How Has Drinking Behavior Changed During the COVID-19 Pandemic?

Carolina Barbosa, PharmD, PhD









Presenters



Carolina Barbosa, PharmD, PhD



Alexander J. Cowell, PhD



William N. Dowd, BA











Alcohol Consumption and Related Harms



Alcohol consumption in the U.S.

About 70%

of the U.S. population aged 18 or older consumed alcohol in 2018, and more than half drank alcohol in the past 30 days.

About 27%

of the adult population reported binge drinking in the past month.

Excessive Alcohol Use: the Toll on Society



More than 200 diseases and injury-related health conditions



A 62% increase in Emergency Department visits between 2006 and 2014. A particularly large increase among females



88,000 annual deaths → fourth-leading preventable cause of death



Societal costs of nearly \$250 billion in 2010









Alcohol Policy and the COVID-19 Pandemic

Policies to Limit the Spread of COVID-19



44 states + DC enacted stay-at-home orders.



All states closed bars. Most states restricted dine-in service at restaurants.

Source: https://www.kff.org/coronavirus-covid-19/issue-brief/state-data-and-policy-actions-to-address-coronavirus/



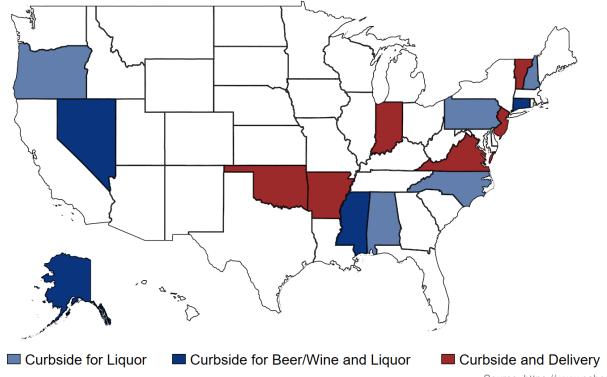


Where Could You Buy Alcohol Before the Pandemic?

- In most states, food stores sold beer (N=47) and wine (N=37).
- In most states, liquor was available in controlled outlets. Liquor was available in food stores in 20 states.

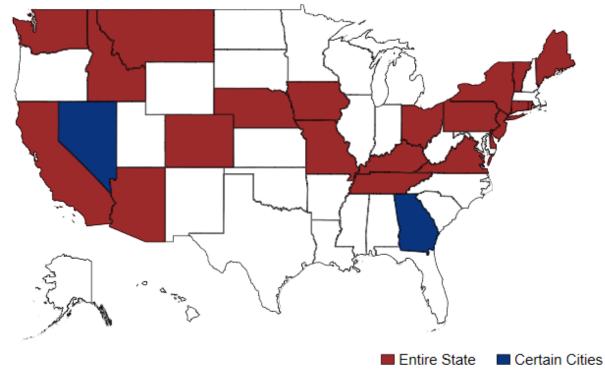
Source: https://www.nabca.org/covid-19-resources

With Stay-at-Home Orders, States Relaxed Curbside and/or Delivery Restrictions for Off-Premise Operators



Source: https://www.nabca.org/covid-19-resources

With Stay-at-Home Orders, States Permitted Mixed Drinks to Go



Data Source: https://track.leoninefocus.com/documents/coronavirus/relaxed-alcohol-laws,
https://www.nabca.org/covid-19-resources











Changes in Alcohol Sales in the US

How The COVID-19 Pandemic Is Upending The Alcoholic Beverage Industry



REBALANCING THE 'COVID-19 EFFECT' ON ALCOHOL SALES



Nielsen Says Beverage Alcohol Retail Sales Are Soaring During The Crisis





Alcohol Sales Are Not Spiking Or Even Stabilizing. Here's Why The Misconception Matters.



Anecdata! Consumption in the U.S.



