MPIDR-NES Training Programme

Moscow, New Economic School, 14th January - 1st February 2013

Population and Health

Lecture 19. Mortality differentials within the Russian population.

Лекция 19. Различия смертности по группам населения в России.

MAX PLANCK INSTITUTE FOR DEMOGRAPHIC RESEARCH
MAX-PLANCK-INSTITUT FÜR DEMOGRAFISCHE FORSCHUNG

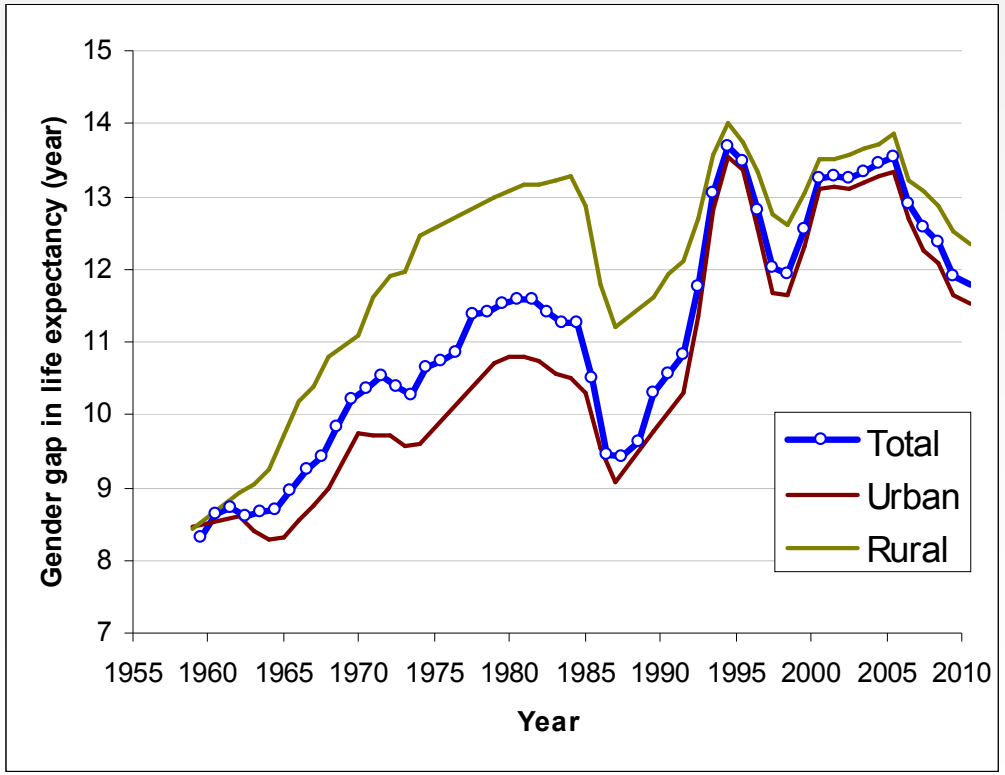
РЭШ
Российская экономическая школа

Outline of Lecture 19.

- The difference between men and women.
- Interregional differences.
- The urban-rural difference.
- Ethnic differentials.
- Differences by marital status.
- Differentials due to education and occupation.
- Inter-individual inequality. Length-of-life disparity in the life table.

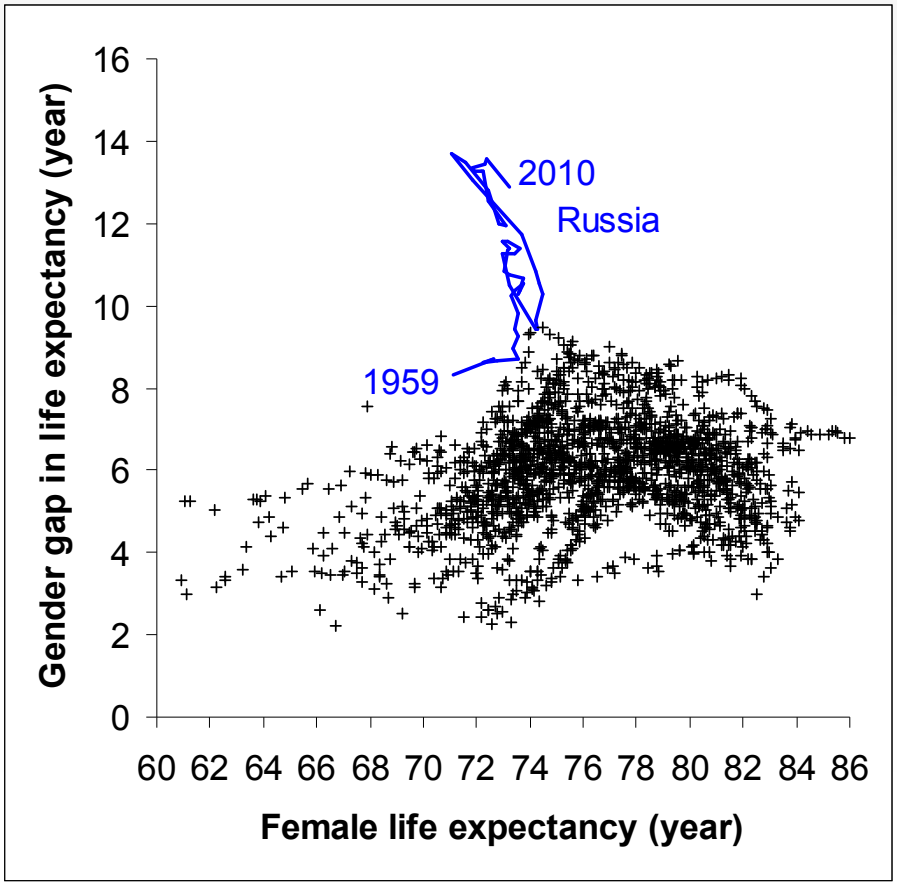
The difference between men and women. (1)

Gender gap in life expectancy in Russia



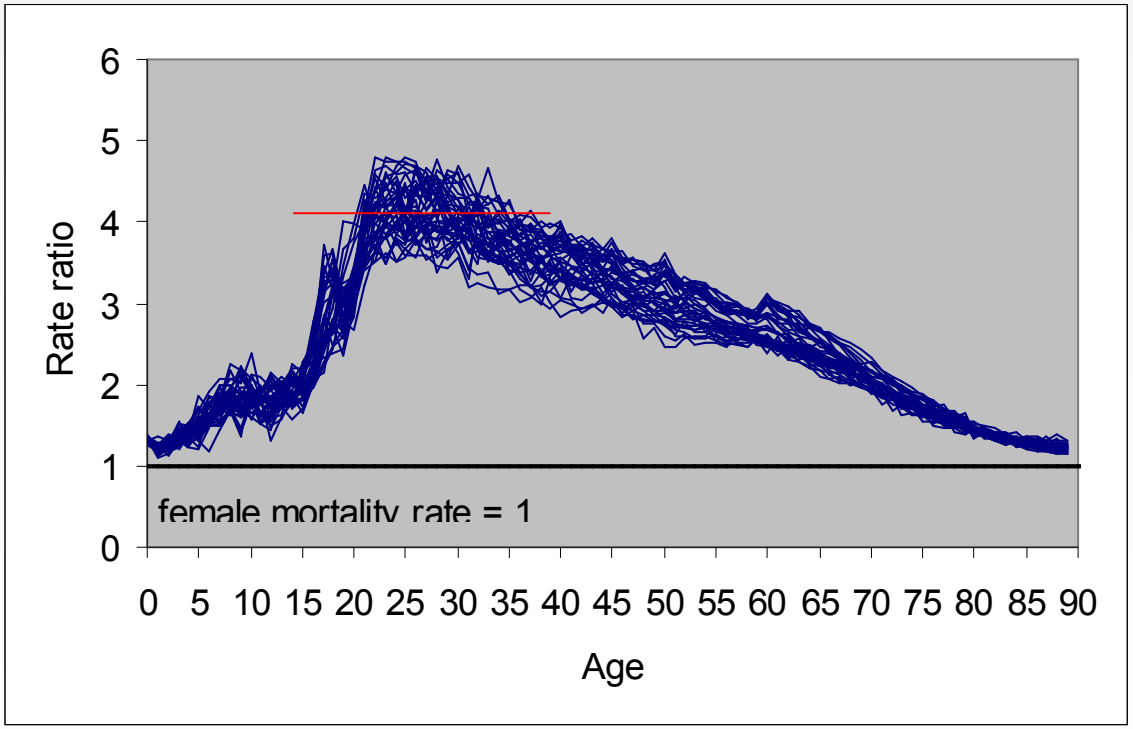
Gender gap in life expectancy in Russia is higher than in the all HMD countries after 1950 except the former Soviet republics. It was especially high in rural area before 1985.

Gender gap in life expectancy in the all HMD countries except the former Soviet republics and in Russia after 1950



The difference between men and women. (2)

The ratio of mortality rates of men to those of women in 1970-2008, by age.



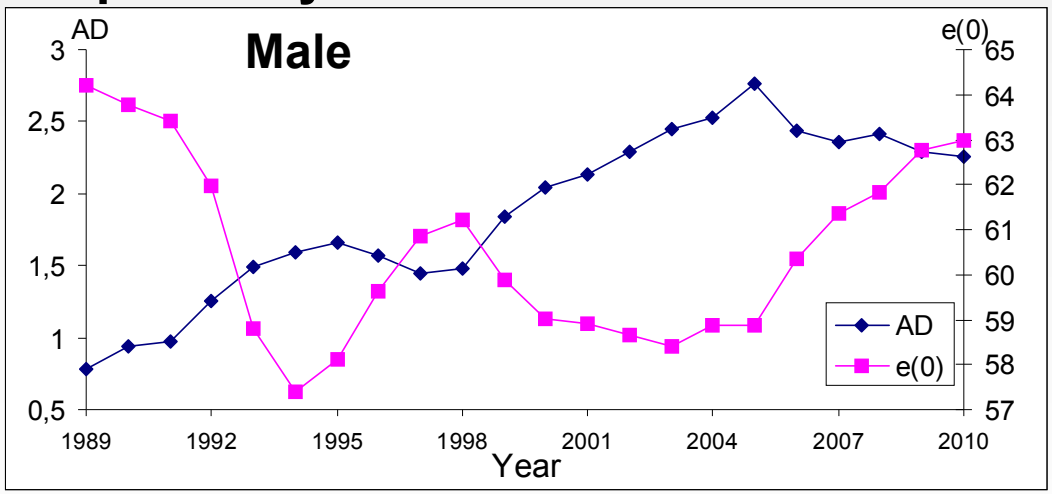
The life expectancy at birth of Russian women was 10.1 years greater than men; among Tartars, it was 9.9 years, among Ukrainians it was 7.9 years and among Jews it was only 3.6 years (1988-89).

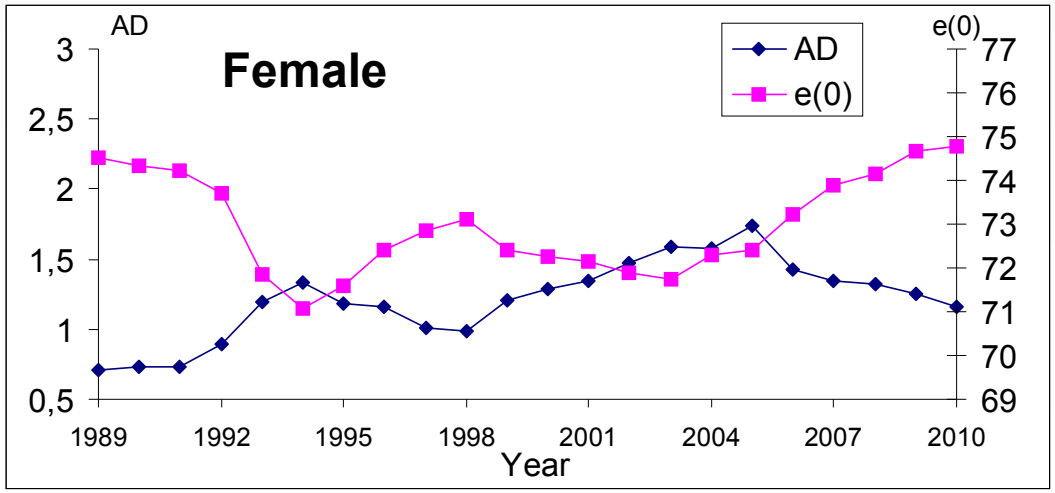
It is important to note here the fact that most of the male mortality excess in Russia does not take place in infancy or childhood, nor after 60, but rather in the age groups 20 and 60. The graph showing that mortality rate for men is greater than that for women for some periods by 4 times. This figure reflects a situation that resembles that of a war situation in which the male mortality is several times higher than the female.

