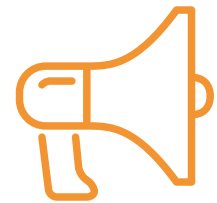


POLICY REVIEW IN BRIEF: MARKETING OF ALCOHOL BEVERAGES



*This high-level summary reflects the comprehensive assessment of the available evidence on the effect of marketing presented in the attached IARD Policy Review of **Marketing of Alcohol Beverages**. It should be considered alongside the full review and not viewed in isolation. All referenced citations refer to the IARD Policy Review.*

Alcohol marketing regulations can be used to protect at-risk groups, particularly minors and young adults. These regulations aim to minimize underage exposure to broadcast, print, online, and social media advertising. They can also be applied to branded promotional merchandising; sponsorship; the naming, labeling and packaging of products; and point-of-sale materials.

Marketing regulation is a key component of global efforts to reduce harmful drinking, including WHO's **Global strategy to reduce harmful use of alcohol** and a recommended cost-effective intervention in **Appendix 3** of its *Global action plan for the prevention and control of noncommunicable diseases* and more recent **SAFER** initiative. The International Chamber of Commerce (ICC)'s **Framework for Responsible Alcohol Marketing Communications (2019)** and IARD's **Digital Guiding Principles** provide voluntary standards for online marketing and social media.

Summary of existing research

Impact on youth. Studies of marketing's effects on young people often vary in the type of exposures and outcomes they measure, making it difficult to pool results. Five systematic reviews, including one meta-analysis, exploring the relationship between young people's exposure to alcohol marketing and drinking outcomes have been published in the past ten years.

- ▶ A meta-analysis of longitudinal studies reported small but statistically significant effects of alcohol advertising and marketing on age of initiation and on binge drinking [11].
- ▶ Two systematic reviews found modest [14] or non-significant [13] associations between exposure to alcohol marketing and initiation and frequency of drinking, and a third found an association with any drinking and binge drinking [16].
- ▶ A systematic review examining the exposure to digital marketing found that cross-sectional studies reported increases in youth drinking with increased exposure [20], but more rigorous study designs, such as longitudinal studies, did not.

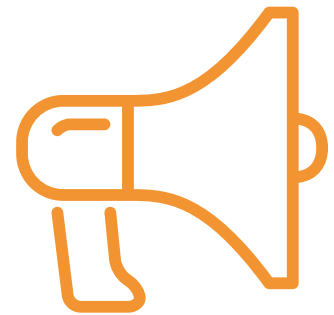
Although there have been studies on the impact of marketing regulations, findings are difficult to compare given the influence of family [22-27], peers [27-30], personal attitudes [31, 32], personal characteristics [33-35], and socioeconomic status [36].

Impact on adults. A Cochrane Collaboration systematic review of the effect of marketing bans concluded that "there is a lack of robust evidence for or against recommending implementation of alcohol advertising restrictions" [52].

- ▶ There are few comprehensive analyses of the effect of marketing on adult consumption and patterns of drinking, as measures and methodologies vary widely across studies. Researchers found an association between marketing expenditure and choice of both type of beverage and type of brand [5, 8-10]; there was either a modest or no association between marketing expenditure and overall demand [2-7].

Advertising bans. A recent evaluation of regulatory interventions reported that alcohol advertising bans were cost-effective in reducing alcohol-related burden of disease [55] but noted that there was little empirical evidence about their effect on health.

MARKETING OF ALCOHOL BEVERAGES



IARD Policy Reviews cover the evidence on the impact of policy measures on drinking patterns and outcomes. They offer an overview of the key literature and provide the reader with an extensive bibliography that refers to original research on each topic. IARD Policy Reviews attempt to present the balance of the available evidence. They do not necessarily reflect the views of IARD or its sponsoring companies.

Last Reviewed: July 2018



Background

Marketing communications are activities that are undertaken by producers and retailers to promote products or services, and they can include a number of approaches [1]:

- ▶ Advertising (via broadcast, print, electronic, and social media)
- ▶ Branded promotional merchandising
- ▶ Sponsorship of events and sports or social clubs
- ▶ Naming, labeling, and packaging of products
- ▶ Point-of-sale materials

This review draws on the available evidence of the effects of alcohol marketing communications on drinking patterns as well as the effectiveness of the various regimes that govern alcohol marketing communications. The impact of alcohol marketing communications on drinking patterns among adults is not discussed in detail as there is little published evidence about this topic. This review focuses in particular on the extent to which current regulatory approaches prevent underage people from receiving alcohol marketing communications.

This review does not examine findings on the effects of marketing communications on intentions to drink or attitudes toward drinking because, while these measures may be related to drinking patterns, it is not clear how well they reflect actual behavior. It also does not specifically address the effects of other forms of marketing, such as price promotions, and means of regulating these practices.



Summary of the evidence

AGGREGATE CONSUMER DEMAND

Although marketing communications are often assumed to have a direct positive correlation with overall consumption, analyses of the relationship between marketing expenditure and aggregate demand for alcohol beverages have found either no association or only a modest one [2-7].

- ▶ Studies indicate that factors such as demographic trends, level of income, and beverage price are more strongly related to overall consumption than spending on advertising [5, 6].
 - ▷ Aggregate spending on advertising had no association with total quantities purchased of alcohol beverages overall, or of wine; an 0.8% increase in total quantity of spirits purchased was associated with each 10% increase in advertising spending, compared with a 3.8% increase for spirits and a 2% increase for all alcohol beverages associated with each 10% increase in income [6].
- ▶ Several studies have found that, while advertising expenditure is minimally related to overall consumption of alcohol, it is associated with consumers' choices of alcohol brands and beverage types [5, 8-10].

