

# Tackling the alcohol-cancer link at NCI: A priority and time-sensitive need

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

I have no conflicts of interest to report.

# Outline

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- Awareness of alcohol and cancer link: A critical need
- Challenges and opportunities
- Alcohol research initiatives at NCI

# Consensus that alcohol causes cancer

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## US National Cancer Institute (2022)

"Alcohol is a well-established human carcinogen, and consumption is associated with increased cancer risk and cancer recurrence."

<https://cancercontrol.cancer.gov/brp/hbrb/alcohol-and-cancer>

## International Agency for Research on Cancer (2020)

"There is a causal link between alcohol use and a range of cancers, including some of the most common types, such as female breast cancer and colorectal cancer."

<https://www.iarc.who.int/infographics/alcohol-and-cancer-in-the-who-european-region/>

## American Institute of Cancer Research (2022)

"There is strong evidence that drinking alcohol is a cause of six cancers, and even one small glass of alcohol a day can increase the risk of some cancers."

<https://www.aicr.org/cancer-prevention/how-to-prevent-cancer/>

## US Centers for Disease Control and Prevention (2022)

"Alcohol is a *carcinogen* (something that can cause cancer). Regardless of drink type (beer, wine, or liquor), the risk of cancer increases with the number of drinks consumed, and even one drink a day increases the risk of developing cancers of the female breast, mouth, and esophagus."

<https://www.cdc.gov/cancer/alcohol/reducing-excessive-alcohol-use/>

## Cancer Research UK (2022)

"Alcohol causes 7 types of cancer, including breast, mouth and bowel cancer. Whatever your drinking habits, cutting down will reduce your risk."

<https://www.cancerresearchuk.org/about-cancer/causes-of-cancer/alcohol-and-cancer>

## American Cancer Society (2020)

"Alcohol use is one of the most important preventable risk factors for cancer, along with tobacco use and excess body weight."

<https://www.cancer.org/healthy/cancer-causes/diet-physical-activity/alcohol-use-and-cancer.html>

# Momentum to address alcohol consumption in cancer prevention and control

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- American Institute for Cancer Research (AICR) Third Expert Report 2018 recommendation
- American Cancer Society 2020 Updated Guidelines
- Recent epidemiological findings
- Media and popular interest



“The Cancer Prevention Committee of the American Society of Clinical Oncology (ASCO) believes that a proactive stance by the Society to minimize excessive exposure to alcohol has important implications for cancer prevention.”

## Alcohol and Cancer: A Statement of the American Society of Clinical Oncology

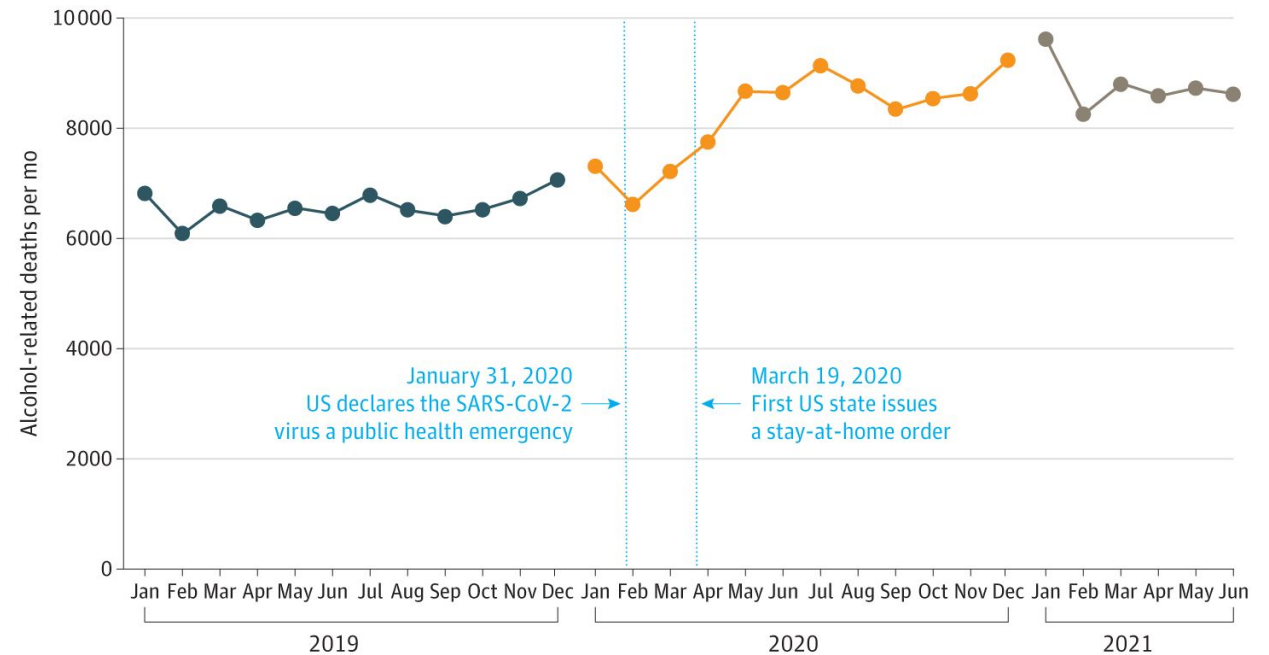
Noelle K. LoConte, Abenaa M. Brewster, Judith S. Kaur, Janette K. Merrill, and Anthony J. Alberg

