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What Contributes to COVID-19 Vaccine Hesitancy in Black Communities, and How Can It Be Addressed?

Recent polls show that Black Americans are less willing than Americans of other races or ethnicities to be vaccinated for COVID-19, even after the November 2020 announcements by pharmaceutical companies Pfizer and BioNTech and Moderna about their vaccines' high efficacy.¹ For example, responses to a November 2020 poll of an online survey panel found that 42 percent of Black Americans, versus 63 percent of Hispanic or Latinx Americans and 61 percent of White Americans, said that they would definitely or probably get vaccinated.²

A December 2020 nationally representative telephone poll found that 35 percent of Black adults said that they would definitely not or probably not get vaccinated³—and about half of those who did not want to get vaccinated cited mistrust of vaccines as well as worry about getting COVID-19 from the vaccine as main reasons. Evidence thus far suggests that the percentage of Black individuals who show COVID-19 vaccine hesitancy has stayed consistently high, relative to other racial and ethnic groups in the United States, from April 2020

KEY FINDINGS

- A survey of a nationally representative sample of 207 Black Americans conducted in late 2020 found high levels of vaccine hesitancy and mistrust of COVID-19 vaccines in the overall sample, as well as among health care workers in particular.
- Those who expressed vaccine hesitancy also showed high levels of overall mistrust, concerns about potential harm and side effects, and lack of confidence in vaccine effectiveness and safety.
- Participants reported higher trust in COVID-19 information from health care providers and public health officials than from elected local and federal officials.
- Mistrust of the government's motives and transparency around COVID-19, as well as beliefs about racism in health care, appear to be contributing to mistrust of the vaccine.
- Black Americans attribute their medical mistrust, in general and specific to COVID-19 vaccines, to systemic racism, including discrimination and mistreatment in health care, as well as by the government.

to January 2021.⁴ Additionally, initial data suggest that Black Americans are receiving the COVID-19 vaccine at lower rates than are White Americans.⁵ This phenomenon is not unique to COVID-19: Black adults are less likely than White adults to get vaccinated for seasonal influenza, which contributes to greater influenza-related morbidity and mortality.⁶

Lower vaccination rates among Black Americans would further widen COVID-19 inequities in diagnosis, hospitalization, and mortality. As of mid-February 2021, compared with White Americans, Black Americans were 1.1 times more likely to be diagnosed with COVID-19, were 2.9 times more likely to be hospitalized, and had a 1.9 times higher mortality rate.⁷ Black Americans represent 12.5 percent of the U.S. population yet accounted for 18.7 percent of COVID-19 deaths from May through August 2020.⁸ These unfortunate realities stem from systemic inequity in health care access and provision as well as in society in general, leading to disproportionate rates of poverty; lower-wage employment as frontline, essential, and critical infrastructure workers; and unstable and crowded living conditions, all of which, in turn, are correlated with greater prevalences of underlying health conditions (e.g., diabetes, obesity, chronic obstructive pulmonary disease) that are associated with severe COVID-19 outcomes and death.⁹

Vaccine hesitancy, defined by the World Health Organization as “delay in acceptance or refusal of vaccines despite availability of vaccination services,”¹⁰ varies by context and time, making it critical to assess this challenge for different populations and subpopulations to tailor policy approaches that respond to community needs.¹¹ Vaccine hesitancy may be influenced by three main factors: (1) perceived need for and value of the vaccine, (2) access to and convenience in getting the vaccine, and (3) confidence and trust (or mistrust) in the vaccine itself (in terms of effectiveness and safety) and in health care providers, health care systems, and policymakers who support the vaccine.¹²

The third factor—trust and mistrust in vaccines—is affected by general mistrust of health care systems and providers. Such mistrust has arisen in Black communities as an understandable, rational, and self-protective reaction to history, knowledge,

and continuous and repeated discrimination, racism, and harmful experiences toward Black Americans by the health care system, health care providers (who are mostly not Black individuals), and the U.S. government.¹³ Such repeated, systemic discrimination experiences, as well as the perceived failure of health care organizations to take authentic measures to build trust and become more trustworthy, have led to avoidance of health care among Black Americans,¹⁴ which may translate further into unwillingness to accept COVID-19 vaccination.

To support efforts to reduce COVID-19 vaccine hesitancy in Black communities, we conducted a survey of Black Americans in November–December 2020 to better understand the drivers of such reluctance. We also conducted follow-up interviews with survey respondents who expressed hesitancy. Using the results of the survey and interviews, we worked with community stakeholders to identify an initial set of public health messaging and communication strategies likely to be successful in addressing COVID-19 vaccine hesitancy and increasing vaccination in Black communities.

Approach

American Life Panel Survey

We invited all 318 self-identified Black participants in the RAND American Life Panel (ALP), a nationally representative internet-based panel, to complete a survey between November 17 and December 2, 2020. We received responses from 207 participants. The survey contained about 50 items assessing levels of and reasons for vaccine hesitancy and medical mistrust that were developed for the survey or adapted from prior research,¹⁵ including beliefs about the vaccine’s effectiveness, necessity, and likely convenience, as well as mistrust of the vaccine and of government information and motives around COVID-19. The survey began about a week after public announcements about the high efficacy of the Pfizer and BioNTech and Moderna vaccines. Participants were provided with a \$17 incentive for the 25-minute survey. Data from the survey were linked to sociodemographic data on ALP participants. All analyses employed sample

About Survey Participants

Participants came from various Black subpopulations and communities: They were 50.8 years old on average (range was 25–86 years), and 71 percent self-identified as female and 29 percent as male, and 6 percent identified as Latinx; 13 percent identified as a sexual minority (lesbian, gay, bisexual, don't know, or something else) and 0.5 percent as transgender. Most (91 percent) were born in the United States and 37 percent were married. Half (50 percent) were not currently employed, about one-quarter (23 percent) had a high school degree or less, and about half (48 percent) reported less than \$40,000 in annual household income. Most (93 percent) resided in urban areas.

weights such that results were adjusted to represent the demographic characteristics of the national population of Black and African American adults (ages 18 and older). The methodology of the ALP (including recruitment and response rates) is detailed in a prior report.¹⁶

A limitation of our survey, and of other recent national polls about COVID-19 vaccine hesitancy, regards the low proportion of especially vulnerable subgroups, including youth and young adults, sexual and gender minority individuals, and individuals not born in the United States. These groups exhibit even greater disparities in health outcomes than Black Americans as a whole. Thus, we did not have the statistical power to adequately evaluate differences in vaccine hesitancy by such subgroups.

Semi-Structured Interviews

To date, two interviewers (a mixed-race woman of color of African and European descent and a woman of South Asian descent) have conducted in-depth semi-structured telephone interviews with 18 of the 66 participants who indicated high COVID-19 vaccine hesitancy on the ALP survey. (Interviews are ongoing, but we present preliminary results here in the form of representative quotes to help inform

discussions on this pressing issue.) Respondents were asked about social influences and trusted sources related to COVID-19 and recommendations and proposed solutions for addressing COVID-19 vaccine hesitancy and increasing COVID-19 vaccination in Black communities. Participants were given a \$40 incentive for the one-hour interview.

