

# Alcohol marketing: Is the relationship causal and why does it matter?

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Dose-response relationship

outcome of interest

behavior?

If a dose-response relationship can be observed for

Does risk of alcohol consumption increase

the cause-and-effect hypothesis, increased exposure

monotonically with higher levels of exposure to

will proportionally impact the clinical outcome

marketing or marketing receptivity?

Temporal Association

Is there evidence that the presumed cause precedes

Did the exposure to alcohol marketing precede

the effect in time?

early onset of drinking and progression to binge

Consistency

Is the association between exposure to

drinking? Is the association between exposure to

investigators can replicate it across different

alcohol marketing and substance exposure

location with different populations, and under

marketing effects across multiple media, in

different circumstances?

multiple countries, as reported by different

Specificity

Causality can be established when one type of

investigators using a variety of exposure measures

exposure leads to one specific outcome.

and covariate controls?

Plausibility

There is stronger support for causality if there is a

Is the association between alcohol marketing

likely biological and/or psychological mechanism

exposure and substance use confined only to

that can explain the association between exposure

drinking? or does it also include other behaviors

and the outcome

like smoking? Is exposure to other marketing

Experimental evidence

If experimental manipulation of the exposure

inputs (e.g., food) associated with higher risk of

outcome association impacts the outcome, this

drinking?

represents very strong support for causation

Is it biologically plausible that changes in

explanations?

**As required by the Alcohol Policy 19 Conference,  
I/we have signed a disclosure statement and note the  
following conflict(s) of interest:**

None



**Evidence to Action: Building a Framework for Change**  
**September 14-16, 2022    Arlington, VA**

# Evidence

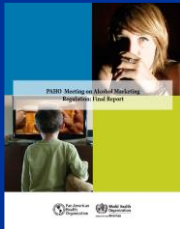
## *JOURNAL OF STUDIES ON ALCOHOL AND DRUGS* *JOURNAL OF STUDIES ON ALCOHOL AND DRUGS /* *SUPPLEMENT NO. 19, 2020*

Addiction supplement: Alcohol marketing regulation:  
From research to public policy(2017)

<http://onlinelibrary.wiley.com/doi/10.1111/add.v112.S1/issue toc>

- PAHO Meeting on Alcohol Marketing Regulation: Final Report 2016
- PAHO Technical Note on Alcohol Marketing Regulation 2017

[http://www2.paho.org/hq/index.php?option=com\\_content&view=article&id=13130&Itemid=40342](http://www2.paho.org/hq/index.php?option=com_content&view=article&id=13130&Itemid=40342)



# The JSAD Supplement

- Summarizes the findings of narrative and systematic reviews focused on causality criteria for studies of the relation between exposure to alcohol marketing and the onset and severity of alcohol use by young persons.
- Also considered are the implications of this proposition for alcohol policy and public health.
- Synthesis of literature funded by NIAAA

# Rationale for JSAD Supplement

- Although the medical system typically treats addictive behaviors as risk factors addressable at the individual level, public health scientists focus on the upstream basis for the behaviors, sometimes referred to as the commercial determinants of health (Kickbusch et al., 2016)
- An investigation conducted by the UK Home Office suggested that some of the large multinational producers were targeting children and adolescents with their marketing campaigns (Hastings, 2009).
- “The evidence is sufficient to conclude that there is a causal relationship between advertising and promotional efforts of the tobacco companies and the initiation and progression of tobacco use among young people” (p. 8, 2012 Surgeon General Report).

# Alcohol Marketing: 2014 FIFA World Cup

(Babor et al., 2017, Addiction)

- 🕒 Largest media event in history
- 🕒 Overall, 86.2% of unique ads were found to contain at least one violation of the alcohol industry's own self-regulation codes.



➤ Have the potential to influence evidence-based policy by educating the public and policymakers.

# Methods

- Descriptive synthesis of findings from 11 narrative and systematic reviews using the nine Bradford Hill causality criteria: 1) Strength of association; 2) Consistency; 3) Specificity of association; 4) Temporality; 5) Biological gradient (dose-response relationship); 6) Biological plausibility; 7) Coherence; 8) Experimental evidence (e.g. reproducibility in animal models); and 9) Analogy.



