

The Demographic Crisis

Fertility and mortality in transitional Russia

Irina Veselkova

UNLIKE previous occasions when great social shocks caused a decline in Russia's population – the First World War, the Civil War with its hunger and repression in the 1930s, and the Second World War – the crisis of the 1990s was the result of sustained changes in demographic behaviour.

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The main cause of the decline is a very low rate of fertility. For a long time the population has not been reproducing itself, but during the '90s the depopulation tendencies accelerated dramatically.

Configurations of sexual and family patterns that can be traced back to ancient times were shattered under the impact of the transition to the western model of politics and economics, reports Irina Veselkova.

There has always been a gap in life expectancy between Russia and Western countries. But the gap has now increased and equals 14-16 years for men and 8-10 years for women. In 1999, men's life expectancy was 12.5 years shorter than the average life expectancy of women. This gap is the biggest among the countries that publish mortality statistics.

Last year there was a measurable deterioration in the rate of mortality. President Vladimir Putin called for action to reverse the trends, but there is little reason to expect improvements in the near future.

DEMOGRAPHIC tendencies in Russia have to be interpreted against the background of social and economic crisis. Almost every problem (low birth-rate, high mortality, very low rates of reproduction of the population, new tendencies of family formation and decay) is bound up with historical changes in living conditions that are also present in other urbanised and industrialised countries. But specifically Russian conditions make it necessary to divide these problems into two big groups.

The first group consists of trends that are similar to those of the majority of Western countries. Low birth-rates, the fragility of marriage, the growth of unregistered marriages and out-of-wedlock births, high mortality from the so-called "diseases of civilisation" – this list is not exhaustive – are among the most dangerous problems which trouble public opinion in Europe and Northern America. They all have one feature in common. Numerous attempts to find solutions have largely failed. Recommendations of scientists that have been adopted by governments have turned out to be ineffective.

The second group is represented by problems that are more or less solved in the West, but which continue to challenge Russia and other countries of the former Soviet Union. Among them are high mortality from avoidable causes of death, high levels of infectious diseases, inadequate legal provision of reproductive rights for women, low levels of reproductive health, underdeveloped methods of family planning, extremely high levels of abortion, and so on.

The fourth and the last decline of the population in the 20th century took place between 1992 and 2000, when the Russian population diminished by 3.2m. By 1 January 2001 it totalled 145.2m.

The sudden decrease in birth rates was due to the economic and social crisis of the "transitional period". Advocates of the social transformation believe that birth rates will recover once the crisis is over. Unfortunately, the problem is much more complex, and there are no grounds for such optimism. The recent experience of many European countries confirms that the extremely rapid birth rate decline (during a decade) could have taken place even without a crisis. It has occurred under conditions of economic boom (e.g. Western Germany – 1969-1979; Italy – 1976-1986; Spain – 1981-1991; Greece – 1982-1992). The period of harsh decrease in birth rates usually lasts nearly 10 years, and it is never replaced by an increase. As a rule birth rates either stabilise or continue to decrease at a slower pace.

The decrease in birth rates and officially registered weddings, the growth of illegitimate births and the high level of divorce are the major factors affecting family formation in Russia during last decade.

The decline in nuptials TWO PERIODS in the development of nuptiality can be distinguished during the last few decades. The first (1970-1980) could be described as a period of stabilisation, with a certain trend towards a decline. A small increase in nuptials in the mid-1980s preceded the second period of fall to its lowest level in 1996. The decrease occurred in all age groups, but the largest decline was among the young.

A decrease in registered marriages does not necessarily mean a decrease in total nuptials. As Western experience shows, a significant number of official weddings is replaced by unregistered marriages, which often have all the features of official marriage. The growth of illegitimate births may serve as indirect evidence of this process.

Divorce indicators in Russia have remained high for 20 years. Only in Estonia and the USA are there higher levels of divorces.

The decline in births DURING the last 30 years the number of births varied greatly and in the period 1989-1999 was reduced from 2,161,000 to 1,215,000 (Table 1).

