

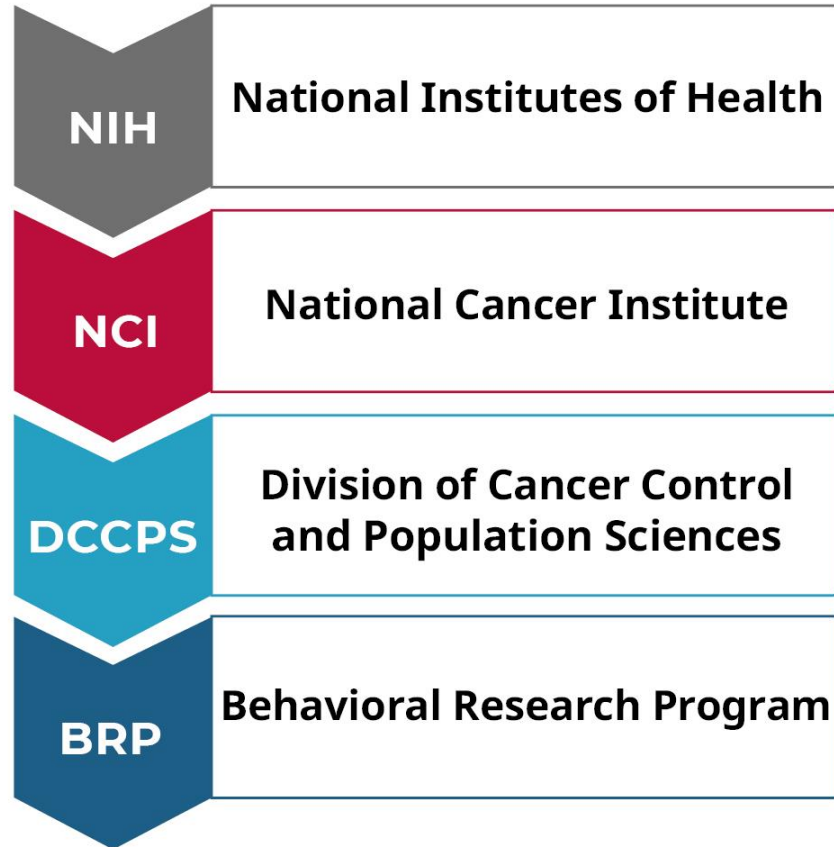


NCI Behavioral Research Program

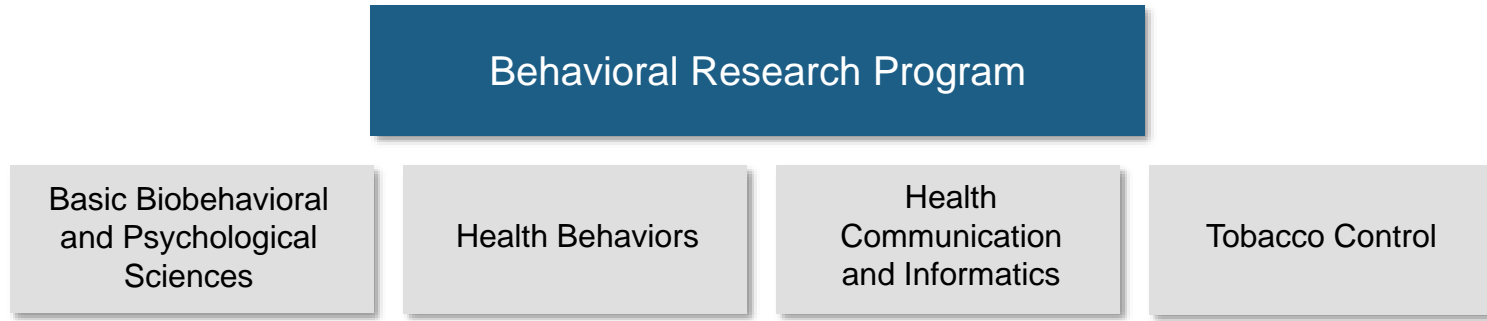
William Klein, Ph.D.
Associate Director
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8th Joint CRAN Meeting
May 12, 2021

Organizational Structure



BRP organizational structure



The **Behavioral Research Program (BRP)** initiates, supports, and evaluates a comprehensive program of research including basic behavioral and psychological science as well as the development, testing, and dissemination of interventions in cancer control areas such as tobacco use, diet and energy balance, and sun protection.