**Table 2.** Policy Recommendations of International Cancer Care and Public Health Organizations

Organization	Recommendation
American Medical Association <sup>124,125</sup>	<ul style="list-style-type: none"> <li>Advocates for legislation aimed at minimizing alcohol promotions, advertising, and other marketing strategies by the alcohol industry aimed at adolescents<sup>124</sup></li> <li>Supports a ban on the marketing of products, such as alcopops, gelatin-based alcohol products, food-based alcohol products, alcohol mists, and beverages that contain alcohol and caffeine and other additives to produce alcohol energy drinks that have special appeal to youths under the age of 21 years and supports state and federal regulations that would reclassify alcopops as a distilled spirit so that they can be taxed at a higher rate and cannot be advertised or sold in certain locations<sup>125</sup></li> </ul>
American Academy of Family Physicians <sup>126</sup>	<ul style="list-style-type: none"> <li>Supports efforts to reduce the amount of alcohol advertising, particularly content appealing to youth, and the development of educational programs and counter-advertising designed to illustrate more realistic images on the effects of alcohol</li> </ul>
American Public Health Association <sup>127</sup>	<ul style="list-style-type: none"> <li>Supports the development and adoption of an international framework convention on alcohol control<sup>127</sup></li> <li>Supports the implementation of the recommendations of the National Research Council and Institute of Medicine's report entitled "Reducing Underage Drinking: A Collective Responsibility," including the monitoring of youth exposure to alcohol advertising and the raising of excise taxes<sup>128</sup></li> </ul>

# COVID-19 related changes in alcohol use and health outcomes

- Examined all cause mortality 2019-2021
- US National data
- Identified “alcohol related deaths”
- Substantial 25% increase in deaths
- What will this mean for cancer going forward?



