RISK AND SOCIAL POLICY GROUP

PARTISANSHIP, TRUST, AND VACCINE HESITANCY:

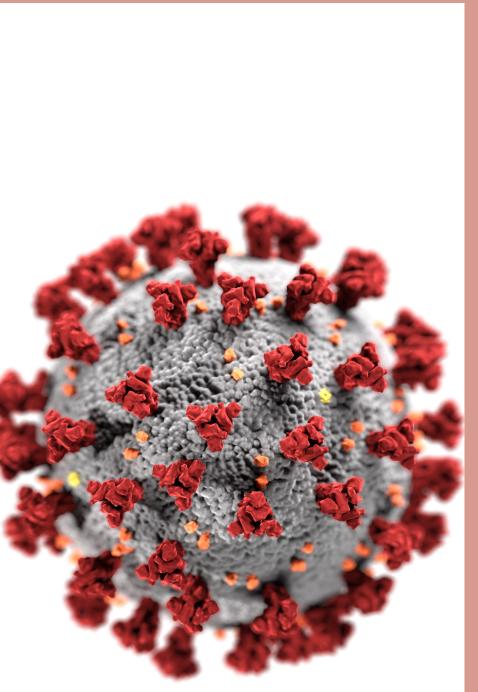
IMPACTS OF THE 2020 ELECTION ON COVID-19 RISK MANAGEMENT

WAVE TWO SURVEY TECHNICAL REPORT

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P R O J E C T B A C K G R O U N D

The Risk and Social Policy Working Group studies the effects of COVID-19 risk messaging strategies and public policies on individual perceptions and behavior across the various stages of the pandemic. We are scholars from public policy, communication, public health, psychology, political science, economics, and other fields. Our work has been funded by the National Science Foundation, the Natural Hazards Center, the University of Colorado Boulder, the University of Colorado Denver, and Bentley University.

This technical report summarizes results of the second wave of a nationwide panel survey examining drivers and impediments to COVID-19 vaccine uptake in the United States. This wave of our survey was conducted between March 22 and April 19, 2021. During this time period, vaccine eligibility was changing rapidly, with many states expanding eligibility to all adults at some point during the survey wave. Critically, however, availability was still limited in some places, and public health agencies continued to recommend engagement in other risk-reduction mechanisms (e.g. social distancing, wearing a mask).

This period was also punctuated by a number of key vaccine-related events, such as a brief pause in distribution of the Johnson & Johnson vaccine (April 13-23) due to concerns about blood clots in a small number of cases.

Survey respondents were asked to answer questions about the following topics, among others:

- 1. Vaccination behavior and intent to vaccinate, as well as general attitudes toward the COVID-19 vaccine, e.g. when respondents anticipate being able to receive the vaccine and potential barriers and facilitators to vaccine uptake.
- 2.Physical and mental health, recent experience with COVID-19, and related health concerns.
- 3. Risk perceptions, including level of concern about contracting COVID-19.
- 4. Health care, including conversations with healthcare providers about the COVID-19 vaccine and providers' influence on vaccination decisions.
- 5. Trust in government and overall approval of the handling of the pandemic and vaccine rollout by local, state, and federal officials.

CHARACTERISTICS OF THE SURVEY SAMPLE

In total, **our Wave 2 survey sample includes 2268 individuals** from all 50 states and Washington, D.C. All of these respondents also completed the Wave 1 survey (January 11-February 3, 2021). Since we are particularly interested in how structural racism impacts intent to vaccinate, we intentionally oversampled members of Hispanic and non-Hispanic Black ethnic and racial groups so that we would have adequate numbers for subgroup analyses. Characteristics of the Wave 2 survey sample are shown below.

Sample Characteristics (n = 2268)	Sample n (%)	United States Census
Age		
18-34	728 (32.1%)	20.4%*
35-55	814 (35.9%)	25.2%
55+	726 (32.0%)	29.3%
Gender		
Female	1283 (56.6%)	50.8%
Male	971 (42.8%)	49.2%
Annual Income		
<\$50,000	997 (44.0%)	38.4%
\$50,000 - \$100,000	770 (34.0%)	30.2%
>\$100,000	501 (22.0%)	31.4%
Race/Ethnicity		
Hispanic	704 (31.0%)	18.4%
Non-Hispanic White	570 (25.1%)	60.0%
Non-Hispanic Black	638 (28.1%)	12.4%
Non-Hispanic Asian	243 (10.7%)	5.6%
Non-Hispanic Other/Multiracial	113 (5.0%)	0.1%
Region		
Northeast	553 (24.5%)	17.1%
South	669 (29.6%)	20.8%
West	578 (25.6%)	38.3%
Midwest	460 (20.4%)	23.9%

*% of US population aged 20-34.

