

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

Carolina Barbosa, PharmD, PhD

William Dowd, BA

Katherine Karriker-Jaffe, PhD



Research Team



Carolina Barbosa



William Dowd



Katherine Karriker-Jaffe

Acknowledgments

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The authors have no conflicts to disclose.

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Alcohol Consumption and Related Harms



Alcohol consumption in the U.S.

About 70%

of the U.S. population aged 21 or older consumed alcohol in 2019, and more than half drank alcohol in the past month.

About 26%

of the U.S. population aged 21 or older reported binge drinking in the past month.

Excessive Alcohol Use: the Toll on Society



More than 200 diseases and injury-related health conditions



A 47% increase in Emergency Department visits between 2006 and 2014. A particularly large increase among females



95,000 annual deaths → third-leading preventable cause of death



Societal costs of nearly \$250 billion in 2010

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What Do We Know About Drinking During the Pandemic in the U.S.?

Alcohol Sales in the US, in the early phase

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



Joseph V Micallef Contributor @Spirits
I write about wines and spirits and the hidden corners of the world

REBALANCING THE 'COVID-19 EFFECT' ON ALCOHOL SALES



Coronavirus brings quick changes to state alcohol laws

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.

Coronavirus: How the pandemic is relaxing US drinking laws

By Marianna Brady
BBC News, Washington

© 15 May 2020



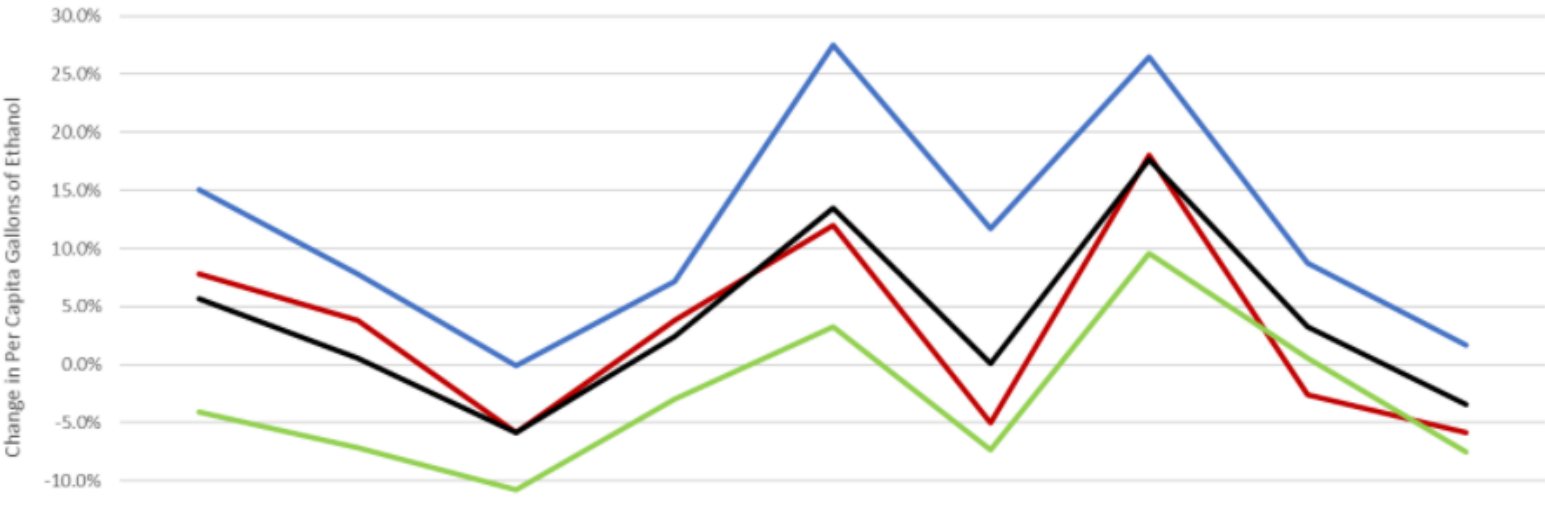
Alcohol sales surge during pandemic, lockdowns. Here's what people are drinking

eCommerce drives triple-digit growth in alcohol sales

Alcohol sales jump 234 percent during COVID-19



Changes in On-premise and Off-premise Per Capita Sales in March-November 2020 compared to prior 3-year Averages



	March	April	May	June	July	August	September	October	November
Spirits	15.1%	7.8%	-0.1%	7.2%	27.5%	11.7%	26.5%	8.7%	1.7%
Wine	7.8%	3.8%	-5.8%	3.8%	12.0%	-5.0%	18.0%	-2.6%	-5.8%
Beer	-4.1%	-7.1%	-10.8%	-3.0%	3.3%	-7.3%	9.6%	0.6%	-7.5%
All	5.7%	0.6%	-5.8%	2.4%	13.5%	0.1%	17.7%	3.3%	-3.4%

Source: NIAAA Alcohol Epidemiologic Data System Surveillance Report COVID-19.

Consumption in the U.S. Anecdotal data in the early phase!



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

April 8, 2020 8:11am EDT

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



Alcohol Memes
@AlcoholMemes

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

COMMENTARY

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

STRESS DRINKING: ALCOHOL CONSUMPTION INCREASES DURING COVID-19

Consumption in the U.S. Evidence of Changes in Consumption in the Early Phase Now Mounting

► [J Addict Med.](#) 2020 Oct 23. doi: 10.1097/ADM.0000000000000767. Online ahead of print.

Alcohol Consumption in Response to the COVID-19 Pandemic in the United States

Carolina Barbosa¹, Alexander J Cowell, William N Dowd

Affiliations + expand

PMID: 33105169 DOI: 10.1097/ADM.0000000000000767

Research Letter | Substance Use and Addiction

September 29, 2020

Changes in Adult Alcohol Use and Consequences During the COVID-19 Pandemic in the US

Michael S. Pollard, PhD¹; Joan S. Tucker, PhD¹; Harold D. Green Jr, PhD²

► [Author Affiliations](#) | [Article Information](#)

JAMA Netw Open. 2020;3(9):e2022942. doi:10.1001/jamanetworkopen.2020.22942

[Addict Behav.](#) 2020 Nov; 110: 106527.

Published online 2020 Jun 26. doi: 10.1016/j.addbeh.2020.106527

PMCID: PMC7319610

PMID: 32679435

Changes in alcohol use as a function of psychological distress and social support following COVID-19 related University closings

[William V. Lechner](#)^{a,*}, [Kimberly R. Laurene](#)^b, [Sweta Patel](#)^b, [Meagan Anderson](#)^b, [Chelsea Gregg](#)^b and [Deric R. Kenne](#)^b

[Int J Environ Res Public Health.](#) 2020 Dec; 17(24): 9189.

Published online 2020 Dec 9. doi: 10.3390/ijerph17249189

PMCID: PMC7763183

PMID: 33316978

Alcohol Consumption during the COVID-19 Pandemic: A Cross-Sectional Survey of US Adults

[Elyse R. Grossman](#)^{1,2,*}, [Sara E. Benjamin-Neelon](#)¹ and [Susan Sonnenschein](#)³

[Front Psychiatry.](#) 2020; 11: 571084.

Published online 2020 Sep 25. doi: 10.3389/fpsyg.2020.571084

PMCID: PMC7544945

PMID: 33088277

Stress, Anxiety, and Change in Alcohol Use During the COVID-19 Pandemic: Findings Among Adult Twin Pairs

[Ally R. Avery](#)^{1,*}, [Siny Tsang](#)¹, [Edmund Y.W. Seto](#)² and [Glen E. Duncan](#)¹

► [Am J Drug Alcohol Abuse.](#) 2021 Jan 2;47(1):98-106. doi: 10.1080/00952990.2020.1832508. Epub 2020 Dec 7.

Longer time spent at home during COVID-19 pandemic is associated with binge drinking among US adults

► [WMJ.](#) 2020 Sep;119(3):171-176.

Changes in Alcohol Use Patterns in the United States During COVID-19 Pandemic

[Nicole Boschuetz](#)¹, [Shanna Cheng](#)², [Ling Mei](#)¹, [Veronica M Loy](#)³



Preventive Medicine

Volume 143, April 2021, 106422



Increased alcohol use during the COVID-19 pandemic: The effect of mental health and age in a cross-sectional sample of social media users in the U.S.

