



# Factors associated with response to a phone-administered alcohol and substance use survey during the COVID-19 pandemic among women in the MACS/WIHS Combined Cohort Study: Who are we missing?

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## Background

- Early in the COVID-19 pandemic, many clinical and population-based research studies pivoted to phone-based surveys, which have higher non-response rates compared with in-person assessments.<sup>1</sup>
- Given the gender-specific impacts of the pandemic, it is critical to capture alcohol and substance use data among women.<sup>2,3</sup>
- Our objective was to identify factors associated with responding to an alcohol and substance use phone survey administered during the COVID-19 pandemic among women enrolled in the Multicenter AIDS Cohort Study/Women's Interagency HIV Study Combined Cohort Study (MWCCS), a U.S. prospective cohort of people living with and without HIV.
- We also assessed the impact of phone survey nonresponse on COVID-19 pandemic prevalence estimates of alcohol and substance use.



## Methods

- Women living with and without HIV who had a pre-pandemic in-person visit (April 2019-September 2019) and who remained enrolled in the study during 2020 were included.
- We used multivariable logistic regression to assess associations of pre-pandemic sociodemographic, clinical, and alcohol and substance use measures with response to an early-pandemic (August-September 2020) phone survey.
- Response probability weights generated from the regression model were applied to the sample and prevalence estimates of risky drinking (>7 drinks/week or >3 drinks/day) and substance use (opioids, stimulants, sedatives) in the COVID-19 pandemic were compared to the unweighted sample.

## Results

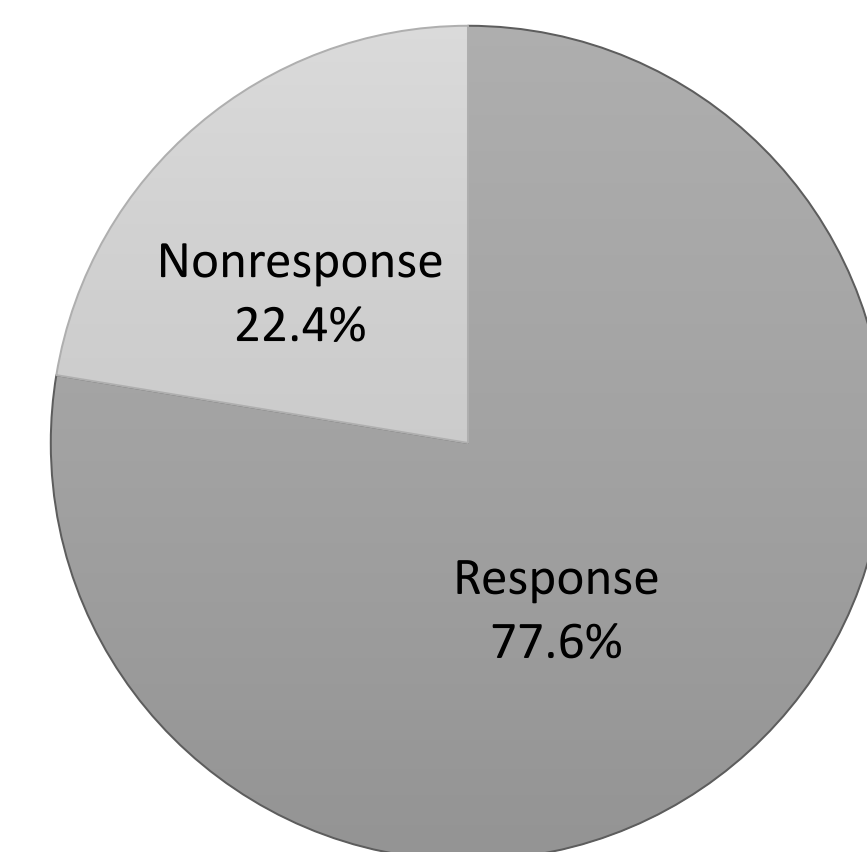


Figure 1. Response to the early pandemic phone survey on alcohol and substance use

## Results

Table. a) Pre-pandemic sociodemographic and clinical factors  
b) Multivariable logistic regression for response (vs. nonresponse) to the COVID-19 pandemic alcohol and substance use phone survey

	Total n= 1847	Responders n= 1433	Nonresponders n= 414	Adjusted OR (95% CI)*	p-value
Age, years, median (IQR)	53 (46-59)	53 (47-60)	52 (44-57)	1.01 (1.00-1.03)	0.066
US Region					
Midwest	223 (12.1)	192 (13.4)	31 (7.5)	REF	
Northeast	772 (41.8)	678 (47.3)	94 (22.7)	1.20 (0.75-1.86)	0.440
South	612 (33.1)	398 (27.8)	214 (51.7)	<b>0.29 (0.19-0.44)</b>	<b>&lt;0.001</b>
West	240 (13.0)	165 (11.5)	75 (18.1)	<b>0.35 (0.21-0.57)</b>	<b>&lt;0.001</b>
Race and Ethnicity					
Black/African Am.	1144 (61.9)	884 (61.7)	260 (62.8)	REF	
Hispanic	263 (14.2)	191 (13.3)	72 (10.9)	<b>0.47 (0.33-0.66)</b>	<b>&lt;0.001</b>
White	151 (8.2)	126 (8.8)	25 (6.0)	<b>1.64 (1.02-2.70)</b>	<b>0.046</b>
Multiracial	257 (13.9)	212 (14.8)	45 (10.9)	1.33 (0.92-1.94)	0.138
Other / Unknown	32 (1.7)	20 (1.4)	12 (2.9)	<b>0.41 (0.18-0.93)</b>	<b>0.028</b>
Stable Housing	1629 (88.2)	1296 (90.4)	333 (80.4)	<b>1.74 (1.24-2.43)</b>	<b>0.001</b>
HIV Positive	1315 (71.2)	1014 (70.8)	301 (72.7)	0.79 (0.59-1.04)	0.095
Drinks per week, mean (SD)	2.6 (7.5)	2.4 (7.2)	3.1 (8.7)	1.01 (0.99-1.02)	0.309
Tobacco use	730 (39.5)	535 (37.3)	195 (47.1)	0.84 (0.65-1.09)	0.186
Cannabis use	434 (23.5)	326 (22.7)	108 (26.1)	1.09 (0.82-1.46)	0.577
Substance use	137 (7.4)	85 (5.9)	52 (12.6)	<b>0.63 (0.41-0.98)</b>	<b>0.037</b>
Depression (CESD >=16)	545 (29.5)	398 (27.8)	147 (35.5)	0.90 (0.70-1.17)	0.425

