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Alcohol-related causes of death: definitions and research guidelines

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Outlook

- Key facts about alcohol
- Definitions. What is alcohol related mortality?
- Research guidelines:
 - Socio-economic differentials of alcohol-related mortality
 - Demographic losses due to alcohol-related mortality
 - Spatial analysis of alcohol-related mortality
- Discussion

Key Facts from WHO

- Worldwide, 3.3 million deaths every year result from harmful use of alcohol, this represent 5.9 % of all deaths.
- The harmful use of alcohol is a causal factor in more than 200 disease and injury conditions.
- Overall 5.1 % of the global burden of disease and injury is attributable to alcohol, as measured in disability- adjusted life years.
- Alcohol consumption causes death and disability relatively early in life. In the age group 20 – 39 years approximately 25 % of the total deaths are alcohol-attributable.

Source: WHO 2014

Alcohol-Related Causes of Death

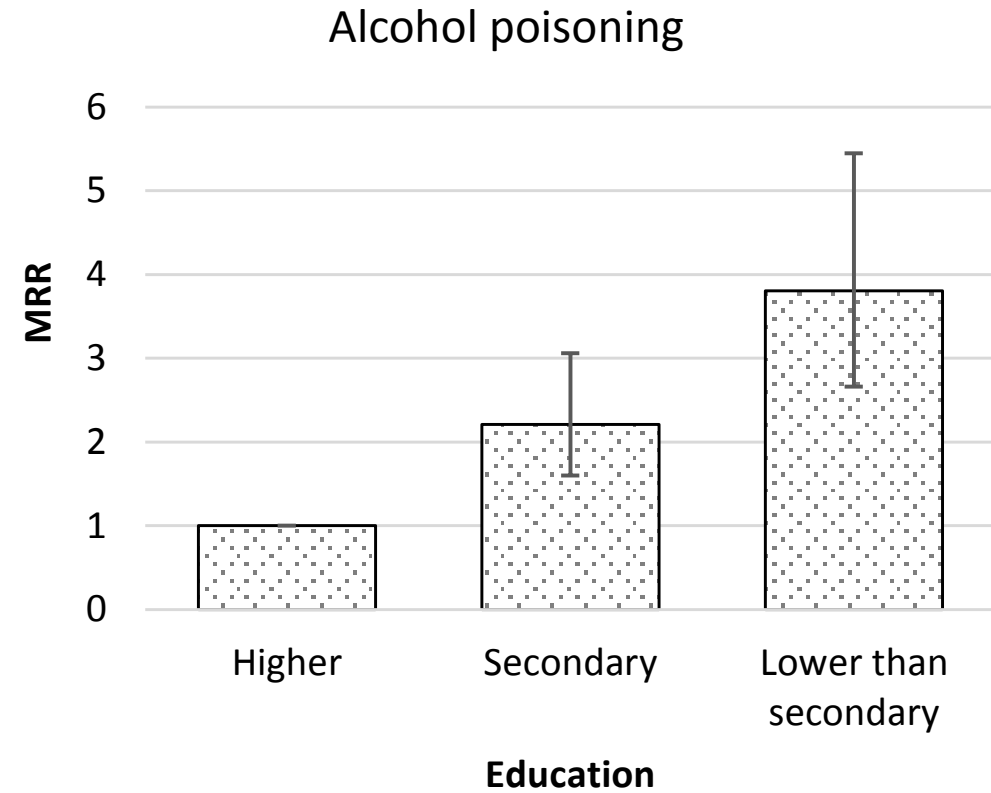
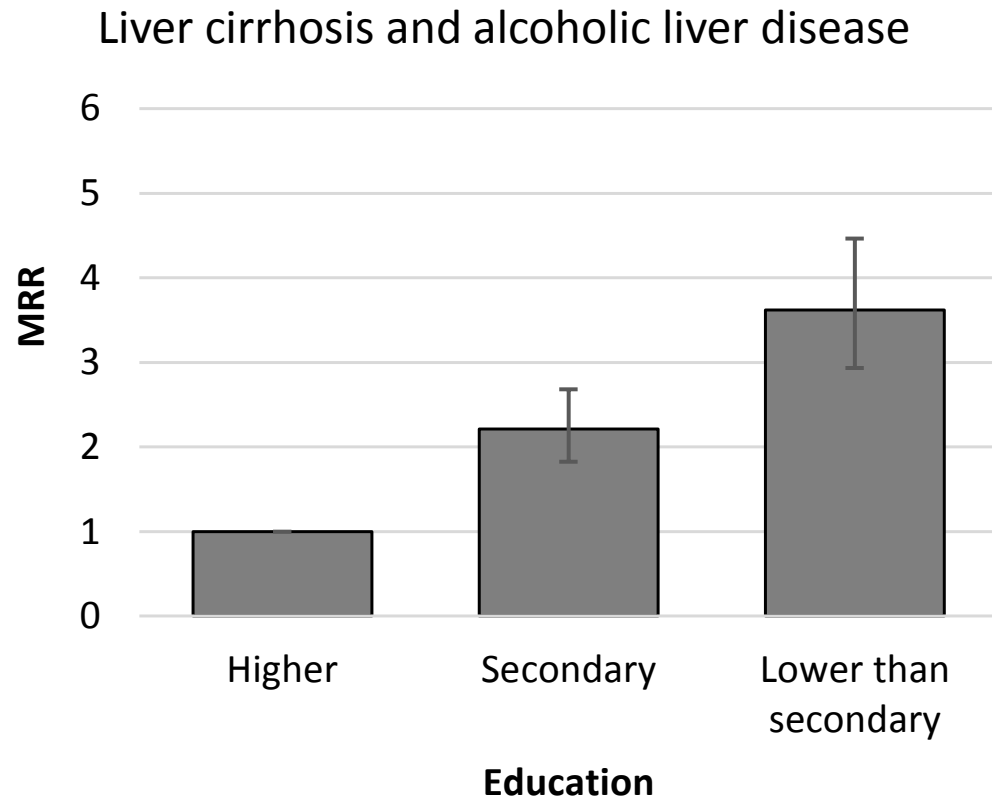
- **Alcohol specific causation or fully attributable** to alcohol. Alcoholic psychosis - F10, alcoholic liver disease - K70, and alcohol poisoning - X45, etc.
- **Alcohol-related or partially attributable** to alcohol. Diseases of the circulatory system: I10-I15, I20-I25, I47-I49, I60-I62, diseases of the digestive system: K73, K74, K80, K85, etc.
- **External causes of death** that may be related with alcohol consumption. Transport accidents: V00-V99, intentional self-harm: X60-X84 , etc.