Changes in the number of births are strongly dependent on changes in the number of potential mothers – women of reproductive age, mainly below 30 years. Women aged 18 up to 28 constitute one-third of the total reproductive group (15-49 years). They provide more than 70% of all

**Table 1 Number of births in and out of wedlock
Russia, 1969-1999**

Year	Total (000s)	Including births (000s)		Birth rate (%)	
		In wedlock	Out of wedlock	Out of wedlock	Registered on request of both parents
1969	1847.6	1648.0	199.6	10.8	36.2
1975	2106.1	1881.0	225.1	10.7	47.0
1979	2178.5	1937.4	241.2	11.1	46.8
1985	2375.1	2133.5	276.1	11.5	–
1989	2160.6	1868.8	291.7	13.5	42.4
1990	1988.9	1698.3	290.6	14.6	42.8
1991	1794.6	1506.7	287.9	16.0	41.2
1992	1587.6	1315.4	272.3	17.1	41.4
1993	1379.0	1128.3	250.7	18.2	43.3
1994	1408.2	1132.4	275.8	19.6	43.3
1995	1363.8	1075.5	288.3	21.1	43.1
1996	1304.6	1004.8	299.9	23.0	43.4
1997	1259.9	940.8	319.2	25.3	42.9
1998	1286.6	937.4	345.9	27.0	43.3
1999	1214.7	875.4	339.3	27.9	44.5

Source: data in the text, and in all the tables except Table 5, are from *Goscomstat of Russian Federation* (publications for relevant years)

births. During the last two decades there was a dramatic decrease in the number of that age group, mainly due to the echoes of the last war and decline of birth rates in 1960-1970. That had a very strong impact on the number of births.

Fertility is also determined by other factors. In the first half of the 1980s, pro-natal social policies caused two waves of natality growth that resulted in an increased number of second and third children in families. The short-term nature of those measures was intensified by growth in the number of mothers older than 28 years. These women as a rule had already had two or three children. But by the end of 1980s this effect had run out. Birth rates declined. Since 1994 this decline slowed significantly. Here we have not only a structural factor but also an obvious persistence in the decrease in childbearing rates among ages providing the major contributions to the total number of births.

This can be confirmed by the structure of fertility of different age groups. The decrease in the birth-rate during the second half of the 1990s (in contrast to the previous five years) was reflected in the lower fertility among women aged up to 25. Birth-rates among women aged above 25 remained practically the same since 1994. Among women aged above 30 it has even increased. This tendency can be traced both in urban and rural areas. It had predetermined the reduction in the total birth-rate indicator (Table 2).

Russia's ideal of the family (family with two children) has persisted for

**Table 2 Comparative fertility rate in Russia
and in selected European countries**

	(Average number of births per woman)				
	1985	1990	1993	1996	1997
Russia	2.11	1.89	1.39	1.28	1.24*
Great Britain	1.80	1.83	1.76	1.72	1.71
Germany	—	1.45	1.28	1.32	—
Italy	1.45	1.36	1.26	1.21	1.22
The Netherlands	1.41	1.62	1.57	1.53	1.54
Portugal	1.73	1.57	1.52	1.44	1.46
France	1.81	1.78	1.65	1.72	1.71
Austria	1.47	1.45	1.48	1.42	1.36
Belgium	1.51	1.62	1.60	1.55	—
Denmark	1.45	1.67	1.75	1.75	—
Ireland	2.5	2.12	1.91	1.88	1.92
Finland	1.64	1.78	1.81	1.76	1.74
Luxemburg	1.38	1.62	1.69	1.76	1.71
Norway	1.68	1.93	1.86	1.89	1.86
Switzerland	1.52	1.59	1.51	1.50	1.48

*1999 = 1.7

at least two decades, according to sociological polls. This is similar to the preference in Western countries. It was the decrease in the birth rate of the first children that became the driving force of fertility decline in Russia. This circumstance is what preserves the birth rate at its present very low level.

Postponement of the first child is new for Russia. Up to 1994 the beginning of "adult" life was characterised as the unity of three factors: sexual relations on a regular basis, first marriage and birth of first child. This was at the heart of Russia's traditional early marriage/early children model, which originated in ancient times.

The mid-1990s was the turning point. Studies confirm that earlier sexual activity is not followed by unplanned pregnancies. The behaviour of young people, aimed at later family creation and child bearing, is deliberate.

