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THE COVID STATES PROJECT:
A 50-STATE COVID-19 SURVEY
REPORT #63: THE DECISION TO NOT GET VACCINATED,
FROM THE PERSPECTIVE OF THE UNVACCINATED

USA, September 2021

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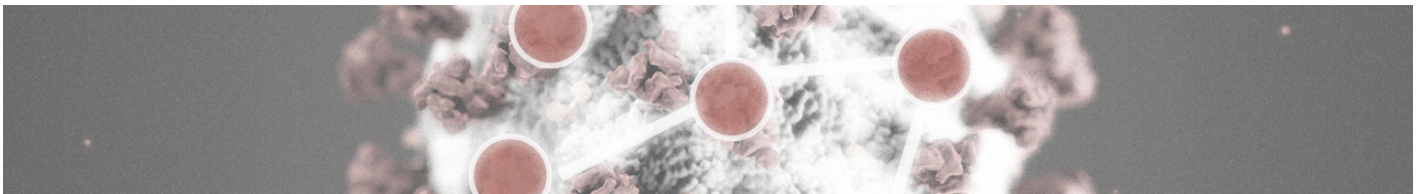
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Report of September 14, 2021, v.1

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: Ata A. Uslu (Northeastern University); David Lazer (Northeastern University); Roy H. Perlis (Harvard Medical School); Matthew A. Baum (Harvard University); Suji Kang (Northwestern University); Alexi Quintana (Northeastern University); Robin Xu Bayes (Northwestern University); Anna Wang (Northwestern University); Katherine Ognyanova (Rutgers University); James Druckman (Northwestern University); Jennifer Lin (Northwestern University); Mauricio Santillana (Harvard Medical School); Jon Green (Northeastern University); Matthew D. Simonson (Northeastern University), and Hong Qu (Northeastern University)

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Northeastern University
Network Science Institute



COVER MEMO

Summary Memo — September 14, 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 6, 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. Comparison analyses in this report are based on two previous survey waves – one conducted in between February 5 and March 5, 2021 (N=21,500), the second between April 1 and May 3, 2021 (N=21,733).

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The decision to not get vaccinated, from the perspective of the unvaccinated

This report examines the decision to not get vaccinated (yet) from the perspective of the unvaccinated. That is, obviously, no one is avoiding vaccination because they do not value their health or the health of others. So: what are the primary reasons for the choice to not get vaccinated (yet), *from the perspective of those not getting vaccinated*? In order to get at this critical issue, for the two waves of our survey conducted April through July, we included closed and open ended survey questions. We focus on 6 categories of answers that people might provide:¹

Life constraints – For example, unable to get to a location to get vaccinated; employment circumstances do not permit taking time off to get the shot(s), or to accommodate side effects.

Perception of benefit – Perception that COVID does not pose a major risk to them.

Perception of risk – Affirmative beliefs that the vaccine poses a health risk.

Uncertainty regarding the risks the vaccine poses – In particular, because of the newness of the vaccines, faster-than-usual development times, and/or lack of testing.

Lack of trust in institutions – That the various institutions attesting to the safety of the vaccines are not to be trusted.

Fear of needles – That the respondent's fear of needles is deterring them from getting vaccinated.

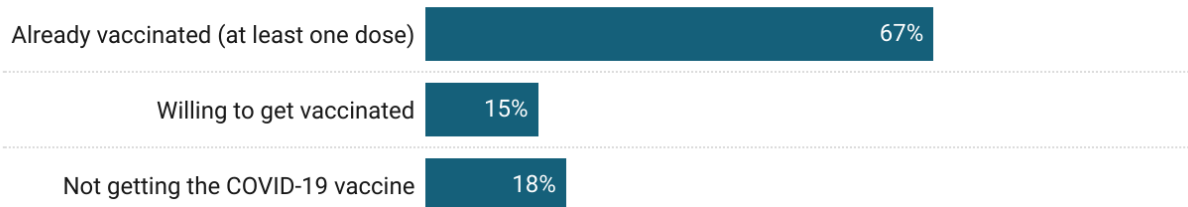
We discuss below the responses from the open-ended questions, and then turn to the closed-ended. The two types of data offer complementary advantages. The open-ended questions offer respondents the opportunity to provide their own reasoning for their decision in a fashion that is uncontaminated by the researcher's preconceived categories. (Notably, multiple respondents indicated their appreciation for the opportunity to voice their opinion.) Open-ended responses are thus "authentic" in a way that responses to closed-ended questions are not. However, as a result, responses are quite heterogeneous, and likely cover only a fraction of what someone may think about a topic. Neither approach offers definitive insight into public opinion, but together they offer complementary perspectives.