Source: WHO 2000, Veryga et al. 2013.

Socio-economic Differentials of Alcohol-related Mortality

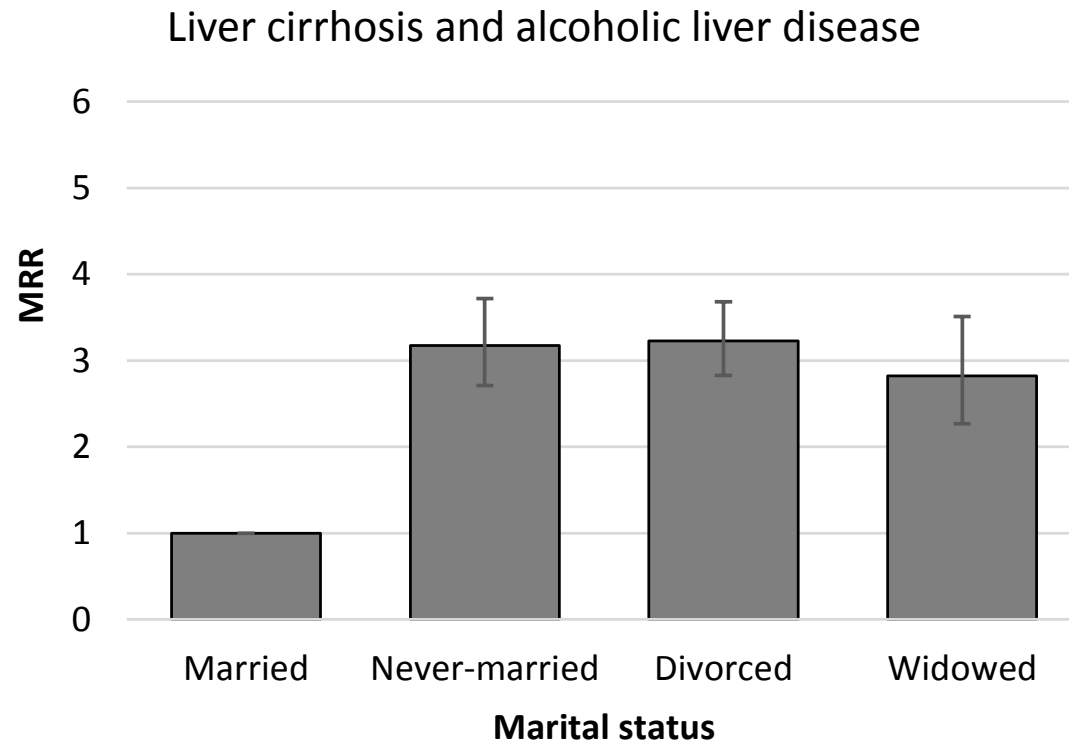
- Results obtained through combining 2011-2013 death records with the 2011 Lithuania population census data.
- Among males aged 30-59, the alcohol-related mortality risk in non-married groups is up to 3.4 times as high as in the group of married males.
- The alcohol-related mortality risk in lower-education groups is up to 3.7 times as high as in the group of those with higher education.

Mortality rate ratios for causes of death directly related to alcohol, by education, 2011-2013, male 30-59, Lithuania

