

ANALYSIS OF ADOLESCENTS MORTALITY FROM EXTERNAL CAUSES IN THE REPUBLIC SAKHA (YAKUTIA)

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Abstract: The health condition and social development is largely determined by the level of adolescents population health who have a significant influence on the health of the nation as a whole, and shape the cultural, intellectual, industrial and reproductive potential. For any country, the death rate in adolescents is a significant socio-demographic problem and its trends, causes and age-sensitive subject of intense study. At this article the analysis of deaths causes in the Republic of Sakha (Yakutia) is presented. Revealed the leading role of external factors as causes of death. Analyzed by age, gender and social differences.

Keywords: Adolescent, and death, external causes, accident, suicide.

Introduction. Adolescence - one of the critical stages of human life. The main place in the structure of adolescent deaths external causes are take. Among them are a serious problem occupied by suicidal behavior, road traffic injuries, domestic violence, both physical and psychological. The last is often the cause of suicide in adolescents (Baranov A.A., Albitsky V.U., 2009).

WHO defines the boundaries of adolescence from 10 to 19 years, that was the determination to use the lower bound adolescent of 10 years, and the upper limit of 19 years.

According to the report, UN Children's Fund, the suicide rate among Russian teenagers is one of the highest in the world. Over the past 10 years, the number of suicides of children and adolescents has nearly doubled. According to WHO criteria, the rate of suicide for more than 20 per 100 thousand people talking about a severe crisis in the country. In Russia this figure is exceeded by 2.5 times (Abrosimova M.U., Albitskiy V.U., 2007).

The next most common cause of death are accidents, which account for more than 50% of adolescents deaths aged 10-19 years.

In the Russian Federation in 2009, according to preliminary data, there were 9,260,943 teenagers from 15-19 years, accounting for 6.5% of the total number of population. Died during the same period - 8667 people (6038 males and 2629 females).

Many authors have indicated multivalency of risk factors. It is a direct correlation between suicide and adverse climate in the family and school problems of child. Vulnerability of children from many of the negative social impacts, lack of attention from parents, family conflicts pushed out into the street more and more children. This increases the risk of auto-

aggressive behavior of adolescents and reduced resistance to psychological trauma, which promotes the formation of their negative personality traits, which leads to depression, anxiety, self-doubt.

Based on the socio-psychological criteria set forth A.G. Ambrumova and L.Y. Zhezlova [1973] autoaggression (suicide) is one of the four main types of deviant behavior. Alcohol and drug use, is rapidly growing during adolescence, also have a negative influence.

In the Republic of Sakha (Yakutia) in long-term notes unfavorable situation with a reserve of mortality at all ages. The main causes of republic population mortality in 2010, as in previous years, are diseases of the cardio-circulatory system (47.9%), external causes (19.9%) and cancer (12.3%). The mortality rate from accidents, poisonings and injuries by 28.8% higher than in Russia, and the mortality rate from diseases of the cardio-circulatory system - 1.7 times lower.

In the Republic of Sakha (Yakutia) in 2010, according to preliminary data, there were 44500 teenagers from 15-17 years, that accounting for 4.64% of total republic population. Died during the same period - 129 people (1.6 per 1000 us); the mortality rate of boys and girls was 2.4 and 0.8, respectively, for 1000 of hole population/

Minimization of mortality due to the decreasing of child mortality will depend on the effectiveness of preventive measures to prevent the deaths of children and adolescents from external causes. The proportion of deaths from external causes was 73-80% in adolescents from 10-19 years. The maximum mortality rates prevailing in the group of adolescents 15-19 years of age.

The structure of the external causes of variation in the different age groups. In the group of adolescents 10-14 years, the leading position occupied by drowning and suicide. The main external causes of death among adolescents aged 15-19 identified suicides and murders.

Mortality of adolescents 15-19 years of injury and poisoning, compared with other groups expressed significantly, the greatest growth occurred in the group suicides, homicides, drownings, falls and hypothermia.

The purpose of the study - to analyze the cause of death from external causes adolescents in the Republic of Sakha (Yakutia) in the period 2005-2010.

Materials and Methods. The work was done on the basis of analysis of adolescents deaths who were registered in the State, "Bureau of Justice Ministry of Health medical examination of Republic Sakha (Yakutia)" in the period 2005-2010. Data of Federal State Statistics Service, the territorial authority of the Federal State Statistics Service of the Republic of Sakha (Yakutia), the State's health report of the Republic of Sakha (Yakutia) in 2009.