Table 1. Wave 2 sample and census demographics for the secondwave of panel data.

VACCINE UPTAKE IN THE United states

Of the 2268 Wave 2 survey respondents, 997 (44%) reported that they had gotten a COVID-19 vaccine. This represents a major increase from Wave 1 (January/February 2021) when only 158 (7%) of these respondents had been vaccinated. The following figures outline shifts in vaccine uptake and intentions from Wave 1 to Wave 2. Results are presented by age (under 60 and 60+) and racial groups (Black, Hispanic, White) as the age distribution of our sample varies by race.

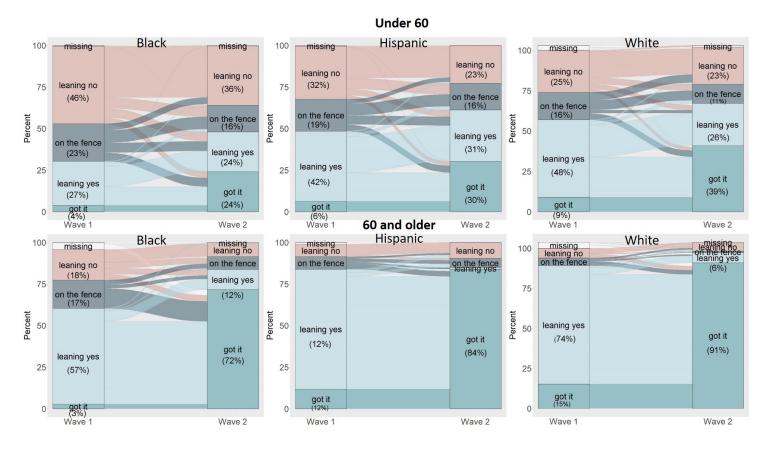


Figure 1. Vaccination intentions and behavior across racial groups. Black, Hispanic, and White respondents under age 60 (top row, n=1640) and 60 and older (bottom row, n=628).

For younger respondents across racial/ethnic groups, vaccination rates increased substantially from Wave 1 to Wave 2, and the proportion of respondents who were heasitant to be vaccinated decreased. However, racial disparities in vaccination rates and intentions persist. By Wave 2, nearly 40% of young White respondents reported being vaccinated, compared to 30% of Hispanic and just 24% of Black respondents.

Meanwhile, 36% of young Black respondents were leaning towards not getting the vaccine, compared to 23% of young White respondents.

While hesitancy decreased among older Black respondents by Wave 2, we continue to see disparities in vaccination uptake, with 72% of older Black respondents reporting that they had gotten a shot compared to 84% of Hispanic and 91% of White respondents aged 60 and older.

PREFERRED VACCINE TYPES

We asked all respondents whether there was a single COVID-19 vaccine type that they would prefer to get. Only 11% of respondents had no preference. Nearly a third of respondents (32%) indicated that they would prefer the Pfizer vaccine. Similiar numbers of respondents chose Moderna (18%) or Johnson and Johnson (19%). Few indicated a preference for AstraZeneca (1%). Importantly, the AstraZeneca vaccine has not yet been authorized for emergency use in the United States, but it made news in March just prior to the survey period when its use was temporarily paused in about twenty European countries due to a small number of cases of a rare type of blood clot.

Then, we asked respondents to select all of the vaccines they would be unwilling to get. About a third of respondents did not want the AstraZeneca vaccine and 23% did not want the J&J vaccine, whereas only 11% and 13% indicated that they did not want the Pfizer and Moderna vaccines, respectively. 53% of respondents were willing to get any of the listed vaccines.