¹ These categories are in part based on prior research; and in part based on the categories that emerged from our hand coding of open ended survey responses, discussed below.

As context for the discussion below, Figure 1 summarizes the vaccination status and willingness of respondents.

Vaccination status and willingness of respondents

[Percent respondents who say they are...]



N = 16996, Time period: 6/9/21 – 7/6/21

Source: 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) www.covidstates.org • Created with Datawrapper

Figure 1: Vaccination status and willingness of respondents

We note that the vaccine willing are almost equal in number to the strongly vaccine resistant (i.e., indicate that they will not get vaccinated).² We return to this point in the next section, where we look at some of the differences between the vaccine willing versus resistant.

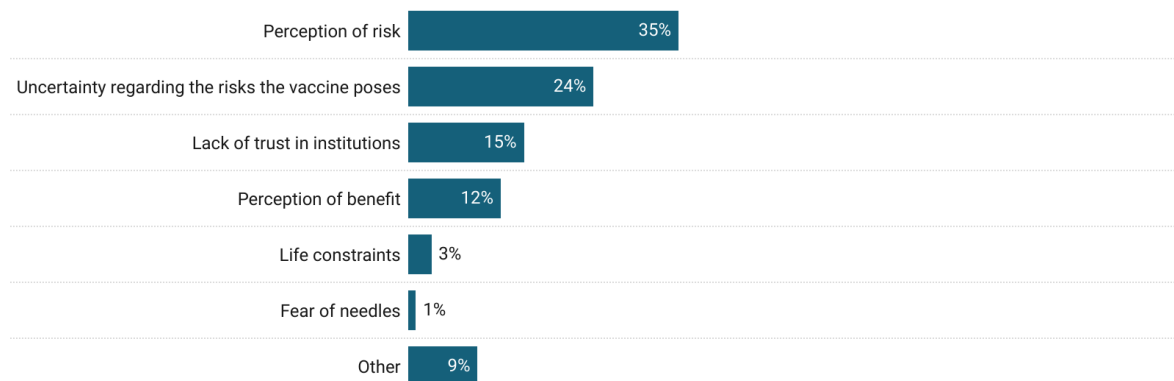
Open-ended responses on vaccination decisions by the unvaccinated

In the two most recent waves of our survey, we asked a sample (*N* = 1205) of people who have not received a COVID-19 vaccine if they would explain their reasoning behind their intention regarding vaccination (*"What are the reasons you would or would not get vaccinated against COVID-19?"*). We hand coded their responses into the 7 categories below (some responses fall into multiple categories); and then turned to examples of statements that fell into each of those categories.

² We note that the only category in this table that is fixed at the individual level is "vaccinated." As we have shown in prior reports, there is a degree of churn at the individual level from wave to wave, with the lowest level of churn among those who say they are extremely unlikely to be vaccinated.

What are the reasons you would or would not get vaccinated against COVID-19? (open-ended question)

[Reasons for not yet getting vaccinated reported by the unvaccinated]



N = 1205, Time period: 6/9/21 – 7/6/21

Source: 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) www.covidstates.org • Created with Datawrapper

Figure 2: Reasoning behind intention regarding vaccination

Examples of common reasons for not intending to be vaccinated:³

Perception of risks of vaccines [35% of all responses to open ended question to unvaccinated]:

Among the respondents who would not get vaccinated if a vaccine was available to them, 35% identify concerns regarding the health risks that the vaccine potentially poses, including side effects such as blood clots and heart inflammation, and existing health conditions such as allergies and history of vaccine reactions.

