Population approaches to reducing alcohol-related cancer risk

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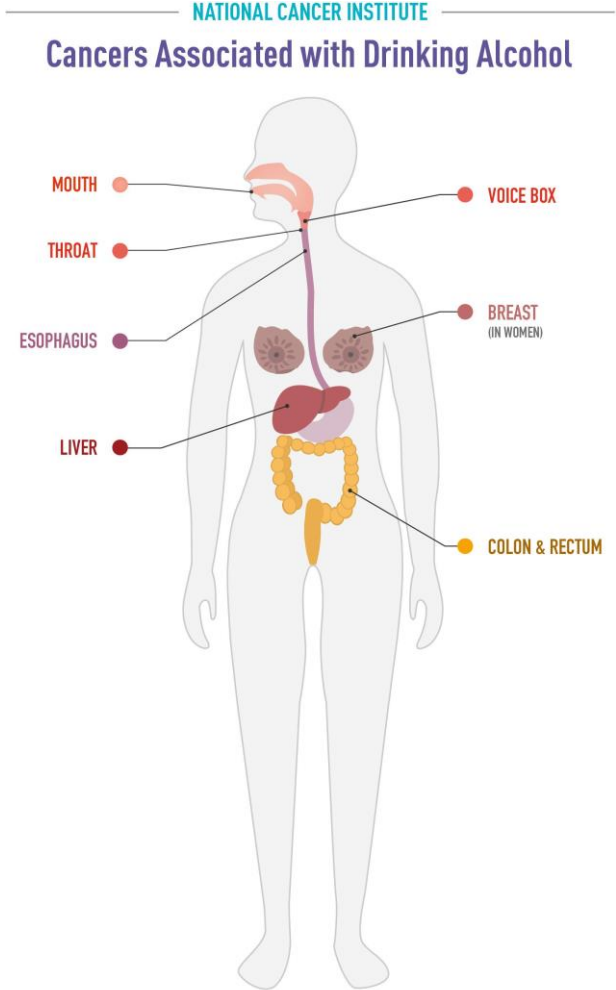
Presentation to NCI BSA