Stakeholder Engagement

We engaged with an advisory committee comprising eight key stakeholders who represent organizations in Black communities or subgroups of Black communities (e.g., people living with HIV, sexual and gender minority individuals, immigrant communities) that have been most affected by COVID-19. (Information about the committee members is listed in the acknowledgments at the end of this report.) Several stakeholders were selected because of their affiliation with organizations that focus on people living with HIV or HIV-affected individuals, because successful interventions and policies from the HIV domain are applicable to COVID-19 and can be used as a starting point for reducing COVID-19 inequities. The advisory committee met throughout the project to collaborate on study and protocol design and to review and interpret data to make recommendations for interventions and policies to reduce COVID-19 inequities. Preliminary recommendations are discussed later in this report.

American Life Panel Survey: Key Findingsⁱ

Intention to Get Vaccinated for COVID-19

Overall, more than one-third of all survey participants agreed or strongly agreed that

ⁱ The key findings highlighted in this section come from preliminary inferential statistical analyses that showed medium or large effect sizes and significance levels of $p < 0.05$ in logistic regression models with the dichotomous outcome “would get vaccinated” versus “would not get vaccinated or don't know.” A future journal article will include full details on the sample, methods, and results.

they would not get a COVID-19 vaccine, and an additional 25 percent said “don’t know”; only 40 percent indicated that they *would* get vaccinated (see Figure 1; the vertical lines in the figure represent the 95-percent confidence interval around each percentage).

When we examined vaccine hesitancy by sociodemographic characteristics, we found limited effects. People who identified as female (34 percent) were more likely to say that they would *not* get vaccinated than were those who identified as male (55 percent). Gender, however, was not significantly related to vaccine hesitancy when other sociodemographic factors were controlled. **Participants in health care fields, such as health care practitioners and those in technical and support occupations ($n = 36$, which is 22 percent of the sample) showed higher vaccine hesitancy.** Specifically, of those in health care fields, 48 percent indicated that they would not get vaccinated, compared with 32 percent of participants who were not in health care–related occupations (see Figure 2). (However, given small sample sizes, these results should be interpreted with caution.) No other sociodemographic characteristics were strongly associated with vaccine hesitancy.

Confidence and Trust in the COVID-19 Vaccine Is a Strong Factor in Vaccine Hesitancy

A strong factor in participants’ lack of willingness to get vaccinated was general mistrust of the vaccine. As shown in Figure 3, levels of overall mistrust of the vaccine were particularly high among those who said that they would not get vaccinated (74 percent) relative to those who said that they would get vaccinated (20 percent).

Those who intended to get vaccinated not only reported higher levels of trust in the vaccine, they also reported higher levels of trust in doctors. By contrast, **participants who agreed with the statement, “When it comes to COVID-19, Black people cannot trust health care providers” were less likely to say that they would get vaccinated.** As shown in Figure 4, among those who did want to get vaccinated, 64 percent disagreed with the statement, compared with 41 percent of those who did not want to get vaccinated. Interestingly, a substantial minority of both groups were unsure whether they could trust health care providers, with 21 percent of those who did want to get vaccinated and 30 percent of those who did not responding “don’t know.”

Figure 1. Vaccine Hesitancy in the Overall Sample

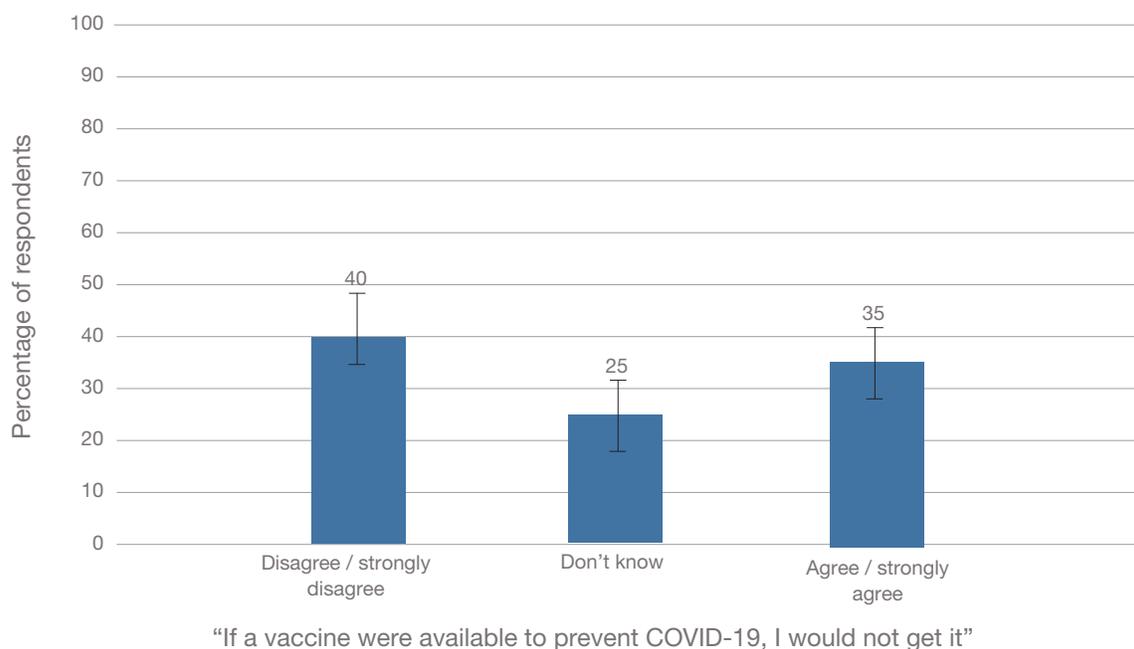


Figure 2. Vaccine Hesitancy by Occupation (Health Care Versus Not Health Care-Related)

