



Addressing Vaccine Hesitancy in BIPOC Communities — Toward Trustworthiness, Partnership, and Reciprocity

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The devastation of the Covid-19 pandemic has been rippling through Black, Indigenous, and People of Color (BIPOC) communities throughout the United States. The Centers for Disease Control

and Prevention has reported horrifyingly disproportionate age-adjusted rates of cases, hospitalizations, and deaths. Black Americans have had hospitalization and death rates 9 times as high as those for White Americans; American Indians and Alaska Natives have seen 9 times as many cases and 4 times as many deaths as White Americans; and Latinx/Hispanic Americans have faced 3 times as many deaths as their White counterparts.¹ Simultaneously, the United States has been reeling from police shootings, Black Lives Matter protests, and an emboldened White supremacist movement that perpetrated the January 6, 2021, attack on the U.S. Capitol. As national surveys continue to report hesitancy in

BIPOC communities over receiving Covid-19 vaccines, the social, economic, and political backdrop helps us understand the experiences and circumstances that feed that hesitancy.

For BIPOC communities, such hesitancy is rooted in both the historical and contemporary contexts of systemic racism, marginalization, and neglect that shape daily life today. Moreover, historical experiences with research abuses — from the U.S. Public Health Service Syphilis Study at Tuskegee to the more recent case in which blood samples from members of the Havasupai Tribe were improperly used for research — have established doubt and skepticism about the trustworthiness of science, research institu-

tions, and government that are not easily overcome. Furthermore, persistent racial bias and the dearth of BIPOC clinicians in the health care system are well documented. In a national survey of 1643 adults, evenly split between Black and White respondents, Quinn and colleagues examined the impact of this lack of diversity on behavior with regard to influenza vaccination and found that perceived racial fairness in the health care setting increased trust in influenza vaccines and vaccine uptake, whereas experiences of discrimination in the health care setting decreased trust, increased perceived risk of side effects, and reduced uptake.²

Although BIPOC communities have important reasons to be hesitant, increasing reports of disparities in vaccine access throughout the country point to broader systemic challenges, such as inequitable distribution of doses, failure to place clinics in sites ac-

Questions and Answers Used in Train-the-Trainer and Community Education.*

How did these trials move so quickly?	<p>Researchers used existing clinical trial networks. Manufacturing started while the clinical trials were still underway. mRNA vaccines are faster to produce than traditional vaccines. Other sponsors use platforms that have proven successful in the development of vaccines. The studies included more participants than a typical study and disease transmission rates were high, enabling researchers to determine efficacy in a short time. The FDA and the CDC prioritized review, authorization, and recommendation of Covid-19 vaccines.</p>
Were vaccines tested on people like me?	<p>Yes. Vaccine trials included all adults >18 yr of age. It was mandated that 25% of participants in Moderna and Pfizer trials were to be >65 yr of age. It was mandated that 30% of participants in Janssen trial were to be >60 yr of age. Study participants included at least 25% of people with common health problems such as high blood pressure, diabetes, HIV, and cancer. There were no exclusions for diseases or medications, except immunosuppression. Vaccine studies did not include pregnant people.</p>
Do these vaccines work for all races/ethnic groups?	<p>Yes. There is strong evidence that the vaccines work well for all people, regardless of their genetic background.</p>
What types of reactions have been reported after vaccination?	
Common reactions	<p>Sore arm, headache, aches, fever may appear within 48 hours. These are similar to reactions seen after shingles and influenza vaccines.</p>
Rare reaction: anaphylaxis	<p>Pfizer: 21 cases with 2 million doses Moderna: 10 cases with 4 million doses Janssen: There have been cases of severe allergic reactions. Current recommendation: 15 minutes of observation after injection If you have a history of severe allergies or an anaphylactic reaction to a vaccine, it's recommended that you discuss vaccination with your provider and undergo 30 minutes of observation after receiving the vaccine. Most people with a history of allergies or anaphylaxis have received a vaccine with no issues.</p>
Should I get a vaccine now or "wait and see"?	<p>You are not the first: >60 million U.S. residents have received Covid vaccines (>156 million globally as of March 8, 2021) CDC v-safe and VAERS are monitoring safety. As of March 9, 2021, in the United States: 523,850 people have died of Covid-19, and nearly 29 million people have tested positive for SARS-CoV-2, the virus that causes Covid-19. The Pfizer and Moderna vaccines take 4–5 weeks to protect you fully (2 doses). For the Janssen single-dose vaccine, protection starts at 14 days and increases through 56 days after immunization. The new Covid-19 strains are more contagious than the old ones.</p>
Does mRNA change your DNA?	<p>No. mRNA is a signal to your cell. It stays in the outer part of the cell and does not enter the nucleus where DNA is located. The mRNA in the vaccine is present in the body for only 1–3 days; then it degrades and the immune system is primed and ready. The Janssen vaccine can stay in your body for more than a week, but it does not reproduce itself; this may lead to increased protection over time.</p>
I've heard that the mRNA vaccine	<p>No, it will not give you Covid-19. No, it does not affect women's fertility. No, it does not contain fetal tissue, microchips, or any other devices.</p>
Which vaccine is the best?	<p>All the vaccines — Janssen, Moderna, and Pfizer — are very good at preventing severe disease, so they will greatly reduce rates of severe disease progression, hospitalization, and death. When you are offered a vaccine, you should take it.</p>
Why do I have to wear a mask after getting immunized against Covid-19?	<p>The vaccines prevent Covid-19 disease, severe disease, and death. We know much less about whether vaccines prevent asymptomatic infection, as this question was not studied. Until we know that, we must assume that vaccinated people might get Covid-19 and not know it. Masks, social distancing, handwashing are still required until we have more information.</p>

