

## Russia's Maternal & Child Health Crisis: Socio-Economic Implications and the Path Forward

*Stephen M. Massey*

### Executive Summary

Today, fewer than one in three Russian newborns is healthy, disease rates among Russian children are surging, and shrinking access to quality family planning and prenatal care has worsened the state of women's reproductive health across Russia. The health of Russia's infants and children is especially significant given the country's shrinking population and the mounting problems of infectious disease, rural poverty, illegal narcotics, and alcohol abuse – all contributing factors to poor birth outcomes. The long-term economic impact of unhealthy children born in the past decade is already a serious limiting factor to Russia's emergence as a strong economic partner and international actor. Many infant deaths and childhood illnesses could be prevented with expanded investments in infrastructure and education, improved access to quality care, and reform of Russia's healthcare sector – each of which is too costly for Russia to finance on its own. Untapped opportunities also exist for collaboration between Russian, European, and American civic groups, healthcare experts, scientists, and policy leaders that would have a positive impact on maternal and child health in Russia and beyond.

### Key Recommendations

- **Focus on prevention and quality of care.** Russia's national healthcare system is designed to provide treatment rather than deliver quality preventive care. The Russian government should shift resources towards prevention programs aimed at improving maternal and child health, expand access to prenatal and postnatal care, and implement a national system of birth defects surveillance.
- **Support family planning and public education initiatives.** A 1999 State Duma moratorium on federal funding for family planning programs has dramatically reduced access to preventive care and reproductive counseling. The international community should work with Russian partners to improve access to and quality of family planning and contraception programs; support physician training initiatives in modern neonatology and reproductive counseling; and, expand public education campaigns aimed at reducing smoking, drinking, and drug use among pregnant women.
- **Harness the promise of scientific breakthroughs in genetics.** Underemployed Russian scientists represent significant, untapped resources in the effort to improve maternal and child health in Russia and beyond. International scientific partnerships in genetics should be expanded to better integrate the expertise of Russian scientists in the process of identifying disease-causing genes and developing specific treatments.

*Stephen M. Massey is Program Associate for Policy Studies at the EastWest Institute, and a former Foreign Affairs Fellow at the National Security Council in the Clinton Administration.*

## THE POLICY CONTEXT

The Russian government's conservative projections warn that by 2050, the country's population will shrink by 30 percent from 143.6 million to 101.3 million; its worst case scenario predicts that the population could drop to 77.2 million, a reduction of nearly 50 percent. For a country facing a dramatic demographic decline and an increasingly unhealthy adult population, Russia can ill afford to under-invest in its human capital, especially in the treatment and care of its infants and children. An increasingly unhealthy and constantly shrinking population in Russia represents a formidable economic and security challenge deserving of decisive action backed by substantial resources, including from the international community.

### **Russia's Infant Health Crisis**

Babies in Russia are born smaller and sicker today than in the past. Key statistics provide an alarming snapshot of Russia's looming infant health crisis:

- Nearly two-thirds of all Russian babies are born unhealthy, and at least 75 percent require an extended hospital stay or intensive medical treatment;<sup>1</sup>
- Russia's official infant mortality rate remains 3-4 times higher than in Western Europe and North America, and Russia reports the second highest rate (behind Romania) of under age-5 child mortality in Europe;<sup>2</sup>
- The percentage of Russian babies born with a dangerously low body mass (less than 2.5 kg, or 4.4 lbs.) jumped nearly 6 percent from 77,500 in 1996 to 82,000 in 2000, due in large part to rising rates of tobacco and alcohol consumption among Russian women;<sup>3</sup>
- Ten percent of pregnant women in Russia lose their unborn children as a result of health problems, and nearly half of Russia's expectant mothers are malnourished.<sup>4</sup>

National statistics mask the worsening conditions in Russia's poorest regions – including the North Caucasus, eastern Siberia, and the Far East – where infant mortality rates are on par with Third World countries in South Asia and Latin America. The Chukotskiy region in Russia's Far East, for example, reports an infant mortality rate (42.1 deaths per 1,000 live births) higher than those of Guatemala and Indonesia.<sup>5</sup> And, as a result of discrepancies between the Russian and international definitions of 'live birth', Russia's real infant mortality rate is likely to be at least 25 percent higher than the official rate.<sup>6</sup>