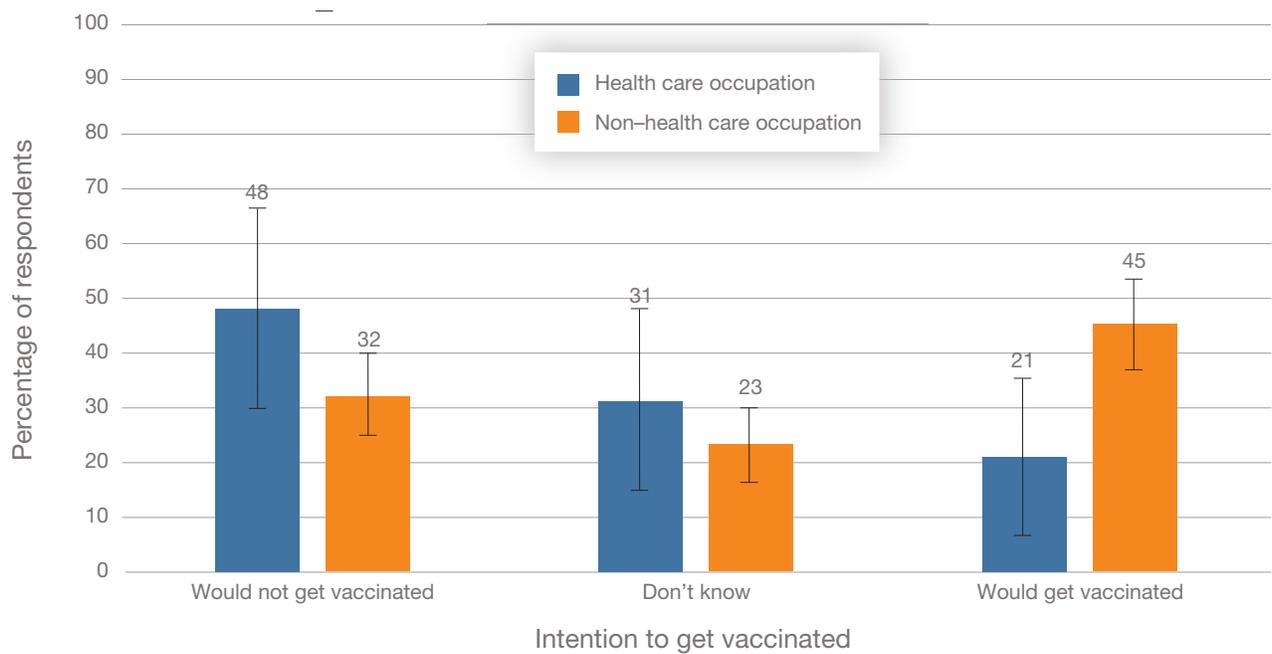


Figure 3. Responses to “If a vaccine were available to prevent COVID-19, I would not trust it” by Intention to Get Vaccinated

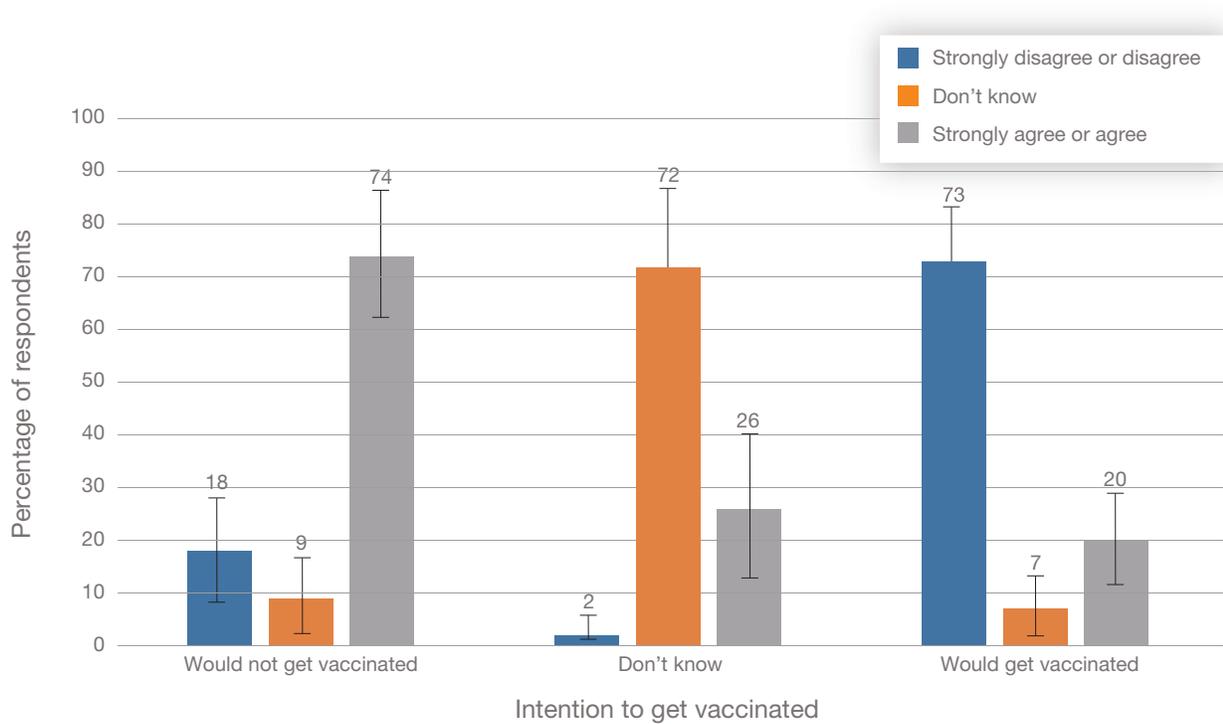
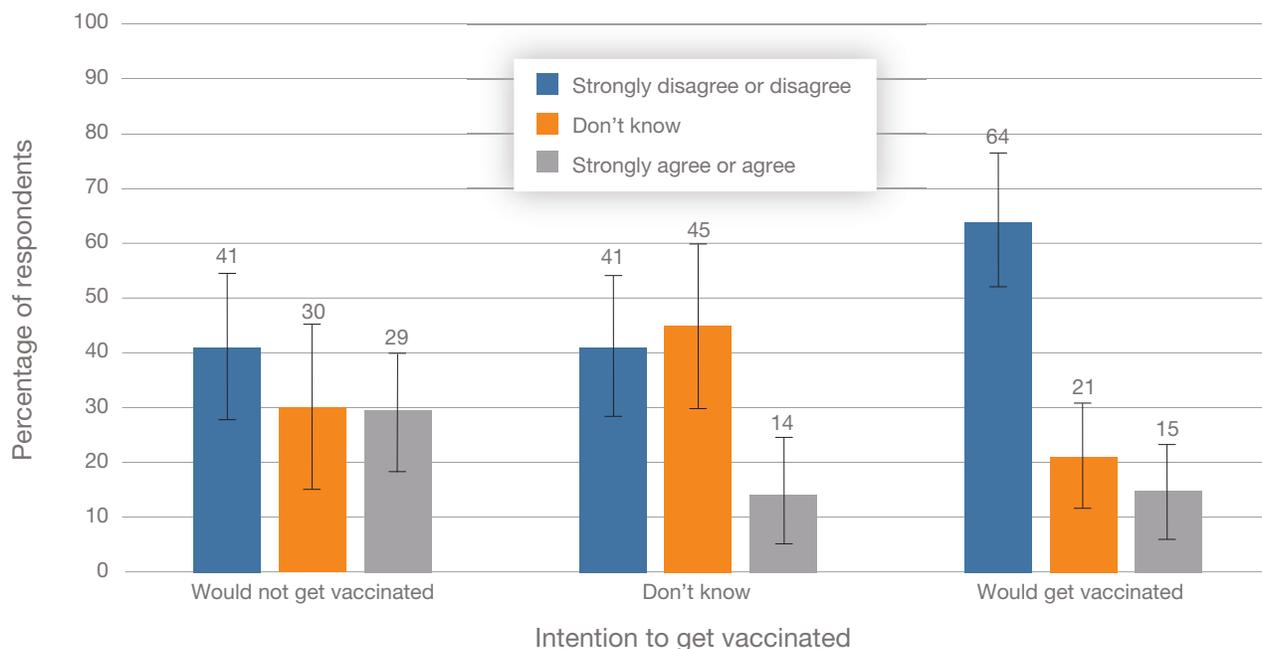