- "Scared, due to the underlying condition of high blood pressure and anxiety of the side effects of the COVID 19 shot."
- "There are reports in the news and others who have indicated that many have died or that there are serious side effects."
- "I'm worried about the effects it could have on my heart, as I saw stuff in the news about it affecting young males' hearts."

³ Note that we correct minor typos in the quotes below.

- "Severe reactions to vaccines in the past, was told by doctor never to get vaccinated for any reason. Allergic to too many things."
- "I do not want to take the risk of blood clots and compromising my good immune system."

Uncertainty regarding the risks the vaccine poses [24% of all responses]:

A particularly frequent concern mentioned regarding the risk of the vaccine (by 24% of respondents) was that the vaccines were developed too quickly to evaluate their health effects.

- "In 10 years lawyers are going to be saying "if you had the covid vaccine, call lawyers at 1-800..... Can't cure the common cold but you can come up with a vaccine in months."
- "I won't get the vaccine because it hasn't been researched long enough to establish it's safety. I know people who have gotten extremely ill within 24 hours of the vaccine. I won't do something that the government is pushing so hard in ridiculous ways (using celebrities, financial incentives). I won't do something that involves threats by the government if I don't comply (vaccine "passports")."
- "I don't feel that anyone can positively say whether there will be long term effects from vaccines until " long term" is here. There have been so many times we all heard CDC, WHO, FAUCI say, "we were wrong", and have adjusted or changed guidelines. No one mentions that we were told, an N95 mask is only protection now everyone is wearing masks that are completely useless in halting the spread. I am also distressed with claims of long term psychological and neurological effects, long after recovering from covid. Lastly, the public was told that the Johnson and Johnson vac just weeks ago; today all use has been halted until research into rare blood clot disorder is done. It should be obvious as to why people are afraid of the vaccines."
- "I don't think it's safe and I think it hasn't been tested enough to determine the long term safety of it. For example The Johnson & Johnson brand ...was great only 1 shot not 2. It was released and given to many, many people and now it's paused. It could have been and probably is all of the company's making the vaccine. Made it, released it, gave it to people and now are seeing some of the side effects, deaths and problems. I think it was developed too fast and not safe."

Lack of trust in institutions [15% of all responses]:

With 15% of respondents, the third common reason for not getting vaccinated is the general lack of trust in the vaccines and relevant institutions. 4% of all respondents directly state that they do not trust the government. We find that the trust-related responses often mention other concern categories such as side effects and lack of testing to support their arguments.

- "I do not trust the government as a black woman, they are pushing a little too hard for people to take this when other infectious diseases are treated as cash cows. This is highly suspicious to me."
- "Because I don't always trust what the government tells us."
- "Because it's not about keeping people safe it's about control of those that are becoming sheep to the communists currently running the country with the president as a puppet."
- "I feel they rushed the testing and that it is more a political smoke screen rather than something that is that serious. I am already healthy and hardly ever sick so why would I take something that I don't trust. I will take my chances and I have been on the forefront of this matter and I am still healthy and strong. I trust my body to take care of me because I don't pollute it with crap I don't believe in."
- "I just don't trust the vaccine. I feel it hasn't been tested enough and I refuse to be a lab rat for the government."
- "I no longer trust our government to do what is right. I have never liked vaccines. I certainly am not going to take one that has not been approved by the FDA and one that has not been studied for many years."
- "Too many side effects, too many people have died from the vaccine, don't really trust the government or their doctors."

Perception of benefit [12% of all responses]:

12% of respondents state that they do not believe COVID-19 poses considerable risk to them.

- "I don't need a vaccine for something that has a 99.9% survival rate."
- "I am a low risk and believe that the vaccine should be saved for those who need it. Also not worth my time. If I get covid I will quarantine. I won't die."

