



---

# VACCINE HESITANCY AND ACCEPTANCE

---

## DATA SEGMENTATION REVEALS PROGRESS AND BARRIERS

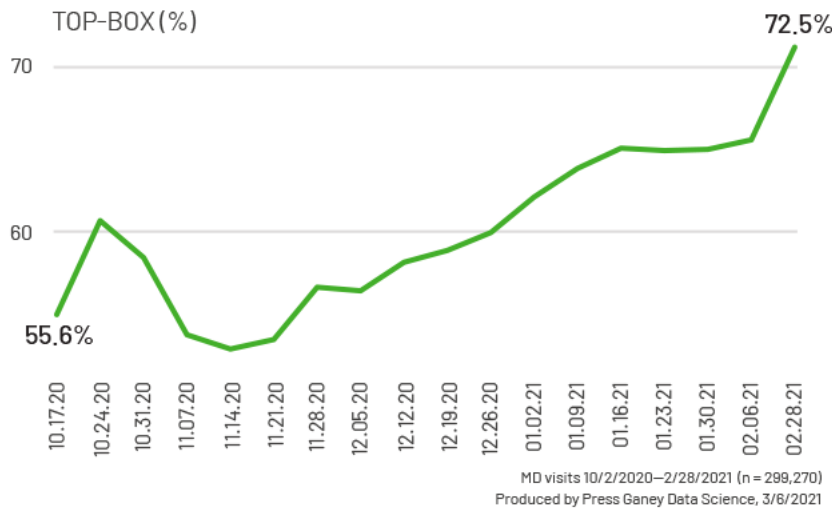
The number of patients reporting their willingness to get the COVID-19 vaccine has risen in recent months, but a deeper dive into patient attitudes and behaviors by race, age, and gender uncovers major gaps in vaccine acceptance, according to new data from Press Ganey.

## AT A GLANCE

An analysis of more than 300,000 consumer responses to vaccination surveys received between October 2, 2020, and March 6, 2021, yielded the following findings.

- Patients are increasingly likely to accept a vaccine but are relying much more heavily on the advice of their individual provider than guidance from the government.
- The crucial role of provider advice is even more evident when responses are segmented by race.
- Black/African American patients are far less likely than Asian or white patients to get the vaccine.
- With very low levels of confidence in the safety and effectiveness of the vaccine or in advice from the government, Black/African American patients are relying on advice from their providers to guide their acceptance.

Given the critical importance of optimal community engagement in COVID-19 vaccination programs, closing the identified readiness gaps is a public health imperative. Because providers' advice and guidance exert a strong influence on the likelihood that patients will get vaccinated, **health care organizations must integrate into their vaccination implementation plans communication strategies at the individual, community, and population levels to increase uptake of the vaccine.**



### WHAT'S A TOP-BOX SCORE?

A top-box score is the percentage of responses in the highest possible category for a question, section, or survey (e.g., percentage of "Very Good" or "Always" responses).

Figure 1. | Likelihood to receive COVID-19 vaccine by visit week

## TRENDS IN LIKELIHOOD OF VACCINE ACCEPTANCE

To assess the likelihood of vaccine acceptance, Press Ganey developed a COVID-19 vaccine question set based largely on the 4C model of vaccine hesitancy, encompassing complacency, convenience, confidence, and calculation. Patients from 1,296 medical practice locations affiliated with five major health systems in the Midwest and Southeast regions of the United States received surveys with the COVID-19 question set following an outpatient visit. In total, 319,398 responses are included in this analysis.

Early in the study period, which commenced before the first COVID-19 vaccine was approved, fewer than half of the patients responding to the COVID-19 question set indicated a high likelihood that they would get the vaccine, as shown in Figure 1. The acceptance rate has trended upward since that time, accelerating with approval of the first vaccine in early December and continuing with the first wave of vaccine administration.

In key driver analyses, the specific survey questions with the most influence on patients' likelihood to get the vaccine are those indicating that the benefits of vaccination outweigh the risks, trust in the safety of the vaccine, and trust in its effectiveness.

Not surprisingly, the increased acceptance rates observed over time coincide with increases in the number of patients who perceive the safety of the vaccine to be very high and the number of those who believe the benefits of getting the vaccine outweigh the risks (Figure 2).

### HERD IMMUNITY

Herd immunity is achieved when a critical mass of people becomes immune to a disease. Widespread acceptance of vaccines will get us there much more quickly.

