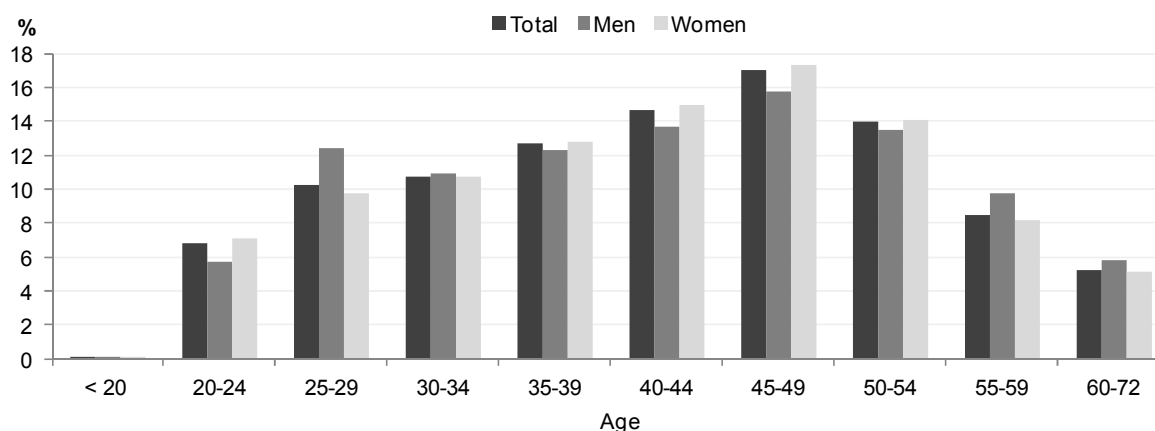
1. 2003; 2. 2004; 3. 2005.

Source: OECD Health Data 2010 for OECD countries and WHO Mortality Database for the Russian Federation, *The Demographic Yearbook of Russia 2007*, Rosstat.

If current patterns of mortality and fertility are maintained, the population could decline to around 122-125 million by 2025 and to as low as 100 million by mid-century depending on the projection. The size of the working-age population could also fall sharply and labour shortages seem certain to appear or to worsen from the early part of the next decade. By 2025, the working-age population is projected to fall at a rate of 1 million persons per year (United Nations in Russia, 2008).²³ However, these projected trends could be affected by recent falls in mortality, as well as the impact of measures included in the “Demographic Concept” (or action plan) for 2025 (see Chapter 2).

Attracting labour to the health sector

Another factor affecting longer-term costs of the health care sector concerns the labour market for health care professionals. The number of doctors in training has remained stable in recent years despite low wages (Gimpelson and Lukyanova, 2009). Projections of doctor and nurse needs in a number of OECD countries suggest a growing penury (OECD, 2008). The size of the cohorts at an age when they enter medical school will progressively decline making it more difficult to attract people into the medical workforce. Similar problems seem likely to be encountered in the Russian Federation as well.

Figure 3.12. Age structure of physicians in the Russian Federation, 2008

Source: Rosstat.

More importantly, the Russian Federation, like many OECD countries, is confronted by a progressive ageing of the medical workforce (OECD, 2008) (Figure 3.12). As the older medical cohorts begin to retire, there may be a fall in supply of health care professionals just as the need for care increases. While this may not have immediate effects given the current high levels of doctors per capita in the Russian Federation, it will progressively lead to pressures in this segment of the labour-market. As in many OECD countries with low population density, problems of shortages of doctors in remote rural areas seem likely to intensify.

Low wages and salaries in the health sector

In the light of lower supplies of medical manpower in the future, higher wages, salaries and better working conditions are likely to be needed to maintain supply. *Ad hoc* increases of wages for primary care doctors and nurses under the NPPH (see Chapter 2) have certainly helped. But this effect is only temporary because the fillip to wages has not been accompanied by policies to address the longer-term issue of the level and pattern of wages and salaries.

The low level of health care spending when compared with OECD countries (Chapter 1) is at least partly explained by the low wages of doctors and nurses (Gimpelson and Lukiyanova, 2009). It would seem unlikely that this can persist over the longer haul in a market economy. While the adherence to the Unified Tariff Scale has so far kept public sector medical wages below the median wage (even allowing for bonus payments), higher remuneration will be needed if the numbers of medical staff are to be maintained. Given the labour intensity of the health care system, this will inevitably lead to higher overall costs, unless efficiency in the provision of services can be increased. Spending pressures will also remain as a result of the unsatisfied demand for high-tech medicine.