# Strength of association

- The stronger the association between the exposure and the clinical outcome, the less likely it is influenced by an external variable or confounded by a variable associated with the exposure and outcome of interest
- How strong is the association between exposure to alcohol marketing and changes in alcohol consumption compared to other neurobiological, psychological and behavioral correlates of drinking behavior?



# Dose–response relationship

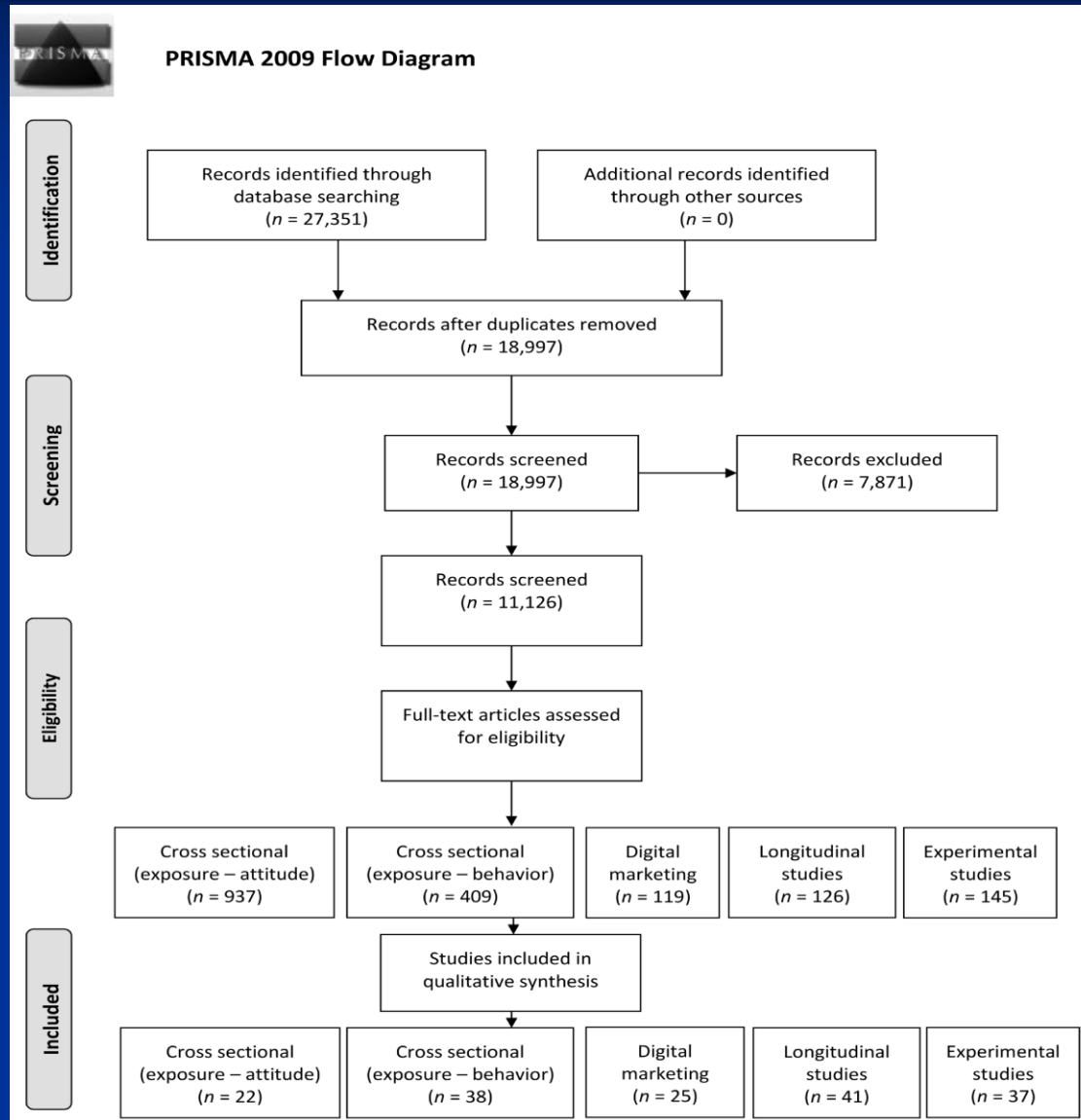
- If a dose–response relationship can be observed for the cause-and-effect hypothesis, increased exposure will proportionally impact the clinical outcome.
- Does risk of alcohol consumption increase monotonically with higher levels of exposure to marketing or marketing receptivity?