America is drinking its way through the coronavirus crisis – that means more health woes ahead

Happy Hours: More People Drinking While Working from Home During COVID-19

'More Zoom Parties, More Alcohol Consumption': Hard Seltzer, Tequila Sales Boom During COVID-19 Lockdown Travel around the world during Zoom happy hours with these global drinking traditions

'Quarantinis' and beer chugs: Is the pandemic driving us to drink?

Alcohol sales have soared as people use drinking to relax during the Covid-19 crisis, and experts are raising concerns

Half of us are gonna come out of the quarantine as amazing cooks and the other half is gonna come out with a drinking problem. There is no in between

@AlcoholMemes

COMMENTARY

What Past Disasters Tell Us About COVID-19 and Substance Abuse

STRESS DRINKING: ALCOHOL CONSUMPTION INCREASES DURING COVID-19











Research Questions

How did overall alcohol consumption change after the onset of policies to tackle COVID-19?

How did excessive consumption change?

Was the change larger among certain groups (e.g., women, people experiencing unemployment)?

15

The Survey



What?

Web-based survey using Ipsos'
KnowledgePanel
Academic Omni



When?

May 8-15



How?

We asked about the following in February and April:

- •Alcohol consumption
 - Mental health
- •Employment status

Plus:

•Lifetime alcohol experiences

A Standard Drink: "0.6-oz/14g of alcohol"



ABV = Alcohol by Volume. Source: https://www.rethinkingdrinking.niaaa.nih.gov/How-much-is-too-much/what-counts-as-a-drink/whats-A-Standard-drink.aspx

Survey Questions: Alcohol Consumption

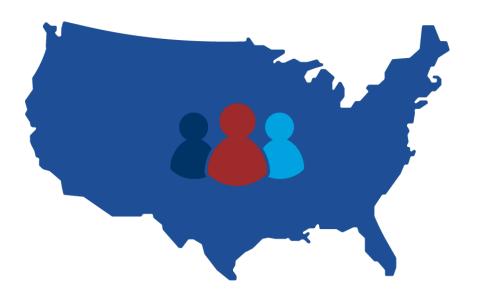
How often did you have one or more drinks?	←	Frequency
How many drinks did you usually have?	←	Quantity
What was the largest number of drinks you drank in a single day?	←	Maximum quantity
How often did you drink that larger-than-usual amount?	←	Maximum frequency
How often did you drink four (female)/five (male) or more drinks within 2 hours?	←	Binge drinking

Survey Questions: Other Measures

o Depressive symptoms Mental health Anxiety symptoms Nine exclusive categories **Employment status** (e.g., work full-time, retired) Questions to understand need for, Lifetime experiences with alcohol and access to, treatment for alcohol use

Survey Respondents

993 Surveyed 555 Reported Drinking in February





Female: **52%** Male: **48%**



21–34: **25%** 35–49: **25%** 50–64: **30%** 65+: **20%**



White, non-Hispanic: 66% Black, non-Hispanic: 9% Other, non-Hispanic: 7% Hispanic: 19%



Northeast: 22% South: 30% West: 24% Midwest: 24%

Analysis

- Compared February and April estimates
 - Used regression methods to adjust for gender, age, race, and other factors
- Examined what dimension of alcohol consumption changed the most (e.g., quantity versus frequency)











Survey Results

Three Main Drinking Outcomes in This Presentation



Average drinks per day



Percentage of people exceeding drinking guidelines



Percentage of people binge drinking

23

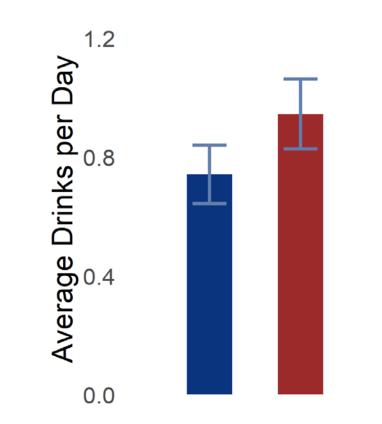


Average Drinks per Day

February: 0.74 drinks per day

April: 0.94 drinks per day

Result: +27%, p<0.001



Feb.

