



Published in final edited form as:

*Prev Med.* 2022 May ; 158: 107034. doi:10.1016/j.ypmed.2022.107034.

## Support for evidence-informed opioid policies and interventions: The role of racial attitudes, political affiliation, and opioid stigma

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### Abstract

Political affiliation, racial attitudes, and opioid stigma influence public support for public health responses to address opioid use disorders (OUD). Prior studies suggest public perceptions of the opioid epidemic are less racialized and less politically polarized than were public perceptions of the crack cocaine epidemic. Analyzing a cross-sectional, nationally representative sample ( $n = 1161$  U.S. adults) from the October 2020 AmeriSpeak survey, we explored how political affiliation, racial attitudes (as captured in the Color-Blind Racial Attitudes Scale [CoBRAS]), and OUD stigma were associated with respondents' expressed views regarding four critical domains. Respondents with unfavorable attitudes towards Black Americans were less likely to support expanding Medicaid funding, increasing government spending to provide services for people living with OUD, and distributing naloxone for overdose prevention. Democratic Party affiliation was associated with greater support for all three of the above measures, and increased support for mandatory treatment, which may be seen as a substitute for more punitive interventions. Black respondents were also less likely to support expanding Medicaid funding, increasing government spending to provide services for people living with OUD, and of distributing naloxone. Our findings suggest that negative attitudes towards African-Americans and political differences remain important factors of public opinion on responding to the OUD epidemic, even after controlling for opioid stigma. Our findings also suggest that culturally-competent dialogue within politically

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

conservative and Black communities may be important to engage public support for evidence-informed treatment and prevention.

## Keywords

Political affiliation; Racism; Stigma; Opioid use; Substance use; Opioid treatment

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## 1. Introduction

Public support is an important political determinant of which policies can be enacted to address opioid use disorders (Saloner et al., 2018; Wakeman and Rich, 2018; Adams et al., 2021; Kennedy-Hendricks et al., 2017; Tsai et al., 2019; McGinty and Barry, 2020; Barry et al., 2014; Perry et al., 2020). Support for such public health responses is influenced by many factors; the impact of stigma towards opioid users have been well-established (Kennedy-Hendricks et al., 2017; Perry et al., 2020; Ezell et al., 2018). Race and political affiliation may also impact public opinion and thus support for evidence-informed policies and interventions, especially when use of specific substances is identified with particular socio-demographic groups.

A large literature documents the racialized nature of drug use epidemics, most strikingly the crack cocaine epidemic of the late 1980s and early 1990s, whose epidemiology was relatively concentrated in nonwhite populations (Alexander et al., 2012; Vega et al., 1993). In contrast, many observers have noted that the current opioid epidemic differs in in media imagery, policymaker, and public responses, and the racialized depictions of substance users. Netherland and Hansen performed a content analysis of 100 articles produced between 2001 and 2011 related to opioid use. Their analysis revealed “a consistent contrast between criminalized urban black and Latino heroin injectors with sympathetic portrayals of suburban white prescription opioid users” (Netherland and Hansen, 2016). Shachar and colleagues provide the most comprehensive recent review, analyzing media keywords and framing from the 2016–17 prescription opioid epidemic to those observed in 1988–89 for crack cocaine and methamphetamine, and with heroin media stories across the same three-decade period; they find that the response to the crack cocaine epidemic was more punitive, while the response to the current opioid epidemic was more explicitly medical – and that this difference could be related to race (Shachar et al., 2020). Public perceptions of the opioid epidemic as arising from pharmaceutical industry misconduct, and as disproportionately affecting non-Hispanic whites appears to have promoted a more empathetic, less-punitive response to individuals with opioid use disorders (Cohen and Jangro, 2015; Mendoza et al., 2016; Mendoza et al., 2019; Glanton, 2021). In contrast, published surveys, based on 2014 data, suggested that most Americans believe that opioid use disorders affect all races (80%), or that such disorders are especially common among whites (Kennedy-Hendricks et al., 2017). Therefore both individual race/ethnicity and racial views may be important factors.

Other epidemics, including crack cocaine and HIV, have seen political affiliation emerge as an important predictor of public health response, with Republican leaders often opposing harm reduction and supporting stringent criminal sanctions against drug users and drug

sellers (Massing, 2000). Opposition to needle exchange and other harm reduction strategies continue today, often divided along partisan lines (Legan, 2021; Goldberg, 2021). Prior studies also indicate that both Democratic and Republican legislators are more likely to deploy medical rather than criminal justice language in describing opioid use disorders, a pattern which study authors suggest may once-again highlight the role of race in support for a public health response (Kim et al., 2020; McGinty et al., 2016; Dvorak, 1999).

In summary, previous epidemics found stigma towards and racial perceptions of those affected by the epidemic, as well as political affiliation, have all been associated with the public's response to the epidemic – specifically, whether to favor a punitive, criminal-justice-oriented response or a compassionate, medical treatment response. However, the explicit role of racism, defined here specifically as unfavorable attitudes towards African-Americans, may also be an important predictor of support for public health responses. We used nationally-representative data from the October 2020 AmeriSpeak® survey to explore these questions. In particular, we examined how racist attitudes, political affiliation, OUD stigma, as well as individual race and ethnicity are associated with support for public health responses to the opioid epidemic.

## 2. Methods

We analyzed a cross-sectional random sample of 1161 U.S. participants who completed the survey drawn from AmeriSpeak®, a probability-based ongoing panel of over 35,000 households designed to be representative of the U.S. household population, from October 22–26, 2020. The study was approved by the data collection organization's Institutional Review Board. For AmeriSpeak®, US households are selected and sampled using area probability and address-based sampling, with a known, nonzero probability of selection from the NORC at the University of Chicago (NORC) National Sampling Frame.

The AmeriSpeak panel provides sample coverage of approximately 97% of U.S. households, and leads to a sample comparable to the US Census American Community Survey (ACS) sample. AmeriSpeak contacts sampled households by U.S. mail, telephone, and field interviewers (face-to-face) to improve coverage by capturing harder-to-reach cases, and has an annual panel retention rate exceeding 80%. (Technical overview of the AMERISPEAK panel)

Informed consent for future surveys is obtained during panel recruitment and emails/texts were sent to a randomly-selected group of panelists describing the study and inviting them to participate in the survey. The survey was offered in English and Spanish. Participants who did not respond to the initial invitation were contacted multiple times by email, text, and phone. Participants received a small incentive (\$4) for responding to the short survey. Of the 4358 individuals contacted, 1095 (25.12%) fully completed all survey items. An additional 66 participants completed surveys with item non-responses, bringing the sample size to  $n = 1161$  for some analyses).