CONSUMPTION AND DRINKING PATTERNS

There is a lack of evidence about the effect of alcohol marketing communications on drinking patterns among adults, whether alone or in relation to other factors.

Both exposure measures and outcome measures differ between studies, and this is a major challenge to summarizing the evidence on the effects of alcohol beverage marketing on consumption and drinking patterns.

- ▶ Frequently-studied exposure measures include broadcast ratings, self-reported viewing of various media, and recall of brands or advertisements.
- ▶ Outcome measures include initiation of drinking, quantity and frequency of consumption, and heavy episodic drinking.
- ▶ Some studies use intentions to drink or attitudes toward drinking as primary outcomes of interest, however, it is not clear how well these measures reflect actual drinking patterns.

This variability in exposure and outcome measures makes it difficult to combine the results of published studies and to quantify the effects of marketing on young people through meta-analysis.

- ▶ The only meta-analysis of longitudinal studies published to date [11] also had to combine exposure measures and outcome measures among the 12 studies found suitable for inclusion. **Exposure to marketing communications was found to have small but statistically significant effects on:**
 - ▷ **Adolescents' age of initiation of drinking**
 - ▷ **Prevalence of a combined outcome measure of any drinking and binge drinking**

- ▶ Studies that use experimental conditions to test short-term effects of advertising show mixed results, and meta-analysis of these studies did not find an effect on consumption from exposure to alcohol beverage advertising [12].

Systematic reviews, which summarize and describe the results of existing studies without combining these in a single quantitative estimate, have yielded inconsistent results regarding the association between exposure to marketing and drinking patterns.

Findings across marketing media

- ▶ Two systematic reviews of the scientific literature published up to 2009 [13, 14], covering the same nine longitudinal studies (and an additional seven in [13]), found **weak or non-significant correlations between exposure to marketing and initiation of drinking or frequency of drinking among youth.**
 - ▷ Receptivity to marketing was controlled for in only one of the included studies and no significant association could be found between exposure and initiation of drinking in that study [15].
 - ▷ Eight of the studies included in the broader 2009 systematic review [13] are among the 12 studies included in the 2011 meta-analysis [11] discussed above.
- ▶ A 2017 systematic review of the evidence published since 2008 covered 12 studies and reported a **positive association between various measures of exposure to marketing and any drinking and binge drinking by youth** [16].
 - ▷ However, not all of the included studies controlled for peer drinking and overall exposure to the medium of interest, and several of the studies found a significant effect of receptivity to marketing on youth drinking.
 - ▷ A study using data on audience composition in Australia, published after the cited systematic review, found that potential exposure to televised alcohol advertisements of youth aged between 12 and 17 years increased between 1999 and 2005, then decreased between 2005 and 2011; that potential exposure was positively associated with any drinking and with risky drinking¹, while potential exposure to televised road safety campaigns was negatively associated with risky drinking [17].
 - ▷ In another subsequent Australian study, adolescents exposed at least weekly to alcohol marketing most commonly reported exposure to it through broadcast media, internet use, and merchandising; however, only two means of exposure were found to be associated with any drinking and with risky drinking: merchandising, and a combined measure of outdoor and print media [18].
- ▶ A 2017 systematic review of the evidence on pricing, placement, product differentiation, and advertising exposure on alcohol use by youth aged between nine and 17 years also found mixed results: both positive and negative associations were reported, and in two-thirds of cases results were not statistically significant [19]. **Pooling effects across studies was not possible due to great variation in exposure and outcome measures.**
 - ▷ Unlike other reviews, this one excluded studies that measured exposure in ways that could not explicitly be attributed to producers or retailers, such as exposure to non-advertisement scenes of drinking in television programming.

¹ Risky drinking is defined in this study as an occasion in which 50 or more grams of alcohol are consumed.

New digital media

- ▶ A systematic review of the effects of digital marketing communications for alcohol beverages on young people found that it was associated with increases in their reported drinking in several cross-sectional studies, while studies of more robust design – a longitudinal study and a controlled trial – found no or inconsistent associations, respectively [20].
- ▷ Most of the reviewed studies included youth both below and above the legal purchase age (LPA).

Sports sponsorship

- ▶ In a 2016 systematic review of cross-sectional studies [21], findings were mixed – some of positive association and some of no association – regarding adults participating in sports teams sponsored by alcohol beverage producers. The two included studies that examined adolescents found that receiving sponsorship was associated with intentions to drink, and exposure to broadcasts of alcohol-sponsored football was associated with past-month drinking, respectively.

THE INFLUENCE OF SOCIAL, DEMOGRAPHIC, AND ECONOMIC FACTORS

The impact of marketing on drinking is difficult to separate from other influences, such as family, peer groups, drinking culture, and individual-level factors. For young people, several factors have been identified as having an important effect on drinking initiation, frequency, or binge drinking. These include:

- ▶ Family environment, including parent and sibling behavior [22-27]
- ▶ Peer drinking behavior [27-30]
- ▶ Personal attitudes towards drinking [31, 32]
- ▶ Individual characteristics such as impulsivity [33], and hyperactivity [34, 35]
- ▶ Socioeconomic status [36]

REGULATION OF MARKETING COMMUNICATIONS FOR ALCOHOL BEVERAGES

In most countries, marketing communications for alcohol beverages are subject to regulations which aim primarily to minimize exposure of at-risk populations, such as underage people. In addition, content restrictions can assist in discouraging harmful drinking and supporting those who choose to abstain from drinking alcohol. Specific provisions can cover some or all of the following:

