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THE COVID STATES PROJECT: A 50-STATE COVID-19 SURVEY

REPORT #61: PARENTAL CONCERN ABOUT COVID-19 VACCINES

USA, August 2021

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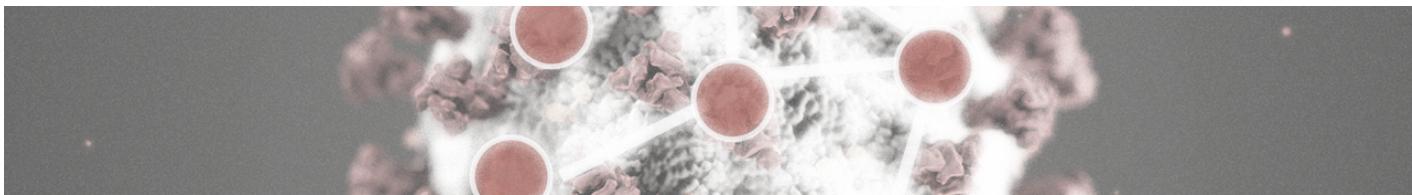
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Report of August 11, 2021, v.1

The COVID States Project

From: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States

A joint project of:

Northeastern University, Harvard University, Rutgers University, and Northwestern University

Authors: Caroline Pippert (Northwestern University); Jennifer Lin (Northwestern University); David Lazer (Northeastern University); Roy H. Perlis (Harvard Medical School); Matthew Simonson (Northeastern University); Katherine Ognyanova (Rutgers University); James Druckman (Northwestern University); Uday Tandon (Northwestern University); Matthew A. Baum (Harvard University), and Mauricio Santillana (Harvard Medical School)

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Northeastern University



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COVER MEMO

Summary Memo — August 11, 2021

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From April 2020 through July 2021, we conducted multiple waves of a large, 50-state survey, some results of which are presented here. You can find previous reports online at covidstates.org.

Note on methods:

Between June 9 and July 7, 2021, we surveyed 20,669 individuals across all 50 states plus the District of Columbia. The survey was conducted by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity, age, and gender (for methodological details on the other waves, see covidstates.org). In addition to balancing on these dimensions, we reweighted our data using demographic characteristics to match the U.S. population with respect to race/ethnicity, age, gender, education, and living in urban, suburban, or rural areas. This was the latest in a series of surveys we have been conducting since April 2020, examining attitudes and behaviors regarding COVID-19 in the United States.

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Or visit us at www.covidstates.org.

Parental concerns about COVID-19 vaccines

In an online forum designed to quell parents' anxieties about the COVID-19 vaccine for their kids, one parent wrote: "I'm not an anti-vaxxer or an anti-masker. I'm just worried." ([New York Times, 2021](#)). On May 12, 2021, the [New York Times](#) published an article titled "They're Not Anti-Vaccine, but These Parents Are Hesitant About the COVID Shot" which takes the reader through a series of online conversations between doctors and parents anxious about vaccinating their kids against COVID-19. Parents reported being nervous about the newness of the vaccine and how fast it was developed, as well as the potential for side effects and allergic reactions. Additionally, parents of adolescents raised concerns about the vaccine affecting puberty and future fertility. Since the publication of the Times article, the FDA has granted emergency authorization for the COVID-19 vaccine for children aged 12-15 and so far, 39.5% have received one dose and 29% are [fully vaccinated](#) as of August 2, 2021.

As vaccination rates are [slowing](#) with the Delta variant contributing to rising cases and hospitalizations nationwide, it is important to understand the concerns of those parents who remain hesitant to vaccinate their children against COVID-19. In our [49th](#) and [56th](#) reports, we found that young mothers, Republican parents, parents making less than \$25,000 per year, and parents without a college degree were among the most resistant to vaccinating their children before the vaccine was available to children ages 12-15. Now that the question is no longer hypothetical for respondents with children over age 12, it is worth examining continuing sources of vaccine hesitancy and resistance among parents. What are parents' top concerns about COVID-19 vaccinations for their children? Do these concerns vary based on a parent's partisanship, gender, age, race, income, education, or place of residence?

In our June 2021 survey, we asked parents to rate the following considerations as a major concern, minor concern, or not a concern when thinking about their children receiving a COVID-19 vaccine: how new the vaccine is, whether the vaccine has been tested enough, whether the vaccine actually works, immediate side effects (e.g., fever, nausea), long-term health effects, health effects specific to girls or women, health effects specific to boys or men, religious objections, whether the vaccine companies want to harm people, and whether the government is using the vaccine to harm people. In this report, we examine the most prevalent major concerns for parents by demographic groups to better understand the various sources of vaccine hesitancy among parents.

