

The health crisis in Russia

Countries in the EU and G8 must help Russia tackle its health crisis

Russia is one of the few developed countries where life expectancy has fallen in recent years.¹ Russia's total life expectancy of 66 years lags behind that of Japan by 16 years, the European Union by 14 years, and the United States by 12 years. High mortality and morbidity from non-communicable diseases, along with a low birth rate, mean that Russia's overall population is rapidly becoming smaller and sicker. Reporting recently for the World Bank, Marquez and colleagues emphasise the gravity of Russia's health problems and argue that the crisis represents a "new pattern of the epidemiological transition that deviates from that experienced by a number of western countries where age-specific NCD [non-communicable disease] rates declined and life expectancy grew."¹

Russia's population declined from 149 million in 1992 to 143 million in 2003, and in the next 50 years it could fall by 30% to 100 million. Compounded by rapid ageing of the population, this fall is increasing the dependency ratio (the ratio of the economically dependent part of the population—mainly those too young or too old to work—to the productive part) and producing an economic burden that Russia may not be able to afford, given that its gross domestic product (GDP) is the lowest of all the G8 countries.

Mortality for Russian men substantially exceeds that in countries with similar per capita income levels. For example, in Russia the probability that a 15 year old boy will die before he reaches 60 is double that in Turkey. Within Russia, mortality varies fourfold between regions, and differences in life expectancy can be as large as 18 years. The picture is different for women, who live about 14 years longer than men in Russia—a much greater gender gap than the average of eight years in other G8 countries (Canada, France, Germany, Japan, Italy, Russia, the United Kingdom, and the United States).

Morbidity and mortality from non-communicable diseases and injuries—the leading causes of death—in Russia are three to five times higher than average rates in the European Union. At 994 per 100 000, Russia has one of the highest death rates from cardiovascular disease in the world, accounting for 52% of all deaths nationally each year. Similarly, the rate of traffic injuries, at 20.6 per 100 000, is double that in EU and G8 countries, and the rates for cancer mortality, homicide, and suicide far exceed EU levels.

In 2003, deaths from cardiovascular disease, cancer, and injuries accounted for 15.2 million lost years of potential life. Around 75% of deaths and 46% of the disability adjusted life years (DALYs) in Russia can be attributed to high blood pressure, high serum cholesterol, and tobacco use. Six out of 20 men smoke, but alcohol is also a big killer, accounting alone for 16.5% of the total DALYs lost in 2002. In 2004, about 70% of men and 47% of women were drinkers, with spirits comprising three quarters of the total alcohol consumption.

When combined with the stresses related to economic transition—collapse of the social safety net, lack of strict road safety measures, decline in fruit and vegetable consumption, sedentary lifestyles, and grow-

ing prevalence of obesity—these risk factors create a highly unfavourable health environment. Furthermore, when the burgeoning epidemics of HIV infection, multiple drug resistant tuberculosis, intravenous drug use, sexually transmitted disease, and hepatitis C are also taken into account, the severity of Russia's health crisis is magnified substantially.^{2 w1}

In 2005, deaths from cardiovascular disease and diabetes will cost Russia US\$11.1bn in national income (1% of GDP), and this cost will increase by 2015 to \$66.4bn (5% of GDP). Cumulatively, in 2005-15, these losses will amount to \$303.2bn, 10 times those in the United Kingdom.³

Most non-communicable diseases and injuries can largely be prevented by integrated approaches to reduce the main risk factors, especially when population based public health strategies are combined with healthcare interventions targeting "high-risk" individuals.^{w3} If such interventions were to reduce mortality from cardiovascular disease in Russia to EU-15 levels (those in the EU before it expanded), total life expectancy would increase by 6.7 years. Furthermore, reducing mortality from non-communicable diseases in Russia to EU-15 levels by 2025 would bring economic benefits equalling 3.6-4.8% of the 2002 Russian GDP and overall welfare benefits to the country amounting to 28.9% of the 2002 Russian GDP. Improving Russian adults' health to levels in the EU-15 countries by 2025 would increase per capita GDP by an additional \$9243, if such improvements were not realised.

For Russian doctors and policy makers, the choices are clear. The Russian health system, which is dominated by hospitals, vertical systems for service delivery, and focus on cure rather than prevention, must be reformed to create intersectoral approaches to public health and a well developed primary care system that emphasises health promotion and prevention of non-communicable diseases.