[Anadra Capasso](#)^a, [Abbey M. Jones](#)^b, [Shahmir H. Ali](#)^c, [Joshua Foreman](#)^{a, f}, [Yesim Tozan](#)^e, [Ralph J. DiClemente](#)^{a, g}

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The background of the slide is dark blue and features several stylized, light blue icons of viruses or microorganisms. These icons are scattered across the top half of the slide, with some appearing larger and more detailed than others. A thick, dark red horizontal bar runs across the middle of the slide, separating the title from the main content area.

Survey of Alcohol Consumption and Related Factors During the COVID-19 Pandemic

The Survey



What?

Web-based survey
using Ipsos'
KnowledgePanel



When?

Wave 1: May 8–15
Wave 2: December 17–January 19

Wave 1: Barbosa, C., Cowell, A. J., & Dowd, W. N. (2020). Alcohol consumption in response to the COVID-19 pandemic in the United States. *Journal of Addiction Medicine*. <https://doi.org/10.1097/ADM.0000000000000767>

Survey Respondents

993 Surveyed in Wave 1
790 (80%) Completed Wave 2
557 Reported Drinking During the Study Period



Female: **51%**
Male: **49%**



21–34: **26%**
35–49: **26%**
50–64: **28%**
65+: **20%**



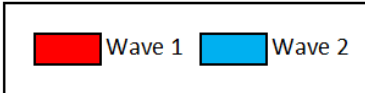
White, non-Hispanic: **63%**
Black, non-Hispanic: **10%**
Other, non-Hispanic: **8%**
Hispanic: **20%**



Northeast: **19%**
South: **35%**
West: **25%**
Midwest: **20%**

Survey Measures

Measure	Before	2020			
	Feb	Feb ↔	Apr ↔	Jul ↔	Nov
Alcohol Measures					
Consumption		■	■	■	■
Advised to cut down	■	■	■	■	■
Treatment receipt	■	■	■	■	■
Types Consumed				■	■
Locations Alcohol Consumed				■	■
Coping and Enhancement Motives				■	■
Purchases				■	■
Mental Health					
PHQ-2 and GAD-2		■	■		■
COVID-19 Experiences					
Own experience		■	■	■	■
Loved ones' experience		■	■	■	■
Impact on daily life		■	■	■	■
Other Measures					
Other Drug Use					■
Pregnancy Status		■	■	■	■
Employment Status		■	■		■
Income Changes		■	■	■	■
Kids' remote school					■



Three Main Drinking Outcomes



Average drinks per month



Percentage of people exceeding drinking guidelines



Percentage of people binge drinking

Research Questions

How did consumption change over time?

Are the increases observed in the early phases of the pandemic sustained over the longer term?

Are changes over time larger among certain groups (e.g., women, people with children in the household)?

What are the characteristics of those responsible for the largest increase in consumption?

Analysis

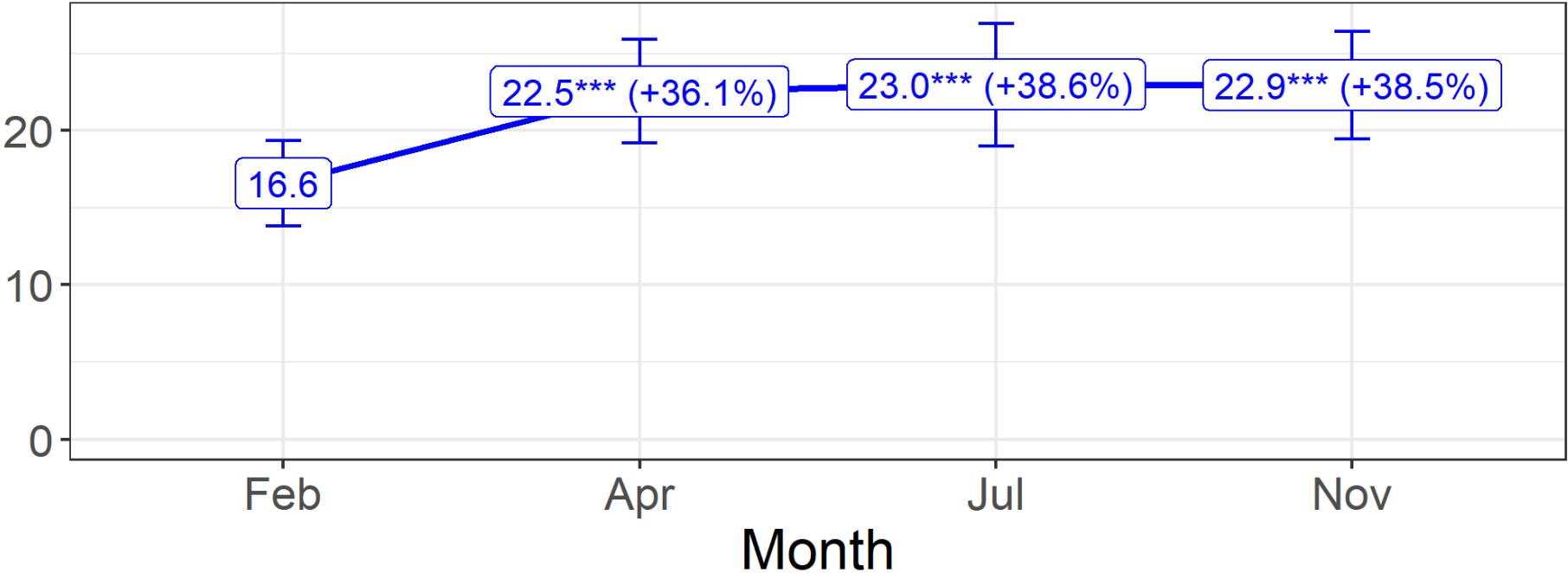
- Computed consumption outcomes for February, April, July, and November
- Stratified sample based on drinking outcomes to identify drinking patterns during the pandemic
- Regression analysis to test for differences across groups



The background of the slide features several stylized, light blue virus-like icons. These icons consist of a central circle with a smaller inner circle, surrounded by several protruding, rounded rectangular shapes that resemble spikes or tentacles. The icons are scattered across the top half of the slide, with some partially cut off by the edges.

