

Poster Session 1

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Suicidal mortality in Russia and in the Ukraine

The main goal of the study is the comparison of suicide mortality between Russia and the Ukraine. Russia and the Ukraine have the same historic roots and similar cultural traditions. They were included in USSR as it's republics up to 1991. Now they are independent states. But they have the similar dynamics of mortality as during the time of USSR, as well after its collapse.

We use for the analysis data on cause-specific mortality by Statistical Offices of Russian Federation and of the Ukraine for the period 1980-2004. The investigation is based on the statistical methods of data analysis and comparative analysis of the death rates, the suicide rates and the proportions of suicide in total death. The death rates were age-standardized by European Standard Population.

The analysis of total death shows the same character of death in both countries during considered period. Fluctuation periods coincide, in general, with social changes (Fig.1).

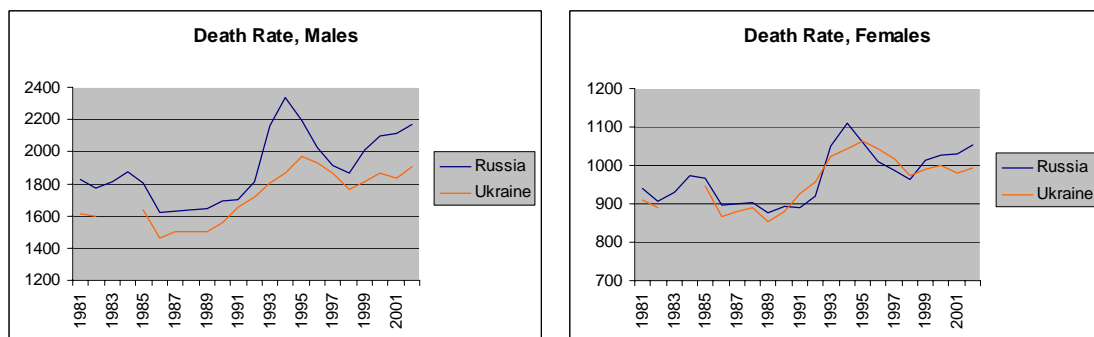


Figure 1. Death Rate in Russia and in the Ukraine for males and females (per 100000) in 1980-2002.

In 1982-84 we can see increasing of death which related to series of replacements of country leaders. Mortality rate decreases during “Perestroika” time and the anti-alcohol company. However, it increases again with beginning of social and economics reforms. The peak of mortality observes after the decomposition of USSR in both countries, and in 1998 we can see a new increasing of mortality. The dynamics is same for males and for females with relative big sex difference.

Mortality from suicide in West-European countries is traditionally high (Table 1).

Table 1. The Suicide Rate by Country in 2000, per 100000

Males		Rank	Females	
Lithuania	80.7	1	China	14.8
Russia	69.3	2	Japan	13.4
Belarus	60.3	3	Lithuania	13.1
Ukraine	52.1	4	Hungary	12.2
Kazakhstan	50.2	5	Russia	11.9
Latvia	48.4	6	Latvia	11.8
Estonia	47.7	7	Belgium	11.4
Hungary	45.5	8	Switzerland	10.8
Slovenia	44.4	9	Slovenia	10.5
Japan	35.2	10	Finland	10.2
Finland	32.3	11	Ukraine	10.0
Belgium	31.2	12	Croatia	10.0

In average (both sexes combined) Russia states at the second place (40.1 per 100000) for the suicide death in the world, the Ukraine takes the seven place (29.6 per 100000). But gender differences are too significant in both countries (Fig.2).