For EU and G8 leaders a stable, healthy, and economically strong Russia is strategically important. In 2006 Russia will assume the rotating presidency of the G8. President Vladimir Putin has an opportunity to lead the global health debate and keep health high on the G8 agenda. In particular, he could extend development assistance for health so that it is allocated not just on the basis of child mortality^{w4} but also takes account of communicable and non-communicable diseases in eastern Europe and central Asia, where development assistance has been much lower than that warranted by the level of development.^{w5}

But first Russia must kick start the transformation of its own health system. It needs to strengthen public health and primary health care, rectify deficits in governance,⁴ overcome structural and financing barriers,⁵ close the legal gaps that hinder public health responses,⁶ and create incentives to motivate stakehold-

References w1-w6 are on bmj.com



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ers and encourage investment in evidence based innovative health technologies. In his state of the nation address in 2005, President Putin said, "the success of our policy in all spheres of life is closely linked to the solution of most acute demographic problems."⁶ Next year G8 and EU leaders have a rare window of opportunity to support him in driving through the health reforms Russia most desperately needs.

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Long term outcome after traumatic brain injury

More attention needs to be paid to neuropsychiatric functioning

Traumatic brain injury is the leading cause of disability in people under 40, severely disabling 150-200 people per million annually. Neuropsychiatric sequelae outstrip the neurophysical (such as ataxia or incontinence) as the major cause of disability. Problems with memory, attention, executive function, behavioural control, and regulation of mood, associated with injury to the frontal and temporal lobes, are particularly troublesome.

The vast majority of recovery after traumatic brain injury takes place in the two years after injury; after this the brain injured patient faces an uncertain future. In some patients further improvement is seen even as late as 5-10 years after injury. Thus some long term studies, unfortunately often weakened by low rates of follow-up, show surprisingly good outcomes.¹ Newcombe found that veterans who had had a head injury in the second world war showed no evidence of deterioration many years after injury.¹ This might have been due to the expert and systematic care they received very soon after the injury. But other researchers found that a proportion of patients deteriorated when assessed 10-20 years later. Millar et al studied 418 patients, 85% of whom had had a severe head injury, on average 18 years after they had been assessed at six months after the injury.² Twice as many had deteriorated as had improved (30% v 14%).

Head injuries are most likely to occur in people aged 15-24 and as a result often disrupt important developmental processes, such as attaining independence from parental support, completing study and establishing a vocation, and forming social networks. The result is loss of self esteem, social isolation, and a considerable burden for families.

Regardless of the age of the patient, it is the changes in cognition and behaviour that represent the greatest burden to families after a traumatic brain injury.² Difficulties with social skills may arise from deficiencies in self monitoring and social judgment. Morris et al found that avoidance of social contact may be partly due to the injured person's inability to keep up with conversation as a result of slowed information processing, which in turn creates social anxiety.³ Some of the symptoms the patients described at interview are often overlooked. They reported feeling self conscious about physical signs of their injuries. They had a

persisting sense of loss, due to failure to fulfill their dreams, and some described negative feelings from others, perhaps due to lack of understanding of the consequences of head injury.

There is also a growing awareness of the high incidence of long term psychiatric disorders after traumatic brain injury.³ Depression, anxiety, and substance misuse are common. Koponen et al found that psychiatric disorders persist at 30 year follow-up, with patients particularly susceptible to depressive episodes, delusional disorder, and persistent changes in personality.⁴ Who develops psychiatric problems and why are poorly understood; associations with injury severity are weak. Socioeconomic status before the injury still has an impact on outcome many years after injury. Curran et al found that the presence of anxiety and depression was more strongly associated with coping style than with severity or even the presence of brain injury in trauma patients.⁵ They found higher levels of symptoms in those with a non-productive coping style, characterised, for example, by self blame and ignoring problems, than in those who dealt with problems in an active manner.

Neuropsychological assessment in the early stages of recovery will facilitate awareness of the cognitive and behavioural consequences of the injury. Educational programmes directed at the families, friends, and associates of those injured, and at the community at large, facilitate greater understanding and acceptance of the complex and often invisible problems of people with brain injury. The brain injured person will then need easy timely access to a variety of services. The recent National Service Framework for long term conditions in the UK (www.dh.gov.uk/assetRoot/04/10/53/69/04105369.pdf) describes how this can be achieved. Though it aims to meet the needs of all those with long term neurological disorders,⁴ its relevance for those with traumatic brain injury cannot be overemphasised. But change is needed. Early post-injury assessments may be concentrating more on physical disability than cognition,⁶ perhaps partly explaining why unmet need is most evident in cognitive and psychosocial rehabilitation.⁷ Equity of access is still an issue; for example,