Figure 4. Responses to “When it comes to COVID-19, Black people cannot trust health care providers” by Intention to Get Vaccinated



Perceived Need, Safety, and Effectiveness Also Are Critical

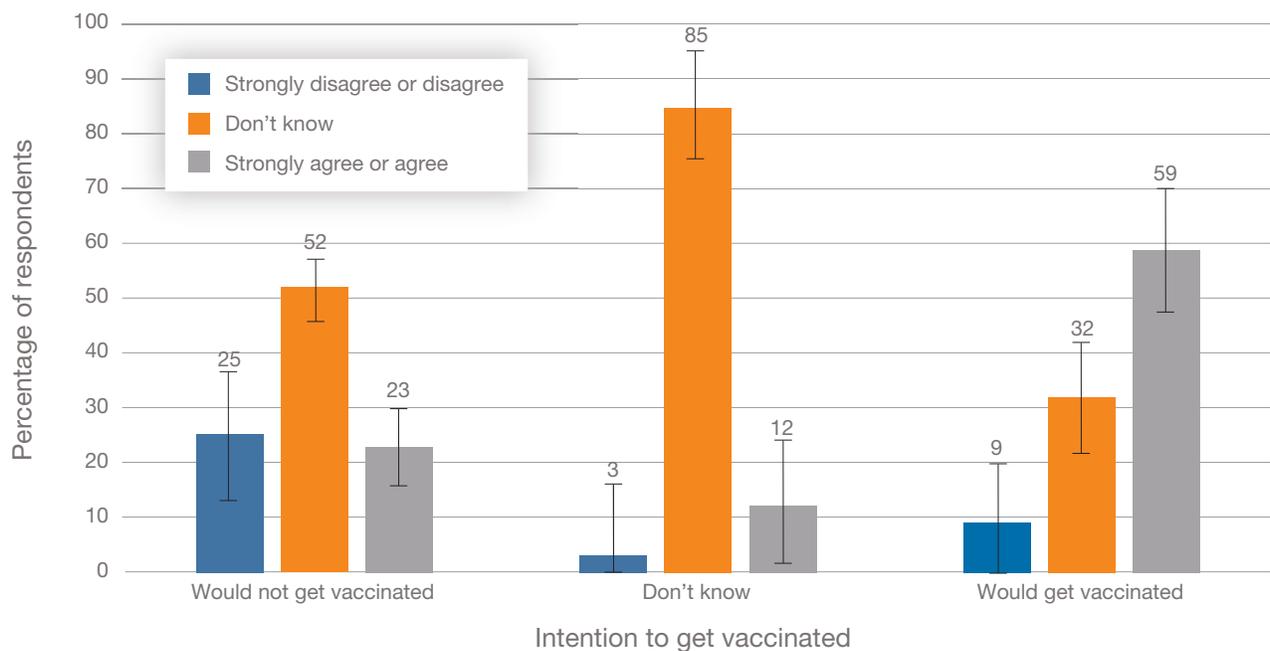
We found that perceived necessity for the vaccine and belief in its effectiveness contributed to intention to be vaccinated for COVID-19, which is consistent with other national surveys of Black Americans.¹⁷ In addition, those who said that they would get the vaccine agreed or strongly agreed that the vaccine will be safe, that it is important for their own health as well as the health of others in their community, and that vaccines are a good way to protect themselves from disease. Interestingly, as shown in Figure 5, **more than half of the participants who said that they would not get vaccinated were not sure (i.e., responded “don’t know”) about the effectiveness of the vaccine, compared with about one-third of those who said that they would get vaccinated.** About one-quarter of those who said that they would not get vaccinated, versus 9 percent of those who said that they would, had doubts about the vaccine’s effectiveness.

Mistrust of the Vaccine Is Associated with Mistrust of the Government and Perceived Racism in Health Care

Mistrust in the government around COVID-19, as well as perceptions of racism and unequal treatment in health care around COVID-19, were high. For example, 59 percent of all respondents agreed or strongly agreed that “The government cannot be trusted to tell the truth about COVID-19,” 64 percent of all respondents agreed or strongly agreed that “A lot of information about COVID-19 is being held back by the government,” and 59 percent of all respondents agreed or strongly agreed that “People who take a COVID-19 vaccine will be like human guinea pigs.”

With respect to health care, 64 percent did not agree that “When it comes to COVID-19, Black people will receive the same medical care from health care providers as people from other groups,” 63 percent agreed or strongly agreed that “Within the health care system, people from my racial/ethnic group are treated differently than people from other groups,” and 39 percent said that they would be more comfortable having the vaccine explained to them by

Figure 5. Response to “The COVID-19 vaccine will be effective” by Intention to Get Vaccinated



a health care provider with a similar racial or ethnic background.

These kinds of **mistrustful beliefs about the government and health care were key correlates of COVID-19 vaccine mistrust**, including lack of confidence in its safety and effectiveness. For example, of those who agreed or strongly agreed that “People who take a COVID-19 vaccine will be like human guinea pigs,” 51 percent said that they would not trust a COVID-19 vaccine versus only 21 percent of those who disagreed or strongly disagreed. Thus, overall medical mistrust of the government and health care was associated with higher mistrust of the COVID-19 vaccine, which in turn was associated with greater vaccine hesitancy.

Health Care Providers Are More Trusted Than Elected Officials

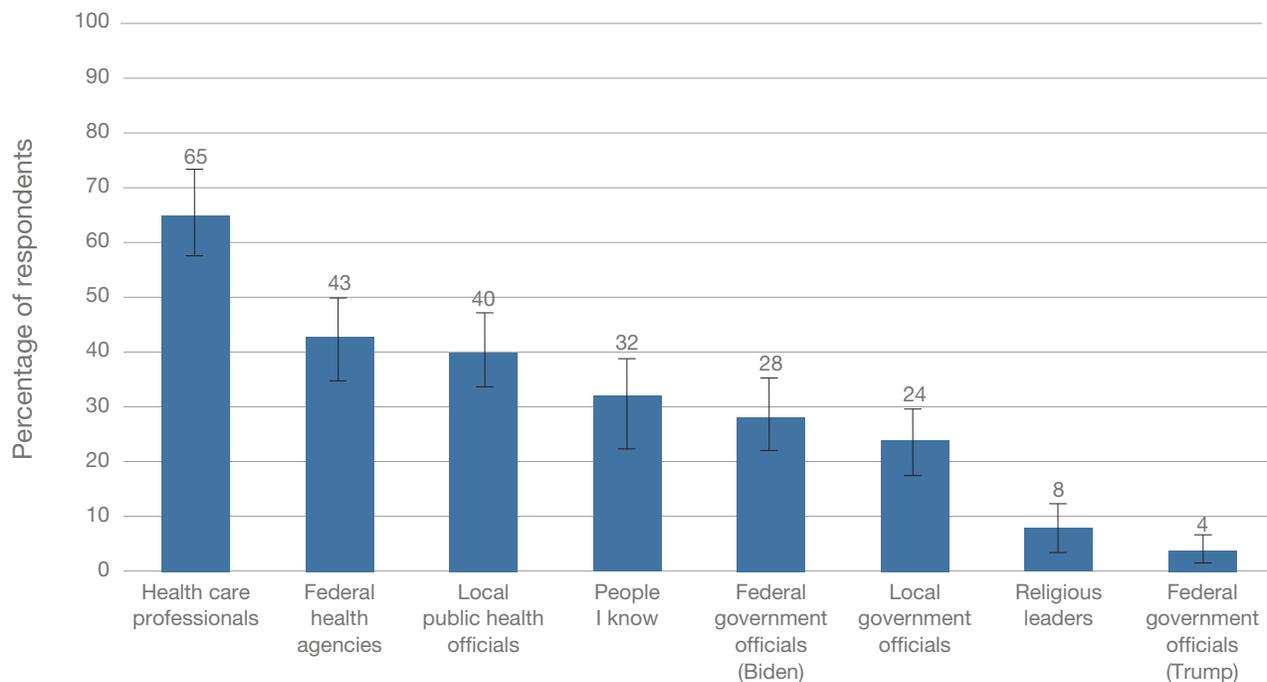
When asked which sources they trusted for information about COVID-19, nearly two-thirds (65 percent) said that they trusted health care professionals (i.e., doctors, nurses). **Health care providers were trusted by higher percentages of**

