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**The problem of excessive male mortality in Kazakhstan and its negative effect on socio-economic development of the country**

Some exceeding of the male mortality is conditioned by a set of biological and social factors. In particular, biological peculiarities like smaller defense of man's organism (women's organism characterizes by larger endurance, which is determined by specific function of extension and preservation of life, endurance to stresses, etc.) and hormonal peculiarities from one side; and social factors (more men work in dangerous and harmful conditions, have addiction to alcohol, tobacco and drug consumption or tend to risky behavior) – from the other side. Also the quantity of men, who work in conditions which don't meet sanitary and hygienic standards is three times larger the women (at building – in 8 times, at transport and communication, extractive industries – more than 5 times, at metallurgy – in three times). Men also predominate in professional spheres that have increased risk for life (army, police, rescue workers), extreme sports etc. However, strongly pronounced male mortality, which as a result causes 11-12-years gap in average lifetime of men and women, is characterized only for several post-soviet countries. Excessive loss of human capital is a serious obstacle for a social and economic development of a country.

**Key words:** male and women mortality, socio-economic development, comparative analysis.

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**Қазақстандағы шамадан тыс ер адамдардың өлімінің мәселесі және оның еліміздің әлеуметтік-экономикалық дамуына кері әсері**

Ер адамдардың өлімінің жиірек кездесуі көптеген биологиялық және әлеуметтік факторларға байланысты. Ер адамдардың ағзасының биологиялық өзгешелігі ағзаның әлсізрек қорғаныс жүйесіне ие екенін (әйел адамдардың ағзасы ұрпақ жалғастыру функциясына байланысты жоғары төзімділікпен, күйзелістерге төзімділікпен ерекшеленеді) және гормоналды айырықша белгілер бар екенін білдіреді. Әлеуметтік факторларға ер адамдар қауіпті және зиян орталарда жұмыс істейтіні, ішімдік, шылымға және есірткі қабылдауға үйір болатындары немесе тәуекелі жоғары мінез-қылыққа ие болатындары жатады. Сонымен қатар, санитарлы-гигиеналық нормаларға сай емес орталарда жұмыс істейтін ер адамдардың саны әйелдерге қарағанда үш есе көбірек (құрылыста – 8 есе, көлік және коммуникацияда, өндірісте – 5 еседен астам, металлургияда – 3 есе). Ер адамдар өмірге жоғары қауіп бар кәсіптерде де (армия, полиция, құтқарушылар), экстремалды спорт түрлерінде де т.б. басымырақ кездеседі. Сонда да әйелдер мен ер адамдардың орташа өмір сүру ұзақтығының 11-12 жылдық айырмашылығына әкелетін ер адамдардың өлімі тек қана кейбір посткеңестік кеңістіктегі елдерге ғана тән. Адам капиталының шамадан тыс жоғалуы елдің әлеуметтік-экономикалық дамуына үлкен кедергі болуы мүмкін.

**Түйін сөздер:** ер және әйел адамдардың өлімі, әлеуметтік-экономикалық даму, салыстырмалы талдау.

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**Проблема чрезмерной смертности мужчин в Казахстане и ее негативное влияние на социально-экономическое развитие страны**

Повышенная мужская смертность обусловлена множеством биологических и социальных факторов. Биологические особенности мужского организма указывают на менее защищенную систему организма и на гормональные особенности. Согласно социальным факторам известно, что больше мужчин работают в опасных и вредных условиях, имеют пристрастие к алкоголю, табаку и к потреблению наркотиков или тенденцию к рискованному поведению. Кроме того, количество мужчин, которые работают в условиях, не отвечающих санитарно-гигиеническим нормам, в три раза больше женщин (при строительстве – в 8 раз, на транспорте и коммуникации, добывающих отраслях – более чем в 5 раз, в металлургии – в 3 раза). Мужчины также преобладают в профессиональных сферах, которые имеют повышенный риск для жизни (армия, полиция, спасатели), в экстремальных видах спорта и т.д. Тем не менее, ярко выраженная мужская смертность, которая в результате приводит 11-12-летний разрыв в средней продолжительности жизни мужчин и женщин, характерна лишь для некоторых стран постсоветского пространства. Чрезмерная потеря человеческого капитала является серьезным препятствием для социально-экономического развития страны.