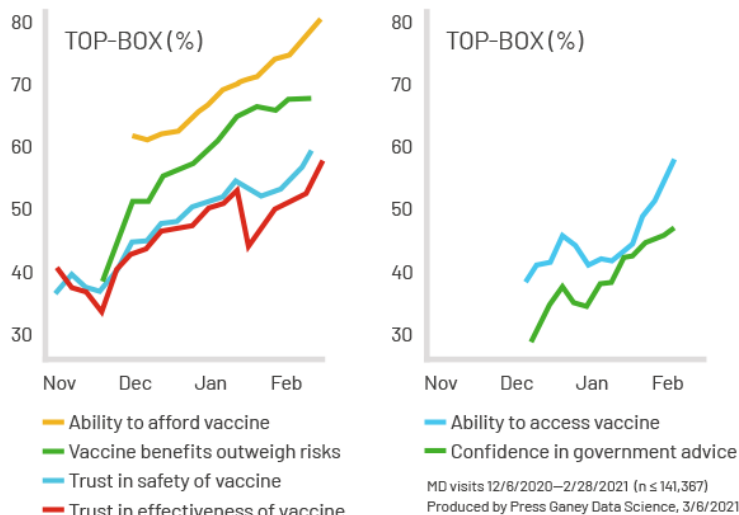
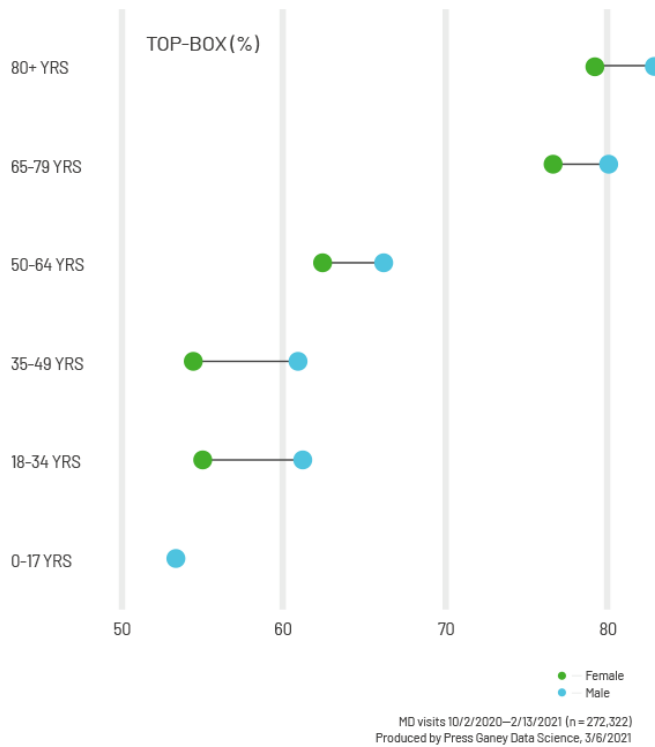


Figure 2. | COVID-19 vaccination acceptance over time

Because confidence in the government has not improved at the same rate, health care organizations will likely need to lead outreach and education efforts to influence community and individual adoption of vaccines.

## IMPACT OF AGE AND GENDER ON VACCINE ACCEPTANCE

Segmenting the data by patient age and gender shows that males report a higher level of vaccine acceptance than females across all age groups and that vaccine acceptance rates increase with age. The oldest patient segment (age 80 and older) has the highest acceptance rate among both female (79.0%) and male (83.3%) patients (Figure 3).



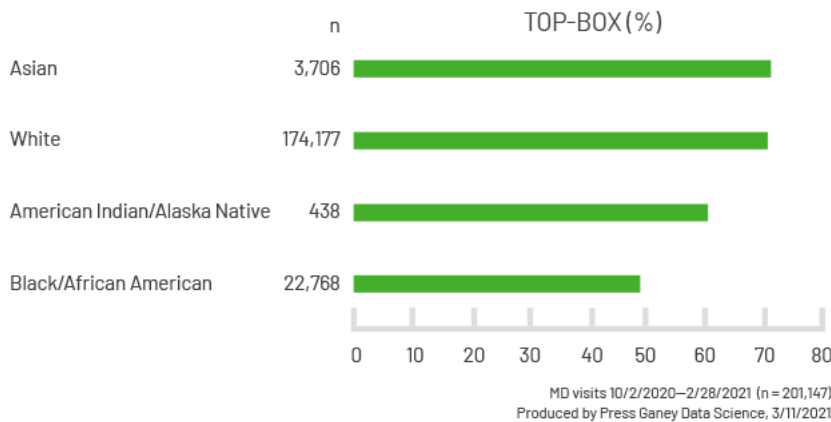
### AGE AND COVID-19

According to data from the CDC, 8 out of 10 COVID-19 deaths reported in the U.S. are of people over age 65.

Figure 3. | COVID-19 vaccine readiness by patient age and gender

## IMPACT OF RACE ON VACCINE ACCEPTANCE

Among the subset of respondents for whom race data were available, Black/African American patients reported the lowest likelihood of accepting the vaccine (49.8%) while Asian respondents showed the highest rate of acceptance (71.1%), followed by white respondents (70.2%); see Figure 4.