participants who said that they would get the vaccine (72 percent) than those who said that they would not (56 percent). Other sources of information were trusted by less than half of the sample (see Figure 6). Notably, less than one-third of respondents said that they would trust information from federal or local elected officials.ⁱⁱ And although religious leaders are commonly mentioned as trusted sources in Black communities,¹⁸ only 8 percent said that they would trust religious organizations for information about COVID-19—possibly because faith-based organizations may be seen as trustworthy in general but not as a source for scientific information.

Low percentages of respondents trusted media sources for COVID-19 information. About one-fifth (21 percent) trusted television news (with many write-in responses for CNN), and television news was more trusted among those who said that they would get vaccinated versus those who said that they would

ⁱⁱ Because the survey was conducted after the November 3, 2020, presidential election but prior to the January 20, 2021, inauguration, we asked about both federal government officials in the outgoing Trump administration and those in the incoming Biden administration.

Figure 6. Trust in COVID-19 Information Sources



not (29 percent and 15 percent, respectively). Even smaller percentages trusted radio (7 percent), internet news (6 percent), and social media (4 percent). Fourteen percent said that they did not trust any of the information sources listed.

Social Pressure Matters

Subjective social norms (i.e., social pressure from others, such as friends and family) emerged as a third key component of vaccine hesitancy. **The more participants believed that people close to them would want them to get vaccinated, the more likely they were to say that they would get vaccinated** (see Figure 7). Perceived descriptive social norms (i.e., “Thinking about people of your own race [in the United States], how many of them do you think will get [the] COVID-19 vaccine when it becomes available?”) were less important correlates of vaccine hesitancy than were subjective social norms.

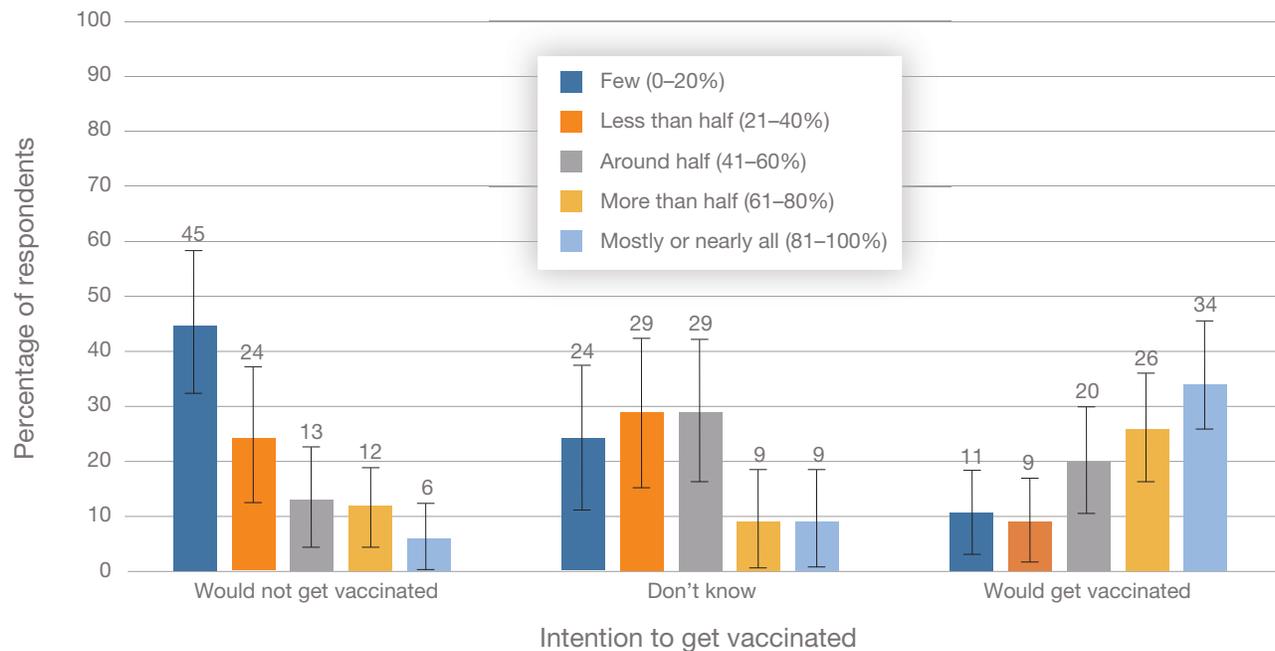
In Their Own Words, Vaccine-Hesitant Participants Suggested Ways to Address COVID-19 Vaccine Hesitancy

In this section, we describe themes that emerged in our preliminary analysis of the qualitative semi-structured interviews with 15 of the 66 participants who indicated high COVID-19 vaccine hesitancy on the ALP survey—“agreed” or “strongly agreed” that they would not get a COVID-19 vaccine. We provide sample quotes for illustrative purposes.

Participants said that public health campaigns should involve trusted, known community members and trusted local organizations.

Participants trusted nonclinical organizations and influential formal and informal leaders to promote the vaccine. Some participants suggested that partnerships with Black celebrities (e.g., hip-hop artists) would encourage vaccination. Participants suggested identifying trusted individuals in each community. This means that a one-size-fits-all approach with national spokespeople would be insufficient. These findings are not necessarily contradictory to the survey findings, which asked

Figure 7. Responses to “Of the people close to you, what proportion of them would want you to get the vaccine?” by Intention to Get Vaccinated



about trusted COVID-19 information sources (versus who should be involved in public health campaigns for the vaccines or in providing access points for vaccination). Individuals may prefer to hear scientific information from health care providers and scientists (instead of, for example, elected officials or pastors), but they might also see the value in trusted individuals in their communities, such as leaders of faith-based organizations, helping to encourage vaccination.