Key Takeaways

- The most cited major concerns of parents are whether the vaccine has been tested enough (51%), the potential for long-term health effects (50%), and how new the vaccine is (46%).
- Republican and Independent parents are more likely than Democratic parents to cite whether the vaccine has been tested enough and long-term health effects as a major concern.
- Mothers are more likely than fathers to rate considerations about COVID-19 vaccinations for their children as major concerns, especially whether the vaccine has been tested enough (58% vs. 44%) and how new it is (52% vs. 39%).
- Young mothers are more likely than older mothers as well as fathers of all ages to express major concerns with whether the vaccine has been tested enough (62%) and long-term health effects (60%).
- Large gaps exist between parents based on educational attainment. Parents with some high school education are 28 percentage points more likely to cite whether the vaccine has been tested enough as a major concern than parents with bachelor's degrees (68% vs. 40%).
- Parents in the lowest income bracket are most likely to cite whether the vaccine has been tested enough (62%) and long-term health effects (59%) as major concerns.

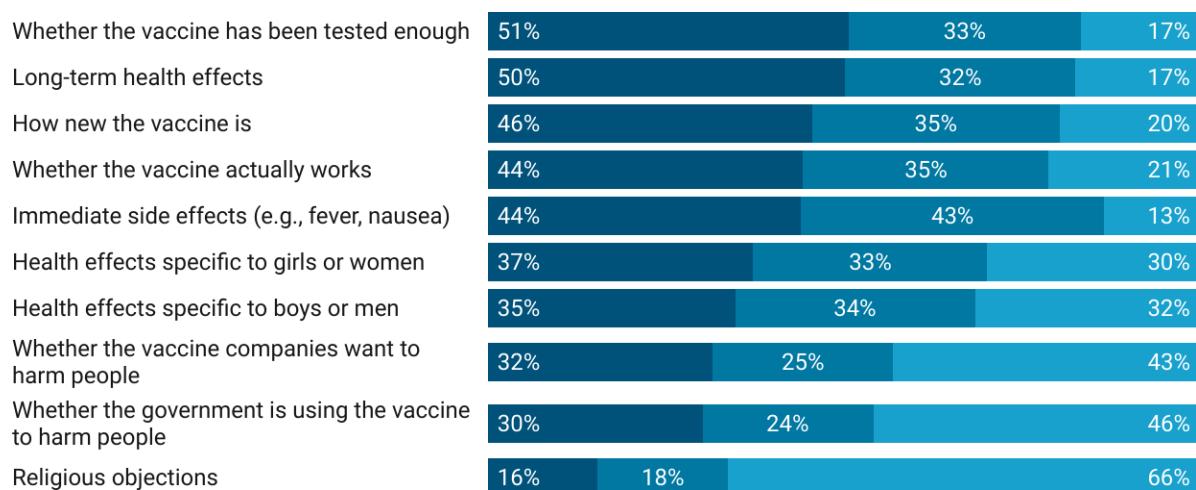
ALL PARENTS

From our sample of 4,975 parents, the most cited major concerns are whether the vaccine has been tested enough (51%), the potential for long-term health effects (50%), and how new the vaccine is (46%). Around 30 percent of parents cited whether the vaccine companies (32%) and government (30%) are using the vaccine to hurt people as a major concern (Figure 1). Religious objections do not appear to be a concern for most parents, with only 16 percent reporting them as a major concern and 66 percent reporting that they were not a concern. We report the correlations among these items in the appendix (Table A.1 and Figure A.1).

Parent Concerns About COVID-19 Vaccines

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None



National Sample, N=4,975. Time period: 06/09/2021 - 07/06/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org • Created with Datawrapper

Figure 1. Overall parent concerns about COVID-19 vaccines

This report aims to highlight the most prominent major concerns of parents with the goal of better understanding what information they need to make informed decisions about vaccinating their children against COVID-19.

PARENTAL CONCERNS BY PARTY

Compared to Democrats, a higher percentage of Republican and Independent parents report each of these considerations as a major concern. Democratic parents are 14 percentage points less likely than Republican parents (43% vs. 57%) and 13 percentage points less likely than Independent parents (43% vs. 56%) to report questioning whether the vaccine has been tested enough as a major concern. This pattern is consistent for worries over long-term health effects as well, with 55 percent of both Republican and Independent parents reporting it as a major concern compared to 43 percent of Democrats.