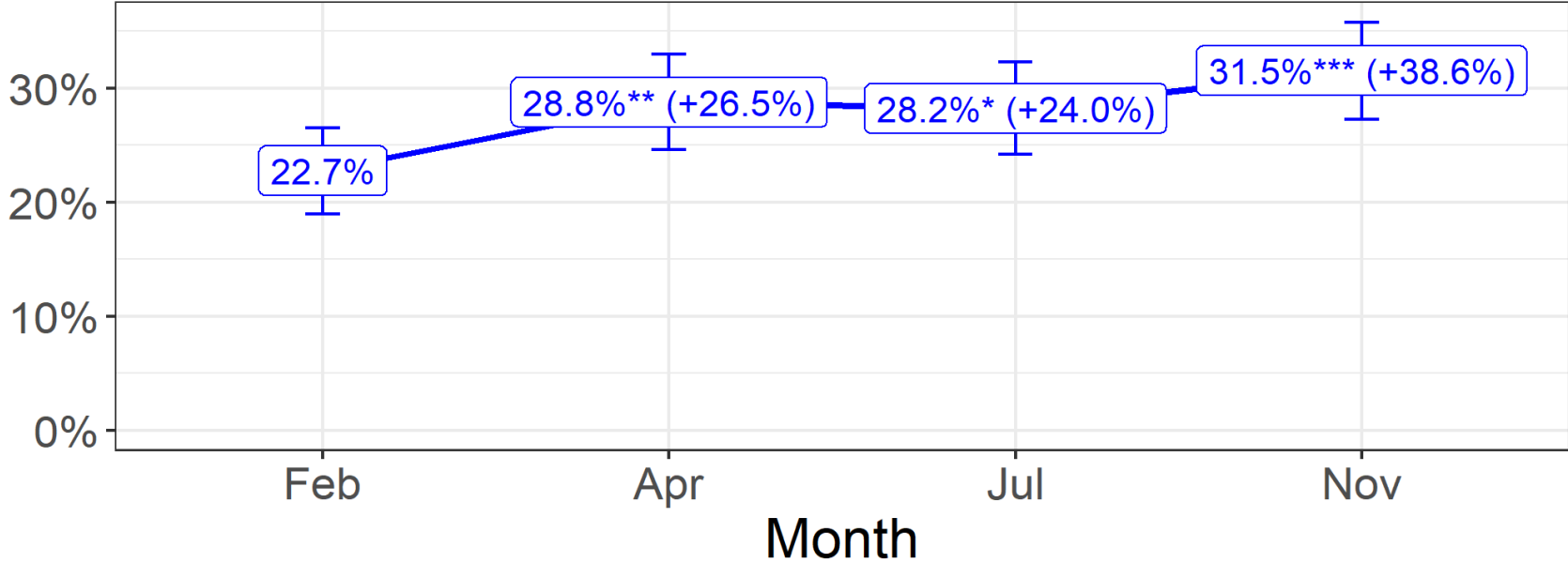
Results

Drinks per Month



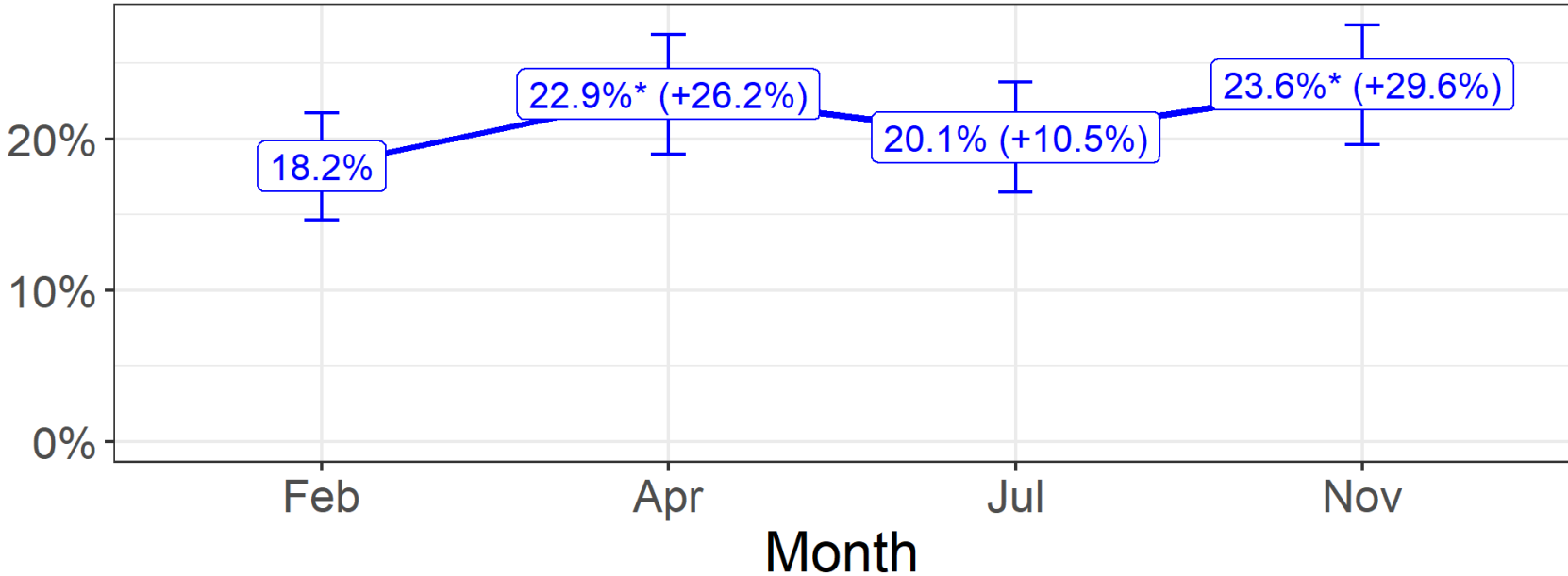
Significant difference from Feb.: *** $p < 0.001$
Percent difference from Feb. in parentheses

Percent Exceeding Drinking Guidelines



Significant difference from Feb.: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$
Percent difference from Feb. in parentheses

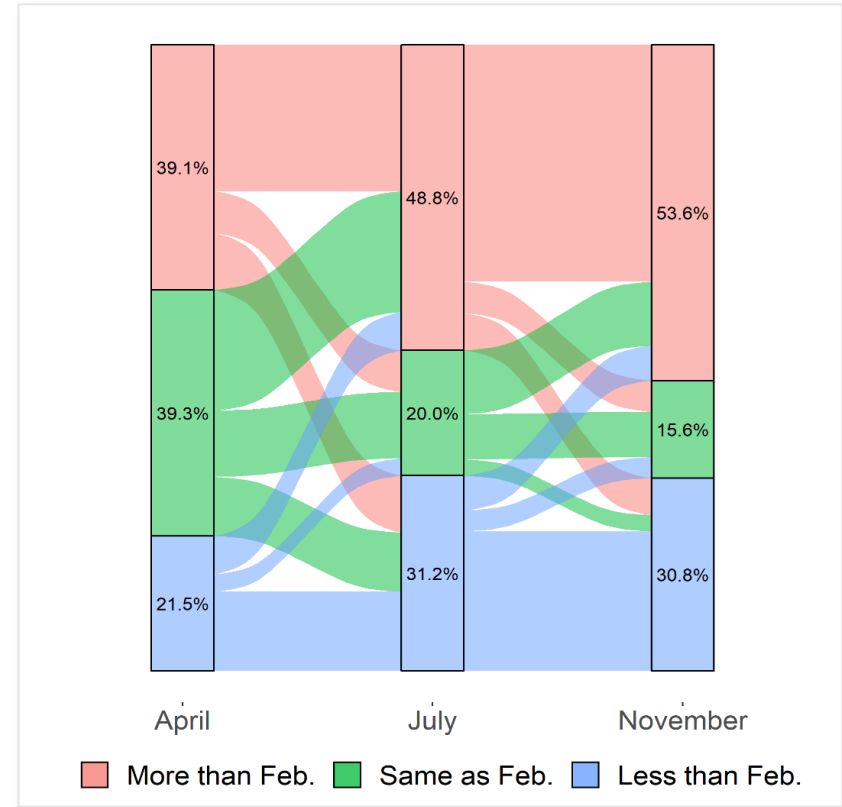
Percent Binge Drinking



Significant difference from Feb.: * p<0.05; ** p<0.01; *** p<0.001
Percent difference from Feb. in parentheses

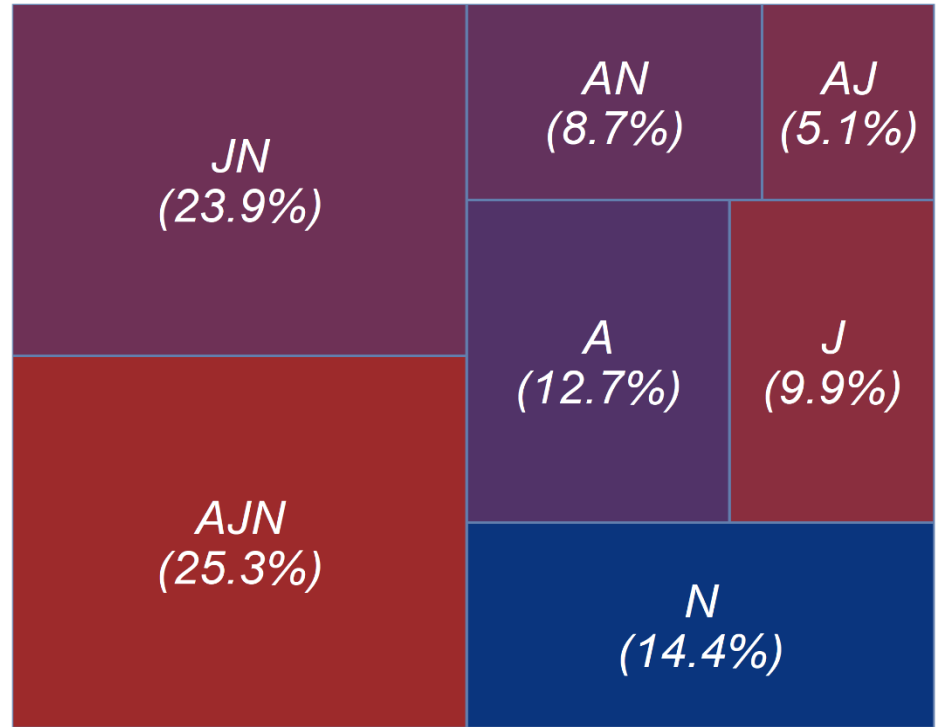
Consumption Relative to February

- Compared with February, in April, most respondents drank the same (39%) or more (39%), whereas 22% reduced consumption.
- By November, 54% of respondents were drinking more than they did in February.
 - Average consumption in this group more than doubled, from 15 drinks in February to 33 in November.