- ▶ Content and placement of marketing communications such as in print, television, radio, electronic media, and outdoor advertising
- ▶ Hours during which marketing communications are permitted
- ▶ Sponsorship of sporting, cultural, and other events
- ▶ Sponsorship and message placement at youth events
- ▶ Requirements and limitations on content that can appear on product labels
- ▶ Inclusion of health warnings on promotional material and advertisements

The terms **self-regulation** and **advertising standards** are used variously to refer to:

- ▶ Standards established, monitored, and enforced at a national level by a standalone advertising self-regulatory organization
- ▶ Standards agreed and administered amongst specific alcohol beverage sectors
- ▶ Company-level standards that define requirements for marketers operating across all countries where the company is commercially active

In practice, sectoral and company codes complement any legislation and advertising standards in place at the national level.

In some countries, advertising and marketing standards are implemented alongside government regulations in a variety of ways:

- ▶ **Co-regulatory systems:** legislation or government regulation typically requires private actors to comply with standards developed and enforced jointly with alcohol beverage producers, the advertising industry, or both, and with the wider community.
- ▶ **Self-regulatory systems:** industry actors set, monitor, and enforce standards for marketing – even where not explicitly required to by government – such as setting standards that may go above and beyond a legal prohibition against marketing alcohol beverages to those below the legal purchase age.

Table 1: Proportion of countries by approach to regulating marketing communications for alcohol beverages, as reported to the World Health Organization (WHO) in 2016 and aggregated by IARD [37]

No regulation or advertising standards on any media for any alcohol beverage	23%
A combination of regulations and standards across alcohol beverages and media	53%
Advertising standards for all or some alcohol beverages and media	8%
Prohibition in all media for all alcohol beverages	11%

N=164; excludes 10 countries that prohibit the sale of alcohol beverages and a further 20 countries that did not report.

The following international codes of practice and principles set global standards in relation to marketing communications for alcohol beverages:

- ▶ The International Chamber of Commerce (ICC) [Advertising and Marketing Communications Code \(2018\)](#) [1] can be adapted to reflect local legal requirements and cultural sensitivities
 - ▷ [ICC Framework for responsible marketing communications of alcohol \(2014\)](#) [38]
- ▶ [Digital guiding principles: Self-regulation of marketing communications for beverage alcohol \(2014\)](#) [39]

Co- and self-regulatory systems typically include mechanisms for third parties to lodge complaints in relation to specific advertisements and establish adjudication procedures and sanctions for code violations. Sanctions can include fines, amendment or withdrawal of advertisements found to be in breach of standards, publication of the adjudication result, suspension of a company's membership in self-regulatory bodies, compulsory pre-clearance of a company's future advertisements, and removal of products with packaging found to be in breach of a standard.

Some co-regulatory and self-regulatory systems require pre-clearance of all advertisements of alcohol beverages by bodies specialized in assessing compliance with the standards of good practice; in other systems, advertising standards bodies offer copy advice as a fee-based service.

Systems can use a variety of approaches to establish and enforce standards across a spectrum of marketing communications: product naming and labeling, advertising via

various media, branded promotional merchandising, sponsorship of events, and point-of-sale materials.

COMPLIANCE WITH REGULATIONS AND ADVERTISING STANDARDS

Independent government reviews of industry compliance with self-regulatory standards in mature markets have found it to be high.

- ▶ A recent study assessing the effectiveness of complaint procedures found only three peer-reviewed publications, all conducted in Australia, and eight non-peer reviewed reports on systems in North America and Europe; the rates at which complaints were filed and upheld were higher in the non-peer-reviewed literature [40].
- ▶ The U.S. Federal Trade Commission (FTC) has consistently found that alcohol beverage producers comply with or exceed the voluntary standards set out in their codes [41-43].

The European Advertising Standards Alliance (EASA) has monitored alcohol beverage advertisements across the European Union, and found 94% compliance in 2008 and 93% compliance in 2013 [44, 45].

Research has shown that assessments of compliance with advertising standards can vary depending on the background of the assessors.

- ▶ In some studies, reviewers from a public health background judged there were a greater number of violations than members of the general public and marketing experts did when evaluating the same set of alcohol beverage advertisements [46, 47].
- ▶ However, previous research found that community members judged there were more violations than experts in the public health and addictions fields did [48].

Researchers have noted a challenge in clearly defining what constitutes a violation of content-based marketing regulations, for example, distinguishing which content is broadly appealing to adults and which content appeals particularly to children or to youth [49].

- ▶ A 2006 study of magazines in Australia examined non-compliance with the content provisions of self-regulatory standards [50], with the most commonly found violation being content strongly appealing to youth.
- ▶ A study among U.S. youth aged between 15 and 23 years found that exposure to alcohol beverages advertising that used a party theme was associated with initiation of drinking and binge drinking, while exposure to advertising using other themes was not [51].

EFFECTIVENESS OF REGULATING MARKETING COMMUNICATIONS FOR ALCOHOL BEVERAGES

Impact on consumption patterns

Although some countries have implemented broad restrictions on marketing of alcohol beverages via some or most media, there is little empirical evidence to support the effectiveness of such measures for reducing harmful drinking.

- ▶ A recent Cochrane Collaboration systematic review of the evidence around the impact of advertising bans on adult and adolescent alcohol consumption included one randomized controlled trial in the Netherlands and three studies in Canadian provinces and concluded that “there is a lack of robust evidence for or against recommending the implementation of alcohol advertising restrictions” [52].