The rapid increase in illegitimate births corresponds to the tendencies perceived in many Western countries. In 1997, for the first time in Russia, this share made up one-quarter (*see Table 1*). In the 1990s, changes in the numbers of illegitimate and official births were in the opposite direction: the number of official births continued to decline since 1989, while the number of illegitimate births continues to grow since 1993. As a result, during the decade the share of illegitimate children doubled and rose to 27.9%, while the total number of such births ran up to statistically significant values (346,000 in 1998).

The statistics enable us to trace three aggregates of births.

- Children born to women officially married.
- Children born and registered at the request of both parents.
- Children born and registered at the request of the mother only.

This recording convention does not enable us to judge with confidence the relationship between births within and outside official marriage. We can only suggest that children who are registered at the request of mothers only are more likely to be illegitimate. Their fathers acknowledge more than 40% of children born out of wedlock. This share is rather stable in Russia and it remained unchanged during the last decade.

During the last two decades the share of illegitimate births increased among all age groups of mothers. But while in the 1980s the growth was slow (but it was relatively higher among mothers of older ages), in the second half of the 1990s the growth was rapid in all age groups, and especially among younger mothers including those of maximal nuptiality and childbearing age. As a result the share of illegitimate births has not only significantly increased (up to 25-40% in different age groups), but has also levelled off among young women and women of mature age. This has become a statistically significant social phenomenon.

Drop in life expectancy THE LAST DECADE of the 20th century could be regarded as the most tragic years in Russia's post-war demographic history. The

decrease of population since 1992 was due not only to a decrease in fertility but also to the significant worsening of health conditions, and the increase in mortality rates. Since 1988 nearly two-thirds of total mortality growth took place among the population of working age, especially men.

Maximum life expectancy in Russia was registered in 1987 as a result of the anti-alcoholism campaign. It was 64.9 years for men and 74.6 for women. But the positive results achieved in 1985-1987 were mainly due to strict administrative measures that were not supported by adequate changes in people's conditions and life style. The dramatic increase of mortality in 1991-1994 was the result.

The dramatic decrease in consumption of alcohol in 1985-1987 is estimated to have prevented at least 900,000 premature deaths (mainly male) of people who were at risk from cardiovascular diseases, alcohol poisoning, suicide etc. But these groups of risks did not vanish. That is why, when the political and economic situation changed at the end of the 1980s and the beginning of the 1990s, the number of people deemed to be at risk of death increased. In addition, the risks increased in the beginning of 1990s due to the growth of unemployment, the dramatic fall in living standards, and the increase in the number of marginal social groups.

Thus, together with the negative consequences of significant social and economic transformation, there was another main factor behind mortality growth in the first half of the last decade – the compensatory growth of mortality after its unusual decrease in the middle of the previous decade.

The decline to the lowest level of life expectancy was registered in 1994: 57.6 years for men, 71.2 for women (Table 3). As a result of the reduction of mortality rates in 1995-1998 in all main groups according to the causes of death, life expectancy among men rose by 3.7 years, among women by 1.7 years. This growth was registered on all Russian territories despite their economic and demographic differences. Tragically, in 1999 the mortality situation deteriorated further. Life expectancy among men fell to 59.9 years, and to 72.4 years for women.

Table 3 Life expectancy in Russia (1987-1999)

Year	Total population	Men	Women
1987	70.1	64.9	74.6
1989	69.6	64.2	74.5
1991	69.0	63.5	74.3
1993	65.1	58.9	71.9
1994	64.0	57.6	71.2
1995	64.6	58.3	71.7
1996	65.9	59.8	72.5
1997	66.6	60.8	72.8
1998	67.0	61.3	72.9
1999	65.9	59.9	72.4

There has always been a gap in life expectancy between Russia and Western countries. The gap has now increased and equals 14-16 years for men and 8-10 years for women. The most serious situation is the one in men's life expectancy. In 1999 it was 12.5 years shorter than for women.

The most urgent problem is still the high level of premature mortality of the population. Its indicators are more than one-third higher than 10 years ago. The share of working age people in the total number of deaths is about 28%. In the EU, USA and Japan, the level of premature death of able-bodied men is 2.5-4 times lower than in Russia.