Shkolnikov V., M. Field, and E. Andreev. Russia: Socioeconomic Dimensions of the Gender Gap in Mortality. In: T. Evans et al (Eds.). Challenging Inequities In Health: From Ethics to Action. Oxford University Press, New York, 2001.

Interregional differences. (1)

The average deviation of regions of Russia by life expectancy at birth in 1989-2010.





Tapani Valkonen recommended to use an average deviation as measure of interregional differences.

The average deviation gives the average distance of individual regions from the mean of all regions. When calculating the average deviation each region is weighted by the size of the population of the region. Similarly, the mean of all regions is the weighted average of regional life expectancies.

The formula is :

$AD = \Sigma p_i \cdot |e_i - e|$

where p_i = the proportion of the total population of region i of the national population

e_i = the life expectancy for region i

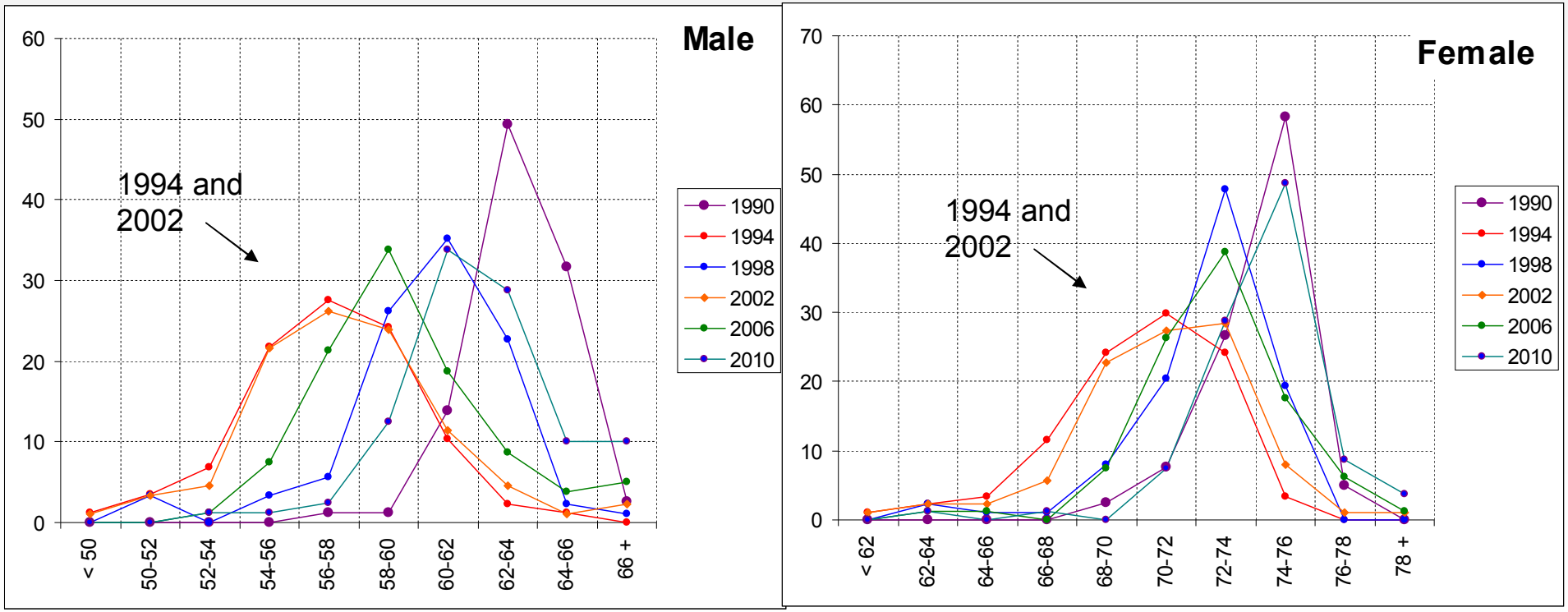
$e = \Sigma p_i \cdot e_i$ or the weighted average of the regional life expectancies.

Valkonen, T. Trends in differential mortality in European countries. In: Trends in mortality and differential mortality. Population Studies, No. 36, 2001. pp. 185-332. Strasbourg: Council of Europe.

Lower average life expectancy corresponds higher average deviation (correlation coefficients are -0,45 for male and -0,54 for female).

Interregional differences. (2)

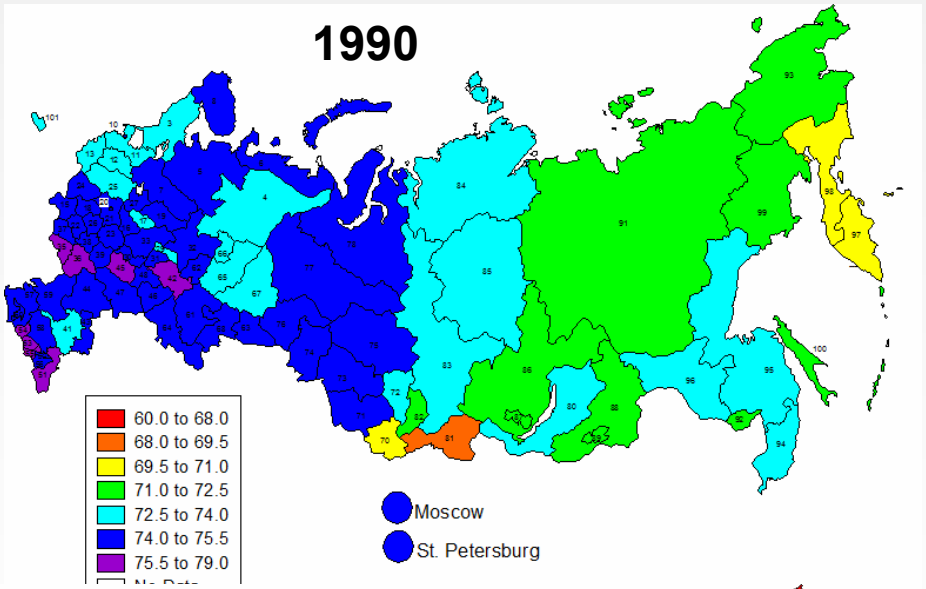
Distribution of regions of Russia by life expectancy at birth in 1990 - 2010, in %.

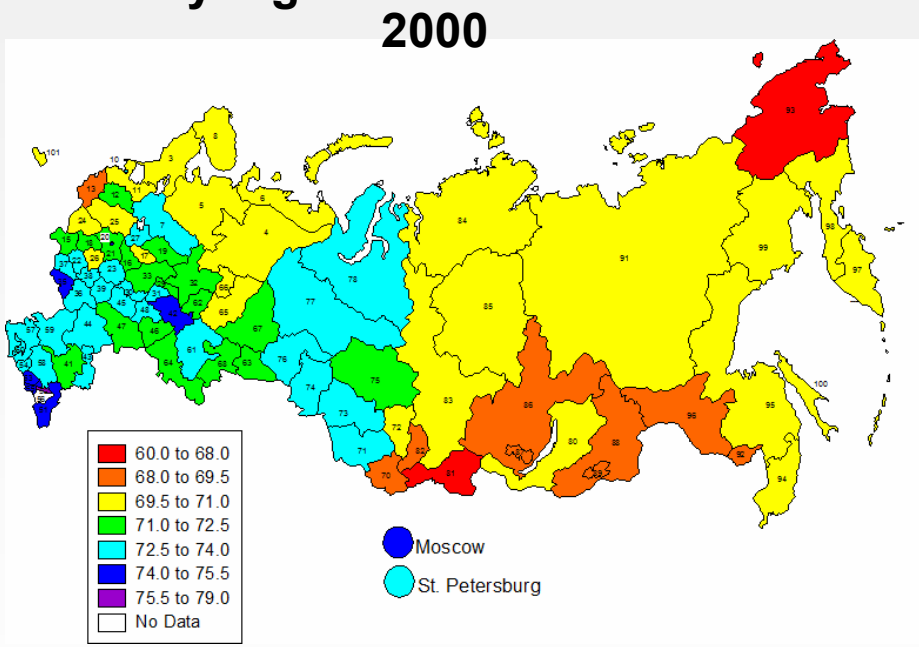


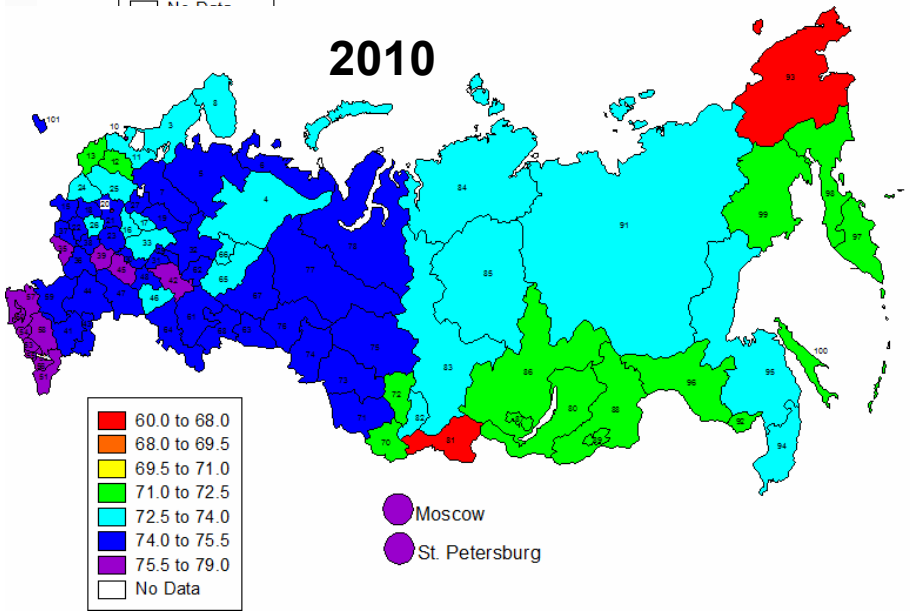
The distribution of regions by life expectancy looks more condensed around average in rather safe years. its looks much dispersed in the years of highest mortality.

Interregional differences. (3)

Female life expectancy at birth by regions.



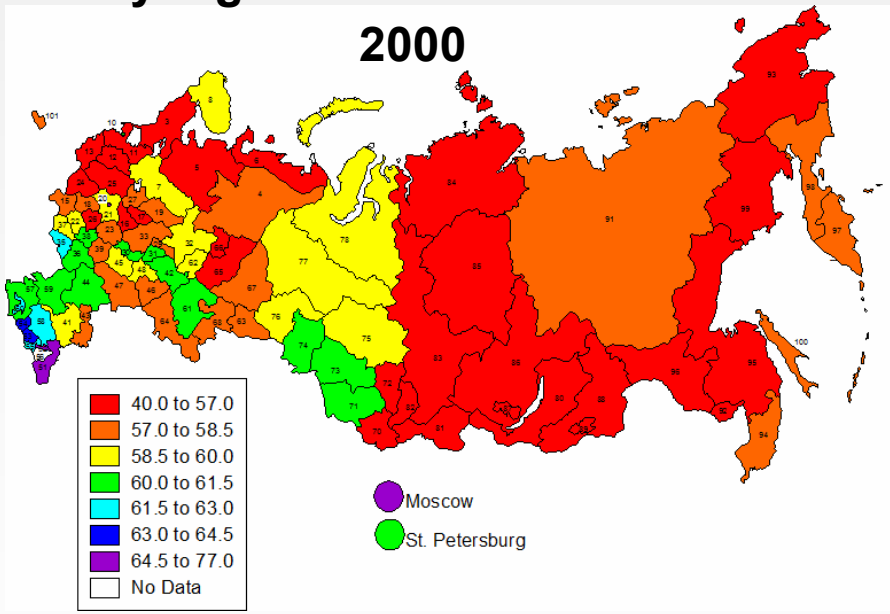


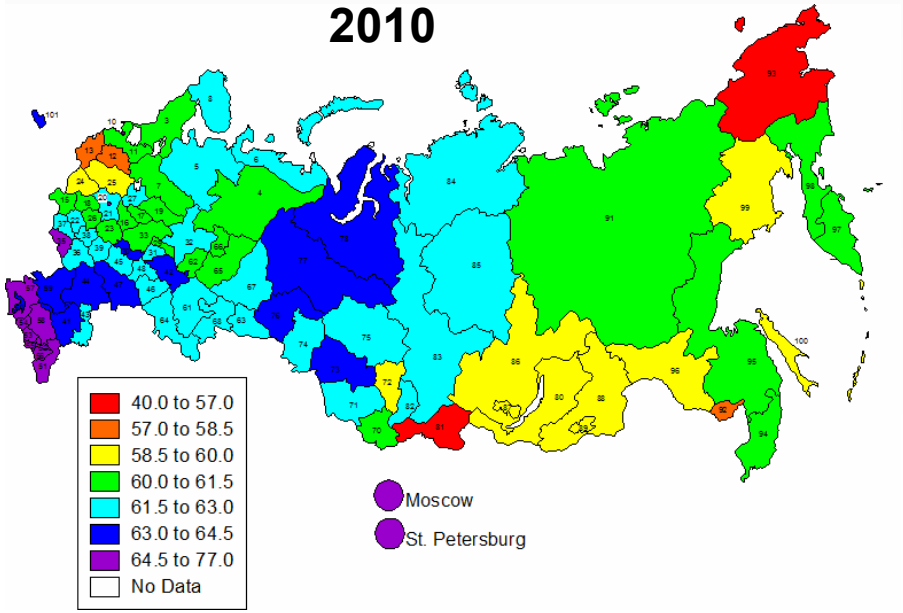


The regional mortality differences in Russia show a northeast-southwest gradient favoring the southwest, which reflects not only climatic differences but also the socioeconomic situation within Russia.