The survey consisted of fifty items. The opioid-pertinent subset of items (described below) took an average of fifteen minutes to complete. Of note, this data was collected during the

COVID-19 pandemic, when there were increased OUD overdoses and limited resources; the full survey is available in Appendix B (Macmadu et al., 2021; Products, 2021; KFF, 2021).

We use several measures to quantify respondents' personal and family exposures to the opioids and the criminal justice system, expressed opioid stigma, political affiliation, expressed support for public policies that address opioid use disorders, and expressed attitudes regarding racial inequality.

### **2.1. Opioid policy scale**

Policy attitudes were assessed with four items that explored support for public health responses to the opioid epidemic. For the current analysis, respondents were queried using a five-point Likert scale ("Strongly disagree," "Somewhat disagree," "Neither agree nor disagree," "Somewhat agree," or "Strongly agree") with the following statements:

- "I favor expanding Medicaid insurance benefits for low-income families to provide coverage for treatment of opioid use disorders."
- "I favor increasing government spending to improve treatment of opioid use disorder."
- "I believe that making drug treatment mandatory is an effective way to help people with an opioid use disorder."
- "I favor making naloxone (also known as 'Narcan'), a medication that can quickly reverse the effects of a person experiencing an opioid overdose, widely available and affordable without a prescription."

### **2.2. Social stigma towards people with an OUD**

We developed a 10-item scale (Cronbach's  $\alpha = 0.84$ ) adapted from prior stigma survey research (Kennedy-Hendricks et al., 2017; Yang et al., 2019). Questions asked about willingness to have a person with a past history of OUD work with you or marry into your family and willingness to have a person with a current OUD work with you, marry into your family, their perceived dangerousness, and perceived trustworthiness. Also, four items covered persons currently living with OUD or who experienced past history of OUD and their likelihood of stealing or to be a high-risk employee. Respondents rated their agreement with each statement on a five-point Likert-type scale (1 = strongly disagree, 2 = somewhat disagree, 3 = neither disagree nor agree, 4 = somewhat agree, and 5 = strongly agree). A higher score reflects greater stigma towards individuals with an OUD.

### **2.3. Color-blind racial attitudes scale**

Race-conservative attitudes regarding Black Americans was measured using a subscale of the Color-Blind Racial Attitudes Scale (CoBRAS), which has been shown to be associated with higher levels of racial prejudice (Neville et al., 2006). The CoBRAS includes 8 survey items rated on a 5-point scale from "Strongly disagree" to "Strongly agree" and included items such as "White people in the U.S. have certain advantages because of the color of their skin", and "Racial and ethnic minorities do not have the same opportunities as white people

in the U. S.” Items were summed to create the scale, with higher scores representing lower perceived awareness of white racial privilege. Cronbach’s alpha was 0.88.

#### **2.4. Political party affiliation**

Current political affiliation was collected as a categorical variable: Democrat, leaning Democratic, no declared affiliation/independent, leaning Republican, or Republican.

#### **2.5. History of opioid misuse**

To measure the respondent’s personal experience with opioid misuse, we asked respondents “Have you ever misused opioids of any kind – such as heroin, fentanyl, or prescription pain medications other than exactly as prescribed for you?”

Similar questions were asked if they had family members or close friends who ever misused opioids in their lifetime. Opioid misuse was defined for the respondent as use of opioids or prescription pain medication illicitly obtained or used in a way not prescribed by a doctor.

#### **2.6. Experience with criminal justice system**

We asked respondents whether they themselves and whether a family member or close friend ever had a conviction for a misdemeanor or felony crime or been incarcerated in jail or prison.

#### **2.7. Background factors**

Data were collected on the sociodemographic characteristics of the respondents from the AmeriSpeak panel which updates these items annually, including age, sex, race/ethnicity, education, income and place of residence based on the US Census region (Northeast, South, Midwest, and West).

#### **2.8. Analysis**

All descriptive statistics are weighted to national census benchmarks, taking into account selection probabilities (balanced by sex, age, education, race/ethnicity, and region) (Saloner et al., 2018) and nonresponse (using a response propensity approach calculating the conditional probability that a particular respondent completed the survey given observed covariates) (Wiley, 2021).

Logistic regression was used to examine associations between racial attitudes and OUD stigma and the government policy and opioid treatment policy support outcomes controlling for potential confounders (age, region, gender, education, personal CJI, family CJI, personal OUD, family OUD; see Table 2&3), chosen a priori. Each of the 4 outcomes were analyzed using separate models, including CoBRAS score, political affiliation, and OUD stigma as predictors. Predicted support and 95% CI for each model were calculated, using the mean for all other predictors, and are presented in Fig. 1. All data were analyzed using IMB SPSS 24.1 and R software 4.1.0.

### 3. Results

Table 1 shows descriptive statistics. Our sample was 52% female, 63% White; 54% were at least 45 years of age. Forty-four percent leaned or identified as Democrats, and 36% leaned or identified as Republican. Overall, the median CoBRAS score was 3.0 and the average OUD stigma score was 3.33, each were on a scale of one to five. One-third of respondents reported knowing a family member with a history of opioid use. Nine percent reported histories of personal use. These proportions were slightly higher than the proportions reported in a 2017 national survey, where 12% of respondents reported having a family member currently addicted to opioids, and 5% reported that they themselves were addicted to some form of opioid (News, 2017).

In terms of specific public health responses, 61% agreed or strongly agreed with expanding Medicaid to finance addiction services for low-income patients. Fifty-eight percent of respondents agreed with making naloxone available without a prescription. Support was lower for mandatory treatment (55% agree/strongly agree) and increased government spending for opioid-related services (54%). While 42% of participants identified as Democrat or leaning Democrat, this group made up 71% of those supporting increased government spending. Conversely, Republican/lean Republican made up 36% of the full sample, but 71% of those who disagreed with increasing government spending.

Table 2 show the results of logistic regression analysis that explore respondents' support for specific public health responses. Item nonresponse slightly reduced our sample available for multivariate analysis. As indicated in the last row of Table 2, our analysis sample was between 1137 and 1141 (out of a possible 1161) individuals for all reported regression analyses.

Examining political affiliations in the full model, that includes both CoBRAS and stigma scores, Democratic affiliation was associated with stronger support (relative to Republican affiliation) for all four dependent variables, with estimated logistic regression coefficients ( $\beta$ ) of 1.30 (95% CI 0.87, 1.73) for Medicaid expansion; 0.93 (95% CI 0.53, 1.34) for increased government spending; 0.88 (95% CI 0.470, 1.29) for naloxone availability; and 0.57 (95% CI 0.19, 0.96) for mandatory treatment.

