

1990-2016

DALYs → 死亡人数

生涯期望 可改善

# Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016

GBD 2016 Alcohol Collaborators\*

## Summary

Background Alcohol use is a leading risk factor for death and disability, but its overall association with health remains complex given the possible protective effects of moderate alcohol consumption on some conditions. With our comprehensive approach to health accounting within the Global Burden of Diseases, Injuries, and Risk Factors Study 2016, we generated improved estimates of alcohol use and alcohol-attributable deaths and disability-adjusted life-years (DALYs) for 195 locations from 1990 to 2016, for both sexes and for 5-year age groups between the ages of 15 years and 95 years and older.

Methods Using 694 data sources of individual and population-level alcohol consumption, along with 592 prospective and retrospective studies on the risk of alcohol use, we produced estimates of the prevalence of current drinking, abstention, the distribution of alcohol consumption among current drinkers in standard drinks daily (defined as 10 g of pure ethyl alcohol), and alcohol-attributable deaths and DALYs. We made several methodological improvements compared with previous estimates: first, we adjusted alcohol sales estimates to take into account tonnage and unrecorded consumption; second, we did a new meta-analysis of relative risks for 23 health outcomes associated with alcohol use; and third, we developed a new method to quantify the level of alcohol consumption that minimises the overall risk to individual health.

Findings Globally, alcohol use was the seventh leading risk factor for both deaths and DALYs in 2016, accounting for 2.2% (95% uncertainty interval [UI] 1.5–3.0) of age-standardised female deaths and 6.8% (5.8–8.0) of age-standardised male deaths. Among the population aged 15–49 years, alcohol use was the leading risk factor globally in 2016, with 3.8% (95% UI 3.2–4.3) of female deaths and 12.2% (10.8–13.6) of male deaths attributable to alcohol use. For the population aged 15–49 years, female attributable DALYs were 2.3% (95% UI 2.0–2.6) and male attributable DALYs were 8.9% (7.8–9.9). The three leading causes of attributable deaths in this age group were tuberculosis (1.4% [95% UI 1.0–1.7] of total deaths), road injuries (1.2% [0.7–1.9]), and self-harm (1.1% [0.6–1.5]). For populations aged 50 years and older, cancers accounted for a large proportion of total alcohol-attributable deaths in 2016, constituting 27.1% (95% UI 21.7–33.3) of total alcohol-attributable female deaths and 18.9% (15.3–22.6) of male deaths. The level of alcohol consumption that minimised harm across health outcomes was zero (95% UI 0.0–0.8) standard drinks per week.

Interpretation Alcohol use is a leading risk factor for global disease burden and causes substantial health loss. We found that the risk of all-cause mortality, and of cancers specifically, rises with increasing levels of consumption, and the level of consumption that minimises health loss is zero. These results suggest that alcohol control policies might need to be revised worldwide, refocusing on efforts to lower overall population-level consumption.

Funding Bill & Melinda Gates Foundation.

Copyright © 2018 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

Handwritten notes: 2.2%, 6.8%, 3.8%, 12.2%, 2.3%, 8.9%, 1.4%, 1.2%, 1.1%, 27.1%, 18.9%

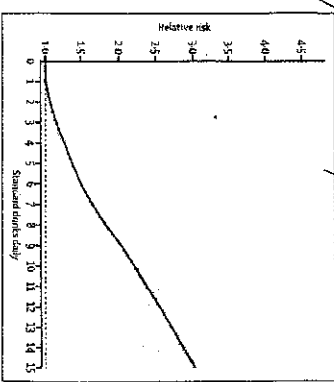
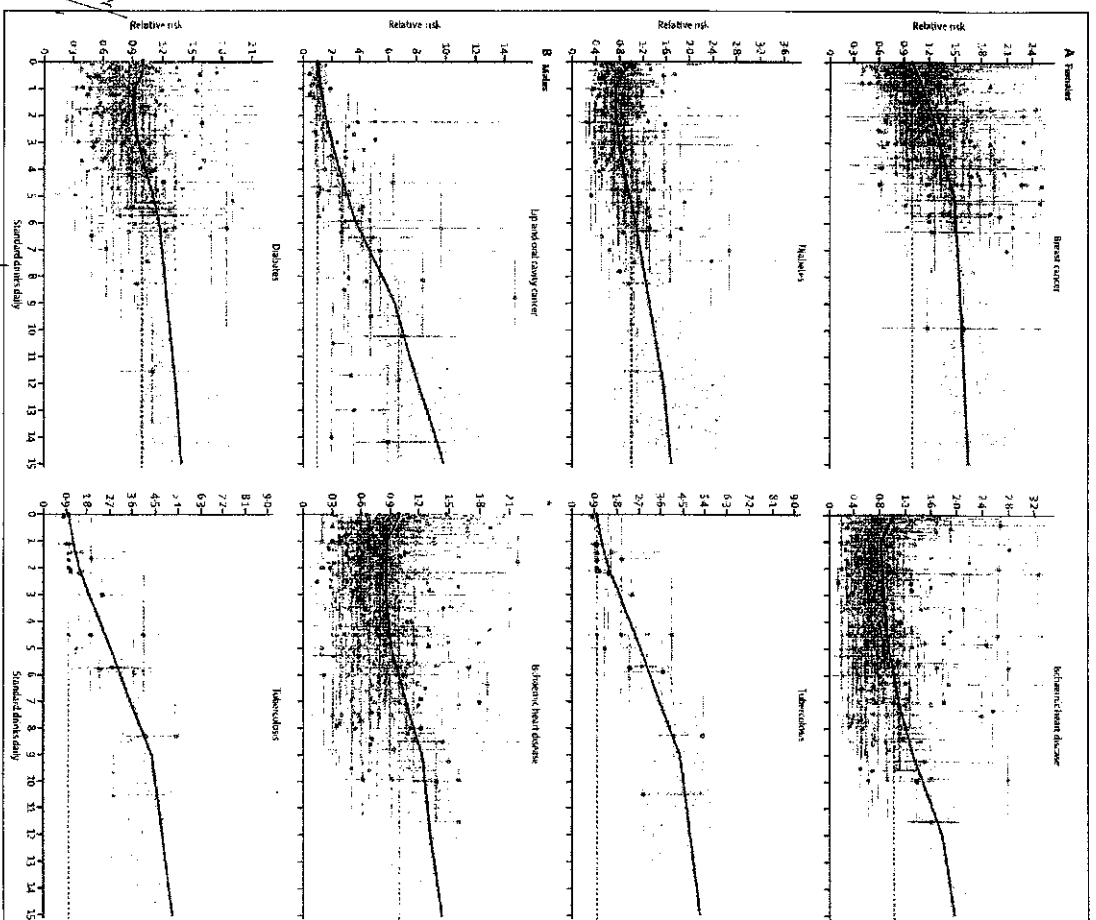


Figure 5: Weighted relative risk of alcohol for all attributable causes, by standard drinks consumed per day. Age-standardised weights determined by the DALY rate in 2016, for both sexes. The dotted line is a reference line for a relative risk of 1. DALY disability-adjusted life-years.

Handwritten notes: 2.2%, 6.8%, 3.8%, 12.2%, 2.3%, 8.9%, 1.4%, 1.2%, 1.1%, 27.1%, 18.9%