Parent Concerns About COVID-19 Vaccines by Party

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None

Whether the vaccine has been tested enough



Long-term health effects



How new the vaccine is



Whether the vaccine actually works



National Sample, N=4,975. Time period: 06/09/2021 - 07/06/2021.

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Figure 2. Parent concerns about COVID-19 vaccines by political party

CONCERNS BY PARENT GENDER

Overall, a higher percentage of mothers rate these considerations as a major concern than fathers. Mothers are 14 percentage points more likely to report questioning whether the vaccine has been tested enough as a major concern than male parents (58% vs. 44%) and 13 percentage points more likely to cite how new the vaccine is as a major concern than male parents (52% vs. 39%). This is consistent with the findings of our [report #45](#), which finds a gender gap in March 2021 between the percentage of mothers and fathers that would vaccinate their children if the option were available. Now that vaccinations for children over age 12 are authorized for emergency use by the US FDA, we can see that mothers are more concerned about these issues than fathers.

Parent Concerns About COVID-19 Vaccine by Gender

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None

Whether the vaccine has been tested enough



How new the vaccine is



Long-term health effects



Immediate side effects (e.g., fever, nausea)



National Sample, N=4,975. Time period: 06/09/2021 - 07/06/2021.

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Figure 3. Parent concerns about COVID-19 vaccines by gender

CONCERN BY PARENT AGE

In general, parents aged 18-35 are most likely to cite each of these considerations as a major concern. Figure 4 shows that parents aged 18-35 are five percentage points more likely to rate long-term health effects (53% vs. 48%) and five percentage points more likely to rate immediate side effects (47% vs. 42%) as major concerns than their counterparts over age 36. It is important to consider that parental age is correlated with offspring age, so more parents in the 18-35 age group likely have children under 12 who are still ineligible for the COVID-19 vaccine and therefore for whom these considerations are still hypothetical.

Parent Concerns About COVID-19 Vaccine by Age

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None

Long-term health effects



Whether the vaccine has been tested enough



How new the vaccine is



Immediate side effects (e.g., fever, nausea)



National Sample, N=4,975. Time period: 06/09/2021 - 07/06/2021.

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Figure 4. Parent concerns about COVID-19 vaccines by parental age

CONCERNS BY PARENT GENDER AND AGE

Parent Concerns About COVID-19 Vaccine by Gender & Age

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None

Whether the vaccine has been tested enough



Long-term health effects



How new the vaccine is



Immediate side effects (e.g., fever, nausea)



National Sample, N=4,975. Time period: 06/09/2021 - 07/06/2021.

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Figure 5. Parent concerns about COVID-19 vaccines by parental gender and age

In our [45th report](#) based on data from February 2021, we found that younger mothers were more resistant to vaccinating their children against COVID-19 than older mothers and fathers of all ages. Our [56th report](#) based on data from June 2021 reaffirmed that younger mothers were still the most resistant group, even after the vaccine became available to children ages 12-15.

Figure 5 adds context to these findings by demonstrating that young mothers are also more likely to report considerations about vaccinating their children as major concerns than their older or male counterparts. Sixty-two percent of mothers ages 18-35 cite whether the vaccine has been tested enough as a major concern compared to 55% of mothers ages 36+ (7-point gap), 42% of fathers ages 18-35 (20-point gap), and 45% of fathers ages 36+ (17-point gap).

Additionally, mothers ages 18-35 are eight percentage points more likely than mothers ages 36+ (60% vs. 52%), 19 percentage points more likely than fathers ages 18-35 (60% vs. 41%), and 21 percentage points more likely than fathers ages 36+ (60% vs. 39%) to consider long-term health effects a major concern. While young mothers have the same most cited major concerns as other groups (whether the vaccine has been tested enough, long-term health effects, and how new the vaccine is), a higher percentage cite them as major concerns than their older or male counterparts.

PARENTAL CONCERNS BY RACE

Across all potential challenges with child vaccination, African American and Hispanic parents are more likely to report each as a major concern than Asian or White parents. Fifty-seven percent of African American parents and 52 percent of Hispanic parents report that whether the vaccine has been tested enough is a major concern, compared to 46 percent of Asian parents and 49 percent of white parents.

The gaps are similar for concerns over long-term health effects as well. Figure 6 also shows that Asian parents are least likely to rate how new the vaccine is as a major concern, with a ten percentage point gap with White parents and a 16 percentage point gap with African American and Hispanic parents.