- ▷ Evidence is especially scant about the effectiveness of partial restrictions on the marketing of alcohol beverages for reducing harmful drinking; this is due to the difficulties in isolating their effects from other ongoing trends in the economy, demographics and consumption patterns, and the effects of other concurrent policies.
- ▶ An analysis of policy measures, economic, and socio-demographic factors in 12 European countries from 1960 to 2008 found that, while restrictions of alcohol advertising correlated with reductions in total consumption in France and increases in Norway, no correlation was found in Austria, Italy, or Spain [53, 54].
- ▶ The shortage of empirical evidence about the effectiveness of marketing restrictions was also acknowledged in a recent evaluation of the cost-effectiveness of various interventions and policies for reducing the alcohol-related burden of disease [55]; although it did not include enforcement costs in the model, the evaluation concluded that alcohol beverage advertising bans are cost-effective.

Comprehensive, rigorous evaluations of effectiveness of content and placement restrictions on marketing communications for alcohol beverages for preventing harmful drinking are lacking altogether in the peer-reviewed literature.

Impact on exposure of underage youth

Exposure of youth to alcohol beverage advertising has been assessed in several countries and contexts subject to co- and self-regulation.

Although the Loi Évin – which prohibits alcohol advertising on television, at cultural and sporting events, and in any media targeting children – has been a part of the co-regulatory system in France since 1991, no comprehensive evaluation has been conducted to establish whether it is effective in preventing harmful drinking.

- ▶ A government report concluded in 1999 that the trend of a decrease in total alcohol consumption – which began in the 1970s – had not accelerated after implementation of the Loi Évin. It also noted that, among adolescents, the percentage of occasional drinkers increased as both never-drinkers and regular drinkers decreased in this group [56].
- ▶ In a 2015 survey among students in 10th and 12th grades in France, over half reported being exposed to alcohol marketing on billboards, in magazines and newspapers, on the radio, and on the Internet at least once per month in the past year; the lowest reported medium of exposure (17%) was receiving gifts with alcohol brand logos [57].

A 2015 peer-reviewed assessment of a company-level self-regulatory code found it to be effective and cost-effective in reducing the exposure of underage youth to alcohol beverage advertising, even while compliance was imperfect with its requirements to place advertisements only in media with an audience composed predominantly of adults above the legal purchase age [58].

Exposure of youth through individual media has also been examined [40].

Television

- ▶ Panels of reviewers from the public health and addictions fields who applied the global **Guiding Principles** to alcohol beverage advertisements broadcast during the 2014 FIFA World Cup in Argentina, Brazil, Canada, Finland, France, Mexico, Spain, and the United States found that 86% of these advertisements violated one or more of the principles [59].
- ▶ Using data on alcohol advertisements televised between December 2010 and May 2011 and audience composition in the same period, researchers found that:
 - ▷ Youth in the United Kingdom aged between 10 and 15 years, and youth in the Netherlands aged between 13 and 19 years were exposed more often than those aged 20 and above [60].
 - ▷ The relative rate of exposure was lower for youth in Germany aged between 10 and 15 years than those aged 20 and above [60].

Print

- ▶ Using similar data for magazine advertisements in the United States [61], researchers found that individual youth exposure declined by 63% between 2001 and 2011, and that voluntary youth exposure limits were consistently met between 2008 and 2011.
 - ▷ However, over the study period, nearly three-quarters of the examined advertisements were placed in magazines for which readership was greater among those aged between 12 and 20 years than among adults above the legal purchase age.
 - ▷ A study of alcohol beverage advertisements appearing in US magazines between 2006 and 2011 found that, after controlling for spending on advertising and overall readership, advertisements for the top brands that underage drinkers reported consuming were more common in magazines with a higher proportion of readers who were underage than those for other brands [62].

New digital media

- ▶ Recent research has focused on examining the exposure of youth to alcohol marketing through new media, which were found to underuse potential age-gating methods between 2007 and 2013 [63]. Internet-hosted versions of television programs were found to pose potential exposure risk [64], and some young people (ages 12-25) were found to be exposed to both branded and user-generated alcohol-related content² on social media [65-67].

² User-generated content is typically subject to restrictions by the hosting platform, though not necessarily to the same ones as marketing communications, and it may be more challenging and costly to monitor in comparison.

IMPROVING REGULATION AND ADVERTISING STANDARDS

Several factors reduce the effectiveness of regulation and self-regulation in minimizing youth's exposure to alcohol marketing communications and delivering on other standards of good practice, such as not portraying drinking in risky situations. These factors should be considered areas for potential improvement when regulations, advertising standards, and company or sectoral codes of practice are evaluated and revised.

- ▶ Some new forms of marketing may not be perfectly covered by existing regulation and advertising standards.
- ▶ Complaint mechanisms intended to support regulation and co-regulation may not be sufficiently familiar or accessible to the public.
- ▶ It is important for adjudication to be carried out in a manner that is, and is seen to be, impartial. Addressing complaints in a transparent and timely manner, and seeking non-binding external consultation, can strengthen the credibility of enforcement systems for advertising standards [68, 69].
- ▶ Where marketing communications are not governed by regulation or advertising standards at the national level, alcohol beverage producers and retailers can implement sectoral standards of good practice for marketing communications. However, incomplete participation by alcohol beverage producers and retailers can limit the credibility and effectiveness of these standards.



Limitations & methodological issues

In general, there has been little effort to study the effects of marketing communications on adult populations and even less to differentiate between subpopulations of adults – abstainers, light, moderate, and heavy drinkers – and how they are affected by marketing communications.