The efficient and effective use of resources in health care

The key policy question facing the Russian authorities is why are health outcomes so poor – compared with OECD countries and other former eastern European countries – given the levels of health care resources which go into it. Part of the answer may relate to quality and access issues which have been dealt with in the other sections of this chapter. But a good portion of the difference in performance is related to issues of technical efficiency – *i.e.* how health care resources are organised and used – and allocative efficiency – *i.e.* the appropriate balance between different types of care such as prevention as opposed to cure.

Table 3.4. Supply of health care professionals and acute care beds, 2008 or nearest year available

	Doctors ¹	Nurses ¹	Acute care beds ¹
Australia	3.0	10.1	3.5
Austria	4.6	7.5	5.6
Belgium	3.0		4.3
Canada	2.3	9.2	2.7
Czech Republic	3.6	8.1	5.2
Denmark	3.4	14.3	3.0
Estonia	3.4	6.4	3.8
Finland	2.7	15.5	1.9
France	3.3	7.9	3.5
Germany	3.6	10.7	5.7
Greece	6.0	3.4	4.0
Hungary	3.1	6.2	4.1
Iceland	3.7	14.8	
Ireland	3.2	16.2	2.7
Israel*	3.4	5.0	2.0
Italy	4.2	6.3	3.0
Japan	2.2	9.5	8.1
Korea	1.9	4.4	5.4
Luxembourg	2.8	10.9	4.5
Mexico	2.0	2.4	1.6
Netherlands	3.7	10.5	2.9
New Zealand	2.5	9.7	2.2
Norway	4.0	14.0	2.5
Poland	2.2	5.2	4.4
Portugal	3.7	5.3	2.8
Russian Federation	4.3	8.1	9.3
Slovak Republic	3.0	6.3	4.9
Slovenia	2.4	7.9	3.8
Spain	3.6	4.8	2.6
Sweden	5.6	10.8	2.2
Switzerland	3.8	14.9	3.3
Turkey	1.5	1.3	2.2
United Kingdom	2.6	9.5	2.7
United States	2.4	10.8	2.7

Note: Data on doctor and nurses density include only active (practicing) doctors and nurses for the Russian Federation; professionally active for Canada; France; Greece; Italy and Turkey; and licensed to practice for Ireland; Netherlands and Portugal.

Data is not available for Chile. Data on nurses is not available for Belgium.

1. Per 1 000 population

* Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Source: OECD Health Data 2010 for OECD countries; WHO Database for the Russian Federation.

Assessing the degree of efficiency in the health care sector

At first glance, the Russian health care system appears to be relatively well-endowed with health care resources given its level of income. Although there may be problems of data availability and comparability, the supply of doctors and hospital beds shows the Russian Federation lies at the top of the range for OECD countries (see Tables 3.4 and 3.5). The number of nurses is also high but low when taken as a ratio of the number of doctors. This ratio would probably be even lower if one were able to adjust for skill differences across countries as the level of training and allowed scope of practice are purported to be lower than in many OECD countries (see Chapter 1).

Table 3.5. Physical resources in the health care sector, Russian Federation and selected European countries, 2008

	Hospital beds per 100 000	Average length of stay, all hospitals
Czech Republic	730	10
Estonia	570	7.9
Germany	820	9.9
Hungary	700	10.5
Italy ¹	380	7.7
Latvia	746	9.5
Lithuania	684	9.6
Poland ²	660	6.2
Russian Federation	924	13.1
EU average	531	8.7

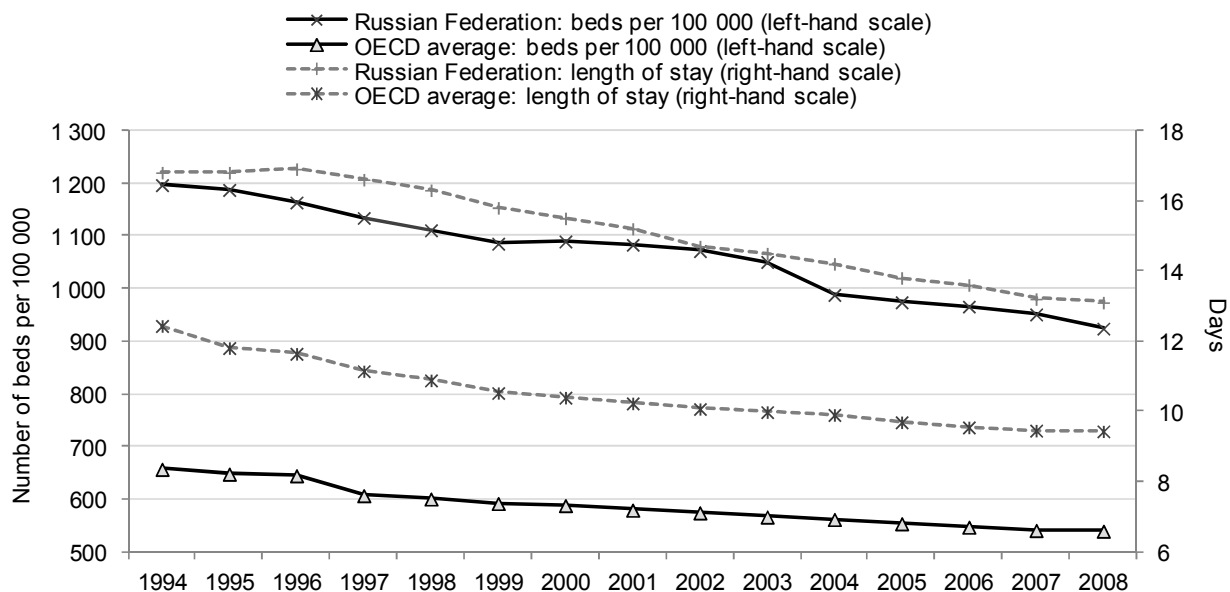
1. Data is provided for 2006.