Values represent n (%) unless otherwise indicated.

\*The model was also adjusted for education, employment, health insurance, and annual household income (not shown, no significant associations).

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3. Rodriguez LM, Litt DM, Stewart SH. Drinking to cope with the pandemic: The unique associations of COVID-19-related perceived threat and psychological distress to drinking behaviors in American men and women. *Addict Behav*. 2020;110:106532.

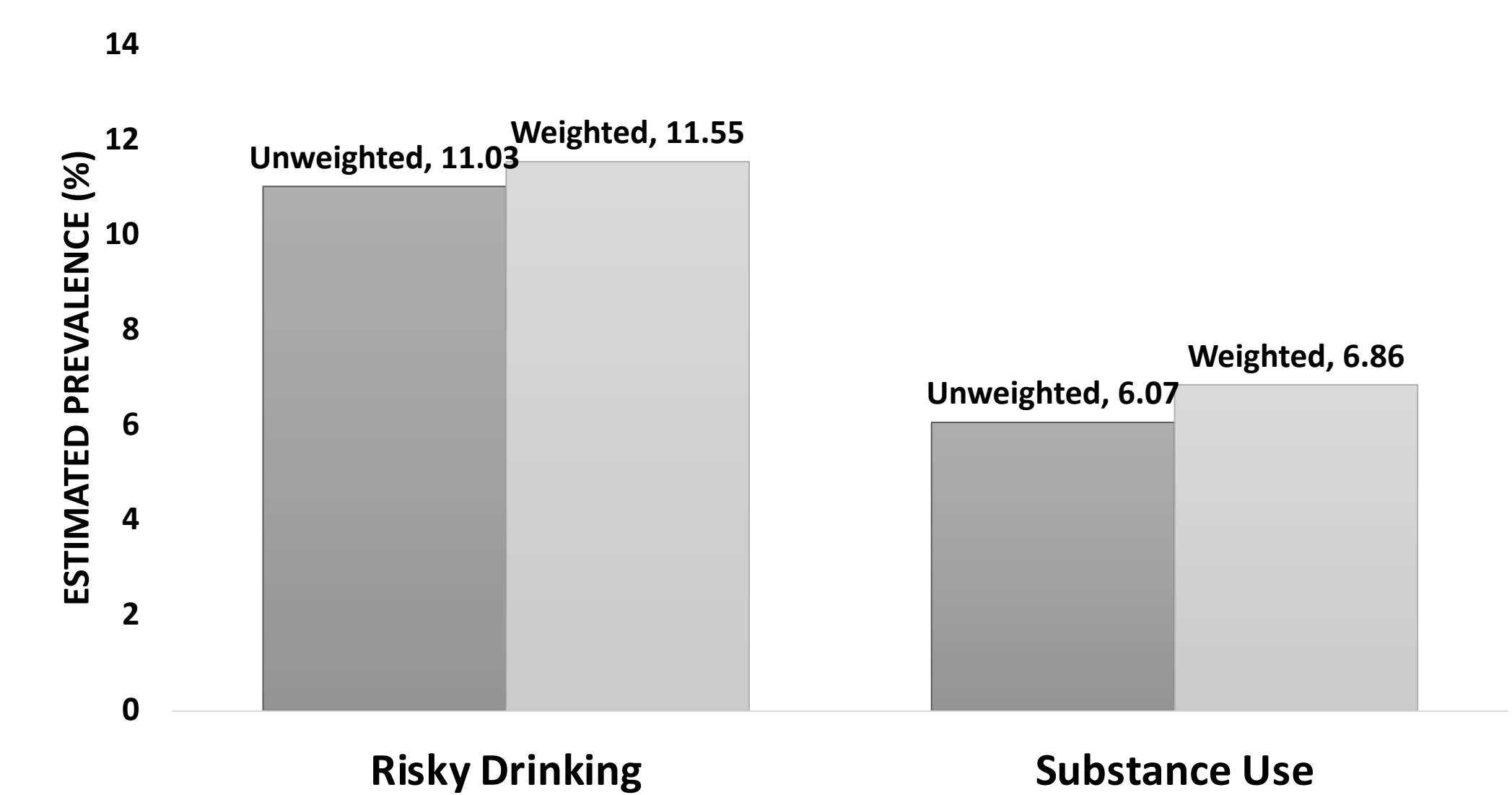


Figure 2. Weighted and unweighted prevalence of risky drinking and substance use early in the COVID-19 pandemic

## Conclusions

- Among a sample of socioeconomically disadvantaged women living with and without HIV, participants of Hispanic ethnicity or Black/African American race (compared with White race), those who were unstably housed or homeless and those who reported substance use at baseline had lower odds of responding to an alcohol and substance use phone survey administered early in the COVID-19 pandemic.
- As remote survey methods become more common, investigators need to ensure that data remain representative of the target population and assess for selection bias.

## Questions? Hannah.Tierney@ucsf.edu

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