Interregional differences. (4)

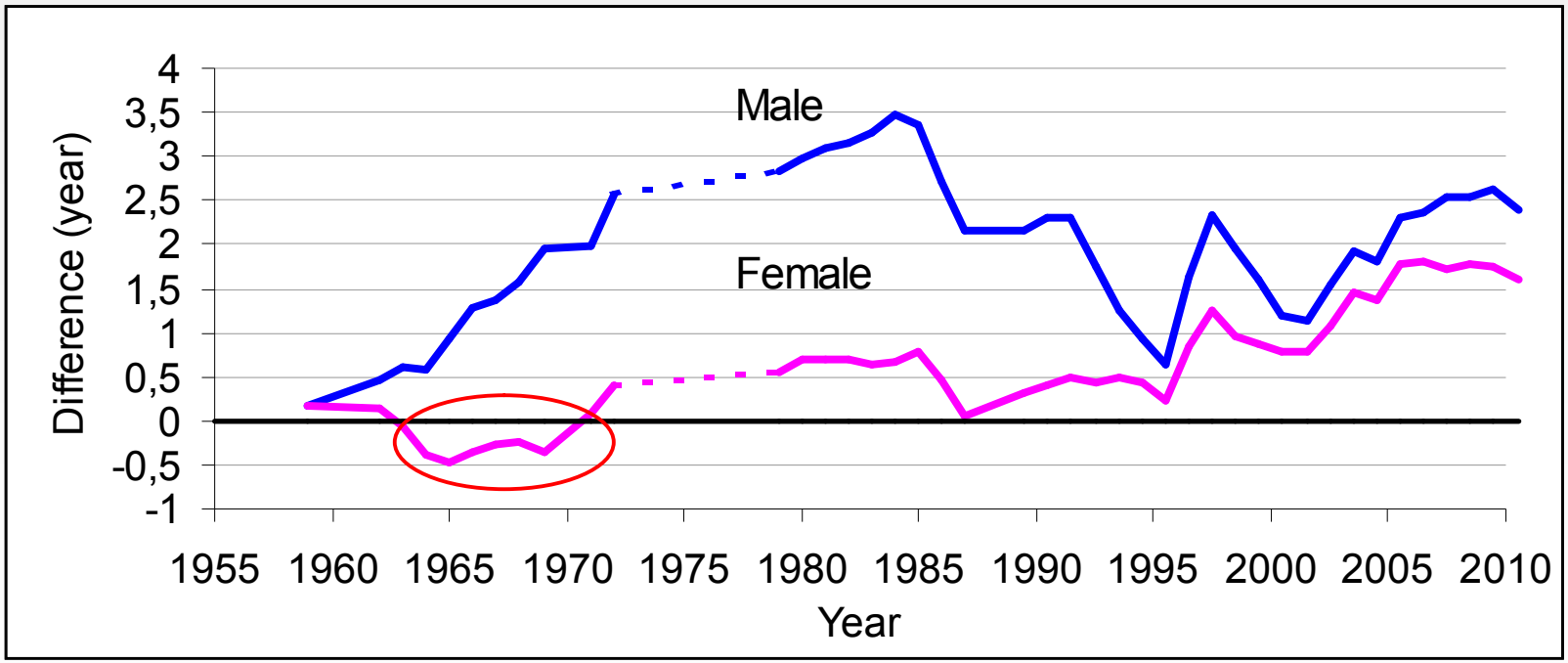
Male life expectancy at birth by regions.





The first time this gradient was demonstrated by Andreev (1979) and was described in all details by Shkolnikov and Vassin (1994).

The urban-rural difference (1). Difference in life expectancy at birth.

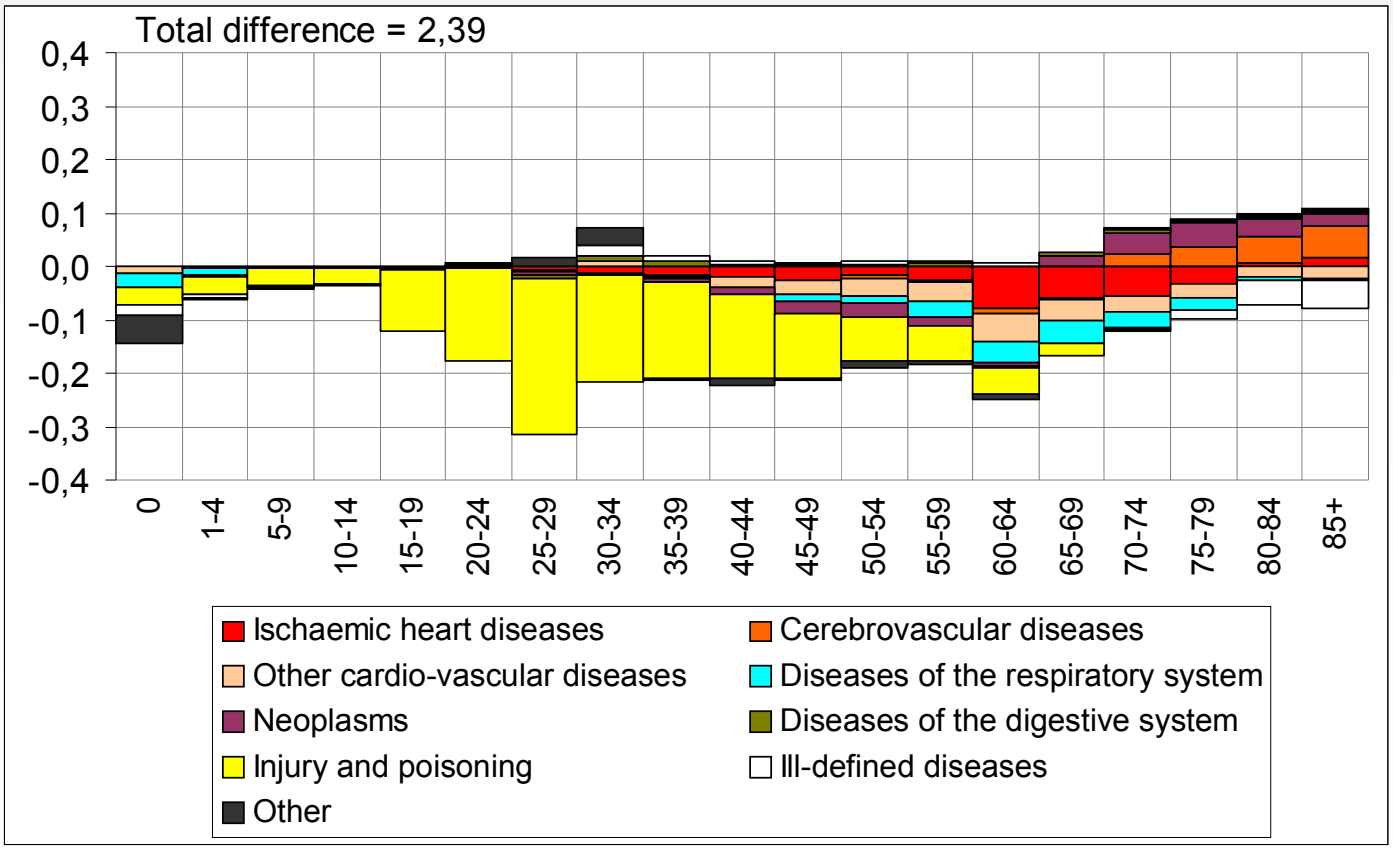


In 1990-2010, the average difference in life expectancy between urban and rural male l was 1,87 and for female it was 1,03. Each drop in life expectancy in this period (1994, 2003) was significantly more in the rural area.

The Russian death certificate records the place of permanent residence of the deceased. On the basis of classification of all localities of the Russian Federation as either urban or rural the statistical office produces on an annual basis separate mortality tables by sex, age and cause-of-death for urban and rural populations. However the errors in the current population estimation were possible in the period before 1990 due to imperfection of migration statistics (unbalance in- and outmigration).

The urban-rural difference (2).

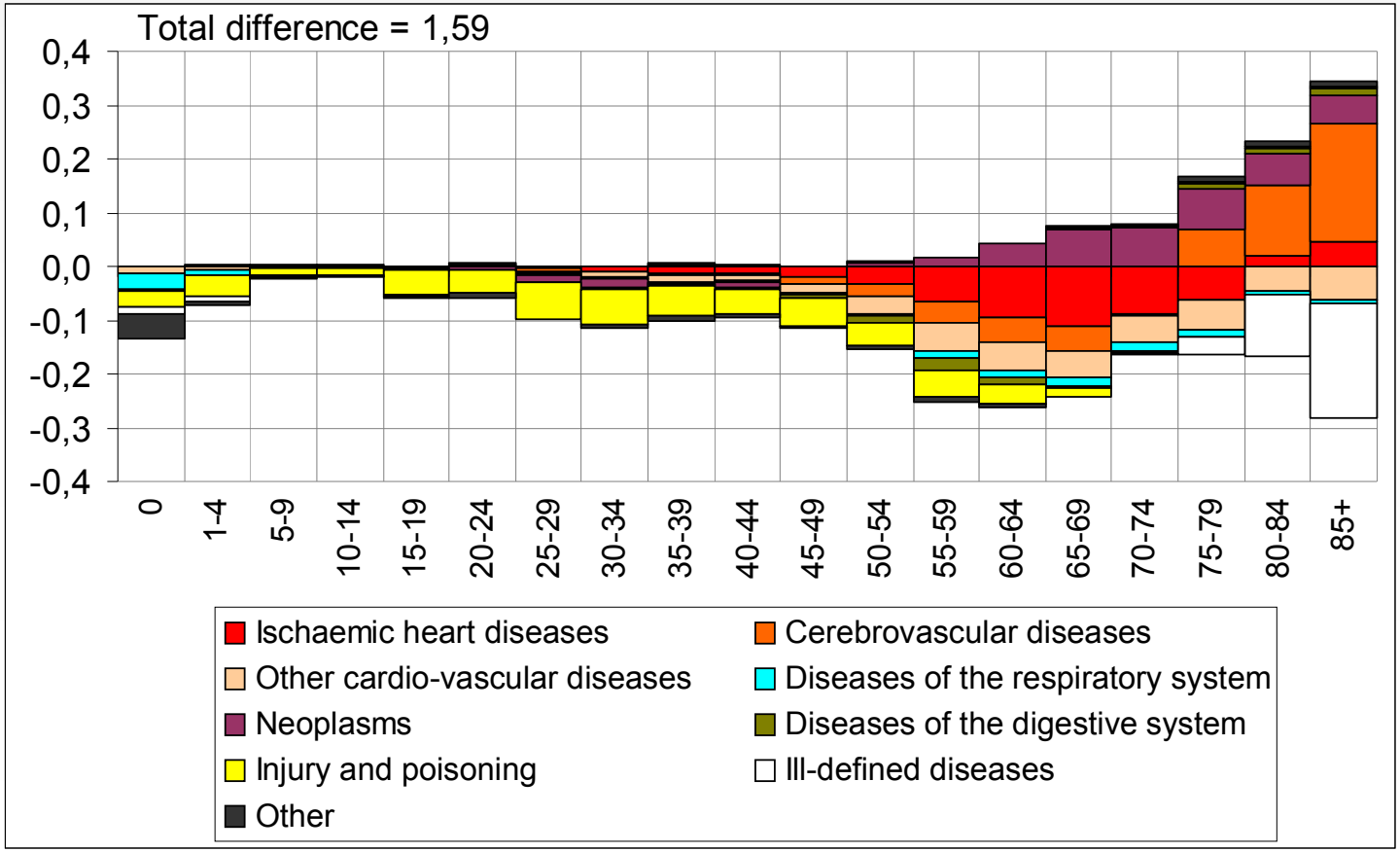
Contributions of age groups and causes of death to the total difference in life expectancy at birth between urban and rural areas in 2010. Male.



98% of differences are explained by external causes (66%); cardio-vascular diseases (21%); diseases of respiratory system (10%)

The urban-rural difference (3).

Contributions of age groups and causes of death to the total difference in life expectancy at birth between urban and rural areas in 2010. Female.