This association was stronger for Medicaid supports and was weakest for mandatory treatment. We found a clear trend by political affiliation, with smaller but significant associations for Lean Democrat and, in some models, Independent/no declared affiliation, compared to Republican, but not significant differences between Lean Republican and Republican. (Six individuals declined to answer this question. We included them within the category of independent/no declared affiliation. Excluding these individuals from the analysis or identifying them with a separate dummy variable had a negligible impact on our estimated coefficients or predicted probabilities.)

As seen in Fig. 1A. these results can be interpreted as predicted support (assuming mean values for all other variables) of 82% (95% CI 77%, 87%) for Medicaid expansion among strong Democrats compared with only 55% (95% CI 50%, 60%) among strong Republicans. For increased government spending, predicted support was 71% (95% CI 65%,



77%) for strong Democrats and only 49% (95% CI 44%, 54%) for strong Republicans. Similarly, predicted support for naloxone treatment was 76% (95% CI 70%, 81%) for strong Democrats and 56% (95% CI 51%, 61%) for strong Republicans. Predicted support for mandatory treatment was less politically polarized—favored by 64% (95% CI 58%, 70%) among strong Democrats compared to 50% (95% CI 45%, 54%) for strong Republicans.

In the fully adjusted models higher CoBRAS scores (indicating more negative attitudes towards Black Americans) were associated with lower support for all outcomes except mandatory treatment: adjusted  $\beta$  estimates of  $-0.55$  (95% CI  $-0.77, -0.33$ ) for Medicaid expansion;  $-0.51$  (95% CI  $-0.68, -0.35$ ) for increased government spending; and  $-0.39$  (95% CI  $-0.56, -0.23$ ) for naloxone availability.

As seen in Fig. 1B, this translates to 85% predicted support for Medicaid expansion (95% CI 80%, 90%) at the lowest CoBRAS score, compared with 38% support (95% CI 29%, 47%) at the highest CoBRAS scores. For increased government spending, predicted public support was 78% (95% CI 72%, 84%) at the lowest CoBRAS scores and only 32% (95% CI 24%, 40%) at the highest CoBRAS scores. Finally, for naloxone availability, predicted support ranged from 79% (95% CI 73%, 85%) at the lowest CoBRAS score to 44% (95% CI 35%, 53%) at the highest CoBRAS score.

Higher OUD stigma was also associated with lower support for the same three outcomes: adjusted  $\beta$  estimates  $-0.55$  (95% CI  $-0.77, -0.33$ ) for Medicaid expansion;  $-0.50$  (95% CI  $-0.71, -0.30$ ) for increased government spending; and  $-0.27$  (95% CI  $-0.47, -0.07$ ) for naloxone availability.

Again as seen in Fig. 1C, this can be interpreted as predicted support for Medicaid expansion of 88% (95% CI 82%, 94%) at the lowest stigma level compared with 45% (95% CI 35%, 54%) at the highest level. For increased government spending, predicted support was 82% (95% CI 74%, 89%) at the lowest stigma level and 37% (95% CI 29%, 46%) at the highest stigma level. Predicted support for increased naloxone availability was 77% (95% CI 68%, 86%) at the lowest level of stigma and 53% (95% CI 44%, 62%) at the highest level.”

Finally, we also examined respondents’ race/ethnicity as a predictor of public health responses to the opioid epidemic. We found that Black participants displayed lower support for Medicaid expansion, increased government spending on opioids, and naloxone availability when compared to non-Hispanic Whites. In like fashion, Hispanic and Asian-American participants displayed lower support than did non-Hispanic for Medicaid expansion, increased government spending on opioid-related efforts, and naloxone distribution.

#### 4. Discussion

We found that race-conservative attitudes, as well as Republican affiliation were associated with lower support for Medicaid expansion, for increased government spending to address with OUD epidemic, or for expanding naloxone availability. As expected (Kennedy-Hendricks et al., 2017; Ezell et al., 2021) OUD stigma was also associated with decreased support for Medicaid expansion, naloxone availability, and government spending. While

media depictions of the opioid epidemic may be less polarized on racial grounds than were highly-racialized prior drug epidemics (Netherland and Hansen, 2016; Mendoza et al., 2016; Mendoza et al., 2019), attitudes around race still play an important role in public support for public health responses to the opioid epidemic.

We also found racial and ethnic differences in support for naloxone distribution, in contrast to prior work, such as Kennedy-Hendricks et al., who found no difference in earlier survey data by race or ethnicity in support for similar treatment measures (Kennedy-Hendricks et al., 2017). This is one fruitful area for future studies to explore whether specific culturally-competent dialogue within Black communities is required regarding these evidence-based interventions.

While destigmatizing messages can increase support for public health responses to the opioid epidemic (Wakeman and Rich, 2018; McGinty and Barry, 2020; McGinty et al., 2018; Corrigan et al., 2017; McGinty et al., 2015), it is unclear if these would address political differences in support for such policies. Messaging that focuses on structural determinants may likewise be differentially effective by political group (Kennedy-Hendricks et al., 2017; McGinty and Barry, 2020). Novel culturally-competent messaging approaches by trusted messengers within different political and race/ethnic communities may be important to secure support for evidence-based treatment and harm reduction policies.

Our study cannot address whether such racial attitudes have a unique or distinctive association in the area of opioids, or whether these patterns reflect broader racialization of policy attitudes and beliefs in the Obama and Trump eras (Tesler, 2021). Our results may also reflect changing attitudes that track the changing nature of the opioid epidemic itself. Much published research reflects surveys conducted in 2014 or before. In subsequent years, opioid overdose mortality rates have rapidly increased among Black and Hispanic Americans, and now approach those observed among non-Hispanic whites (Opioid, 2021). Both areas are potentially fruitful for future research.

Despite partisan conflict in many domains, bipartisan legislation enacted under the George W. Bush, Obama, and Trump administrations supported mental health and substance use disorder parity in insurance coverage. These efforts provided significant resources for OUD treatment, and sought to emphasize prevention and treatment rather than criminal sanctions directed at drug users. Indeed, the behavioral health components of the Affordable Care Act won unanimous support within the Senate Finance Committee, including every Republican on the committee who voted against the final Senate bill (Friedmann et al., 2017). The opioid overdose epidemic has been cited as a key factor in bipartisan legislative support for the ACA's Medicaid expansion in New Hampshire and other states (Grogan et al., 2020). This history suggests the *potential* for broad, bipartisan support for OUD treatment. Our findings suggest that this potential remains unrealized.

