MOREHOUSE SCHOOL OF MEDICINE

NCRN NATIONAL COVID-19 RESILIENCY NETWORK

# Morehouse School of Medicine National COVID-19 Resiliency Network

## Messages and Materials Audit Executive Summary

Presented by ICF next

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# Executive Summary

## Background

To mitigate the impact of COVID-19 on racial and ethnic minority, rural, and other disproportionately affected communities, Morehouse School of Medicine (MSM) is establishing the National COVID-19 Resiliency Network (NCRN) as part of the National Infrastructure for Mitigating the Impact of COVID-19 within Racial and Ethnic Minority Communities (NIMIC) Initiative. NIMIC is a three-year cooperative agreement between the Health and Human Services Office of Minority Health (OMH) and MSM. The NCRN is planning a communication program that will encourage priority communities in certain geographic locations to get a COVID-19 test and get the vaccine when it becomes available to the public. To inform the planning of the program, an ICF Next research team is conducting a two-part environmental scan which includes (1) a message and materials audit and (2) a content analysis of news stories and social media conversations. This report summarizes the methods, findings, and recommendations from the materials audit.

## Methods

Materials were eligible if they communicated messages to the general public or NCRN priority communities about COVID-19 testing and/or vaccination and if they were disseminated in the NCRN priority geographic areas. ICF Next collected a purposive sample of resources for this scan by screening and triaging sources shared by MSM and NCRN partners and conducting a supplementary Google search. Trained ICF Next coders used a codebook to abstract key characteristics and core messages in a standardized matrix developed by ICF Next.

## Results

Following are the key highlights from the materials audit:

- A total of 95 materials from 52 different organizations were audited. All of the materials were available online.
- The majority of the materials were from government agencies (69), while the other materials were from non-profits (14), research organizations (6), and other groups (6).
- Most materials covered specific states (43). Other materials were for regional, county, or local areas (32); a few had national coverage (18). Two materials were for global audiences.
- The majority (63) of the materials were links to specific webpages. Other materials reviewed included fact sheets/brochures (27), visuals or infographics (2), a campaign overview (1), a video (1), and an interactive decision-making tool (1).
- More than two-thirds (64) of the materials reviewed in this scan were for the general public, whereas 31 were for NCRN priority communities.
- A total of 283 core messages were found in the reviewed materials. Of those, 222 messages addressed the topic of COVID-19 testing, 47 messages focused on what to do (i.e., guidelines) if receiving a positive COVID-19 test result or experiencing COVID-19 symptoms, and 14 messages were related to the COVID-19 vaccine.

- The core messages were most likely to address knowledge (i.e., messages informing about different aspects of the COVID-19 test or vaccine) (111). The remaining core messages related to constructs from the Health Belief Model, namely perceived barriers/self-efficacy (78), cues to action (65), perceived susceptibility (14), perceived benefits (10), and perceived severity (5).
- One third (32) of the materials included a call-to-action message indicating what the target audience(s) should do after reviewing the material. These calls-to-action most often included directing audiences to visit a website or to call a hotline to get more COVID-19 information or find a testing location.
- The majority (54) of the materials were directed to a general audience and not culturally tailored (i.e., not explicitly directed to a specific audience such as Hispanics or provided in a specific language). Forty-one materials were tailored for specific audiences. Thirty materials were available in one or more different languages, including 25 that were Spanish-language materials.

## Recommendations

This materials audit provided valuable insights about the type of materials, channels, and messages that have been used to reach different audiences with COVID-19 testing and vaccine information. Nonetheless, ICF Next will broaden the understanding of the environment in which partners with or competitors against OMH are communicating messages that align with or counter the NCRN communication program's messages by conducting a content analysis of news stories and social media conversations. In addition, NCRN is planning interviews with key informants who serve the NCRN priority communities at community-based organizations and focus groups with members of the NCRN priority communities. The additional research will hopefully reveal the following not addressed by the materials audit:

- What organizations are competing against OMH's efforts to encourage the NCRN priority communities to get a COVID-19 test or the vaccine?
- What spokespeople are communicating messages that promote or counter the NCRN communication program's messages?
- What are the messages that tie COVID-19 vaccination with the flu vaccine?
- How well do core messages and calls-to-action align with CDC's guidelines?
- What misinformation and misperceptions are being promoted?
- What are the social norms related to COVID-19 testing and vaccination? How well do they align with OMH's messages?