91% of differences are explained by cardio-vascular diseases (44%); external causes (38%); diseases of respiratory system (9%).

Ethnic differentials. (1)

Main characteristics of ethnic mortality in the former USSR in 1988-89.

Ethnicity*	Male				Female			
	Life expectancy		Probability of death in the age interval (per 1000)		Life expectancy		Probability of death in the age interval (per 1000)	
	(year)	Rank	0-14	15-59	(year)	Rank	0-14	15-59
Lithuanians	67,3	4	21,4	266,8	76,6	1	17,1	103,8
Georgians	68,6	3	31,5	211,0	75,9	2	23,7	90,8
Belarusians	66,3	8	25,9	274,9	75,8	3	17,5	105,7
Tatars	65,5	12	35,2	276,7	75,6	4	24,5	108,7
Latvians	65,9	11	25,6	276,7	75,5	5	16,8	111,4
Estonians	66,0	10	29,3	266,3	75,1	6	20,0	106,4
Ukrainians	66,4	6	27,5	261,3	74,9	7	19,6	107,8
Germans	66,2	9	36,3	248,0	74,6	8	26,2	107,4
Russians	**64,6**	**16**	**28,9**	**298,0**	**74,6**	**8**	**20,3**	**111,6**
Azerbaijani	66,4	6	58,8	221,2	74,4	10	50,5	110,5
Jews	70,1	1	24,1	170,2	73,7	11	19,5	114,4
Tajiks	68,8	2	78,0	157,9	73,3	12	66,3	123,3
Kazakhs	63,6	17	60,4	238,5	72,5	13	47,0	151,4
Uzbeks	66,8	5	73,7	199,9	71,9	14	60,0	139,8
Kyrgyz	65,1	14	74,2	239,2	71,9	14	61,0	149,4
Moldavians	65,1	14	42,3	272,1	71,2	16	31,9	169,0
Armenians†	65,5	12	58,3	237,7	69,6	17	55,1	175,4
Turkmen	62,1	18	100,2	247,7	67,7	18	82,5	166,7

In 1989 Russians consist about 51% of total population of the former USSR. They took 8th place by female and 16th by male life expectancy. Russian men had highest mortality at the age 15-59 among 18 ethnicities.

*Ethnicities are ordered by female life expectancy at birth.

†This levels are much higher than usually due to the 1988 earthquake in Armenia

Source: Andreev E, Dobrovolskaya VM , Shaburov KY (1992). Ethnic differentiation of mortality. Sociologic Studies [In Russian]. 7, 43-49.

Ethnic differentials. (2)

Life expectancy at birth in Russia for 7 ethnic groups (years).

	Male		Female	
	1978-79	1988-89	1978-79	1988-89
Russians	61,7	64,3	73,4	74,4
Tartars	63,1	66,2	75,2	76,1
Ukrainians	64,1	66,6	73,0	74,5
Byelorussians	63,0	66,1	73,1	74,4
Kazakhs	59,7	63,4	72,8	74,4
Jews	68,3	69,7	72,4	73,3
Armenians	67,7	68,0	75,1	74,9

Although Russia is a multinational state, an overwhelming majority of its population consists of ethnic Russians (around 82% of the total population according to the 1989 census and 81% of people who specified their ethnicity in the 2010 census).

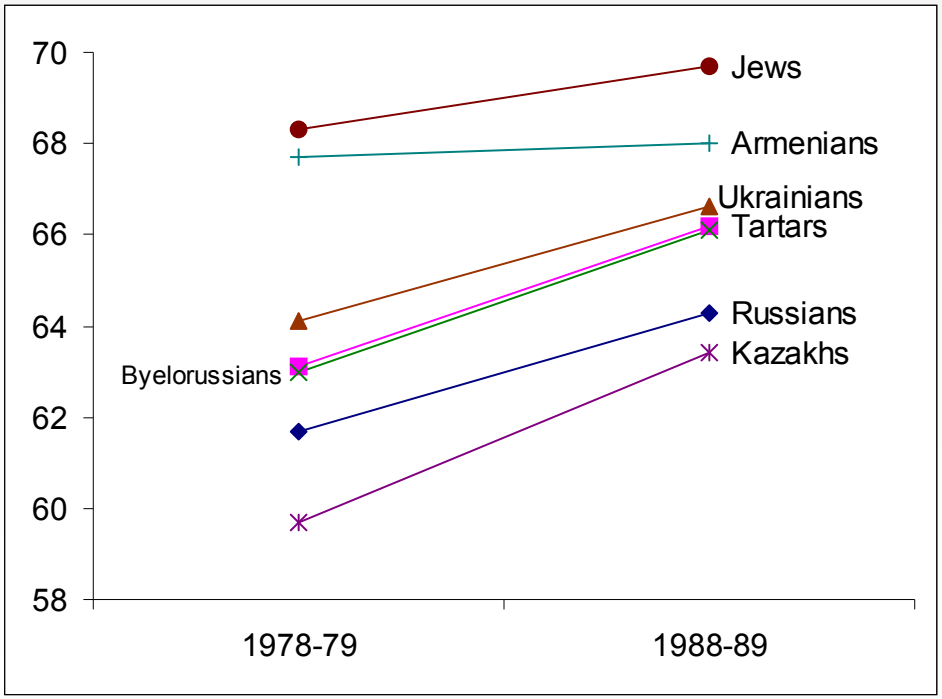
From 1958 to 2008 the statistical offices were producing information on deaths by sex for some ethnicities of Russia. However these data can be used only up to the late 1990th due to huge increase share of deaths with unspecified ethnicity. In 2008 it was 61%. Data on deaths by ethnicity, sex and age were tabulated for the two-year periods around the population censuses: 1958-59, 1969-70, 1978-79 and 1988-89. However for 1958-59 and 1969-70 only data for ethnic Russians are available

Except two usual data problems (completeness of death recording and overstating real age) there is a problem numerator-denominator bias: current registration of deaths by ethnicity (up to 1998 according passports) may not correspond well to the population figures by ethnicity (self-declaring at Census).

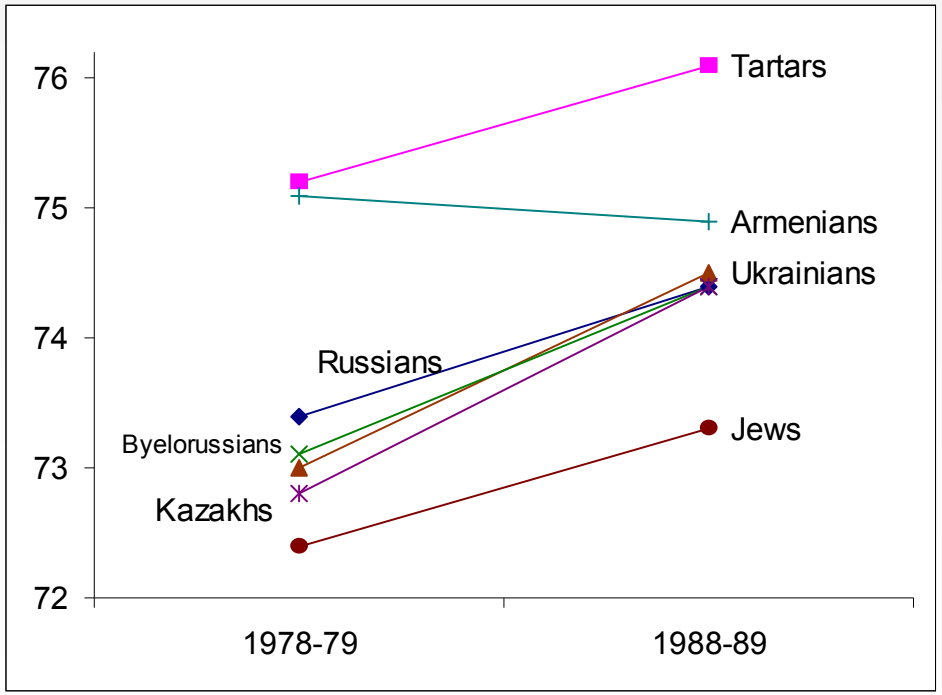
Ethnic differentials. (3)

Dynamics of life expectancy at birth in Russia for 7 ethnic groups (years).

Male



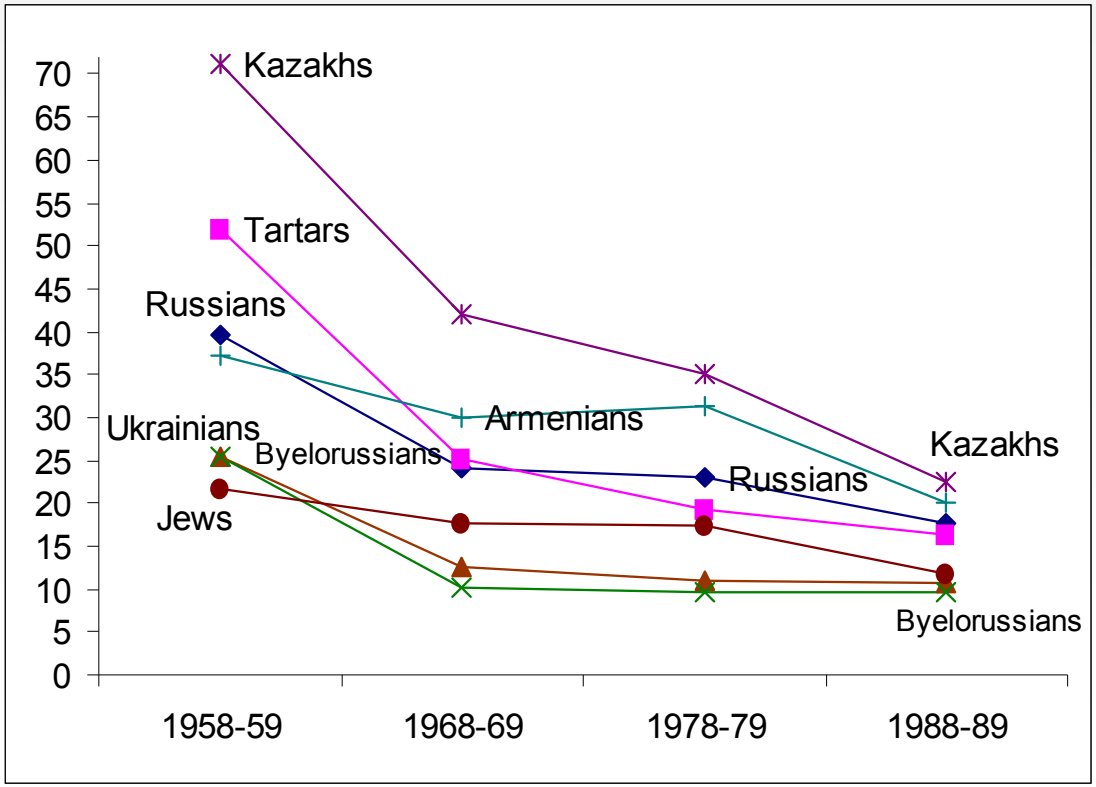
Female



The main part of life expectancy growth was the consequence of mortality decline at ages 20-59. For example life expectancy of Russian men grew on 2,60 years of them due to mortality decline at ages 0-19 it grew on 0,51 years, at ages 20-59 – on 1,83 years, and at ages 60+ – only on 0,18 years. Life expectancy of Russian women grew on 1,00 years of them due to mortality decline at ages 0-19 it grew on 0,44 years, at ages 20-59 – on 0,57 years. Changes in mortality at ages 60+ did not influence on life expectancy at birth.

Ethnic differentials. (4)

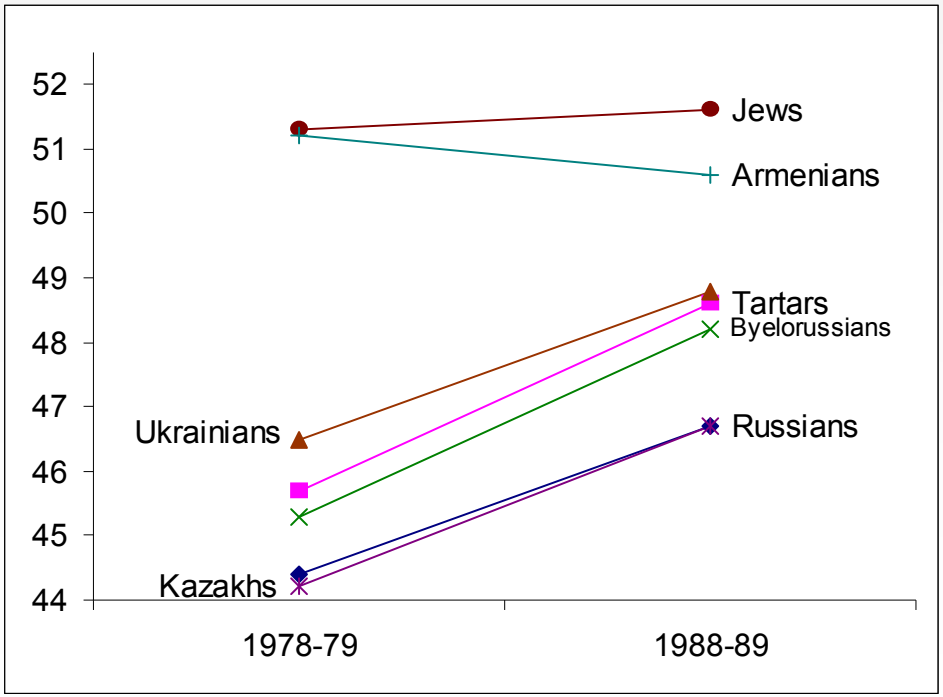
Dynamics infant mortality rates in Russia for 7 ethnic groups (per 1000).