## 5. Conclusion

We find that race-conservative attitudes and political affiliation are associated with support (or lack thereof) for public-health responses to address OUD, even after controlling for OUD



stigma. Although the opioid epidemic has been portrayed as less racially and politically divisive than were previous drug epidemics, underlying racial and political attitudes remain important. The design and implementation of politically and culturally-competent public messaging remains a key challenge in crafting and implementing evidence-based responses to the opioid epidemic.

### Acknowledgements

This research was supported by the National Institutes of Health, NIDA JCOIN Methodology and Advanced Analytics Resource Center (MAARC). U2C DA050098.

### Funding

This research was funded by the National Institute on Drug Abuse 1U2CDA050098-01 Methodology and Advanced Analytics Resource Center (MAARC).

### Appendix A.: Logistic regression beta estimates (95% CI) of government policy support, among AmeriSpeak participants, October 2020 – adjusted models

	Expand Medicaid for low-income families to cover addiction treatment				Increase government spending to improve treatment of OUD			
	Baseline (affiliation only) (model 1)	Baseline + CoBRAS (model 2)	Baseline + stigma (model 3)	Baseline + stigma + CoBRAS (model 4)	Baseline (affiliation only) (model 1)	Baseline + CoBRAS (model 2)	Baseline + stigma (model 3)	Baseline + stigma + CoBRAS (model 4)
CoBRAS	–	–0.59 (–0.77, –0.42)	–	–0.56 (–0.73, –0.39)	–	–0.55 (–0.75, –0.35)	–	–0.51 (–0.68, –0.35)
OUD stigma score	–	–	–0.60 (–0.81, –0.39)	–0.55 (–0.77, –0.33)	–	–	–0.54 (–0.71, –0.38)	–0.50 (–0.71, –0.30)
Affiliation								
Democrat	2.06 (1.69, 2.44)	1.93 (1.56, 2.32)	1.93 (0.56, 2.32)	1.30 (0.87, 1.73)	1.71 (1.36, 2.06)	1.01 (0.61, 1.41)	1.55 (1.20, 1.91)	0.93 (0.53, 1.34)
Lean democrat	1.52 (1.04, 2.03)	0.90 (0.37, 1.45)	1.40 (0.91, 1.92)	0.78 (0.24, 1.33)	1.62 (1.14, 2.12)	0.96 (0.44, 1.49)	1.46 (0.97, 1.96)	0.88 (0.36, 1.42)
Independent/non-identified	0.59 (0.18, 1.00)	0.38 (–0.04, 0.81)	0.49 (0.08, 0.91)	0.19 (–0.25, 0.62)	0.43 (0.02, 0.84)	0.01 (–0.42, 0.43)	0.24 (–0.18, 0.65)	–0.06 (–0.49, 0.37)
Lean republican	0.39 (–0.06, 0.84)	0.40 (–0.06, 0.87)	0.33 (–0.13, 0.79)	0.31 (–0.16, 0.78)	0.04 (–0.42, 0.49)	–0.03 (–0.51, 0.43)	–0.05 (–0.52, 0.41)	–0.09 (–0.57, 0.38)
Republican	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Race/ethnicity								
Black	–0.42 (–0.88, 0.05)	–0.73 (–1.21, –0.25)	–0.46 (–0.93, 0.01)	–0.75 (–1.24, –0.27)	–0.40 (–0.83, 0.04)	–0.64 (–1.09, –0.20)	–0.42 (–0.86, 0.02)	–0.65 (–1.11, –0.21)
White	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref

	Expand Medicaid for low-income families to cover addiction treatment				Increase government spending to improve treatment of OUD			
	Baseline (affiliation only) (model 1)	Baseline + CoBRAS (model 2)	Baseline + stigma (model 3)	Baseline + stigma + CoBRAS (model 4)	Baseline (affiliation only) (model 1)	Baseline + CoBRAS (model 2)	Baseline + stigma (model 3)	Baseline + stigma + CoBRAS (model 4)
Asian	-1.19 (-2.22, -0.16)	-1.13 (-2.17, -0.10)	-1.08 (-2.12, -0.04)	-1.07 (-2.11, -0.03)	-0.30 (-1.31, 0.75)	-0.22 (-1.23, 0.83)	-0.19 (-1.20, 0.86)	-0.12 (-1.13, 0.92)
Hispanic	-0.46 (-0.86, -0.07)	-0.55 (-0.96, -0.15)	-0.45 (-0.85, -0.05)	-0.55 (-0.96, -0.14)	-0.38 (-0.76, -0.00)	-0.44 (-0.83, 0.06)	-0.36 (-0.74, 0.03)	-0.42 (-0.82, -0.03)
Other	0.08 (-0.59, 0.78)	0.06 (-0.63, 0.79)	0.08 (-0.61, 0.80)	0.06 (-0.66, 0.80)	-0.02 (-0.65, 0.623)	-0.03 (-0.68, 0.64)	-0.03 (-0.67, 0.63)	-0.06 (-0.72, 0.62)
Sample size for analysis	1140	1140	1139	1139	1141	1141	1140	1140
	Naloxone available & affordable without prescription				Mandatory treatment is an effective way to help people with OUD			
	Baseline (affiliation only) (model 1)	Baseline + CoBRAS (model 2)	Baseline + stigma (model 3)	Baseline + stigma + CoBRAS (model 4)	Baseline (affiliation only) (model 1)	Baseline + CoBRAS (model 2)	Baseline + stigma (model 3)	Baseline + stigma + CoBRAS (model 4)
CoBRAS	-	-0.42 (-0.58, -0.26)	-	-0.39 (-0.56, -0.23)	-	-	-0.01 (-0.19, 0.17)	-0.01 (-0.16, 0.14)
OUD stigma score	-	-	-0.32 (-0.52, -0.12)	-0.27 (-0.47, -0.07)	-	-0.01 (-0.20, 0.17)	-	-0.02 (-0.20, 0.17)
Affiliation								
Democrat	1.44 (1.09, 1.80)	0.92 (0.51, 1.33)	1.36 (1.00, 1.72)	0.88 (0.47, 1.29)	0.60 (0.28, 0.93)	0.58 (0.20, 0.96)	0.60 (0.27, 0.93)	0.57 (0.19, 0.96)
Lean democrat	0.59 (0.14, 1.06)	0.07 (-0.43, 0.58)	0.52 (0.05, 0.99)	0.04 (-0.47, 0.55)	0.30 (-0.14, 0.73)	0.27 (-0.20, 0.75)	0.29 (-0.15, 0.73)	0.27 (-0.21, 0.74)
Independent/non-identified	0.52 (0.12, 0.93-0.50, -0.30)	0.27 (-0.14, 0.70)	0.47 (0.06, 0.89)	0.24 (-0.18, 0.67)	-0.07 (-0.46, 0.33)	-0.08 (-0.49, 0.32)	-0.07 (-0.47, 0.33)	-0.08 (-0.49, 0.32)
Lean republican	0.17 (-0.28, 0.62)	0.14 (-0.31, 0.60)	0.15 (-0.32, 0.59)	0.11 (-0.35, 0.57)	0.02 (-0.42, 0.46)	0.02 (-0.42, 0.46)	0.01 (-0.43, 0.45)	-0.01 (-0.46, 0.43)
Republican	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Race/ethnicity								
Black	-0.73 (-1.17, -0.30)	-0.93 (-1.38, -0.49)	-0.75 (-1.19, -0.32)	-0.94 (-1.38, -0.49)	-0.20 (-0.61, 0.20)	-0.20 (-0.61, 0.21)	-0.20 (-0.61, 0.20)	-0.20 (-0.61, 0.21)
White	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Asian	-0.88 (-1.88, 0.13)	-0.84 (-1.83, 0.18)	-0.83 (-1.83, 0.18)	-0.79 (-1.79, 0.23)	0.42 (-0.53, 0.65)	0.42 (-0.53, 1.45)	0.42 (-0.54, 1.45)	0.42 (-0.53, 1.45)
Hispanic	-0.24 (-0.62, 0.14)	-0.30 (0.068, 0.09)	-0.23 (-0.61, 0.16)	-0.28 (-0.67, 0.10)	0.18 (-0.17, 0.54)	0.18 (-0.17, 0.54)	0.18 (-0.17, 0.54)	0.18 (-0.17, 0.54)