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

Behavioral Research Program leadership team



William Klein
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Director



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Senior Scientist



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Susan Czajkowski
Health Behaviors
Research Branch



**Robin
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Health
Communication
and Informatics
Research Branch



Michele Bloch
Tobacco Control
Research Branch

Selected research priorities: Behavioral targets

- Perceptual and cognitive issues in cancer detection and diagnosis
- Accelerated aging
- Decision making (e.g., palliative care)
- Health misinformation
- Dyadic processes
- Genetics of weight loss
- Racism and health

Selected research priorities: Behavioral targets

- Tobacco cessation and control
- Diet, weight, and physical activity
- Sun protection and exposure
- Virus exposure and vaccination
- Sleep hygiene
- Medication adherence
- Use of and reactions to genetic/genomic information
- **Alcohol**

Growing momentum to better address alcohol in cancer prevention and control

- U.K. and Australian leadership
- AICR Third Expert Report 2018 recommendation
- New epidemiological results and syntheses
- Media and popular interest



RECOMMENDATION

Limit alcohol consumption

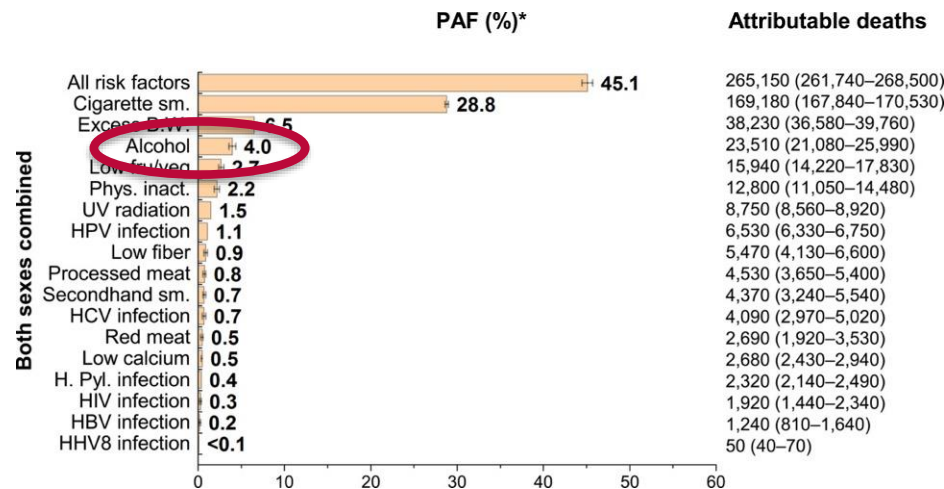
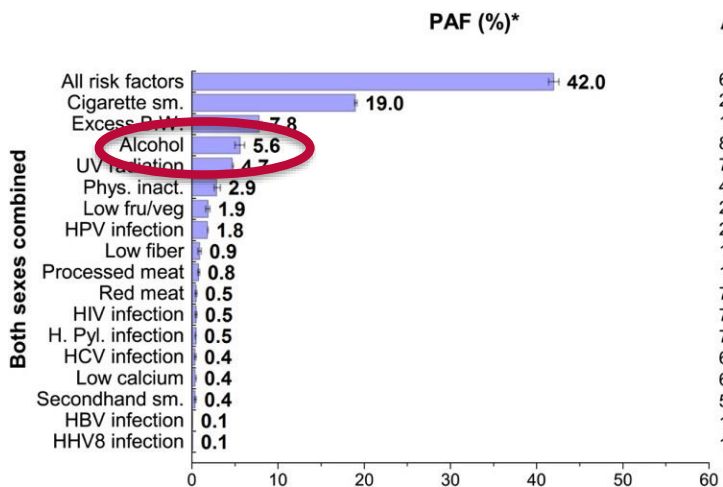
For cancer prevention, it's best not to drink alcohol

