



Research Question and Aims

Research Question: What are the correlates of COVID-19 vaccine hesitancy in the American public and the reasons why individuals intend to refuse a COVID-19 vaccine?

Aim 1: Analyze the correlates of COVID-19 vaccine hesitancy in the American public

Aim 2: Study the reasons for vaccine hesitancy in the US population and how the reasons for hesitancy vary across subsets of the population

Background

- With over 6 million cases and 185,000 deaths, the US continues to battle the public health crisis arising from the pandemic spread of the SARS-CoV-2 virus
- According to the CDC, Black and Hispanic persons are 4.7 and 4.6 times more likely, respectively, to be hospitalized for COVID-19 compared to Whites
- The pandemic has imposed significant economic and social costs for individuals, businesses, and communities. Here too, minorities have borne a disproportionately share of the cost of the pandemic
- A COVID-19 vaccine will be vital to producing an immune response that slows the pandemic
- The decision to fast track a vaccine has raised concern that vaccine development is being rushed
- Surveys assessing the share of Americans willing to get vaccinated against COVID-19 place estimates of vaccine hesitancy between 25-50%
- If that proportion of the public opts out of vaccinating, vaccination rates may be inadequate to produce herd immunity to the virus
- Overcoming vaccine hesitancy to slow the pandemic will require targeted health communication strategies that effectively reach the subpopulations most likely to refuse COVID-19 vaccination
- An important first step in this process is to identify who in the American public is most likely not to pursue an eventual COVID-19 vaccine, and their reasons for vaccine hesitancy

Study Design and Data

- **Data source**
 - Original demographically representative survey given to sample of 5,009 Americans from May 28-June 8, 2020
 - Administered through Lucid Marketplace survey platform using T3 funds
 - Use quota sampling to approximate population benchmarks, post-stratification weights added to account for any remaining deviations
- **Key Variables**
 - DV1: Intention to pursue a COVID-19 vaccine (binary)
 - DV2: Reasons for refusal if intending to refuse; options for concerns related to safety, efficacy, lack of insurance, lack of financial resources, already having COVID-19, and other unspecified reasons
 - Used DV 2 to create additional set of variables where 1 indicated intent to refuse for a particular reason and 0 indicated intention to vaccinate
 - Study included a number of explanatory measures that could explain vaccination behavior (gender, race/ethnicity, age, education, income, religiosity, ideology, 2020 vote choice, trust in experts, general vaccine attitudes, COVID-19 worry, and COVID-19 testing experience).

Conclusions

- 31.13% of Americans do not intend to pursue COVID-19 vaccination
- Odds of refusal are significantly higher for Blacks, women, conservatives, and religious individuals
- Blacks are more likely to refuse than Whites due to concerns about safety, efficacy, and cost/access
- Blacks being particularly hesitant could exacerbate existing inequalities in COVID-19 outcomes in the US population
- Targeted interventions aimed at the groups most likely to be hesitant including Blacks, women, and conservatives are needed

