

RISK AND SOCIAL POLICY GROUP

**PARTISANSHIP, TRUST, AND VACCINE
HESITANCY:**

**IMPACTS OF THE 2020 ELECTION ON COVID-19
RISK MANAGEMENT**

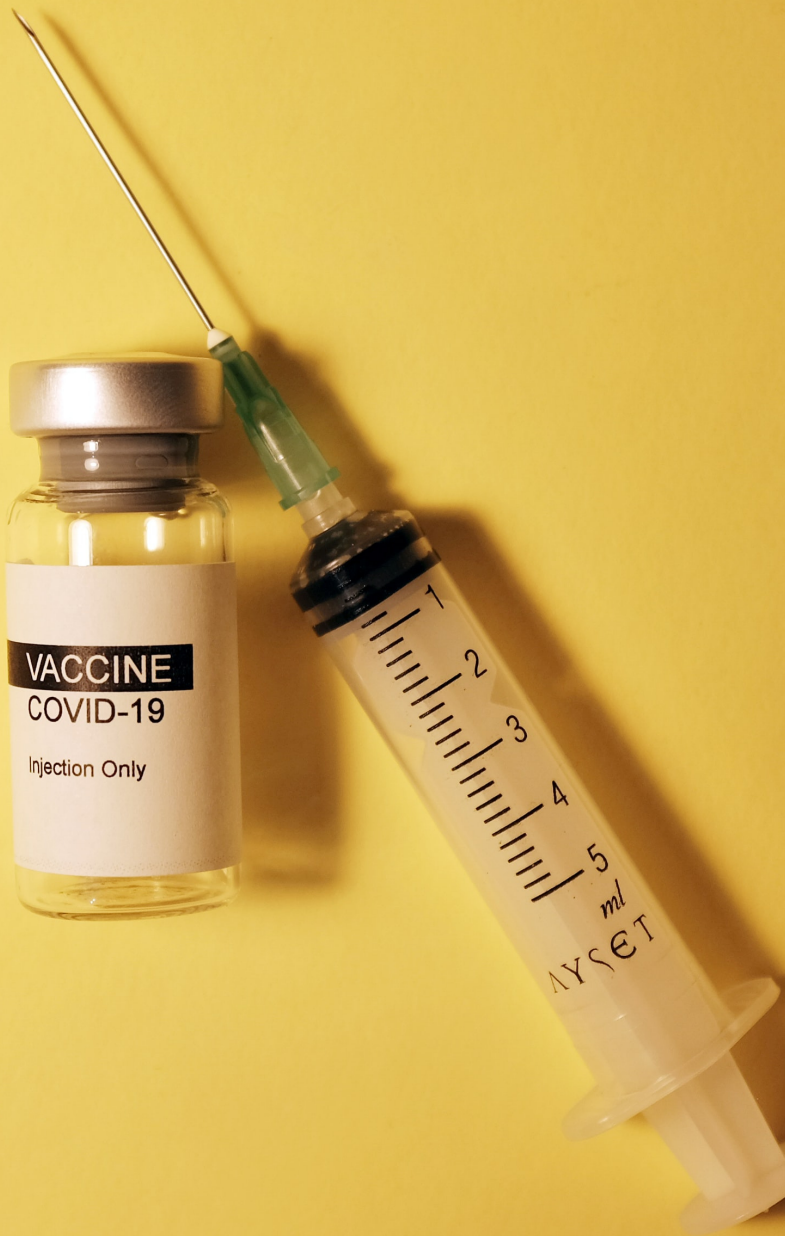
**WAVE THREE SURVEY
TECHNICAL REPORT**

OCTOBER, 2021

WWW.RISKANDSOCIALPOLICY.ORG

THIS MATERIAL IS BASED UPON WORK SUPPORTED BY THE
NATIONAL SCIENCE FOUNDATION UNDER GRANT
NO. DRMS-SES-2102905.

CONTENTS



03

PROJECT
BACKGROUND

04

SURVEY SAMPLE

05

VACCINE UPTAKE IN
THE UNITED STATES

06

PREFERRED VACCINE
TYPES

07

VACCINE BEHAVIORS:
ADDITIONAL FACTORS

09

MANDATES &
INCENTIVES

10

CONCLUSIONS &
POLICY
RECOMMENDATIONS

PROJECT BACKGROUND

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 third 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 **June 24 and June 29, 2021**. All adult respondents were eligible for the vaccine during wave 3. While vaccines were (generally) available for most people, vaccine hesitancy was a persistent issue. By the end of our study period, approximately 45% of eligible Americans had not yet been vaccinated.

The Delta variant became the dominant strain of COVID-19 during this time, reinforcing the need to increase vaccination uptake and leading some to continue questioning vaccine efficacy.

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.
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. Effectiveness of incentives and mandates to motivate vaccination among unvaccinated respondents.

CHARACTERISTICS OF THE SURVEY SAMPLE

In total, our Wave 3 survey sample includes 1348 individuals from 49 states and Washington, D.C. All of these respondents also completed the Wave 1 survey (January 11-February 3, 2021) and the Wave 2 survey (March 22 - April 19, 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 3 survey sample are shown below.