2. Data is provided for 2007.

Source: WHO Database and Ministry of Health and Social Development of the Russian Federation.

Time-series data at the national level point to a marginal rise in the number of doctors per capita and a trend fall in the number of beds (Figure 3.13). There appears to be little decline in the very high average lengths of stay in hospital (which are roughly twice that of western European countries (Marquez *et al.*, 2007) or in the (very high) share of the population that is hospitalised over the course of a year. These results suggest that there has been little change in approach to providing health care in the Russian Federation despite the widespread view that a switch to primary and ambulatory care is more in line with the emerging patterns of disease. According to Vishnevskiy *et al.* (2007), roughly 30% of hospitalisations are unnecessary (particularly in therapeutic, neurology and gynecology wards) and care would be less costly and more cost-effective if carried out on an ambulatory basis.

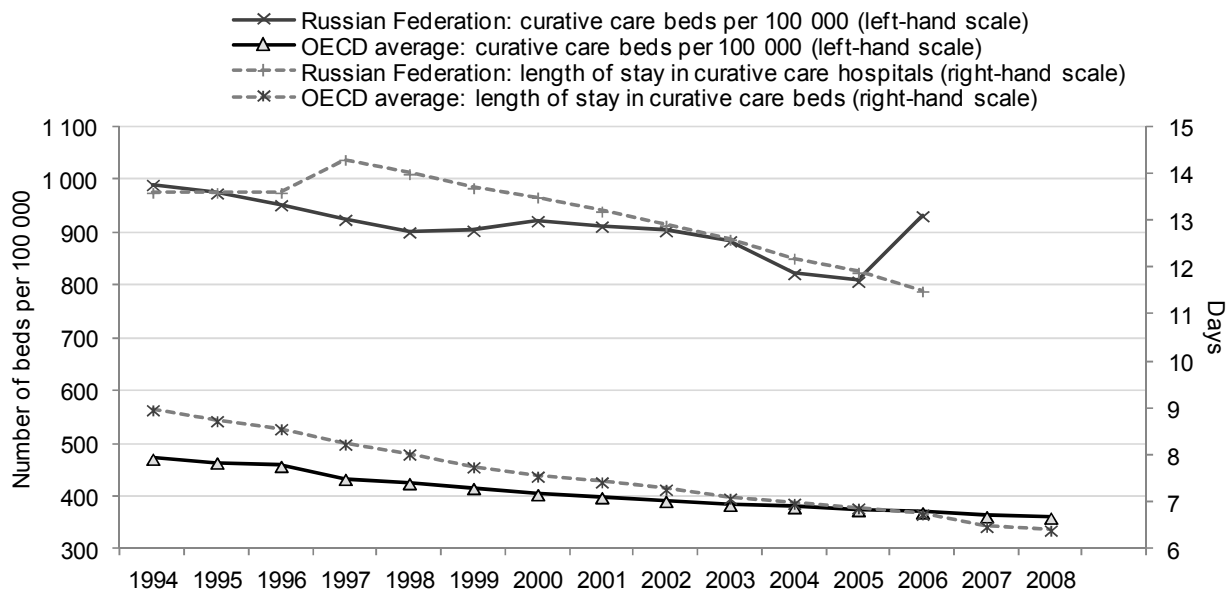
Figure 3.13. Hospital beds per 100 000 and average length of hospital stays in the Russian Federation, 1991-2008



Note: Total number of beds.

Source: WHO Database and OECD Health Data.