# Temporal Association

- Is there evidence that the presumed cause precedes the effect in time?
- Did the exposure to alcohol marketing precede early onset of drinking and progression to binge drinking? Is the association between exposure to alcohol marketing and drinking reciprocal?

# PRISMA FLOW DIAGRAM

JOURNAL OF STUDIES ON ALCOHOL AND DRUGS / SUPPLEMENT NO. 19,



# Main Findings

- Evidence of causality for all nine of the Hill criteria was found across the review papers commissioned for this Supplement and in other previously published reviews.
- The reviews document that a substantial amount of empirical research has been conducted in a variety of countries using different but complementary research designs.
- The current research literature indicates that the association between alcohol marketing and drinking among young persons is causal.

# Commercial determinants of recovery

- Can aggressive marketing of alcohol interfere with relapse prevention and long-term recovery?

## Drinking history, craving and the risk of relapse in alcoholics

- “Moderate social drinkers” exposed to alcohol advertisements in magazines showed increases in skin conductance to a significantly greater extent than did “light social drinkers” (Cassisi et al., 1998).
- Teenagers with alcohol use disorders showed greater brain activation to pictures of alcoholic beverages than control youths, predominantly in areas linked to reward, desire, and positive affect (Tapert et al., 2003). The degree of brain response was highest in youths who reported greater desire to drink and who consumed alcohol more frequently.

# Are people with alcohol dependence more susceptible to alcohol marketing?

- Marketing messages are processed differently by heavy drinkers.
- The more someone drinks, the more likely they are to pay attention to alcohol cues, which in turn leads to increased cravings.
- Exposure to marketing can affect behavior through visual and auditory cues - such as a picture of an alcoholic drink - that can trigger neurobiological responses that are perceived as alcohol craving.
- Responsiveness to cues is also predictive of alcohol consumption and relapse after treatment in people with alcohol problems.

■ *“When I was going through a long period of drinking too much, seeing alcohol adverts on TV just prompted me to buy more.” Alcohol Health Alliance survey respondent*



# Does the alcohol industry proactively target heavy drinkers?

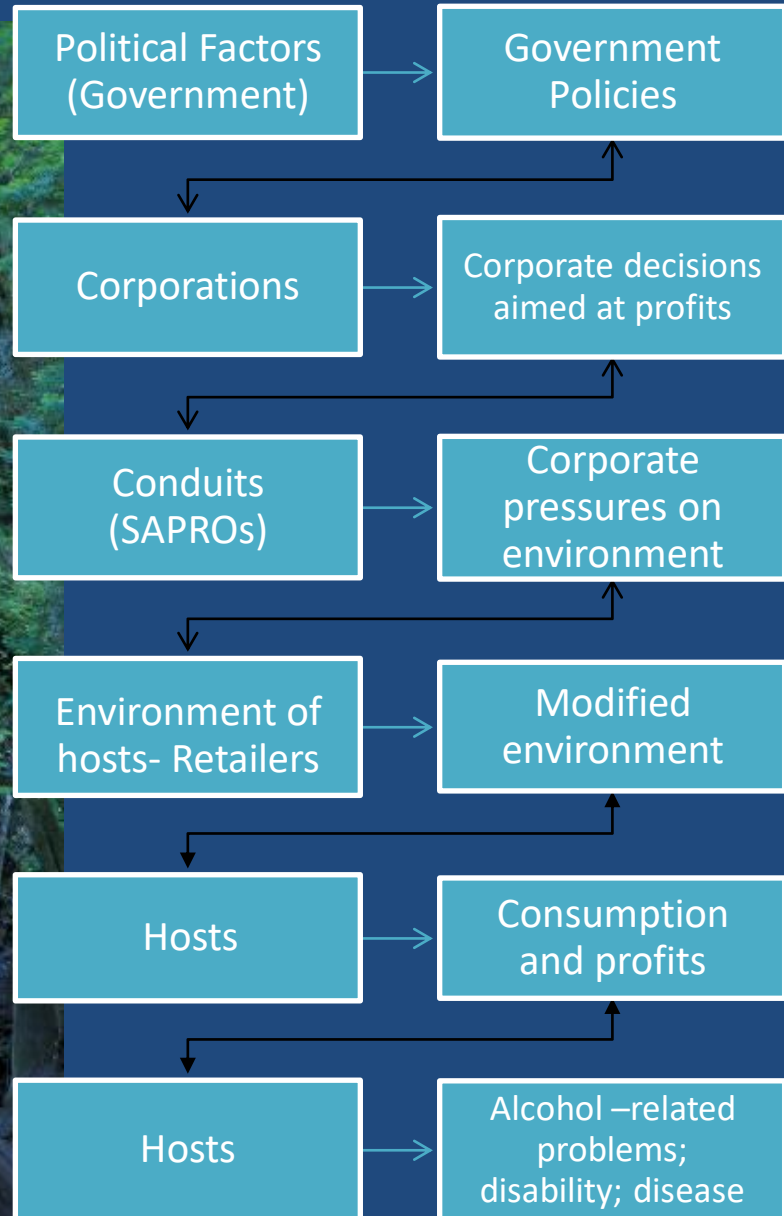
- Digital platforms are designed to learn the preferences, and vulnerabilities of consumers.
- These tools are used to disproportionately target people at risk and those with an alcohol problem
- People in recovery feel ‘bombarded’ with alcohol ads on social media
- The integration of digital marketing with the opportunity to instantly purchase a product through a ‘click here to buy now’ button presents an added risk to those in recovery.