I would like to hear from the council districts. I think the council districts have a lot of different ways of doing outreach even during the pandemic: virtual things or they will have drive-by situations. . . . All of these council districts are so local; you feel like you can reach them. Like we may want to reach out to the president, but we can't. So, our council districts, they are our immediate representation. (45-year-old woman in an educational, training, or library occupation)

Black [people] that are already in the medical field, Black [people] that work in low-income areas that are in the medical field. . . . I think

they would have more trust, more of a trust factor than anyone else. People that you already have a relationship with. . . . And an age range, not just the young people taking the vaccinations. I think finding older medical personnel that have taken the vaccination, having this cross-section and speaking to especially those in low-income areas might help. (62-year-old woman in an educational, training, or library occupation)

People from the grassroots, from local people to local people. . . . I don't know how fast that would spread, but that's where I think it should come from. (45-year-old man in a management occupation)

Participants found a variety of information sources to be acceptable, except those perceived as having ulterior motives. Participants thought that testimonials by Black community members or other trusted Black individuals who had been vaccinated for COVID-19 could be persuasive. Such individuals would be seen as genuine sources of information that do not have ulterior motives (versus such sources

Participants suggested that concerns about effectiveness, long-term side effects, and costs could be addressed openly by health care providers through informational webinars, community forums, and other online events.

as pharmaceutical companies) because they are not paid to say the vaccine is effective and do not gain financially from the vaccine. Social media and social media influencers were seen as good information sources; however, as noted earlier, the ALP survey results indicated that social media was not a trusted source overall, suggesting that social media sources would be acceptable only if the person providing the information was seen as genuine and trustworthy. In addition, participants cautioned that print materials and in-person (e.g., door-to-door) vaccine promotion might be needed, especially for those who have less digital access. They also suggested that TV news outlets, such as CNN, could provide information.

I would say anybody who receives any type of monetary gain from something . . . then I probably won't listen to them 100 percent. (40-year-old woman in a building and grounds cleaning and maintenance occupation)

When I hear Dr. Anthony Fauci talk in specifics—not generals, but in specifics—I honestly get the feeling that he is trying to do the best job that he can and he honestly cares about the American people. It's not that I completely trust him, I mean he works for the government and he has a job to do and he also answers to someone. But from listening to him, he gives the sincere appearance that he cares about the American people more than anyone else. . . . I've heard other doctors that sounded good, [and] even some Black doctors, and I honestly believe that I get such a very good feeling of concern from Dr. Anthony

Fauci. But, that being said, it could be that he has excellent bedside manner and that he is just good at his job . . . it doesn't mean that he is telling the truth or that he knows the truth. (56-year-old man in a business and financial operations occupation)

For some people, [information from faith-based organizations] would work, because whatever the pastor says, they're gonna do. The problem with that is folks have questions, regardless of who you are . . . and someone from the medical field, the science field would be better equipped to answer those questions instead of giving their personal beliefs or biblical beliefs. . . . Nobody wants to hear that. But to hear an answer that we feel comfortable with and there's some validity to the answer, yeah, we can have that at a church but we still want someone from the health care field to give us this information. (56-year-old woman in an educational, training, or library occupation)

Participants suggested that concerns about effectiveness, long-term side effects, and costs could be addressed openly by health care providers through informational webinars, community forums, and other online events. Participants valued honesty and transparency and wanted details about the vaccine, the trial data, and results presented in lay terms by expert scientists and doctors, along with opportunities for their concerns to be heard and to ask questions for open dialogue. Participants

suggested implementing a 24-hour national hotline for vaccine questions.

Several participants mentioned Black doctors and scientists as especially important messengers to both promote trust in the vaccine and encourage broader trust in science and research trials. Dr. Kizzmekia Corbett, a federal scientist at the Vaccine Research Center at the National Institute of Allergy and Infectious Diseases, which is part of the National Institutes of Health, who helped to develop the COVID-19 vaccine, was mentioned by several participants as an inspiring individual who increased the perceived trustworthiness of the vaccine development process.

Door-to-door notices and just having somebody who is fully [knowledgeable] about the vaccine and [who] is not going to withhold information. . . . Be completely transparent, and we'll feel more safe and trusting of what you are saying and then show us more research. (45-year-old woman in a personal care and services occupation)

A town-hall meeting or gathering of any sorts, it's a sharing of information, the sharing of ideas because a lot of folks just don't know about it. . . . As far as a community board, whether it's online, but preferably in person, that way you hear other people's concerns that you may not have thought about or concerns that you have thought about and you hear other people's reactions, how they feel in addition to getting information . . . it's empowering also to hear what other folks have to say and their concerns. (56-year-old

woman in an educational, training, or library occupation)

For me, personally, my doctor, I trust my doctor. . . . And the category that I'm in, as far as my health goes, she would have to tell me that some of my peers took the medicine, and the side effects [were] minimal and that this is something that I absolutely should take. (54-year-old woman in a community and social services occupation)

Participants also said that, prior to providing information about the vaccine, public health messages and health care providers should acknowledge past injustices and racism as justifiable reasons for mistrust.

[We need to hear] "We understand why you're apprehensive, we understand that these things have happened in the past to your communities and other communities. What we want to show you now is you will be able to get the vaccine for free, and in addition, you will have access to any follow-up care you might need, 24 hour resources, hotlines." People will actually need to get out in the community and talk to our community. (57-year-old woman in a business or financial operations occupation)

Inequality has affected, or will affect, people's decisions to take the vaccine. . . . When you feel like you are always being attacked or no one is listening to you or no one hears you or no one sees you, [and] all of a sudden, here

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is something for you . . . you feel a little wary about it. (45-year-old woman in educational, training, or library occupation)

I like [my former doctor] because she is a Black doctor, she understands my needs. I trust her. The new doctor I have, she's not a Black woman. So that's a little hesitant. . . . Black folks are not taken serious when we say we have an ailment. (56-year-old woman in an educational, training, or library occupation)

America would have to address a much larger issue first, which is racism. And with that, that also calls for a conversation about inequality. And with inequality, there also [calls] for what is it that you can do to undo that pain and suffering that the Black community has still [and has had] for countless generations. So, speaking on those challenges and the issues we feel about the medical field, I feel as though that will only be seen to the Black community as a facade to kind of get us to do something that you want us to do and why do you want us to do that when we have been saying, here are the issues [that] we need . . . fixed and the country in which we pay tax dollars for as law-abiding citizens, and they are not being addressed. (29-year-old man in a management occupation)

Participants were split on where to offer vaccination, suggesting that a variety of options are needed to reach a diverse array of individuals.

Participants were split on where to offer vaccination, suggesting that a variety of options are needed to reach a diverse array of individuals. Some preferred to get vaccinated by health care providers, at clinics, and in doctor's offices to ensure that vaccination is done correctly and that they could get adequate medical attention should there be an adverse (e.g., allergic) reaction. Others suggested that a variety of non-health care venues, including local pharmacies, drive-throughs, community centers, and pop-up venues, would be more trusted than health care providers.

