

Part I

Long-Term Trends in Life Expectancy and the Consequences of Major Historical Disasters

Introduction to Part I

The earliest available estimate of life expectancy in Ukraine is provided by the 1896–1897 life table, which gave 35.9 years for males and 36.9 for females (Ptukha 1960). At this date, life expectancy in Russia (that is, for the whole Russian Empire) was 30.9 years for males and 33.0 for females, while in France it was 45.4 and 48.7 respectively (Annex II, Table 1, Fig. 1).¹

The second relatively firm reference point is provided by the life table recalculated from deaths for 1926–1927 and from the January 1927 census (Adamets and Shkolnikov 1995).² This produces life expectancy of 42.9 years for males and 46.3 for females. So life expectancy made significant progress over a period of 30 years, as Ukrainian males gained 7 years and females more than 9 years. However, the gap with France hardly changed, at least for males, as their life expectancy in Ukraine at that time was still 8.9 years lower than French male life expectancy (51.8 years), compared to a gap of 9.5 years at the end of the previous century. The gap diminished relatively more for females, however, since life expectancy for Ukrainian females was 9.9 years lower than for French females (56.2 years), compared to a gap of 11.8 years in 1896–1897. On the other hand, Ukraine's advantage over Russia fell significantly (from 5.0 years in 1896–1897 to 3.6 years in 1926–1927 for males and from 3.9 years to 1.5 years for females).

¹Available at <http://www.demogr.mpg.de/books/drm/009> or <http://extras.springer.com/>.

²The official table published by the State Planning Commission's Central Directorate for National Economic Records (Novoselskii and Paevskii 1930) gave 45.4 years for males and 48.8 for females. The estimate made for 1925–1926 by Iurii Korchak-Chepurkovskii (1929) of 43.6 years for males and 46.7 for females still seriously over-estimated life expectancy, despite the correction made for under-registration of infant mortality; so we prefer to stick to the estimate made recently by Adamets and Shkolnikov for 1926–1927, from a critical analysis of the Novoselskii-Paevskii life table.

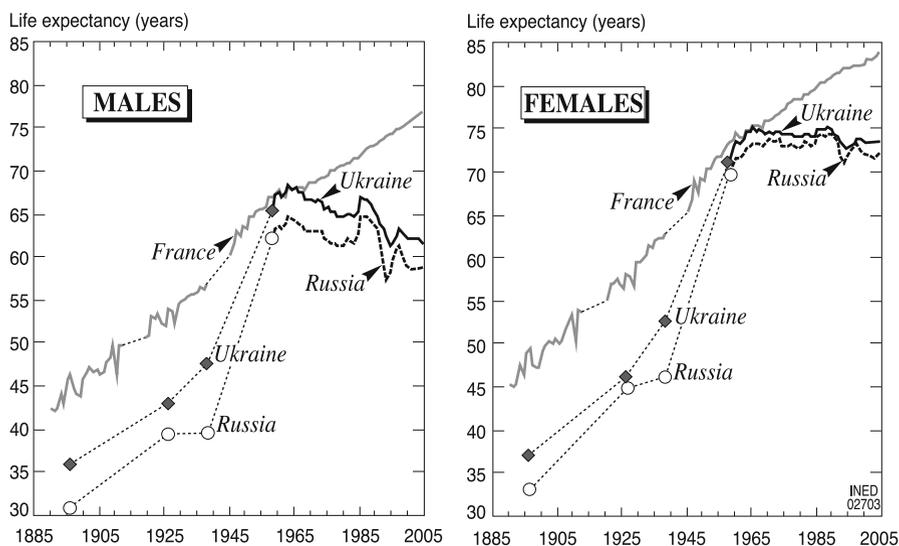


Fig. 1 Life expectancy trends in Ukraine, Russia and France since 1890

The third available reference point is given by the table calculated from relating 1938–1939 deaths to the January 1939 census (Adamets and Shkolnikov 1995) and then corrected for under-registration of deaths (see Chap. 4). In around twelve years, life expectancy in Ukraine took a further leap forward, gaining more than in France, whereas Russia made almost no progress at all. In 1938–1939, Ukrainian life expectancy reached 47.8 years for males and 52.6 for females. The difference from France was now only 8.1 years for males and 9.4 for females, whereas the gap with Russia had more than doubled (8.2 and 6.5 years respectively).

We then have to wait 20 years for a new estimate of life expectancy. In 1958–1959, after correction for under-registration (see Chap. 4), life expectancy in Ukraine (65.6 years for males and 71.6 for females) had almost reached the French level (66.8 and 73.1 years). But this time, the difference from Russia, whose progress was even more spectacular, was considerably reduced, falling from 8.2 to 3.7 for males and from 6.5 to 2.4 for females.