White et al. 2022

# Awareness that alcohol causes cancer



Scheideler and Klein, 2018

# Awareness in the United States

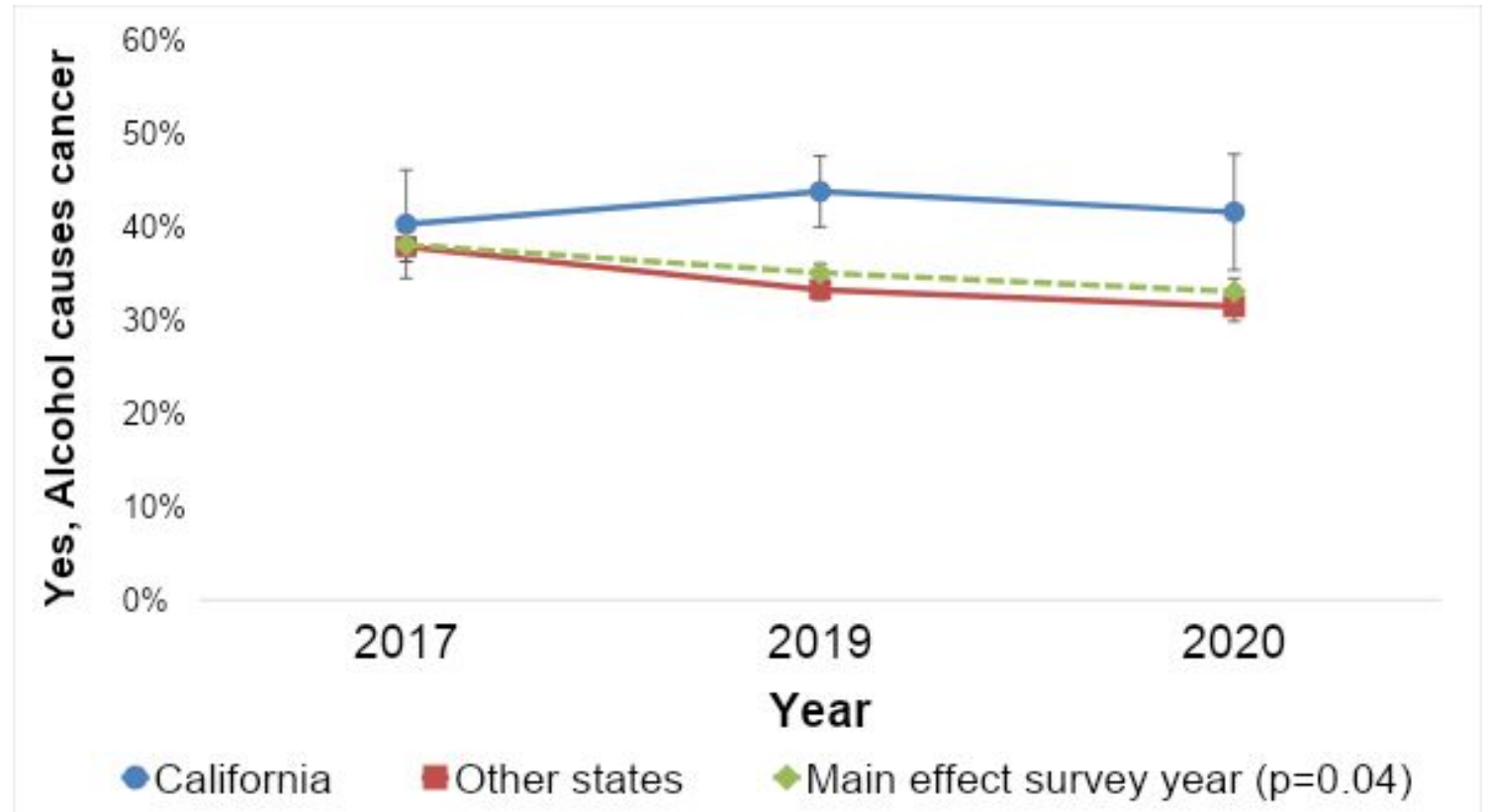
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- ASCO National Cancer Opinion Survey
  - 2020 – 34% believe alcohol “increases a person’s risk of getting cancer”
- AICR
  - Assessed biannually since 2001
  - Continued low awareness relative to tobacco and obesity



# Awareness in the United States

**WARNING:** Drinking distilled spirits, beer, coolers, wine and other alcoholic beverages may increase cancer risk, and, during pregnancy, can cause birth defects. For more information go to [www.P65Warnings.ca.gov/alcohol](http://www.P65Warnings.ca.gov/alcohol).