The unfavourable state of Russia's health and life care system causes great loss of life. These losses affect all the major components: aggregate working years, aggregate lifetime before work and after work.

The distribution of the main causes of death is similar to the developed countries (Table 4). The leading cause is blood circulation diseases, followed by neoplasm, followed by accidents, poisonings, traumas and respiratory diseases. Among people of working age, the leading causes are accidents, poisonings and traumas. In 1999 these factors caused the death of 222,000 people (186,500 men), which is 38.2% of total deaths (Table 5). The extraordinary high rate of mortality caused by external factors and its significant growth in the 1990s distinguish Russia from both Eastern Europe and Western countries.

The estimated average age of people who died from accidents, poisonings and traumas is about 44.6 years, and of those who died from blood circulation diseases, 75.5 years. Bluntly speaking, however, many

Table 4 Mortality in Russian Federation distributed by the causes

	Per 100,000 of population			1999 in % to	
	1994	1998	1999	1994	1998
Total deaths	1566.1	1361.1	1472.4	94.0	108.2
Including deaths caused by:					
Blood circulation diseases	837.3	748.8	815.7	97.4	108.9
New growths	206.6	202.5	205.0	99.2	101.2
Accidents, poisoning, traumas	250.7	187.5	206.1	82.2	109.9
Including:					
– Injuries caused by transport	28.6	23.0	26.2	91.6	113.9
– Accidental alcohol poisonings	37.8	17.8	20.5	54.2	115.2
– Suicides	42.1	35.4	39.3	93.3	111.0
– Murders	32.6	23.0	26.2	80.4	113.9
Respiratory system diseases	80.8	57.2	64.9	80.3	113.5
Digestive system diseases	44.1	38.1	41.9	95.0	110.0
Infectious and parasitical diseases*	20.1	19.0	24.5	121.9	128.9

* The growth of mortality from this factor is mainly caused by the increase in tuberculosis (in 2000 it grew by 30%).

people do not manage to live long enough to die from blood circulation system diseases. If cardiovascular diseases caused every death in Russia, i.e. people died after 60, average life expectancy would grow significantly and losses of labour potential would be reduced accordingly.

ONE OF THE CONSEQUENCES of a society in crisis is a large number of murders, and especially suicides. Since 1992, suicide has been top of the list of deaths attributed to accidents, poisonings and injuries. Suicides are the cumulative result of many factors, and this one index of death could be considered among the indicators of social prosperity. Average mortality from suicides in Russia is 2.5 times higher than in Europe among men, and 1.5 times higher among women. Mortality caused by car accidents in Russia is two times higher than in European countries.

Murders and suicides

Cardiovascular diseases are the second most important cause of deaths of people of productive age – 28% of the total. Alarming is the fact that the average age of people who die from that cause is declining. For men of productive age it is below 50. Mortality due to that reason is 4.5 times higher than in the EU.

The increase in the number of deaths from unnatural causes and cardiovascular diseases is closely related to alcohol. Mortality is mainly at the expense of people of working age. Average per capita consumption of alcohol in Russia during the last decade was twice as high as the level defined by the World Health Organisation as dangerous. Smoking is also

Table 5 Mortality classified by main causes of death in Russia (1999)

(Deaths per 100,000 persons of working age)

	Total population	Men	Women
Deaths from all reasons:			
total, including:	676.2	1058.8	274.5
– blood circulation diseases	188.2	301.5	69.2
– accidents, poisoning and traumas	258.5	423.8	85.1
Including:			
– Unintentional alcohol poisoning	27.4	43.8	10.1
– All kinds of transport injuries	33.2	52.4	13.1
– Suicides	50.0	85.9	12.3
– Murders	35.5	55.1	15.1
– new growths (neoplasm)	90.4	117.4	62.0
– respiratory system diseases	29.2	48.4	9.1
– digestive system diseases	29.1	44.1	13.3
– some infectious and parasitical diseases	30.5	52.5	7.5

Source: *Annual Demographic Bulletin 2000*, Moscow, 2000, pp. 261-263.

an acute problem. Two-thirds of men and almost one-third of women are subject to that pernicious habit, which damages their health. 52% of all oncological diseases both among men and women are related to smoking, including its passive form.