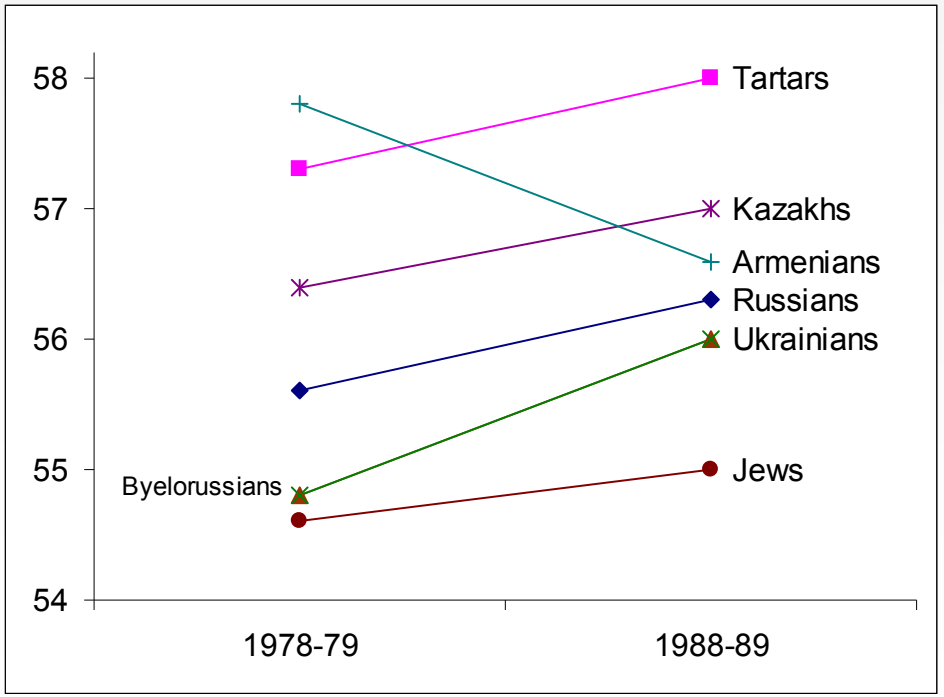
Ethnic differentials. (5)

Dynamics of life expectancy at age 20 in Russia for 7 ethnic groups (years).

Male



Female



The significant increase in life expectancy at age 20 in the 1980s is the result of the anti-alcohol campaign. It is unexpected that if did not change significantly the ranks of the ethnic groups.

Differences by marital status. (1)

Life expectancy by marital status in Russia.

Year	Total	Married	Never married	Widowed	Divorced
Life expectancy at age 30 (year)					
Male					
1979	35,9	38,1	18,7	26,9	31,0
1989	37,8	39,8	26,0	32,0	33,9
1998	35,4	38,5	24,4	27,1	28,5
Female					
1979	46,9	43,8	35,0	48,2	53,4
1989	47,4	50,0	41,6	45,4	57,2
1998	46,0	51,1	40,0	43,4	51,3
Life expectancy at age interval 30-69 (year)					
Male					
1979	31,7	32,7	25,2	25,2	28,7
1989	33,0	33,8	25,2	29,6	30,4
1998	31,4	32,9	23,7	25,7	26,7
Female					
1979	36,9	37,0	31,8	36,6	37,5
1989	37,3	37,6	34,4	36,3	37,3
1998	36,8	37,2	33,8	35,7	36,4

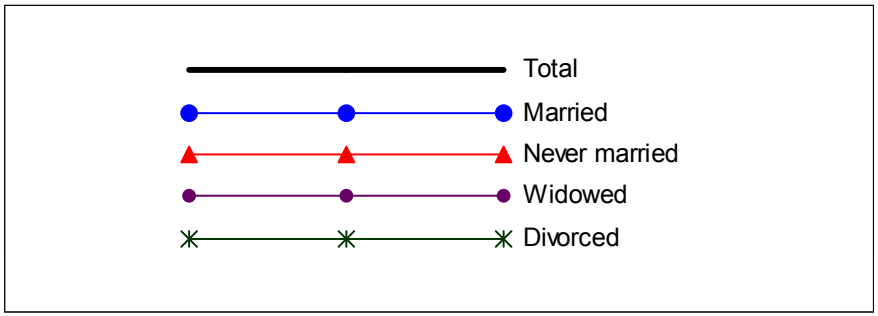
The census and death counts for 1979 and 1989 were obtained from the unpublished official tables by the Goskomstat of the USSR. The most recent data on deaths for Russia use tabulated deaths and estimated mid-year population by marital status (calculated using interpolation between the micro-census of 1994 and the census of 2002) for 1998.

Data quality problems. The numerator-denominator bias is expected because current registration of marital status of the deceased (in 1979-1998) was based on passport and may not correspond well to the marital status self-declaring at census. misreporting of marital status in the census-unlinked data are more pronounced at old age because widowhood wasn't entered into a passport.

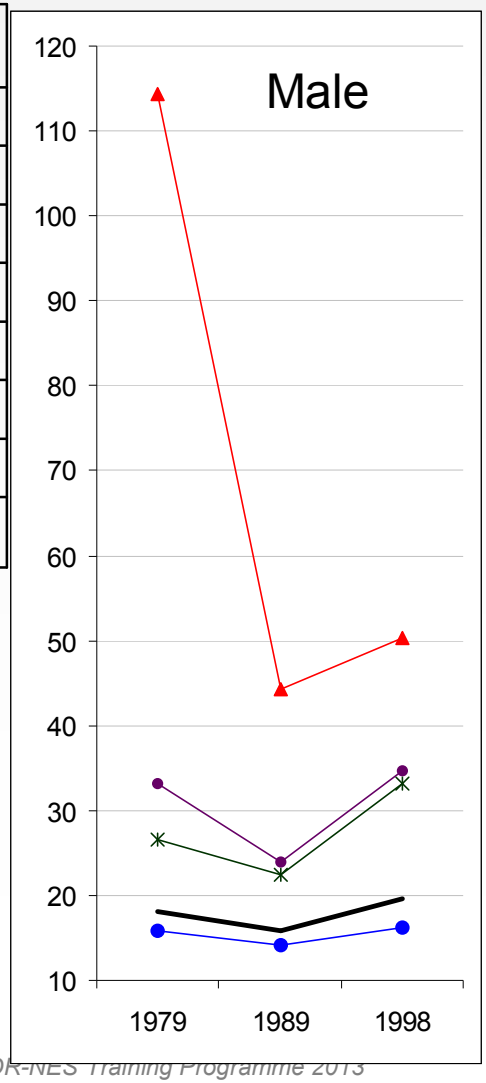
Differences by marital status. (2)

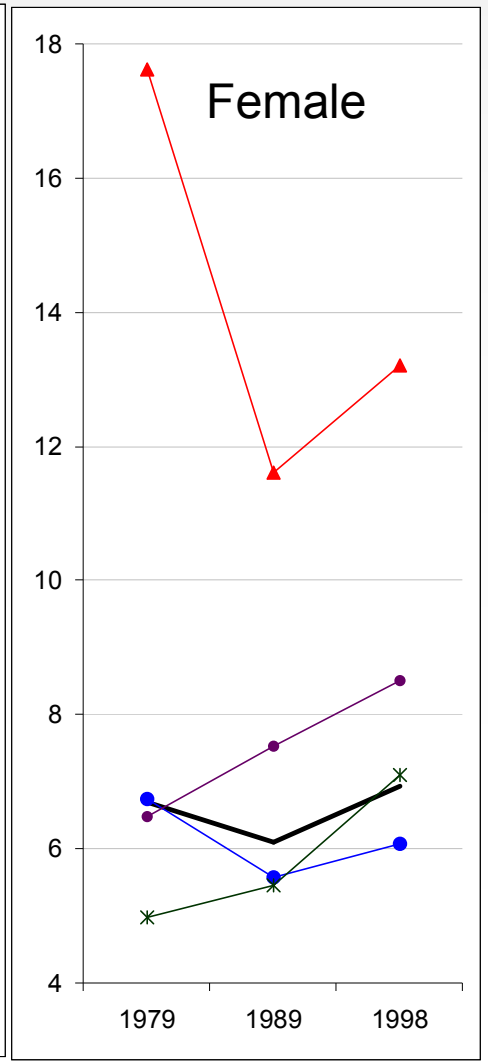
Overall and marital status age-standardized death rates for ages 30-69 (per 10000)

Year	Total population	Married`	Never married	Widowed	Divorced
Male					
1979	180,8	159,3	1144,1	331,8	265,2
1989	158,4	141,7	442,0	239,7	223,6
1998	196,3	161,4	502,4	346,0	331,0
Female					
1979	67,0	67,5	176,1	64,8	49,7
1989	61,0	55,8	116,0	75,2	54,5
1998	69,4	60,8	132,0	85,1	70,9

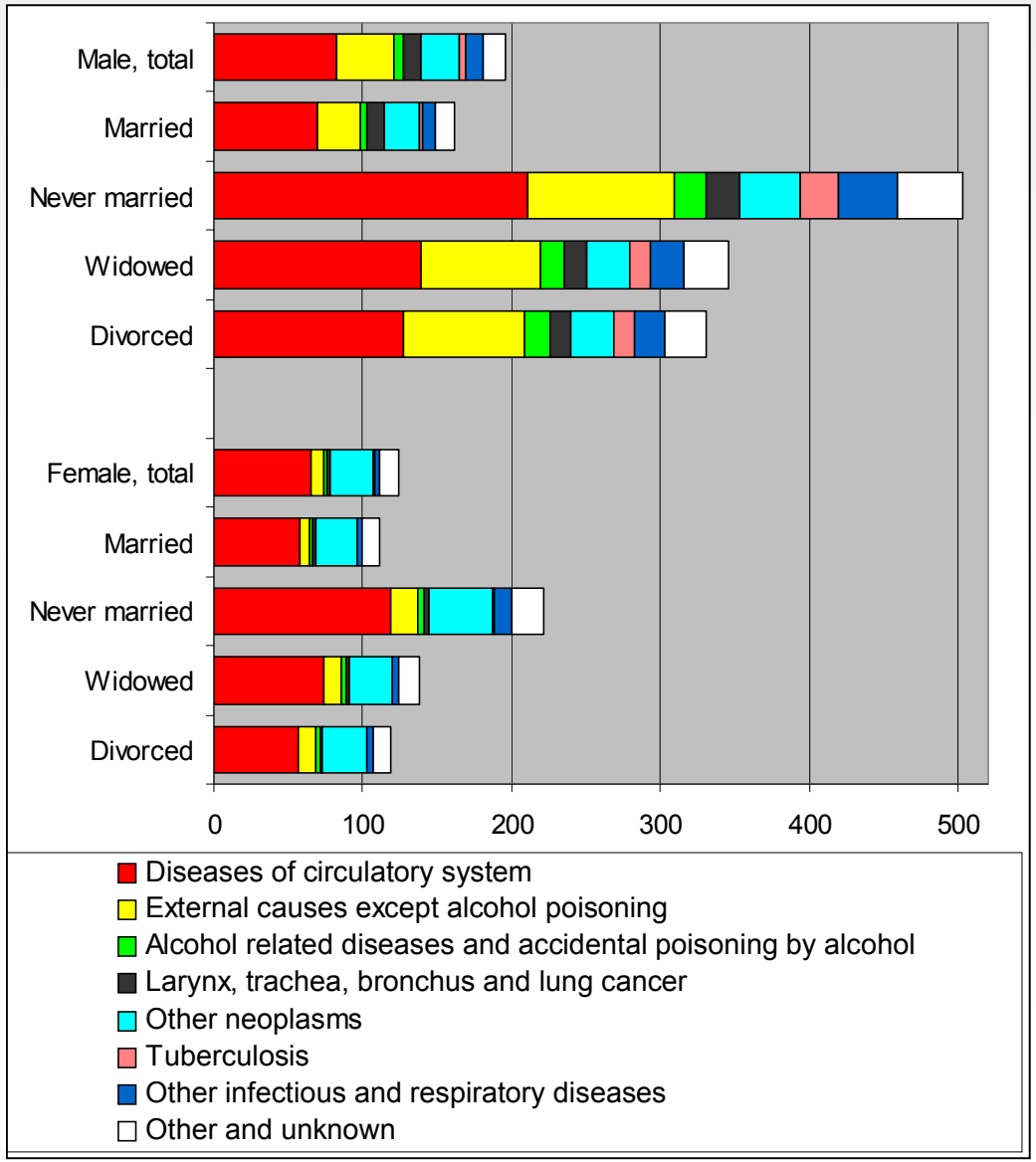


WHO European standard was used





Differences by marital status in mortality from some causes of death. (3)