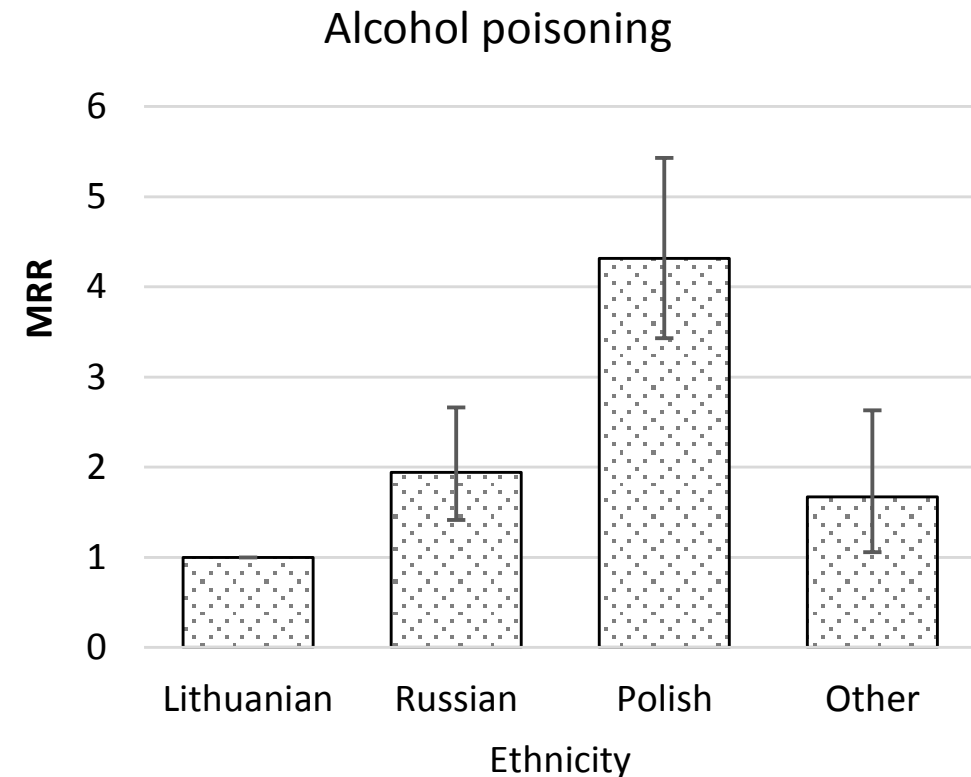
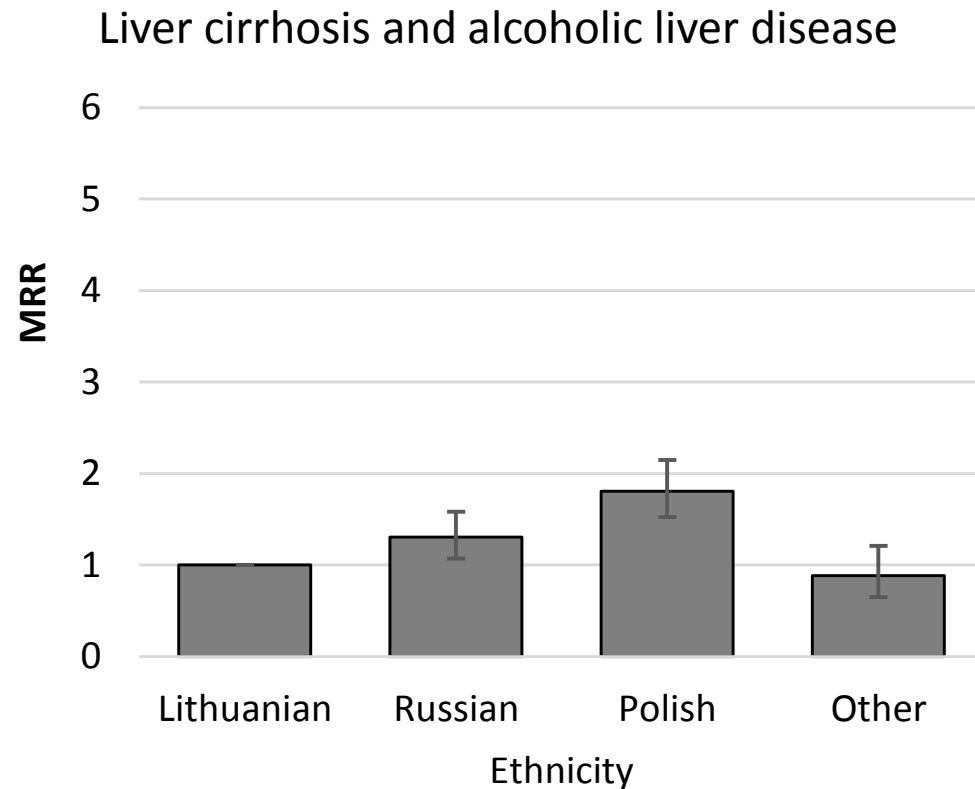


Stumbrys et al 2014

Mortality rate ratios for causes of death directly related to alcohol, by marital status 2011-2013, male 30-59, Lithuania



Mortality rate ratios for causes of death directly related to alcohol, by ethnicity 2011-2013, male 30-59, Lithuania