Because of the variability of measures of exposure to marketing and the outcomes of interest, researchers have found it difficult to combine the range of literature on the effects of marketing of alcohol beverages on underage people.

Several points should be considered when interpreting findings on the relationship between alcohol marketing and drinking by youth and adults. First, the majority of the research in this area tests for associations between marketing and consumption or harmful patterns of drinking. This means that in much of the published literature it is not possible to rule out reverse causality, that is, that drinkers and harmful drinkers may seek out, be more attentive to, or be better able to recall media content containing alcohol beverage advertisements [11, 14, 16].

There are also several methodological issues to consider regarding studies on the effect of marketing communications on consumption and drinking patterns.

- ▶ There are many peer-reviewed studies of the effects of marketing on intention to drink and attitudes toward drinking. Although these measures are associated with drinking patterns [70], it is not clear from those studies what factors moderate the association, nor how closely, therefore findings from such studies are not discussed in this review.
- ▶ High attrition rates [13] and few respondents falling within the categories of interest limit the ability to draw conclusions from some studies.
- ▶ Artificially constructed experimental settings, in which the immediate impact of exposure is measured, do not control for other influences that play a role in shaping beliefs, attitudes, and consumption patterns, and do not necessarily reflect real-world impacts [71].
- ▶ It is difficult to separate the complex relationship between marketing and the various other factors that may influence youth drinking patterns and initiation of alcohol consumption. The relative importance of marketing compared to other influences on young people has not been adequately assessed by researchers [14].
- ▶ There is evidence that publication and dissemination bias play an important role in establishing the state of the evidence [11, 16], and it is less likely for studies finding no relationship to be published and included in reviews than those reporting statistically significant findings [72].
- ▶ It may not be appropriate to generalize the results of individual studies across countries, groups, and settings.

The lack of consistency in measures of exposure to alcohol beverage marketing is also a limiting factor for studies aiming to assess the effectiveness of regulation and self-regulation to prevent it.

Even if valid and consistent exposure measures were widely adopted, it is difficult to attribute changes in consumption by youth and adults to particular policies. In the real world, multiple policies and additional factors that influence drinking patterns often change in the same time period, which makes analyzing their separate impacts challenging [73].



Glossary

- ▶ **Mature markets** are those which are stable and lack large growth or product innovation.
- ▶ **Receptivity to marketing** refers to the degree to which someone is willing to attend to, perceive positively, and engage with marketing communications for a given product.
- ▶ **Pre-clearance of advertisements** is a process of assessing proposed advertisements against existing legal requirements and content restrictions before they are placed in the public domain. Copy advice is expert support provided to advertisers on how to comply with legal and self-regulatory requirements with reference to specific proposed advertisements.
- ▶ **Age-gating** is the practice of restricting access to digital media content based on users' profile information about age.

Study designs

- ▶ **Controlled trial:** considered the most rigorous study design, controlled trials randomly (or otherwise) assign individuals into an exposure group or into a control group and assess the effect of the exposure on an outcome of interest. By carefully ordering the exposure to precede the measured outcome, controlled trials can distinguish cause and effect.
- ▶ **Meta-analysis:** combines individual-level data from multiple studies in order to calculate a single pooled estimate of an effect. Under the best circumstances, a well-designed meta-analysis produces a more precise estimate than the separate datasets it includes.
- ▶ **Systematic review:** summarizes the evidence on a clearly defined, specific research question and uses qualitative and sometimes quantitative analysis to describe the consistency and precision of findings of the underlying studies.
- ▶ **Cross-sectional study:** can assess an association between drinking and a given outcome among a defined population at a single point in time. Because both exposure and outcome are determined simultaneously, a causal relationship cannot be established.

References

1. International Chamber of Commerce (ICC). (2018). *ICC advertising and marketing communications code* (No. 240-46/745). Paris, France. Retrieved from <https://iccwbo.org/publication/icc-advertising-and-marketing-communications-code/>
2. Duffy, M. (1989). Measuring the contribution of advertising to growth in demand: An econometric accounting framework. *International Journal of Advertising*, 8(2), 95-110.
3. Dorsett, J., & Dickerson, S. (2004). *Advertising and alcohol consumption in the UK*. *International Journal of Advertising*, 23(2), 149-170.
4. Smith, D. I. (1990). *Consumption and advertising of alcoholic beverages in Australia, 1969-86*. *Drug and Alcohol Review*, 9(1), 33-41.
5. Wilcox, G. B., Kang, E. Y., & Chilek, L. A. (2015). Beer, wine, or spirits? Advertising's impact on four decades of category sales. *International Journal of Advertising*, 34(4), 641-657.
6. Gallet, C. A. (2007). The demand for alcohol: A meta-analysis of elasticities. *Australian Journal of Agricultural and Resource Economics*, 51(2), 121-135.
7. Snyder, L. B., Milici, F. F., Slater, M., Sun, H., & Strizhakova, Y. (2006). Effects of alcohol advertising exposure on drinking among youth. *Archives of Pediatrics and Adolescent Medicine*, 160(1), 18-24.
8. Lariviere, E., Larue, B., & Chalfant, J. (2000). Modelling the demand for alcoholic beverages and advertising specifications. *Agricultural Economics*, 22, 147-162.
9. Nelson, J. P. (1999). Broadcast advertising and U.S. demand for alcoholic beverages. *Southern Economic Journal*, 65(4), 774-790.
10. Nelson, J. P., & Moran, J. R. (1995). Advertising and US alcoholic beverage demand: system-wide estimates. *Applied Economics*, 27, 1225-1236.
11. Nelson, J. P. (2011). Alcohol marketing, adolescent drinking and publication bias in longitudinal studies: A critical survey using meta-analysis. *Journal of Economic Surveys*, 25(2), 191-232.
12. Stautz, K., Brown, K. G., King, S. E., Shemilt, I., & Marteau, T. M. (2016). Immediate effects of alcohol marketing communications and media portrayals on consumption and cognition: A systematic review and meta-analysis of experimental studies. *BMC Public Health*, 16, 465.
13. Anderson, P., de Bruijn, A., Angus, K., Gordon, R., & Hastings, G. (2009). Impact of alcohol advertising and media exposure on adolescent alcohol use: A systematic review of longitudinal studies. *Alcohol and Alcoholism*, 44, 229-243.
14. Smith, L. A., & Foxcroft, D. R. (2009). The effect of alcohol advertising, marketing and portrayal on drinking behavior in young people: Systematic review of prospective cohort studies. *BMC Public Health*, 9, 51.
15. Henriksen, L., Feighery, E. C., Schleicher, N. C., & Fortmann, S. P. (2008). Receptivity to alcohol marketing predicts initiation of alcohol use. *Journal of Adolescent Health*, 42(1), 28-35.