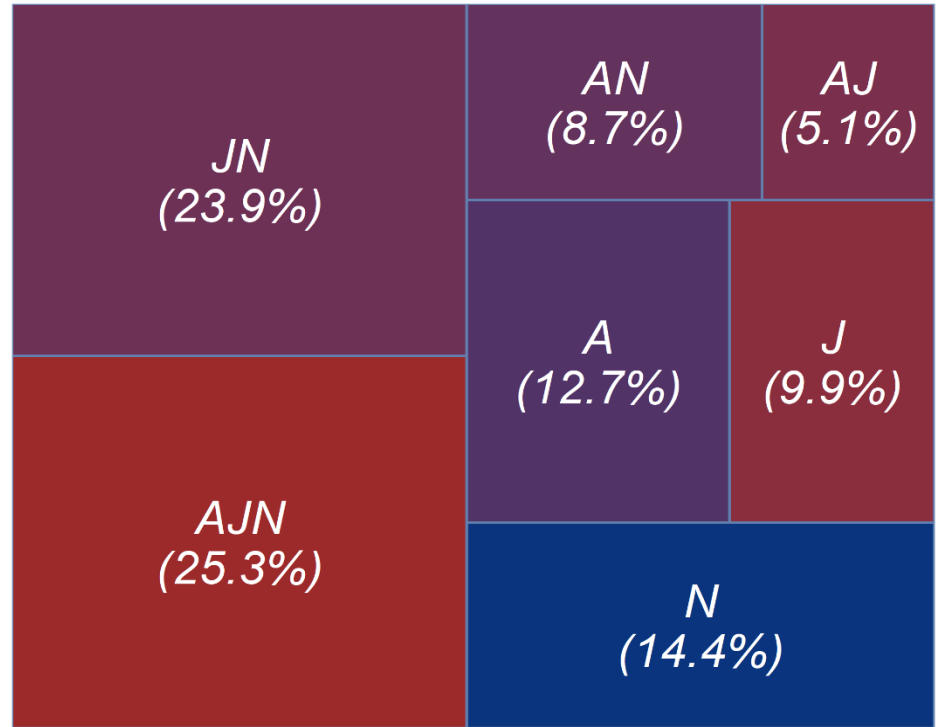
Increases in Consumption Relative to February (n=398)

- A = brief increase
- AJ = early mid-length increase
- AJN = early and sustained increase
- JN = late but sustained increase
- F-tests revealed significant differences across these groups in drinking for coping or enhancement motives.



Increases in Consumption Relative to February (n=398)

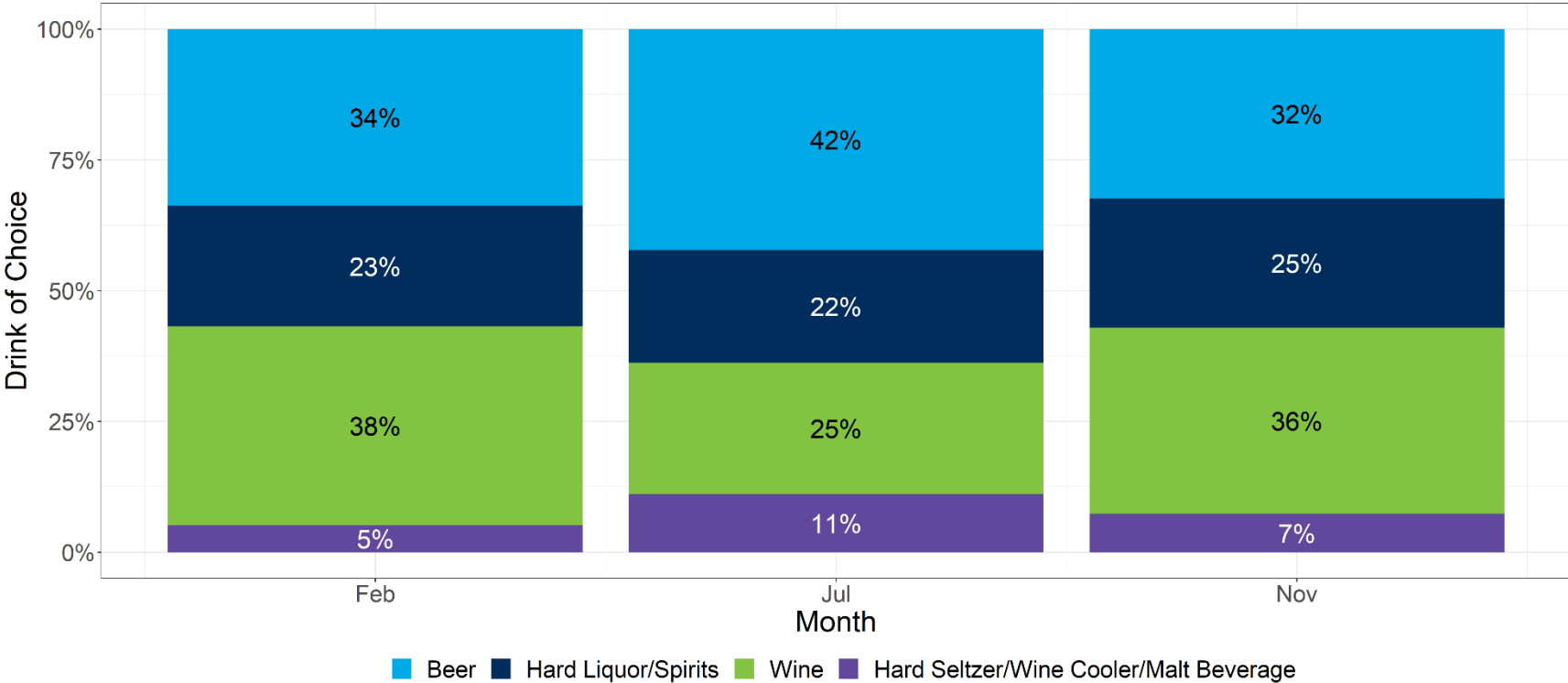
- AJN respondents who sustained increased consumption in all pandemic months drank an average of nearly one drink per day more than they did before the pandemic.
- AJN respondents were more likely to have children in the household (40%) compared with all other respondents (26%).



The background of the slide is a solid blue color. It is decorated with several white, stylized icons of viruses or microorganisms. These icons consist of a central circle with several lines radiating outwards, each ending in a small circle, resembling a simplified representation of a virus particle. The icons are scattered across the top half of the slide, with some being larger and more prominent than others. A thick, dark red horizontal bar runs across the middle of the slide, separating the blue header area from the white content area below.

