

Project Protocol

Effectiveness of Health Warning Labels on Alcoholic Beverages: A Systematic Review with a Narrative Analysis for Austria

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Duration: Q1 2026 to Q3 2026

Resources: 1.5 PM (Master Thesis + in-house co-author)

Language: Englisch (with German summary)

Background:

According to the World Health Statistics Report 2025 of the World Health Organization (WHO), Europe has the highest per capita alcohol consumption worldwide among the WHO regions [1]. Within Europe, Austria is one of the countries with the highest per capita alcohol consumption [1]. A nationwide representative survey on substance use conducted in Austria in 2020 indicated that 15% of respondents engage in health-risk alcohol consumption. The prevalence of this consumption pattern is higher among men (18%) than among women (11%), indicating pronounced gender differences. [2].

The health risks associated with increased alcohol consumption are diverse and, in some cases, manifest only later in life. There is evidence of an association between alcohol consumption and diseases of the nervous system [3], the digestive tract, the cardiovascular system [4], as well as mental disorders [2]. Of particular note are alcohol-associated cancers, which have increasingly become a focus of research. Excessive alcohol consumption is strongly associated with an increased risk of developing several types of cancer [5] [6]. Alcohol consumption is also associated with psychosocial consequences, burdens on the social environment, and an increased risk of alcohol-related accidents and acts of violence. All of these factors cause a substantial burden of disease and result in challenges for the Austrian social and healthcare systems [2].

The WHO's goal is to reduce harmful alcohol consumption worldwide by 10% by 2030. As one of several measures to achieve this goal, the WHO recommends the introduction of health warning labels on alcoholic beverages [7]. Internationally, the effectiveness of health warning labels on alcoholic beverages regarding certain health-related outcomes is scientifically and socially controversial. According to scientific literature, health warning labels on alcoholic beverages may have positive effects. However, it should be noted that these findings predominantly derived from experimental studies. In addition, the literature describes a wide variety of warning label designs. On the one hand they vary in terms of their format (e.g., text-based, image-based, or a combination of both), and on the other hand, regarding the target group addressed (general population versus specific vulnerable groups), and in terms of the content conveyed. The latter includes different approaches in consumption recommendations, information on the health consequences of alcohol consumption, and references to the behavioral effects of alcohol consumption [8] [9].

Project aims:

The primary objective of this project is to systematically analyse the existing evidence on the effectiveness of health warning labels on alcoholic beverages. Accordingly, this report focuses on identifying which formats and types of content for health warning labels on alcoholic beverages are described and recommended in the scientific literature. Furthermore, the effectiveness of these warning labels is examined regarding the available evidence on health-related and economic outcome measures. Finally, the findings are contextualised for Austria by discussing which recommendations can be derived for the implementation of health warning labels on alcoholic beverages aimed at the general population.

Non-Objectives:

This report does not aim to empirically examine the effectiveness of health warning labels.

Further, it is not an aim to compare health warning labels with other preventive measures.

Research question:

RQ 1: What designs for health warning labels on alcoholic beverages can be identified in the literature?

RQ 2: How effective are health warning labels on alcoholic beverages in comparison with each other and in comparison with no warning labels regarding health-related and economic outcomes for the general population?

RQ 3: What recommendations regarding health warning labels on alcoholic beverages can be made based on the available evidence for the Austrian context?

Methods:

To answer the first and second research questions, a systematic literature search will be conducted in accordance with PRISMA guidelines. Precise inclusion and exclusion criteria for the literature search will be defined in the PICOS scheme. Based on these criteria, relevant databases (PubMed, The Cochrane Library, PsycINFO, Medline via Ovid, Embase, INHTA) will be systematically searched and the literature search will be completed by a manual search. The literature will be selected by two independent reviewers, with relevant literature being identified based on the defined inclusion and exclusion criteria in the PICOS scheme. After the literature has been selected, the information from the relevant literature will be extracted, summarized in pre-structured tables, and synthesized narratively. The quality of the identified literature will be assessed using appropriate instruments.

To address the third research question, recommendations for Austria regarding the design of health warnings on alcoholic beverages are developed narratively, based on the findings of the first and second research question.

Inclusion criteria (PICO):

Population	General population
Intervention	Health warning labels on alcoholic beverages, for example ■ Text-based warnings (e.g., consumption guidelines, information on health consequences, behavioural effects) ■ Image-based warning labels (including pictograms) ■ Combinations of image- and text-based warning labels
Control	■ No health warning label ■ Health warning labels on alcoholic beverages compared with one another (intervention vs. intervention)
Outcome	At least one of the following outcomes: ■ Perception of health risks associated with alcohol consumption (e.g., association between alcohol consumption and cancer risk) ■ Attitudes towards and beliefs about alcohol consumption ■ Shifts in intention regarding alcohol consumption ■ Shifts in behaviour regarding alcohol consumption ■ Incidence of alcohol-related diseases ■ Economic outcomes (e.g., effects on healthcare expenditures resulting from a potential reduction in alcohol-related indirect costs, as well as costs and benefits for the health and social care systems) <i>Rationale:</i> based on the existing literature
Study design	Meta-analyses, systematic reviews, and other types of reviews (e.g., Cochrane reviews, umbrella reviews, rapid reviews) (preferred) Primary studies, in particular randomized controlled trials (RCTs) (alternative) Inclusion period: 2016–2026 <i>Rationale:</i> A best-evidence approach will be applied for study selection, prioritizing recent and methodologically rigorous systematic reviews, while ensuring the transferability of findings. Although systematic reviews and RCTs represent the methodological gold standard, their explanatory value at population level may be limited due to the lack of a real-world setting. In addition, health warning labels are rarely implemented in isolation. Therefore, where necessary, these reviews are supplemented with primary studies.
Countries	Countries assigned to category “very high human development” according to the Human Development Index [10]
Language	German, English
Exclusion criteria	Health warning labels on non-alcoholic products, e.g.: ■ Tobacco ■ Food

	■ Non-alcoholic beverages ■ Sugar All other alcohol prevention measures, except health warning labels, e.g.: ■ General awareness campaigns on alcohol ■ Tax on alcoholic beverages ■ Adjustment of the minimum age for alcohol consumption ■ Accessibility and availability of alcoholic beverages ■ Advertising ■ Regulations prohibiting alcohol consumption ■ Health warning labels on alcoholic beverages in combination with other prevention measures
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Timetable:

Time period	Tasks
Q4 2025 to Q1 2026	Scoping and finalisation of the research protocol
Q1 2026	■ Registration OSF ■ Systematic literature search and manual searches
Q1 2026	Screening (abstract and full text)
Q1-Q2 2026	Data extraction and quality assessment
Q2 2026	Writing
Q2 2026	Internal and external Review
Q3 2026	Layout and publication

References:

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