16. Jernigan, D., Noel, J., Landon, J., Thornton, N., & Lobstein, T. (2017). Alcohol marketing and youth alcohol consumption: A systematic review of longitudinal studies published since 2008. *Addiction*, *112 Suppl 1*, 7-20.
17. White, V., Azar, D., Faulkner, A., Coomber, K., Durkin, S., Livingston, M., et al. (2017). Adolescents' exposure to paid alcohol advertising on television and their alcohol use: Exploring associations over a 13-year period. *Addiction*, *112*(10), 1742-1751.
18. Faulkner, A., Azar, D., & White, V. (2017). 'Unintended' audiences of alcohol advertising: Exposure and drinking behaviors among Australian adolescents. *Journal of Substance Use*, *22*(1), 108-112.
19. Scott, S., Muirhead, C., Shucksmith, J., Tyrrell, R., & Kaner, E. (2017). Does industry-driven alcohol marketing influence adolescent drinking behavior? A systematic review. *Alcohol and Alcoholism*, *52*(1), 84-94.
20. Buchanan, L., Kelly, B., Yeatman, H., & Kariippanon, K. (2018). The effects of digital marketing of unhealthy commodities on young people: A systematic review. *Nutrients*, *10*(2).
21. Brown, K. (2016). Association between alcohol sports sponsorship and consumption: A systematic review. *Alcohol and Alcoholism*, *51*(6), 747-755.
22. van der Vorst, H., Engels, R. C., Meeus, W., Dekovic, M., & van Leeuwe, J. (2007). Similarities and bi-directional influences regarding alcohol consumption in adolescent sibling pairs. *Addictive Behaviors*, *32*(9), 1814.
23. Yap, M. B. H., Cheong, T. W. K., Zaravinos-Tsakos, F., Lubman, D. I., & Jorm, A. F. (2017). Modifiable parenting factors associated with adolescent alcohol misuse: a systematic review and meta-analysis of longitudinal studies. *Addiction*, *112*(7), 1142-1162.
24. Sharmin, S., Kypri, K., Khanam, M., Wadolowski, M., Bruno, R., Attia, J., et al. (2017). Effects of parental alcohol rules on risky drinking and related problems in adolescence: Systematic review and meta-analysis. *Drug and Alcohol Dependence*, *178*, 243-256.
25. Whiteman, S. D., Jensen, A. C., Mustillo, S. A., & Maggs, J. L. (2016). Understanding sibling influence on adolescents' alcohol use: Social and cognitive pathways. *Addictive Behaviors*, *53*, 1-6.
26. Samek, D. R., McGue, M., Keyes, M., & Iacono, W. G. (2015). Sibling facilitation mediates the association between older and younger sibling alcohol use in late adolescence. *Journal of Research on Adolescence*, *25*(4), 638-651.
27. Stoolmiller, M., Wills, T. A., McClure, A. C., Tanski, S. E., Worth, K. A., Gerrard, M., et al. (2012). Comparing media and family predictors of alcohol use: A cohort study of US adolescents. *BMJ Open*, *2*(1), 11. Retrieved from <http://bmjopen.bmj.com/content/2/1/e000543.full>. doi:10.1136/bmjopen-2011-000543
28. Scholte, R. H. J., Poelen, E. A., Willemsen, G., Boomsma, D. I., & Engels, R. C. M. E. (2008). Relative risks of adolescent and young adult alcohol use: The role of drinking fathers, mothers, siblings, and friends. *Addictive Behaviors*, *33*(1), 1-14.
29. Bonnie, R. J., & O'Connell, M. E. (Eds.). (2004). *Reducing underage drinking: A collective responsibility*. Washington, DC: National Academies Press. Retrieved from <http://www.nap.edu/read/10729/chapter/1>
30. Chen, C. Y., Huang, H. Y., Tseng, F. Y., Chiu, Y. C., & Chen, W. J. (2017). Media alcohol advertising with drinking behaviors among young adolescents in Taiwan. *Drug and Alcohol Dependence*, *177*, 145-152.