For the years from 1959 onwards, death statistics and annual population estimates by the State Committee for Statistics of the USSR (Goskomstat) enable us to calculate life expectancy for Ukraine and for Russia on an annual basis; in Chap. 4, we shall see how these results have to be corrected in order to take under-registration into account³ (Fig. 1). The 1960s saw the earlier trend reversed, plunging both

³For Ukraine, Chaps. 2 and 3 of this book will complete these annual series for the years 1927–1958; for Russia, a recent study has enabled us to re-estimate annual trends in life expectancy from 1946 (Meslé et al. 2003). These more complete data are given in the electronic appendices (Annex II, Table 1).

Ukraine and Russia into crisis. In Ukraine, male life expectancy reached its peak at 68.1 years in 1964, while female life expectancy began to stagnate at between 74 and 75 years. Exactly the same applied in Russia, at a slightly lower level. So Ukraine was then situated at almost the same level as France, for both males and females (Fig. 1 and Annex II Table 1 in the Website). At that time, therefore, Ukraine had succeeded in catching up, despite the very rapid acceleration in progress observed in France just after the Second World War. The same did not apply to Russia, particularly for men. Indeed, in 1965 there was still a gap of 1.7 years between Russian females and Ukrainian females and 3.5 years between Russian males and Ukrainian males.

After that, until the early 1980s, the gap between Ukraine and Russia remained more or less constant, fluctuating between 3 and 4 years for males and between 1 and 2 years for females. Ukraine experienced the slow deterioration in health conditions that affected the USSR in that period, at exactly the same pace as Russia did.

The slight but sudden improvement observed in the mid-1980s, strongly linked to Gorbachev's anti-alcohol campaign, was a little greater in Russia than Ukraine, which reduced the latter's advantage: in 1985, this was only 2.6 years for males and 0.8 for females. But paradoxically, the relapse that followed in the late 1980s and early 1990s, after the anti-alcohol measures had fallen into abeyance, was steeper in Ukraine than in Russia. Ukraine's advantage therefore dwindled even more: in 1991, the gap was only 1.3 years for males, while life expectancy for females in Russia was almost equal to that in Ukraine.

In contrast, when the break-up of the USSR and the subsequent economic and social collapse led to an even deeper health crisis, it was Russia that was hardest hit, and the gap opened up again. In 1994, this was 5 years for males, with life expectancy of 62.2 years for Ukrainian males as against only 57.2 for Russians. Among females, the difference was almost 2 years, with life expectancies of 72.8 and 70.9 years respectively.

But the trend took an upward turn again in Russia sooner than in Ukraine; in 1998, the gap between Russian and Ukrainian life expectancies was only 2.1 years for males (61.0 as against 63.1) and 0.8 years for females (72.0 and 73.7 years). Since then, however, the trend has taken a downward turn again and, once more, the phenomenon is more acute in Russia than in Ukraine. In 2000, male life expectancy was only 62.0 years in Ukraine and 58.8 in Russia, while female life expectancy fell to 73.3 and 72.1 years respectively. The gap between the two countries widened again, rising to 3.2 years for males and 1.2 for females. The last available year shows some progress however, more for Russia than for Ukraine and in 2006 the gap between the two countries narrowed again.

So this very turbulent trend in life expectancy over recent decades has seen Ukraine and Russia follow fairly different paths as far as the detail is concerned: each of the two countries has had its own specific experience of the long-term deterioration in health and of the various crises related to the unique post-Soviet political, economic and social circumstances. But despite these differences, the similarity between the two countries is striking, when their trends are viewed next to those of France. Compared to the steep, regular rise in French life expectancy for

both males and females, the abrupt fluctuations observed in Ukraine and Russia seem to coincide almost completely (Fig. 1); the differences we have noted between the two countries are merely nuances – and almost insignificant ones. Above all, apart from these circumstantial fluctuations, the persistent deterioration in both countries has distanced them more and more radically from France. In 2006, the difference between Ukraine and France was enormous: over 10 years for females and even 15 years for males – much greater than before the War. This puts Ukraine’s advantage over Russia into perspective: it remains very unstable and clearly fragile.

In order to offer a better understanding of this decline in life expectancy, common to all the countries of the former USSR, as well as of the nuances particular to Ukraine’s situation, our analysis of long-term trends in the age structure of mortality (Part II) will go into more detail. However, in order to make a better assessment of the trends observed over the course of recent decades, it seems helpful to devote the first part of the book to the terrible demographic consequences of two other major twentieth-century crises in Ukraine: the Great Famine of the 1930s, and the Second World War.