Most of the discussions among Hispanic/Latino community members centered on COVID-19 vaccines. None had gotten the vaccine due to eligibility requirements, and half planned to get vaccinated. Participants said the following perceptions influenced their plans to get the vaccine:

- Negative outcome expectations (e.g., tied to the perception that the vaccines can change people's DNA or be lethal due to widespread misinformation and conspiracy theories, perception of immunity from liability granted to pharmaceutical companies for the COVID19 vaccine and their economic interest).
- Mix of trust and distrust in science (e.g., trust in pharmaceutical companies and their work on the vaccines, perception that the vaccines were rushed and not fully studied).
- Mix of perceptions about effectiveness (e.g., uncertainty about the effectiveness of the vaccine including on new COVID-19 strains, certainty about its effectiveness).

Hispanic/Latino community members most trusted sources of information and spokespeople include:

- Mass media channels, in particular national and local TV news outlets and social media.

  Interpersonal channels such as close friends and family.
- Trusted organizations were not a salient theme among Hispanic/Latino participants, instead, they mentioned trusted spokespeople within those organizations.
- Trusted spokespeople included popular news anchors and doctors that are invited to news outlets such as Univision, or Telemundo.

## 1 CONCLUSIONS AND RECOMMENDATIONS

In February 2020, news about the novel COVID-19 began spreading across the U.S.1 Almost a year later, focus groups with African American and Hispanic/Latino community members indicate that while knowledge has increased from nothing to something, it is not the primary factor influencing their decisions about whether to get the COVID-19 test or vaccine. Instead, these behaviors stem from a complex constellation of perceptions. This research identified key constructs or beliefs that African American and Hispanic/Latino community members have about COVID-19 testing and vaccinations and that are impacting their testing and vaccination intention and behavior. These insights can guide the development of messages and materials for the NCRN COVID-19 communication campaign.

- **Messages and materials can aim to increase perceived susceptibility given its relevance** to both COVID-19 testing and vaccination. Focus groups revealed that many African American and Hispanic/Latino community members did not describe themselves as vulnerable to getting COVID-19 and, as a result, many argued not "needing" to get tested or vaccinated. They rationalized that they have good health or a healthy lifestyle, and they are taking other preventive measures (e.g., mask wearing).
- **Consider prioritizing the following 3 core concepts for the development of COVID-19 vaccination messages among both African American and Hispanic/Latino audiences.** The focus groups revealed that both audiences share beliefs that are contributing to vaccine hesitancy. These beliefs are overriding the perceived risk of getting COVID-19 or any motivation to get vaccinated. The 3 concepts can aim to:
  - **Increase trust and decrease distrust in institutions and science.** Participants stated that they believed research has been rushed so that scientists are still figuring out if the vaccine is effective and safe.
  - **Decrease negative outcome expectations of getting the COVID-19 vaccine.** Participants discussed the need to wait to see whether there are long-term effects that have not emerged yet due to the novel and changing nature of the vaccines. They also reflected widespread misinformation that the vaccine is lethal.
  - **Increase the perceived effectiveness of the vaccines.** Participants expressed uncertainty about the effectiveness of the vaccine including on new COVID-19 strains.

- **Tailor vaccination messages for the 3 priority constructs.** Although the 3 priority constructs were common across African American and Hispanic/Latino participants, there were some important differences that can inform the tailoring of the messages.

  To increase trust or decrease distrust in institutions and science:

  - For African American participants, acknowledge their distrust in government and its role in vaccine development and approval, which could be tied to past ethical abuses (e.g., during the Tuskegee and Henrietta Lacks experiments) and racial bias, health inequity and discrimination in healthcare.
  - For Hispanic/Latino participants, whose trusted sources of information included federal, state, and local government spokespeople, address the perception that the vaccines were rushed and not fully studied, while levering trust in pharmaceutical companies and their process of vaccine development.

  To decrease negative outcome expectations of getting the COVID-19 vaccine:

  - For the African American audience, inform about vaccine recommendations and potential adverse reactions for individuals of different age groups, and with different underlying conditions (e.g., allergies, weakened immune system, autoimmune conditions).
  - For Hispanic/Latino participants, correct the misperception that the vaccines can change people's DNA or be lethal. In addition, address the perception of immunity from liability granted to pharmaceutical companies for the COVID-19 vaccine and their economic interest.