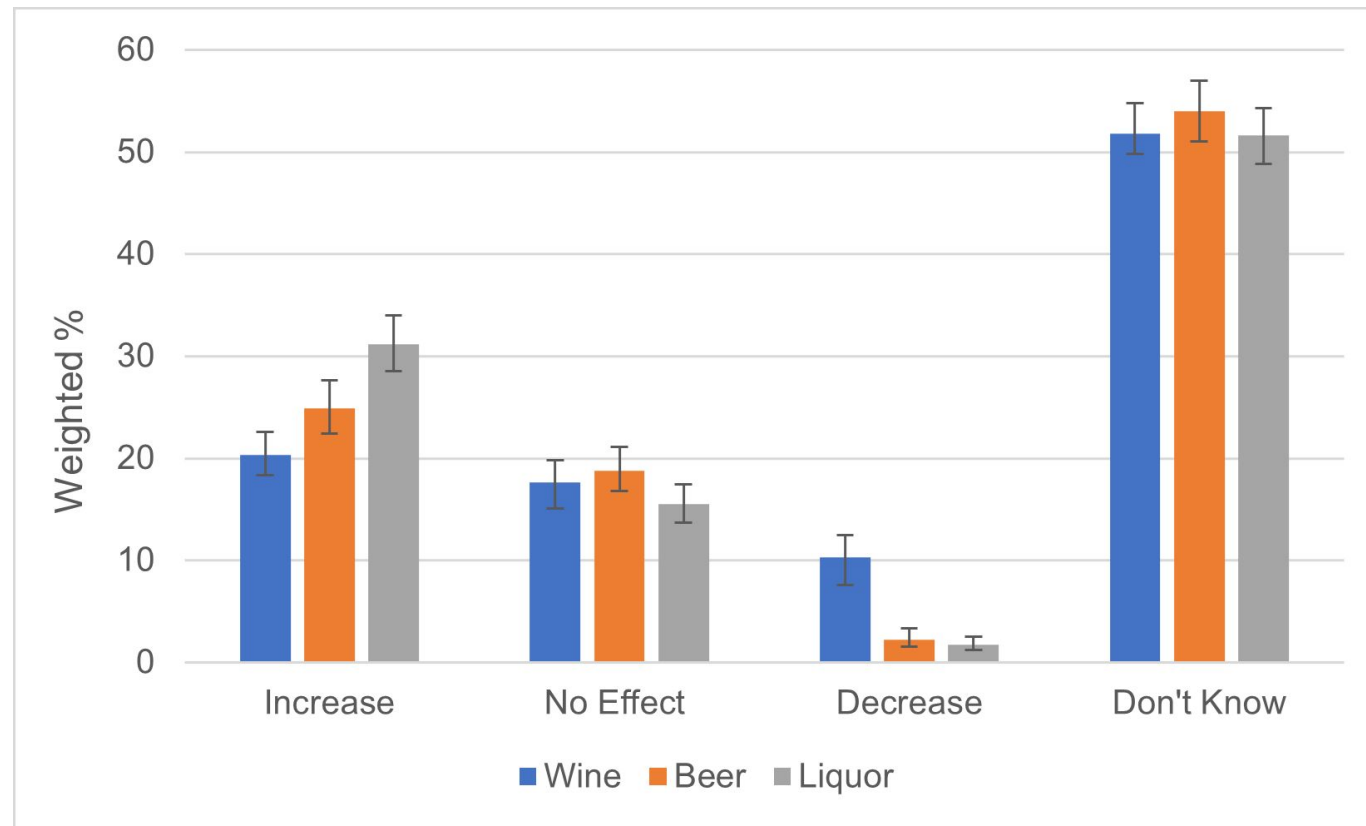


Budenz et al. 2022, Submitted

# Awareness in the United States

“In your opinion, how much does drinking the following types of alcohol affect the risk of getting cancer?”

Source: 2020 Health Information National Trends Survey (HINTS) 5, Cycle 4

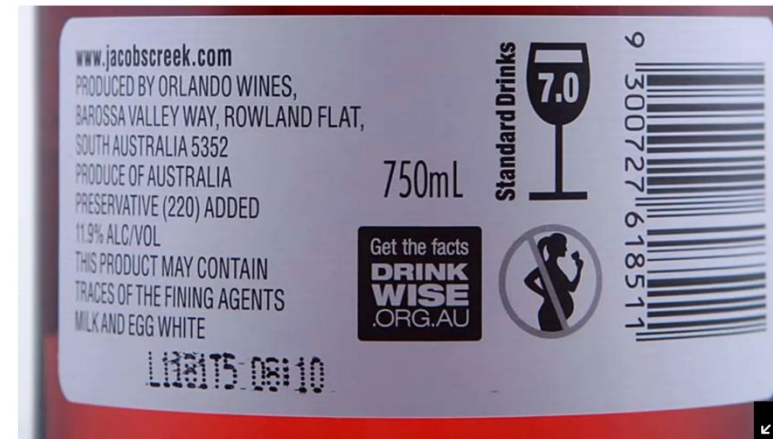


# Labels and warnings

Canada



Australia



- Not a “silver bullet”
- Can increase awareness
- Mixed results
- Component of broader programs?

California



**WARNING:** Drinking distilled spirits, beer, coolers, wine and other alcoholic beverages may increase cancer risk, and, during pregnancy, can cause birth defects. For more information go to [www.P65Warnings.ca.gov/alcohol](http://www.P65Warnings.ca.gov/alcohol)

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# Communicating small-to-moderate increases in risk

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- Problem of modest risk of a rare disease
- Relative risk ratio for colon cancer of 1.07 per 10g (~1 shot) of alcohol per day
- Colon cancer incidence ~13.7 per 100,000; **7% increase in risk is approximately one more case per 100K people each year**

Rumgay et al. 2021

# Social aspects of alcohol

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- Gourmet conviviality
- Cultured consumers
- Sporty and social
- “A respite and a reward”
- Pluralistic ignorance?



