



SUICIDAL ACTIONS IN THE REGION OF RUSE FOR THE PERIOD 2014-2023

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ABSTRACT:

Purpose. The article summarizes a data overview and analysis of committed suicide acts on the territory of the Bulgarian Ruse district region covering a ten-year period from 2014 to 2023 year.

Materials/Methods. The situation with the committed suicide acts on the territory of the region of Ruse is similar to the general situation at a national level. The results of this survey include an analysis of absolute number and percentage distribution based on the following indicators: gender, age, family status, means; as well as distribution by year, calendar month and place of happening (city/village). Data analysis of overall suicidal acts to those with fatal end was also made.

Results. Compared to a previous period from 2004 to 2013, the research outcome shows a decrease in the absolute number of suicidal acts, while their relative share, however, increased.

Conclusion. These actions shape the indicator “mortality per 100,000 inhabitants”, which places the Region of Ruse in the register of suicide as a cause of death between low to medium level.

Keywords: suicidal acts, suicide, social statistics.

INTRODUCTION:

Suicides represent a serious challenge and warrant being among the priorities for the public health system, proclaimed by the World Health Organization (WHO) in the first report dedicated to this issue and entitled “Suicide Prevention - A Global Imperative”, published in 2014 [1]. The statistics attached to the report indicate that every year on the planet, more than 700,000 people end their lives, and people who have attempted suicide significantly exceed this number. This negative phenomenon leaves a tragic imprint on families, communities and entire countries, with long-term consequences for the relatives of the dead. Suicides are committed by people with different ethnic, professional, social and age profiles, as of 2019, according to WHO data, they occupy the fourth place for the cause of abnormal death worldwide (after road accidents, tuberculosis and violence) among persons aged 15 to 29.

In the WHO Mental Health Action Plan 2013-2020, the member countries committed to achieving the global target of reducing national suicide rates by 10%. Furthermore, suicide deaths are one of the indicators (goal 3.4) of the Sustainable Development Goals: “By 2030, reduce premature deaths from non-communicable diseases by one-third through the prevention and treatment of mental illness, the promotion of mental health and well-being”. WHO figures in the Annual World Health Report published in 2017 indicate that the continent of Europe has a high number of suicidal acts. Lithuania has the highest suicide rates among countries in the European Union (32.7 suicides per 100,000 inhabitants), followed by Latvia, Hungary and Slovenia, where suicides are around 19 cases per 100,000 inhabitants. In the summary of ‘Facts and Recommendations on Suicide in Europe’, published in 2017 by the European Brain Council, over 150,000 people on the continent end their lives through suicidal acts, and between the ages of 15 and 24, these acts are one of the leading causes of mortality [2].

Some of the highest rates of suicide occur in high-income countries, where among young people, they are the leading cause of death in this age group. The 2016 global standardized suicide prevalence rate for the world was 10.5 per 100,000 population [3], with suicide prevalence rates ranging from 5 to over 30 per 100,000 people. While 79% of the world’s suicides occur in low- and middle-income countries, their relative proportion per capita is highest in high-income countries. In high-income countries, men commit suicide at almost three times the rate of women, while in low and middle-income countries, almost equal rates are observed for both sexes.

The continent of Africa has the most suicides, and the Eastern Mediterranean region has the lowest rate [3]. Worldwide, the most common method of committing suicide is hanging, followed by poisoning mainly by pesticides and using firearms as the third mean of the act [1].

According to the UNICEF Regional Office for Europe and Central Asia, 20% of deaths in the 15-19 age group in the European Union are caused by self-harm. Suicide is the second leading cause of death among adoles-

cents in Europe, with nearly 9 million people of this age having a diagnosed mental disorder, according to UNICEF Global Report- The State of the World's Children 2021. Data for Bulgaria shows that 11% of persons between the ages of 10 and 19 have a diagnosed mental disorder [4].