	Expand Medicaid for low-income families to cover addiction treatment				Increase government spending to improve treatment of OUD			
	Baseline (affiliation only) (model 1)	Baseline + CoBRAS (model 2)	Baseline + stigma (model 3)	Baseline + stigma + CoBRAS (model 4)	Baseline (affiliation only) (model 1)	Baseline + CoBRAS (model 2)	Baseline + stigma (model 3)	Baseline + stigma + CoBRAS (model 4)
Other	0.39 (-0.27, 1.09)	0.39 (-0.28, 1.10)	0.39 (-0.27, 1.10)	0.38 (-0.28, 1.10)	0.07 (-0.51, 0.66)	0.07 (-0.51, 0.66)	0.07 (-0.51, 0.66)	0.07 (-0.51, 0.66)
Sample size for analysis	1138	1138	1137	1137	1138	1138	1137	1137

\* Adjusting for: Age, region, gender, education, personal CJI, family CJI, personal OUD, family OUD and all variables for which estimates are presented.

\*\* Bold signifies  $p < 0.05$ .

## Appendix B.: AmeriSpeak Omnibus October 2020 Wave 2

### START OF JCOIN QUESTIONS.

We would like to ask you some questions about policies related to opioid use disorder.

When we talk about opioid use disorder, we are using the definition provided by the Diagnostic and Statistical Manual of Mental Disorders as “a problematic pattern of opioid use leading to clinically significant impairment or distress.” This can include health problems, disability, and/or failure to meet major responsibilities at work, school, or home. Other terms people may use to describe an opioid use disorder include opioid addiction, opioid abuse, and opioid dependence.

### JCOIN1.

Do you disagree or agree with the following statements?

Please note that Medicaid provides health coverage to eligible adults, children, pregnant women, elderly adults, and people with disabilities that are low-income. Medicaid is funded and administered by states, according to federal requirements. Some states may have different names for their Medicaid program.

### GRID ITEMS, RANDOMIZED:

- A. I favor expanding Medicaid insurance benefits for low income families to provide coverage for treatment of opioid use disorders.
- B. I favor making naloxone (also known as “Narcan”), a medication that can quickly reverse the effects of a person experiencing an opioid overdose, widely available and affordable without a prescription.
- C. I believe that making treatment mandatory is an effective way to help people with an opioid use disorder.

- D.** I favor increasing government spending to improve treatment of opioid use disorder.
- E.** I favor passing laws to protect people from criminal charges for drug related crimes if they attend substance use treatment.
- F.** I believe that people in jail/prison with an opioid use disorder should be allowed access to medication for their opioid use disorder, such as methadone, buprenorphine, or naltrexone.
- G.** I believe that incarceration/jail is an effective way to improve the health of people with an opioid use disorder.
- H.** I believe that incarceration/jail is an effective way to reduce the risk of overdosing for people with an opioid use disorder.
- I.** I believe jails and prisons should consider whether those convicted of non-violent crimes should be released to prevent the spread of COV-ID 19 within jails/prisons.

**GRID ITEMS, RANDOMIZED:**

- A.** You favor expanding Medicaid insurance benefits for low income families to provide coverage for treatment of opioid use disorders.
- B.** You favor making naloxone (also known as “Narcan”), a medication that can quickly reverse the effects of a person experiencing an opioid overdose, widely available and affordable without a prescription.
- C.** You believe that making treatment mandatory is an effective way to help people with an opioid use disorder.
- D.** You favor increasing government spending to improve treatment of opioid use disorder.
- E.** You favor passing laws to protect people from criminal charges for drug related crimes if they attend substance use treatment.
- F.** You believe that people in jail/prison with an opioid use disorder should be allowed access to medication for their opioid use disorder, such as methadone, buprenorphine, or naltrexone.
- G.** You believe that incarceration/jail is an effective way to improve the health of people with an opioid use disorder.
- H.** You believe that incarceration/jail is an effective way to reduce the risk of overdosing for people with an opioid use disorder.
- I.** You believe jails and prisons should consider whether those convicted of non-violent crimes should be released to prevent the spread of COV-ID 19 within jails/prisons.

**RESPONSE OPTIONS:**

1. Strongly disagree
2. Somewhat disagree
3. Neither disagree nor agree
4. Somewhat agree
5. Strongly agree

**JCOIN2.**

Do you disagree or agree with the following statements?