Figure 3.14. Curative (acute) care beds per 100 000 and average length of inpatient curative care stays in the Russian Federation, 1994-2008

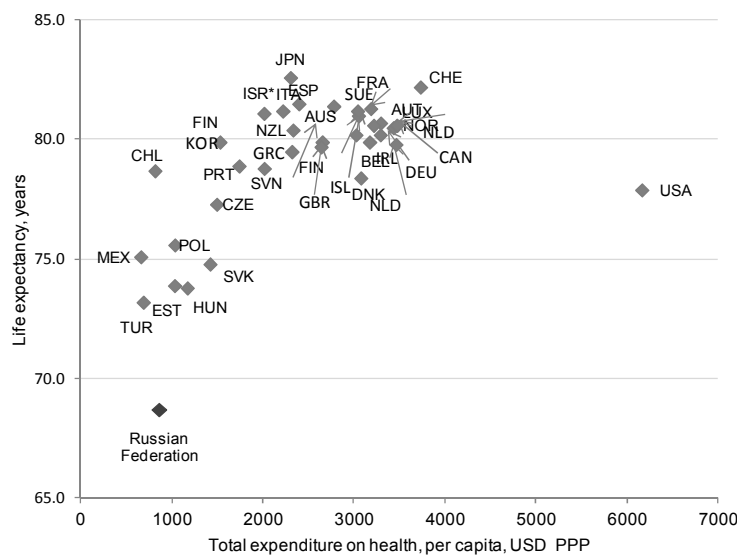


Note: Data excludes Chile, Iceland and New Zealand.

Source: OECD Health Data 2010 and WHO Health for All.

There are doubts as to whether the Russian health system is getting good value for the resources it spends. The ratio of the expected lifetimes at birth to health care spending per capita indicates that the Russian Federation performs poorly when compared with OECD countries (Figure 3.15). Similarly, there is no strong relationship between public health spending and life expectancy at birth at the regional levels: regions with high levels of health care spending do not necessarily perform better than low spending ones (Figure 3.16).

Figure 3.15. Life expectancy and total health expenditures, 2008

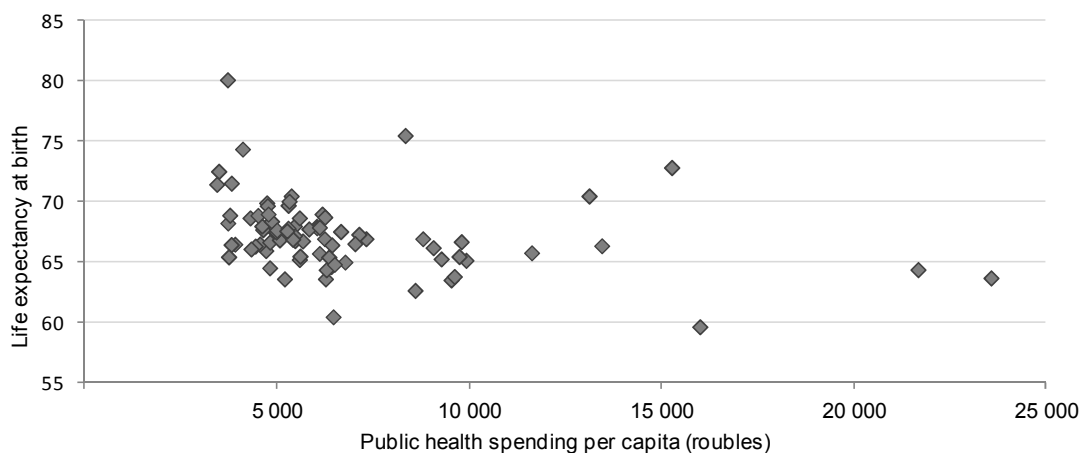


Note: Data on total health expenditure per capita, USD PPP for the Russian Federation is a WHO estimate.

* Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

Source: OECD Health Data.

Figure 3.16. Life expectancy and public health spending by region, 2008/09



Source: Rosstat (2009), *The Demographic Yearbook of Russia 2009*, Rosstat, Moscow and E. Potapchik (Institute for Health Economics, HSE). Estimations based on federal treasury data and federal MHI fund data.

While the results need to be treated with caution, recent studies (Hauner, 2007; World Bank, 2008b) examine the health outcomes in the Russian Federation using frontier analysis and available information on inputs. Comparisons are made across a range of OECD and non-OECD countries and between regions (municipalities) within the Russian Federation.²⁴ The results in both dimensions suggest that there is substantial room for improving public expenditure efficiency. Comparisons with other countries suggest that the Russian Federation's health outcomes are similar to those achieved by some countries which spend 30 to 40% less. The results on the basis of comparisons across regions/municipalities suggest that current health outcomes could also be produced with about two thirds of the present inputs if the less efficient regions were able to emulate the most efficient ones. Some regions have been more successful than others in achieving results even though the resources at their disposal have sometimes been more modest.²⁵ Indeed, two World Bank demonstration regions (Voronezh and Chuvash Republic) appear to have had considerable success in improving health care supply and health outcomes demonstrating that there is considerable potential for higher performance (Box 3.1).