Social stability, national security and public health are parameters by which any society's maturity and degree of development are assessed. It is an indisputable fact that suicides and their prevention are an important component of health policy in a country. Suicidal acts have a serious impact on all spheres of social life and have diverse aspects - demographic, economic, legal, moral and medical, reflecting mostly on the loss of human potential. In a country like Bulgaria, where health and demographic indicators show strongly negative trends, the problem of suicides takes on special importance and significance for its security and integrity.

The present study aims to establish the number, means and outcome of suicidal acts in the region of Ruse

for the period 2014-2023, analyzing their relationships with gender, age, place of residence, social category and periods of their happening.

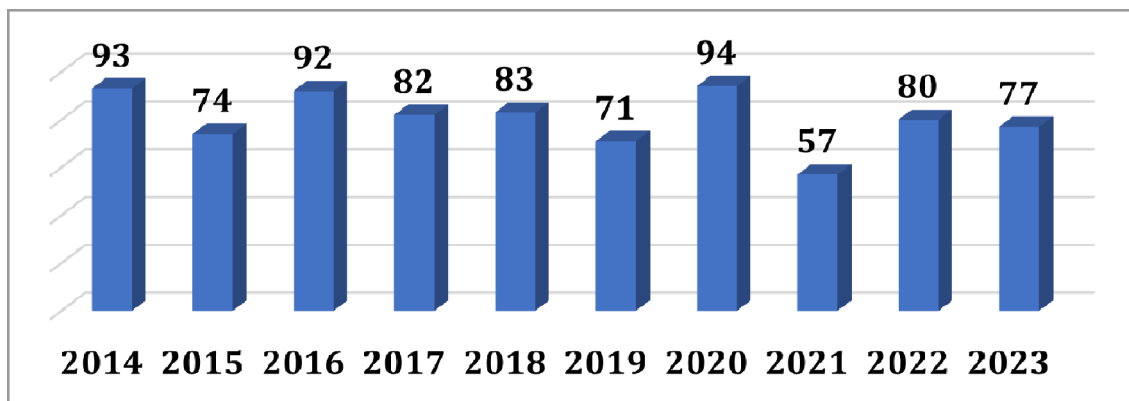
MATERIALS AND METHODS:

A documentary method was used, the data were entered into an Excel database and analyzed using Excel (Microsoft Corporation, WA, USA). The data used in the research part are compiled from the official document "Notice of suicidal act" of the Ministry of Health, submitted by the medical facilities to the Regional Health Inspectorate in Ruse.

RESULTS:

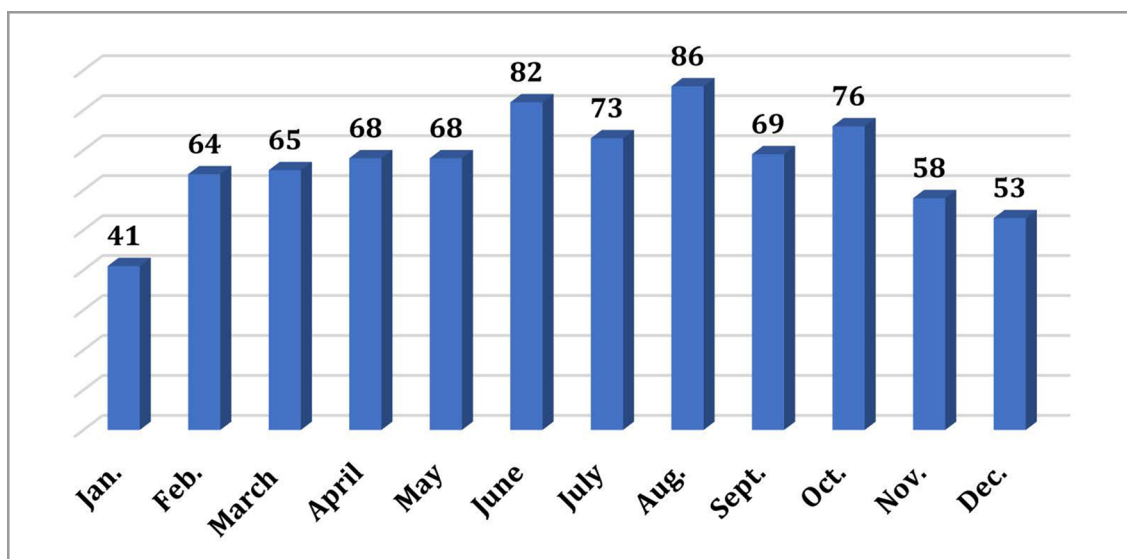
During the observed ten-year period 2014 - 2023, a total of 803 suicide attempts were made on the territory of the region of Ruse, and their distribution by years is visible in fig. 1. In comparison with the previous ten-year period 2004-2013, when they were 908 [5], their number decreased overall by one hundred and five cases.