- **Focus on key risk communication elements including honesty, transparency, and accountability for the sources of information on vaccine safety.**[2] Hispanic/Latino participants wanted to see more data that provides a balanced, "real" overview of the positive and negative outcomes of vaccination, vaccine ingredients, and pros and cons of the vaccine. Previous studies on vaccine hesitancy have found that transparent reporting of vaccine safety in a way that people of all educational levels can understand is likely to be an effective strategy to increase public uptake of vaccination.
- **Consider the inclusion of clarifying terminology and information regarding regulatory terms such as emergency use authorization (EUA) or accelerated approval that are easy to understand across the priority audiences.** Both Hispanic/Latino and African American community members were concerned about the impact of the EUA on vaccine safety and effectiveness. The use of an EUA for vaccine approval is nearly unprecedented and had only been used in 2005 to make the anthrax vaccine available. For this reason, it is important to ensure that the public understands the rigor of the process, the requirement for comprehensive data on vaccine safety and efficacy, and the transparency through review by federal advisory committees which has been found to significantly increase clinician's confidence in vaccine recommendations and public trust in the approval process.[4]

[2] Glik DC. Risk communication for public health emergencies. Annu Rev Public Health. 2007;28:33-54. doi: 10.1146/annurev.publhealth.28.021406.144123.

[3] Fisher KA, Bloomstone SJ, Walder J, Crawford S, Fouayzi H, Mazor KM. Attitudes Toward a Potential SARS-CoV-2 Vaccine: A Survey of U.S. Adults. Ann Intern Med. 2020 Dec 15;173(12):964-973. doi: 10.7326/M20-3569.

[4] Opel DJ, Salmon DA, Marcuse EK. Building Trust to Achieve Confidence in COVID-19 Vaccines. JAMA Netw Open. 2020 Oct 1;3(10):e2025672. doi: 10.1001/jamanetworkopen.2020.25672.

Focus group participants also shared insights that can guide the dissemination of messages and materials.

- **Consider a mix of channels to expose the audiences to messages and materials at different places and times.** The channels relate to:
  - Mass media, specifically national and local TV news outlets, social media, and radio.
  - Interpersonal contacts such as family and friends.
  - Trusted organizations such as the CDC, state and local health departments, state governors' websites, and insurance carriers.

- **Engage trusted spokespeople for each of the priority audiences.**
  African American participants said they trust:
  - Their doctor.
  - Their faith leader/pastor.
  - Public figures, in particular those participants perceived as role models for a healthy lifestyle or influential celebrities for the African American community.

  Hispanic/Latino participants said they trust:
  - Popular news anchors and doctors who are invited to news outlets such as Univision or Telemundo.
  - Spokespeople from federal, state, and local government organizations including Dr. Antony Fauci, state governors, The Mayor's office (in Los Angeles County), and school superintendents.

## 2 BACKGROUND

To mitigate the impact of COVID-19 on racial and ethnic minority, rural, and other disproportionately affected communities, Morehouse School of Medicine (MSM) is establishing the National COVID-19 Resiliency Network (NCRN) as part of the National Infrastructure for Mitigating the Impact of COVID-19 within Racial and Ethnic Minority Communities (NIMIC) Initiative. NIMIC is a three-year cooperative agreement between the Health and Human Services Office of Minority Health (OMH) and MSM. The NCRN is planning a culturally tailored communication program in which NCRN partner staff will disseminate messages and materials that encourage their community members to enact the following behaviors:

- Get a COVID-19 test, and if it is positive or COVID-19-related symptoms occur, follow the Centers for Disease Control and Prevention (CDC) guidelines.
- Get the COVID-19 vaccine when eligible or when it becomes widely available to the public.

To inform the planning of the communication program, a research team encompassing MSM, ICF Next, and USF conducted formative research, namely focus groups with community members. These methods explored knowledge, perceptions, and behaviors related to COVID-19 testing and vaccination.

It is important to note that at the time of these focus groups (February 11, 2021 and February 16, 2021), COVID-19 tests were available at no cost nationwide at health centers and select pharmacies. The Families First Coronavirus Response Act ensured that COVID-19 testing was free to anyone in the U.S., including the uninsured. Most community-based testing sites were performing the standard nasal swab. Also, at the time of the focus groups, the Food and Drug Administration (FDA) had used emergency authorization to approve the use of the Moderna and Pfizer vaccines only, and Johnson & Johnson had recently requested emergency use authorization for its vaccine but had not obtained approval yet. Furthermore, most cities and counties were on Phase 1a of COVID-19 vaccination which prioritized the vaccination of healthcare personnel and long-term care facility residents.