June 14th, 2023

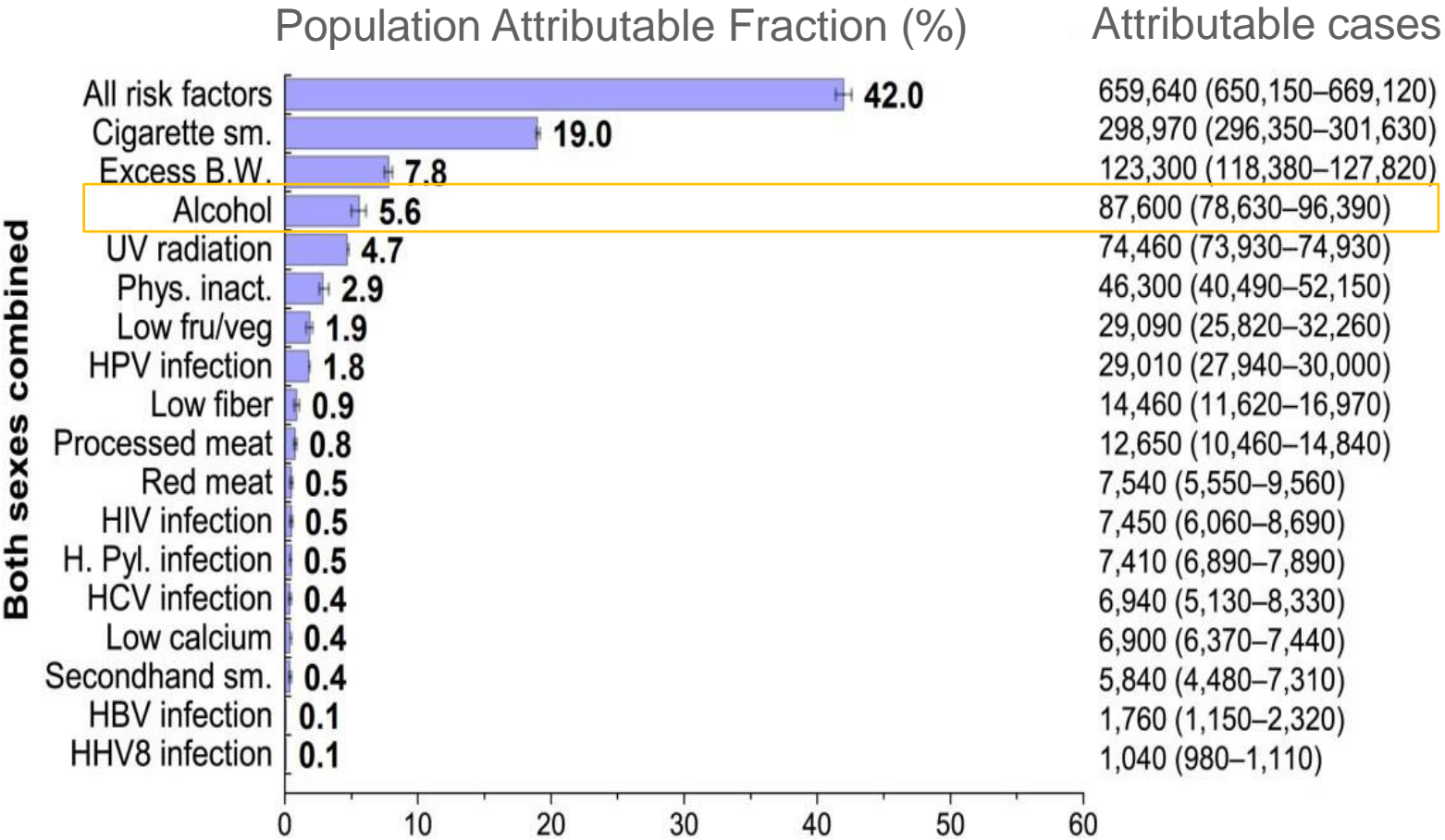**NIH** **NATIONAL CANCER INSTITUTE**

Purpose of the NOFO

- Fund multilevel research to reduce alcohol-related cancer risk by:
  - Increasing alcohol/cancer risk awareness
  - Understanding and changing social norms
  - Developing and/or evaluating alcohol policy measures

- **Overarching Goal: Evidence-base to support a population shift to lower levels of alcohol consumption for cancer prevention**

Alcohol Increases Cancer Risk

NATIONAL CANCER INSTITUTE
Cancers Associated with Drinking Alcohol

MOUTH
THROAT
ESOPHAGUS
LIVER
VOICE BOX
BREAST (IN WOMEN)
COLON & RECTUM

cancer.gov/alcohol-fact-sheet

Population Attributable Fraction (%) — Attributable cases

Both sexes combined	PAF (%)	Attributable cases
All risk factors	42.0	659,640 (650,150–669,120)
Cigarette sm.	19.0	298,970 (296,350–301,630)
Excess B.W.	7.8	123,300 (118,380–127,820)
Alcohol	5.6	87,600 (78,630–96,390)
UV radiation	4.7	74,460 (73,930–74,930)
Phys. inact.	2.9	46,300 (40,490–52,150)
Low fru/veg	1.9	29,090 (25,820–32,260)
HPV infection	1.8	29,010 (27,940–30,000)
Low fiber	0.9	14,460 (11,620–16,970)
Processed meat	0.8	12,650 (10,460–14,840)
Red meat	0.5	7,540 (5,550–9,560)
HIV infection	0.5	7,450 (6,060–8,690)
H. Pyl. infection	0.5	7,410 (6,890–7,890)
HCV infection	0.4	6,940 (5,130–8,330)
Low calcium	0.4	6,900 (6,370–7,440)
Secondhand sm.	0.4	5,840 (4,480–7,310)
HBV infection	0.1	1,760 (1,150–2,320)
HHV8 infection	0.1	1,040 (980–1,110)

CA A Cancer J Clinicians, Volume: 68, Issue: 1, Pages: 31-54, First published: 21 November 2017