Fig. 1. Number of suicidal acts by year.



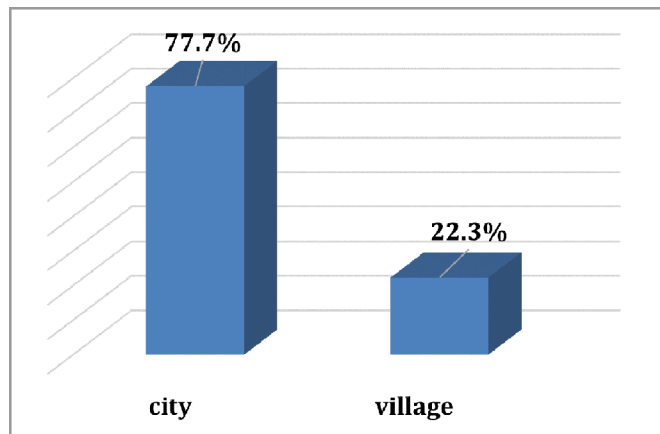
The study showed dynamics in the frequency of suicide attempts during different calendar months. The most attempts were made in August and June, and the fewest in December and January (Fig. 2).

Fig. 2. Suicidal acts by calendar month.



The urban population in the region of Ruse predominates over the rural population, which corresponds to the structure of committed suicidal acts by place of residence (Fig. 3).

Fig. 3. Suicidal acts by place of execution %.



The study for the region of Ruse confirms the global and national trends of a higher frequency of suicide attempts among women compared to men (Fig. 4).

Fig. 4. Suicidal acts by gender in %.

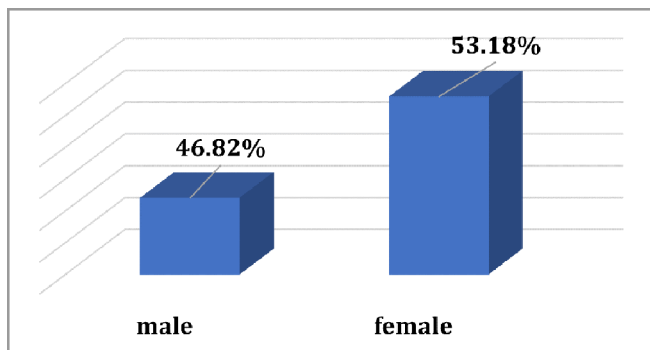


Fig. 5. Number of suicidal acts by age group.