- Relatively few people mentioned life constraints (3%) or fear of needles (1%), so we do not present sample statements that fit those items. We note that the *Other* category consists of relatively few responses that mention misinformation regarding the vaccines, vaccine efficacy rates, religious beliefs, constitutional rights, and being generally against all vaccines.

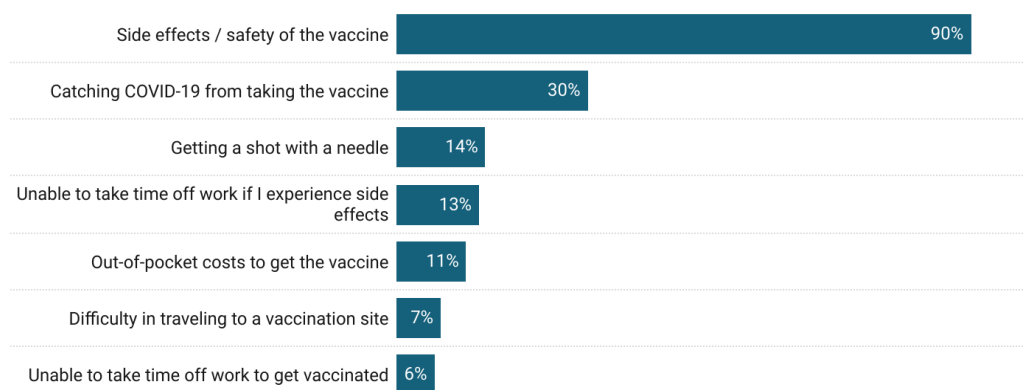


Responses on closed-ended surveys

We included a series of closed-ended questions that covered similar territory, as summarized in Figure 5. (Unsurprisingly, in every case a substantially larger percentage of respondents indicate that something was an issue, because it is much easier to check an item on a closed-ended list.) The concerns regarding the safety of the vaccine clearly towers over other concerns; but logistical/cost concerns are an issue for a substantial minority.

Which, if any, of the following concerns do you have regarding the COVID-19 vaccine? (Please select all that apply)

[People who have not received any COVID-19 vaccine]



N= 2524, Time period: 6/9/21 – 7/6/21

Source: 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) www.covidstates.org • Created with Datawrapper

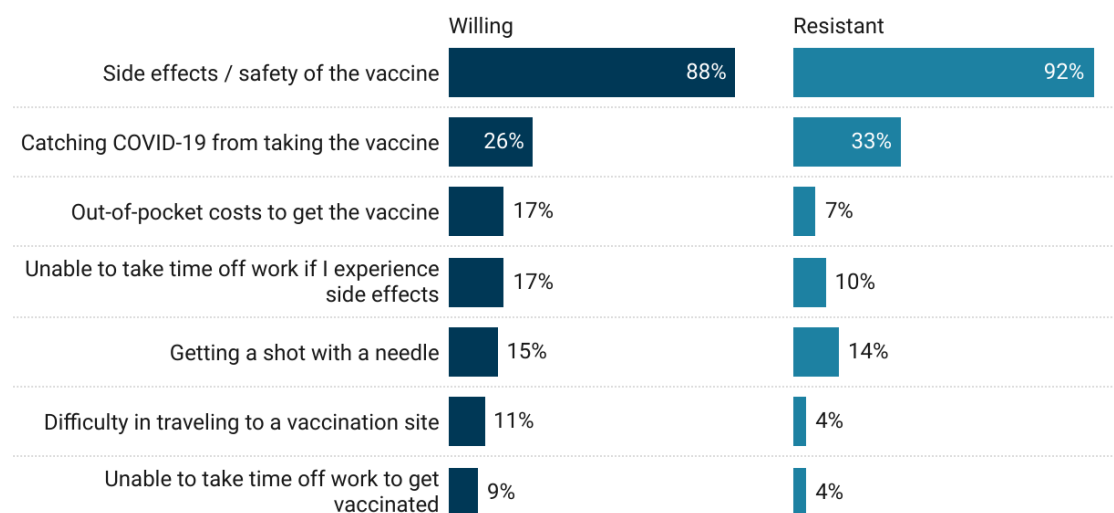
Figure 5: Concerns of the unvaccinated respondents