Sample Characteristics (n = 1348)	Sample n (%)	United States Census
Age		
18-34	383 (28.4%)	20.4%*
35-55	488 (36.2%)	25.2%
55+	477 (35.4%)	29.3%
Gender		
Female	754 (55.9%)	50.8%
Male	588 (43.6%)	49.2%
Annual Income		
<\$50,000	579 (43.0%)	38.4%
\$50,000 - \$100,000	452 (33.5%)	30.2%
>\$100,000	317 (23.5%)	31.4%
Race/Ethnicity		
Hispanic	371 (27.5%)	18.4%
Non-Hispanic White	386 (28.6%)	60.0%
Non-Hispanic Black	369 (27.4%)	12.4%
Non-Hispanic Asian	157 (11.7%)	5.6%
Non-Hispanic Other/Multiracial	65 (4.8%)	0.1%
Region		
Northeast	308 (22.9%)	17.1%
South	389 (28.9%)	20.8%
West	354 (23.6%)	38.3%
Midwest	294 (21.9%)	23.9%

*% of US population aged 20-34.

Table 1. Wave 3 sample and census demographics for the third wave of panel data.

VACCINE UPTAKE IN THE UNITED STATES

Of the 1348 Wave 3 survey respondents, 980 (73%) reported that they had gotten a COVID-19 vaccine, up from 158 (7%) in Wave 1 (Jan/Feb) and 997 (44%) in Wave 2 (Mar/Apr). The vaccination rate in our sample was higher than in the adult US population: by the end of our survey period, 56% of adults 18-65 and 78% of adults 65+ were vaccinated nationwide, compared to 66% and 96% in our survey sample. The following figures outline shifts in vaccine uptake and intentions from Wave 1 to Wave 3. 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.

