

## **The Combined Relevance of Alcohol and Tobacco to Premature Mortality in 200,000 Russians: A Prospective Study in Western Siberia**

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**Introduction:** All-cause mortality rates in middle age and early old age in Russia greatly exceed those in the West, and the sharp fluctuations since 1984 are unprecedented for a modern industrialized country.

**Objectives:** To assess the joint relevance of alcohol and tobacco to all-cause and vascular mortality in a large Russian prospective study.

**Methods:** 200,000 healthy individuals aged 30-74 were interviewed between 1999 and 2008 and followed up for cause-specific mortality. Participants completed questionnaires about their smoking and drinking habits, other lifestyle factors and physical measurements, and provided a pinprick blood sample using dried blood spots. Long-term follow-up is ongoing through mortality records and cancer registries. To minimize confounding by alcohol, the main smoking analyses are among 59,829 healthy adults who reported drinking <1 bottle vodka/week. As few females or non-smokers reported drinking ≥3 bottles weekly, the main alcohol analyses are for 151,811 healthy male smokers.

**Results:** Among light drinkers (<1 bottle vodka/week) only, current smoking was associated with higher risk of death from all causes compared to never smoking (RR 1.53, 95% CI 1.43-1.63) and from vascular causes (1.39, 1.26-1.53). Starting young (<14 years) and smoking more (≥20 cigarettes/day) were both associated with considerably higher mortality risk from all causes (1.97, 1.81-2.15 and 1.70, 1.63-1.77 respectively) and from vascular mortality (1.70, 1.49-1.95 and 1.56, 1.46-1.66). Ex-smokers who quit before age 45 appeared to avoid most of the excess risk associated with continuing to smoke (1.02, 0.91-1.15 compared with never smokers). Self-reported baseline alcohol consumption strongly predicted all-cause mortality among male smokers: estimated 20-year risks of death in those reporting ≥3 bottles of vodka/week were 35% at ages 35-54 and 64% at ages 55-74.

**Conclusion:** Our results suggest that 1/3 of all deaths among smokers are from tobacco. Given that about two-thirds of Russian middle age men (45-64) smoke, smoking is causing about 20% of male deaths in middle age. So, if smoking is causing about 20% and alcohol half of the 80% which remains, then about 2/3 of all Russian male deaths in middle age are caused by tobacco and alcohol.

**Disclosure of Interest:** None Declared