As noted in Figure 1, 18% of respondents are vaccine resistant, and 15% of respondents are unvaccinated but indicate some level of vaccine willingness. When we compare these two subsamples of the unvaccinated, there are modest differences in terms of concerns regarding health effects of the vaccine, and very large differences in terms of logistical and cost concerns (Figure 6). Roughly twice as many of the vaccine willing (as compared to vaccine resistant) indicate concerns regarding being unable to take time off of work if there are side effects (17% vs 10%); out of pocket costs to get the vaccine (17% vs 7%); difficulty in traveling to a vaccination site (11% vs 4%); and unable to get time off work to get vaccinated (9% vs 4%). In all, about 37% of the vaccine willing indicate at least one logistical/cost issue, as compared to 17% of the vaccine resistant.⁴

⁴ Expressions in our concern question that we take as logistical: Out-of-pocket costs to get the vaccine; Unable to take time off work to get vaccinated; Unable to take time off work if I experience side effects; Difficulty in traveling to a vaccination site

Which, if any, of the following concerns do you have regarding the COVID-19 vaccine? (Please select all that apply)

[People who have not received any COVID-19 vaccine]



Willing N = 1083; Resistant N = 1430; Time period: 6/9/21 – 7/6/21

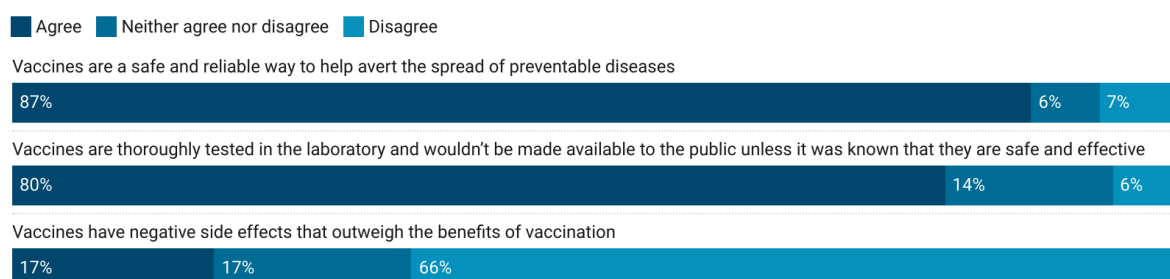
Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A joint project of: Northeastern University, Harvard University, Rutgers University, and Northwestern University) www.covidstates.org • Created with Datawrapper

Figure 6: Concerns of the unvaccinated with respect to their vaccination intention

Unsurprisingly, vaccine reluctance is strongly associated with general vaccine attitudes. Large majorities of the vaccinated believe in the efficacy of vaccines and of the regulatory system, whereas the unvaccinated are substantially more skeptical (compare Figure 7 to Figure 8). For example, 87% of the vaccinated agree with the statement “Vaccines are a safe and reliable way to help avert the spread of preventable diseases”; while only 51% of the unvaccinated do.

How much do you agree or disagree with the following statements about vaccines in general?

[People who received at least one dose of COVID-19 vaccine]



N= 5074, Time period: 6/9/21 – 7/6/21

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Figure 7: Attitude of the vaccinated toward vaccines

How much do you agree or disagree with the following statements about vaccines in general?

