



**RESEARCH SUMMARY**  
Date Compiled: May 2017

**BACKGROUND ON ALCOHOL MARKETING REGULATION AND MONITORING FOR THE PROTECTION OF PUBLIC HEALTH**

April 2017

This document provides evidence for arguments supporting alcohol marketing regulation, and suggests key elements that can be considered by countries in planning, developing, implementing, and evaluating effective regulation. It also provides legislative language that can assist governments in developing or modifying existing laws and implementing monitoring mechanisms. It complements a Pan American Health Organization (PAHO) report from an exploratory meeting on alcohol regulation held in January 2015 and is firmly based in the Global Strategy to Reduce the Harmful use of Alcohol of the World Health Organization (WHO), as well as the subsequent PAHO Regional Plan of Action, but also the WHO and PAHO plans of action for the prevention and control of Non Communicable Diseases, and PAHO resolutions on Health and Human Rights and the Strategy on Health Related Law. The first draft was produced by PAHO technical staff and presented at a meeting held in July 2016, with experts and representatives from selected Member States. The final document was extensively revised by PAHO staff after the meeting, following suggestions made by participants.

**Full report:** <http://iris.paho.org/xmlui/bitstream/handle/123456789/33972/PAHONMH17003-eng.pdf?sequence=1&isAllowed=y>

**Source:** Pan-American Health Organization  
<http://iris.paho.org/xmlui/handle/123456789/33972>

*Related Media Release:*

“Regulating marketing of alcohol can help reduce consumption, harm”  
[www2.paho.org/hq/index.php?option=com\\_content&view=article&id=13159%3Aregulating-marketing-of-alcohol-can-help-reduce-consumption-harm&catid=740%3Apress-releases&Itemid=1926&lang=en](http://www2.paho.org/hq/index.php?option=com_content&view=article&id=13159%3Aregulating-marketing-of-alcohol-can-help-reduce-consumption-harm&catid=740%3Apress-releases&Itemid=1926&lang=en)

**THE MYRIAD INFLUENCES OF ALCOHOL ADVERTISING ON ADOLESCENT DRINKING**

**Purpose of Review:** This review investigates effects of alcohol advertising on adolescent drinking. Prior reviews focused on behavioral outcomes and long-term effects. In contrast, the present review focuses on subgroups with greater exposure to alcohol advertising, research methods to study alcohol advertising, potential mechanisms underlying relationships between adolescent exposure to alcohol advertising, and increased drinking and points to prevention/intervention strategies that may reduce effects of alcohol advertising.

**Recent Findings:** Alcohol advertising influences current and future drinking. Further, evidence suggests that adolescents may be targeted specifically. Alcohol advertisements may influence behavior by shifting alcohol expectancies, norms regarding alcohol use, and positive attitudes. Media literacy programs may be an effective intervention strategy.

**Summary:** Adolescents are exposed to large quantities of alcohol advertisements, which violate guidelines set by the alcohol industry. However, media literacy programs may be a promising strategy for adolescents to increase critical thinking and create more realistic expectations regarding alcohol.

**Source:** Current Addiction Reports  
<https://link.springer.com/article/10.1007/s40429-017-0146-y>

## **A REPLICATION AND EXTENSION OF PARENTAL R-RATED MOVIE RESTRICTION AND EARLY-ONSET ALCOHOL USE**

**Background:** Youth exposure to alcohol in entertainment media predicts youth alcohol drinking. Parents are advised to monitor and limit media in order to mitigate media-related risks, but little is known about how parents do this and whether it translates to reduced youth risk. **Objective:** To replicate and extend prior work on the predictive association between restrictive media parenting (RMP), alcohol-related attitudes and early-onset alcohol use, independent of authoritative parenting. **Design/Methods:** 6,522 US youth aged 10-14 years completed a random digit dial telephone survey in 2003 (response rate = 32%) and were re-surveyed every 8 months for 3 more surveys (wave 4 n=4575). Data for this study were restricted to baseline never drinkers (n=5803; m age = 11.9 years; 49% female); baseline and w4 data were used for analyses. RMP was indicated by, "How often do your parents let you watch movies or videos that are rated R?" (never, once in a while, sometimes, all the time). R-rated movie exposure was identified through youth self-report of viewership of R-rated movie titles. Alcohol-related attitudes were assessed through a combined measure of expectancies, willingness and intentions to drink. Alcohol use onset was obtained by asking, "Have you ever drunk alcohol that your parents did not know about?" (yes/no). **Results:** By w4, 16% of baseline never drinkers had initiated alcohol use. Adjusting for sociodemographics, peer drinking, home alcohol availability, baseline smoking status and personality characteristics (e.g., sensation seeking), a structural model with two latent parenting constructs--authoritative parenting and RMP--revealed that RMP had an independent direct inverse path to alcohol-related attitudes. Both parenting constructs had significant indirect paths through lower R-rated movie exposure (figure 1). A model with youth alcohol initiation as the outcome provided similar results (figure 2). All paths controlled for the above covariates in multivariable models (\* indicates  $p < 0.01$  and \*\* indicates  $p < 0.001$ ). **Conclusion(s):** results replicate RMP as a preventive aspect that operates independently of general parenting style. This could be the basis for interventions to test whether restricting youth viewership of adult-rated media content reduces youth risk for drinking initiation.