Results

Fig. 1. Predictors of Intention not to Pursue a COVID-19 Vaccine

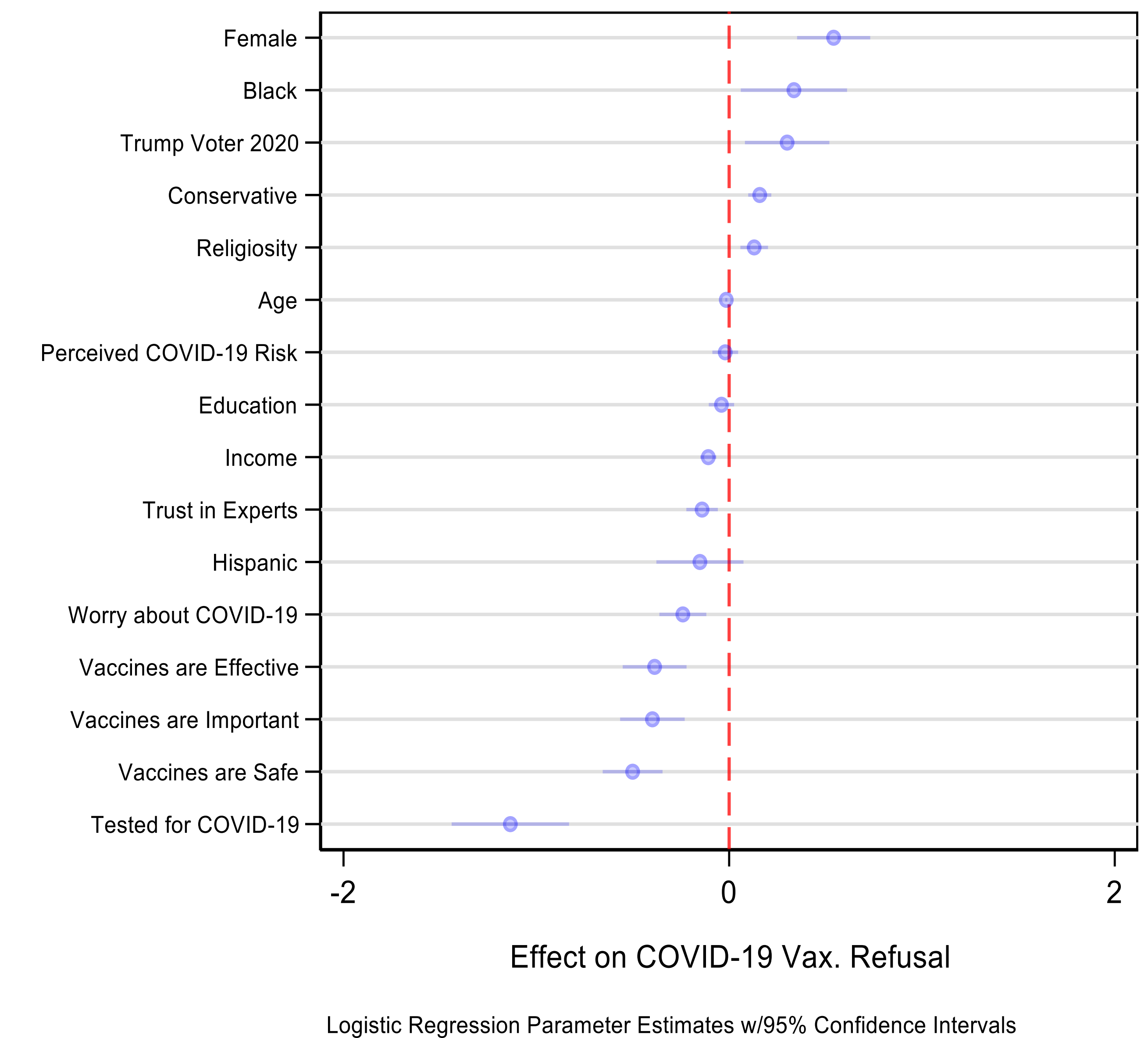


Table 1. Reasons for Hesitancy by Proportion of US Population

Reason for Refusal	Overall Percentage	White vs. Black	Male vs. Female
Vaccine Won't be Safe	17.83% (16.67, 18.99)	16.79% vs. 25.82% (15.50, 18.08 vs. 22.03, 29.61) -9.03**	13.22% vs. 22.35% (11.76, 14.69 vs. 20.56, 24.15) -9.13**
Vaccine Won't be Effective	15.55% (14.44, 16.67)	13.49% vs. 24.35% (12.29, 14.69 vs. 20.57, 28.13) -10.86**	11.45% vs. 19.46% (10.06, 12.84 vs. 17.73, 21.20) -8.01**
Lack of Insurance	6.22% (5.44, 7.00)	5.08% vs. 12.89% (4.27, 5.88 vs. 9.70, 16.09) -7.81**	6.50% vs. 5.71% (5.40, 7.61 vs. 4.62, 6.80) +0.79
Lack of Financial Resources	6.17% (5.40, 6.95)	5.27% vs. 9.14% (4.45, 6.09 vs. 6.36, 11.92) -3.87**	6.10% vs. 5.86% (5.02, 7.17 vs. 4.76, 6.96) +0.24
Already had COVID-19	3.31% (2.72, 3.90)	3.14% vs. 4.84% (2.49, 3.78 vs. 2.72, 6.96) -1.70**	3.89% vs. 2.79% (3.01, 4.77 vs. 2.00, 3.57) +1.10*
Other Reasons	7.41% (6.56, 8.25)	7.21% vs. 9.47% (6.27, 8.15 vs. 6.64, 12.29) -2.26**	4.93% vs. 9.75% (3.95, 5.91 vs. 8.38, 11.12) -4.82**

** p<0.01, * p<0.05