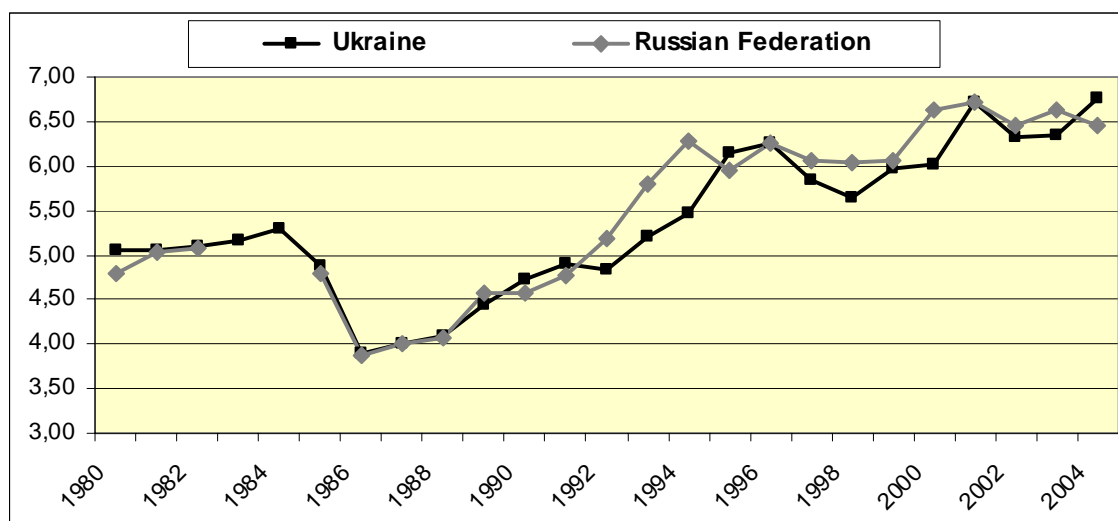


Figure 2. Sex Ratio of suicidal Mortality in Russia and in the Ukraine in 1980-2004

Thus, difference between males and females in the Ukraine is 42.1 per 100000, and 57.4 per 100000 in Russia. The higher gender difference in Russia explains mostly by exceptionally big number of suicide between males.

Standardized suicide rates are presented on the Figure 3.

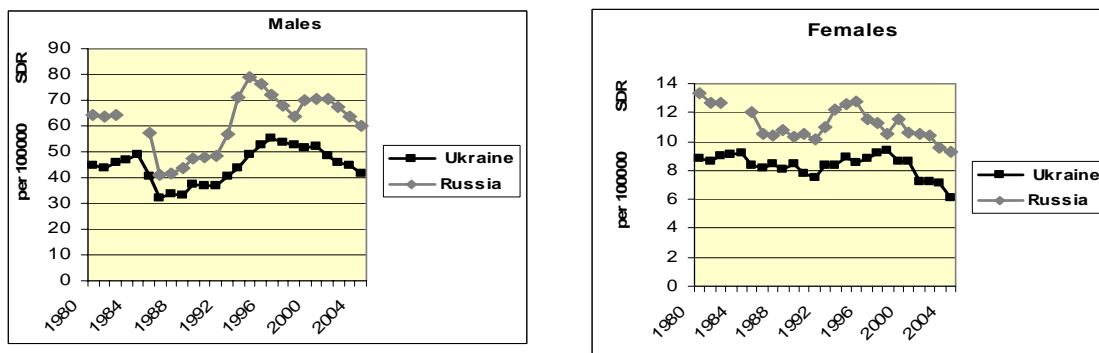


Figure 3. Suicide Rates for Russia and the Ukraine in 1980-2004

We observe decrease of suicidal mortality in 1985-1987 with following increase till 1994 in Russia and till 1996 in the Ukraine. Male's suicidal mortality has big fluctuations. There were two big peaks in 1994 and in 2002 (77 and 67 persons per 100000 in Russia and 55 and 46 in Ukraine correspondingly). Women's curves of suicide rate are more smoothed. The figures are about 10 suicides for 100000 people. Some decrease of number of suicides was in both countries after the collapse of USSR.

However, following economic crisis destroyed this positive tendency. In general, stable decrease ensued after peaks in 1994-1996. It can be explained by relative social stability.

Age-specific suicide rates are presented on the Figure 4.