This document distills the findings from the focus groups conducted with African American and Hispanic/Latino community members. The results will guide the development of messages, materials, and dissemination strategies. Additional reports will present the findings focused on in-depth interviews from organizations serving African American and Hispanic/Latino communities.

## 3 METHOD

ICF Next conducted two (2) focus groups with community members. The discussions were exempt from review by MSM's Institutional Review Board (IRB) in accordance with its single IRB policy for multi-site research before the start of recruitment and data collection.

### 3.1. Participant Recruitment for Focus Groups with Community Members

ICF Next used a purposive sampling approach to recruit individuals eligible for participation for the focus groups with community members. A market research facility called Schlesinger Group used a screener to recruit the focus group participants (see Appendix A). Community members met the following\ eligibility criteria:

- Were aged 18 years and older.
- Self-identified as members of the communities identified by the NCRN as priorities for the communication program.
- Were in the counties or states identified by the NCRN as priorities for the communication program.
- Were not a migrant worker or worker in a meatpacking plant/facility.

- Had no history of working in marketing, advertising, public relations, digital media, or any other communication field.
- Had no history of working in medicine, public health, COVID-19, including contact tracing, or any other health field.

Appendix B summarizes the characteristics of the 36 focus group participants, specifically 18 who identified as African American and 18 who identified as Hispanic/Latino.

### 3.2. Data Collection

The following table provides an overview of the discussions:

| Method | Priority Community | Number of Focus Groups | Dates | Discussion Length | Language |
|---|---|---|---|---|---|
| Focus groups with community members | African American | 2 | February 11, 2021 | 1.5 hours | English |
| | Hispanic/Latino | 2 | February 16, 2021 | | Spanish |

*All times are Eastern.

To start each session, a female facilitator who self-identified with the same racial or ethnic group as the participants obtained verbal consent to participate in the discussion and be audio-recorded. Next, the facilitator used a guide to lead the participants through a discussion that was audiorecorded (see Appendix C). After the discussion, each participant received a $150 gift card.

### 3.3. Analysis

The audio-recordings were used to develop transcripts without participants' identifying information, such as names. Using NVivo, 1 research team member coded the transcripts for the African American focus groups, using codes based on constructs from health behavior theories such as the Health Belief Model (HBM), Social Cognitive Theory (SCT), Theory of Planned Behavior (TPB), and Protection Motivation Theory (PMT).5 These theories emphasized that individuals decide whether to enact a behavior based on certain constructs that encompass not only knowledge but also perceptions. The research team member provided training on use of the resulting draft codebook to another research team member, who coded the transcripts for the Hispanic/Latino discussions. The two coders met to resolve discrepancies with and then revise the codebook. They then used the revised codebook to revise their coding. Codes that appeared most often are reported. They could apply across African American and Hispanic/Latino community members and the COVID-19 testing and vaccination behaviors, or the constructs could be particular to a priority community or behavior.

### 3.4. Limitations

Note that the findings are qualitative in nature. Qualitative data can provide rich, contextual information, but the information cannot be quantified, nor is it generalizable to the entire population of community members.

## RESULTS FOR AFRICAN AMERICAN AND HISPANIC/LATINO COMMUNITY MEMBERS

African American and Hispanic/Latino community members revealed a variety of constructs that influence their COVID-19 testing and vaccination behaviors. In general, the most influential constructs for each behavior were consistent across audiences. The table below shows the main constructs reported by the two priority communities, their definitions, and the behaviors reported as being influenced by the constructs. Most constructs centered on knowledge or those from the HBM, SCT, TPB, and PMT. [6, 7] The analysis also revealed trust in institutions and science as influential on behavior [8, 9] and policy.

| Construct | Definition | African American | | Hispanic/Latino | |
|---|---|---|---|---|---|
| | | Testing | Vaccine | Testing | Vaccine |
| **Perceived susceptibility** | Perceived susceptibility is an individual's belief about the likelihood of getting COVID-19. Also known as perceived vulnerability, perceived susceptibility is a major component of threat perception in the HBM. The greater the perceived susceptibility, the greater the perceived threat, and the more likely a person will perform precautionary behaviors such as COVID-19 testing or vaccination. | 2 | 4 | 2 | 4 |
| **Perceived barriers/ self-efficacy** | Perceived barriers are a person's perceptions of the obstacles to getting a COVID-19 test or vaccine, while perceived self-efficacy is confidence in one's ability to perform the recommended behaviors. Perceived barriers are a key mediator between perceived self-efficacy and COVID-19 testing or vaccination. By decreasing perceived barriers, perceived self-efficacy and thus the behaviors may increase. | 3 | | 1 | |
| **Cues to action** | Cues to action are stimuli needed to trigger the decision-making process to get a COVID-19 test or vaccine. These cues can be internal (e.g., symptoms of COVID-19) or external (e.g., policies, travel or employment requirements, illness of family member, newspaper article). | 1 | | 3 | |