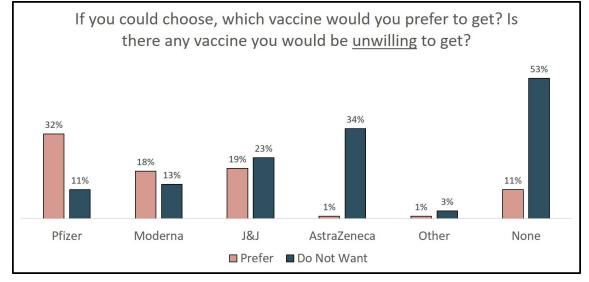


Figure 2. Vaccines that respondents prefer (n=2,063) and are unwilling to get (n=2,027)

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VACCINE BEHAVIORS: Additional factors

To assess factors associated with vaccination behaviors in more depth, we conducted a multivariate regression analysis. This analysis shows that **race**, **age**, **education**, **income**, **essential worker status**, **geographic region**, **and political affiliation are significantly correlated with vaccination status**. Black, Hispanic, and other race/multiracial respondents were less likely to have been vaccinated than White respondents. Additionally, individuals aged 55 and older were over 40% more likely to have been vaccinated than those under 35. The higher an respondent's educational attainment and income, the more likely they are to have been vaccinated by Wave 2. That said, those indicating that they were essential workers, who we previously found are more likely to be individuals of color with lower household incomes, were more likely to have gotten a vaccine (1). Respondents who identify as liberal were also more likely to have gotten the vaccine than moderates, and respondents living in the Western U.S. were more likely to have been vaccinated than respondents in the Northeast.

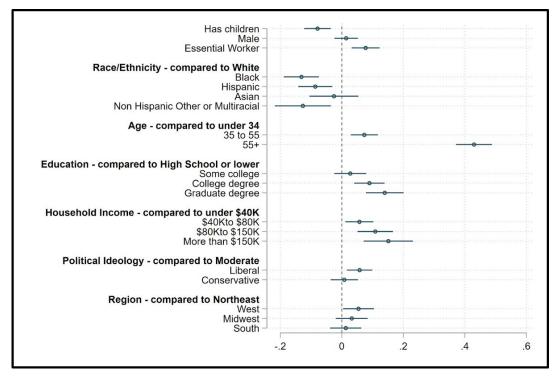


Figure 3. Relationship between likelihood of COVID-19 vaccination and respondent characteristics (logistic regression model for a dichotomous outcome variable. Gray line represents comparison group, e.g. respondents without children, females, White respondents).

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Concerns about vaccine importance, safety, and distributional equity also vary across racial groups. 73% of White respondents believe the COVID-19 vaccine is safe compared to 60% of Asian respondents, 50% of Hispanic respondents, and 41% of Black respondents. Furthermore, just 53% of Black respondents believe the vaccine is critical to reopening the economy compared to 73% of White respondents. About half of White and Hispanic respondents thought the process for deciding who gets vaccinated is fair, while 58% of Asian respondents, 46% of Black respondents, and 38% of other race/multiracial respondents thought so.

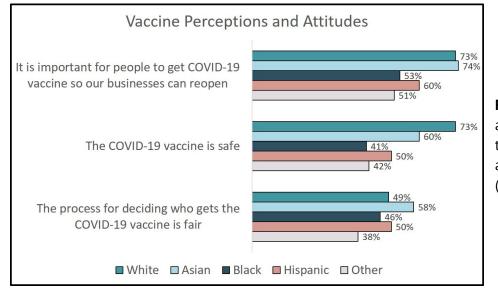


Figure 4. COVID-19 vaccine perceptions and attitudes related to importance to the economy (n=2262), safety (n=2260), and fairness in the distribution process (n=2261).

We asked all respondents whether they wore masks in indoor public spaces. Maskwearing rates were somewhat lower (77%) among unvaccinated respondents compared

to vaccinated respondents (86%).

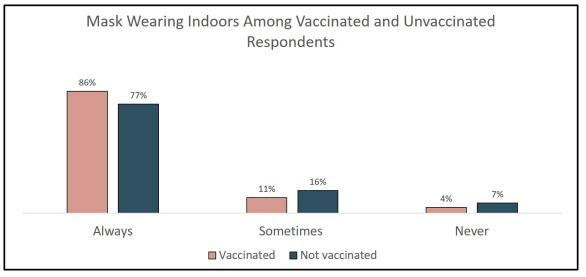


Figure 5. Mask-wearing in indoor, public spaces among vaccinated (n=963) and unvaccinated (n=1205) respondents.

TRUST IN GOVERNMENT & HEALTHCARE

We asked respondents how much they trusted different officials and experts when it comes to getting accurate information about the COVID-19 vaccine. The majority of respondents of all racial groups reported trusting Dr. Fauci and scientists to provide accurate vaccine information. There were lower levels of trust for former President Trump than President Biden across all racial groups. Healthcare providers were the most trusted information source among White respondents (71%), while only about half of Black and Hispanic respondents said they trusted healthcare providers for COVID-19 vaccine information.