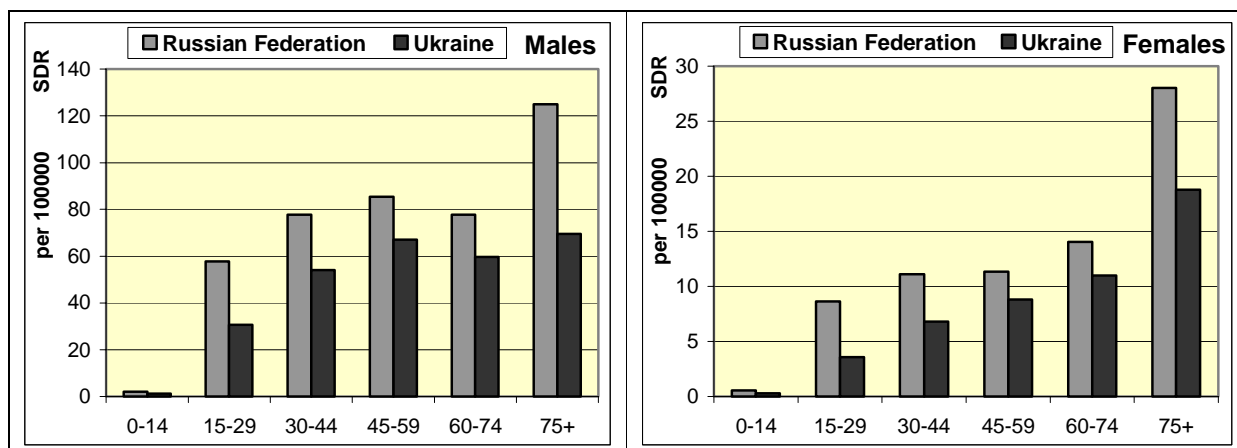


Figure 4. Age-Specific Death Rate from Suicide in Russia and in the Ukraine in 2004

As it can be seen the age structure is similar in both countries. Death rate for females has linear trend. Males have some decrease at ages 60-74, when they retire and change social status and mane activity. But almost 2/3 of males and 1/2 of females suicides are in able-bodied age group 15-59.

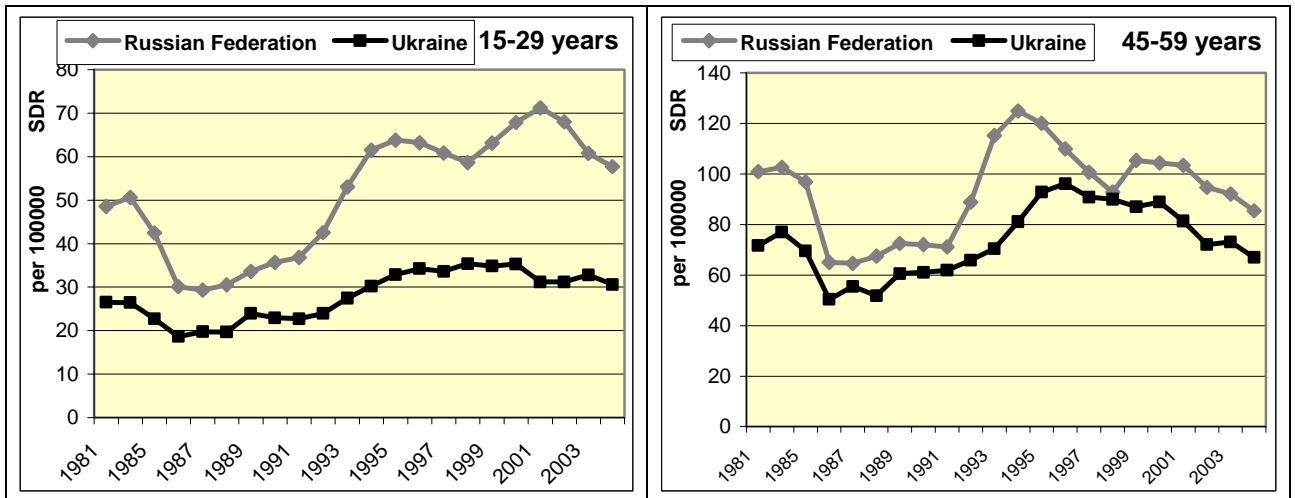


Figure 5. Death Rates from Suicide for Males for Age Groups 15-29 and 45-59 in Russia and in the Ukraine in 1981-2004