Meanwhile, recent demographic data points to the deteriorating state of women's reproductive health in Russia, with devastating effects on the health of infants and children. A growing number of Russian infants face lifelong disease and disability as a result of unhealthy pregnancies or disease transmission from their mothers. Mother-to-child transmission (MTCT) of HIV, which is generally prevented in developed countries with proper antiretroviral treatment and regular care, has expanded rapidly as the incidence of HIV infection among Russian women increased from less than 1,000 cases in 1997 to an estimated 180,000 in 2001.<sup>7</sup>

<b>RUSSIAN INFANT MORTALITY (2001)</b>	
<b>Region</b>	<b>Infant Mortality (per 1000 births)</b>
Moscow	11.8
St.Petersburg	9.3
Chukotskiy okrug	42.1
Ingushetia	27.4
Tyva Republic	27.3
Dolgano-Nenetskiy okrug	26.0
Evenkiyskiy okrug	25.8
Amurskaya oblast	24.2
Buryatskiy region	23.6
Korkyakovkiy region	23.4
Evreyskaya oblast	21.9
Komi-Permiatskiy region	21.4
<b>National Average</b>	<b>14.8</b>

SOURCE: Goskomstat, Moscow 2001

Reproductive health among Russian women is also negatively affected by a lack of reliable contraception and inadequate access to family planning. Abortion rates in Russia are among the highest in the world, and three-quarters of all Russian abortions take place after the first trimester of pregnancy, dramatically increasing the long-term health risks to the mother.<sup>8</sup> In 2000, Russia reported nearly 170 abortions per 100 live births, a rate that remains over six times greater than that of the United States.<sup>9</sup>

### Failure of Prevention

Even more tragic than the great numbers of Russian infants who die or suffer from lifelong disability and disease is the reality that so many poor birth outcomes are preventable. Compared to its G-8 partners, Russia's rates for certain causes of infant death, including congenital malformation, infection, respiratory disease, and pneumonia, point to the large number of potentially preventable deaths in Russia with improved access to quality prenatal care and education. (See Table.) Effective public policy

INFANT DEATHS, BY CAUSE (per 100,000 births)				
Cause of death	Country			
	Russia	USA	France	Japan
Infectious & parasitic diseases	104.4	18.6	8.7	12.5
Diseases of respiratory system	204.8	20.9	7.1	16
Congenital anomalies	405.7	159.2	116	126.3
Certain conditions originating during perinatal period	699.6	333.3	180	104.9
Accidents and adverse effects	99.2	19.7	14.3	23.3
<b>Total Deaths</b>	<b>1650</b>	<b>722.6</b>	<b>476.8</b>	<b>369.5</b>

SOURCE: *Demoscope weekly*, No.21 06/2001

in Russia, and little effort has been made to improve prenatal care programs for expectant mothers. Low wages and poor training for primary-care physicians, coupled with limited access to the latest medical information and technology, results in a dangerously inadequate and demoralized national healthcare infrastructure. General physicians, who are not properly trained in neonatology or pediatrics, often treat newborns that require extended hospital stays,

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action, coupled with additional resources, can decisively improve maternal and child health in Russia by expanding access to quality care, improving education and family planning programs, and shifting resources towards other prevention initiatives.

### *Access to Quality Care*

Public health programs for health promotion, disease prevention, and family planning remain low priorities

and many Russian hospitals lack even basic equipment to effectively treat premature or unhealthy newborns. The Russian Ministry of Health recently admitted that 25 percent of the municipal and regional hospitals rendering healthcare to infants and children are in need of a "radical overhaul."<sup>10</sup>

Access to quality care also varies considerably by region. In urban areas, for example, expectant mothers are routinely subjected to complete

screenings for infection and often undergo genetics counseling. In rural areas, testing depends on the equipment available and the local healthcare provider's level of training. Dispersed rural populations in Russia often have access to a local feldsher (similar to a physician assistant) or midwife who can provide basic treatment and first aid, administer immunizations, and offer limited family planning services. Local healthcare workers, however, often do not receive regular medical training and are not subject to strict regulation.

#### *Education and Contraception*

Limited access to quality contraception and inadequate sex education are additional factors that warrant attention. Although there has been a steady increase in the percentage of Russian women using

alcohol consumption during pregnancy are sporadic at best.