COVID-19 VACCINATION INTENTION OR STATUS

leaning no
 on the fence
 leaning yes
 got it

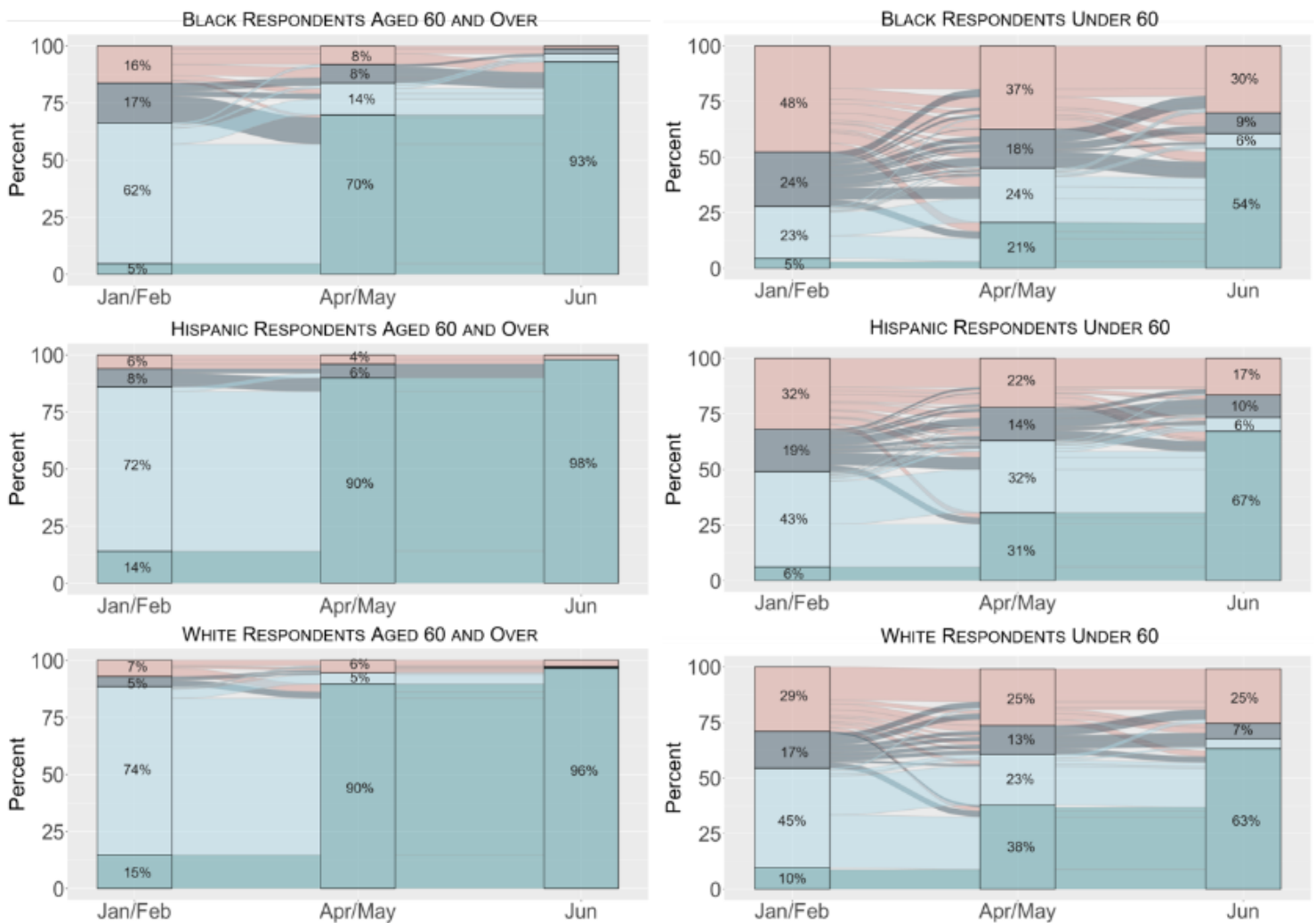


Figure 1. Vaccine status among survey respondents across survey waves, by age and race/ethnicity.

A large majority of respondents 60 and over had been vaccinated by June of 2021; however, differences among racial groups persist. 93% of Black respondents 60 and over had gotten the vaccine by June compared to 98% of Hispanics and 96% of Whites.

Vaccination rates also increased among younger respondents, although these rates are lower than among older respondents and racial differences persist. Among respondents under 60, 54% of Black respondents reported being vaccinated compared to 63% of White and 67% of Hispanic respondents. Meanwhile, the proportion of respondents who were still "leaning no" when asked if they would get the vaccine was 30% of Black respondents, 25% of White respondents, and 17% of Hispanic respondents.

PERCEIVED EASE OF ACCESS

Although all adults were eligible for vaccination during this survey period, challenges with availability and distribution persisted. A smaller proportion of Black and other race/multiracial respondents who had not yet been vaccinated thought it would be easy for them to get a vaccine, relative to Hispanic, Asian, and White respondents. Over 80% of all vaccinated respondents indicated that it was easy for them to get the vaccine.

A higher proportion of unvaccinated respondents from Western states thought it would be easy to get the vaccine (49%) compared to unvaccinated participants in other regions. Of the vaccinated respondents, fewer respondents in the Northeast and the South (74% and 73%, respectively) thought getting their vaccine was easy, relative to the Midwest and the West (84% and 87%, respectively).

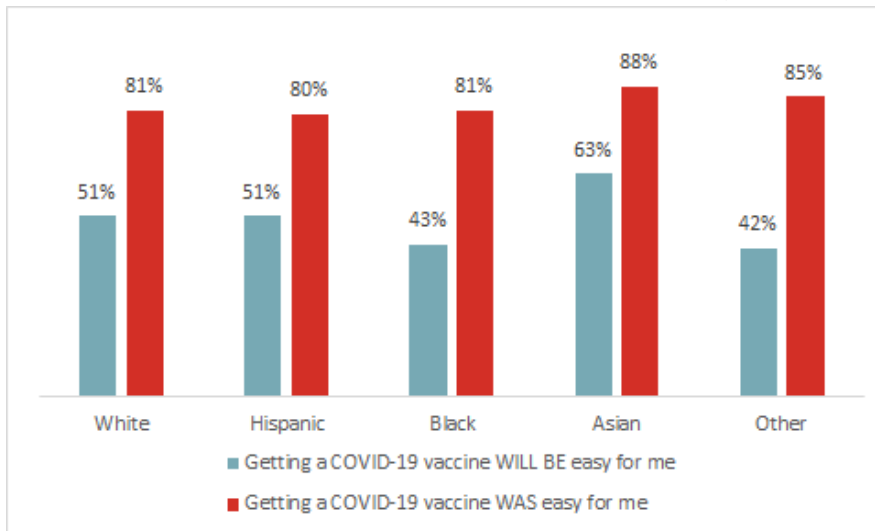


Figure 2. Perceived ease of getting a vaccine by race.

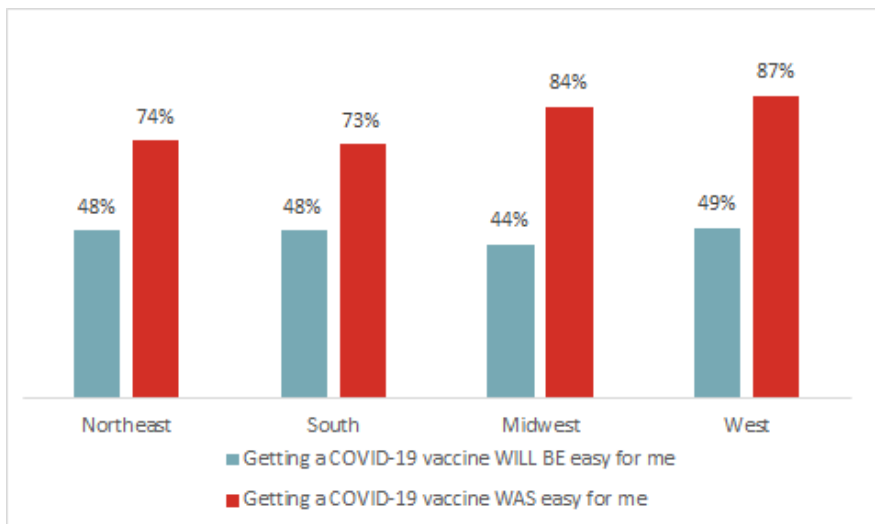


Figure 3. Perceived ease of getting a vaccine by geographical region.