Parent Concerns About COVID-19 Vaccine by Race

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None

Whether the vaccine has been tested enough



Long-term health effects



Whether the vaccine actually works



How new the vaccine is



National Sample, N=4,975. Time period: 06/09/2021 - 07/06/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org •
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Figure 6. Parent concerns about COVID-19 vaccines by race

PARENTAL CONCERN BY EDUCATION

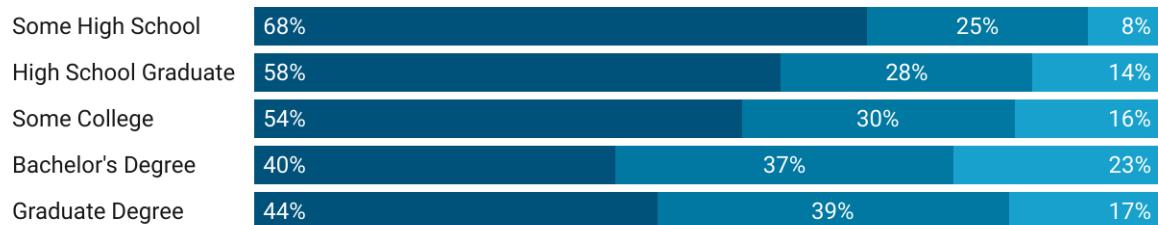
Generally, parents with lower education levels are more likely to report each of these considerations as a major concern. Sixty-eight percent of parents with some high school report whether the vaccine has been tested enough as a major concern compared to 40 percent of parents with a bachelor's degree, a 28-point gap. Additionally, a 25-point gap exists between the percentage of parents with some high school and parents with a bachelor's degree reporting immediate side effects as a major concern (60% vs. 35%).

Parent Concerns About COVID-19 Vaccine by Education

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None

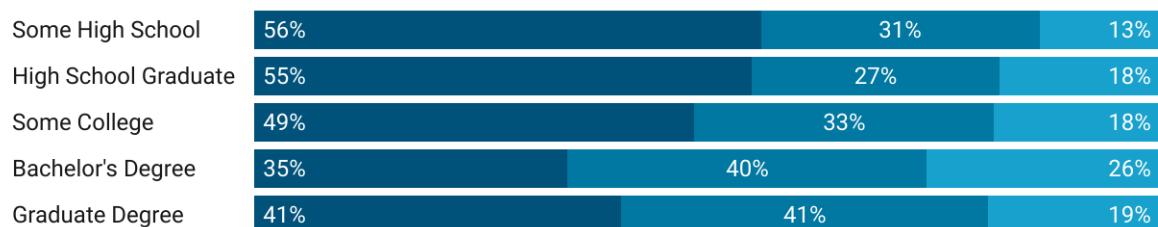
Whether the vaccine has been tested enough



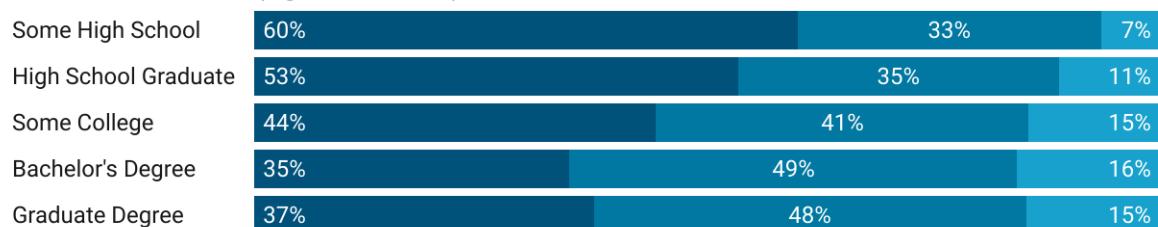
Long-term health effects



How new the vaccine is



Immediate side effects (e.g., fever, nausea)



National Sample, N=4,975. Time period: 06/09/2021 - 07/06/2021.