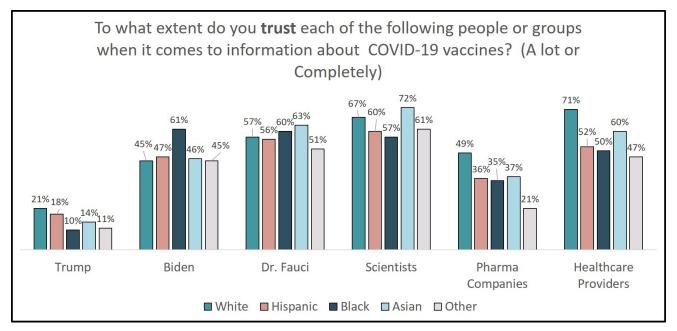


Figure 6. Trust in COVID-19 vaccine information sources across racial groups.

The majority of respondents in our overall sample trusted information from healthcare providers about COVID-19 vaccines. We asked all respondents whether or not they had had a conversation with a provider about the vaccine since Wave 1. We found that nearly a third of White and Hispanic respondents and about a quarter of Black respondents had done so. Of the respondents who did have these conversations, the majority said their provider recommended getting the vaccine, and White respondents (89%) were more likely than respondents of other races to report getting such a recommendation. Black and Asian respondents indicated that they were more likely to get vaccinated after talking with a healthcare provider (42% and 45%, respectively), relative to 38% of Hispanic respondents, 25% of White respondents, and 18% of other/multiracial respondents.

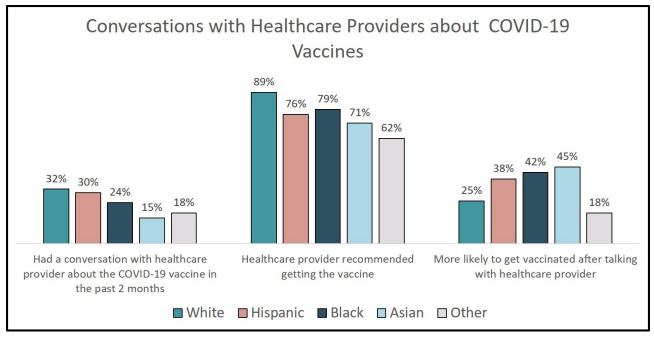


Figure 7. Conversations with healthcare providers about vaccination across racial groups.

CONCLUSIONS & POLICY RECOMMENDATIONS

Vaccination rates are increasing and hesitancy is decreasing. Overall, the proportion of respondents aged 60 and older who are vaccinated increased from 12% in January/February to 84% in March/April. Among respondents under 60, vaccination rates increased from 5% to 30%. Despite promising trends overall, troubling patterns in vaccine uptake and intentions persist across racial lines. Among older respondents, who are more susceptible to COVID-19, there was a 19 percentage-point gap in vaccination rates between White (91% vaccinated) and Black (72% vaccinated) individuals. This difference does not appear to be driven by hesitancy: roughly equal proportions of older White and Black respondents said they did not plan to get the vaccine.

Meanwhile, among younger respondents, vaccination rates remain lower and hesitancy remains higher among Black respondents. Multivariate analysis shows that racial differences in vaccine uptake persist after controlling for age, income, education, and region. In light of these findings, continued emphasis on explicitly antiracist vaccination efforts are needed. This includes providing equitable access to vaccines in communities of color and centering the voices and experiences of community leaders to build trust in vaccines and the medical establishment.

The third and final wave of our survey will be conducted in June of 2021. With eligibility expanding to all individuals over 12 since the Wave 2 survey concluded, we expect additional increases in vaccination among younger respondents in particular by Wave 3. With much of the country undergoing a rapid #pandexit, it is crucial to understand how behaviors and risk perceptions are shifting, and how these changes interact with lagging vaccination rates in certain areas and groups. Recent CDC guidance that vaccinated individuals no longer need to wear masks relies largely on an honor system, since few public areas are verifying vaccination status (2).

Our Wave 2 results show that maskwearing rates were lower among unvaccinated respondents compared to vaccinated respondents, while 78% of all respondents indicated agreement that it is important to keep wearing a mask even after getting vaccinated. Assessing how these protective behaviors interact going forward has key implication for the end (or continuation) of the pandemic.

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COVID-19 VACCINE SURVEY TECHNICAL REPORT: WAVE TWO

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