# Physician knowledge and practices

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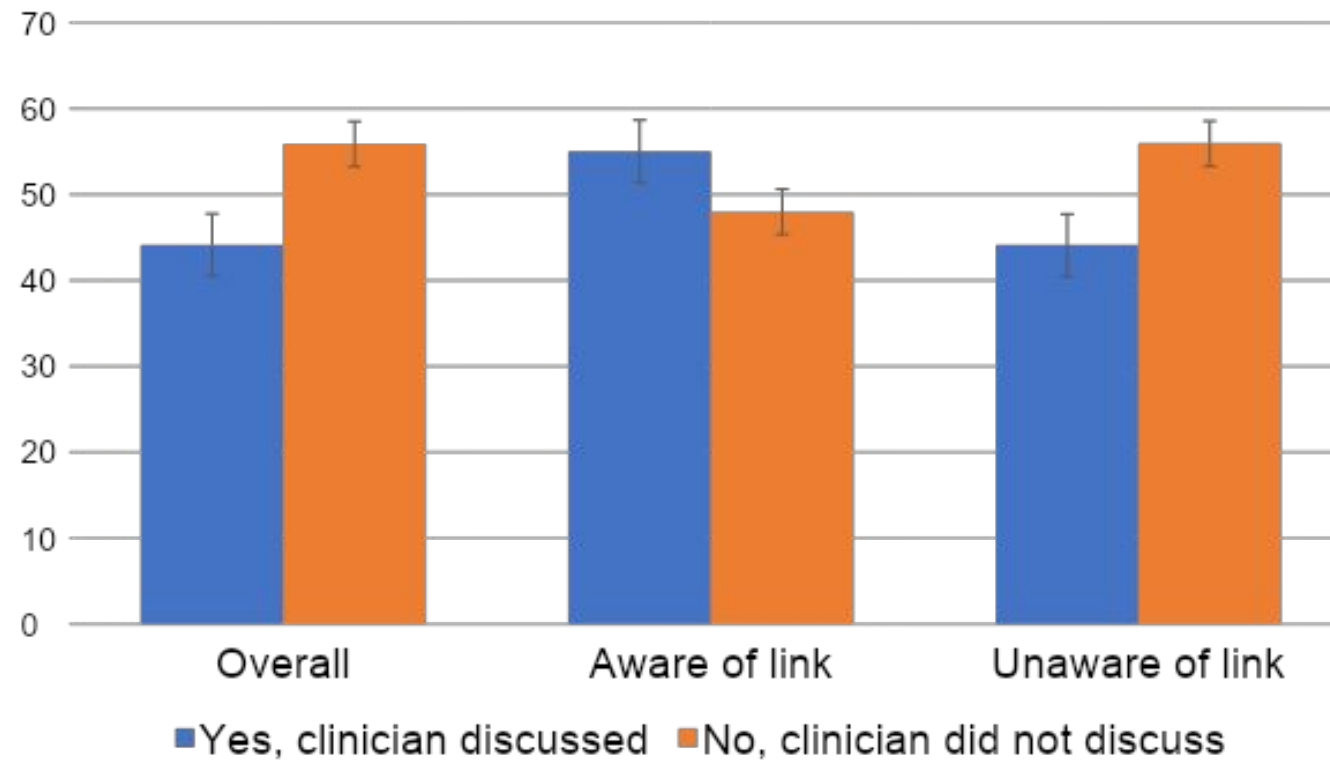
In one study of 509 cancer survivors at least one year past diagnosis (i.e., Engl et al., 2018), only 13% reported receiving any alcohol use information or counseling from a healthcare provider, and only 6% reported receiving this from an oncologist.