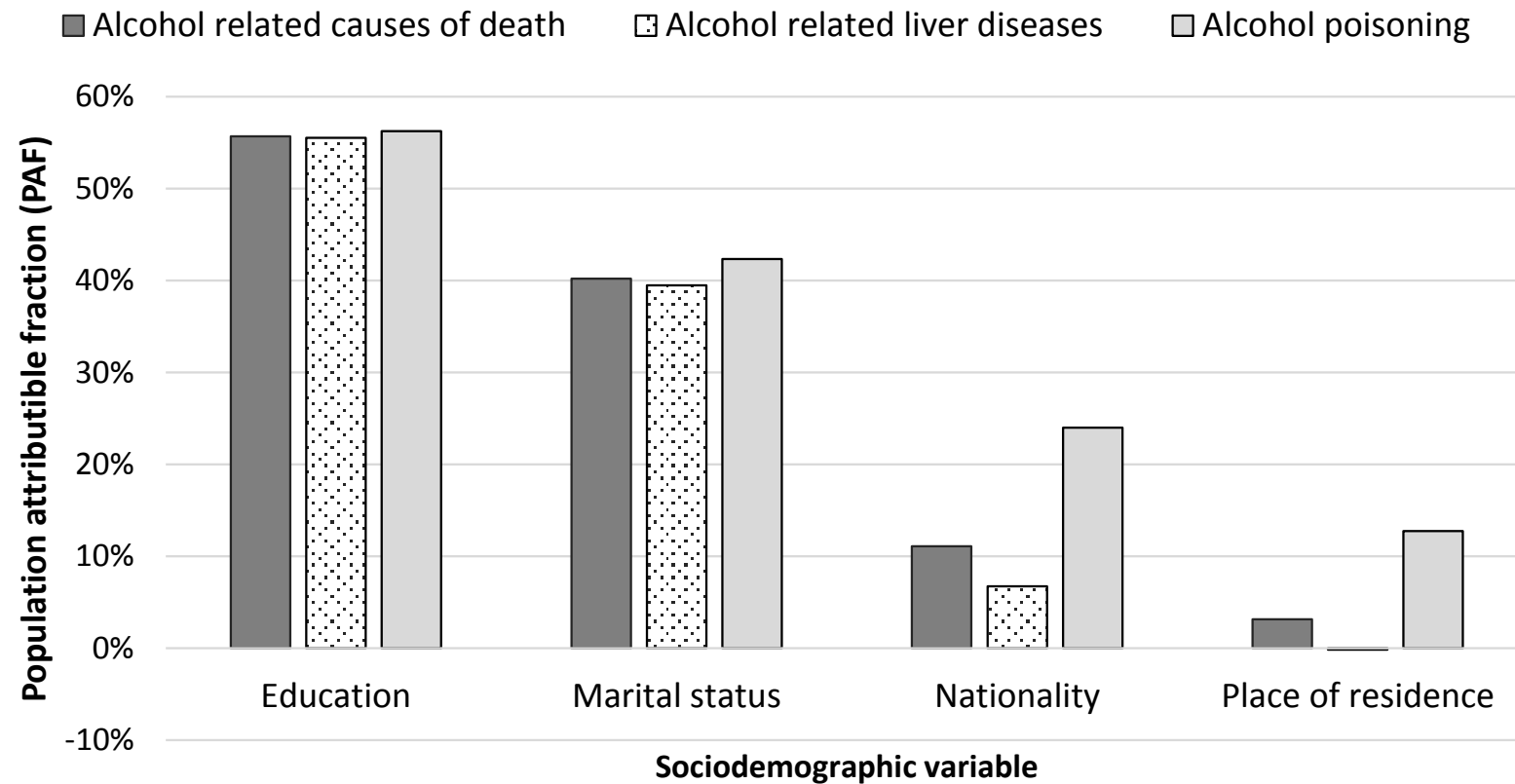
Stumbrys et al 2014

Demographic Losses due to Alcohol-related Mortality

- Population attributable fraction (PAF) – a hypothetical proportion of all deaths that can be avoided if all population groups had the same rate of mortality as the lowest mortality group.
- The findings of the study suggest that the elimination of educational differences would allow avoiding 55.7 %, the elimination of marital status differences – 40.2 %, the elimination of ethnic group differences – 11.1 % of alcohol-related deaths.

Jasilionis 2014; Stumbrys et al 2014

Population Attributable Fraction of Alcohol-Related Mortality, Lithuania, Male 30-59, 2011-2013



Stumbrys et al 2014

Literature

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- World Health Organisation. 2000: *International Guide for Monitoring Alcohol Consumption and Related Harm*. Department of Mental Health and Substance Dependence Noncommunicable Diseases and Mental Health Cluster World Health Organization.

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