**Source:** Pediatric Academic Societies Meeting 2017

[https://registration.pas-meeting.org/2017/reports/rptPAS17\\_Abstracts.asp](https://registration.pas-meeting.org/2017/reports/rptPAS17_Abstracts.asp)

## **PEDESTRIAN TRAFFIC FATALITIES BY STATE: 2016 PRELIMINARY DATA**

Alcohol involvement for the driver and/or pedestrian was reported in about half of traffic crashes that resulted in pedestrian fatalities in 2015. An estimated 34 percent of fatal pedestrian crashes involved a pedestrian with a Blood Alcohol Concentration (BAC) of 0.08 grams per deciliter (g/dL) or higher; an estimated 15 percent of drivers involved in these crashes had a BAC of 0.08 g/dL or higher (Figure3). Even in cases where the pedestrian's alcohol consumption may not be identified by police as a contributing factor to the crash, a pedestrian with a BAC of .08 or higher clearly has diminished faculties that would impact decision-making and reaction time.

**Source:** Governors Highway Safety Association

[http://www.ghsa.org/sites/default/files/2017-03/2017ped\\_FINAL\\_4.pdf](http://www.ghsa.org/sites/default/files/2017-03/2017ped_FINAL_4.pdf) [free full text]

### *Related Media Coverage*

Washington Post: "Don't drink and walk — or bike"

[https://www.washingtonpost.com/news/tripping/wp/2017/04/12/dont-drink-and-walk-or-bike/?utm\\_term=.7c8a548d65d1](https://www.washingtonpost.com/news/tripping/wp/2017/04/12/dont-drink-and-walk-or-bike/?utm_term=.7c8a548d65d1)

Pittsburgh Post-Gazette: "Governors group calls for alcohol safety programs for bikers, walkers"

<http://www.post-gazette.com/news/transportation/2017/04/12/IIHS-2017-alcohol-impaired-driving-deaths-drunken-pedestrian-biking-deaths-safety-campaign-1/stories/201704120221?>

## **WHO SERVED THAT LAST DRINK? IOWA TARGETING PROBLEM BARS TO BATTLE DRUNK DRIVING**

April 2017

Iowa's alcohol-enforcement agency, concerned with the rising toll taken by drunken drivers, is preparing a campaign to crack down on bars and restaurants that serve intoxicated customers, The Des Moines Register has learned.

As fatalities in Iowa mount — at least 84 people died in 2016 alone in alcohol-related crashes — the state has focused its attention on keeping intoxicated people from getting behind the wheel, with Gov. Terry Branstad expected to sign a sobriety monitoring bill into law Monday.

But the state's Alcoholic Beverages Division also has quietly ramped up efforts to hold alcoholic beverage license-holders more accountable.

The division currently is investigating two establishments that might have over-served individuals involved in alcohol-related fatalities, officials said, declining to identify the businesses ...

**Source:** Des Moines Register

<http://www.desmoinesregister.com/story/news/investigations/2017/04/15/driving-while-drunk-and-serving-intoxicated-people/100325924/>

## **THE MINIMUM LEGAL DRINKING AGE AND MORBIDITY IN THE UNITED STATES**

We provide the first evaluation of the effect of the U.S. minimum legal drinking age (MLDA) on nonfatal injuries. Using administrative records from several states and a regression discontinuity approach, we document that inpatient hospital admissions and emergency department (ED) visits increase by 8.4 and 71.3 per 10,000 person-years, respectively, at age 21. These effects are due mainly to an increase in the rate at which young men experience accidental injuries, alcohol overdoses, and injuries inflicted by others. Our results suggest that the literature's disproportionate focus on mortality leads to a significant underestimation of the benefits of tighter alcohol control.