The results. In 2010, RS (Y) mortality of child population was 100.5 per 100000 population. Mortality from respiratory diseases was 7.3, from infectious and parasitic diseases 4.4; of 2.9 tumors per 100000 population. In the group of causes of death from accidents, poisonings and injuries, the figure is 35.0 per 100 000 population. Thus, the number of children who died of external causes is 5 times greater than the number of deaths from respiratory diseases, ranks first among causes of death from medical illness.

Given the structure of mortality, were analyzed 202 deaths from external causes adolescents registered in the State, "Bureau JM HME of RS(Y)" from 2005-2010.

Among children aged 10 to 19 years, the number of deaths is different. So, from 2005-2010, the number of deaths of adolescents aged 16 to 19 years was 78.7% of total deaths. In second place the number of children who died between the ages of 13-15 years - 15.3%, third place - children 10-12 years (5.9%). Attention is called to increase the number of deaths among teenagers in 2006 and a decrease in 2007. In our opinion this is not due to the influence of exogenous factors that contributed to the reduction of mortality among adolescents. Data on the distribution of deaths by age adolescents are presented in Fig. number 1

The number of deaths from unnatural causes among young men is almost 3 times greater than that of girls. Perhaps this is due to psychological and physical gender characteristics of adolescents.

The main factors determining the level and trends in teenagers mortality were socio-economic factors. The dominance of low socio-economic conditions of rural population to an increase in the number of deaths to 54%. In contrast to Yakutsk, where the comparable figure was 33%, and in the suburbs of Yakutsk - 13%.

From an analysis of deaths cases in the territorial jurisdiction (Fig. 2) the largest percentage accounted for districts of the republic, where the majority of Yakut aborigin population live.

The causes leading to the death of teenagers are divided into exogenous and endogenous. The first group includes inadequate living conditions, education, care. Endogenous causes are as physical condition (congenital abnormalities, disease of the nervous system, malignant neoplasms and cardiovascular disease) and "symptoms, signs and inaccurately marked state". According to the authors Albitsky V.U, Ivanova A.E. and others, "inaccurately marked state" largely camouflage external causes of death, often violent.

Mortality trends in young people of the Russian Federation in terms of their distribution in urban and rural adolescents is as follows: total mortality among rural adolescents significantly higher than among urban (as well as mortality in all other age groups). It should be noted that the

excess mortality among adolescents of the rural population over the number of deaths among urban adolescents is not a specific feature of Russia. A similar situation is observed in most developed countries.

Our analysis shows a greater frequency of deaths from external causes among young men in rural areas. But at the same time, when comparing urban and rural girls, we found no definite pattern. Indicator of the number of deaths in urban and rural girls was of inconstant character in different years.

According to Russian researchers in 2008, the difference frequency of deaths from injury and poisoning, and of tumors (occupying in the structure of death cause the 2nd place) was 18 times greater in males and 8.1 times in girls. The main external causes of death among teenagers is traffic injuries, which account for more than a quarter of all injury deaths in this age group (Salahov E.R., Kakorina E.P., 2004; Barkanov V.B., 2005). At the same time marked gender differences. In young men the level of the transport mortality in 2007 is identical to those indicators of 40-year-ago data (30.6 on 31.1 per 100,000). The girls do the same index increase more than twofold (15.0 to 7.4 per 100,000). Most likely, the increase in mortality from traffic causes among women due to the increased intensity of traffic and motorization at young female.

The second major cause of teenage traumatic deaths are suicide. In contrast to road traffic accidents, suicide mortality dynamics of adolescents during the period 1991-2008 increased in boys about 23.2%, in girls - 28.1%.

Table number 1 shows the structure of causes of children and adolescents death during analyzed years in the Republic of Sakha (Yakutia).

According to our data rate of death due to suicide was 48.5% and is a major determinant of the causes of death from exogenous factors in Yakutia. Of them, 28.2% - a mechanical asphyxia by compression of the airway, 9.4% - acute poisoning. In second place by the weight of the causes of death are road crashes - 16.3%, drowning - 6.4%, a falls - 3.9%, the impact of natural low temperatures - 4.4%.

In Yakutsk in the same period was recorded 66 adolescents deaths from external factors, it is 33% of all cases in the Republic of Sakha (Yakutia). In 2010 there were 5 cases of suicidal deaths, such as mechanical asphyxia by compression of the respiratory tract and acute poisoning, it was 7.5% of the total teenage deaths in Yakutsk.

Analysis of the documentation of the place of death occurrence shows that over 92% of deaths are recorded outside from hospitals.

Conclusion. Analysis of adolescents deaths in the RS (Y) revealed that the leading positions are occupied by deaths from external causes.