- Low physician knowledge of the alcohol-cancer link
- Burnout strongly associated with alcohol use
- Physicians who use alcohol themselves may be less likely to counsel patients about the risks of doing so

Engl et al., 2018

# Clinician discussion of alcohol harms

Source: 2019 Health Information National Trends Survey (HINTS) 5, Cycle 3



Wiseman et al., 2022

# Counter advertising and awareness campaigns



The more you drink, the more you increase your risk.  
Reduce your risk of developing breast cancer.  
Go to [reducemyrisk.tv](https://reducemyrisk.tv) for the facts.  
Concerned about your drinking? Call Drinkline: 0300 123 1110  
f @ 7cancers

**BALANCE**  
Getting the  
measure of alcohol

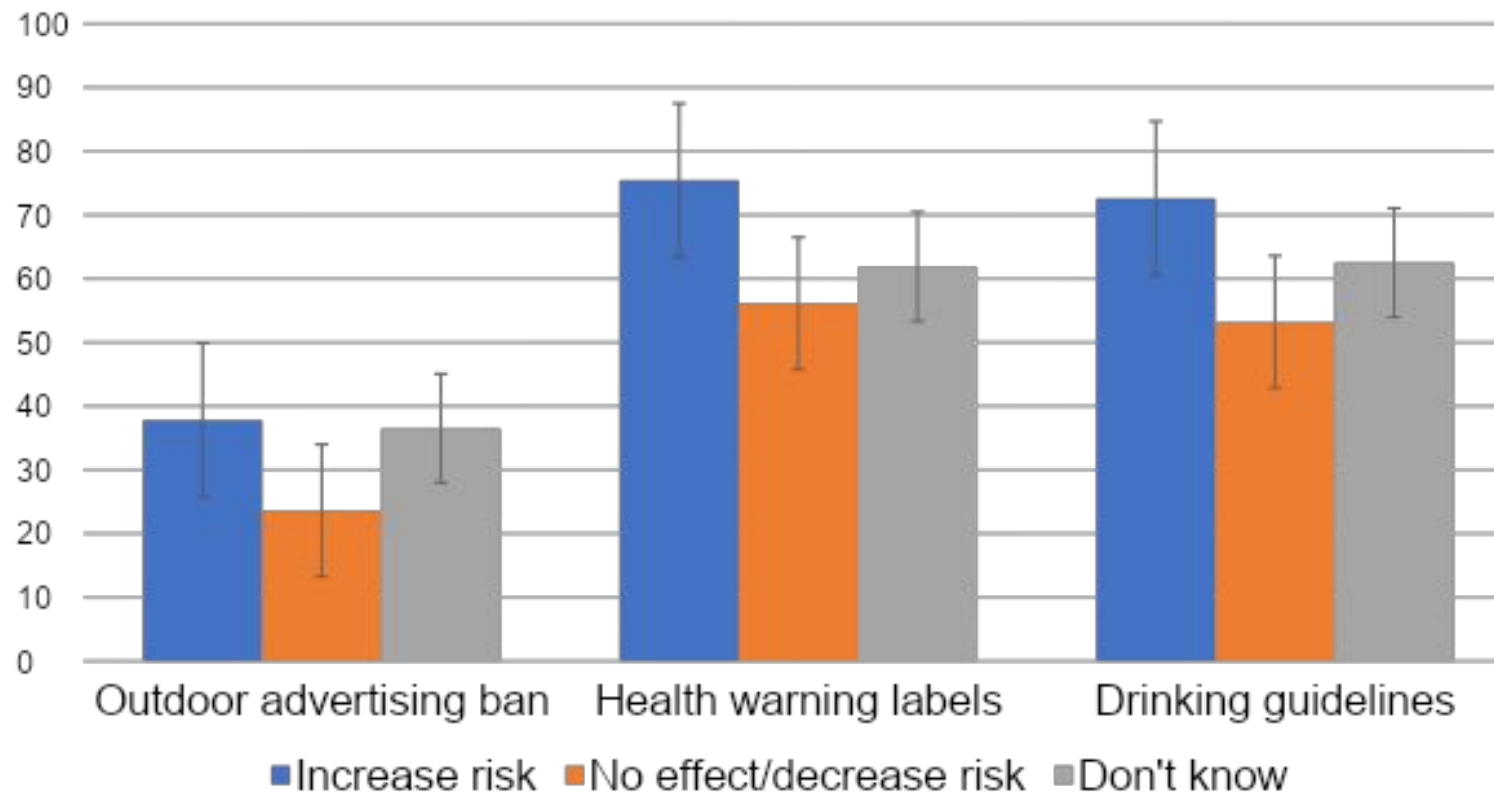


<https://arg.org/drink-less-for-your-breasts-health-campaign/>

# Awareness and policy endorsement

Support for alcohol control policies by alcohol cancer risk beliefs

Source: 2020 Health Information National Trends Survey (HINTS) 5, Cycle 4



Seidenberg et al., 2022

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# NCI: Advancing the science and awareness of alcohol as a risk factor for cancer