**GRID ITEMS, RANDOMIZED:**

- A. I would be willing to have a person with a past history of opioid use disorder start working closely with me on a job.
- B. I would be willing to have a person with a current opioid use disorder start working closely with me on a job.
- C. I would be comfortable having a person with a current opioid use disorder marry into my close or immediate family.
- D. I am comfortable having a person with a past history of opioid use disorder marry into my close or immediate family.
- E. People with a current opioid use disorder are more dangerous than the general population.
- F. A person who currently has an opioid use disorder cannot be trusted.
- G. A person who currently has an opioid use disorder would be willing to steal money or valuable items in order to get drugs.
- H. A person who has a past history of opioid use disorder might be tempted to take money or valuable items out of desperation to get drugs.
- I. A person who currently has an opioid use disorder is likely to experience personal problems that would make them a high-risk employee in my workplace.
- J. A person who has a past history of opioid use disorder is likely to experience personal problems that would make them a high-risk employee in my workplace.

**GRID ITEMS, RANDOMIZED:**

- A. You would be willing to have a person with a past history of opioid use disorder start working closely with you on a job.
- B. You would be willing to have a person with a current opioid use disorder start working closely with you on a job.

- C. You would be comfortable having a person with a current opioid use disorder marry into your close or immediate family.
- D. You are comfortable having a person with a past history of opioid use disorder marry into your close or immediate family.
- E. People with a current opioid use disorder are more dangerous than the general population.
- F. A person who currently has an opioid use disorder cannot be trusted.
- G. A person who currently has an opioid use disorder would be willing to steal money or valuable items in order to get drugs.
- H. A person who has a past history of opioid use disorder might be tempted to take money or valuable items out of desperation to get drugs.
- I. A person who currently has an opioid use disorder is likely to experience personal problems that would make them a high-risk employee in your workplace.
- J. A person who has a past history of opioid use disorder is likely to experience personal problems that would make them a high-risk employee in your workplace.

**RESPONSE OPTIONS:**

- 1. Strongly disagree
- 2. Somewhat disagree
- 3. Neither disagree nor agree
- 4. Somewhat agree
- 5. Strongly agree

**JCOIN3.**

Do you disagree or agree with the following statements?

**GRID ITEMS, RANDOMIZED:**

- A. White people in the U.S. have certain advantages because of the color of their skin.
- B. Race is very important in determining who is successful and who is not.
- C. Race plays an important role in who gets sent to prison.
- D. Race plays a major role in the type of social services (such as type of health care or day care) that people receive in the U.S.
- E. Racial and ethnic minorities do not have the same opportunities as white people in the U.S.



- F.** Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin.
- G.** Everyone who works hard, no matter what race they are, has an equal chance to become rich.
- H.** White people are more to blame for racial discrimination than racial and ethnic minorities.

**RESPONSE OPTIONS:**

- 1. Strongly disagree
- 2. Somewhat disagree
- 3. Neither disagree nor agree
- 4. Somewhat agree
- 5. Strongly agree

**JCOIN4.**

On the average, data show that in America Black people have worse jobs, income, and housing than white people. Do you think these differences are ...

**GRID ITEMS:**

- A.** Mainly due to discrimination?
- B.** Because most Black people have less in-born ability to learn?
- C.** Because most Black people don't have the chance for education that it takes to rise out of poverty?
- D.** Because most Black people just don't have the motivation or will power to pull themselves up out of poverty?

**RESPONSE OPTIONS:**

- 1. Yes
- 2. No

77. Don't Know

As the United States continues to deal with COVID-19 (coronavirus), we would like to ask you about your experiences during the pandemic. JCOIN5.

Have you been tested for COVID-19 (coronavirus)? If so, what was the result?

**RESPONSE OPTIONS:**

- 1. Yes, I have tested positive for COVID-19 (I had coronavirus)
- 2. Yes, I have NEVER tested positive for COVID-19 (I did not have coronavirus)

3. Yes, but I do not know the result
4. No, I have never been tested, but I experienced COVID-19 symptoms (e.g., fever, body aches, upper respiratory distress/shortness of breath, temporary loss of smell, cough, diarrhea or vomiting)
5. No, I have never been tested and I have not had symptoms of COVID-19

[IF JCOIN5 = 1–3].

### JCOIN6.

You indicated you were tested for COVID-19, which of the following were reasons you got tested?

#### GRID ITEMS:

- a. I felt sick
- b. I was afraid I got exposed from a recent activity (e.g, being on an airplane, large wedding, concert)
- c. It was required (e.g., before I could get a health procedure completed, part of my job, school required, when I entered the United States from abroad)
- d. I consider myself high-risk for COVID-19 and want to be safe
- e. I wanted to make sure I was not spreading the coronavirus to other people
- f. My city/town was offering free testing
- g. I just wanted to know

#### RESPONSE OPTIONS:

1. Yes
2. No

### JCOIN7.

Has anyone else in your household (not counting yourself) been tested for COVID-19 (coronavirus)?

#### RESPONSE OPTIONS:

1. At least one has been tested and he/she tested positive (They had coronavirus)
2. At least one has been tested and he/she NEVER tested positive (They did not have coronavirus)
3. At least one has been tested and I do not know the result
4. At least one has not been tested, but he/she experienced COVID-19 symptoms (for example, fever, body aches, upper respiratory distress/shortness of breath, temporary loss of smell, cough, diarrhea or vomiting)

5. At least one has not been tested and he/she has not experienced COVID-19 symptoms
6. There is no one else living in my household

**JCOIN8.**

Has anyone in your household passed away/died because of COVID-19 (coronavirus)?

**RESPONSE OPTIONS:**

1. Yes
2. No

**JCOIN9.**

In the past two weeks, which of the following have you done as a general response to the coronavirus pandemic (in addition to what you normally do)?

**GRID ITEMS, RANDOMIZED:**

- a. Washed/sanitized hands more than usual
- b. Avoiding public transportation (e., bus, subway, train, commuter rail)
- c. Limiting interactions with others to groups of 10 or less
- d. Keeping a 6-ft radius when interacting with people you do not live with
- e. Wearing a mask or face covering when leaving home
- f. I have done other things to keep myself safe

**RESPONSE OPTIONS:**

1. No, I don't think it is necessary
2. No, I would like to but I cannot
3. Yes

**JCOIN10.**

In the past two weeks, have you done the following:

**GRID ITEMS:**

- a. Gone out to a bar, club, restaurant or other place where people gather
- b. Gone to a friend, neighbor, or relative's residence (that is not your own) or had visitors such as friends, neighbors or relatives at your residence
- c. Attended a gathering with more than 10 people, such as a reunion, wedding, funeral, birthday party, concert, or religious service

- d. Shared items like towels or utensils with other people not in your household
- e. Had close contact (within 6 ft) with people who do not live with you and they were without a mask or face coverings
- f. Been within 6 ft of someone outside your household and you were not wearing a mask or face covering

**RESPONSE OPTIONS:**

1. No
2. Yes

[IF ANY JCOIN10A-F = 2].