“I remember Tuskegee. The government was not kind toward the Black American male! I don’t trust the government and you can’t blame me!!”

Figure 4. | Vaccine acceptance by patient race

Looking at the impact of race on specific survey questions, the importance of provider advice is the highest-performing question for Black/African American patients, while trust in the effectiveness of the vaccine and in its safety was lower in this group than in the other race categories (Figure 5).

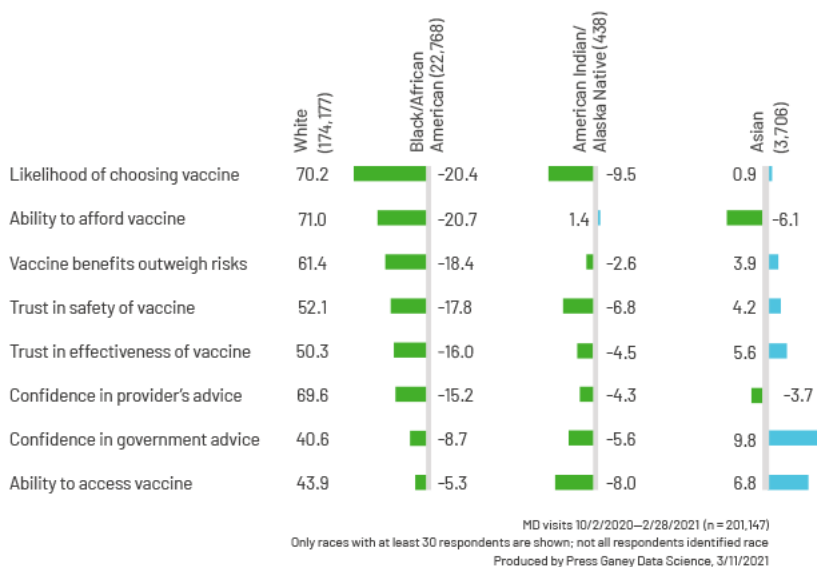


Figure 5. | Black/African American patients report the lowest confidence in the vaccine.



**49.8%**

---

OF BLACK/AFRICAN  
AMERICAN PATIENTS  
REPORTED THEY WERE  
LIKELY TO ACCEPT  
THE VACCINE.

## COMMENT ANALYSIS PROVIDES INSIGHTS INTO PATIENT PERCEPTIONS

---

*“I hope to be notified when it is my group’s turn to be vaccinated.”*

Among the themes emerging from AI-based analyses of patient comments, vaccine logistics were a top concern for patients reporting a high likelihood of vaccine acceptance. In particular, this group expressed a level of impatience for information about how, when, and where they will be able to access the vaccine, indicating that organizations will be fielding an influx of information requests. Proactive outreach should be deployed where possible to stem the flow of questions while ensuring patients are informed.

---

*“I’m concerned mostly about the availability of the shot, the ability to store it at such a cold temperature, and once again availability for the second shot at the required time. How can I be sure it’s been stored properly and is still effective?”*

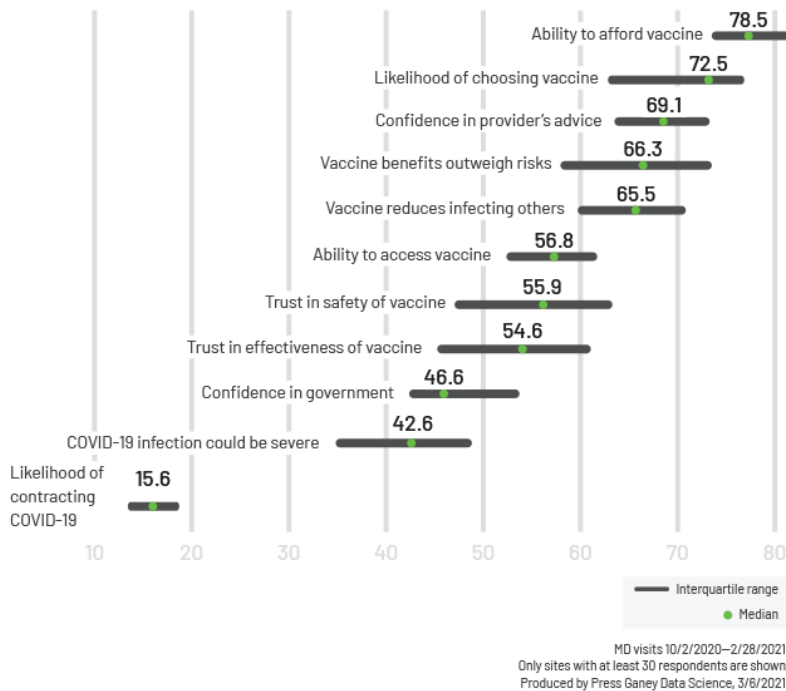
To address these concerns, organizations should leverage social media and other highly visible channels to explain the vaccine testing and approval process. Including specific messaging and transparency about the organization’s approach to safe handling of vaccines will provide caregivers with much-needed support in responding to patient and community questions.