#### *Treatment versus Prevention*

Russia's inability to adequately respond to its many simultaneous healthcare crises – HIV/AIDS, TB, infant mortality, maternal morbidity, malnutrition, chronic substance abuse – is also a function of a national healthcare system designed to provide treatment rather than prevention. Russia's high rate of hospitalization (206 discharges per 1000 population in 1996) and long average length of stay (16.9 days in 1996) reflect a hospital-centered healthcare system.<sup>11</sup> The dependence on hospital-based care in Russia not only makes its healthcare system extremely expensive and inefficient, but also precludes much-needed investments in primary care,

## **Dependence on hospital-based care in Russia not only makes its healthcare system extremely expensive and inefficient, but also precludes much-needed investments in primary care, local polyclinics, and facilities that provide obstetric care, maternity care, and preventative care.**

contraception since 1990, the use of contraception remains lower in Russia than in any other G-8 country. During the 1990s, the Russian government's Federal Family Planning Program significantly expanded the availability of contraception and access to family planning counseling across the country. However, concerns about Russia's low fertility rate and population decline prompted the State Duma to discontinue federal funding for family planning services in 1999, which significantly reduced access to contraception and reproductive counseling. Meanwhile, public education programs about the risks of smoking and

local polyclinics, and facilities that provide obstetric care, maternity care, and preventative care more generally.

Notably, President Vladimir Putin's new "Children of Russia" initiative, designed to improve the maternal and child health situation in Russia, has begun to shift federal resources towards prevention by creating a network of prenatal diagnosis centers and establishing a national child health surveillance system. However, significant investments in family planning services and public health education initiatives remain noticeably absent from the

program, which can only be interpreted as a serious failure by the Russian government to understand fully and address its infant and child health crisis.

### **Economic & Security Implications**

The dramatic rise in disease and disability among Russian infants and children is both unprecedented in an industrial nation and exceptionally costly for Russia's already resource-scarce healthcare system. Poor birth outcomes often require lifelong treatment, which is many times more costly than prenatal care and other preventative measures. In addition to the long-term fiscal consequences of unhealthy infants and children (i.e. the rising costs of treatment, the adverse effect on budgetary expenditures for other social programs, etc.), these conditions also reduce economic productivity and extract socio-psychological costs over the long-term.

Meanwhile, the worsening condition of women's reproductive health in Russia presents an immediate challenge to the country's economic viability, precisely because women of reproductive age are also at the prime of their labor productivity. And, since the population with the highest reproductive capacity is also the group at highest risk of infectious disease and substance abuse, ignoring maternal and child health could magnify the connection between poor birth outcomes and other conditions, including HIV/AIDS, TB, and alcoholism.

Russia's response to its multiple health crises and related demographic decline will factor significantly in its ability to integrate economically and socially with the West. Many of Russia's European neighbors already harbor reservations about enhanced integration with Russia that would allow freer movement of goods and people across Europe's borders. An unhealthy and shrinking Russian population will only reinforce the EU's negative perceptions and stymie efforts to incorporate Russia as a full partner with the West. Russia's national healthcare indicators – from HIV/AIDS to infant

mortality – already position the country at the bottom of the G-8 in terms of the general health and life expectancy of its population. Despite their own formidable healthcare problems, no other country in Russia's neighborhood – including key regional powers like India, China and Iran – faces such a daunting array of interrelated healthcare crises. Clearly, the stakes for Moscow are extremely high.

### **International Engagement**

During the past decade, international assistance programs have provided limited family planning and prenatal care services in key Russian regions where abortion rates are particularly high and where maternal and child healthcare services are especially weak. Partnerships between Russian and international doctors and healthcare facilities have also made important progress towards improving access to quality services for expectant mothers and infants in poor regions. International financial and technical support for Russian civic organizations has expanded training programs for doctors, midwives, and social workers.

However, there remains significant untapped potential for cooperation between Russia and its Western partners to improve family planning and birth outcomes, mitigate the spread of HIV and other sexually transmitted diseases (STDs), increase public awareness about the risks of substance abuse, and improve access to prenatal care. Enhanced collaboration between Russian, European, and American civic groups, healthcare experts, and policy leaders can make quality care more accessible to expectant mothers, infants and children. And, partnerships between Russian, European, and American scientists, doctors, and health experts hold the promise of new discoveries in preventative medicine and genetics, which could improve health conditions and birth outcomes in Russia and beyond. Thus far, these issues have received little serious consideration.