31. Huang, J.-H., DeJong, W., Towim, L. G., & Schneider, S. K. (2009). Sociodemographic and psychobehavioral characteristics of US college students who abstain from alcohol. *Journal of American College Health*, 57(4), 395-410.
32. DiBello, A. M., Miller, M. B., Neighbors, C., Reid, A., & Carey, K. B. (2018). The relative strength of attitudes versus perceived drinking norms as predictors of alcohol use. *Addictive Behaviors*, 80, 39-46.
33. Stautz, K., & Cooper, A. (2013). Impulsivity-related personality traits and adolescent alcohol use: A meta-analytic review. *Clinical Psychology Review*, 33(4), 574-592.
34. Charach, A., Yeung, E., Climans, T., & Lillie, E. (2011). Childhood attention-deficit/hyperactivity disorder and future substance use disorders: comparative meta-analyses. *Journal of the American Academy of Child and Adolescent Psychiatry*, 50(1), 9-21.
35. Lee, S. S., Humphreys, K. L., Flory, K., Liu, R., & Glass, K. (2011). Prospective association of childhood attention-deficit/hyperactivity disorder (ADHD) and substance use and abuse/dependence: a meta-analytic review. *Clinical Psychology Review*, 31(3), 328-341.
36. Lemstra, M., Bennett, N. R., Neudorf, C., Kunst, A., Nannapaneni, U., Warren, L. M., et al. (2008). A meta-analysis of marijuana and alcohol use by socio-economic status in adolescents aged 10-15 years. *Canadian Journal of Public Health*, 99(3), 172-177.
37. World Health Organization (WHO). *Global Health Observatory, Advertising and product placement restrictions*. Retrieved 31 October, 2018, from <http://apps.who.int/gho/data/node.main.A1131?lang=en&showonly=GISAH>
38. International Chamber of Commerce (ICC). (2014). *ICC framework for responsible marketing communications of alcohol*. Retrieved 02 July, 2018, from http://www.codescentre.com/media/12670/icc-alcohol-framework_final_march2014.pdf
39. Beer Wine and Spirits Producers' Commitments to Reduce Harmful Drinking. (2014). *Digital guiding principles: Self-regulation of marketing communications for beverage alcohol*. Washington, DC. Retrieved from <http://www.joomag.com/magazine/digital-guiding-principles-dgps/0643189001411494235?short>
40. Noel, J. K., & Babor, T. F. (2017). Does industry self-regulation protect young people from exposure to alcohol marketing? A review of compliance and complaint studies. *Addiction*, 112 Suppl 1, 51-56.
41. U.S. Federal Trade Commission. (2008). *Self-regulation in the alcohol industry*. Report of the Federal Trade Commission. Washington, DC: Author. Retrieved from <https://www.ftc.gov/reports/self-regulation-alcohol-industry-report-federal-trade-commission>
42. U.S. Federal Trade Commission. (2014). *Self-regulation in the alcohol industry. Report of the Federal Trade Commission*. Washington, DC: U.S. Federal Trade Commission. Retrieved from <https://www.ftc.gov/system/files/documents/reports/self-regulation-alcohol-industry-report-federal-trade-commission/140320alcoholreport.pdf>
43. Evans, J. M., & Kelly, R. F. (1999). *Self-regulation in the alcohol industry: A review of industry efforts to avoid promoting alcohol to underage consumers. A report to Congress from the Federal Trade Commission*. Washington, DC: U.S. Federal Trade Commission.
44. European Advertising Standards Alliance (EASA). (2008). *Alcohol advertising monitoring: Compliance report*. Brussels: Author. Retrieved from http://ec.europa.eu/health/ph_determinants/life_style/alcohol/Forum/docs/alcohol_lib22_en.pdf

45. European Advertising Standards Alliance (EASA). (2015). *Advertising standards and...alcohol beverage advertising* (External Briefing).
46. Lloyd, K., Cameron, E., Williams, H., Banister, E., Donmall, M., Higgins, A., et al. (2018). Do marketing and alcohol treatment/public health experts think televised alcohol advertisements abide by regulatory guidelines? *Journal of Health Psychology*, 1359105318770727.
47. Searle, R., Alston, D., & French, D. P. (2014). Do UK television alcohol advertisements abide by the code of broadcast advertising rules regarding the portrayal of alcohol? *Alcohol and Alcoholism*, 49(4), 472-478.
48. Babor, T. F., Xuan, Z., & Damon, D. (2013). A new method for evaluating compliance with industry self-regulation codes governing the content of alcohol advertising. *Alcoholism: Clinical and Experimental Research*, 37(10), 1787-1793.
49. Vendrame, A., Pinsky, I., de Souza e Silva, R., & Babor, T. (2010). Assessment of self-regulatory code violations in Brazilian television beer advertisements. *Journal of Studies on Alcohol and Drugs*, 71(3), 445-451.
50. Donovan, K., Donovan, R., Howat, P., & Weller, N. (2007). Magazine alcohol advertising compliance with the Australian Alcoholic Beverages Advertising Code. *Drug Alcohol Rev*, 26(1), 73-81.
51. Morgenstern, M., Li, Z. Z., Li, Z. G., & Sargent, J. D. (2017). The party effect: prediction of future alcohol use based on exposure to specific alcohol advertising content. *Addiction*, 112(1), 63-70.
52. Siegfried, N., Pienaar, D. C., Ataguba, J. E., Volmink, J., Kredo, T., Jere, M., et al. (2014). Restricting or banning alcohol advertising to reduce alcohol consumption in adults and adolescents. *Cochrane Database of Systematic Reviews*, 11(11), CD010704.
53. Alcohol Measures for Public Health Research Alliance (AMPHORA). (2013). *Report of an analysis of European alcohol-related cultural, social and policy interactions and their impact on alcohol consumption and alcohol-related harm* (Deliverable 3.2, Work Package 3: Cultural determinants of alcohol policy): Alcohol Measures for Public Health Research Alliance (AMPHORA). Retrieved from http://amphoraproject.net/w2box/data/Deliverables/AMPHORA_WP3_D3.2.pdf
54. Baccini, M., & Carreras, G. (2014). Analyzing and comparing the association between control policy measures and alcohol consumption in Europe. *Substance Use and Misuse*, 49(12), 1684-1691.
55. Chisholm, D., Moro, D., Bertram, M., Pretorius, C., Gmel, G., Shield, K., et al. (2018). Are the "Best Buys" for alcohol control still valid? *An update on the comparative cost-effectiveness of alcohol control strategies at the global level*. *Journal of Studies on Alcohol and Drugs*, 79(4), 514-522.
56. Mauffret, M., Rousseau-Giral, A.-C., & Zaidman, C. (1999). *La loi relative à la lutte contre le tabagisme et l'alcoolisme: Rapport d'évaluation*: Conseil national de l'Évaluation. Retrieved from <http://www.ladocumentationfrancaise.fr/var/storage/rapports-publics/004000708.pdf>
57. Gallopel-Morvan, K., Spilka, S., Mutatayi, C., Rigaud, A., Lecas, F., & Beck, F. (2017). France's Evin Law on the control of alcohol advertising: Content, effectiveness and limitations. *Addiction*, 112 Suppl 1, 86-93.