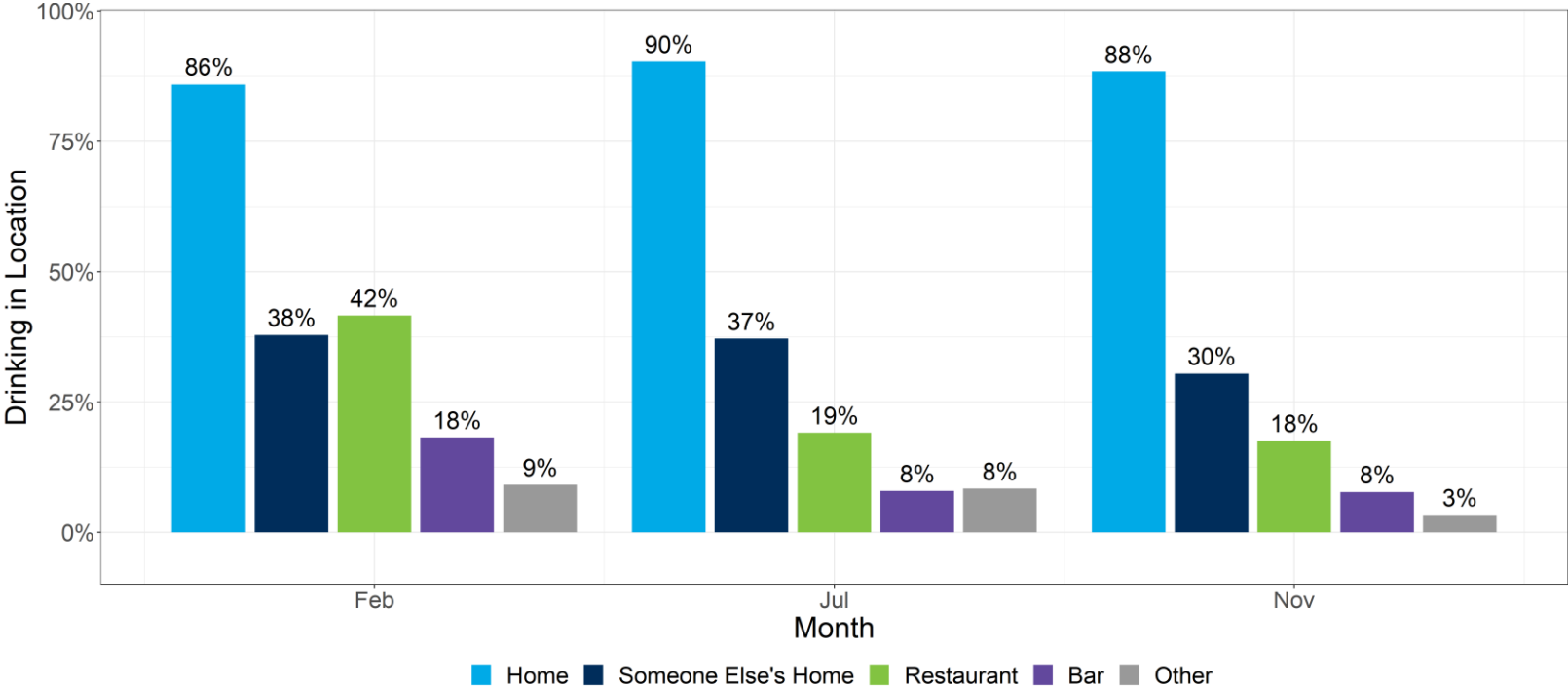
Drinking Preferences

Most Consumed Alcoholic Beverage



Note: Among people who drank in a given month.

Drinking Locations

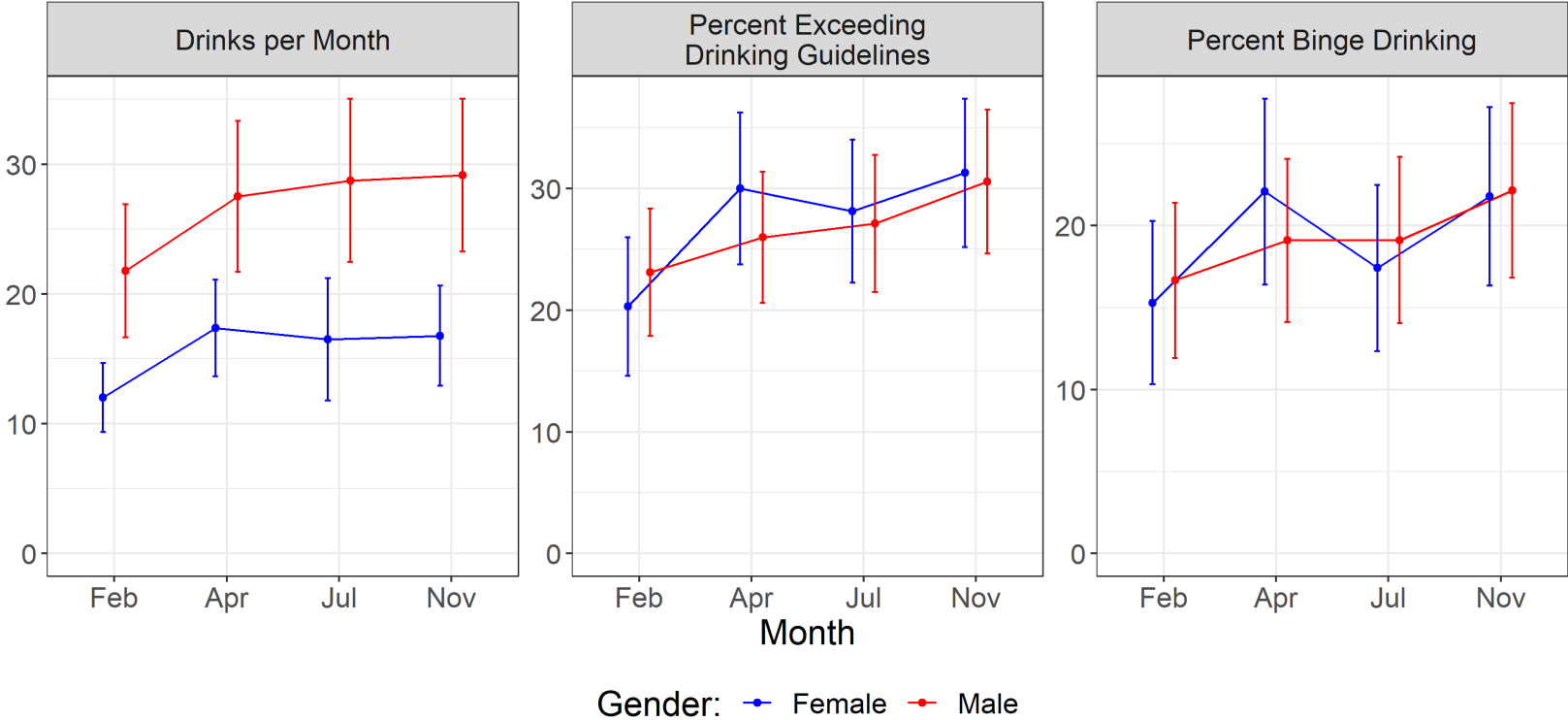


Note: Among people who drank in a given month.

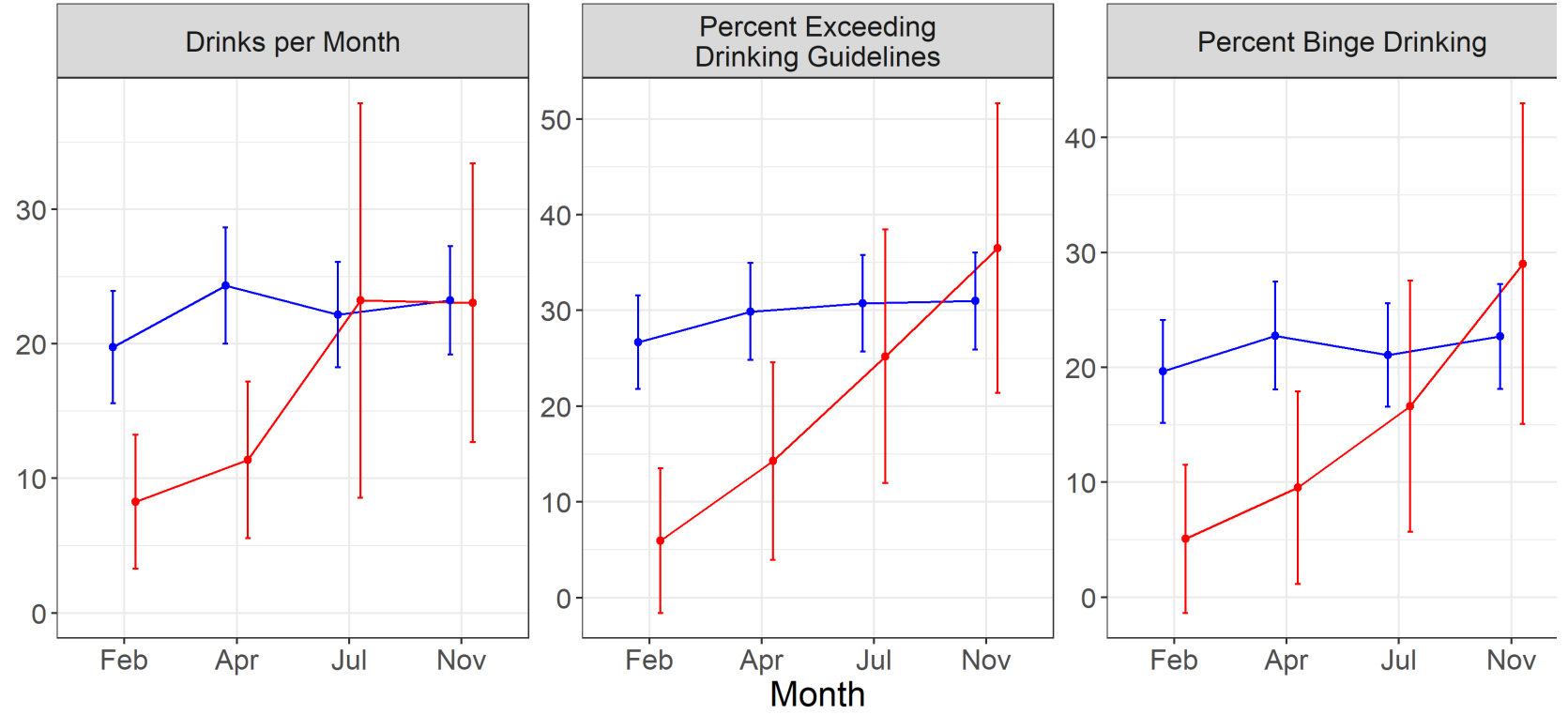
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Stratified Results