Questions and Answers Used in Train-the-Trainer and Community Education (Continued).*	
Is one dose of mRNA vaccine as effective as two doses?	The data are very clear that for the Pfizer and Moderna vaccines, the best protection from Covid-19 disease happens after the second (booster) dose. The first dose starts the immune response, and the second dose boosts it to make high antibody levels. The Janssen vaccine is a one-shot vaccine.
How long does vaccine immunity to Covid-19 last?	We don't know. Covid-19 is a brand-new human disease, and we will need more time to determine how long vaccine responses last.
How will viral mutations affect Covid-19 vaccines?	As of February 2021, this is what we know: Current vaccines work well against the variant originally identified in the United Kingdom. There seems to be some reduced efficacy for the variant originally identified in South Africa. Researchers will continue to monitor and test the efficacy of existing vaccines against new variants, including the variant originally identified in Brazil. The vaccines are still highly effective in preventing severe disease (reducing risk of being hospitalized, requiring supplementary oxygen, needing a ventilator) and death. The vaccines may not prevent you from getting mild symptoms, but they will prevent severe disease.

* Covid v-safe is an app that provides personalized health check-ins after you receive a Covid-19 vaccine. CDC denotes Centers for Disease Control and Prevention, FDA Food and Drug Administration, and VAERS Vaccine Adverse Event Reporting System.

cessible to BIPOC communities, and underinvestment in health care providers and services in BIPOC communities. Reliance on Web-based vaccine-registration systems has disadvantaged communities with less access to technology, and real barriers such as work obligations and limited childcare options reduce their ability to chase vaccination appointments. Several systematic reviews^{3,4} have provided evidence that systemic racism and provider bias are associated with poor patient-provider communication and interactions, lower quality of care, and negative health outcomes. These ongoing challenges prompt an urgent need to address the inequities in access proactively to avoid turning the vaccine rollout into one more example of ongoing unfair treatment, providing additional evidence to confirm beliefs that the U.S. health system is fraught with structural racism.

It is essential to remember that hesitancy doesn't mean refusal, and in fact, skepticism can be protective for BIPOC communities. However, we believe it's time to

shift the focus from a sole emphasis on changing hearts and minds among members of BIPOC communities to ensuring that institutions are trustworthy, transparent, and engaged with communities during the vaccine rollout. Making our institutions — particularly health care, public health, and government — more trustworthy will require listening to community voices, preparing public health and health care organizations to respectfully engage with BIPOC communities, and becoming more client-centered, including viewing hesitancy and barriers to vaccine uptake through the eyes of members of the BIPOC community.