December 13, 2019

## Alcohol and Cancer Risk Clinical and Research Implications

William M. P. Klein, PhD<sup>1</sup>; Paul B. Jacobsen, PhD<sup>2</sup>; Kathy J. Helzlsouer, MD, MHS<sup>3</sup>

» Author Affiliations | Article Information

JAMA. 2020;323(1):23-24. doi:10.1001/jama.2019.19133




EVENT SERIES

**Alcohol and Cancer**

## Webinars



- Current Research and Opportunities in Alcohol and Cancer Survivorship (2022)
- Communication Approaches for Increasing Awareness of the Link Between Alcohol and Cancer (2022)
- Alcohol as a Target for Cancer Prevention and Control: Research Challenges (2020)
- Alcohol and Cancer in the United States (2018)



**Alcohol and Cancer:**  
Identifying Evidence Gaps  
and Research Challenges  
Across the Cancer Continuum

December 8-10, 2020

This workshop brought together basic, epidemiologic, behavioral, translational, clinical, regulatory, and communication scientists to discuss evidence gaps related to the role of alcohol across the cancer continuum.

- Meeting Agenda 
- Public Webinar
- Meeting Executive Summary 
- White Paper

CANCER EPIDEMIOLOGY, BIOMARKERS & PREVENTION | MINIREVIEW

## Alcohol and Cancer: Existing Knowledge and Evidence Gaps across the Cancer Continuum

Susan M. Gapstur<sup>1</sup>, Elisa V. Bandera<sup>2</sup>, David H. Jernigan<sup>3</sup>, Noelle K. LoConte<sup>4</sup>, Brian G. Southwell<sup>5</sup>, Vasilis Vasiliou<sup>6</sup>, Abenaa M. Brewster<sup>7</sup>, Timothy S. Naimi<sup>8</sup>, Courtney L. Scherr<sup>9</sup>, and Kevin D. Shield<sup>10</sup>

# NCI partnerships and resources

HINTS routinely collects nationally representative data about the American public's use of cancer-related information

Surveillance of awareness/behavior items about alcohol included in 2003, 2017, 2019, and 2020 cycles



H4. Which of the following health conditions do you think can result from drinking too much alcohol?

	Yes	No	Don't know
a. Cancer.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Heart Disease.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Diabetes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. High cholesterol.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Liver disease.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Being overweight or obese.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Selected funding opportunities

<https://cancercontrol.cancer.gov/brpfundinglist>

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Public Policy Effects on Alcohol-, Cannabis-, Tobacco-, and Other Drug-Related Behaviors and Outcomes

[NOT-AA-21-028](#)

Research contact: Dr. Carolyn Reyes-Guzman, carolyn.reyes-guzman@nih.gov

Alcohol and Cancer Control

[NOT-CA-20-034](#)

Research contact: Dr. Tanya Agurs-Collins, collinsta@nih.gov

Integrative Research on Polysubstance Abuse and Disorder

[PAR-20-035](#)

Research contact: Dr. Annette Kaufman, kaufmana@nih.gov

Innovative Approaches to Studying Cancer Communication in the New Information Ecosystem

[PAR-19-348](#) (R01 Clinical Trial Optional); [PAR-19-350](#) (R21 Clinical Trial Optional)

Research contact: Dr. Kelly Blake, kelly.blake@nih.gov

Exploratory Grants in Cancer Control

[PAR-21-341](#) (R21 Clinical Trial Optional)

Research contact: Dr. Mukesh Verma, vermam@mail.nih.gov

Multi-Site Studies for System-Level Implementation of Substance Use Prevention and Treatment Services

[PAR-21-022](#) (R01 Clinical Trial Optional)

Research contact: Dr. Maggie Mayer, margaret.mayer@nih.gov



Behavioral Research Program

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Areas of Interest ▾

Research Resources and Tools

Program Branches ▾

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## Website:

<https://cancercontrol.cancer.gov/brp>

## Twitter:

[@NCIBehaviors](https://twitter.com/NCIBehaviors)

## Newsletter:

<https://cancercontrol.cancer.gov/brpsubscribe>



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**NATIONAL  
CANCER  
INSTITUTE**

[www.cancer.gov](http://www.cancer.gov)

[www.cancer.gov/espanol](http://www.cancer.gov/espanol)

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