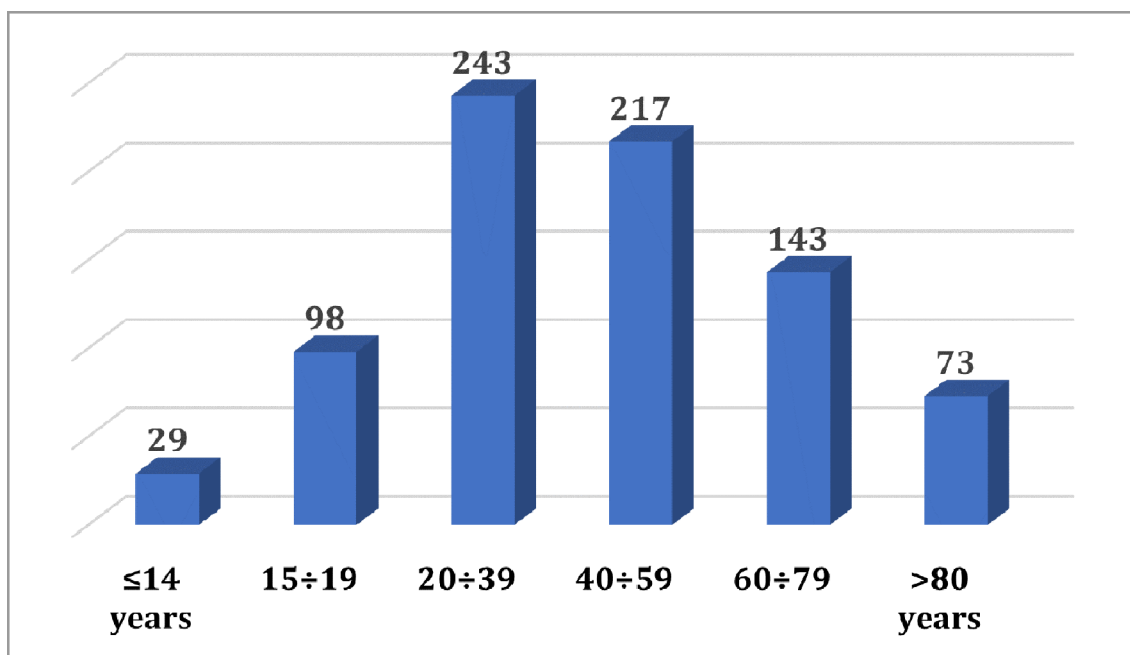
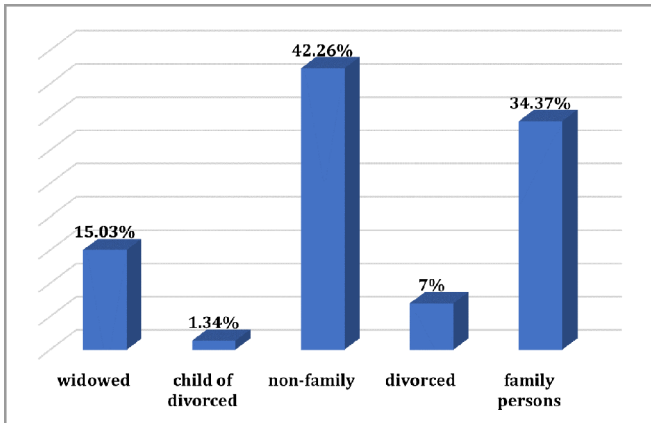


Fig. 5 shows the absolute number of suicidal acts perpetrated by age group. The age group 20-39 stands out with the largest number, followed by 40-59. The categories over 80 and under 14 have the lowest share.