**JCOIN11.**

You indicated that you did not follow public health guidelines regarding coronavirus at least one time in the past two weeks. Please select the reason(s) why you did not social distance. Select all the apply.

**RESPONSE OPTIONS:**

1. I do not believe in social distancing
2. Those I gathered with were unlikely to have the coronavirus
3. I don't think coronavirus will make me really sick
4. We stayed outside most of the time
5. I don't know why
6. I felt like I had to go to the event or be in that situation
7. Other

**JCOIN12.**

If a vaccine against the coronavirus becomes available, do you plan to get vaccinated, or not?

**RESPONSE OPTIONS:**

1. Yes, I will get a coronavirus vaccine as soon as it is available to me
2. Yes, I will get a coronavirus vaccine, but I will wait until it is proven to be safe and effective
3. No, I will not get a coronavirus vaccine

77. Not sure

[IF JCOIN12 = 1,2].

**JCOIN13.**

Which of the following are reasons you would get a coronavirus vaccine?

**GRID ITEMS:**

- A. I want to protect my family
- B. I want to protect my community
- C. I want to protect myself
- D. My doctor recommends vaccines
- E. Life won't go back to normal until most people are vaccinated
- F. I think the majority of the public will get the vaccine
- G. Other

**RESPONSE OPTIONS:**

- 1. No
- 2. Yes

[IF JCOIN12 = 3].

**JCOIN14.**

Which of the following are reasons you would not get a coronavirus vaccine?

**GRID ITEMS:**

- a. I am allergic to vaccines
- b. I don't like needles
- c. I'm not concerned about getting seriously ill from the coronavirus
- d. I won't have time to get vaccinated
- e. I would be concerned about getting infected with the coronavirus from the vaccine
- f. I would be concerned about side effects from the vaccine
- g. I don't think vaccines work very well
- h. Politicians might promote a vaccine to win votes even if it is not fully tested or safe
- i. The coronavirus outbreak is not as serious as some people say it is
- j. I don't think the majority of the public will get the vaccine
- k. Other

**RESPONSE OPTIONS:**

1. No
2. Yes

[IF JCOIN12 = 3].

**JCOIN14b.**

Which of the following reasons would make you reconsider getting the coronavirus vaccine?

**GRID ITEMS:**

- A. Famous people I trust get the coronavirus vaccine
- B. Close friends get the coronavirus vaccine
- C. The majority of the public gets the vaccine
- D. The vaccine is free
- E. My doctor recommends that I get the vaccine
- F. There is nothing that would make me get the vaccine

**RESPONSE OPTIONS:**

1. No
2. Yes

**JCOIN15.**

Have you or do you plan to get a flu vaccine this year? The vaccine is typically sprayed in your nose or a flu shot injected into your arm.

**RESPONSE OPTIONS:**

1. Yes, I already got the vaccine this year
2. Yes, I plan to get the vaccine this year
3. No, not this year
4. No, I never get the vaccine

**JCOIN16.**

Over the past month, how often have you:

**GRID ITEMS:**

- A. Been a very nervous person
- B. Felt downhearted and blue
- C. Felt calm and peaceful



- D. Felt so down in the dumps that nothing could cheer you up
- E. Been a happy person

**RESPONSE OPTIONS:**

- 1. All of the time
- 2. Most of the time
- 3. A good bit of the time
- 4. Some of the time
- 5. A little of the time
- 6. None of the time

**JCOIN17.**

Out of the past seven days, what is your best estimate of the number of days that you did each of the following activities?

**GRID ITEMS:**

- A. Drank alcohol
- B. Used cannabis products such as marijuana
- C. Used recreational drugs other than alcohol or cannabis products

**RESPONSE OPTIONS:**

- 1. 0
- 2. 1
- 3. 2
- 4. 3
- 5. 4
- 6. 5
- 7. 6
- 8. 7

The next set of questions ask about your relationship with your doctor or physician or doctors/physicians in general.

**JCOIN18.**

Do you disagree or agree with the following statements?

**GRID ITEMS**

- a. If your physician wanted you to participate in research, you trust that he or she would fully explain it to you.
- b. I believe that I can freely ask my physicians any questions I want.
- c. My physician would not ask me to participate in medical research if he or she thought it would harm me.
- d. In deciding what treatment I will get, my physicians always tries to protect me from unnecessary risk.
- e. People like me might be used as guinea pigs in research studies without our consent.
- f. I think physicians prescribe medication as a way of experimenting on people without their knowledge or consent.
- g. I believe that physicians have given me treatment as part of an experiment without my permission.

**RESPONSE OPTIONS:**

1. Strongly disagree
2. Somewhat disagree
3. Neither disagree nor agree
4. Somewhat agree
5. Strongly agree

The next set of questions are about your own personal experiences or the experiences of any family members or close friends.

We recognize these are sensitive items but like all the items on this survey your responses will be kept private and treated confidentially. JCOIN19.

Have you ever misused opioids of any kind – such as heroin, fentanyl, or prescription pain medications other than exactly as prescribed for you?

**RESPONSE OPTIONS:**

1. No
2. Yes

[SHOW IF JCOIN19 = 2].

**JCOIN20.**

When was the last time you used heroin or other illegally obtained opioids in a way not prescribed by a doctor?

**RESPONSE OPTIONS:**

1. Past 6 months
2. 7–12 months ago
3. 1–5 years ago
4. 5+ years ago

**JCOIN21.**

Please answer yes or no to the following questions:

**GRID ITEMS:**

- A. Have you ever been convicted of any misdemeanor or felony crime?
- B. Have you ever been incarcerated in jail or prison?
- C. Have any family members or close friends ever had an opioid use disorder or misused opioids (for example, used in a way other than prescribed/ intended or developed a problem with them)?
- D. Have any of your family members or close friends ever been convicted of any misdemeanor or felony crime?
- E. Have any of your family members or close friends ever been incarcerated in jail or prison?