Apr.







Exceeding Drinking Guidelines

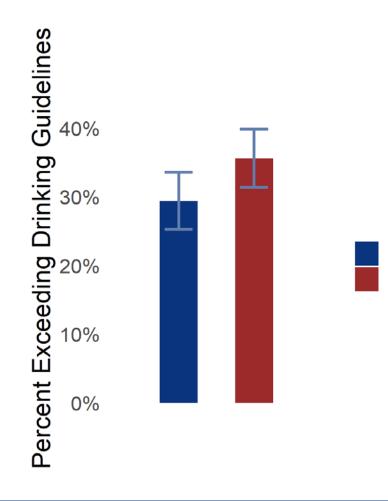
February: 29%

April: 36%

Result: +21%, p<0.001







Feb.

Apr.

CONFIDENTIAL CONFIDENTIAL

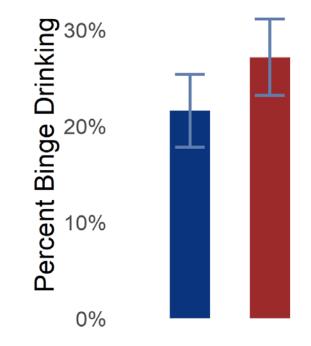


Binge Drinking

February: 22%

April: 27%

Result: +26%, p=0.001













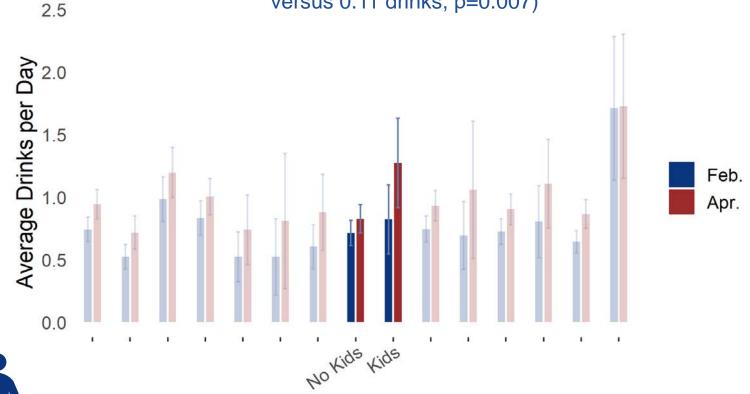




Stratified Results

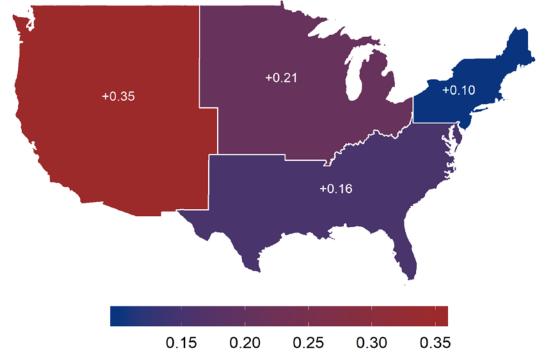
Average Drinks per Day

*Respondents with kids in the household increased more than those without kids (0.45 versus 0.11 drinks, p=0.007)



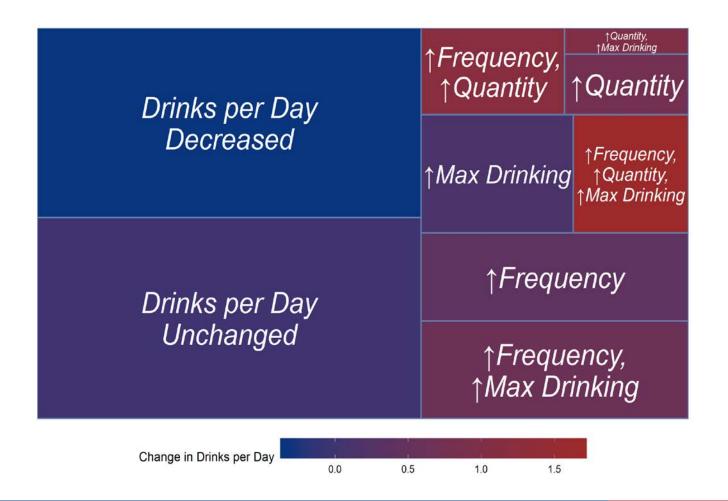
Average Change in Drinks per Day February to April, by Census Region