Box 3.1. Restructuring regional health systems in the Russian Federation: the case of two regions

Reform of the regional health systems is a major challenge for the Russian Federation. From 2003 to 2008 the World Bank gave support to the MHSD Health Reform Implementation Project (HRIP) which restructured the health systems of two pilot regions southeast of Moscow: the Chuvash Republic and Veronezh. The programme was managed by officials from the two regions and backed at the highest political level in both.

Comprehensive plans were prepared in both regions on the basis of detailed assessments of needs, drawing on international experience. The aim of the project was to improve access to the system by shifting from inpatient to outpatient services and from specialist to primary care. Policy and regulatory instruments – prepared by the MHSD – were put in place to guide the actors. About 500 disease management protocols were produced on the basis of available clinical evidence to improve the process of care in health facilities. The health worker remuneration system was restructured and a system of national accounts was set up and integrated into the MOH and the regions to monitor flows of funds and resources.

On the basis of a master plan, the investments were made in the infrastructure focusing on increasing the capacity at the primary care level while gradually substituting hospital care for outpatient services. Primary care networks were strengthened with the construction of new centres and repair of existing facilities and investment in new equipment were also made to ensure better diagnostic and treatment capacity. The scope and scale of primary care services were progressively replaced by unified general practice (GP) physicians supported by nurses and other staff. These units are now responsible for the care of patients within defined geographical catchment areas ranging from 1 700 to 2 500 persons. The units also focus on health promotion and disease prevention emphasising the use of primary care physicians as gatekeepers to specialists and other medical services as well as continuity of care. Elsewhere in the system there was more attention paid to services on an outpatient basis with improved medical equipment and diagnostic material organised on an inter-unit basis to discourage duplication.

The population covered by general practice units increased significantly and both regions are now ranked at the top of the regions as regards the numbers of general practitioners per capita. The gatekeeping role of these first line providers has reduced referrals by a factor of four. Hospital beds were rationalised: the number of hospitals was reduced by half and the number of 24-hour beds reduced by about one fifth while day beds were increased. In Veronezh, day care increased by 79% over the period 2002-07 and 40% of surgeries were on a day-care basis. Hospital admissions also declined, as has length of stay in inpatient care. Emergency services were improved by better communication systems, modernising ambulance fleets and increasing skill levels leading to significant falls in the average response time for emergency calls.

There has now been a major shift in expenditure: Spending on primary health care has risen from 31-42% in 2002 to 43-52% in the Chuvash Republic and Veronezh respectively in 2008, bringing them closer to OECD experience. The number of 24-hour beds has also fallen by roughly a fifth in both regions. However, the length of stay only fell from 13.2 to 12.1 days and remains close to the national average (13.6 days). Day beds have increased and 40% of operations were carried out at ambulatory centres.

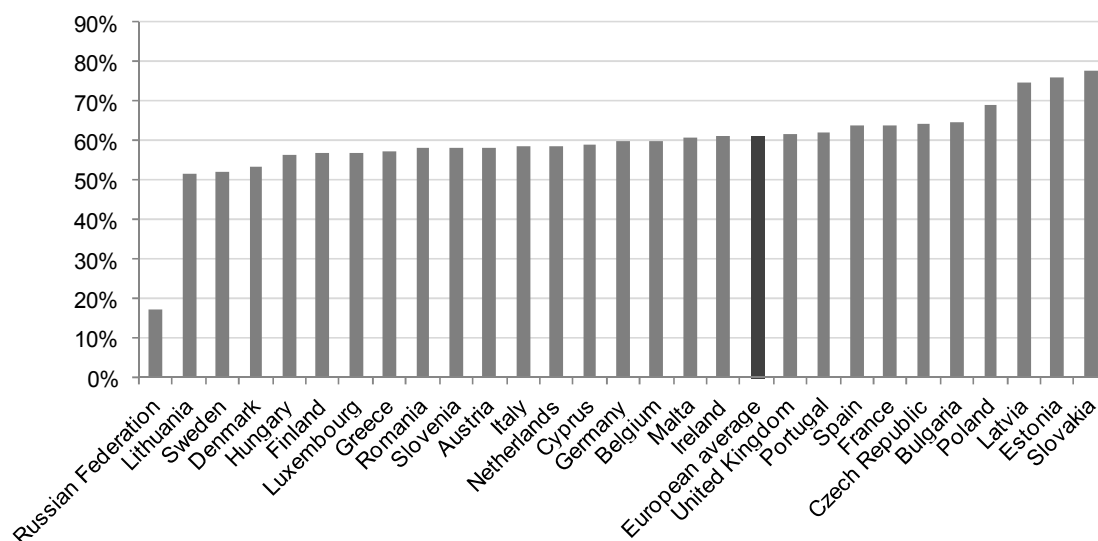
Source: Marquez and Lebedeva (2010), "Restructuring Regional Health Systems in Russia", *The World Bank, Europe & Central Asia Knowledge Brief*, Vol. 32.