## **POLICY RECOMMENDATIONS**

*For Russia:*

**1. Focus on prevention initiatives to improve maternal, infant, and child health.** Priority attention should be given to the following key areas: smoking and substance abuse prevention and treatment for pregnant women and their infants; programs to improve prematurity risk detection and prevent preterm births; food and nutrition education programs; preconception programs including family planning and contraception services; programs to reduce exposure to environmental and reproductive hazards that are associated with birth defects; and, initiatives to reduce MTCT of HIV, TB, and other infectious diseases during pregnancy and after childbirth.

**2. Fortify Russia's domestic grain supply with folic acid, iron, and essential vitamins.** In 1996, the U.S. Food & Drug Administration (FDA) began adding folic acid to flour, breads and other grains in order to improve nutrition among women of childbearing age. Folic acid is a naturally occurring B vitamin that helps prevent birth defects of the brain and spinal cord when taken very early in pregnancy. Between 1996-2001, debilitating neural tube defects in the U.S. dropped by 19 percent as a result of fortification of the grain supply and increased education outreach initiatives.<sup>12</sup> The Russian government should work with the FDA and other international partners to develop a plan to fortify its own grain supply with folic acid, iron, and essential vitamins thiamin, riboflavin, and niacin. Doing so will improve general health in Russia while significantly reducing the risk of poor birth outcomes.

**3. Implement a national birth defects surveillance system.** Create an institution to regularly collect, analyze, and interpret data regarding

the incidence of specific birth defects in communities and regions across the country. This information will help Russian scientists conduct epidemiological studies that examine environmental factors contributing to birth defects in a specific locality, and will help policy planners know which regional or local healthcare systems are most in need of resources and training.

*For Russia's International Partners:*

**1. Target resources towards family planning and contraception.** Since the 1999 Duma moratorium on federal funding for family planning and contraception programs, there has been only limited outside funding for these activities. Family planning programs improve reproductive health by counseling women on healthy lifestyle decisions before and during pregnancy; contraception programs reduce the health risks to women who might otherwise choose abortion as a primary method to control unwanted pregnancy. Women who are physically and emotionally prepared for childbirth are more likely to have a healthy pregnancy compared to women whose pregnancies are unplanned.

**2. Expand training programs for Russian health professionals.** Expand specialized training programs for obstetricians-gynecologists, pediatricians, neonatologists, nurses, midwives, and fieldshers in modern neonatology and counseling skills for reproductive health. Healthcare providers also require accurate, up-to-date information about the safety and effectiveness of various kinds of contraceptive methods.

**3. Design public health awareness campaigns that will promote healthy lifestyles and the reveal the risks of substance abuse, especially during pregnancy.** International partners can transfer their own successful public education strategies to Russia, and work cooperatively with Russian civil society to design high-impact, low-cost outreach efforts.

**1. Expand scientific partnership initiatives on genetics.** The mapping of the human gene, which began in 1990, holds the promise of new scientific discoveries that could help identify and prevent heredity disorders. The pace of such discoveries could come even faster through expanded partnerships between Russian, American, and European scientists. Well-trained Russian scientists are often underemployed and cut off from international advancements in science and technology; Western scientists should aim to reengage them. International scientific partnerships could more effectively integrate the expertise of Russian scientists in the process of identifying disease-causing genes and developing specific treatments.

**2. Work cooperatively to improve maternal & child health in Central Eurasia.** Although little credible data exists on maternal and child health indicators elsewhere in the NIS, studies suggest that the worrisome trends seen in Russia are even more severe in Ukraine, Central Asia, and the Caucasus. Russia should partner with the United States and Europe to design outreach and assistance strategies to improve the state of maternal and child health in the countries on Russia's periphery. Given the transnational nature of infectious disease and the patterns of migration in Central Eurasia, it is in Russia's interest to address the poor state of maternal and child health in the states of Central Asia and the Caucasus. Doing so would allow Russia to work as a co-equal leader with the U.S. and Europe on an issue that would benefit Russia and its neighborhood.

## NOTES

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