VACCINE BEHAVIORS: ADDITIONAL FACTORS

To assess factors associated with vaccination behaviors in more depth, we conducted a multivariate regression analysis. This analysis shows that **gender, race, age, education, income, and political ideology are significantly correlated with vaccination status**. Men were about 5% more likely to have been vaccinated than women. Asian respondents were nearly 25% more likely to have been vaccinated than White respondents; differences in vaccination rates were not significantly different between Black vs White or Hispanic vs White respondents by Wave 3. (Both of these groups were less likely to be vaccinated in Wave 2). Individuals aged 55 and older were over 30% more likely to have been vaccinated than those under 55. The higher a respondent's educational attainment and income, the more likely they were to be vaccinated by Wave 3. Respondents who identify as liberal were also more likely to have gotten the vaccine than moderates, a difference that increased from Wave 2 to 3.

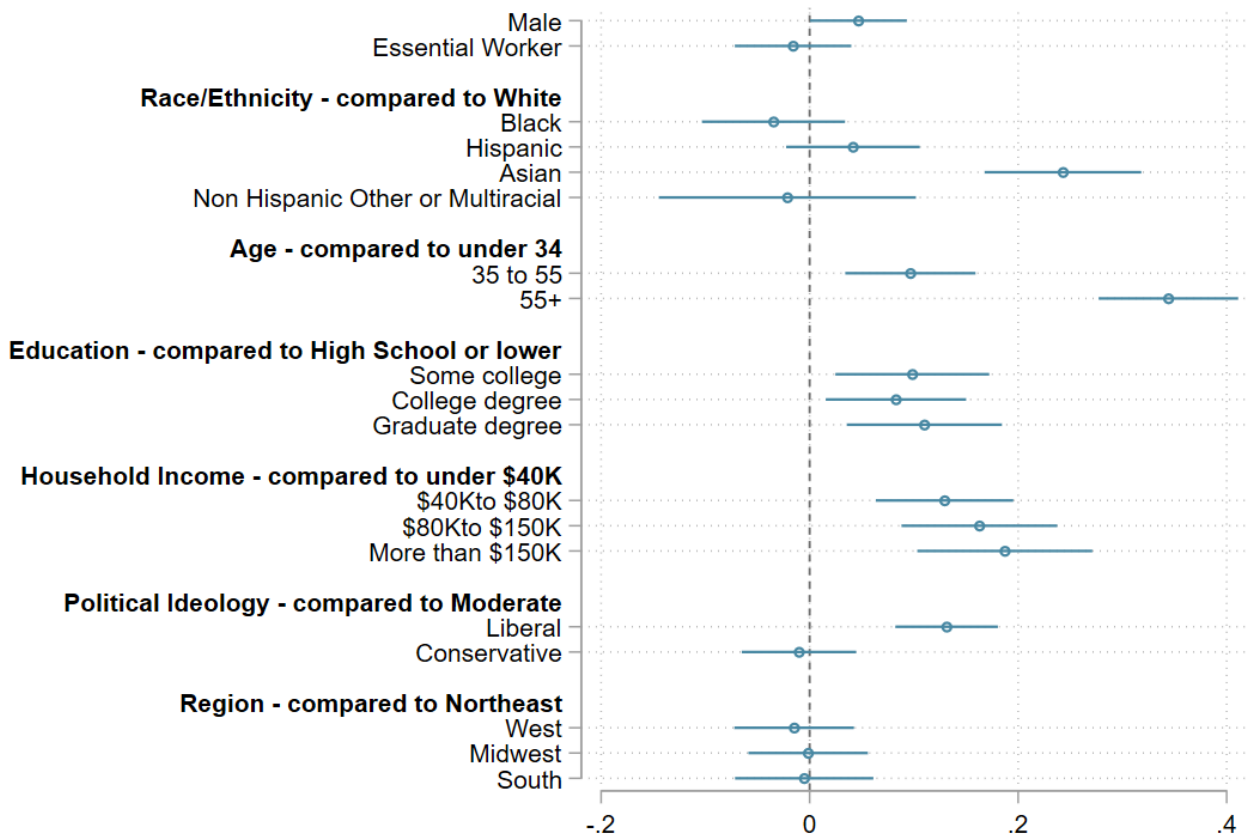


Figure 4. Relationship between likelihood of COVID-19 vaccination and respondent characteristics (logistic regression model for a dichotomous outcome variable. Grey dotted line represents comparison group, e.g. respondents without children, females, White respondents). N=1332 respondents with non-missing data for all included variables.