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Canada's Guidance on Alcohol and Health, Public Summary: Drinking Less Is Better
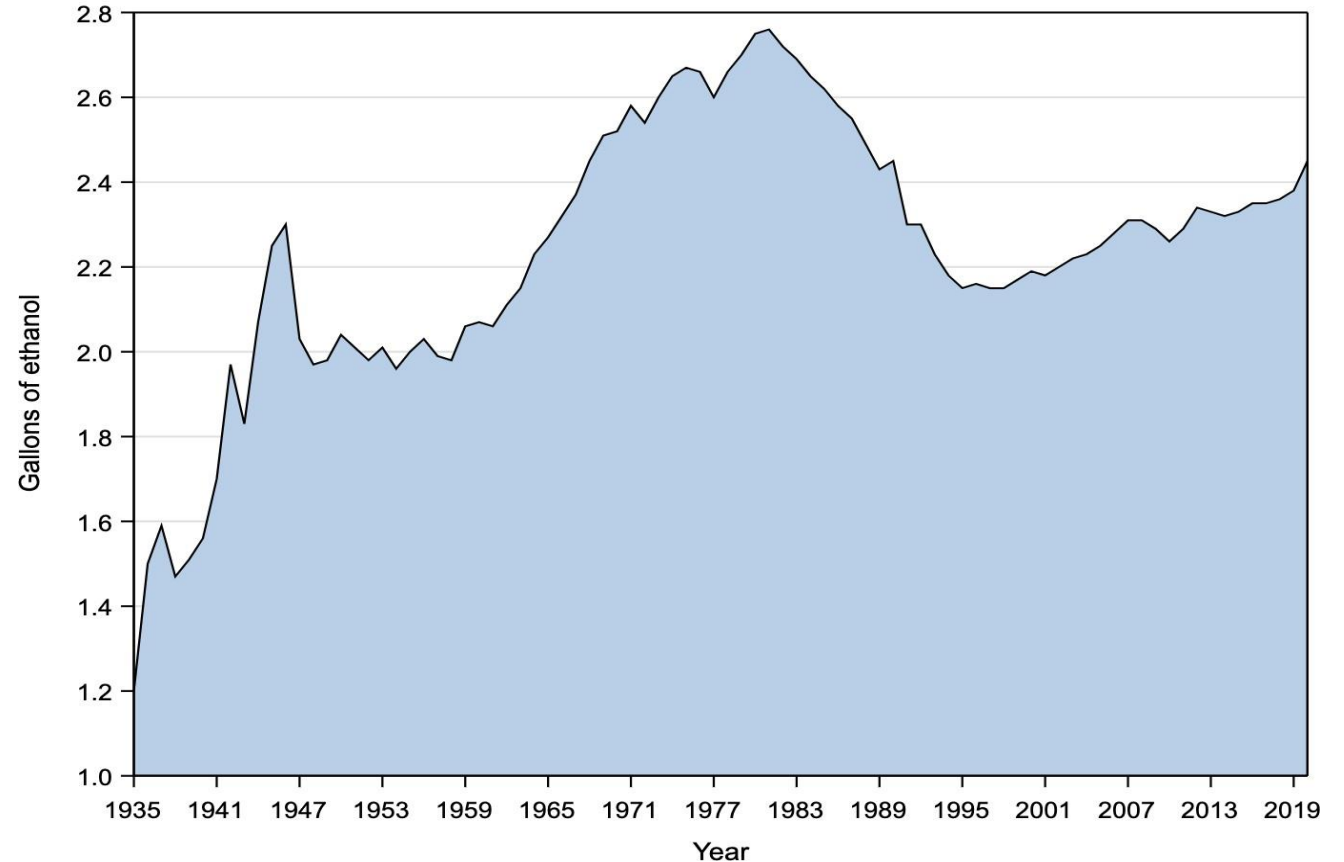

Alcohol consumption per week

Drinking alcohol has negative consequences. The more alcohol you drink per week, the more the consequences add up.

0 drinks per week
Not drinking has benefits, such as better health, and better sleep.

No risk

During pregnancy, none is the only safe option.

1 to 2 standard drinks per week
You will likely avoid alcohol-related consequences for yourself and others.

Low risk

A standard drink means:

3 to 6 standard drinks per week
Your risk of developing several different types of cancer, including breast and colon cancer, increases.

Moderate risk

Beer
341 ml (12 oz) of beer
5% alcohol

or

Cooler, cider, ready-to-drink
341 ml (12 oz) of drinks
5% alcohol

or

Wine
142 ml (5 oz) of wine
12% alcohol

7 or more standard drinks per week
Your risk of heart disease or stroke increases.

Each additional standard drink
Radically increases the risk of these alcohol-related consequences.

Increasingly high risk

or

Spirits
(whisky, vodka, gin, etc.)
43 ml (1.5 oz) of spirits
40% alcohol

Alcohol Consumption Increasing since Mid-1990's

- Increase in ethanol consumption since ~1995

- Sharp **rise in alcohol-related deaths** in the first year of the pandemic

- Steady increase in spending on alcohol through 2022

Figure 1. Total per capita ethanol consumption, United States, 1935–2020.