[5] National Cancer Institute. Constructs and measures for health behavior. Retrieved from https://cancercontrol.cancer.gov/brp/research/constructs

[6] National Cancer Institute. Constructs and measures for health behavior. Retrieved from https://cancercontrol.cancer.gov/brp/research/constructs.

[7] Bruening M, Kubik MY, Kenyon D, Davey C, Story M. Perceived barriers mediate the association between self-efficacy and fruit and vegetable consumption among students attending alternative high schools. J Am Diet Assoc. 2010;110(10):1542-1546. doi:10.1016/j.jada.2010.07.001

[8] Spadaro G, Gangl K, Van Prooijen JW, Lange P, Mosso C. Enhancing feelings of security: How institutional trust promotes interpersonal trust. PLoS ONE. 2020;15(9):e0237934. doi:10.1371/journal.pone.0237934

[9] Robbins B. What is trust? A multidisciplinary review, critique, and synthesis. Sociology Compass. 2016;10(10):972–986. doi:10.1111/soc4.12391.

| Construct | Definition | African American | | Hispanic/Latino | |
|---|---|---|---|---|---|
| | | Testing | Vaccine | Testing | Vaccine |
| **Negative outcome expectations** | This refers to a person's anticipated negative consequences of getting COVID-19 testing or vaccination. They can be health-related or not health-related. People anticipate the consequences of their actions before engaging in the behavior, and these anticipated consequences can influence successful completion of the behavior. | | 2 | | 1 |
| **Trust/distrust in institutions/ science** | Distrust is the extent to which individuals do not accept and perceive institutions as competent, reliable, efficient, fair, and responsible toward citizens. Distrust in science refers to a belief about the lack of trustworthiness of scientists with respect to a particular matter at hand that emerges under conditions of unknown outcomes. | | 1 | | 2 |
| **Perceived severity** | Perceived severity refers to an individual's beliefs about the negative consequences of getting COVID19. There is wide variation in a person's perceptions of severity, and often a person considers the medical consequences (e.g., death, disability) and social consequences (e.g., family life, other social relationships) when evaluating the severity | | 5 | | 5 |
| **Perceived benefits** | Perceived benefits are a person's beliefs about the positive outcomes associated with getting a COVID-19 test or vaccine. | | 6 | | 6 |
| **Perceived effectiveness** | Perceived effectiveness refers to a person's perception that getting a COVID-19 test or vaccine will actually reduce the threat of COVID-19. | | 3 | | 3 |
| **Perceived social/ subjective norms** | Perceived social norms refer to an individual's beliefs about the customary codes of behavior in a group or society. Perceived subjective norms involve beliefs about whether individuals who are important to the person approve or disapprove of COVID-19 testing or vaccination | | 7 | | |
| **Policy** | Policies related to the phasing of COVID-19 vaccine affect decisions about whether to get vaccinated. | | | | 7 |

## 4.1. African American Community Members

### COVID-19 Testing

Overall, the discussion about COVID-19 testing was brief – approximately 5 minutes – among African American participants as they quickly switched to the topic of vaccines. Nearly half of the participants indicated they have gotten a COVID-19 test while the other half have not gotten tested yet. Participants identified the following 3 constructs most often as influencing their decision to get a COVID-19 test:

**1. Cues to action** was the most frequently identified construct among African American participants, particularly those who have gotten a COVID-19 test. Participants explainedTo increase trust or decrease distrust in institutions and science:

- They got the test only because it was required for travel, for medical procedures, or by their employer.
  - "For me, I had to get tested for traveling reasons."
  - "I had it done because I was having a minor surgery, and before they do anything, they test you."
  - "My job requires us to have it before we go to work, so that's why I took the test. Otherwise, I would have not taken it."
- Another trigger of COVID-19 testing was having experienced COVID-19 symptoms.
  - "I wasn't feeling well. When I was having some symptoms, and I didn't initially think about it and then I thought like wow, this may be one of the COVID symptoms, let me check the list. It was like an alert you know. If they rule it out. And I got the flu test and the COVID test."
- They got the COVID-19 test in preparation for visiting elderly relatives during the holidays.
  - "I had to visit my Grandfather. He's a little bit up there in age, and, around Christmas time, we always go every year to Mississippi. And I wanted to make sure that I didn't bring that [COVID-19] to him, so I had to get tested."