Average Drinks per Day



Note: Alaska and Hawaii are included in the West region. Change in West region significantly larger than change in Northeast (p<0.05).

Changes in Alcohol Consumption





Changes in Alcohol Consumption

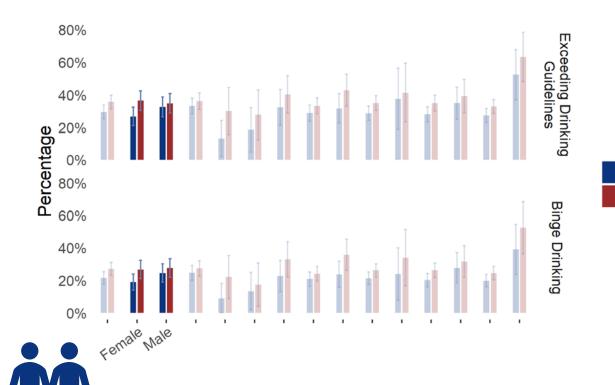
- 5% of respondents increased alcohol consumption from February to April in each of the three main dimensions:
 - They drank more every day.
 - They drank on more days of the week.
 - They increased consumption on days when they drank more than normal.
- This group accounted for over 40% of the increase in alcohol consumption for all respondents.









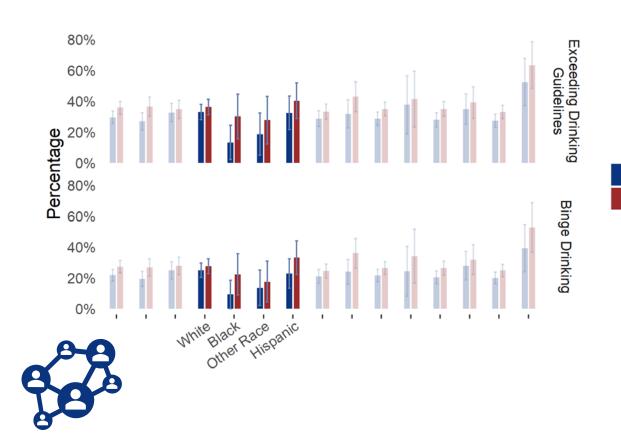


Excessive consumption increased considerably for females:

Feb.

Apr.

- Drinking guidelines (10% versus 2%, p=0.026)
- Binge drinking (8% versus 3%, p=0.12)

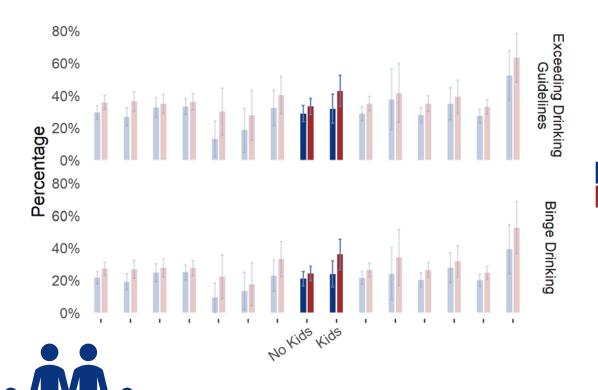


Excessive consumption increased considerably for Black respondents:

Feb.

Apr.