Priorities for improving efficiency and achieving better health outcomes

Increased focus on prevention

There is considerable scope for other cost-effective prevention policies which should be easy to introduce. For example, there is ample scope for improving diet to reduce the risk of cardiovascular disease and cancer. In this context, the Finnish experience (in North Karelia) indicates the sizeable potential benefits that can be achieved from changing diet and other risk factors. As regards substance abuse, taxes on tobacco and alcohol have been increasing but – on the basis of available international data – remain below European standards (Figure 3.17).²⁶ There is evidence that low prices of these products encourage higher consumption of tobacco and spirits (Treisman, 2008). Limiting the influence of producer lobbies would help increase policy coherence and lower substance abuse over the longer haul. Traffic deaths could also be reduced through simple measures to reduce vehicle speed via radars, increased fines from traffic violations and simple speed bumps may be cost-effective policies. The wide range of individual policies which touch on prevention and on non-communicable disease possibly (see Chapter 2) suggest the need for greater policy integration across the various programmes.

Figure 3.17. Tobacco taxes in the Russian Federation and EU countries, 2008



Note: Overall minimum excise duty as percentage of TIRSP (excl. VAT). TIRSP is retail selling price, all taxes included.

Source: Danishevsky, K. (2009), *Aktyzy na tabachmyu productsiyu v Evropeiskom Soyuze*, mimeo, and excise duty tables, Part III – Manufactured Tobacco, Ref. 1.026, January 2008, http://ec.europa.eu/taxation_customs/index_en.htm.

But, reducing mortality towards levels found in more developed OECD countries can only occur if Russians citizens can be convinced of the need to reduce the risk of disease and death by changing their health-related behaviour.

Enhancing performance: some selected issues

Shifting from hospital to primary care

There is a widespread consensus that productive efficiency could be improved through a shift from an inpatient care and specialist treatment towards primary care (WHO, 2001; Atun,

2004). Despite a slight downward trend in the number of beds per 100 000 population there would appear to be considerable over-provision in secondary and tertiary beds. This may partly reflect the use of acute hospital beds for long stays by the elderly and the chronically ill (Tompson, 2007) and geography. But current methods of paying hospitals are an additional contributing factor.

The difficulty in shifting to primary care may also reflect problems at the primary care level:

- There are patient concerns over the quality of primary care doctors. According to Federal Service on Surveillance in Health Care and Social Development (*Roszdraznadzor*), 15% of medical personnel have not had any professional training in the past five years and the number is considerably higher for primary care physicians (reported in Sheiman and Shishkin, 2010);
- Primary-care doctors – who are usually salaried – still have every incentive to refer patients to higher levels of care to reduce their own work-load. Thirty percent of primary care patients are referred to specialists in the Russian Federation while the norm is closer to 4-10% in OECD countries (Vishnevskiy *et al.*, 2007).

As noted, the authorities have increased spending within the NPPH for district doctors or primary care specialists to become general practitioners or family doctors (Chapter 2). As a result, 7 570 were re-trained in 2007 and a further 10 000 doctors in 2008. But, with a total of 70 000 primary care (district) doctors working in the country, there is a considerable way to go. Improved care at the primary level will also require changing the methods of paying for primary care providers.

Improving human resource use

Russian nurses may have more limited training relative to the norms in OECD countries and their role in the health system is more restricted than in many OECD countries. Nurses may not be used efficiently as they often perform secretarial tasks rather than medical tasks supporting doctors. As primary care expands relative to inpatient care as the authorities intend, then the scope-of-practice rules for nurses could widen if backed up by better and longer training.

Enhancing the incentives facing providers

As noted, “dual financing” of the GGP weakens the incentives to providers: Sixty percent of public financing of the health care services originates from budgetary sources and the budgeting of providers largely takes place on an input rather than an output basis. The bulk of the remainder comes from the MHI system where, for example, insurers may pay providers on an activity basis. Such arrangements may dilute any incentives to reduce hospital supply: if all funding came via one source (or through one channel) it would be easier to influence behaviour.