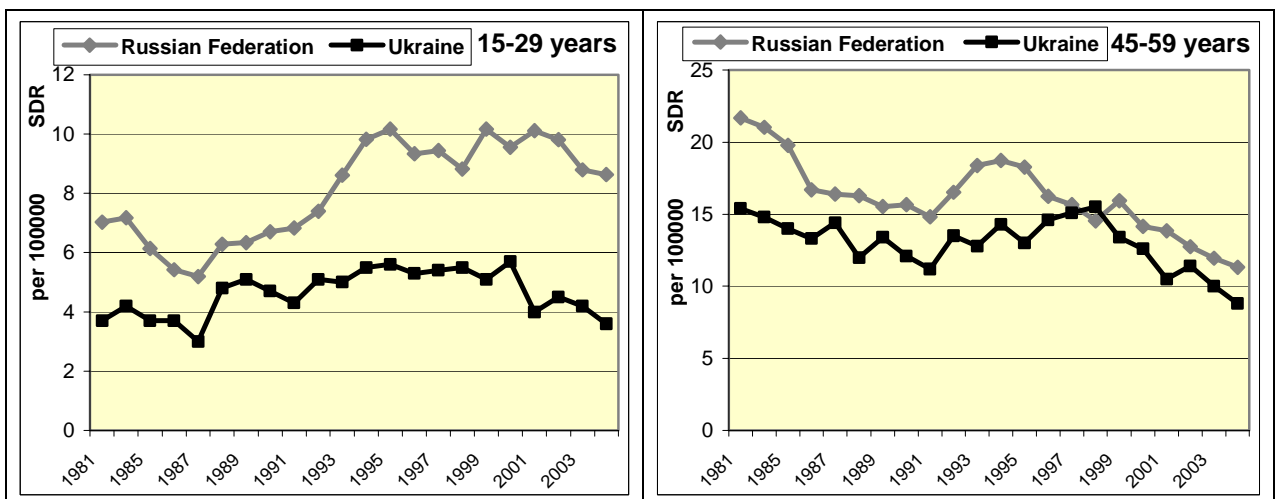


Figure 6. Death Rates from Suicide for Females for Age Groups 15-29 and 45-59 in Russia and in the Ukraine in 1981-2004

Level of suicidal mortality in the Ukraine is 1.5 times less than in Russia. Difference in number of suicide, as it shown on the Figures 5 and 6, is higher at the young ages. Suicidal mortality among Russian males in the age group 15-29 increases up to 37.5 per 100000 during 1989-2001, and decrease to 13.5 in following three years. For females it is 3.8 and 1.5, correspondingly. Number of suicides in the age group 15-29 of Russian females is 2.5 times higher than in the same group in the Ukraine.

The average ages at death are decreasing in both countries for both sexes (Table 2).

Table 2. The Average Age at Death from the Suicide and Life Expectancy at Birth in Russia and in the Ukraine in 1989 and 2004

Cause of Death	Year	Russia		Ukraine	
		Males	Females	Males	Females
Total	1989	64,5	74,8	65,9	75,1
	2004	58,8	72,2	62,6	74,1
	Difference	-5,7	-2,6	-3,3	-1
Suicide	1989	45,9	57,4	49,7	58,0
	2004	44,7	53,3	46,2	55,5
	Difference	-1,2	-4,1	-3,5	-2,5

The average at death from suicide decreases more rapidly than life expectancy at birth (except Russian males). It explains by increasing of relative number of suicide in younger ages. The group with highest proportion of suicides in death (the risk group of death from suicide) shifts in both countries and both sexes to younger ages (Figure 7). Similar to other republics of USSR, Russia and the Ukraine had groups of suicidal risk for males in the ages 25-29. After the getting of independence, the displacement of risk group to younger age is observed (in 1996 to age group 20-24, and later, in 2001, to 15-19). The age group 15-19 was fixed as women's risk group in Russia in mid-1980s, and in the Ukraine it happened after the USSR's collapse.