Changes in Alcohol Consumption: Feb.–Nov. 2020, by Gender

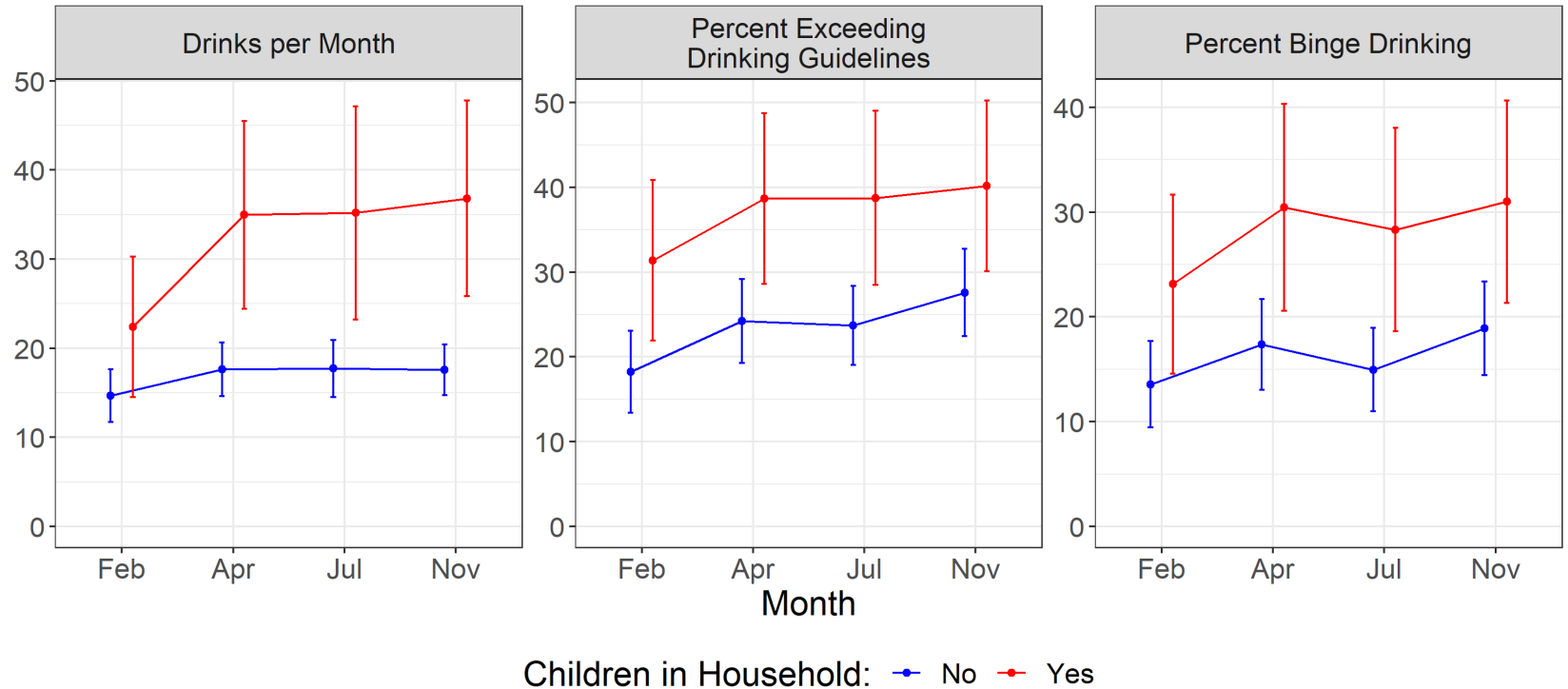


Changes in Alcohol Consumption: Feb.–Nov. 2020, by Race/Ethnicity

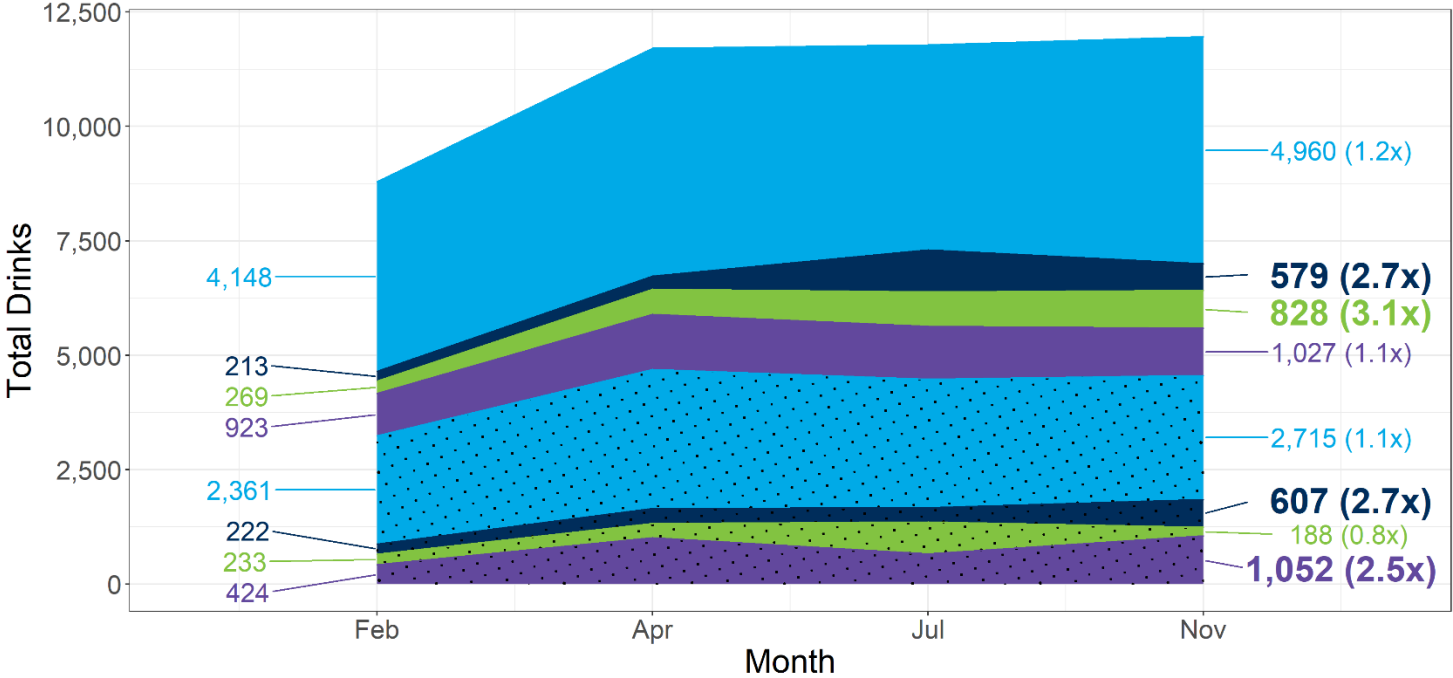


Race/ethnicity: ● White, non-Hispanic ● Black, non-Hispanic

Changes in Alcohol Consumption: Feb.–Nov. 2020, by Household Composition



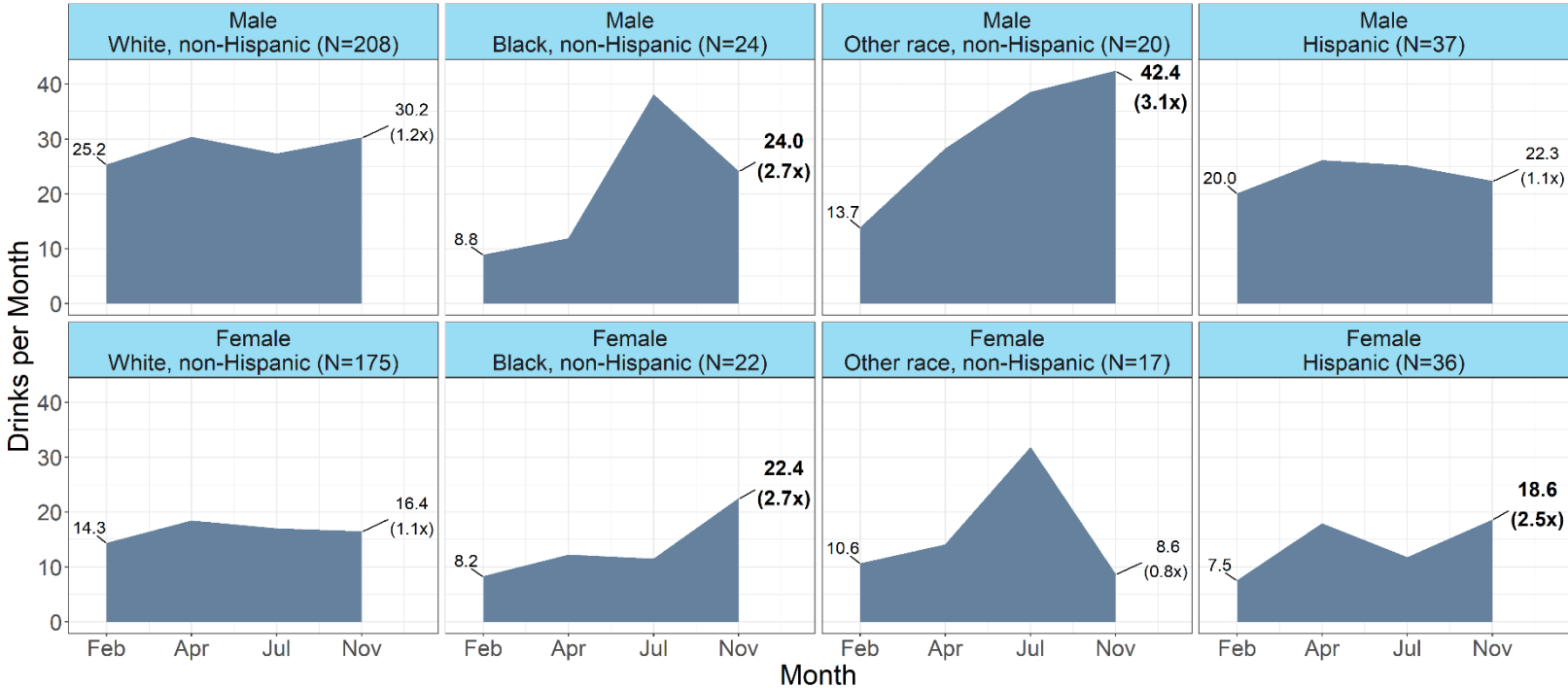