**Ключевые слова:** мужская и женская смертность, социально-экономическое развитие, сравнительный анализ.

**THE PROBLEM OF  
EXCESSIVE MALE  
MORTALITY IN  
KAZAKHSTAN AND ITS  
NEGATIVE EFFECT ON  
SOCIO-ECONOMIC  
DEVELOPMENT OF THE  
COUNTRY**

Some researches explain the phenomenon of excessive male mortality by direct and indirect influence of the wars on vital capacity, Polish demographer Kedelsky connects it with changes in labor conditions, decreasing of physical activity that prevents men from realization personal qualities which are inherent to them. Nevertheless, in present Kazakhstan the excess of the male mortality is very high. Some analysts express an opinion that one of the reasons of untimely male mortality increasing is stress, caused by inability to adapt to passing social and economic transformations of the society at the end of XX century and loss of usual social and professional prestige (which for some part turned into drug or alcoholic addiction). In addition, larger prevalence of socially determined diseases among men, in particular tuberculosis, diseases connected with alcohol addiction, venereal diseases affects the male mortality rate.

From the Soviet times, female health protection was the most important principle of health policy but nobody raised a question about male health. The same situation is in Kazakhstan. Now specialists of National Demography Institute of Kazakhstan certify such problems as lower health duration of men, larger occurrence of socially determined diseases and disorders, deterioration of male reproductive functions. However, measures that have been taken concerns only providing safe working conditions and gender equality.

Some predominance of the male mortality is typical for all development countries. But in Kazakhstan this index is much higher than in other countries. For example, in 2008 indexes of mortality among men were 2,5 times higher than among women, especially among middle-aged categories (Table 1). This is not only demographic, but also economic loss for the country.

Period of life when men are capable to working is the most risky in relation to male mortality. In cohort 15-59 years mortality of Kazakhstani citizens was much higher than in Euro area countries (for men – 3,5 times and for women – 2,5 times). Prevalence of death rates in all age groups of the interval 15-59 was always more distinct for men (by the materials of the World Bank).

**Table 1** – Male and Female Mortality in Kazakhstan in 1960-2015 years

Years	Mortality rate, adult		Predominance, times	Years	Mortality rate, adult		Predominance, times
	female (per 1,000 female adults)	male (per 1,000 male adults)			female (per 1,000 female adults)	male (per 1,000 male adults)	
1960	163,1	394,6	2,4	1989	119,7	296,3	2,5
1961	159,5	388,8	2,4	1990	128,9	306,3	2,4
1962	155,8	382,9	2,5	1991	138,2	316,2	2,3
1963	152,3	377,2	2,5	1992	147,5	326,1	2,2
1964	148,7	371,5	2,5	1993	153,6	345,1	2,2
1965	145,2	365,8	2,5	1994	159,7	364,1	2,3
1966	141,6	360,0	2,5	1995	165,8	383,1	2,3
1967	138,1	354,3	2,6	1996	171,9	402,1	2,3
1968	135,8	350,3	2,6	1997	178,0	421,2	2,4
1969	133,5	346,2	2,6	1998	175,7	417,5	2,4
1970	131,1	342,2	2,6	1999	173,4	413,9	2,4
1971	128,8	338,1	2,6	2000	171,2	410,3	2,4
1972	126,5	334,0	2,6	2001	168,9	406,7	2,4
1973	125,3	332,0	2,6	2002	166,6	403,1	2,4
1974	124,0	330,0	2,7	2003	164,2	398,5	2,4
1975	122,8	327,9	2,7	2004	161,8	394,0	2,4
1976	121,6	325,9	2,7	2005	159,5	389,4	2,4
1977	120,3	323,9	2,7	2006	157,1	384,9	2,5
1978	118,0	319,7	2,7	2007	154,7	380,4	2,5
1979	115,6	315,5	2,7	2008	153,0	377,5	2,5
1980	113,3	311,3	2,7	2009	151,3	374,7	2,5
1981	110,9	307,1	2,8	2010	149,6	371,9	2,5
1982	108,5	302,9	2,8	2011	147,9	369,1	2,5
1983	107,1	297,6	2,8	2012	146,2	366,2	2,5
1984	105,6	292,4	2,8	2013	144,5	363,2	2,5
1985	104,1	287,1	2,8	2014	data is not available	data is not available	
1986	102,6	281,8	2,7	2015	data is not available	data is not available	
1987	101,2	276,5	2,7	Mean	126,6	331,9	2,6
1988	110,4	286,4	2,6				

Data from database: World Development Indicators, <http://databank.worldbank.org/data>