---

*“The government rushed this vaccine through, so I do have concerns if all of the proper tests have been completed. The U.S. administration wanted a ‘miracle’ cure, which seems the opposite of science.”*

## PATIENTS LOOK TO PROVIDERS FOR ADVICE AND GUIDANCE

Patients have substantially more trust in the advice and guidance of their health care providers than in information provided by the government. Approximately 69% of respondents expressed a high level of confidence in their provider’s advice, compared with only 47% indicating their confidence in advice from the government (Figure 6). Given this, health care providers and organizations should prepare for an increased demand for individual and community guidance and education.




---

“If my personal care physician advises me to get the vaccine as soon as possible, then with caution, I may do so.”

---

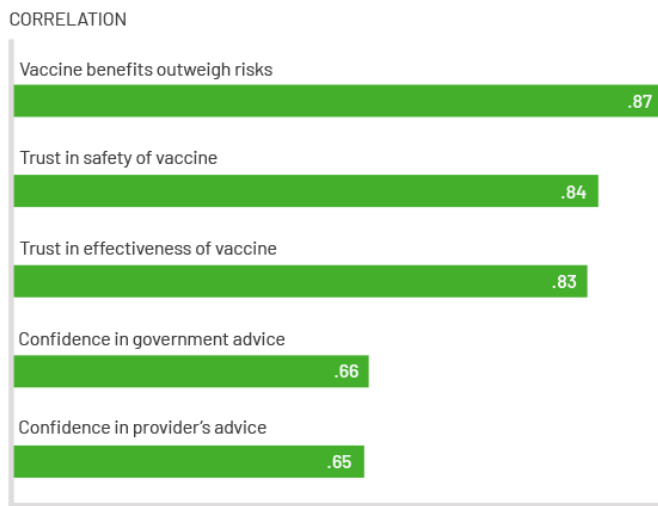
Figure 6. | Patients trust their own providers more than government advice.



## KEY DRIVERS CAN GUIDE TRUST-BUILDING COMMUNICATION STRATEGY

Press Ganey researchers conducted a key driver analysis to identify the relative importance of each of the COVID-19 vaccine questions on the vaccine acceptance outcome. They found that the specific survey questions with the most influence on patients' likelihood to get the vaccine are those indicating that the benefits of vaccination outweigh the risks, trust in the safety of the vaccine, trust in the effectiveness of the vaccine, and confidence in their provider's advice (Figure 7).

Targeted outreach should incorporate these messages to build public confidence and break down barriers to vaccine acceptance.



MD visits 10/2/2020–2/26/2021 (n = 139,589)  
Produced by Press Ganey Data Science, 3/6/2021

Figure 7. | Vaccine safety is a top priority.

### MRNA AND PATIENT'S DNA

mRNA is messenger ribonucleic acid; much like DNA, it carries instructions to a patient's cells. It doesn't interact at all with the patient's DNA. In mRNA vaccines, the instructions carried help the body develop defenses against the SARS-CoV-2 virus that causes COVID-19.

*“I got the vaccine but hated the side effects and worry about what receiving multiple DNA/RNA-changing vaccines might do to a person over time.”*

## KEY RECOMMENDATIONS

Because health care providers are the most trusted advisors in guiding acceptance of the COVID-19 vaccine, health care organizations can influence vaccine uptake in the communities they serve by taking the following steps.

- **Adopt a model of trust** that embeds empathy, authenticity, and logic into the culture of the organization and prioritizes **trust-building behaviors and skills**.
- **Take advantage** of multiple communication methods to support and scale messaging to patient populations—for example, the automation of vaccine education and outreach via patient portals and social media.
- **Collect, analyze, and segment** vaccine readiness data to understand and address the unique needs of the segmented populations.
- **Develop and deploy** communication strategies addressing the specific concerns of patient segments with low confidence in vaccine safety.
- **Proactively communicate** how, when, and where patients will be able to access the vaccine; be transparent about vaccine availability; and provide guidance about where to get additional information and help.
- **Partner** with trusted community organizations and networks to ensure respected leaders in communities of color and other marginalized groups are visibly and meaningfully engaged in vaccination planning, education, delivery, and administration.

### REFERENCE

Schmid, P., D. Rauber, C. Betsch, et al., “Barriers of Influenza Vaccination Intention and Behavior—A Systematic Review of Influenza Vaccine Hesitancy, 2005–2016,” *PLOS ONE* 12(1): e0170550, <https://doi.org/10.1371/journal>