Perceptions of vaccine safety and importance, and willingness to get booster shots, vary across racial groups. 78% of White respondents believe the COVID-19 vaccine is safe compared to 75% of Asian respondents, 66% of Hispanic respondents, and 58% of Black respondents. 44% of White respondents consider the COVID-19 vaccine safe for children, compared with 42% of Asian respondents, 38% of Hispanic respondents, and 31% of Black respondents. Over 50% of Black, Hispanic, White, and Asian respondents believe vaccination is important to reopening the economy. 53% of Black and 59% of Hispanic respondents said they would be willing to get a booster compared with 78% and 77% of Asian and White respondents, respectively.

Vaccine Perceptions and Attitudes

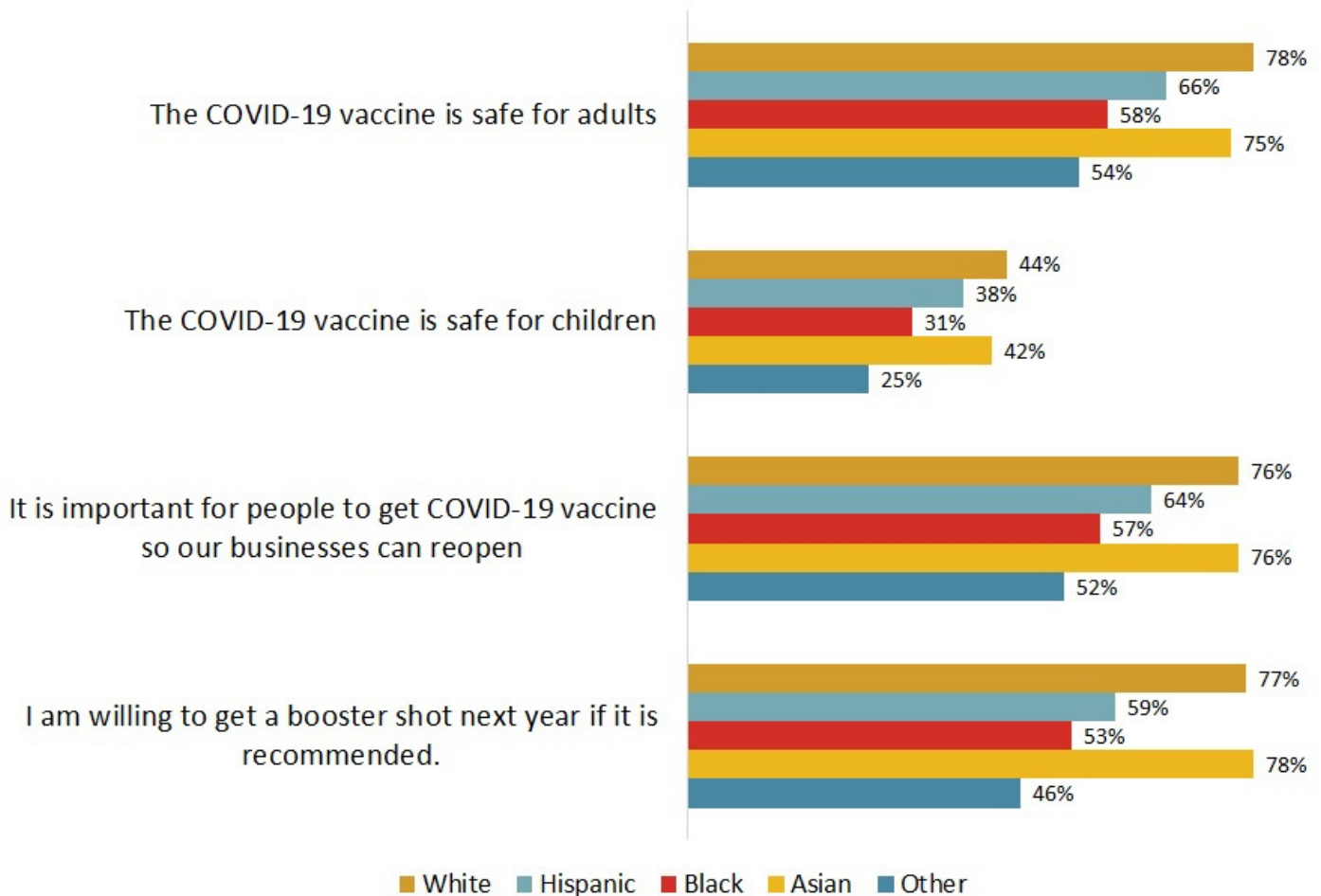


Figure 5. COVID-19 vaccine perceptions and attitudes related to importance to safety in adults, safety in children, the economy, and willingness to get a booster (n=1348).

We asked all respondents whether they wore masks in indoor public spaces. Mask-wearing rates were somewhat lower (51%) among vaccinated respondents compared to unvaccinated respondents (56%). We note that official CDC guidance at the time was that vaccinated individuals could go without masks indoors.