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Figure 7. Parent concerns about COVID-19 vaccines by education

PARENTAL CONCERNS BY INCOME

Parent Concerns About COVID-19 Vaccine by Income

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

■ Major ■ Minor ■ None

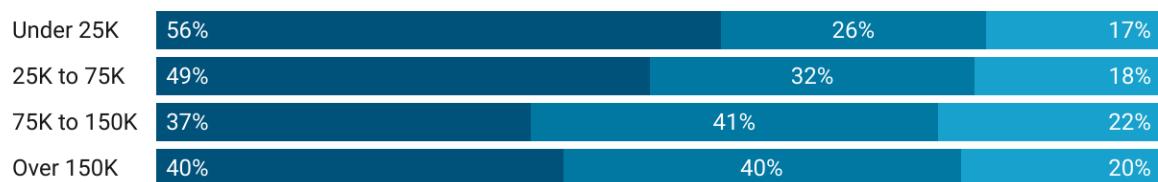
Whether the vaccine has been tested enough



Long-term health effects



How new the vaccine is



Whether the vaccine actually works



National Sample, N=4,975. Time period: 06/09/2021 - 07/06/2021.

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Figure 8. Parent concerns about COVID-19 vaccines by income

In general, parents with lower incomes are more likely to report each of these considerations as a major concern. Sixty-two percent of parents in the lowest income bracket cite whether the vaccine has been tested enough as a major concern compared to 43 percent of parents making over \$75,000 (19-point gap). Similarly, large gaps exist between parents making under \$25,000 and parents making \$75,000-\$150,000 citing long-term health effects (59% vs. 42%), how new the vaccine is (56% vs. 37%), and whether the vaccine actually works (56% vs. 35%) as a major concern.

PARENTAL CONCERNS BY PLACE OF RESIDENCE

Parent Concerns About COVID-19 Vaccines by Residence

When thinking about your children receiving a COVID-19 vaccine, is each of the following a major concern, minor concern, or not a concern?

Major Minor None

Whether the vaccine has been tested enough



Whether the vaccine actually works



Long-term health effects



How new the vaccine is



National Sample, N=4,975. Time period: 06/09/2021 - 07/06/2021.

Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A Joint Project by Northeastern University, Harvard University, Rutgers University, and Northwestern University), www.covidstates.org .
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Figure 9. Parent concerns about COVID-19 vaccines by place of residence

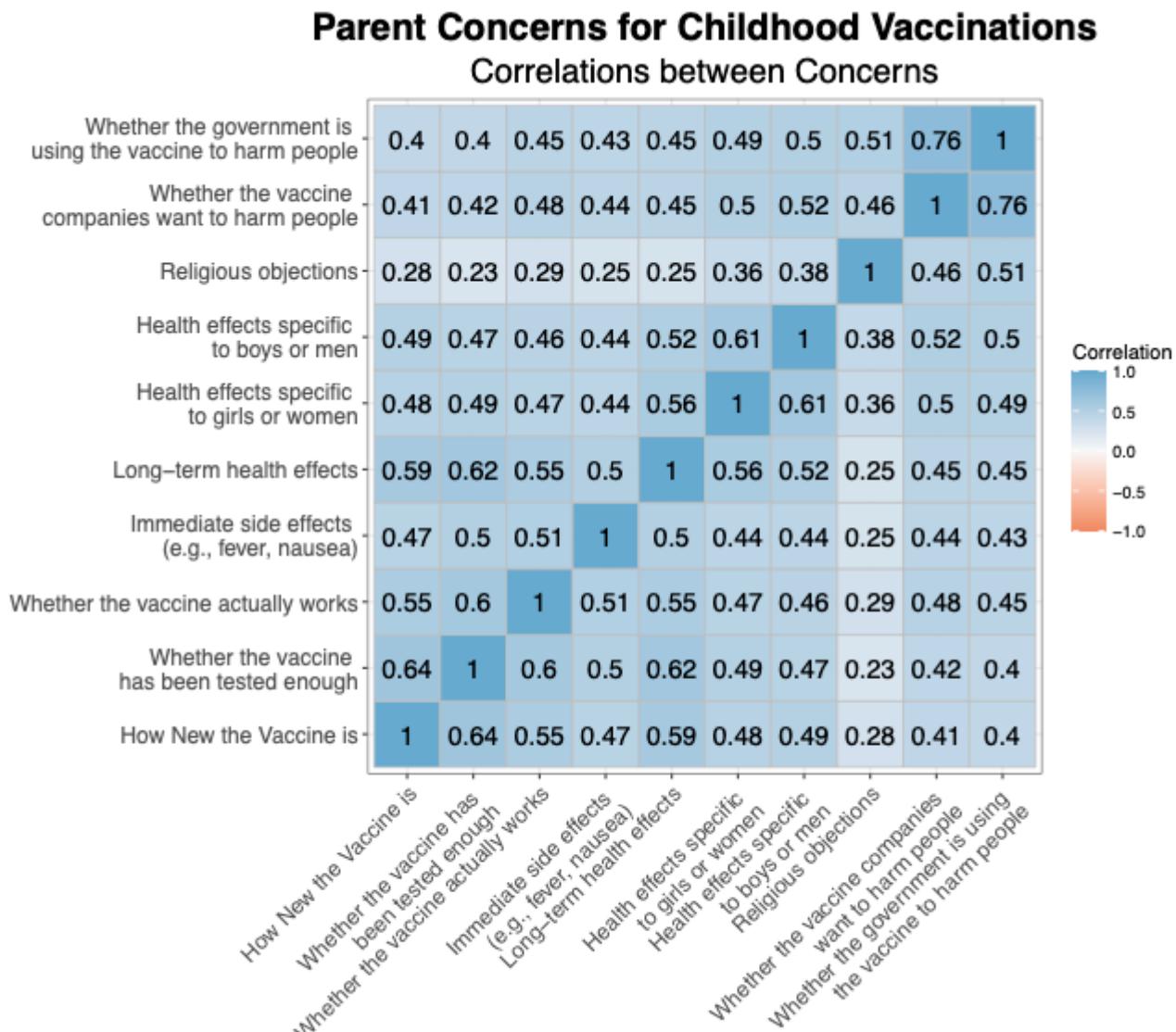
Overall, parents in rural areas are more likely to report each of these considerations as a major concern than parents in urban areas, with suburban parents falling somewhere in the middle. Rural parents are ten percentage points more likely to report whether the vaccine has been tested enough as a major concern (58% vs. 48%), nine percentage points more likely to report whether the vaccine actually works (51% vs. 42%) as well as long-term health effects (56% vs. 47%), and eight percentage points more likely to report how new the vaccine (52% to 44%) is as a major concern than urban parents.