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Like all European countries, in the past Ukraine experienced a turbulent demographic history, punctuated by serious crises that produced varying levels of excess mortality. From the end of the Middle Ages to the early nineteenth century, these crises were closely linked to wars for control of Central Europe, notably between Russia, Lithuania, Poland, Sweden, Turkey and Austria-Hungary. Epidemics, famines, and economic turmoil accompanied these military conflicts and were translated into sudden, exceptional increases in mortality, still in a context where health was insecure. In the nineteenth century, the political situation in the region became much more stable, and Ukraine, although it was part of the Russian Empire, enjoyed better food security than Russia itself; this sheltered it from some of the severe famines that continued to strike Russia throughout the century. However, it did not escape either the cholera epidemics in 1831 and 1848 or the 1849 famine (Adamets 1995, p. 41). Moreover, some ethnic minorities (Crimean Tatars, Jews, Poles, and others) were periodically subject to persecution.

Paradoxically, in the twentieth century, while health improvements were accelerating everywhere in Europe, Ukraine became entangled in major historical crises. It was one of the republics most strongly affected by the serious crises that struck the Soviet Union: civil war from 1917 to 1920, famines in 1921–1923 (notably in southern Ukraine: Adamets 2003), the Great Famine of 1933 following the collectivization of agriculture, the Second World War and the German invasion, the 1947 famine, successive waves of repression and large-scale deportations.

These crises caused violent upheavals in Ukrainian population trends. Various authors have given estimates of four or five million individuals for the population deficit resulting from both excess mortality and the collapse in total fertility that

marked the period 1914–1923.⁴ According to Roman Serbyn (1986), the famine alone caused between one million and three million deaths. For the crisis of the 1930s, losses have been assessed at between 1 million and 5.5 million.⁵ In contrast, no estimate for the Second World War was published before the 1980s, when perestroika led to the archives being opened.

For a long time, the disasters of the Soviet period were a taboo subject, including for scientific research. From 1931 to 1954, no statistics on population change were published. The rare general indicators that did appear were manipulated or even falsified. In particular, the results of the 1937 census were judged ‘defective’ and rejected; its authors were declared ‘enemies of the people’ and persecuted; a new census was organized in 1939 but because it confirmed the 1937 one, its results were falsified before being made public (Blum 1994).

With perestroika and free access to the archives, numbers of unpublished documents and statistics that had been entirely hidden from researchers and from the general public were gradually issued. In 1989, an article by Viktor V. Tsaplin gave a first indication of demographic statistics for the 1930s (Tsaplin 1989). A little later, systematic research and publication of the 1937 census results by researchers from Goskomstat and the Institute of History of the Russian Academy of Sciences bore fruit (Zhiromskaia et al. 1996), though only at the pan-USSR level.

Nevertheless, any assessment of the demographic consequences of these Soviet crises is still faced with gaps and imperfections in the available statistics on population change between the 1926, 1939⁶ and 1959 censuses. In fact, up to now we have had only indirect and very general estimates of the losses suffered by Ukraine in the course of these troubled periods. However, it seemed to us that by using the newly-opened archives and by making the most of all the existing data, it might be possible to greatly improve these estimates and, in particular, to determine the proportions within the overall losses that related to excess mortality resulting from the crisis and those that pertained to either birth deficit or net outward migration. In particular, by relying on the 1926, 1939 and 1959 censuses, we would be able to retrace total mortality trends during the crisis of the 1930s and the Second World War. So each of these two periods forms the subject of one of the two chapters in Part I of our book.

⁴According to Serhii Pyrozhkov and Arnold L. Perkovskii (1995), the total losses for the period 1914–1923 were estimated at four million by Sergii Ostapenko (1925) and between 4.5 and 5 million by Arsenii P. Khomenko (1927), while, in an official note from 1923, Ukraine’s Central Statistical Directorate estimated them at between 5.5 and 7.5 million just for the period 1914–1922 (IIU 1993).

⁵In particular, a 1933 Brussels publication gave various estimates, from 1 to 5.5 million (FEUE 1933); Jacques Benoist-Méchin (1941) gave an estimate of five million for the number who died from hunger and were deported; H el ene Carr ere d’Encausse (1972) assessed the number of victims of collectivization at three million, of whom one million died of hunger.

⁶Unfortunately, detailed results from the 1937 census are not available for Ukraine alone. According to Stanislav Kulchytskyi (1995), the total population recorded in the 1937 census would have been 28,388,000.

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