Instead of having it at the hospitals, they would have it at the multipurpose centers, where they feel more like [its] their people and being distributed by their people . . . a lot of them are not going to trust [health care organizations]. . . . When they go in just for general health care, . . . situations like . . . feeling sick or . . . complications to their medications and different things like that, and they feel like they're not being helped. Then they're not gonna want to receive a vaccination from those things. . . . [Nonmedical, community-based organizations are] probably better received because the organizations that are outside of . . . health care, they gear toward helping them. They . . . offer like food and different things . . . that they need. So, they're more trusting in that arena as opposed to the health care arena. (46-year-old woman in a health care practitioner and technical operation occupation)

At their doctor's office . . . I mean, these are people that you go to regularly, so they'll be more trusting of their doctor instead of a random person [who is going to] give you the shot. (45-year-old woman in a personal care and service occupation)

A lot of Black people that I know, especially older Black people, don't like going to the doctor. They just don't like it, for whatever reason I have heard. . . . Every time you go,

Public health messages and communication strategies to address vaccine hesitancy must be tailored to communities through authentic, long-term engagement.

you get bad news, or they are just going to prescribe something, or you know. So, I think that something outside of a hospital or clinic environment would be a better way to go. (45-year-old woman in an educational, training, or library occupation)

I would include churches, that would be a safe haven for folks. (56-year-old woman in an educational, training, or library occupation)

I prefer my primary care physician because I have a relationship with my primary care physician, and I know that he would be open and transparent with me. If I had any questions, he would answer them for me honestly, truly. And more than likely, I would hope he could let me know of his experience, as well, from it. (29-year-old man in a management occupation)

Recommendations

Using our initial findings and ongoing discussions with the study’s advisory committee, we provide the following preliminary recommendations:

Public health messages and communication strategies to address vaccine hesitancy must be tailored to communities through authentic, long-term engagement. Black communities are heterogeneous, and vaccine marketing thus needs to be tailored to local community priorities, access, and needs following principles of social marketing and population segmentation (i.e., developing

different messages for different subgroups).¹⁹ Recent polls about vaccine hesitancy tend to discuss the perceptions of Black communities as a whole, but Black Americans are not one population with the same risk for COVID-19 (e.g., not all are essential workers or have underlying conditions). Moreover, not all Black Americans are in the same tier for receiving the vaccine. Thus, although advancing one message for all Black Americans, as for all Americans, might be easier initially, it will likely be less effective in encouraging COVID-19 vaccination over the long term.

Some research has indicated that sexual and gender minorities of color, as well as those who are HIV-positive, may be highly impacted by COVID-19 and may also have high levels of vaccine hesitancy.²⁰ The intersectionality of Black racial identity with other vulnerable characteristics and marginalized identities may lead to further COVID-19 inequities. Thus, messaging about the vaccine needs to have an “intersectional public health lens” that is tailored to distinct subgroups that are differentially affected by the pandemic and health inequities in general.²¹

Tailoring the message means doing the necessary background research to understand reasons for vaccine hesitancy and to identify trusted sources of information in each community. Who is trusted and reasons for vaccine mistrust likely vary among communities. Thus, it is essential to reach out to key stakeholders and informal and formal community leaders to identify trusted information sources, main concerns, and preferred ways to receive the vaccine, community by community. Simple toolkits (e.g., with survey or focus group questions) could be developed to guide communities on assessing these issues in a

feasible and low-cost manner. Such information would be invaluable in the short term for COVID-19 vaccination as well as in the long term for addressing vaccine hesitancy in general and other health issues in Black communities.

The Health Resources and Services Administration (HRSA) Ryan White HIV planning council process²² provides a model of how formal community stakeholder planning councils (e.g., of consumers, providers, local health departments, and researchers) could be set up to identify community needs, assess capacity to meet those needs, allocate resources, and resolve conflicts about health-related issues, such as vaccination. Given their focus on vulnerable communities across the United States, HRSA Ryan White HIV planning councils also may provide a useful and immediate starting point to engage communities and identify key stakeholders about COVID-19 vaccination.

Tailoring the message means tailoring the information source and mode. Although providing information about the vaccine is important and necessary for increasing trust, it is insufficient by itself to prompt behavior change. Messages must be provided by trusted sources that are perceived to be genuine, caring, empathetic, and understanding about why someone may not want to get vaccinated. There are different levels of influence on vaccination behavior, with celebrities and online social media influencers potentially being more-distal influences

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than one's social circle and known leaders in one's own community (e.g., local elected officials, pastors).

Mechanisms are needed to harness the power of social network figures, who, based on our results, may be particularly influential in terms of changing perceived social norms around vaccination. We suggest that health care providers ask vaccinated people to commit to encouraging others in their social networks to be vaccinated—for example, in one-on-one conversations or by posting on social media. As more people get vaccinated, and such conversations and social media posts become common, social norms about vaccination may begin to change.

Furthermore, Black health care providers and scientists, who are seen not only as knowledgeable experts about the vaccine but also as knowledgeable community members about Black experiences and reasons for mistrust, are credible, influential role models. Overall, 65 percent of participants said that they trusted health care providers for COVID-19 information, and 39 percent said that they would be more comfortable having the vaccine explained to them by a health care provider with a similar racial or ethnic background. In addition to getting publicly vaccinated, Black health care providers and scientists can convey (and are already conveying) accurate information about the vaccine online, for example, in community forums and via social media, such as Twitter.²³

Online sources are critical for reaching younger people. Online social media influencers and celebrities can reach large numbers of people quickly to promote pro-vaccine messages. Moreover, online testimonials from community peers could tell personal stories that lead to the decision to get vaccinated. Such narrative stories can be effective persuasion tools to the extent that the audience gets “absorbed” or immersed into the story and feels emotionally engaged.²⁴

Nevertheless, social media influencers, celebrities, and online storytellers may not be credible or knowledgeable sources of vaccine information, given their lack of medical expertise. Additionally, influencers and celebrities may be seen as disconnected from everyday people's lives and communities. Thus, we suggest that influencers of color and other local formal and informal leaders be

paired with respected health care providers in online dialogues, including in webinars, YouTube videos, Instagram Live, Facebook Live, and other online forums. Such online dialogues are already occurring organically within different communities as well as nationally. Among many examples, NBA player Steph Curry and *Daily Show* host Trevor Noah both led online conversations with Dr. Anthony Fauci about COVID-19, and Tyler Perry led a BET special in which he spoke with medical experts to address concerns about the vaccine.²⁵ And local health care organizations have paired medical doctors who treat COVID-19 with locally respected leaders, such as local pastors who are aware of common questions and concerns in their communities.²⁶

Engage in long-term, authentic efforts to increase the trustworthiness of health care organizations, pharmaceutical companies, and the government. Authentic community engagement means genuinely investing, financially and concretely, in community relationships and key community organizations—not just in the short term for crises, such as COVID-19, or to recruit Black participants for clinical trials.²⁷ In our study, less-credible engagement efforts included those that are perceived to have ulterior motives and those that did not genuinely work to gain the trust of Black communities. These efforts included those by elected officials, especially at the federal level, and pharmaceutical industry spokespeople. Our results also indicated that participants were split in terms of whether health care organizations were preferred to community-based non-health care organizations (e.g., faith-based organizations) for vaccine access. Pharmaceutical companies may inspire little trust,²⁸ primarily because individuals suspect that the motives governing these institutions are more aligned to generating profit than serving the public good and that pharmaceutical profits corrupt the entire health care industry. Likewise, some health care organizations may not be perceived as trustworthy because of similar beliefs about profit motives.