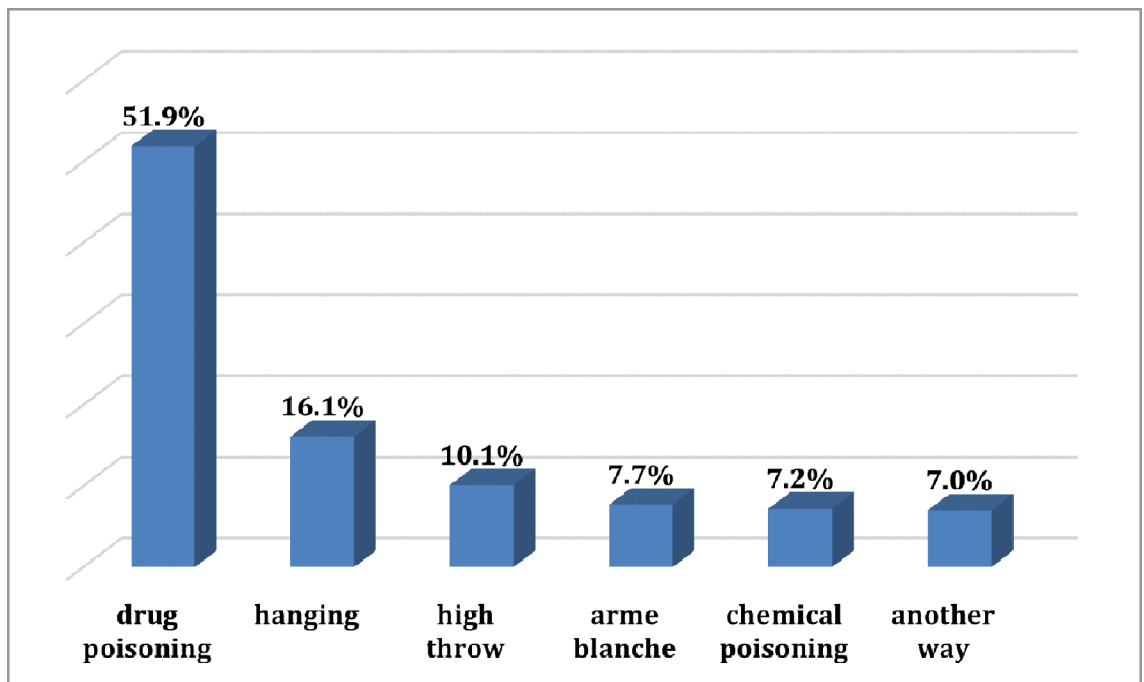
Data presented in Fig. 6 shows the dominance of non-family persons, followed by family persons, these two categories forming more than ¾ of the total number of persons who committed suicidal acts.

Fig. 6. Suicidal acts by family status in %.



The presented data in this study shows a predominance of drug poisoning as the preferred method in suicidal acts, followed by hanging and throwing from a height. In the rubric, “other means” fall gunshot injuries, being thrown under a transport vehicle, drowning and use of electric current (Fig. 7).

Fig. 7. Suicidal acts by method in %.



Differences in preferred and used method between the two sexes are noted in the graph in Fig. 8. For women, drug poisoning exceeds twice the level of the same method for the male sex, where hanging is almost equal to drug poisoning and exceeds many times its values for women.

In the ten-year period covered by the survey, nearly 1/4 of suicides ended fatally (completed suicides), differing from global trends showing a ratio of up to 20/1 in favour of incomplete over completed suicides (Fig. 9).

Differences are found in the outcome of suicidal acts according to the “social status” indicator. While the death rate among housewives and students is significantly below 10%, in the categories of disabled, unemployed, working and pensioners, its relative share increases significantly and reaches 45.2% in the latter category (Fig. 10).

The study interpreted the ratio of suicide attempts to those that ended fatally according to the “method used” criterion. The largest relative share of completed suicidal acts (with fatal outcome) is hanging and throwing from a height. The lowest relative share of fatal actions is drug poisonings and cold weapon attempts (Fig. 11).