Suicides and accidents are the leading cause of teenagers death in the Republic Sakha (Yakutia), whereas in Russia and the countries of Europe the leading cause of death from external causes are road traffic injuries. Significant gender differences are revealed - the teenagers death from external causes more often occur among male adolescents living in rural areas.

The high mortality rate of teenagers is largely due to reasons medical and social problems.

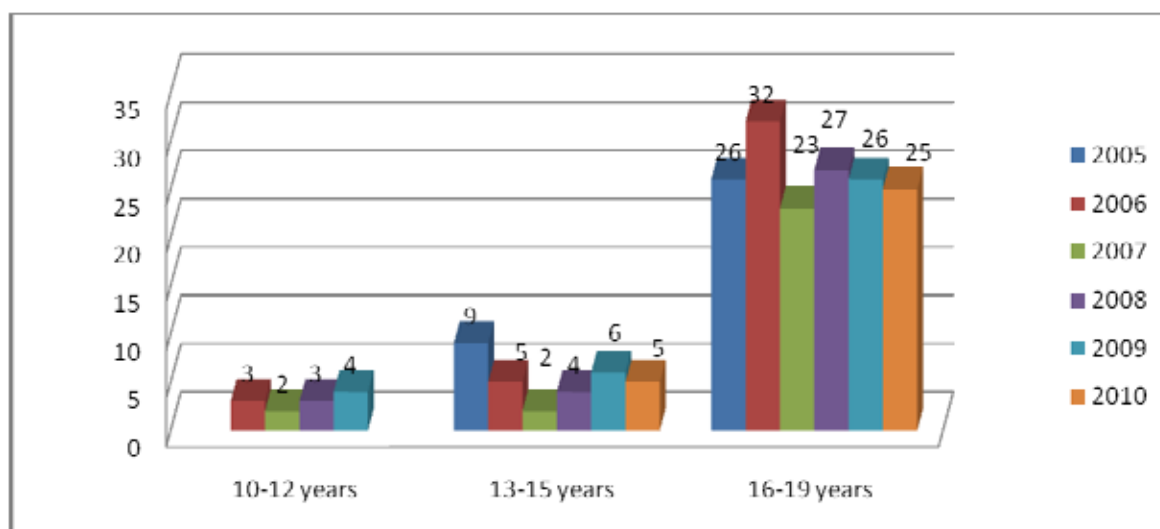
Level and living conditions are undoubted dominant in shaping the health and mortality of the Russian population under contemporary conditions, particularly in adolescents. Poverty creates an increased risk of infections, increase rates of smoking, alcoholism, substance abuse, high levels of physical illness, poor diet and other things that could be the direct cause of teenagers death.

Factors of social deprivation and teenage youth disadvantage compounded by insufficient quality of prevention of health, education, social welfare, as well as reduced health-role of the educational function of the modern family.

Serious problem in the field of child and adolescent health in all regions of Russia are injuries and violence, and this is a consequence of the interaction of a number of environmental factors. Particularly high burden of road traffic accidents and domestic violence, both physical and psychological. Psychological abuse is difficult to statements, as opposed to physical, and lead to long-term mental health problems such as depression and low self-esteem, suicidal behavior.

Conclusions:

1. The age structure of deaths from external causes predominate adolescents 16-19 years of age.
2. In the cause of death among adolescents, suicide is the leading cause, followed by traffic accidents, the third and fourth place share acute poisoning and contact with sharp objects.
3. In 72% of all deaths from unnatural causes of teenage boys predominate.
4. In most cases, death was recorded among young people in rural areas.



In Fig. 1. Distribution of deaths among adolescents ages

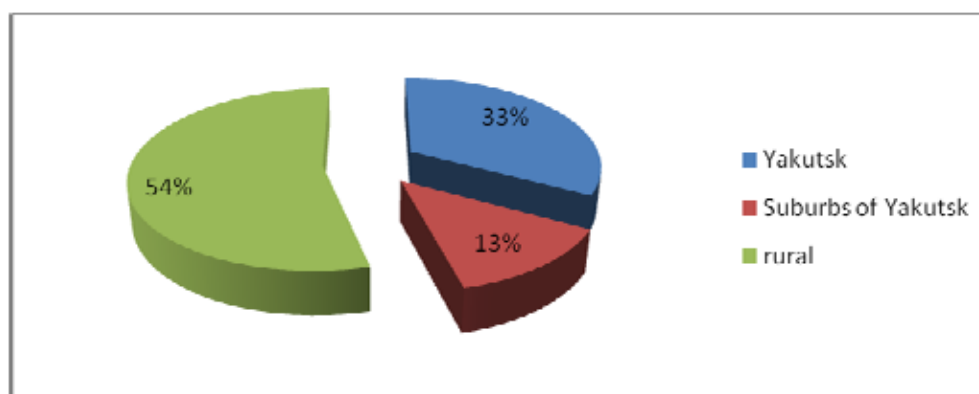


Fig. 2. Disturbance of adolescents death cases by territorial jurisdiction in 2005-2010 year period