Awareness of Link Between Alcohol and Cancer Risk
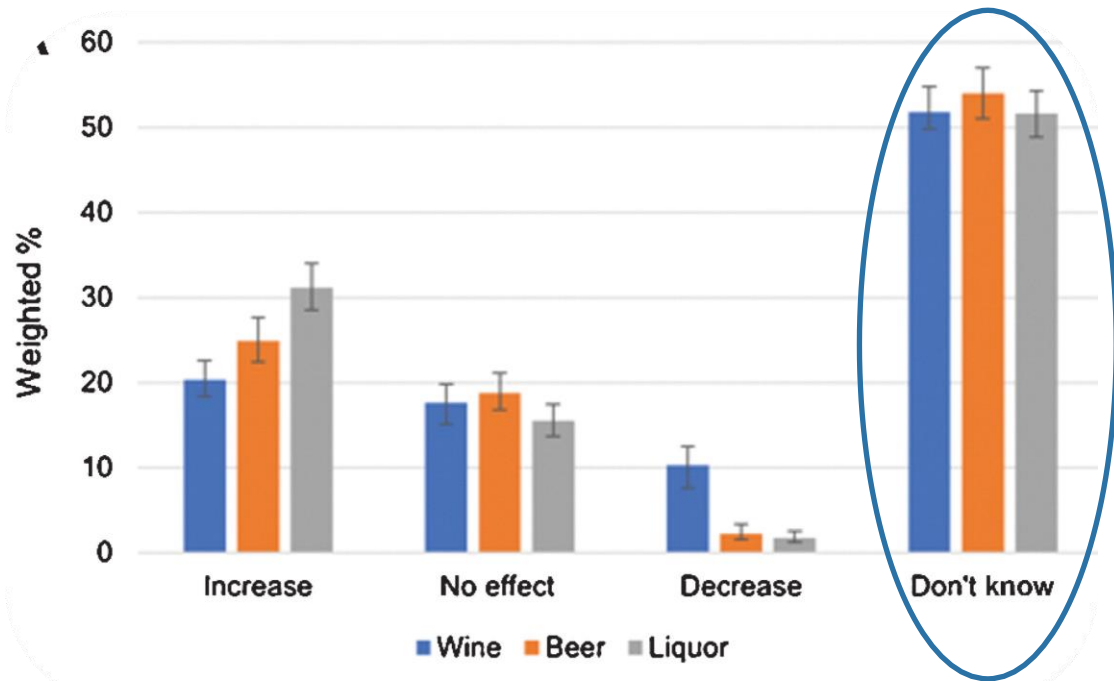
Awareness of alcohol/cancer risk among US adults (2020)

- 59% of men, 51% of women report past month alcohol consumption

- 56% of cancer survivors report past month alcohol consumption

- Only 20-30% of US adults think alcohol increases cancer risk

- Half of US adults report they don't know

The Opportunity

- ASCO Statement on Alcohol and Cancer

- Ongoing DCCPS activities

- Signs of **changing social norms** e.g. growing interest in Dry January, 'sober curious' thread, mocktails, etc.

- Evolving **scientific evidence** concerning harms (e.g., cancer risk) and putative benefits is **changing research needs**

- Learning from **communication advances** related to tobacco and Covid-19

- Labeling studies in Canada and forthcoming Irish Policy Change

Justification

- **Lack of a robust NCI research** portfolio addressing alcohol for cancer prevention

- **Demonstration of NCI's commitment** to reducing alcohol-related cancer risk

- **Lack of cancer focus** by NIAAA

- **PAR** could **strengthen review**

Comments from BSA Reviewers
(Dorothy Hatsukami, Mark Doescher, Karen Mustian)

1. **Broad Scope:** We note that awareness, social norms and response to population interventions are interrelated

2. **Clarity of Outcome Definitions:** Expected outcomes include measures of awareness, type and strength of social norms, alcohol consumption, and aspects of policy implementation and results

3. **Spotlight on AIAN and SGM**: We have clarified that demography of alcohol harms is complex, with higher consumption in some higher SES populations, but disproportionate harms in many lower SES subgroups

4. **Clarity about 'Population**': By 'population' we refer to the overall US population and to specific demographic groups as subjects of applications, rather than development of individual level behavioral interventions.

5. **International Studies?** Yes, where they can uniquely inform addressing alcohol for cancer control in the US.

6. **Why R01's?** The scope and complexity of the desired projects and existing research support R01 level projects; We will jointly promote existing R21 NOFOs that are relevant to the theme.

7. **More 'Policy' Examples and Details**: Relevant policies include labeling, taxation access via retail outlet distribution and opening hours, addressing youth consumption, regulating marketing, DUI countermeasures, and support for individual interventions and more. Linkage to cancer is lacking in many of these efforts.

Overarching Goals of the NOFO

- **Dissemination of effective messaging** to increase knowledge and awareness of alcohol/cancer risk.

- **Identification of intervention and policy approaches** that influence alcohol-related social norms and reduce consumption

- **Improved evidence-base** for population and policy approaches to cancer control addressing alcohol

- **A stronger research** community addressing alcohol for cancer control, with attention to some populations experiencing disparities

- **Ultimately, a shift to lower levels of alcohol consumption at the population level** to reduce cancer risk.

www.cancer.gov   www.cancer.gov/espanol