- Drinking guidelines (17% versus 3% among Whites, p=0.028)
- Binge drinking (13% versus 3% among Whites, p=0.07)

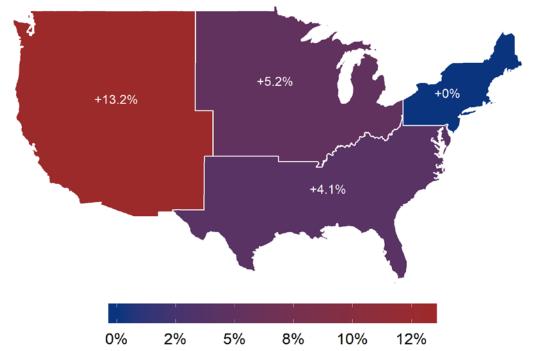


Excessive consumption increased more for respondents with kids:

- Feb. Apr.
- Drinking guidelines (11% versus 4%, p=0.21)
- Binge drinking (12% versus 3%, p=0.09)

Change in Percentage Exceeding Drinking Guidelines February to April, by Census Region

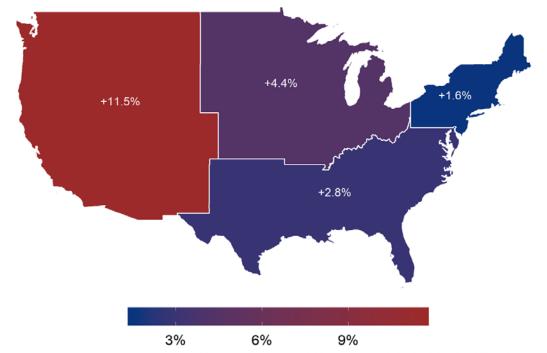
Excessive Consumption Behaviors



Note: Alaska and Hawaii are included in the West region. Change in West region significantly larger than change in Northeast (p<0.01).

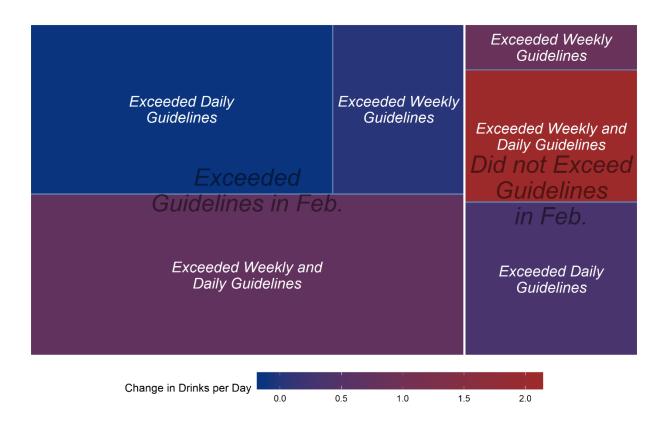
Change in Percentage Binge Drinking February to April, by Census Region

Binge Drinking



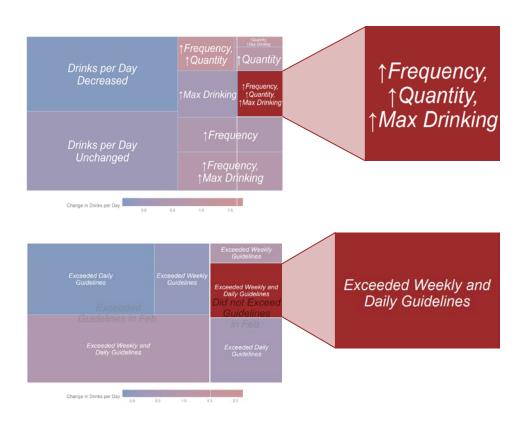
Note: Alaska and Hawaii are inluded in the West region.

Of Those Exceeding Drinking Guidelines in April...



The largest changes in alcohol consumption were concentrated among people who did not exceed drinking guidelines in February.

