**Abstract**

**Objective.** This study aimed to assess the association between sleep disturbances and physical activity as the risk factors for cardiovascular diseases in an open population aged 45–64 years of Novosibirsk.

**Materials and methods.** The IVth screening of random representative sample of the population aged 45–64 years was carried out between 2003–2005 years and included 1650 participants (men (n = 576), mean age 54.23 Ѓ} 0.2 years, response rate 61 %; women (n = 1074), mean age —

54.27 Ѓ} 0.2 years, response — 72 %). Physical activity was assessed using the scale “Knowledge and attitude towards one’s own health” of WHO “MONICA-Psychosocial”

program. The Jenkins Sleep Evaluation Questionnaire was used to study sleep disorders.

**Results.** In an open population aged 45–64 years, 74.2 % of participants experienced sleep disturbances; 65.8 % of men (satisfactory sleep — 53.6 %, poor sleep — 12.2 %) and 78.6 % of women (satisfactory sleep — 58.9 % and poor sleep — 19.7 %) (χ2 = 38.553 df = 2; p < 0.001). Among men who described their sleep as “poor”, 35.7 % believed that they “should exercises, but they don’t” and 28.6 % “tried, but unsuccessfully” (χ2 = 27.850 df = 8; p < 0.001). Among

women who believed that their sleep was “poor”, 47.2 % answered “I should exercise, but I don’t” (χ2 = 26.453 df = 8; p < 0.001). Men who spend their leisure time “physically passive” more often characterized their sleep as “poor” (24.3 %) than “good” (21.8 %) (χ2 = 92.019 df = 6; p < 0,0001). To the question: “Has your physical activity changed over the past 12 months?” 30.4 % of men and 35.3 % of women of working age answered that they became “less mobile”, among them 40 % of men (χ2 = 22.929 df = 4; p < 0.0001) and 34.9 % of women (χ2 = 58.992 df = 4; p < 0.0001), believed that they had “poor” sleep. Among participants who answered to the question “How do you rate your physical activity compared to other people your

age?” that they were “somewhat more passive”, 7.1 % of men (χ2 = 28.520 df = 8; p < 0.0001), and 11.3 % of women (χ2 = 90.554 df = 8; p < 0.0001) had “poor” sleep.

**Conclusion.** The association between sleep disturbances and physical activity among men and women aged 45–64 years of Novosibirsk population was established.

Considering close relationship between sleep disturbances and low physical activity, further prospects open up to investigate the combined effect of the above factors on cardiovascular health.