**Source:** The Review of Economics and Statistics

[http://www.mitpressjournals.org/doi/abs/10.1162/REST\\_a\\_00615#.WRHzitlRlCs](http://www.mitpressjournals.org/doi/abs/10.1162/REST_a_00615#.WRHzitlRlCs)

## **EFFECTS OF POSTED POINT-OF-SALE WARNINGS ON ALCOHOL CONSUMPTION DURING PREGNANCY AND ON BIRTH OUTCOMES**

March 2017

In 23 states and Washington D.C., alcohol retailers are required by law to post alcohol warning signs (AWS) that warn against the risks of drinking during pregnancy. Using the variation in the adoption of these laws across states and within states over time, I find a statistically significant reduction in prenatal alcohol use associated with AWS. I then use this plausibly exogenous change in drinking behavior to establish a causal link between prenatal alcohol exposure and birth outcomes. I find that AWS laws are associated with decreases in the odds of very low birth weight and very pre-term birth

**Source:** Journal of Health Economics

<http://www.sciencedirect.com/science/article/pii/S0167629617302448>

### *Related Media Coverage*

Science Daily: "Moms-to-Be Are Heeding Store Warnings About Alcohol"

<https://consumer.healthday.com/pregnancy-information-29/pregnancy-risks-news-546/moms-to-be-are-heeding-store-warnings-about-alcohol-721850.html>

## **FOODS AND BEVERAGES AND COLORECTAL CANCER RISK: A SYSTEMATIC REVIEW AND META-ANALYSIS OF COHORT STUDIES, AN UPDATE OF THE EVIDENCE OF THE WCRF-AICR CONTINUOUS UPDATE PROJECT**

May 2017

**Objective:** As part of the World Cancer Research Fund International Continuous Update Project, we updated the systematic review and meta-analysis of prospective studies to quantify the dose-response between foods and beverages intake and colorectal cancer risk.

**Data Sources:** PubMed and several databases up to May 31st 2015.

**Study selection:** Prospective studies reporting adjusted relative risk estimates for the association of specific food groups and beverages and risk of colorectal, colon and rectal cancer.

**Data synthesis:** Dose-response meta-analyses using random effect models to estimate summary relative risks (RRs).

**Results:** Results: 400 individual study estimates from 111 unique cohort studies were included. Overall, the risk increase of colorectal cancer is 12% for each 100g/day increase of red and processed meat intake (95%CI=4-21%, I<sup>2</sup>=70%, pheterogeneity (ph)<0.01) and **7% for 10 g/day increase of ethanol intake in alcoholic drinks** (95%CI=5-9%, I<sup>2</sup>=25%, ph = 0.21). Colorectal cancer risk decrease in 17% for each 90g/day increase of whole grains (95%CI=11-21%, I<sup>2</sup>=0%, ph = 0.30, 6 studies). For each 400 g/day increase of dairy products intake (95%CI=10-17%, I<sup>2</sup>=18%, ph = 0.27, 10 studies). ... [emphasis added]

**Conclusions:** **Our results reinforce the evidence that high intake of red and processed meat and alcohol increase the risk of colorectal cancer.** Milk and whole grains may have a protective role against colorectal cancer. The evidence for vegetables and fish was less convincing. [emphasis added]

**Source:** Annals of Oncology

[https://oup.silverchair-cdn.com/oup/backfile/Content\\_public/Journal/annonc/PAP/10.1093\\_annonc\\_mdx171/1/mdx171.pdf](https://oup.silverchair-cdn.com/oup/backfile/Content_public/Journal/annonc/PAP/10.1093_annonc_mdx171/1/mdx171.pdf) [free full text]

## **ALCOHOL INTAKE AND BREAST CANCER RISK IN AFRICAN AMERICAN WOMEN FROM THE AMBER CONSORTIUM**

May 2017

**Background:** Alcohol is a recognized risk factor for invasive breast cancer, but few studies involve African American women.

**Methods:** The current analysis included 22,338 women (5,108 cases of invasive breast cancer) from the African American Breast Cancer Epidemiology and Risk (AMBER) Consortium. The association between number of alcoholic drinks per week (dpw) and breast cancer was estimated using logistic regression, adjusting for potential confounders, and stratifying by breast cancer subtype.

**Results:** Approximately 35% of controls were current drinkers at interview. Women who reported current drinking of  $\geq 14$  dpw had an elevated risk of breast cancer compared with light drinkers ( $>0$ – $<4$  dpw) [adjusted OR (OR<sub>adj</sub>), 1.33; 95% confidence interval (CI), 1.07–1.64]. We observed elevated risk among women drinking  $\geq 7$  dpw for ER– [OR<sub>adj</sub>, 1.31; 95% CI, 1.00–1.72], PR– [OR<sub>adj</sub>, 1.28; 95% CI, 1.00–1.63], HER2– [OR<sub>adj</sub>, 1.36; 95% CI, 1.09–1.70], and triple-negative [OR<sub>adj</sub>, 1.39; 95% CI, 0.98–2.00] molecular subtype. Among receptor-positive cases, ORs remained elevated but attenuated relative to receptor-negative cases. Sensitivity analysis of age-defined windows of exposure ( $<30$  years, 30–49, 50+ years of age) did not reveal variation in patterns of association. Risk associated with alcohol intake did not vary significantly by oral contraceptive use, smoking status, or menopausal status.