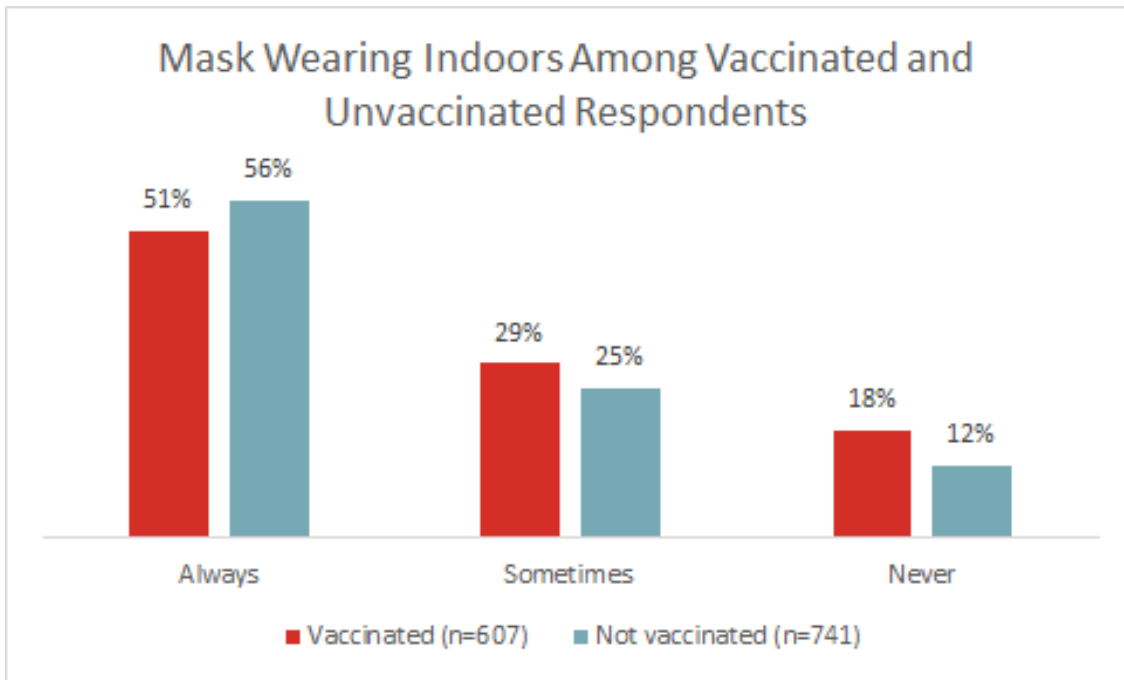


Figure 6. Mask-wearing in indoor, public spaces among vaccinated and unvaccinated respondents.

PERCEPTIONS ON MANDATES

We asked respondents about topics related to vaccine mandates and incentives. 60% of Black and Asian respondents said individuals should be able to make their own choice about the COVID-19 vaccination, compared to 53% of White and 57% of Hispanic respondents. 68% of all respondents said they would be willing to show proof of COVID-19 vaccination if asked whereas 15% said they would not. 65% of Asian respondents thought employers should be able to require the COVID-19 vaccine, compared to 58% of White respondents, 47% of Hispanic respondents, and 43% of Black respondents. 62% of Asian respondents believe grade schools (K-12) should require the vaccine relative to 53% of White, 52% of Hispanic, and 46% of Black respondents.

