

Cost-effectiveness of a potential policy to ban alcohol advertising in Australia: a modelling study



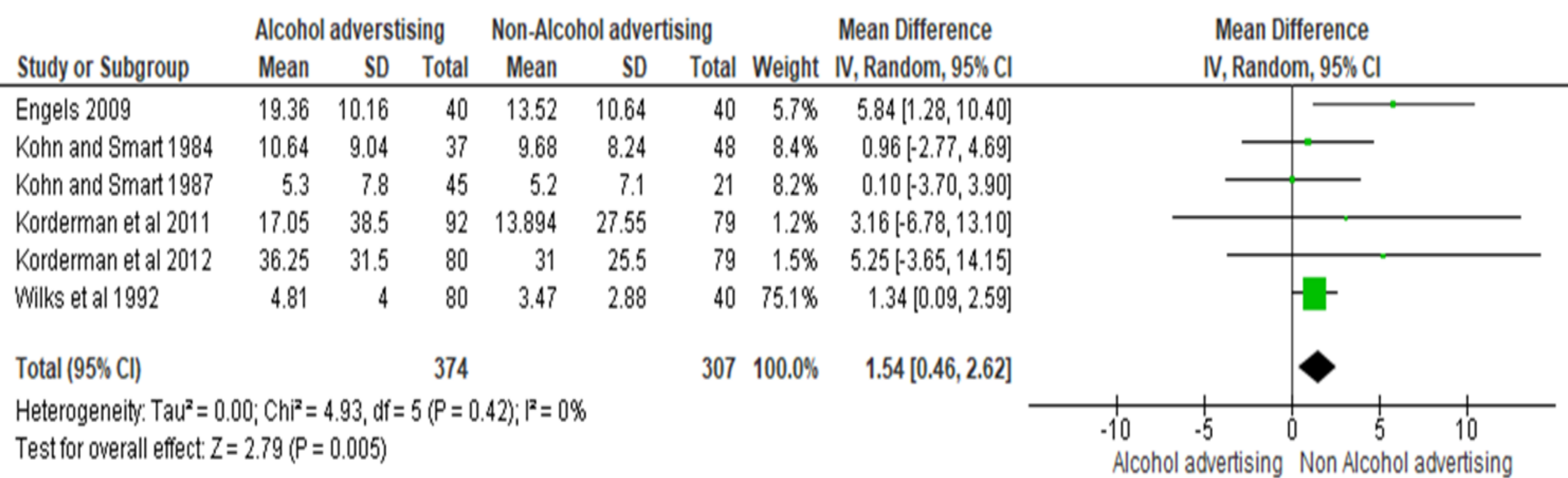
Authors: Phuong Nguyen; Mary Rose Angeles; Amila Suranga Malawige; Lennert Veerman; Linda Cobiac; Leopold Aminde; Mary Wanjau; Mishel Shahid; Moosa Al Subhi; Jaithri Ananthapavan

Background: Alcohol consumption remains a significant public health issue in Australia, contributing to numerous adverse health outcomes and imposing substantial economic burdens on individuals and the healthcare system. Advertising increases alcohol consumption by influencing consumer demand . The World Health Organization identifies comprehensive restrictions on alcohol advertising as one of the five most cost-effective policies to reduce alcohol-related deaths and disabilities at a population level. However, only four economic evaluations of such policies exist to date. This research assesses the cost-effectiveness of a hypothetical comprehensive policy, implemented by the Australian federal government, to ban alcohol advertising across all media platforms, using the latest evidence on the effects of alcohol advertising on consumption.

Methods: A scoping review with meta-analysis was performed to estimate the intervention's effectiveness, focusing on randomized controlled trials that compared alcohol consumption between advertising-exposed and non-exposed groups. Using a micro-costing approach, we calculated policy development costs, community consultation costs, and revenue losses resulting from the ban from a societal perspective. Costs are presented in 2020 Australian dollars and discounted at 5%.

We utilized the Alcohol Policy (TAP) model to conduct the cost-effectiveness analysis. TAP is a Markov-type multi-state life table model that simulates population health impacts and healthcare costs of interventions aimed at reducing alcohol-related diseases and injuries through decreased consumption. Incremental costs and benefits of the intervention were compared to a no-policy scenario, and the incremental cost-effectiveness ratio (ICER) was calculated by dividing the incremental cost by the incremental health-adjusted life years (HALYs) gained from the intervention. The intervention was considered cost-effective if the ICER was below the Australian willingness-to-pay threshold of \$50,000 per HALY gained.

Results: Six randomized controlled trials were included in the review. The meta-analysis indicated a mean reduction of 1.54 g (95% confident interval 0.46 to 2.02) of pure alcohol consumption in the non-exposed group compared to the exposed group, translating to an average 10% reduction from baseline consumption for males and females aged 18 to 45 years. The total cost of the intervention was estimated at \$1.59 billion (95 % uncertainty interval UI \$0.61 to \$2.58 billion) over 20 years, with 97% of this cost borne by the industry due to profit losses associated with reduced consumption. HALYs gained were projected at 104,000, and the ICER was \$3,880 (95% UI dominant to \$41,100). The intervention remained cost-effective across all scenarios.



Conclusion: The preliminary results of this economic evaluation suggest that a comprehensive ban on alcohol advertising across all media in Australia would likely be highly cost-effective from a societal perspective. The projected reductions in alcohol-related disease and injury treatment costs indicate that substantial improvements in population health could be achieved at a negligible cost to the government.

Presenter: Dr Phuong Nguyen
Executive Dean of Health Research Postdoctoral Research Fellow, Deakin Health Economics
Email: phuong.nguyen@deakin.edu.au