GOAL For cancer prevention, it's best not to drink alcohol

Cancer incidence and mortality related to alcohol use

- Globally, alcohol causes 5.5% of new cancer diagnoses and 5.8% of all cancer deaths
- In the U.S., 4.0% of cancer deaths attributable to alcohol
 - Absolute numbers: breast (5,250-7,570), head/neck (4,210-4,750), esophagus (2,180-2,780), colon/rectum (4,590-8,100), liver (2,540-5,420)

Contribution to the overall burden of disease: United States 2014



Alcohol and Cancer: A Statement of the American Society of Clinical Oncology. LoConte et al., 2018.

“Alcohol drinking is an established risk factor for several malignancies, and it is a potentially modifiable risk factor for cancer.”

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

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Author affiliations and support information (if applicable) appear at the end of this article.

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ABSTRACT

Alcohol drinking is an established risk factor for several malignancies, and it is a potentially modifiable risk factor for cancer. 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. In addition, the role of alcohol drinking on outcomes in patients with cancer is in its formative stages, and ASCO can play a key role by generating a research agenda. Also, ASCO could provide needed leadership in the cancer community on this issue. In the issuance of this statement, ASCO joins a growing number of international organizations by establishing a platform to support effective public health strategies in this area. The goals of this statement are to:

- Promote public education about the risks between alcohol abuse and certain types of cancer;
- Support policy efforts to reduce the risk of cancer through evidence-based strategies that prevent excessive use of alcohol;
- Provide education to oncology providers about the influence of excessive alcohol use and cancer risks and treatment complications, including clarification of conflicting evidence; and
- Identify areas of needed research regarding the relationship between alcohol use and cancer risk and outcomes.

Journal of Clinical Oncology

with preventive interventions at both the policy and the individual levels. Here, we provide an overview of the evidence of the links between alcohol drinking and cancer risk and cancer outcomes. The areas of greatest need for future research are highlighted. On the basis of this evidence and guidelines adopted by other cancer-focused organizations, ASCO-endorsed strategies for the reduction of high-risk alcohol consumption are presented.

EPIDEMIOLOGY OF ALCOHOL USE

Beyond oncology, alcohol use and abuse together pose a significant public health problem. According to the Centers for Disease Control and Prevention, approximately 88,000 deaths were attributed to excessive alcohol use in the United States between 2006 and 2010.¹ Approximately 3.3 million deaths worldwide result from the harmful use of alcohol each year.² Population surveys demonstrate that 12% to 14% of adults have a current alcohol use disorder and that 29% have had such a disorder at some point in their lifetime.^{3,4} In addition to alcohol use disorder,

Despite the evidence of a strong link between alcohol drinking and certain cancers, ASCO has not previously addressed the topic of alcohol and cancer. In addition, alcohol drinking is a potentially modifiable risk factor that can be targeted

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Awareness in the U.S.

- American Society of Clinical Oncology (ASCO) National Cancer Opinion Survey
 - 2017 – 30% believe alcohol “increases a person’s risk of getting cancer”
- American Institute for Cancer Research (AICR)
 - Assessed bi-annually since 2001
 - Continued low awareness relative to tobacco, obesity



Awareness of the link between alcohol consumption and cancer across the world: A review. Scheideler, Klein, 2018.

Review

Cancer Epidemiology, Biomarkers & Prevention

Awareness of the Link Between Alcohol Consumption and Cancer Across the World: A Review

Jennifer K. Scheideler and William M.P. Klein

Abstract

Since 1988, the International Agency for Research on Cancer has classified alcohol as a Group 1 carcinogen, the highest level of risk. Growing evidence suggests that alcohol increases the risk of several types of cancer including breast, bowel, prostate, and liver, and accounts for a significant proportion of preventable cancers. Despite ample evidence of this relationship, public awareness is less clear. Following PRISMA guidelines, we reviewed 32 studies examining lay awareness of alcohol as a risk factor for cancer in 16 countries. Our results show that awareness appears to be low and varies internationally; it is relatively higher in the United Kingdom, Morocco, and Australia. Methodologic differences in assessment obfuscate cross-country and cross-sample comparisons. In general, people are more likely to endorse alcohol as a risk factor when presented with a list of possible risk factors than when asked to list risk factors in an open-ended format. Attempts to increase awareness have been limited and constitute a significant public health need. We provide potential strategies to increase awareness, such as alcohol bottle labeling and fostering patient/physician discussions regarding the link. *Cancer Epidemiol Biomarkers Prev* 1-9. ©2018 AACR.