[People who have not received any COVID-19 vaccine]

■ Agree ■ Neither agree nor disagree ■ Disagree

Vaccines are a safe and reliable way to help avert the spread of preventable diseases



Vaccines are thoroughly tested in the laboratory and wouldn't be made available to the public unless it was known that they are safe and effective



Vaccines have negative side effects that outweigh the benefits of vaccination



N= 2519, Time period: 6/9/21 – 7/6/21

Source: 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) www.covidstates.org • Created with Datawrapper

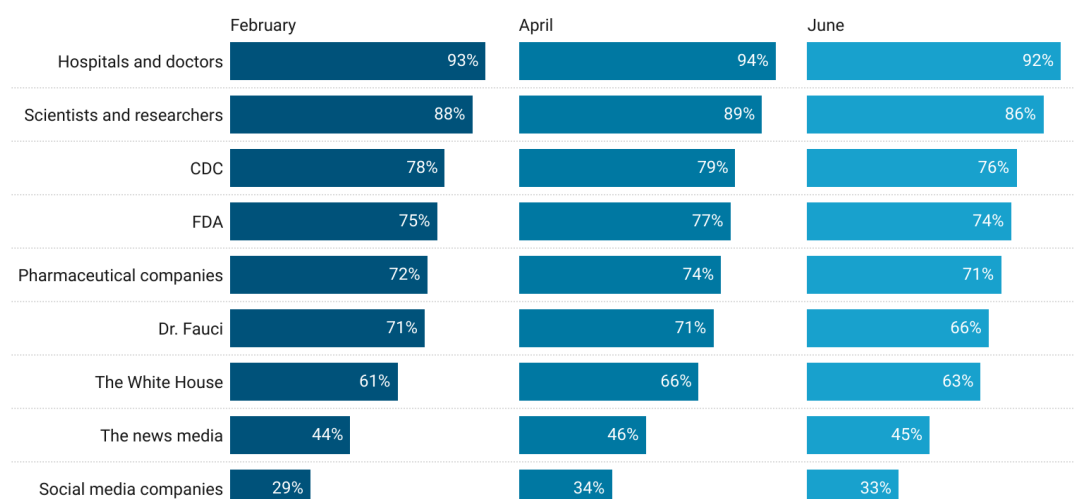
Figure 8: Attitude of the unvaccinated toward vaccines

People/organization trust:

The primacy of trust is evident throughout the responses. We use closed-ended questions to quantify the level of trust in institutions, relevant people, and vaccines. Through our latest three waves, trust levels in institutions and relevant people are remarkably stable. Figure 9 shows that from April to June however, we observe that trust levels for all institutions and people declined a modest amount. Despite the decline, the order of trust does not change. With 92%, hospitals and doctors are the most-trusted category, followed by scientists and researchers with 86%. The most publicly facing entities/individuals (Dr. Fauci, the White House, the news media, and social media companies), have the lowest levels of trust.

How much do you trust the following people and organizations to do the right thing to best handle the current coronavirus (COVID-19) outbreak?

[Percent respondents who say they trust "A lot" or "Some"]



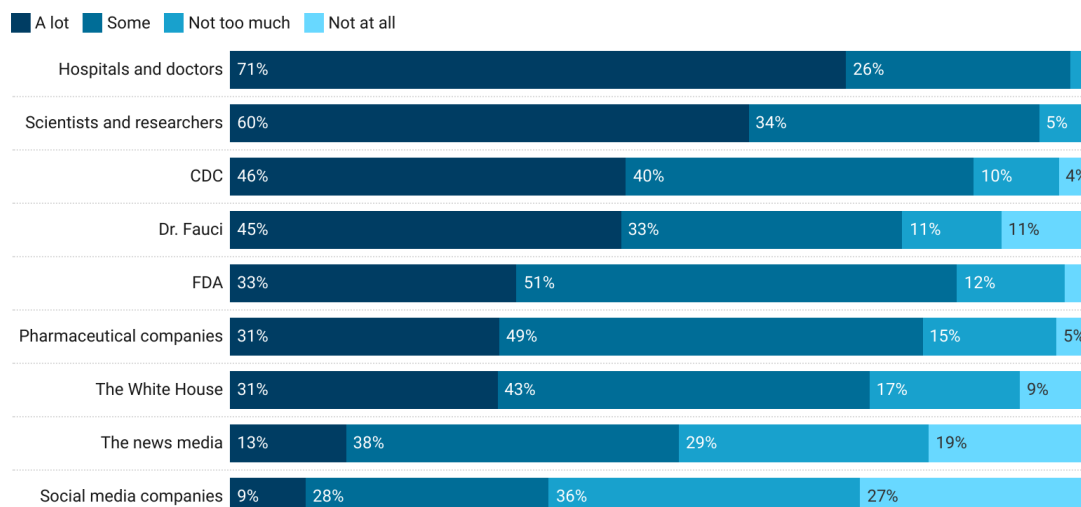
February: N = 21500, Time period: 2/5/21-3/5/21; April: N = 21733, Time period: 4/1/21-5/3/21; June: N = 20669, Time period: 6/9/21 – 7/6/21