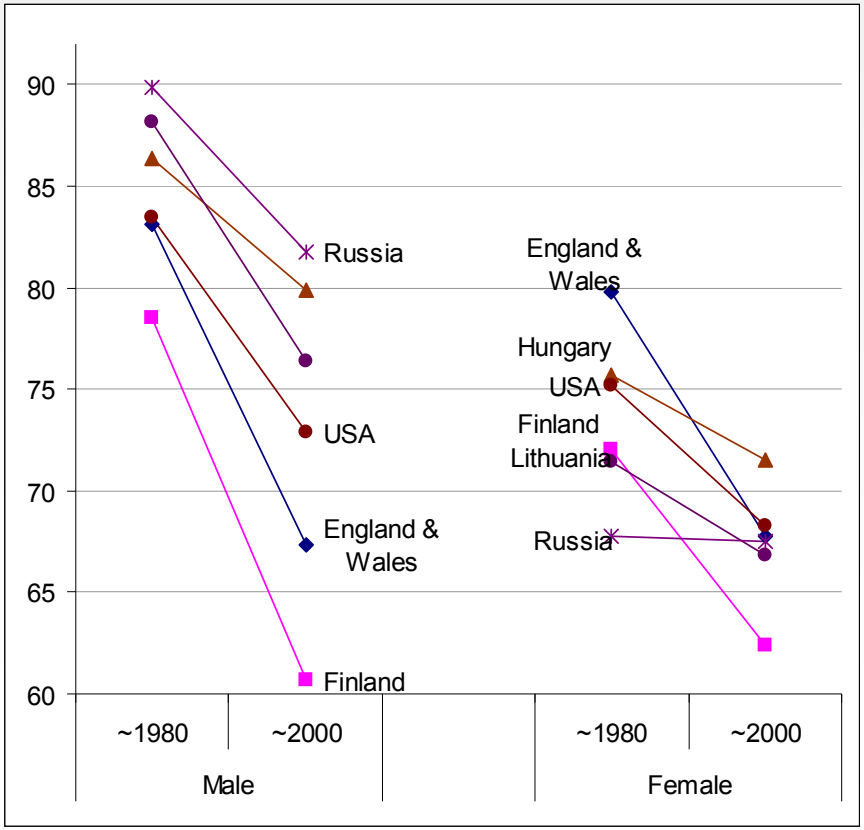
Overall and marital status age-standardized death rates for ages 30-69 from some groups of causes of death in 1998 (per 10000)

The maximal differences in relative terms both for men and for women were observed in mortality from *tuberculosis*. *Alcohol related causes* and *external causes* (except alcohol poisoning) took second and third place correspondingly. The two last position were occupied by *smoking-related cancer* and *other neoplasms*.

WHO European standard was used

Differences by marital status. (4)

Contributions of changes in age-specific death rates and of changes in marital status structure to the total change in SDR at ages 30-69



Age-standardized proportions (in percent) of married in total population

	SDR		Total change in SDR	Due to changes in age-specific death rates	Due to changes in marital status structure
	~1980	~2000			
Males					
England & Wales	92,8	55,6	-37,2	-41,5	4,3
Finland	118,6	73,6	-45,1	-55,2	10,2
Hungary	141,4	137,3	-4,0	-18,3	14,3
Lithuania	136,0	149,2	13,2	-2,0	15,2
Russia	180,8	196,3	15,5	-6,2	21,7
USA	105,8	70,8	-35,0	-43,0	8,0
Females					
England & Wales	51,4	34,4	-17,0	-17,7	0,7
Finland	43,4	30,1	-13,3	-14,1	0,8
Hungary	70,0	56,4	-13,6	-15,4	1,7
Lithuania	54,6	49,3	-5,3	-4,9	-0,5
Russia	67,0	69,4	2,4	2,5	-0,1
USA	56,7	43,1	-13,6	-14,3	0,7

Source: Jasilionis, D.; Andreev, E. M.; Kharkova, T. L.; Kingkade, W. W.: Change in marital status structure as an obstacle for health improvement: evidence from six developed countries *European Journal of Public Health* (2011).

Differentials due to education and occupation. (1)

Expectations of life between exact ages 20 and 60 by occupational category (year).

Data for 17 regions of Urban Russia.

	Total population	All working	Non-manual workers	Manual workers	Non-working
Men					
1970	35,9	36,5	37,3	36,2	27,0
1979	35,4	36,0	37,4	35,5	23,2
1989	36,2	36,7	38,2	36,2	26,5
Women					
1970	38,6	39,0	39,1	38,9	35,5
1979	38,5	38,9	39,3	38,6	33,9
1989	38,7	39,1	39,4	38,9	34,6

Data for Russia as a whole.

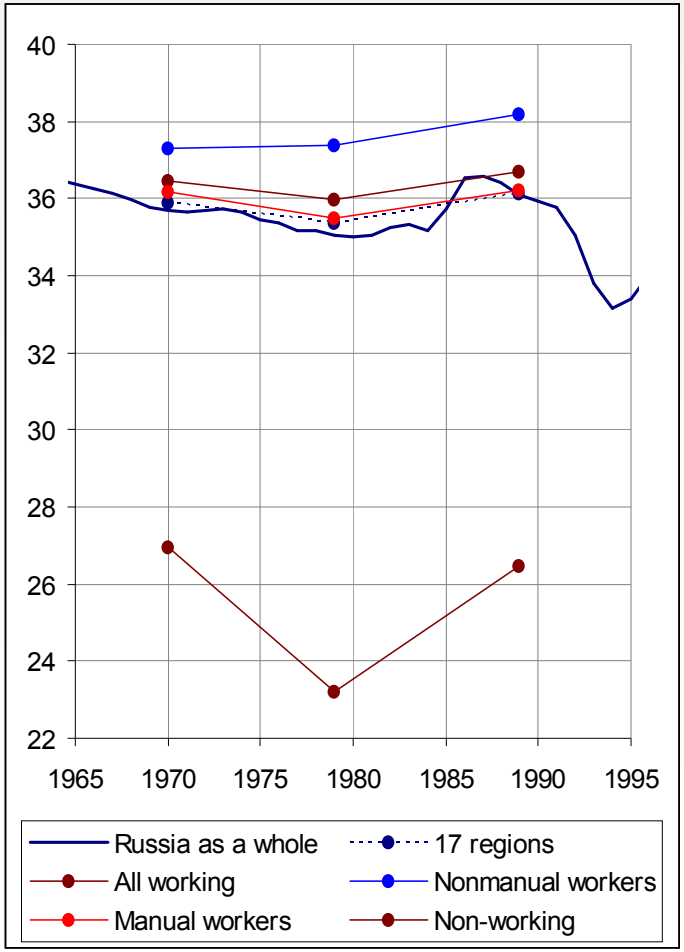
	Total population	All working	Non-manual workers	Manual workers	Non-working
Men					
1979	35,0	35,6	37,5	34,9	22,7
1989	36,4	37,0	38,4	36,5	28,8
Women					
1979	38,5	38,8	39,2	38,6	32,5
1989	38,8	39,1	39,4	38,8	35,4

The Central Statistical Office of the Soviet Union produced the data on deaths by educational level and occupational category for the years around the 1979 and 1989 censuses. The calculation of mortality rates is based on these data and independent tabulations of population from the Censuses. Besides it was used a special data collection experiment associated with the 1970 Census. Registration in death certificates of the last place of work and type of position permitted data processing of numbers of deaths by socio-occupational class in 17 regions of Russia: Leningrad, Ivanovo, Gorky (now Nizhny Novgorod),Voronezh, Volgograd, Kuibyshev (now Samara), Rostov, Perm, Sverdlovsk, Chelyabinsk, Kemerovo, Novosibirsk, Irkutsk, Krasnodar and Primorsky krays, Republics Tatarstan and Bashkortostan.

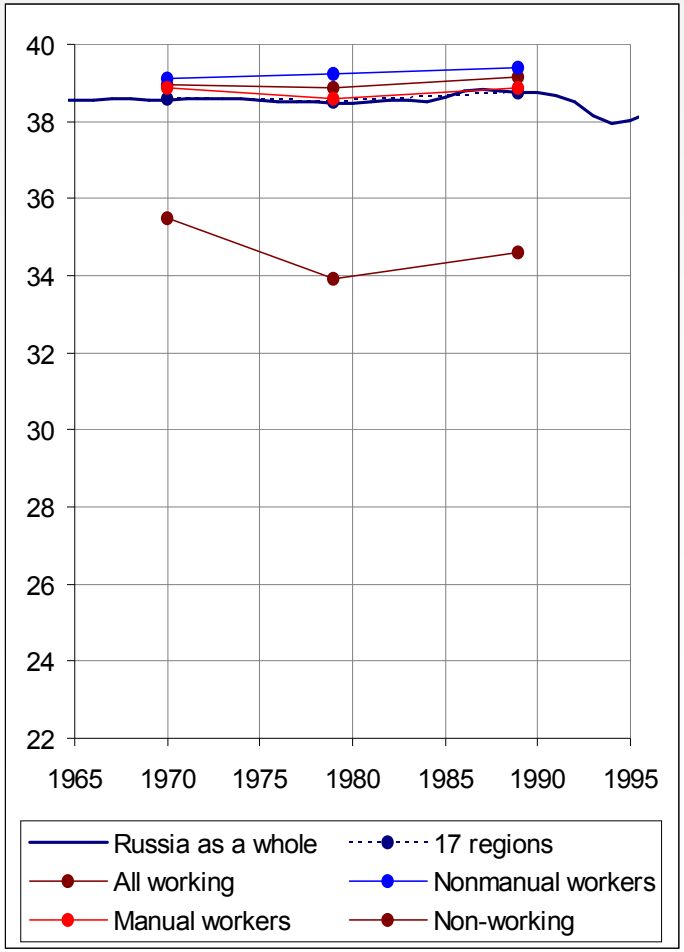
Differentials due to education and occupation.(2)

Expectations of life between exact ages 20 and 60 by occupational category (year).