**2. Perceived susceptibility** was the other most frequently identified construct. Most African American community members indicated that not feeling vulnerable to getting COVID-19 was why they did not get tested or why they only did it because it was required. Participants pointed to their:

- Low or no exposure to the virus.
  - "I live alone and I'm pretty much a hermit anyway. So, I'm not exposed to a lot of people like I used to be, so that was one reason I didn't get tested."
  - "If I was out and still working, you know I would have the test, but right now I'm at home all the time. The only time I go out of my house now is to go to Walmart or go to a doctor's appointment. Otherwise, I don't go out of my house any longer."
- Healthy lifestyle and compliance with other preventive measures.
  - "I just keep the same routine that I have for caution, so I do wear my mask. I take vitamins and exercise as much as possible, so I don't try to put myself in the situation where I can get sick."
  - "I am following all the guidelines pretty much. I have my daughter who is giving birth. I mean she's due tomorrow. I've been like following all the protocols, so there's no need actually for me to be tested."
  - "You know taking precautions. Again, really like going to the store to get the essentials. Coming back. Try to be sanitized as best as possible. So, you know staying away from people you know, even our loved ones and stuff like that. So, just making sure that you know we're taking precautions in every possible way. So, I didn't feel the need for the test."

**3. Perceived barriers and self-efficacy** were briefly mentioned by a couple of participants. The barriers mentioned included:

- Infrastructure issues of testing sites such as long waiting times and unreliable internet systems for signing up for testing.
  - *"Although there's a lot of access points, just my two times the lines were over two hours, maybe even a little bit longer, and my people ain't waiting that long."*
  - *"At one point, one place, like their Internet went down so the whole process to go through I guess to get the information corrected for who signed in or registered. Just the timing process like I could tell if someone had to go to work, they weren't going to make it."*
- Perception that the testing procedure that uses the cotton swab is uncomfortable.
  - *"I don't want that thing jammed up my nostrils, put up my nose 'cause my girlfriend had that [test] done I think two or three times. I just don't want it done."*

## COVID-19 Vaccination

Most of the discussion among African American community members centered on the COVID19 vaccine. None of the participants had gotten the COVID-19 vaccination due to policies at that time that prioritized a small number of groups as eligible to be vaccinated. However, most participants indicated not planning to get the vaccine when they became eligible or anytime in the near future. Below are the constructs that participants identified most often as influencing their thinking about whether they plan to get the vaccine once they qualify for it.

**1. Distrust in institutions and science** was the most frequently identified construct. Participants discussed their:

- Distrust in government, particularly under the leadership of President Donald Trump, and its role in vaccine development and approval.
  - *"I just don't trust the government and #45 [President Donald Trump] didn't help it at all. If he would have listened to the doctors and if we had done what we needed to do up front we wouldn't be where we're at now."*
  - *"I really don't trust the government. You know the vaccine was produced too quickly. You know once again, we had somebody pushing it and making sure it was produced. So, nothing's gonna fully make me trust it."*
- Historical distrust in the healthcare system due to its past ethical abuses.
  - *"We don't trust things that are, you know, put into our communities. And you know they're telling us we are the worst in experiencing the COVID pandemic and that we're dying in higher amounts and they're pushing this on our community. But we still need a conversation about what has been done to our community previous to COVID. So, a lot of us are still healing and hurt from the past."*
  - *"We've heard about the Tuskegee Experiment…. people on this call may not have a level of trust for our institutions of health along with the federal government. I'm just kind of throwing it out there that's another possibility where the trust is not there".*
- Desire to avoid being part of a trial or "guinea pigs."
  - *"I'm 50/50. I'm with them. I'm definitely not going to be the first batch of monkeys."*
  - *"I'm not 100% against the vaccine. I just, I'm not trying to be the trial, you know. Like trying not to be like the first group."*
  - *"We've been guinea pigs for centuries."*