Because trustworthiness of government, health care, and pharmaceutical entities has not yet been built, conversations in Black communities around vaccines should avoid using pharmaceutical company

names (e.g., Moderna, BioNTech, Pfizer) except when necessary (e.g., to discuss the efficacy of a specific company's vaccines) or mentioning government initiatives (e.g., Operation Warp Speed) or specific health care organizations, which may be perceived as not having community interests in mind. Instead, messages should emphasize that the vaccine is a health-promoting intervention, that Black individuals participated in the clinical trials, and that the vaccine was developed in part by innovative Black scientists, such as Dr. Kizzmekia Corbett at the National Institutes of Health.

Messages and communication strategies to promote vaccination should address key predictors of hesitancy, including concerns about harm and side effects, with specific information and data from vaccine trials. In our study, a relatively high proportion of participants selected the “don't know” response when asked about the vaccine's effectiveness. Moreover, participants requested transparent communication about the vaccine—including concrete, accurate details about the vaccine and its development and what is known and what still is not known (e.g., around potential for virus transmission after vaccination)—rather than simple appeals to take the vaccine based on statements of its effectiveness. Transparent communication, an important aspect of patient-centered communication,²⁹ involves communicating all known side effects, any unknown information, and the known risks and benefits of vaccination. Transparent communication also involves openness to answering questions in a nonjudgmental manner.

Transparent communication can be used to respond to questions and concerns that arose in our study, including concerns about long-term side effects, the perception that the vaccine was developed too quickly (and the fear that unacceptable shortcuts were taken with the science), and the perception that the vaccine is a real-time experiment on Black people, as was the case with the U.S. Public Health Service's Syphilis Study at Tuskegee. Given our results, it will be important to convey in lay terms across all racial and ethnic groups that the vaccine technology was developed over decades, after significant research. It was not entirely developed in less than a year and only during the pandemic. Additionally, information

should be shared about how some of the new technologies (e.g., those developed by Moderna) are not inactivated vaccines (that contain the virus). Moreover, relatively high virus prevalence and rapid spread into the general population allowed for more-accelerated vaccine testing than is typical for less common viruses. In addition, information that the most-common side effects are short-term, not serious, and experienced by a small proportion of patients (10 percent or less) would assuage concerns, as would education about the rare probability of long-term adverse effects of vaccines in general. If serious side effects are experienced, it is also important for pharmaceutical companies to be forthcoming about what they are and how they are being investigated. To address fears about unethical medical experimentation, health care providers can explain clearly the clinical trial process, as well as the improvements in research protections since the time of the U.S. Public Health Service's Syphilis Study at Tuskegee (e.g., informed consent of clinical trial participants, data and safety monitoring of trials).

Health care providers have the credibility to address hesitancy, but they may be hesitant to take the vaccine themselves. Our research found that health care providers are trusted sources of information about COVID-19, but that a significant proportion are themselves reluctant to be vaccinated. These results are similar to a Kaiser Family Foundation survey indicating that 29 percent of health care workers (across race and ethnicity) were not willing to get vaccinated;³⁰ our results suggest that the proportion is even higher among Black health care workers (nearly half). In addition, a survey of a health care personnel in one U.S. academic medical center in November and December 2020 found that 57.5 percent intended to get vaccinated for COVID-19, and physicians and scientists were more likely to intend to be vaccinated than registered nurses, allied health professionals, and master's level clinicians; Black and African American personnel were least likely to intend to get vaccinated, compared with providers of other races and ethnicities.³¹

Given that health care workers are highly trusted sources of information about the vaccine, it is essential that health care organizations and public health entities build trust in the vaccine among

staff as a first step. For example, these organizations can host educational webinars and town hall Q&A discussions for local health care providers that are led by trusted Black health care providers who are seen as leaders in their communities. This would provide an opportunity for health care workers' concerns to be addressed with transparent, factual information. It would also give them the necessary confidence in the vaccine for them to adequately and honestly address patients' concerns.

It is critical that health care providers do not simply tell patients to get vaccinated without listening to their concerns and answering their questions. Health care providers can instead acknowledge concerns and reasons for hesitancy in a nonjudgmental, nonconfrontational manner, and then provide accurate information so that patients can make an informed decision. In conversations with patients, health care providers can start by acknowledging historical and contemporary racism, including systemic inequity and structural racism, as root causes of mistrust. They can also acknowledge and recognize why health care organizations are not perceived to be trustworthy. Such acknowledgment conveys that the provider is coming from a place of empathy and understanding, which can help patients feel that the provider is approachable about having an open dialogue about the vaccine. This type of motivational interviewing strategy has been used to promote treatment adherence among people living with HIV,³² as well as with HPV vaccination.³³

Conclusion

The preliminary results of this nationally representative survey of Black individuals living in the United States can inform new and ongoing efforts to encourage COVID-19 vaccine uptake. If COVID-19 vaccination efforts are done in a way that addresses mistrust with transparent communication and appropriate acknowledgement of the history of racism and discrimination, such efforts will contribute not only to reducing health inequities but also to increasing the trustworthiness of the government, the pharmaceutical industry, and health care organizations.

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About This Report

Black Americans are more likely to be diagnosed with, be hospitalized with, and die from COVID-19. Systemic racism contributes to greater prevalence of diseases (e.g., hypertension, diabetes) and socioeconomic conditions (unstable housing; low-wage, high-risk employment) that increase COVID-19 risk among Black individuals. Recent polls show that Black Americans are least likely to say that they would get a COVID-19 vaccine if one were available. However, less is known about how individual and interpersonal factors, particularly high medical mistrust among Black Americans, may contribute to COVID-19 vaccine hesitancy, and what public health interventions may help to mitigate vaccine hesitancy.

The authors surveyed 207 Black Americans using the RAND American Life Panel (ALP), a nationally representative panel, about COVID-19 vaccine hesitancy and interviewed a selected sample of ALP survey respondents who showed high levels of vaccine hesitancy about suggested solutions. The survey was conducted in late November 2020, a week after the public announcement of effective COVID-19 vaccines. Survey results show that high levels of vaccine hesitancy were associated with mistrust of COVID-19 vaccines. Respondents noted that health care workers and public health officials are more trusted than elected officials. Using preliminary survey results and qualitative interviews, the authors engaged community stakeholders to identify the initial set of public health messaging and communication strategies to address COVID-19 vaccine hesitancy and increase vaccination in Black communities.

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