Fig. 8. Suicidal acts by gender and method in %

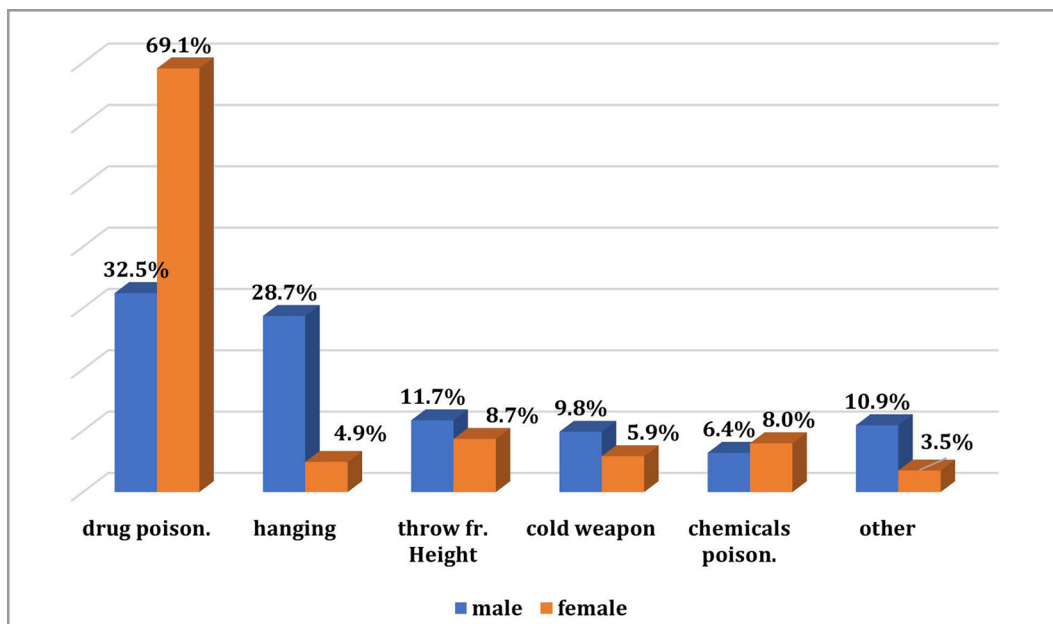


Fig. 9. Suicidal acts by outcome in %.

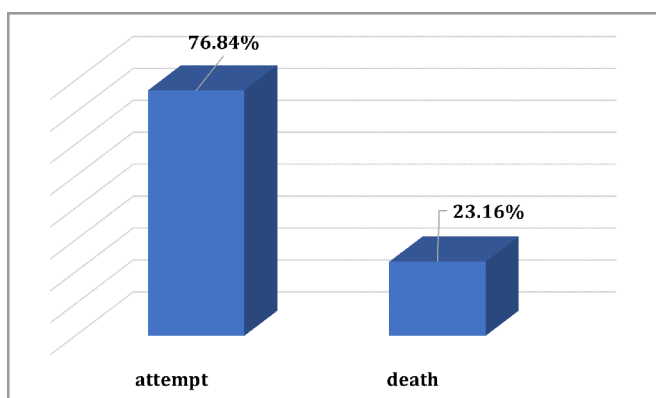


Fig. 10. Suicidal acts by social status and outcome in %.

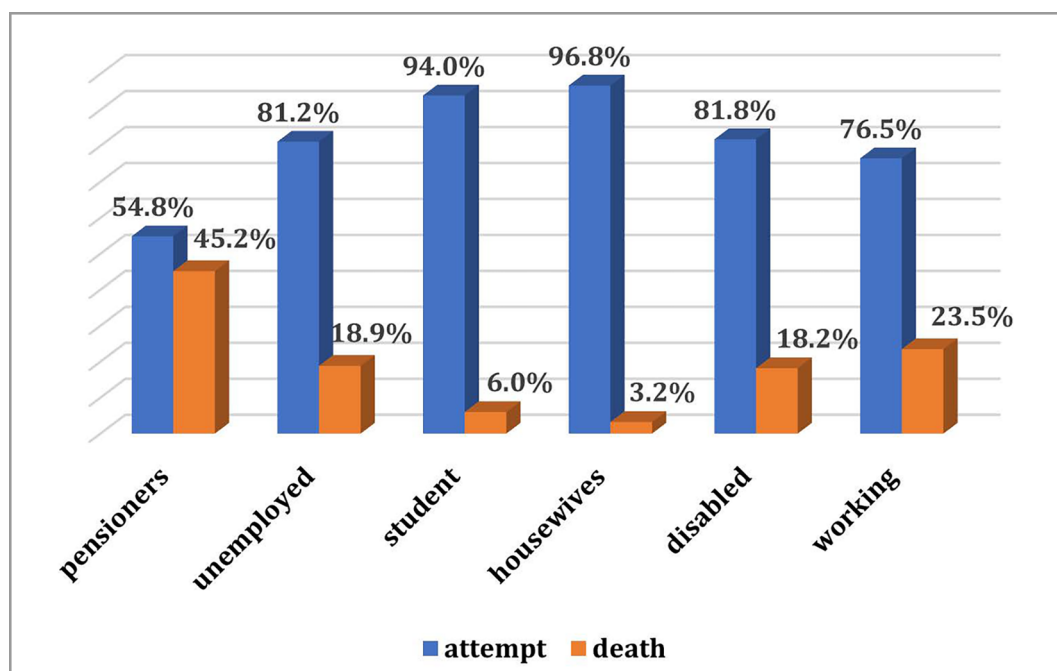


Fig. 11. Suicidal acts by method and outcome in %.