Drinking by Race/Ethnicity and Gender Groups



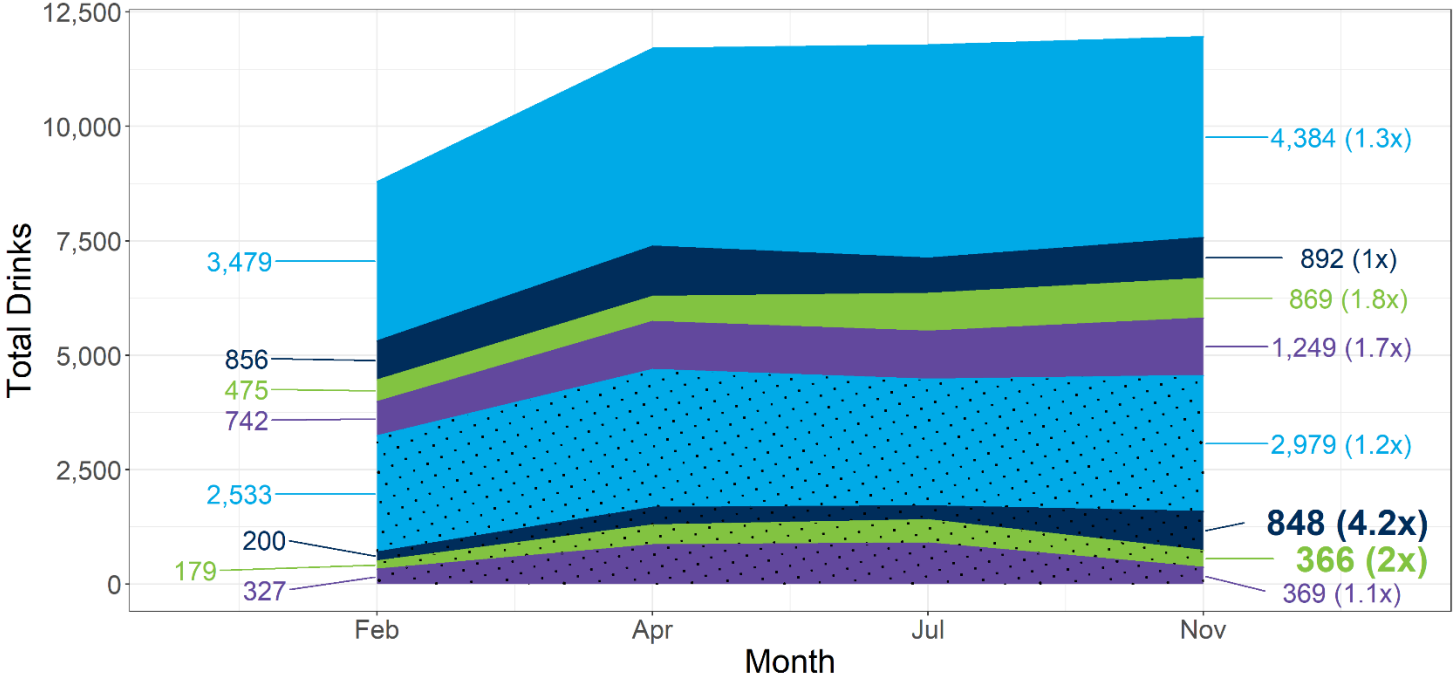
Gender and Race/Ethnicity

- M, W (N=208)
- M, B (N=24)
- M, O (N=20)
- M, H (N=37)
- F, W (N=175)
- F, B (N=22)
- F, O (N=17)
- F, H (N=36)

Drinking by Race/Ethnicity and Gender Groups: Detailed



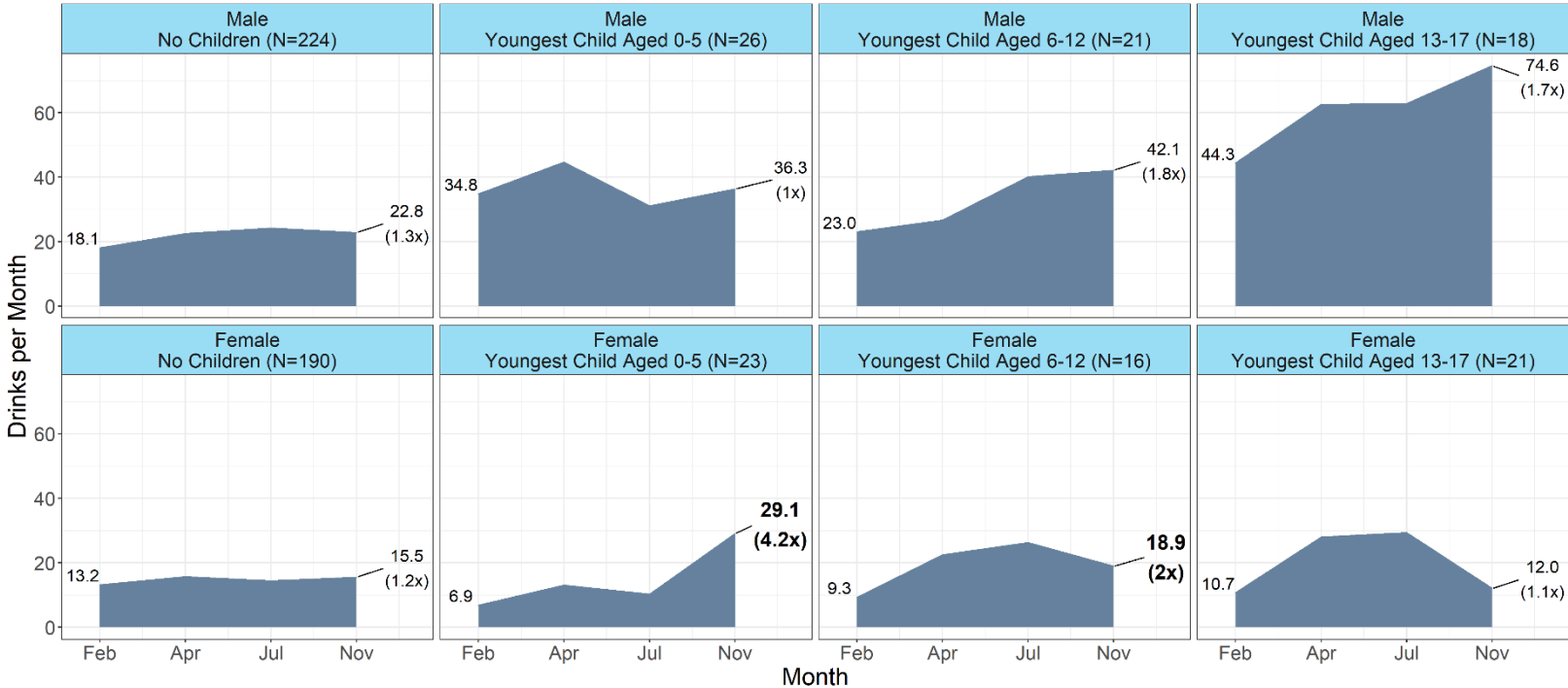
Drinking by Gender and Family Composition Groups