- Perception that scientists are still figuring out whether the vaccine is effective and safe.
  - *"I trust the scientists and the doctors. But not fully. I do not put my trust in the doctors, because even the doctors and the scientists do not know what's going on with COVID. Everyone is trying to figure this thing out."*
  - *"This [virus] is still fairly new. So, that's just really probably much of the scare for most people. It's new. I feel like they still haven't really hit the hammer on the nail about the COVID-19 situation to be coming out with vaccines, really."*
- Perception that the FDA's emergency authorization of the vaccines means they have been rushed and not studied sufficiently
  - *"Not with this vaccine, it's just not enough time. This is emergency authorization which means it has not had the full time to be researched by the FDA and stuff since it's an emergency. It's rushed. A vaccine takes years to develop, not just the year or whatever. It takes time, trial and error, so we gotta be careful."*
  - *"For me, it was the fact that it was developed too fast. That's number one. Alright. And we think about like the flu and all these other diseases that have been around for so long and for them to just do a vaccine in about six months."*
- Perception of lack of transparency in the reporting and dissemination of "real" numbers and data on vaccine effectiveness and safety.
  - *"We don't need numbers that are inflated. Like we need to know the real numbers. We need to know numbers on the people who have had preexisting conditions. We need realistic numbers not inflated numbers because nobody is talking about all the people that have died from getting the vaccine."*
  - *"The CDC can do a better job at reporting the real numbers. Because they're not reporting all the people that have passed away from getting the COVID shot, which is a lot of people over 75."*

**2. Negative outcome expectations** of getting the COVID-19 vaccine were the second most salient construct participants reported as a strong reason for vaccine hesitancy. Participants explained their:

- Need to wait to see if there are long-term effects that have not emerged yet due to the novel and changing nature of the virus.
  - *"I don't think it's about who you trust or what material how we receive it. I think majority of us right now are just waiting. It's like we're waiting to see outcome."*
  - *"This vaccine has not been carefully researched to know the long-term effects. It's just that things are always changing. I want to wait it out to know what the long-term effects are."*
  - *"Probably when the majority of the people have taken it, and there are no side effects Once I see maybe 75 or, 80% of people, with no side effects, that means not getting sick or anything. Then, I'll be able to trust it [the vaccine]."*
- Concern about potential adverse reactions to the vaccine among some individuals due to their genetic backgrounds, health status, or allergies.
  - *"Every person is different. Everybody's DNA is different, so you don't know what's gonna happen to you. So, the people that are not taking it are being you know cautious."*
  - *"I was thinking to myself with high cholesterol medication some people can't take statins, and some can. With this vaccine, they're, you know, giving it to everyone, and some people may be allergic to that and have adverse reactions to it and they don't even know what's in it. The same with eggs or you know, peanut allergies and things like that. They're not saying enough to have me informed enough to feel safe enough to take it."*

- Perception that the vaccines can be lethal due to widespread misinformation.
  - *"In the nursing home where my friends work there a lot of people that have got the [COVID-19] shot and died after. Those numbers are not reported."*
  - *"Nobody is talking about all the people that have died from getting the vaccine. I mean they've had preexisting conditions. The vaccine exacerbated the condition, made the condition worse. Like if they had like heart disease or probably."*
  - *"I know someone in that same predicament that had passed away after receiving the vaccine. Elderly, 73; he was as healthy as they get at 73. No problems beforehand and got the vaccine and four days later he passed away."*

**3. Perceived effectiveness** of the vaccines was the third more significant factor participants reported to be associated with their vaccine hesitancy. Participants talk about their:

- Uncertainty about the effectiveness of the vaccine including on new COVID-19 strains which can overrule the perceptions of the need of and benefits from the vaccine, or vulnerability to COVID-19.
  - *"I'm 71 years old, and I'm scared to death. I don't wanna get sick. I want to be around as long as I can, but are these vaccines really going to do the job? Let's put it that way."*
  - *"Of course, you want to be able to visit other family members, friends whenever you feel like it without having to deal with this right? But I don't see it being a big motivator for me in my life to be able to say yes, I wanna take it. I just want to make sure that there's all these strains coming out right now. So how do you say yes, this vaccine covers those strains because you don't know what those strains are right so…."*
  - *"Why do I need to get a vaccine which has like 90.99 point something? So, if I can live, I have a chance of survival rate without the vaccine. The vaccine is like 96% effectiveness, so I will take my chance."*
- Confusion about which of the currently approved vaccines works best and whether future vaccines will work better.
  - *"Johnson & Johnson is trying to develop you know the one-shot vaccine, but from what I've heard it's only a 67% or 60% effective, right? So, it's like okay, now you question that. And then you have another one [Astra Zeneca] coming in from Europe. I forgot the… I can't even say the name of it. So, it's kind of like which one do you trust, right?"*
  - *"It's like new things popping up with it every day and they keep coming out with like new doses, like I think it's like around the third or fourth different type of vaccine. So, I know nothing about if it doesn't work. But I'll just wait until they get something like solid 100% concrete and then…yeah."*
- Perception that because vaccine effectiveness is low, people still get sick.
  - *"In actuality you're not partially immune until you get the second dose. And it's like three weeks after the first dose. 'Cause people are getting the first doses right now and still getting COVID. And even with the 2nd dose you're still not protected."*
- Confusion about whether recommendations to continue taking preventive measures such as mask wearing, even after vaccination, mean that the vaccine is not effective.
  - *"My question is if we get this vaccine and we still have to wear the mask and do all this other stuff, what is the purpose of the vaccine, right?"*