In practice, many of the payment methods used by the regional authorities do little to increase the efficiency of provision. For example a number of regions still reimburse providers on the basis of a fee-per-outpatient (polyclinic) visit or pay by bed day in the hospital sector, thereby encouraging over-use of the system and reducing incentives to enhance prevention (Figures 1.8 and 1.9).

Such problems may be attenuated by the recent reforms to the financing of the GGP.²⁷ Although full information is not yet available concerning the new policies, the bulk of the financing of providers of the GGP will be channelled through the MHI as from 2013; competition in insurance and provider markets is being strengthened and the overall thrust of the recent legislative changes appears aimed at increasing significantly the play of market

forces. Private insurers will act as purchasers of health care services for their insurees and competition among providers will be largely based on quality. Money will follow the patient and payment of providers will be fixed nationally, leaving the regional funds the possibility of providing supplements.²⁸ Under the new arrangements, consumers will have free choice of insurer, doctor or care institution (*e.g.* polyclinic or hospital).

Market incentives are intended to encourage improved health care system efficiency. Nonetheless, Tompson (2007) and Smith (2008) argue that introducing and sustaining competition in health care markets is a particularly daunting task and existing experiments in OECD countries do not appear conclusive.

Restructuring of relative wages and salaries of health care professionals

Low wages have demoralised doctors and nurses alike and encouraged informal payments. The National Priority Programme “Health” represented a start in increasing the remuneration of doctors and nurses but the *ad hoc* nature of the reform created its own tensions because wages of specialists were not increased. While some upward adjustment in wages is needed, any increases need to be used to “buy” reforms in the pattern of care provision – *i.e.* increasing the role of ambulatory care. This will also require changing the incentives facing providers to encourage the desired shift in the pattern of care.

Summary

The overall efficiency and effectiveness of the Russian health system needs improvement. While health care is free for a wide range of services, the large share of out-of-pocket spending may be leading individuals with health problems not to contact the health care system or at least to delay it. In addition, unequal financing for health care services across regions means that some regions have lower levels of supply than others.

Surveys suggest that patients are generally dissatisfied with the functioning of the overall health care system. This raises questions as to whether the current configuration of supply is in line with broader population needs and patient demands.

In this context, increased access to the Government Guarantee Package will require higher public financing as a first step. But the discussion of the longer-term sustainability of the system indicates that there are a number of trends – such as population ageing and a declining workforce – that are likely to lead to increasing demands for care and higher unit costs of health care in the future. It is for this reason that the authorities must improve the efficiency and effectiveness of the health care system. In this context, work by other international organisations indicates that there is considerable scope for efficiency gains (World Bank, 2008b).

A final issue concerns system governance and oversight. Given the cross regional diversity in financing and health care provision, information on regional health system performance is highly desirable and can permit benchmarking of performance across regions. The decision of the federal authorities to identify and collect a set of 300 commonly defined indicators (72 relate to health) is a welcome development. It can only be stressed that these data would be even more useful if they were defined and collected in line with international standards, which would permit international as well as inter-regional benchmarking.

Notes

1. Premature mortality refers to mortality before the age of 65. Standardised mortality rates were extracted from the WHO Europe Database “Health for All” for the year 2005 (<http://data.euro.who.int/hfad/b/>).
2. In addition, 40% of boys and 7% of girls smoked (MHSD, 2007).
3. While WHO data suggests that “only” ten litres of alcohol-equivalent per capita is consumed each year – a level not far off certain European countries such as France and the United Kingdom, the Russian authorities estimate that it is as high as 18 litres once unregulated home brewing and distilling is taken into account.
4. Russian Longitudinal Monitoring Survey (RMLS) of the Russian population. The RLMS is a household survey jointly operated by the Population Centre of the University of North Carolina and the Institute of Sociology of the Russian Academy of Sciences. The RLMS is a panel with 16 waves covering 1992-2007; there were three data collection rounds in 1993, but there are no data for 1997 and 1999. Since 2000, data are collected annually. The sample is small at around 4 000 households or about 10 000 persons, and it is biased toward the low-income populations (the sample does not cover those who change residential area and new buildings which are often occupied by richer households). The RLMS does not seem to be representative at regional level, not least because of the low response rate and high attrition in major cities. Then again, the questionnaire is quite comprehensive on the income side in terms of wage and non-wage incomes of adults and on expenditure patterns including detailed questions on food consumption in the last seven days and non-food consumption over the last three months (OECD, 2011).
5. Data provided by the Russian authorities.
6. But with a confidence interval of between 23 000 and 71 000 persons.
7. In 2008, Rosstat recorded “only” 4 460 deaths from HIV/AIDS on the basis of death certificates. The wide divergence in estimates may reflect insufficient screening of high-risk sub-populations.
8. Infant mortality rate (IMR) is the number of deaths of children under one year of age in a given year, per 1 000 live births. Some of the international variations may result from differences across countries in the practice of registering premature babies. While most countries have no limits for mortality registration, some countries impose a lower limit on gestational age and/or weight threshold for a death to be counted as a “death after live birth”. This limit is higher for the Russian Federation (28 weeks) than for other countries (see OECD, 2009).
9. The term “marginal” denotes certain vulnerable groups/subpopulations deprived of robust involvement in social, political and economic life of the society (WHO, 2001).