Male



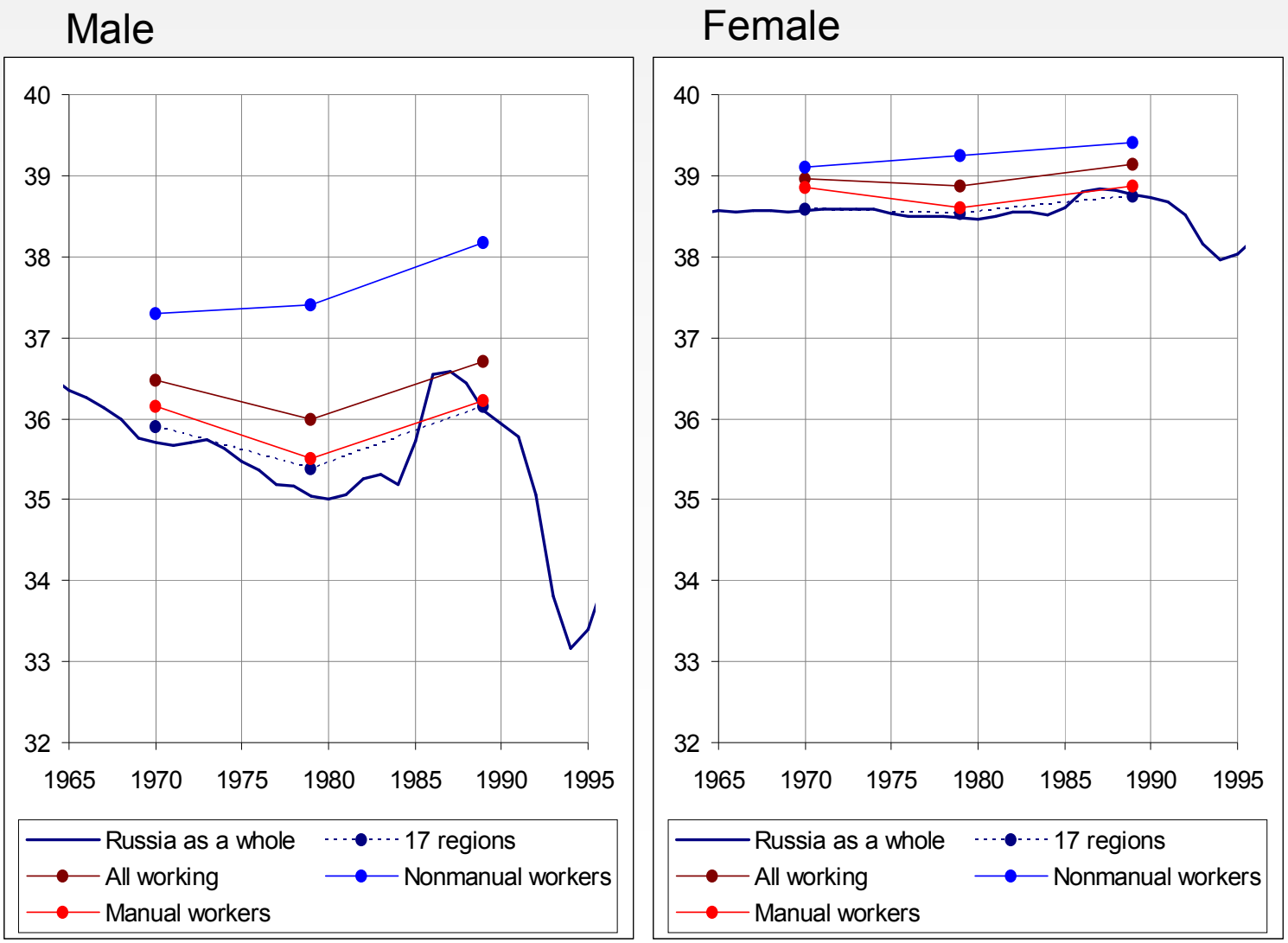
Female



This method has some potential problems due to possible numerator-denominator biases, in which individual information may differ systematically between Census and death certificates. More of them occupational status could be changed between the census and death point. This bias tends to be most severe when estimating mortality for socio-economic groups at the extremes of the distribution. We have therefore adopted the conservative strategy used by others in this situation and concentrated on analyzing mortality differences between broad socio-economic categories such as manual/non-manual rather than more detailed classifications.

Differentials due to education and occupation. (3)

Expectations of life between exact ages 20 and 60 by occupational category (year).



Differentials due to education and occupation. (4)

Decomposition of changes in 'life expectancy between exact ages 20 and 60' for men

		1970-1979	1979-1989
	Total changes	-1.12	1.4
Due to changes in mortality of	- Non-manual workers	0.01	0.32
	- Manual workers	-0.87	0.99
	- Non working	-0.52	0.1
Due to changes in occupational structure		0.26	-0.01
of them:	- Percent employed	0.27	0.03
	- Percent manual workers in employed	-0.01	-0.04

This table shows that the overall mortality increase in the 1970s is concentrated among manual workers. Non-manual employees did not experience considerable changes.

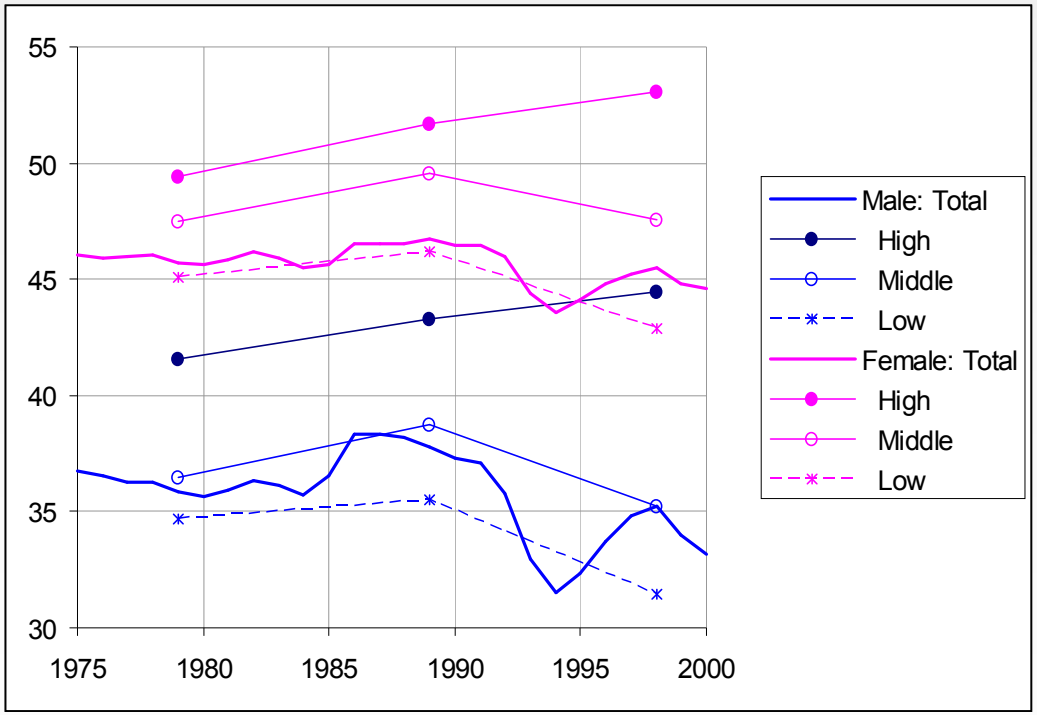
As expected the non-working population shows much higher mortality than manual and non-manual workers, but the change over time follows the pattern experienced by the two active groups. The non-working population showed high mortality because of two reasons: First, according to the Soviets law, all persons who were able to work were obliged to work. Article 209 in the criminal codes of the Russian Federation and other former Soviet Republics included the forceful placement or deportation of non-working persons. Second, persons who were ill for a long period (more than 3 months) were discharged and started to receive a disability pension instead of temporary sick leave benefit. This pension was significantly smaller than sick leave benefit. These two reasons combined show that at age 30-49 only disabled persons did not work and the majority of the non-working population was disabled.

Source: Andreev, E.M., Hoffmann, R., Carlson, E., Shkolnikov, V.M., Kharkova, T.L. (. Concentration of working-age male mortality among manual workers in urban Latvia and Russia, 1970-1989. European Societies, 2009. Vol.11(1), pp. 161-185.

Differentials due to education and occupation. (5)
Life expectancy at the age 30 by educational group (year).

	Total	High	Middle	Low
Men				
1979	35,9	41,6	36,4	34,7
1989	37,9	43,3	38,8	35,5
1998	35,4	44,5	35,2	31,4
Women				
1979	46,9	49,4	47,5	46,5
1989	47,4	51,7	49,5	46,2
1998	46,0	53,1	47,6	42,9

'High' = Higher education.
'Middle' = Incomplete higher, secondary specialized, and secondary education.
'Low' = Incomplete secondary, primary and incomplete primary.

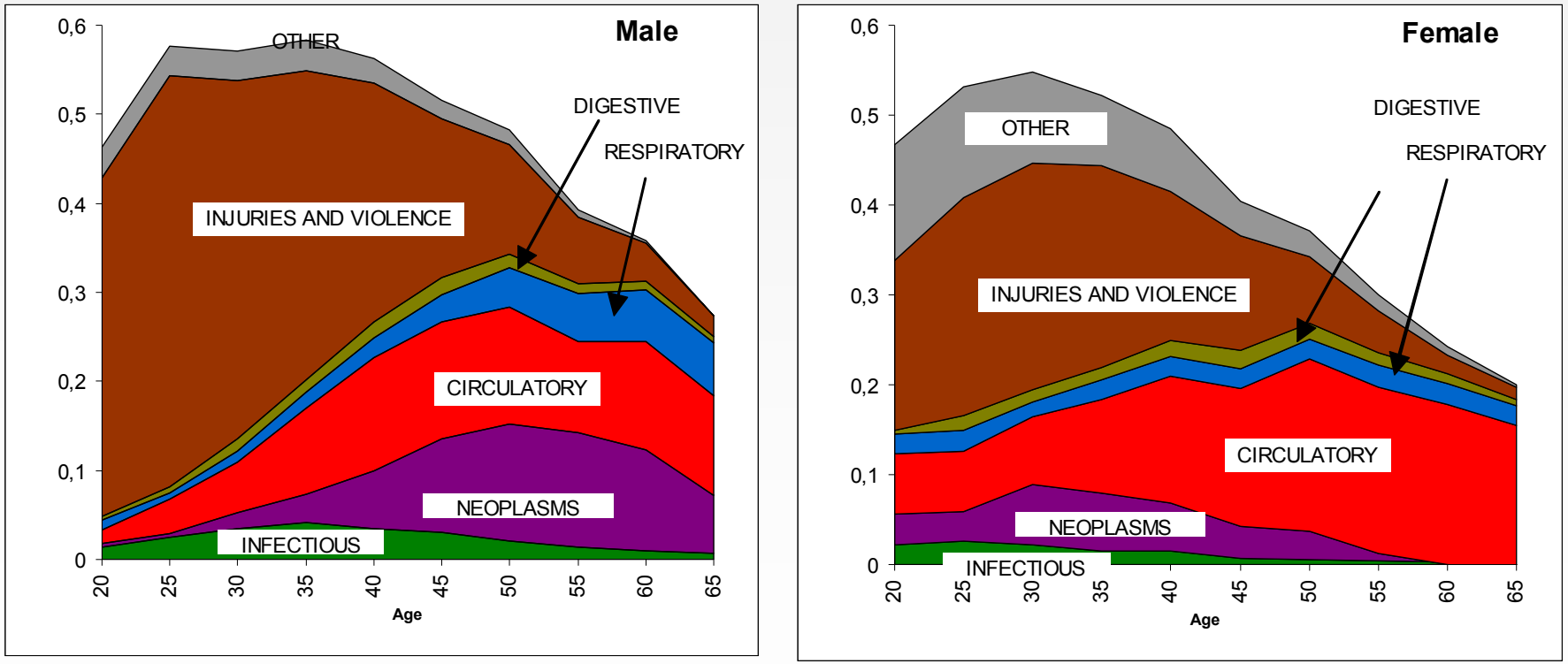


The educational composition of the Russian population in mid-1998 was estimated by interpolating between the micro-census of 1994 and the census of 2002. Tabulation of deaths by education was undertaken at Goskomstat using original death records for 1998.

This study also combines data on deaths and population from different sources (census self-reporting and post-mortem reporting by relatives) that could produce numerator-denominator bias in estimates of mortality by educational groups.

Differentials due to education and occupation. (6)

Proportional differences in age specific death rates between the populations of Lower (secondary and lower education) and Upper educational classes (secondary specialized and higher education) by cause of death.

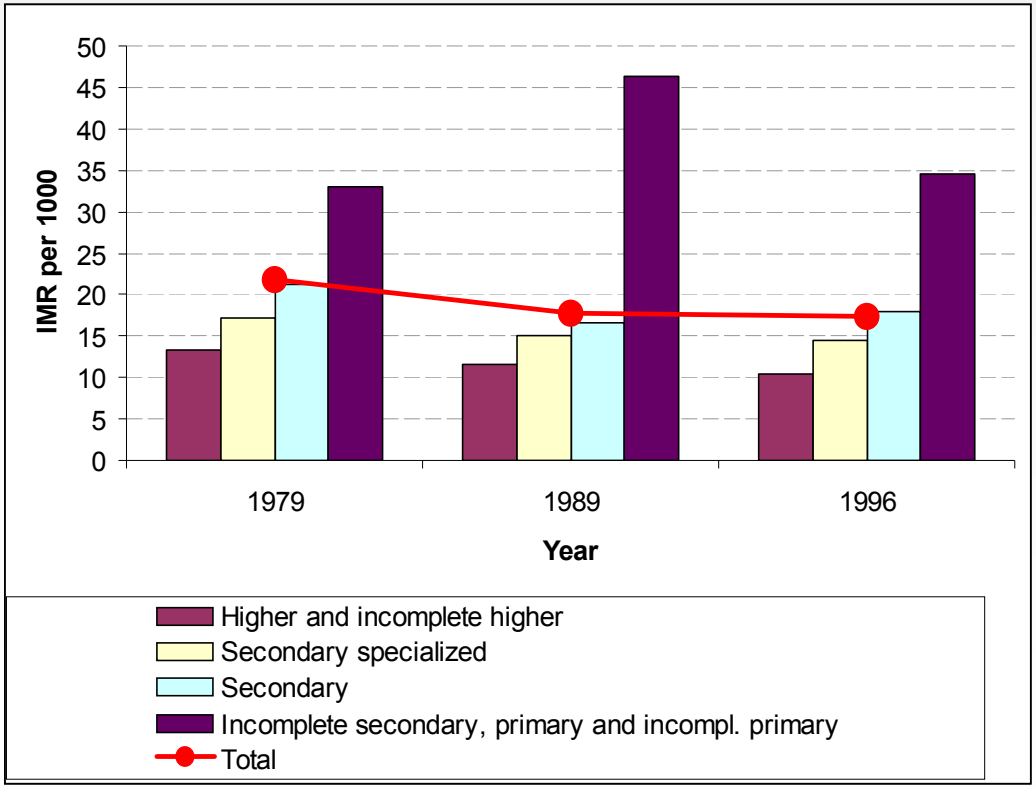


Proportional deference in age-specific death rates between Upper and Lower educational classes by cause of death is defined by the expression: $$\frac{{}_{\tau}m_x(\text{lower},\text{cause})-{}_{\tau}m_x(\text{upper},\text{cause})}{{}_{\tau}m_x(\text{lower},\text{total})}$$

Source: Shkolnikov, V., Leon, D., Adamets, S., Andreev, E., Deev, A. Educational level and adult mortality in Russia: an analysis of routine data 1979 to 1994. Social Science and Medicine, 1998. Vol. 47, No 3, pp. 357-369.