Perceptions of vaccine mandates

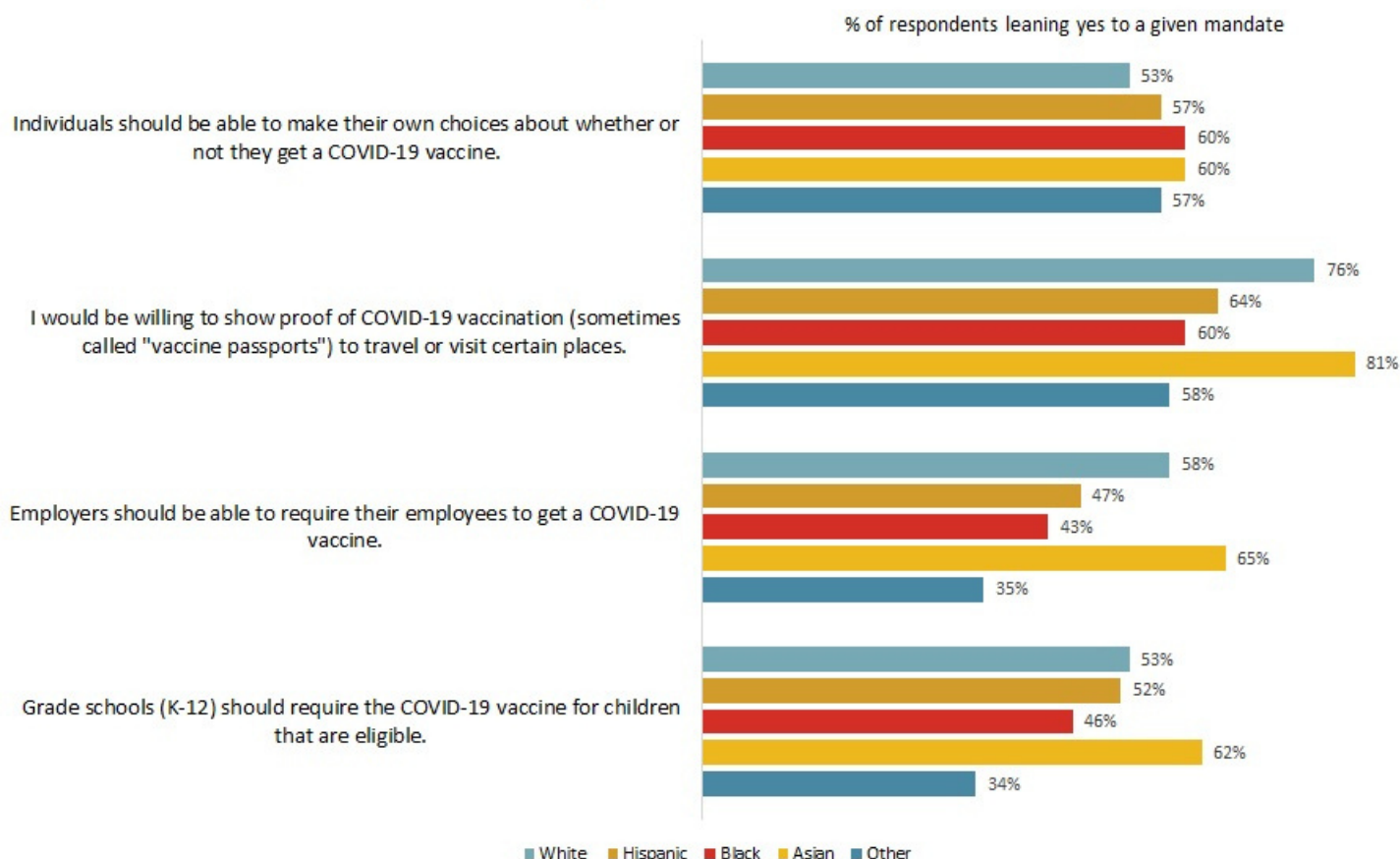


Figure 7. Perceptions of vaccine mandates by race.

We asked unvaccinated respondents about 14 different forms of incentives that have been implemented throughout the country (e.g. lottery, gift cards, event tickets). A higher proportion of unvaccinated respondents said they would be likely to get the shot if offered monetary incentives compared to other enticements. About 30% of unvaccinated respondents said they would be likely to get the vaccine for \$100 in cash, while only about 10% said they would get vaccinated if offered a free drink at the vaccination site.