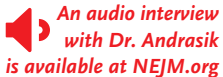
A primary path toward trust and confidence is relationship building. In too many situations and circumstances, BIPOC communities are asked to “help us solve the problems in your community.” Long-standing and reciprocal relationships between medical and research institutions and BIPOC communities are largely nonexistent. The relationships that do exist are generally short-

lived, often enduring only as long as grant funding lasts. For health care and public health institutions to build a reputation of trustworthiness, partnerships rooted in bidirectional communication, capacity building, and reciprocity are required. Environments that center on relationships allow for mutual learning, provide opportunities for sharing stories, engender understanding, prepare organizations to respectfully engage community members, and increase the capacity of all partners in their efforts to navigate institutional, organizational, and community spaces.

Building relationships requires actively listening to others' stories and ensuring that all partners are provided an opportunity to articulate the challenges, barriers, and facilitating factors they have encountered in their work. The shared understanding and insight gained can create a strong foundation for developing a collective public health response, but this understanding must be accompanied by the sharing of resources.

The community engagement

efforts of the COVID-19 Prevention Network (CoVPN), led by the National Institute of Allergy and Infectious Diseases (NIAID)-funded networks, provide one model for community partnership. The CoVPN has worked to ensure that communities have the resources they need to make informed decisions about participation in Covid-19 vaccine trials in the short term, and about vaccine acceptability and uptake in the long term. These efforts are grounded in frequent and ongoing discussions with long-standing community partners to ensure that our understanding of community fears and uncertainty is accurate and to share challenges and obstacles faced in our efforts and work to-



An audio interview with Dr. Andrasik is available at NEJM.org

gether to identify strategies for overcoming them.

These partnerships facilitated the early identification of materials required for building capacity among community members and health care providers by increasing knowledge about vaccines, clinical trials, and emergency use authorizations (EUs). These materials are available in multiple languages and housed in an online Dropbox folder (tinyurl.com/COVID19Materials), easily accessible by all partners and disseminated widely in emails and webinar sessions. As new data and information emerged, we identified the need for train-the-trainer sessions for community health care navigators, clinicians, community leaders (such as religious and faith leaders, advocates, and barbers and stylists), and health department staff. These sessions focused on providing the facts about the Covid-19 vaccines avail-

able through EUs. Each 2-hour session included an hour of didactic presentation covering vaccine science, safety, manufacturing, and questions and concerns frequently encountered in vaccine discussions (see table). The first hour concluded with an overview of available educational materials and a review of navigating the Dropbox folder. The second hour included a panel discussion, with CoVPN subject-matter experts answering audience questions.

From its beginning, the Biden administration has taken steps to begin to restore the trustworthiness of government for BIPOC communities who have suffered horribly during this pandemic. From its memorial service and the first presidential acknowledgment of the grief experienced by so many families, to the proposed American Rescue Plan and the reopening of enrollment in Affordable Care Act health care coverage, the administration has planted seeds to grow trust, possibly for the first time. The administration's Executive Order on Ensuring an Equitable Pandemic Response and Recovery and the COVID-19 Health Equity Task Force, led by Dr. Marcella Nunez-Smith, have placed critical issues front and center in the administration's response, addressing systemic challenges and calling for outreach to communities involving tailored communication and trusted local leaders. Ensuring that BIPOC communities have equitable access to Covid-19 vaccines and that the vaccines will be accepted when offered will take an enormous effort from governments at all levels, health care systems and clinicians, public

health agencies, and communities themselves. This is a challenge we must meet.

We believe that authentic community engagement is essential to reducing vaccine hesitancy. Equally important is reframing the challenge of vaccine hesitancy in BIPOC communities to one of vaccine confidence. Working directly with these communities, let us acknowledge the collective fears stemming from past government actions and research abuses and engage in honest and authentic dialogue. By doing so, we can together issue a call for justice and meet that call by securing real access to Covid-19 vaccines to save the lives of BIPOC Americans.

Disclosure forms provided by the authors are available at NEJM.org.

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