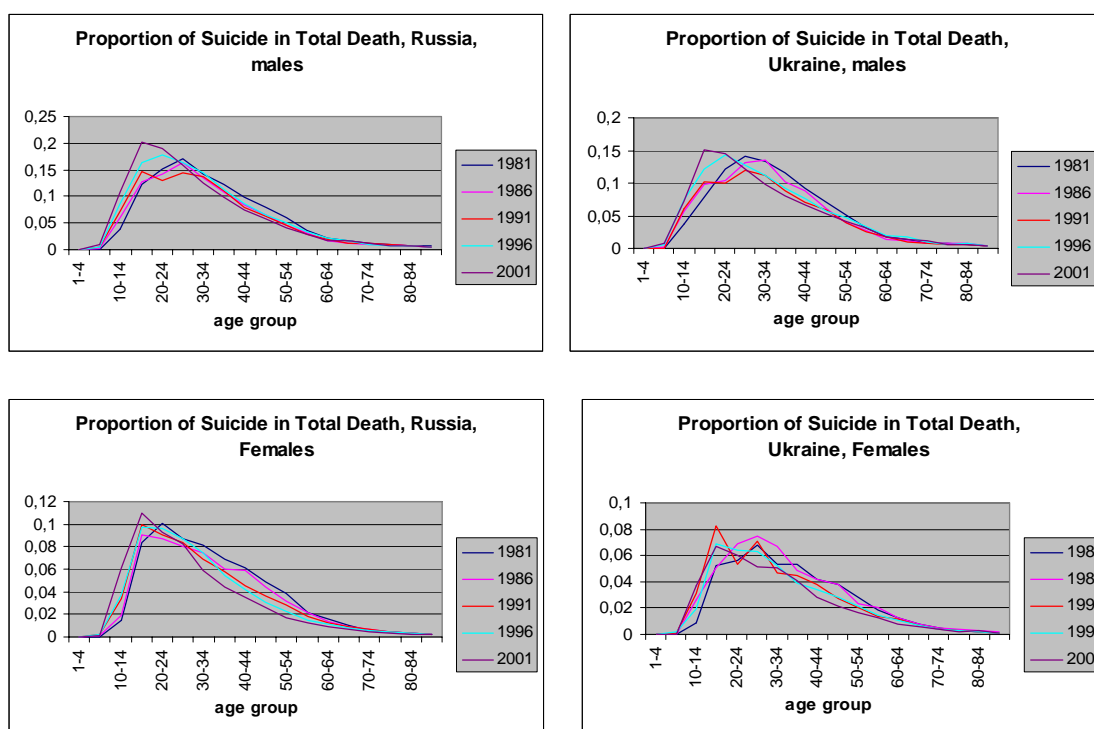


Figure 7. Proportion of Suicide in Total Death in Russia and in the Ukraine in 1980-2002 by age groups

In general, males proportion of suicide in total death increases or decreases follow up to economic changes (Figure 8). Proportion of suicide for females tends to decrease

except the peak in 1998 in the Ukraine. This peak can be explained by higher woman's working activity in Ukraine.

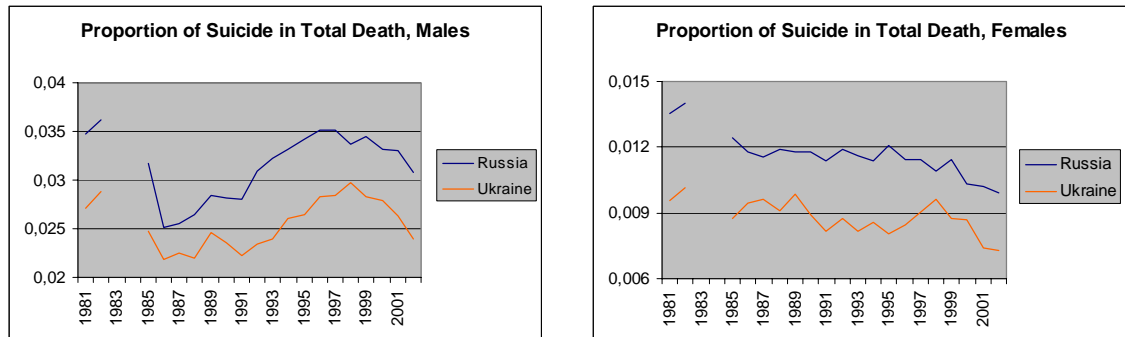


Figure8. Proportion of Suicide in Total Death in Russia and in the Ukraine in 1980-2002

The age of suicide decrease in both country. The main difference in dynamics of suicidal mortality between Russia and the Ukraine is in higher suicidal activity of Russian youth.

Social and political causes influence on mortality from suicide indirectly, through changes of social conditions. Therefore we observe the more significant difference in suicidal mortality after collapse of the USSR, while the total mortality keeps similar trends in both countries.