The Big Picture



50% overlap

7% of respondents

65% of total increase in drinks per day

85% did not exceed guidelines in February









Conclusions

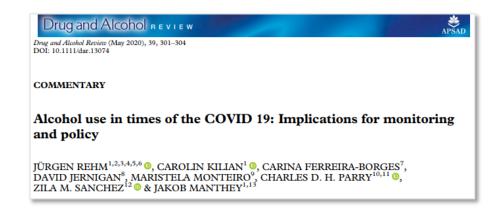
Key Takeaways

Alcohol consumption, including excessive consumption behaviors, has increased overall and across several groups.

The largest increases in all measures were observed in the Western U.S.

Being female, Black, or having children in the household was associated with significant increases on at least one measure. The largest increases in alcohol consumption were among people who increased their usual quantity consumed and those who were *not* drinking in excess of recommended guidelines in February.

- Some studies predicted lower alcohol consumption
- Why might that not be the case?
 - Expectation of lower access to alcohol offset by policy changes
 - More leisure time and fewer alternative activities
 - Response to stress



Alcohol Policy and Coronavirus: An Open Research Agenda

MARISTELA G. MONTEIRO, M.D., PH.D., a.* JÜRGEN REHM, PH.D., b-f & MAIK DUENNBIER

- Some studies predicted lower alcohol consumption
- Why might that not be the case?
 - Expectation of lower access to alcohol offset by policy changes
 - More leisure time and fewer alternative activities
 - Response to stress





- Some studies predicted lower alcohol consumption
- Why might that not be the case?
 - Expectation of lower access to alcohol offset by policy changes
 - More leisure time and fewer alternative activities
 - Response to stress

Coronavirus: Alcohol fears amid lockdown boredom

By Tomos Lewis BBC News

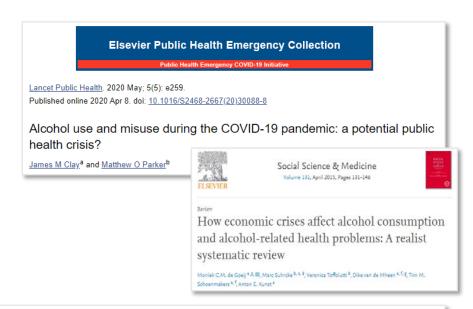
28 April 2020

FOOD // WINE

The coronavirus is driving us to drink. Maybe that's OK

Plus: Resources for keeping yourself fed while sheltering in place, in this week's Drinking with Esther newsletter

- Some studies predicted lower alcohol consumption
- Why might that not be the case?
 - Expectation of lower access to alcohol offset by policy changes
 - More leisure time and fewer alternative activities
 - Response to stress



Frequent binge drinking five to six years after exposure to 9/11: Findings from the World Trade Center Health Registry

Alice E. Welch^{a,*}, Kimberly Caramanica^a, Carey B. Maslow^a, James E. Cone^a, Mark R. Farfel^a, Katherine M. Keyes^{b,c}, Steven D. Stellman^{a,b}, and Deborah S. Hasin^b

Implications of Increased Alcohol Consumption

Short-term

- Uncertain impact on accidents and injuries
- Potential impact of increased drinking at home on domestic violence and child neglect
- Impact of alcohol on immune system and complications of COVID-19

Long-term

- Potential for escalation into alcohol use disorder
- Morbidity and mortality associated with increased alcohol consumption





Research Priorities Moving Forward

- Monitor alcohol consumption and alcohol policies as COVID-19-related restrictions are lifted.
- Monitor alcohol-attributable harms during and following the COVID-19 pandemic.
- Support wider implementation of public awareness campaigns that encourage people to drink less or at least not drink more than usual.
- Understand connection between policy changes and alcohol consumption.
- Conduct more waves of the current survey.



Contact Us



Carolina Barbosa, PharmD, PhD cbarbosa@rti.org



Alexander J. Cowell,
PhD
cowell@rti.org



William N. Dowd, BA wdowd@rti.org

62