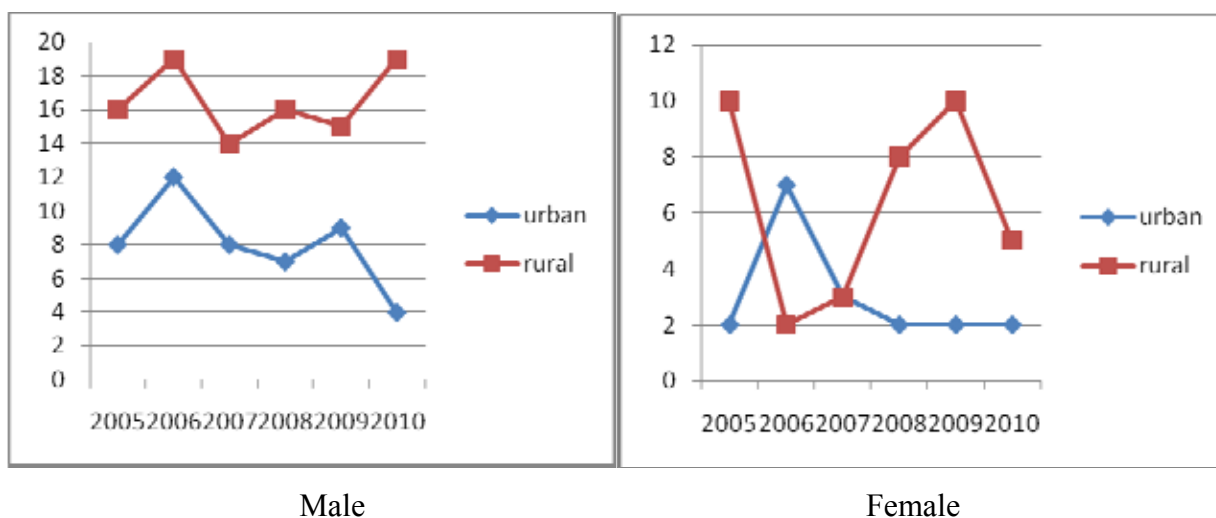


Figure 3. Adolescent deaths from external causes in urban and rural settlements in Republic of Sakha (Yakutia) in 2005-2010

Table 1.

**The structure of adolescents death causes from external causes
(202 cases) in 2005-2010.**

cause of death	2005		2006		2007		2008		2009		2010	
hanging	11	30,5	10	25	8	29,6	8	24,2	11	30,5	9	30
acute poisoning	3	8,3	2	5	5	18,5	1	3,03	4	11,1	4	13,3
accident	5	13,8	7	17,5	4	14,8	8	24,2	4	11,1	5	16,6
gunshot wound	3	8,3	3	7,5	-	-	4	12,1	2	5,5	2	6,6
Sudden cardiac death	1	2,7	1	2,5	-	-	-	-	1	2,7	1	3,3
Contact with sharp object	2	5,5	5	12,5	5	18,5	3	9,1	3	8,3	1	3,3
Contact with blunt object	3	8,3	1	2,5	-	-	2	6,06	-	-	1	3,3
drowning	1	2,7	6	15	2	7,4	1	3,03	-	-	3	10
fall	-	-	2	5	-	-	1	3,03	3	8,3	2	6,6
The impact of extremely low temperatures	2	5,5	1	2,5	-	-	3	9,1	3	8,3	-	-
Attack by strangling	-	-	1	2,5	1	3,7	-	-	2	5,5	-	-
abundant blood loss	1	2,7	1	2,5	1	3,7	-	-	1	2,7	1	3,3
closed craniocerebral injury	1	2,7	-	-	-	-	-	-	-	-	-	-
contusion	1	2,7	-	-	-	-	-	-	-	-	-	-
impact of electric	2	5,5	-	-	-	-	-	-	-	-	-	-
unspecified damages	-	-	-	-	1	3,7	2	6,06	2	5,5	1	3,3
Total:	36	17,8	40	19,8	27	13,3	33	16,3	36	17,8	30	14,8

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