# Accounts of people in recovery

*“It does come up on my Facebook and when I try to click the button to ask it to stop showing me this sort of advert, it tells me the reason I am seeing it is because I am aged 18-70 year old. But that’s the majority of the population... Facebook know that I am in recovery, because of the stuff I post. So why are they showing me this sort of thing? It should be blatantly obvious that I don’t want to see that... They see that I am talking about recovery and I think they think ‘Oh we have a chance to market more alcohol that might be of interest to this guy’”*

*Person in recovery, AFS focus group*

# Plausible Mechanisms: The Epidemiologic Cascade



# Why Does Causality Matter?

- Because the alcohol industry for years has questioned the evidence for a causal association
- The scope of the exposure and the sheer amount of spending on advertising makes it impossible in most countries to shield vulnerable populations from this level of marketing activity.
- Most of the research does not evaluate digital marketing, which may be even more impactful

# Why Does Causality Matter?

- Causality also matters because it becomes the basis for common sense governmental restrictions on alcohol marketing, restrictions that should aim to reduce the exposure to (or its impact on) vulnerable populations through effective implementation.



# *What are the policy implications of a causal statement?*

- Government agencies—independent from industry— should restrict alcohol marketing exposures in the adolescent population.
- Government bodies should track alcohol use and alcohol harms in the population at large and respond to unhealthy trends in other vulnerable groups.

# Policy implications

- Public Health agencies should sponsor a series of reports on alcohol and health, similar to the ones that have been published on tobacco.
- The U.S. National Institute on Alcohol Abuse and Alcoholism (NIAAA) should resurrect its program to fund research on alcohol marketing and vulnerable populations.



# Implications

- Harmful drinkers and alcoholics need to be protected from potentially detrimental effects of alcohol marketing
- Current self-regulation codes should ban specific content that is likely to promote craving and relapse
- Targeting of heavy drinkers (market segmentation) should be regulated

# In regard to the marketing of alcoholic beverages, the industry should:

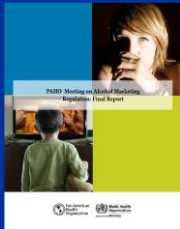
- Refrain from all marketing including sponsorship and product design (e.g., caffeinated alcohols, alcopops, sweetened alcohol beverages) in order to protect children, young persons, high risk alcohol users and females in their child bearing years
- In countries and states where non-statutory (voluntary) self-regulation of alcohol marketing exists, transfer all monitoring, program design, and adjudication responsibilities to an independent third-party organization representing public health interests.
  - These panels should be funded by dedicated taxes or other sources that are not directly linked to the industry.
- Permit counter-marketing to deter youth drinking

# Evidence

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