CONCLUSIONS

Across all demographic groups, the most consistently cited major concerns for parents were whether the vaccine has been tested enough, long-term health effects, and how new the vaccine is when thinking about vaccinating their children against COVID-19. Examining major concerns by demographic group reveals that Republican parents, young mothers, African American parents, parents with lower levels of education, parents making less than \$25,000 per year, and rural parents were more likely to cite each of these considerations as a major concern than their counterparts. These findings add additional context to our [49th](#) and [56th](#) reports that found mothers, Republican parents, parents making less than \$25,000 per year, and parents without a college degree were among the most resistant to vaccinating their children by indicating the most commonly cited major concerns of these parents.

Appendix: Correlations among concerns

Figure A.1: Correlations between Parent Concerns



Wave 18 — 06/09/2021 – 07/06/2021,
The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States
(A Joint Project by Northeastern University, Harvard University, Rutgers University,
and Northwestern University), www.covidstates.org

Table A.1: Correlation Table Between Various Parent Concerns

	How new the vaccine is	Whether the vaccine has been tested enough	Whether the vaccine actually works	Immediate side effects (e.g., fever, nausea)	Long term health effects	Health effects specific to girls or women	Health effects specific to boys or men	Religious objections	Whether the companies want to harm people	Whether the government is using the vaccine to harm people
How new the vaccine is	1	0.64	0.55	0.47	0.59	0.48	0.49	0.28	0.41	0.4
Whether the vaccine has been tested enough	0.64	1	0.6	0.5	0.62	0.49	0.47	0.23	0.42	0.4
Whether the vaccine actually works	0.55	0.6	1	0.51	0.55	0.47	0.46	0.29	0.48	0.45
Immediate side effects (e.g., fever, nausea)	0.47	0.5	0.51	1	0.5	0.44	0.44	0.25	0.44	0.43
Long-term health effects	0.59	0.62	0.55	0.5	1	0.56	0.52	0.25	0.45	0.45
Health effects specific to girls or women	0.48	0.49	0.47	0.44	0.56	1	0.61	0.36	0.5	0.49
Health effects specific to boys or men	0.49	0.47	0.46	0.44	0.52	0.61	1	0.38	0.52	0.5
Religious objections	0.28	0.23	0.29	0.25	0.25	0.36	0.38	1	0.46	0.51
Whether the vaccine companies want to harm people	0.41	0.42	0.48	0.44	0.45	0.5	0.52	0.46	1	0.76
Whether the government is using the vaccine to harm people	0.4	0.4	0.45	0.43	0.45	0.49	0.5	0.51	0.76	1