Source: 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) www.covidstates.org • Created with Datawrapper

Figure 9: Trust levels in institutions and relevant people

How much do you trust the following people and organizations to do the right thing to best handle the current coronavirus (COVID-19) outbreak?

[Vaccinated sample]



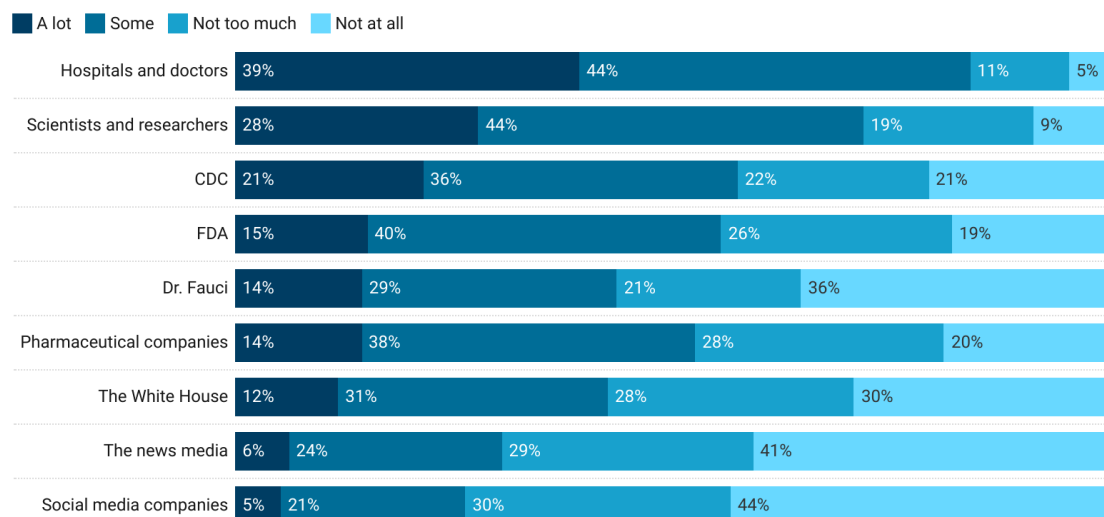
N = 13616, Time period: 6/9/21 – 7/6/21

Source: 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) www.covidstates.org • Created with Datawrapper

Figure 10: Trust levels of the vaccinated in institutions and relevant people

How much do you trust the following people and organizations to do the right thing to best handle the current coronavirus (COVID-19) outbreak?

[Unvaccinated sample]



N = 6984, Time period: 6/9/21 – 7/6/21

Source: 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) www.covidstates.org • Created with Datawrapper