Collapse in the quality of life IN THE OPINION of specialists the main reason for the increase in mortality in the 1990s was rooted in the deterioration in the quality of life. This was the result of the long-term social and economic crisis, irrational and insufficient nutrition, reduced access to medical care, psychological stress, uncertainty about the future of themselves and their children, and the criminalisation of society.

Mortality growth mainly in the age groups from 20 up to 50 years was noted in the first years of reforms in other countries of Eastern Europe, which also underwent the shock of painful economic reforms. Increased mortality from cardiovascular diseases, stomach ulcer, cirrhosis and "external" factors was mainly caused by three factors related to the transition period: the total impoverishment of the population, the collapse of prophylactic medicine, and stress. While the first two factors affected all groups, stress had the heaviest impact on men in working age groups. This happened for cultural, biological and behavioural reasons.

The transition to democracy of the Western kind led to the collapse of the social care that existed under socialism. This promoted deep personal shocks, the loss of self-esteem and an inability to provide support for a family, to a deep spiritual crisis that drove people to the edge of suicide. The speed of forced transformations, and their painful nature, led to a rapid increase in alcoholism, domestic violence and suicides.

Growth of mortality caused by external, mostly avoidable reasons reflected a general weakening of medical services. Public medical care is no longer able to provide the necessary basic level of services. The role of the medical system requires careful consideration, especially in view of the losses of labour potential caused by premature mortality. The failure of medical care is responsible for 40% of the losses, in some regions (for example, in Sverdlovsk oblast), which is four times worse than in the West.

Regional variations THE REGIONAL differences in mortality rates are significant. In the Far East, Siberia, Urals and North of the European part of the Russian Federation, mortality is higher and life expectancy is shorter than in the Caucasus, the Volga region and Central Chernozem (Black soils) region. During the last ten years, the reduction of life expectancy was most marked in particularly unfavourable regions, which resulted into further territorial differentiations.

The situation in rural areas is worse than in the cities: the level of mortality caused by all factors, but especially respiratory diseases, blood circulation diseases, accidents and infectious diseases, is higher. Life expectancy, therefore, is lower.

The low level of women's reproductive health to some extent made it impossible to reduce the rate of infant mortality, which in 1999 was 16.9 per 1000 of live births. Mortality of babies within their first year is 2-4 times higher than in developed countries.

Infant mortality during 1990-98 did decline, from 17.4 down to 16.5 per 1000 live births (Table 6). The share of newborn babies aged less than 1 year in the annual number of dead children and teenagers aged up to 15 years is about 60%.

Two-thirds of the deaths of newborn babies resulted from perinatal dysfunctions (the period from the 28th week of pregnancy through childbirth, up to 7th week of baby's life). That means they were related to the mother's reproductive health.

DEMOGRAPHIC conditions worsened in 2000. The scale of population losses during the first 9 months was greater than in the same period of 1999. The acceleration in the depopulation process is determined by a considerable growth of natural population losses (714,000 people in 2000), together with a decrease in migration from CIS and Baltic countries. An important "contribution" to the natural population losses was the decrease in fertility and increase in mortality. The number of births increased by 2.4% while the number of deaths by 4.1%.

**2000: an
accelerating
loss of
people**

Social and hygiene studies prove that the decline in the quality of life violates age-specific biological rules by impeding the growth and development of children and by accelerating the ageing processes of adults. These inevitably affect the indicators of mortality and life expectancy. We should not expect remarkable positive changes in health and reproduction indicators in the near future.

**Table 6 Infant mortality in Russian Federation
classified by main causes of death
(Per 10,000 live births)**

Causes	1990	1994	1999
Total dead from all causes	174.0	186.1	169.1
Including:			
– infectious and parasitical diseases	13.4	12.2	11.4
– respiration system diseases	24.7	24.6	21.0
– digestion system diseases	1.1	1.7	1.2
– inborn anomalies	37.0	40.6	38.7
– different perinatal causes	80.1	85.1	71.0
– accidents, poisoning and traumas	7.1	9.6	11.2