58. Ross, C. S., Sparks, A., & Jernigan, D. H. (2015). Assessing the impact of stricter alcohol advertising standards: The case of Beam Global Spirits. *Journal of Public Affairs, 16*(3), 245-254.
59. Noel, J. K., Babor, T. F., Robaina, K., Feulner, M., Vendrame, A., & Monteiro, M. (2017). Alcohol marketing in the Americas and Spain during the 2014 FIFA World Cup Tournament. *Addiction, 112 Suppl 1*, 64-73.
60. Patil, S., Winpenny, E. M., Elliott, M. N., Rohr, C., & Nolte, E. (2014). Youth exposure to alcohol advertising on television in the UK, the Netherlands and Germany. *European Journal of Public Health, 24*(4), 561-565.
61. Ross, C. S., Henahan, E. R., & Jernigan, D. H. (2017). Youth exposure to alcohol advertising in national magazines in the United States, 2001-2011. *American Journal of Public Health, 107*(1), 136-142.
62. King, C., 3rd, Siegel, M., Ross, C. S., & Jernigan, D. H. (2017). Alcohol advertising in magazines and underage readership: Are underage youth disproportionately exposed? *Alcoholism: Clinical and Experimental Research, 41*(10), 1775-1782.
63. Winpenny, E. M., Marteau, T. M., & Nolte, E. (2014). Exposure of children and adolescents to alcohol marketing on social media websites. *Alcohol and Alcoholism, 49*(2), 154-159.
64. Siegel, M., Kurland, R. P., Castrini, M., Morse, C., de Groot, A., Retamozo, C., et al. (2015). Potential youth exposure to alcohol advertising on the internet: a study of internet versions of popular television programs. *Journal of Substance Use, 21*(4), 361-367.
65. Jernigan, D. H., Padon, A., Ross, C., & Borzekowski, D. (2017). Self-reported youth and adult exposure to alcohol marketing in traditional and digital media: Results of a pilot survey. *Alcoholism: Clinical and Experimental Research, 41*(3), 618-625.
66. Moreno, M. A., & Whitehill, J. M. (2014). Influence of social media on alcohol use in adolescents and young adults. *Alcohol Research: Current Reviews, 36*(1), 91-100.
67. Gupta, H., Pettigrew, S., Lam, T., & Tait, R. J. (2016). A systematic review of the impact of exposure to internet-based alcohol-related content on young people's alcohol use behaviours. *Alcohol and Alcoholism, 51*(6), 763-771.
68. European Advertising Standards Alliance (EASA). (2014). *International guide to developing a self-regulatory organisation: Practical advice on setting up and consolidating an advertising self-regulatory system*. International edition. Retrieved from [http://www.easa-alliance.org/sites/default/files/International%20Guide%20to%20Developing%20a%20Self-Regulatory%20Organisation%20\(2014\).pdf](http://www.easa-alliance.org/sites/default/files/International%20Guide%20to%20Developing%20a%20Self-Regulatory%20Organisation%20(2014).pdf)
69. International Council for Ad Self-Regulation (ICAS). (2017). *International guide to developing a self-regulatory organization: Practical advice on setting up and consolidating an advertising self-regulatory system* (3ed.). Retrieved from https://icas.global/wp-content/uploads/2017_12_12_ICAS_SRO_Guide.pdf
70. Cooke, R., Dahdah, M., Norman, P., & French, D. P. (2016). How well does the theory of planned behaviour predict alcohol consumption? A systematic review and meta-analysis. *Health Psychol Rev, 10*(2), 148-167.
71. Grube, J. W., & Walters, E. (2005). Alcohol in the media: Content and effects on drinking beliefs and behaviors among youth. *Adolescent Medicine Clinics, 16*, 327-343.

72. Cukier, S., Wettlaufer, A., Jackson, K., Minozzi, S., Bartholow, B. D., Stoolmiller, M. L., et al. (2018). Impact of exposure to alcohol marketing and subsequent drinking patterns among youth and young adults. *Cochrane Database of Systematic Reviews*(8).
73. Hill, S. R., Vale, L., Hunter, D., Henderson, E., & Oluboyede, Y. (2017). Economic evaluations of alcohol prevention interventions: Is the evidence sufficient? A review of methodological challenges. *Health Policy*, 121(12), 1249-1262.