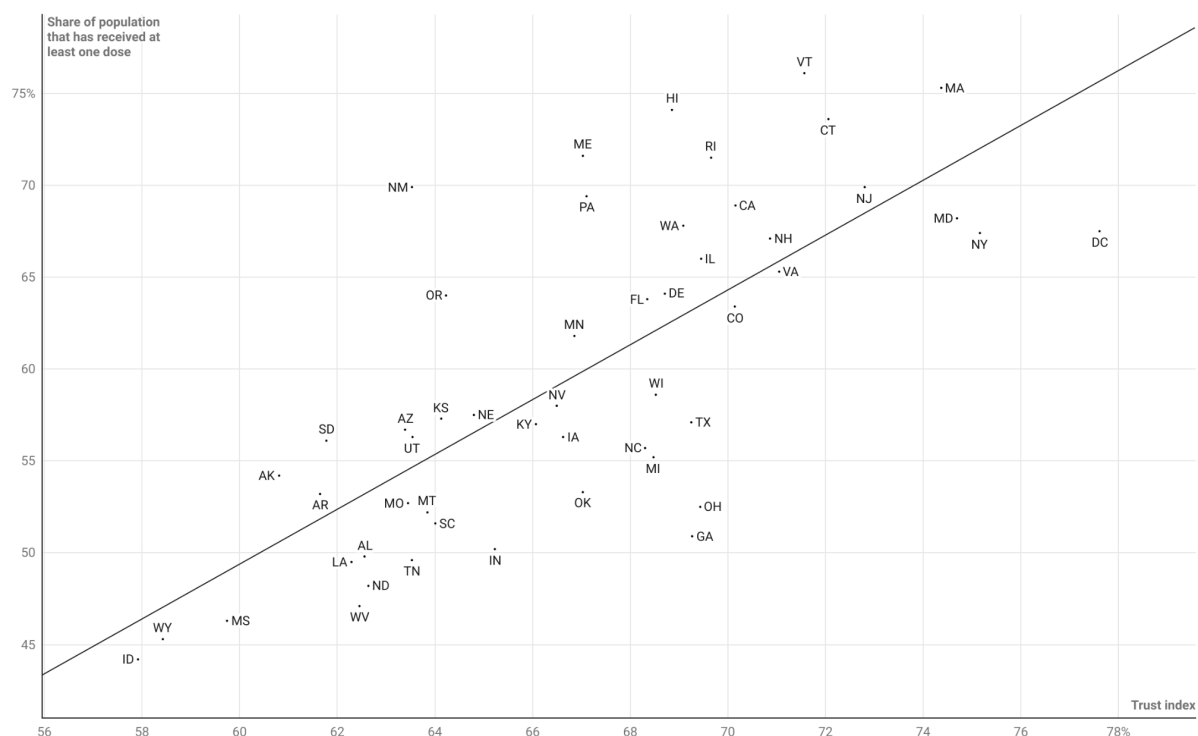
Figure 11: Trust levels of the unvaccinated in institutions and relevant people

Unsurprisingly, we see massive differences between the vaccinated and unvaccinated in terms of their trust of different people and organizations. For every entity that we asked about, the unvaccinated reported dramatically less trust. For example, while large majorities of the vaccinated report “a lot of trust” in two categories of entities, “hospitals and doctors,” and in “scientists and researchers,” there is no category in which a large majority of the unvaccinated report a lot of trust. That said, majorities of the unvaccinated do report a lot or some trust in 5 categories: hospitals and doctors, scientists and researchers, the CDC, the FDA, and (barely) pharmaceutical companies.

Finally, trust level (aggregated across all items), in turn, is strongly associated with vaccination rates at the state level.

COVID States Trust Index versus the state vaccination rates as of August 31, 2021

[State Trust Index is the average trust level in a state for the institutions provided in the report]



N = 20669, Time period: 6/9/21 - 7/6/21

Source: 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)
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Figure 12: Trust and vaccination rates

SUMMARY: Key takeaways

- The biggest expressed concern of the unvaccinated is the safety of the COVID-19 vaccines.
- The unvaccinated are much more likely to be skeptical of the efficacy and safety of vaccines more generally.
- A relatively modest share of the unvaccinated have logistical and cost concerns; but among the unvaccinated but vaccine willing, logistical and cost concerns loom substantially greater.
- Underlying many of the concerns regarding the COVID-19 vaccines is a lack of trust in the institutions that oversee and vouch for their safety.
- Trust in relevant institutions is strongly associated with vaccination rates at the individual and state levels.