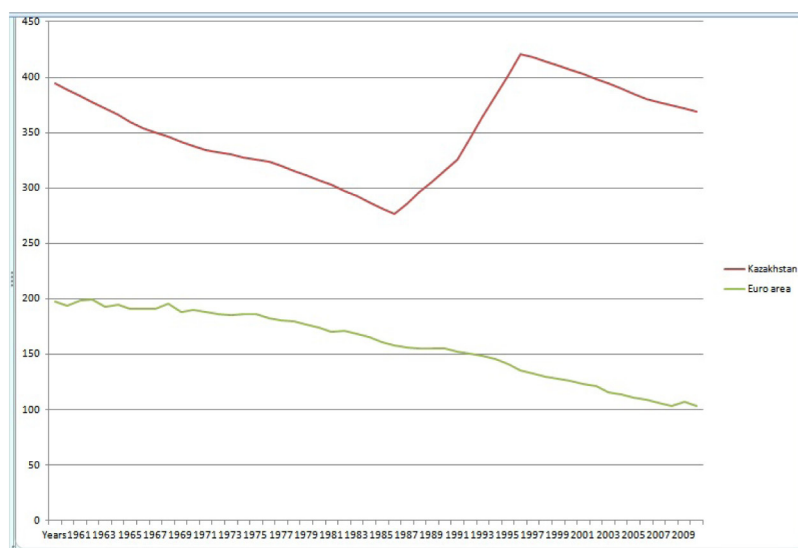
According to the data men who died untimely (in the age before 65) were 2,5 times more than women. Today Kazakhstani men in the age 15-60 die 3,3 times more often than, for example Austrian

men. Comparing with the developed countries I can state that the differences are not only in ratio of male and female deaths but also in trend of the untimely death level (Picture 1).

If we look at the causes of the mortality it can be clearly seen that prevalence of male mortality is because of the external reasons, infectious and cardiovascular diseases. Kazakhstani men die from unnatural reasons 5 times more often than people of the same age in EU countries. Moreover the prevalence is not in the young age (15-19 years) when young men tend to risk, don't have enough life experience and are exposed to danger. It is paradoxical but in this age the rate is the smallest

– 2,7 times. The maximum prevalence for men is in the age 45-59 (nearly 5,6 times). Number of violent deaths for men also prevails the analogous rate for women in many times.

Analysts indicate some differences in mortality of urban and countrymen which are the most expressive in the young age – 20-23 years. They explain this phenomenon by sharp increase of the mortality rate from unnatural reasons in this age (the most typical is alcohol consumption which causes dangerous behavior, defiance of the road traffic rules and safety at work). As a result mortality of young countrymen is 1,5 times higher comparing to urban citizens.



**Picture 1** – Dynamic of untimely adult male mortality rate in Kazakhstan and in Euro area countries in 1960-2011\* (per 1,000 male adults)

\*data for the years 2012 and above are not available

The Picture 1 is created by the author using the Data from database: World Development Indicators <http://databank.worldbank.org/data> (Last Updated: 12/22/2015)

High rate of male mortality causes danger for the social production (because of the loss of significant part of labor capital), reduces the number of people that are suitable for military services, stipulate social problems (orphanage, reduction of a family welfare because of the breadwinner loss) etc. Besides, it distorts the structure of the population that has a very negative influence on the reproduction. For example, in the youngest age groups men prevail over women, but starting from the age 30 a number of women predominates. In the age group 15-49 the

difference between men and women was over 200 thousands persons. Many healthy women that want to create a family can't to find a pair and remain childless.

Among social reasons that cause excessive male mortality the most significant are behavioral. More than half of men, older than 18 smokes, drug addicted are also men in this age. Also men in this age tend to behave in a risky for health way. It is significant that morbidity among women is higher than among men that's why higher male mortality rate witnesses about less conscious vital behavior of the men. Women also more often come to see a doctor and keep his recommendations more carefully. Also when we look at stereotypes in

Kazakhstani society can be clearly seen that the role of the women in the family is to be responsible for the health of the family and first of all children. That's why when alone man has some serious problems with health more often the result of this is disability or death.

Russian analyst Nazarova I.B. (2004) informed that during the survey among working people, who informed about problems with health women more often than men applied for the help of a doctors. Men that had slight diseases (for example toothache, headache, sore throat, stomach disease, and slightly high temperature) didn't consider this as a problem with health and usually ignore diseases or practiced self-treatment (Nazarova I. Health of the healthy population. Moskow, 2007).

Excessive male mortality is one of the most unfavorable signs of the present demographic and economic crisis. Demographic crisis becomes more complicated because of absence of effective mechanisms to control it. Untimely male mortality makes an average health of Kazakhstani population

shorter and Kazakhstan remains behind many EU countries by this index.

### **Conclusions**

Untimely male death is the most significant determinant of the loss of human potential in Kazakhstan. It causes decline of average expectancy of life, social and economic problems. Besides Kazakhstan loses its reproductive potential not only directly because of male deaths but also indirectly because women can't find a husband. Problems of excessive male mortality are conditioned first of all by social reasons and require complex solving.

Comparative analysis of untimely male mortality rates in Kazakhstan and Euro area countries persuasively proves existing of the significant resources of their decreasing and determines criteria for which Kazakhstan should aim. That's why developing the state policy from the protection of social health and declining untimely death rate Kazakhstani men should be a target group of influence.

### **References**

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