**Conclusions:** Among African American women, similar to women of European descent, drinking  $\geq 7$  alcoholic dpw was associated with an increased risk of breast cancer regardless of subtype.

**Impact:** Alcohol intake is a modifiable risk factor for breast cancer, and reduced intake among African American women should be encouraged

**Source:** Cancer Epidemiology, Biomarkers, and Prevention

<http://cebp.aacrjournals.org/content/26/5/787>

## **ASSOCIATION BETWEEN BODY IMAGE DISSATISFACTION AND DEPRESSIVE SYMPTOMS IN ADOLESCENTS.**

March 2017

**OBJECTIVE:** To determine the association between body image dissatisfaction (BID) and depressive symptoms in adolescents from a school in Lima, Peru.

**METHODS:** A cross-sectional study was performed through a census of 875 high-school students, aged 13 to 17 years, from a school in Lima. Participants completed a survey containing the Body Shape Questionnaire (BSQ) and the Patient Health Questionnaire-9 (PHQ-9). Data regarding demographics, alcohol and tobacco use, self-esteem, and family history of depression were also obtained. To identify associated factors, Poisson regression with robust variance was used. Prevalence ratios with 95% confidence intervals were calculated.

**RESULTS:** Of the 875 adolescents, 55.8% were male. The mean age was 14.1±1.5 years. Depressive symptoms were observed in 19.9% of participants. An association between BID and depressive symptoms was found. Alcohol and tobacco use were also associated with the outcome of interest.

**CONCLUSIONS:** Teens who had BID were 3.7 times more likely to report depressive symptoms. **Additionally, those who used tobacco or alcohol were 1.5 and 1.4 times more likely to have depressive symptoms, respectively.** Further studies targeting other populations and using longitudinal designs are recommended. [emphasis added]

**Source:** Revista Brasileira de Psiquiatria  
<https://www.ncbi.nlm.nih.gov/pubmed/28355343>

## **WORKING MEMORY OVER A SIX-YEAR PERIOD IN YOUNG BINGE DRINKERS**

May 2017

Adolescence and early adulthood are periods of particular vulnerability to the neurotoxic effects of alcohol. Young people with alcohol-use disorders display deficits in working memory (WM). This function is supported by the prefrontal cortex, a late-maturing brain region. However, little is known about the progression of cognitive dysfunctions associated with a binge-drinking (BD) pattern of alcohol consumption among non-clinical adolescents. The objective of this study was to analyze the relationship between BD trajectory and WM in university students. An initial sample of 155 male and female first-year university students was followed prospectively over 6 years. The participants were classified as stable non-BDs, stable BDs, and ex-BDs, according to the third item of the Alcohol Use Disorders Identification Test (AUDIT). WM was assessed using the Self-Ordered Pointing Task. Generalized linear mixed models were applied. The results showed that stable BDs committed more total perseverative errors and showed a lower WM span in the difficult blocks than stable non-BDs. Difficulties in WM span showed some improvement, whereas perseveration errors remained constant throughout the follow-ups in the stable BDs. There were no significant differences between ex-BDs and non-BDs. In conclusion, stable BD is associated with WM deficits, particularly perseverations and low WM span in demanding trials, when compensatory mechanisms may no longer be successful. The partial improvement in WM span may support the notion of a neuromaturational delay, whereas the temporal stability of perseveration deficits may reflect either neurotoxic effects of alcohol or premorbid characteristics. Abandoning the BD pattern of alcohol consumption may lead to partial recovery.

**Source:** Alcohol  
<http://www.sciencedirect.com/science/article/pii/S0741832916301707>

**HISTONE METHYLATION INVOLVEMENT IN LASTING MEMORY DEFICITS AND ETHANOL SENSITIVITY AFTER BINGE ETHANOL IN ADOLESCENTS.**

May 2017

Alcohol use in teens primarily occurs in binges and is associated with cognitive impairments, reduced white matter content, and synaptic pruning in the frontal cortex. Binge drinking in adolescence increases the rewarding aspects of ethanol while decreasing its aversive properties, enabling higher consumption and risk for alcohol use disorders. Indeed, drinking at an early age increases risk for adult dependence...

**Source:** Alcohol

<http://www.sciencedirect.com/science/article/pii/S0741832917306900>

**MYELINATED AXONS INCREASE IN THE ANTERIOR CINGULATE CORTEX EARLY IN ADOLESCENCE AND ARE NEGATIVELY IMPACTED BY ALCOHOL.**

May 2017

Drinking at a young age—especially heavy episodic binge drinking—is associated with reduced myelinated fiber tracks in the frontal lobes, emotional dysregulation, and an increased risk of alcohol use disorder in adulthood.

**Source:** Alcohol

<http://www.sciencedirect.com/science/article/pii/S0741832917306900>