Differentials due to education and occupation. (7)

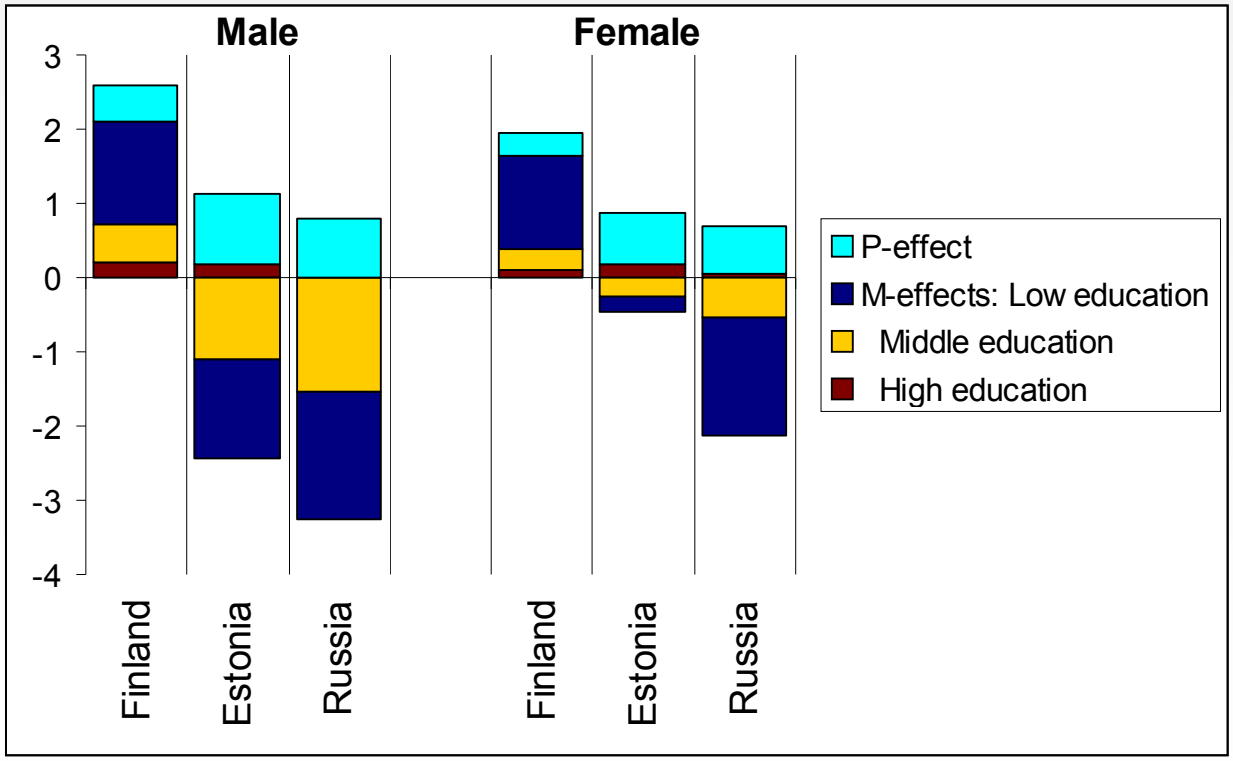
Infant mortality in depends of education of mother.



Source: Kvasha E.A Differentiation of infant mortality in depends of mother's education. *Demoscope weekly* № 331 – 332. 2008. (In Russian)..

Differentials due to education and occupation. (8)

Contributions of changes in mortality in the three educational groups (M-effects) and of changes in the population educational structure (P-effects) to the change in total life expectancy at the age 30 between ~1989 and ~ 1999.



It is important to recognize that in both Russia and Estonia overall male mortality has been increasing at a time when educational attainments were improving. It is now apparent that, without these educational gains, the deterioration in health may have been even greater. However, while the best educated have obtained some protection, even the best educated in Russia have not experienced the substantial improvements seen in the West. Investment in education holds the potential to make a contribution to health in the countries of the former Soviet Union but it will not be enough.

Source: Shkolnikov, E.M., Andreev, E.M., Jasilionis, D., Leinsalu, M., Antonova, O.I., McKee, M. The changing relation between education and life expectancy in central and eastern Europe in the 1990s. Journal of Epidemiology and Community Health, 2006. Vol.60(10), pp.875-881.

Differentials due to education and occupation. (9)

Age-standardized death rates for the range of ages 40 to 74 by level of education in three male cohorts: LRC (Moscow-St. Petersburg), Helsinki and Oslo (per 100,000 person-years lived between the mid-1970s and the late 1990s)

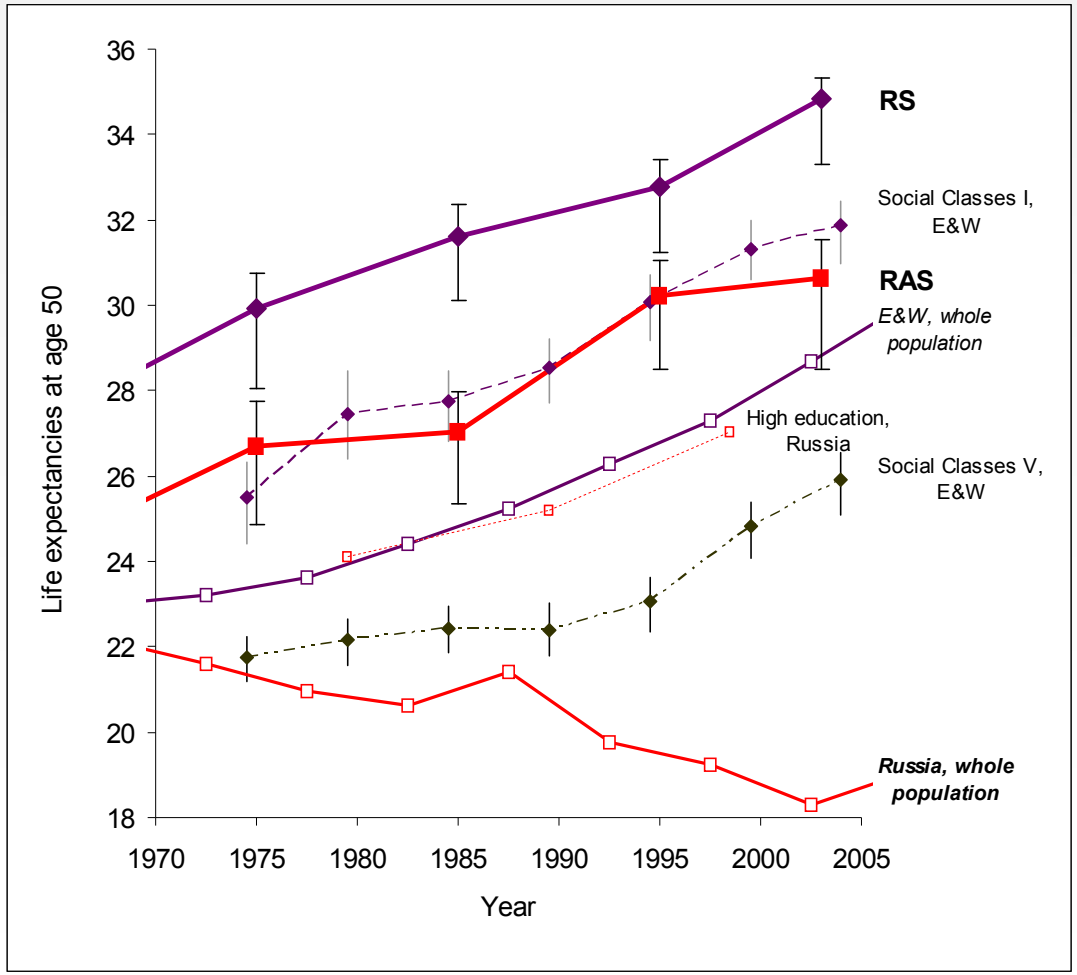
	Low	Middle	High	Total
LRC - Moscow-StPb	2969* (192)**	2019 (151)	1346 (110)	2194/ 2491*** (82)
Helsinki	1905 (36)	1405 (44)	974 (44)	1614 (24)
Oslo	1731 (48)	1270 (48)	890 (50)	1407 (28)
Ratios to the SDRs of the high education group				
LRC - Moscow-StPb	2,2	1,5	1,0	1,6/1,7
Helsinki	2,0	1,4	1,0	1,7
Oslo	1,9	1,4	1,0	1,6
Ratios to the SDRs of Oslo				
LRC - Moscow-StPb	1,7	1,6	1,5	1,4/1,6
Helsinki	1,1	1,1	1,1	1,1
Oslo	1,0	1,0	1,0	1,0

A comparison of an epidemiological cohort from Moscow and St. Petersburg with the male populations of Helsinki and Oslo showed that the educational gradient in the largest Russian cities is steeper than those in Helsinki or Oslo, from where there were comparable data, both in absolute and relative terms. Importantly, the table 2 also suggests that even the highest educational group in Russia experiences a substantially greater mortality than do equivalent population groups in low-mortality countries.

* European population standard of the WHO is used
** Doubled standard errors are given in brackets
*** Actual value for the LRC cohort / expected value with the all-Russia educational composition

Source: Shkolnikov, V. M.; Deev, A. D.; Kravdal, Ø.; Valkonen, T.: Educational differentials in male mortality in Russia and northern Europe: a comparison of an epidemiological cohort from Moscow and St. Petersburg with the male populations of Helsinki and Oslo. Demographic Research, 2004. 10:1, 1-26

Period life expectancies at age 50 for the Royal Society, Russian Academy of Science (RAS), the upper social class in England and Wales, the highly educated group in Russia, and national populations of England and Wales and Russia after 1970.



LEs for the two Academies were calculated by 10-year periods; LEs for the social classes and for the countries were calculated for 5-year periods; LEs for highly educated Russian men were calculated for one-year periods. On the figure, values of all indicators are attributed to centers of corresponding time-periods.

Social Class I: Professional (Doctors, chartered accountants, professionally qualified engineers).

Social Class V: Unskilled manual worker (Labourers, cleaners and messengers).

Source: Andreev, E. M.; Jdanov, D. A.; Shkolnikov, V. M.; Leon, D. A.: Long-term trends in the longevity of scientific elites: evidence from the British and the Russian academies of science Population Studies, 2011. 65:3, 319-334.

Inter-individual inequality. (1)

We presented many evidences of huge intergroup mortality inequality in Russia. How can we estimate inter-individual inequality in length of life in modern Russia? Using methods presented in the lecture “Inequality in continuous distributions and in the life table” it is not difficult to calculate Gini coefficient for Russia’s life tables. It is not sudden that Russia take the highest poison among all HMD countries by Gini coefficient: negative correlation between life expectancy and Gini coefficient is well known fact.

5 HMD-countries with highest Gini coefficient in 2005 (100·G(0))

	Male	Female
Russia	17,8	12,5
Ukraine	16,4	11,6
Lithuania	15,3	10,7
Belarus	15,2	10,3
Latvia	14,5	10,0

A very exact forecasting of Gini coefficient can be obtained with linear models than uses two variable the infant mortality rates (q(0)) and expectation of life at the age 1 (e(1)). We took all HMD life table for period after 1900 and calculated a corresponding model. The standard error of the estimate for male is 1,08 for male and 1,04 for female. (For the model based only on life expectancy at age 0 the standard errors are 1,73 and 1,42 for male and female correspondingly).

Let $G_M(0)$ denote estimation of Gini coefficient based on the created model

$$G_M(0) = a_0 + a_q \cdot q(0) + a_e \cdot e(1) \quad \text{and} \quad \Delta = G(0) - G_M(0)$$

Inter-individual inequality. Comparison of length-of-life disparity in the life tables for Russia and for USA.

Δ>0 means that inter-individual inequality in length of life in population under consideration is higher than an average inequality corresponded observed (q(0), e(1)). Δ<0 means that this population is less heterogeneous than could be expected.

In case of life tables for the USA Gini coefficient is higher than average corresponded observed (q(0), e(1)). High heterogeneity of mortality in the USA is established fact. It is unexpected that the life table for Russia looks more homogenous than in an average life table even for male.