Vaccine incentives and intentions

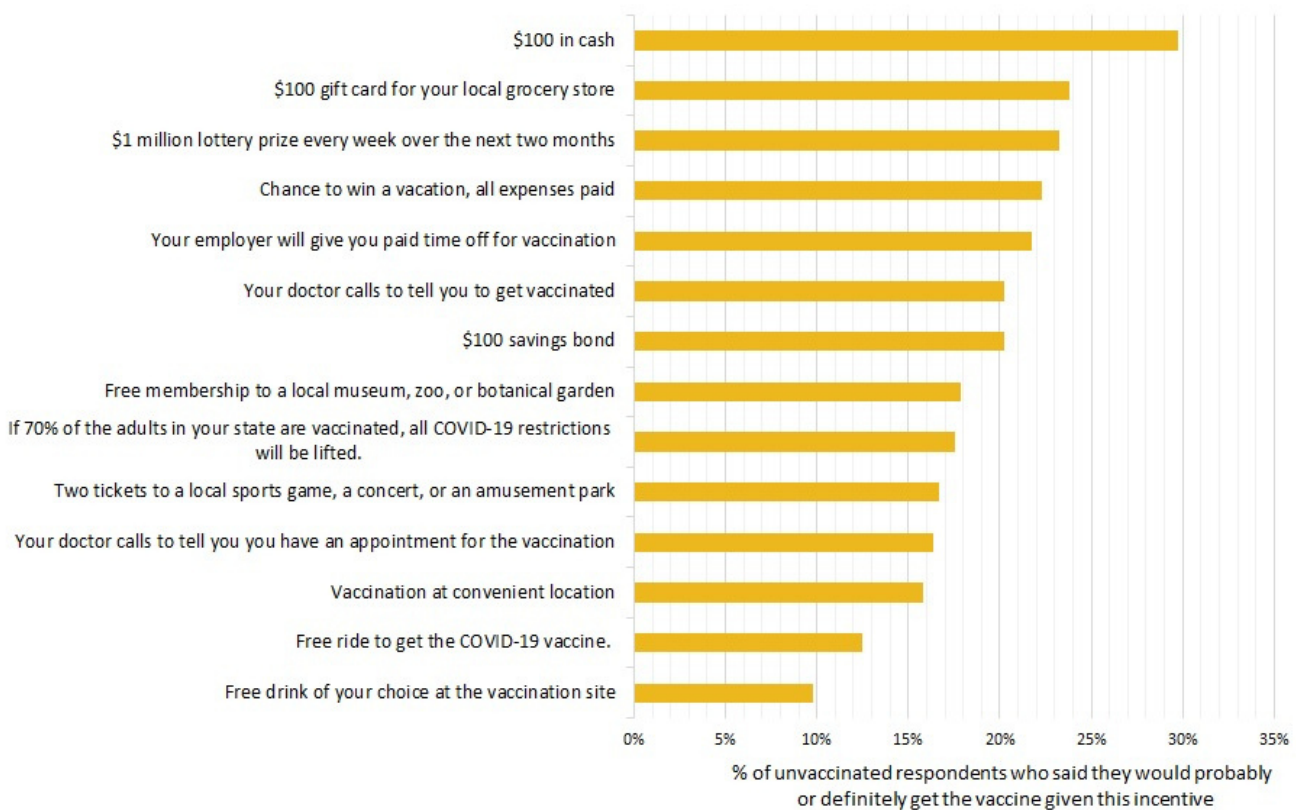


Figure 8. Unvaccinated respondents' (N=336) intentions to get the vaccine under various incentive scenarios

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 to 95% in June/July. Among respondents under 60, vaccination rates increased from 5%, to 30%, to 64% during the same timeframe.

We note that our sample intentionally over represents non-White racial/ethnic groups: the proportion of non-Hispanic White respondents in our sample is just under 30%, compared to about 60% in the US. We also note that vaccination rates are substantially higher in our sample compared to the US population. Patterns in our data and racial/ethnic differences in responses are still informative in understanding vaccination trends and drivers.

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, vaccination rates are high (above 90%) across racial groups. Meanwhile, among younger respondents, vaccination rates remain lower and racial differences persist, with 54% of Black respondents vaccinated compared to 63% of Whites. This difference may be due in part to mistrust of the vaccine and its safety, as fewer Black individuals (58%) believe the vaccine to be safe for adults compared to 78% of White individuals. As others have documented, this mistrust is often linked to a legacy of medical racism

and abuse that is difficult - but necessary - to overcome (2).

With ongoing messaging and pleading coming from government and health officials for Americans to get vaccinated, it is troubling to see large numbers of Americans going without the jab. The effect of vaccine mandates, or "sticks," were not yet apparent at the time of our survey, though more recent reports indicate these tools may be persuading more people to get vaccinated (3). Meanwhile, our results show that the effectiveness of incentives, or "carrots" varies considerably depending on what types of rewards are offered, and a majority of unvaccinated respondents said they would not get the vaccine regardless of which enticement was provided.

Nevertheless, carrots, sticks, and now boosters are all tools which need to be utilized in context, especially given the racial disparities persisting throughout the three waves of this survey and the rise in more infectious variants. The proliferation of these variants, like the Delta variant, are butting squarely up with the hope of the "pandexit" which always seems to

be just around the corner. As our Wave 3 data showed, mask wearing among vaccinated individuals is lower than unvaccinated individuals, perhaps reflecting a return to normal for the vaccinated and relaxed mask guidance during the study period. The optimistic perspective here is worthwhile, in that this possible return to normal should encourage trust and propensity for the vaccines while also pushing all to ensure equitable distribution moving forward.

References

1. COVID Data Tracker. COVID-19 Vaccinations in the US. CDC. 2021. Accessed October 2021. https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-total-admin-rate-total
2. Washington, H.A. *Medical Apartheid: The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present*. Doubleday Books, 2006.
3. O'Gustin, Lawrence. "Vaccine Mandates Are Lawful, Effective and Based on Rock-Solid Science." *Scientific American*. August 2021.

COVID-19 VACCINE SURVEY TECHNICAL REPORT: WAVE THREE

Elizabeth Albright, Ph.D., Duke University

Greer Arthur, Ph.D., North Carolina State University

Natalie Banacos, M.S., Colorado School of Public Health

Tom Birkland, Ph.D., North Carolina State University

Deserai Crow, Ph.D., University of Colorado Denver

Rick Devoss, M.P.H., Colorado School of Public Health

Rob DeLeo, Ph.D., Bentley University

Katherine L. Dickinson, Ph.D., Colorado School of Public Health

Danielle Blanch-Hartigan, Ph.D., M.P.H., Bentley University

Elizabeth Koebele, Ph.D., University of Nevada Reno

Meng Li, Ph.D., University of Colorado Denver

Lindsay Neuberger, Ph.D., University of Central Florida

Jennifer D. Roberts, DrPH, University of Maryland

Liz Shanahan, Ph.D., Montana State University

Kristin Taylor, Ph.D., Wayne State University

Courtney Welton-Mitchell, Ph.D., Colorado School of Public Health

WWW.RISKANDSOCIALPOLICY.ORG

This material is based upon work supported by the National Science Foundation under Grant No. DRMS-SES-2102905.