**RESPONSE OPTIONS:**

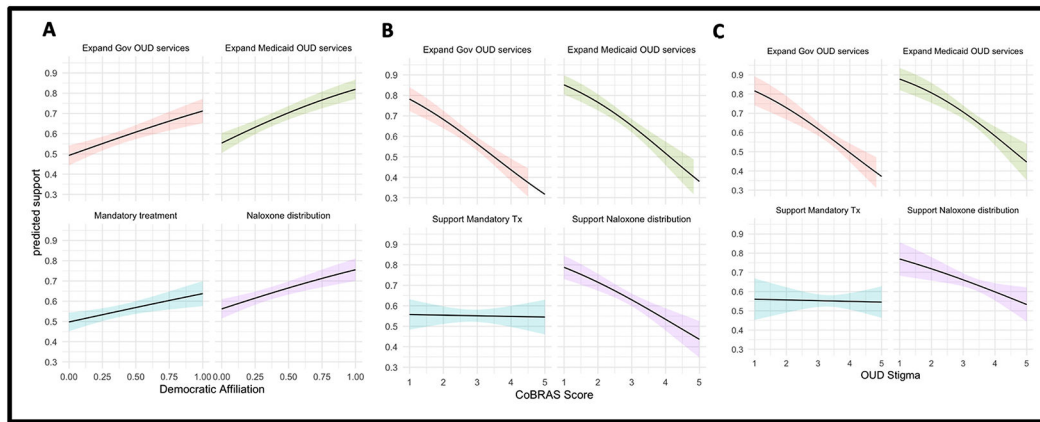
1. Yes, within the last year
2. Yes, more than a year ago
3. No

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**Fig. 1.** A–C. Predicted probabilities of support for government policy, by political affiliation, racial attitudes, and OUD stigma. In each graph, we used the R margins package to compute and plot predicted probabilities and 95% CI for each dependent variable, holding constant all other independent variables at the sample mean. A. Shows the predicted support for each of the Four OUD support outcomes, by Political Affiliation; B. Shows the predicted support for each OUD support outcome, by CoBRAS score; and C. Shows the predicted support for each OUD support outcome, by OUD Stigma score.



**Table 1**

Sample characteristics (weighted).

	Total %
Age	
18–29	20.7%
30–44	25.0%
45–59	24.3%
60+	30.0%
Race/ethnicity	
Black	12.0%
Multiracial/other	4.6
Hispanic	16.7%
Asian	4.1%
White non-Hispanic	62.8%
Gender	
Female	51.6%
Male	48.2%
Missing/other	0.2%
Education	
Less than high school	9.8%
HS diploma/GED	27.8%
Vocational/some college	27.6%
Bachelor's degree	19.9%
Post-grad/professional degree	14.8%
Income	
<\$25,000	20.0%
\$25,000–49,000	25.3%
\$50,000–84,000	22.5%
\$85,000–150,000	24.6%
Over \$150,000	7.6%
Geography	
Northeast	17.3%
Midwest	20.7%
West	23.9%
South	38%
Personal conviction ever	11.1%
Family conviction ever	36.3%
Personal use ever	8.9%
Family use ever	33.2%
Mean COBRAS (SD)	3.0 (1.04)
Mean OUD stigma (SD)	3.3 (0.68)
Political affiliation	

	<b>Total %</b>
Democrat	34.3%
Lean democrat	10.8%
Don't lean/ independent	15.5%
Lean republican	10.8%
Republican	28.1%
Favor expanding Medicaid insurance benefits for low-income families to provide coverage for prescription opioid disorders.	
Strongly disagree	7.7%
Somewhat disagree	10.5%
Neither agree nor disagree	21.0%
Somewhat agree	32.9%
Strongly agree	28.0%
Favor making naloxone (also known as "Narcan") available and affordable without a prescription	
Strongly disagree	6.5%
Somewhat disagree	10.2%
Neither agree nor disagree	25.0%
Somewhat agree	29.8%
Strongly agree	28.4%
Mandatory addiction treatment can be an effective intervention.	
Strongly disagree	5.8%
Somewhat disagree	10.3%
Neither agree nor disagree	29.0%
Somewhat agree	34.4%
Strongly agree	20.5%
Favor increasing government spending to improve treatment of opioid use disorder/addiction	
Strongly disagree	9.0%
Somewhat disagree	11.0%
Neither agree nor disagree	25.4%
Somewhat agree	32.3%
Strongly agree	22.4%

**Table 2**

Logistic regression beta estimates (95% CI) of government policy support, among AmeriSpeak participants, October 2020.

	<b>Expand Medicaid for low-income families to cover addiction treatment</b>	<b>Increase government spending to improve treatment of OUD</b>	<b>Naloxone available &amp; affordable &amp; without prescription</b>	<b>Mandatory treatment is an effective way to help people with OUD</b>
COBRS	<b>-0.56 (-0.73, -0.39)</b>	<b>-0.51 (-0.68, -0.38)</b>	<b>-0.39 (-0.56, -0.23)</b>	-0.01 (-0.16, 0.17)
OUD stigma score	<b>-0.55 (-0.77, -0.378)</b>	<b>-0.50 (-0.71, -0.30)</b>	<b>-0.27 (-0.47, -0.07)</b>	-0.02 (-0.20, 0.17)
Affiliation				
Democrat	<b>1.30 (0.87, 1.73)</b>	<b>0.93 (0.53, 1.34)</b>	<b>0.88 (0.47, 1.29)</b>	<b>0.57 (0.19, 0.96)</b>
Lean democrat	<b>0.78 (0.24, 1.33)</b>	<b>0.88 (0.36, 1.42)</b>	0.04 (-0.47, 0.55)	0.27 (-0.21, 0.74)
Independent/no declared affiliation	0.19 (-0.25, 0.62)	-0.06 (-0.49, 0.37)	0.24 (-0.18, 0.67)	-0.08 (-0.49, 0.32)
Lean republican	0.31 (-0.16, 0.78)	-0.09 (-0.57, 0.38)	0.11 (-0.35, 0.57)	0.01 (-0.46, 0.43)
Republican	Ref	Ref	Ref	Ref
Race/ethnicity				
Black	<b>-0.75 (-1.24, -0.27)</b>	<b>-0.65 (-1.11, -0.21)</b>	<b>-0.94 (-1.38, -0.49)</b>	-0.20 (-0.61, 0.21)
White	Ref	Ref	Ref	Ref
Asian	<b>-1.05 (-2.08, -0.01)</b>	-0.12 (-1.13, 0.92)	-0.79 (-1.79, 0.23)	0.43 (-0.52, 1.46)
Hispanic	<b>-0.55 (-0.96, -0.14)</b>	<b>-0.42 (-0.82, -0.03)</b>	-0.28 (-0.67, 0.10)	0.18 (-0.17, 0.54)
Other	0.06 (-0.65, 0.80)	-0.06 (-0.72, 0.62)	0.38 (-0.28, 1.10)	0.07 (-0.51, 0.66)
Sample size for analysis	1139	1140	1137	1137