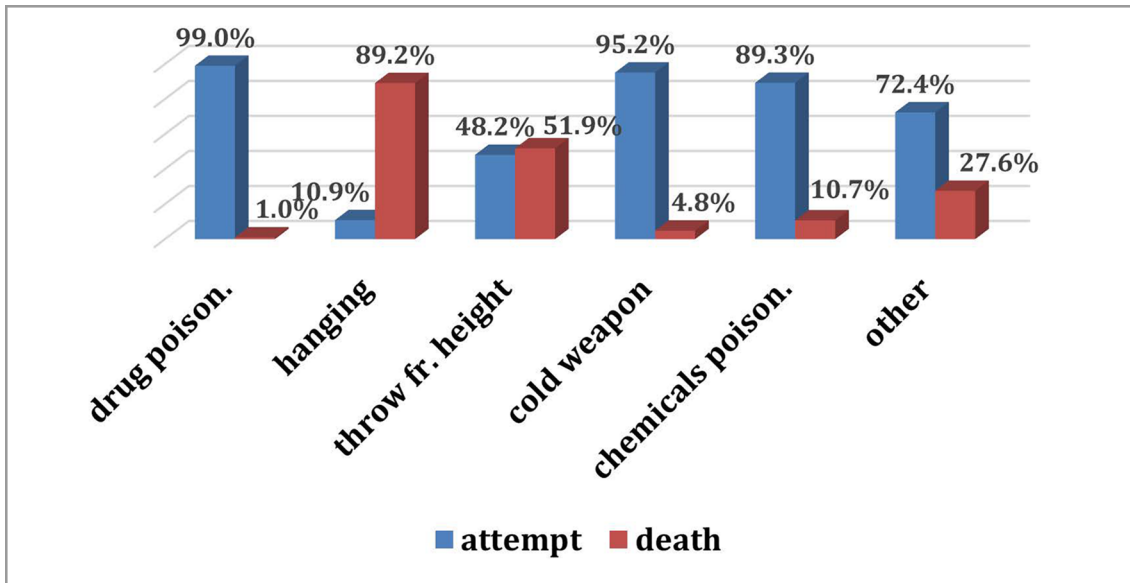
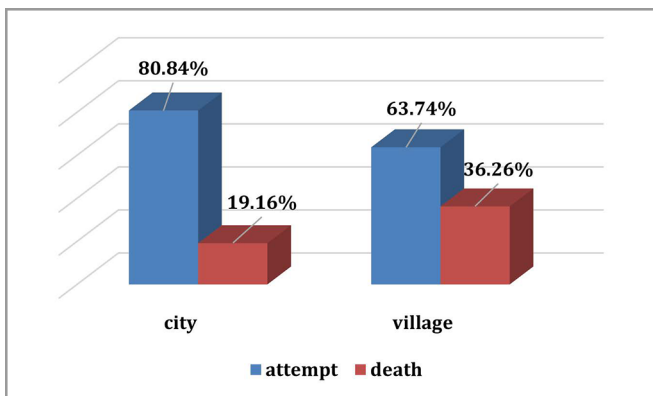


