SUMMARY

This report, which was prepared by an order of the international movement «Physicians of the World for Longevity,» constitutes the first systematic analysis of the long-term evolution of mortality rates in Russia. Using the seven large categories of the International Classification of Causes of Death, as well as materials from the Russian-French project on mortality trends in Russia, the authors analyse the annual life tables by cause of death for the period from 1965 to 1995. Principal statements and conclusions of the report are presented below.

1. After World War II, the mortality rate in Russia decreased quite rapidly and the life expectancy rate grew, approaching levels comparable to those of major industrial countries. In the mid-60s, the gap between life expectancy rates in Russia and in industrial countries reached its smallest point. This trend soon changed, however, as life expectancy rates in Russia stagnated or even declined, and the gap between Russia and the majority of industrial countries widened.

2. The anti-alcohol campaign that was launched in 1985 briefly managed to reverse this decline. In 1987, life expectancy at birth reached its highest level in the history of Russia: 65 years for men and 74.6 years for women. By 1988, however, the trend once again had reversed and in the early 1990s Russia experienced an unprecedented increase in mortality rates. The sharpest change occurred in 1993 when life expectancy decreased by 3.1 years for men and by 1.6 years for women. By 1994, life expectancy had fallen to 57.5 years for men and 71.2 years for women.

3. In 1995 and 1996, however, the mortality rate in Russia declined again and life expectancy grew to 59.6 years for men and 72.7 years for women. Although it has continued to fall in 1997, the mortality rate for men is at its highest point since the end of the 1950s, and for women since the mid-60s.

4. With the exception of the years 1985-1987, the period between the mid-60s and the mid-90s has been characterised by negative trends in mortality and life expectancy rates in Russia. During this same period, life expectancy in most industrial countries has grown, leaving Russia lagging catastrophically far behind. Recently, even Mexico and China outpaced Russia in terms of life expectancy. Thus, it may be said that Russia has been experiencing a prolonged mortality crisis for the past three decades.

5. Since the 1960s, Russia clearly has failed in the modern stage of the epidemiological transition. The archaic structure of mortality by causes of death has stagnated and even begun to worsen. Unlike the progressive changes experienced by the industrialized world in the second half of the twentieth century, the long-term trends in Russia have moved in the opposite direction.

6. Changes in the distribution of the probability of dying due to different causes of death were generally negative during the period under examination, though there were some positive upheavals. For example, a continuous decline in the probability of dying from «available» causes of death, such as infectious or respiratory diseases, was accompanied by a simultaneous increase in the probability of dying from diseases of the circulatory system, which is a category marked by a relatively high mean age of death. Only in the first half of the 1990s were these trends reversed — the probability of dying from infectious or respiratory diseases began to grow and the probability of dying from diseases of the circulatory system to decline.

The most unfavourable trend has been an increase in the probability of dying from accidents, poisoning, injuries, and other violent causes. The general reduction of mortality rates in the mid-80s was accompanied by a brief decline in the probability of dying from these external causes, but high rates soon returned and even increased. This factor has been strong enough to outweigh most positive or neutral upheavals and, thus, has made the distribution of mortality rates by cause of death particularly negative.

7. Changes in the mean age of death, the second principal component of the structure of mortality, were even more disappointing than changes in the probability of death. Progressive changes consist of increases in the mean age of death, namely in shifting death to older age groups. In Russia, between the 1960s and 1990s, there was no sign of serious increases in the mean age of death for any category of the causes of death. In fact, with the exception of a short term rise during the second half the 1980s, the prevalent tendency was a decline in the mean age of death — a rejuvination of mortality. This tendency most seriously affected diseases of the circulatory system, which are the cause of death for approximately half of all men and more than two thirds of women.

8. Based on this relationship between age and cause of death, specific groups at excess risk can be identified. These groups help indicate priorities of action for improving the mortality situation in Russia. In this report, risk groups were derived through comparisons of mortality rates — categorized by different causes of death at different ages (measured in five year intervals) — in Russia and the West (based on averaged data for the United States, the United Kingdom, France, and Japan). The difference between the rates in Russia and the West represents the excess number of deaths in each grouping. (In total 240 specific groups were considered, based on the combination of 15 age groups and 16 causal groups.)

9. In 1995, the overall excess number of deaths for men under 70 years old was 385 per 1000 deaths. Within that figure, 51.4% of deaths corresponded to 20 specific age/causal groups. The main risk groups for men were 40-70 year olds with ischeamic heart disease and 50-70 year olds with cerebrovascular disease. These two groups alone were responsible for 31.2% of all excess deaths in 1995. In all age categories, the next highest risk came from «external causes.» External causes were responsible for almost 20% of all the excess deaths in 1995. Beyond these major risk groups, «other diseases» contributed to the extremely high infant mortality rate for boys.

10. For women under 70 years old the excess number of deaths was much lower than for men but it was also more concentrated. In 1995, the excess number of deaths for women was 174 per 1000 deaths, of which 53.6% were concentrated in less than 4% of the total number of groups. Indeed, one third of all excess deaths for women were related to only four of the 240 age-causal groups.

The main risk groups for women were 55-70 year olds with ischeamic heart disease and 55-70 year olds with cerebrovascular disease. In 1995 these groups were responsible for 42.1% of all excess female deaths. The impact of external causes on the excess mortality rate for women is much lower than for men, and is lower than the impact of cardiovascular diseases. The number of infant deaths for girls from «other causes,» though lower than for boys, also is very high. For both sexes, mortality from «other causes» is a major component of excess infant deaths and of infant deaths in general (in 1995 it comprised 72% of all infant deaths for boys and 70% for girls).

11. The high concentration of risk in a relatively small number of age-causal groups indicates the need for targeted efforts to overcome the long-term mortality crisis in Russia. National programs, provided with special resources and organising facilities for emergency action, are necessary. Action must be focused at three specific targets:

• Lowering the rate of ischeamic heart disease and cerebrovascular disease in middle-aged men and women.

• Lowering the rate of external causes (accidents, poisonings, injuries, and other violent causes) among working-aged men.

• Lowering the rate of infant mortality from «other causes» (congenital abnormalities, birth injuries etc.) and, perhaps also, from respiratory diseases.