also relatively higher among those who consume all amounts of alcohol (16, 17). Nelson and (13) (18) estimate that 31% to 51% of alcoholer cases occurred among women who consume or less (approximately 1.5 drinks) per day. alcohol, including wine, beer, and spirits, increase (9, 20).

emergence of this evidence and the IARC's efforts the carcinogenic effects of alcohol, one might areness of this association would be widespread, d to consumption. As a useful point of reference, 50 years, greater awareness of the cancer risks tobacco is thought to be a key factor in reducing and maintenance of tobacco use (21). It is less ke appreciate the effects of alcohol on cancer risk; likely that greater awareness might promote more sions about consumption. The extent to which risk for cancer is likely to motivate behavior ed to reduce that risk (22, 23); indeed, a recent observed a modest but significant ($d = 0.23$) perceptions on health behavior (24). If alcohol appreciate the link between alcohol and cancer, they at risk and endeavor to reduce their consump- dy.

ic, we investigated a awareness of the link between ner across 16 countries in which awareness has We also consider moderators of such awareness ographics and mode of measurement. Finally, we ch and public health needs that emerge from this

ated a systematic review of peer-reviewed published articles according to standard Preferred Reporting

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AAGR 1

“In general, although awareness appears to be increasing in many countries, at least half or more of the population does not consider alcohol to be a risk factor for cancer.”

NCI partnership 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 collections



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"/>

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

- Panels and sessions at scientific conferences
- HINTS data analyses
- Natural experiment evaluation
- JAMA Viewpoint 
- Alcohol and Cancer NOSI
- Alcohol and tobacco supplements and workgroup

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Viewpoint

December 13, 2019

Alcohol and Cancer Risk Clinical and Research Implications

William M. P. Klein, PhD¹; Paul B. Jacobsen, PhD²; Kathy J. Helzlsouer, MD, MHS³

» [Author Affiliations](#)

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

Alcohol as a Target for Cancer Prevention and Control: Research Challenges

Virtual webinar

December 18, 2020



Research challenges in alcohol and cancer across the cancer control continuum

- Improve **measurement of alcohol behavior** and better **understand mechanisms** linking alcohol and cancer
- More research on **alcohol drinking and outcomes in cancer patients and survivors**
- Research on **communication and awareness** related to alcohol and cancer is relatively sparse
- Need to fully **inform policymakers**

Selected funding opportunities for alcohol and cancer research

Title	Announcement #	Contact
Alcohol and Cancer Control	NOT-CA-20-034	Tanya Agurs-Collins collinsta@mail.nih.gov
Stimulating Innovations in Behavioral Intervention Research for Cancer Prevention and Control	PAR-19-309 (R21 Clinical Trial Optional)	Tanya Agurs-Collins collinsta@mail.nih.gov
Innovative Approaches to Studying Cancer Communication in the New Media Environment	PAR-19-348 (R01 Clinical Trial Optional) and PAR-19-349 (R21 Clinical Trial Optional)	Kelly Blake kelly.blake@nih.gov
Public Policy Effects on Alcohol-, Cannabis-, Tobacco-, and Other Drug-Related Behaviors and Outcomes	NOT-AA-21-028	Carolyn Reyes-Guzman reyesguzmancm@mail.nih.gov
Modular R01s in Cancer Control and Population Science	PAR-21-190 (R01 Clinical Trial Optional)	Scott Rogers rogerssc@mail.nih.gov

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

 @NCIBehaviors

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



**NOTHING WILL
STOP US™**

50 YEARS

NATIONAL CANCER ACT