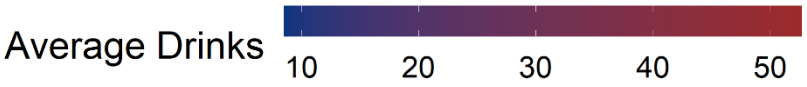
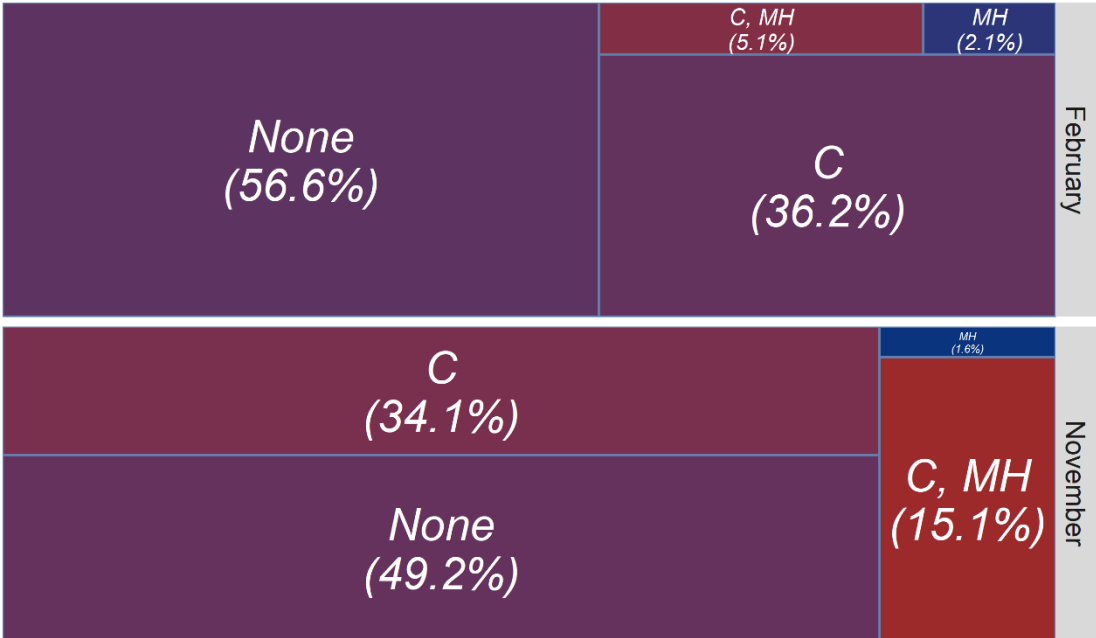
Gender and Age of Children

- M, No Kids (N=224)
- M, 0-5 (N=26)
- M, 6-12 (N=21)
- M, 13-17 (N=18)
- F, No Kids (N=190)
- F, 0-5 (N=23)
- F, 6-12 (N=16)
- F, 13-17 (N=21)

Drinking by Gender and Family Composition Groups: Detailed

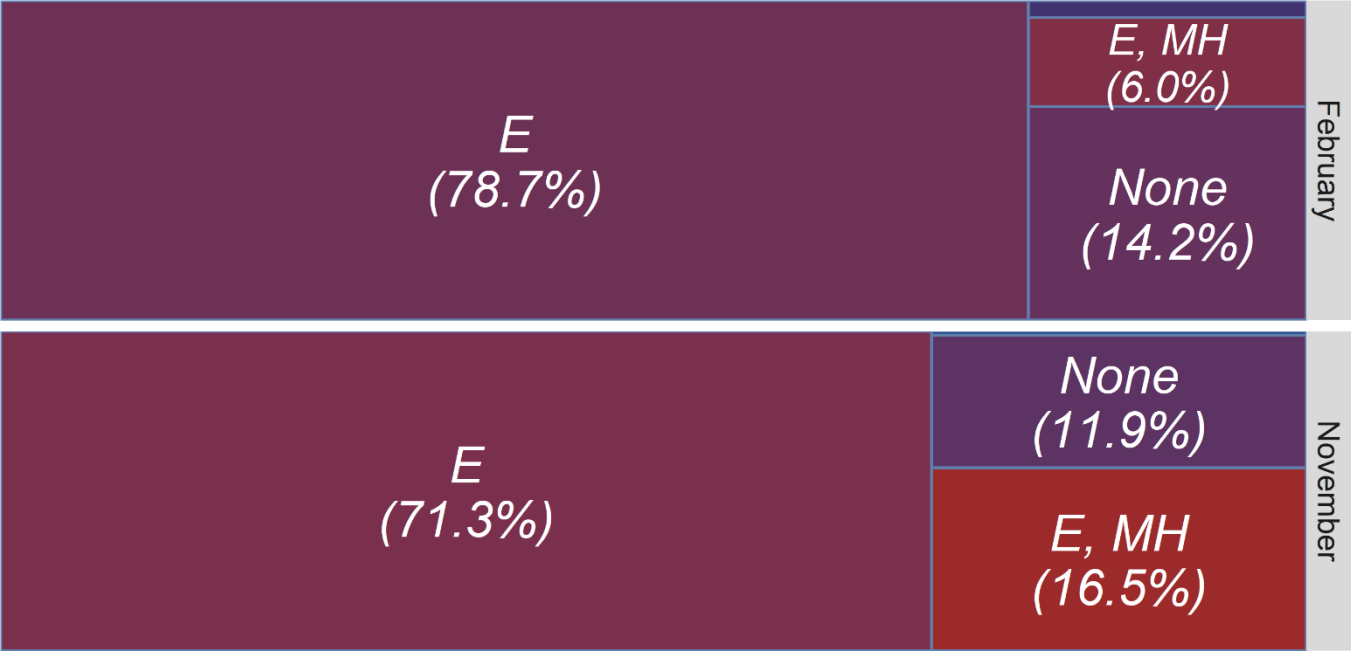


Drinking by Mental Health and Coping Motives



Among respondents reporting drinking in both Feb. and Nov.

Drinking by Mental Health and Enhancement Motives



Among respondents reporting drinking in both Feb. and Nov.

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Conclusions



Summary in Numbers

- Compared with February 2020, consumption in April and November 2020 increased by **36%** and **39%**. Proportion exceeding drinking guidelines increased by **27%** and **39%**, and binge drinking increased by **26%** and **30%**.
- Nationally, increases from February 2020 to November 2020 translate to
 - **1 billion** more drinks per month,
 - **4.6 million** more people exceeding drinking guidelines, and
 - **9 million** more people binge drinking.
- Largest increases in average consumption from February to November for Black and Hispanic women (**173%** and **148%**), Black men (**173%**), men of other race/ethnicity (**209%**), and women with children younger than age 5 (**323%**).
- Largest increases in exceeding drinking guidelines for Black drinkers: compared with February 2020, increases of **140%** in April and **510%** in November 2020.

Key Takeaways

Increases in alcohol consumption, including excessive consumption, were sustained from April to November 2020, overall and across several groups.

The largest increases in consumption were observed in Black people, people with children, and people with mental health problems who drink to cope.

Among women, early increases were sustained over time, with more women than men exceeding recommended drinking guidelines between April and November 2020.

Among those with children, the largest increases in consumption occurred among women with young children (ages 0–5).



Research Priorities Moving Forward

- Monitor alcohol consumption, with special attention to marginalized communities.
- Monitor alcohol-attributable harms during and after the COVID-19 pandemic.
- Support broader implementation of strategies to prevent and mitigate the consequences of increased drinking during the COVID-19 pandemic.
- Conduct more waves of the current survey.

Contact



Carolina Barbosa
cbarbosa@rti.org



William Dowd
w Dowd@rti.org



Katherine Karriker-Jaffe
kkarrikerjaffe@rti.org