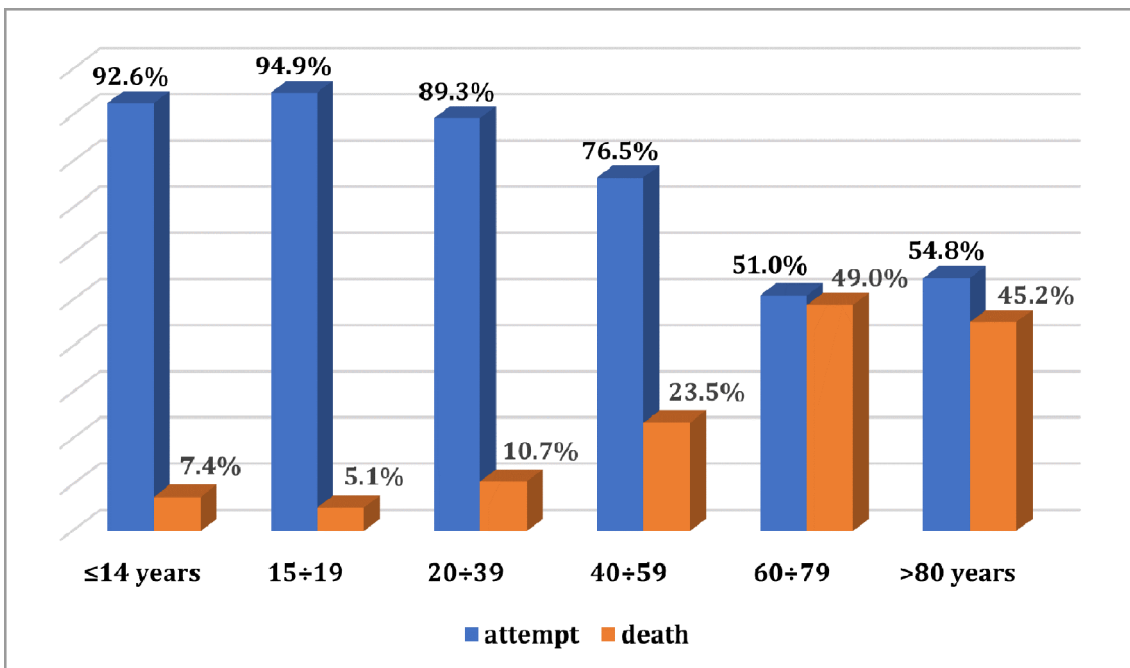
Fig. 12. Suicidal acts by settlement and outcome in %.



Deaths in villages compared to cities show a higher relative proportion despite the higher absolute number of suicidal acts committed in cities (Fig. 12).

There are differences in the experience/death ratio in relation to the age of the perpetrators. As age increases, so do the relative proportions of fatal suicides. (Fig. 13).

Fig. 13. Suicidal acts by age groups and outcome in %.



DISCUSSION:

The analysis of presented data for a ten-year period (2014 – 2023) in the region of Ruse shows similar values to those at the national level. Compared to the previous period from 2004 to 2013, there was a decrease in the absolute number of suicidal acts. However, their relative share increased from 39.5 to 42.8 per 100,000 population. These actions shape the “mortality per 100,000 inhabitants” indicator as follows: 11.31/100,000 for the previous period and 10.11/100,000 for the current one, which places the region of Ruse in the register of the low to medium level of suicide as a cause of death (globally, up to 10/100,000 population is considered low, 10 to 20/100,000 is medium, and over 20/100,000 is high).

Suicidal acts occur mainly in spring and early summer and decrease in autumn and winter.

Females traditionally commit more acts of suicide than men, but fatal suicides predominate in males.

The absolute number of suicide attempts is significantly higher in the cities of the district, with a higher share of fatal attempts in the villages.

People in the 20-39 age group make the most suicide attempts, followed by those in the 40-59 age group.

The most used method is drug poisoning, followed

by hanging.

A little under ¼ of suicide attempts end fatally. As age increases, so does the relative proportion of suicidal acts ending in death. With the highest share are attempts that ended in death, carried out by hanging and throwing from a height, and with the lowest are drug poisonings.

CONCLUSIONS:

The situation with the committed suicide acts on the territory of the region of Ruse is similar to the general one for the country. It is anxious that people of the most active age take their own lives most often, and childhood is no exception.

The results of the study are sufficiently indicative and give reason to the interested institutions, organizations and public structures for the timely activity to limit this serious social problem.

Acknowledgements:

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