10. Data are based on a survey of death certificates in three Russian regions (Kirov, Smolensk and selected districts in Moscow) at various levels of economic development. Results appear to be in the form of confidence intervals.
11. Compared with the leading OECD country (Japan), the differences for men and women, respectively, are just under 18 and 12 years.
12. In previous periods, the improvements in life expectancy appeared first among the young (15- to 24-year-olds) and then among the older, working-age groups of the population (40- to 64-year-olds). Lower death rates reached the more problematic groups (25- to 39-year-olds) last. The Russian Federation recorded its first pronounced year of life expectancy growth in 2006.
13. Indeed, some studies find little evidence of a link between health and mortality outcomes and access to health care – or the lack of it – in the Russian Federation (Brainerd and Cutler, 2005).
14. Inter-regional differences in financing come from: *i*) different levels of payments to regional MHI funds for the working population due to large variation in the wage bill across regions; *ii*) variation in payments to regional MHI funds from regional budgets for the non-working population – the minimum level of per capita payments was not fixed until 2007 – and, *iii*) different levels of spending on health care from regional and municipal budgets.
15. These enhancements have taken a number of forms: extra free services to the Government Guarantee Package; targeting of certain diseases and vulnerable groups; free drug provision for costly treatments; increased availability and use of high-cost medical technologies; and by restructuring health care provision (for example, by developing GP practices as in Samara, Voronezh and the Chuvash Republic.)
16. Such problems have certainly become less marked as a result of increased spending under the NPPH.
17. CEFIR estimations based on the Russian Longitudinal Monitoring Survey (RLMS).
18. There is some anecdotal evidence that patients are encouraged to undertake additional tests requiring the use of high(er) technical equipment. Since rules on chargeable services are often not clearly defined, this leaves the provider with some liberty in deciding what is free and what is not.
19. Such fines and penalties may also be levied by regional branches of the Russian Federal Consumer Rights Protection and Human Health Care Control Service, the Federal Service on Surveillance in Health Care and Social Development, and the regional branches of Mandatory Medical Health Insurance Funds.
20. For example, insurance companies have hired experts and organised inspections to fulfil this role. One large insurance company (ROSNO) claimed to have undertaken an extensive claim review in 2007 (Svetlichnaya, 2008). In half of the cases studied, there were a variety of regulatory violations but inadequate quality of medical services had occurred in less than 20% of them.
21. However, the size of this effect will depend on a number of factors including the possibility of lengthening lifetimes in good health. A number of studies have argued that health care costs may not increase because, as average lifetimes lengthen, the high costs of care associated with the period immediately before death will be progressively put off into the future.

22. It averaged 1.1 in the period 2000-05 (World Bank, 2005). The recent increase reflects a range of factors. Delayed family formation may be beginning to unwind as in a range of European countries (*e.g.* France). And this appears to have coincided with an increase in the number of women of child-bearing age. However, these effects are likely to be temporary and unlikely to affect the longer-term patterns of fertility. This development may also reflect the government's recent family policy although it is too early to judge its impact. <http://demographymatters.blogspot.com/2010/01/on-russias-brief-population-increase.html>.
23. These projections have been produced by Valary Yelizarov, Head of the Centre for Population, Moscow State University Economics Department.
24. 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, physicians relative to the population. For local governments, public sector performance (PSP) and public sector efficiency (PSE) scores are used.
25. The Russian authorities conducted a comprehensive assessment of the health care systems effectiveness in 2008 and found that 28 regions had ineffective health care systems with poor services and limited resources. The study also found that 32 of the regions enjoyed strong financing and budget surpluses while 15 were able to achieve high levels of medical care at low rates of financing. This suggests that there is scope for bringing poor performing regions up to the level of the best performers.
26. As noted in Chapter 2, both alcohol and tobacco excise taxes are being increased sharply.
27. Information on how this is expected to work in practice was not available at the time of completion of the report (Federal Law No. 326-FZ of 29 Nov. 2010 "On Compulsory Medical Insurance in the Russian Federation").
28. However it remains unclear how the system will adjust for cream skimming across insurers and whether insurers can obtain cost savings and quality improvements for patients.

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