Survival and factors associated with cardiovascular mortality in rural area of Russia. Results of a 7-year prospective study

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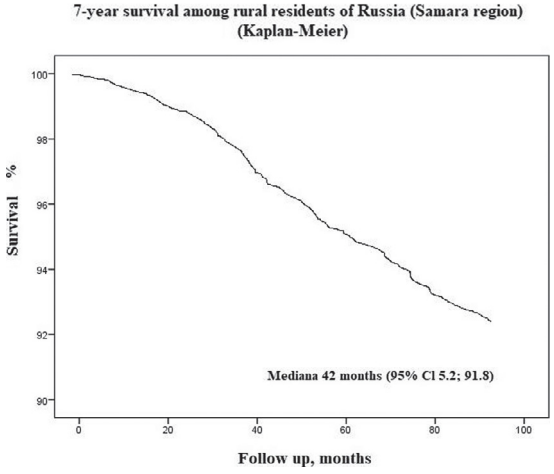
Introduction: In Russia, mortality rates from CVD are one of the highest in the world. In recent decades, it has been demonstrated that the contribution of a modifying risk factors to cardiovascular mortality in different populations can vary significantly.

Aim: To evaluate the 7-year survival and association of risk factors with cardiovascular mortality among rural residents of Russia.

Materials and methods: This study was carried out as part of the international project InterEpid, which included a one-stage epidemiological study of the prevalence of major chronic noncommunicable diseases and their risk factors (n=1050), and a prospective stage among residents of rural areas of Russia. The analysis includes the results of a survey of representative samples of the rural population of the Samara Region of Russian Federation (n=919) aged 20–64, response rate 87,5%.The following endpoints are included in the analysis: 1. Cases of death from all causes; 2. Deaths from CVD.

Results: In Samara region 7-year survival was 92.7%. Cardiovascular diseases were most frequent cause of deaths (42%). Cardiovascular mortality was significantly associated with hypertension RR 2.11 (1.32; 2.94), p=0.004, low physical activity RR 1.82 (1.02; 2.41), p=0.009, high salt intake RR 1.28 (0.84; 2.21), p=0.03 and high processed meat intake RR 1.37 (0.91; 1.93), p=0.03. Smoking had a significant effect on cardiovascular mortality only among men RR 2.11 (1.14; 2.84), p=0.005.

Conclusion: 7-year follow up demonstrated significant unfavorable effect of smoking on men's cardiovascular mortality; hypertension, low physical activity, high salt and processed meat intake on the risk of cardiovascular mortality in both sexes in rural areas of Russia. All this underlines the need to develop differentiated preventive and treatment and preventive programs adjusted to country specific of risk factors prevalence and its impact on the prognosis.



7-year survival (Samara region)