- Perception that vaccine effectiveness has not been tested among all the population groups.
  - *"One thing I want to point out about this vaccine. It has not been tested in pregnant people, ladies that are pregnant. It has not been tested in minors under 16 and people over 65. So, these are things we have to really think about."*
  - *"[I'll get the vaccine] when it's researched in the general population, and not only a specific type of people. Everyone."*

**4. Perceived susceptibility** of getting COVID-19 was another salient construct discussed by participants as influential on their intention to get vaccinated. They pointed to their:

- Belief of not "needing" a COVID-19 vaccine as a result of having good health or a healthy lifestyle, and/or taking other preventive measures.
  - *"I'm already doing "precautionist" things. I'm trying to eat right. I take my vitamins. I think it's Vitamin D, Vitamin C, and I try to exercise. So, I think those are preventing me at this time, from catching it. Not to say I can't do it, but at this time I think that's good enough for me."*
  - *"At the end of the day, it's all about your immune system. You have to work on the immune system. Vaccine is not going to solve all your problems."*
  - *"If you're taking the precautions already? You know you're taking what is necessary to make sure you keep yourself healthy. So, you know do you really need take that vaccine? Is it necessary, right?"*
  - *"I'm also a home-based worker. It's just me and my husband here. I don't go out much, so I don't have an urgency to be vaccinated."*
- Perceived vulnerability (among those willing to be vaccinated) or lack of it (among those not willing to be vaccinated) for themselves and family due to occupational exposure, pre-existing conditions, or age.
  - *"The motivator [to get the vaccine] is I work in the public and even though in the public places it's recommended six feet, but just from my mental calculation, it doesn't look like six feet to me. I'm likely to get it [the vaccine] because I'm a public servant and of course I don't want to get sick."*
  - *"I got [the vaccine] because I felt it was important. As a lupus survivor, my doctor recommended Pfizer, and because I'm around others, and an older adult that I live with, I thought that it was important for me to get vaccinated."*

**5. Perceived severity** of COVID-19 was somewhat addressed by participants when discussing motivations for getting vaccinated; however, most of the perceived severe consequences mentioned were social, while just a few were health-related. Participants explained:

- They have adjusted to the "new normal" and are not eager to be vaccinated even if they perceive that their personal and social life has been severely affected.
  - *"I guess we've been living this way for so long that I don't really remember what I was doing before. Was I going places like that? I can't really remember to be honest. The only place I still do go now but I guess it would give me a little bit more comfort, would be the gym. Other than that, I make sure that I just stay at home."*
  - *"In terms of lifestyle, you know we're used to this now so [getting the vaccine] it's not something I'm motivated to do to get back to my old life. So, you know we've made our adjustments as is, so that's how I feel about that."*
- Severe consequences of COVID-19 are more likely for older adults.
  - *"I have quite a few people that I know that were older that passed away, and they already had preexisting conditions and stuff."*
  - *"It has affected some of my family, in mostly older ones."*

**6. Perceived benefits** of getting the COVID-19 vaccine were discussed by a few participants who were willing to get the vaccine when it becomes available to them. Their main reasons or motivations to get vaccinated included a desire to live a long life, be around people again, travel, return to bars and restaurants, and have the "freedom" again to do what they want. A couple of the participants who said they were not planning to get vaccinated in the near future, perceived vaccines as a benefit to protect older relatives.

- *"Motivation for me is I want to stay alive as long as I can."*
- *"I like to travel so it's going to help with me traveling and just being among other people. You know, even though you know I like my personal space, but just the traveling is my biggest issue."*
- *"I like my freedom. I like to do what I want, to do it when I wanna do it and right now I can't do that. I'm retired. I've been retired for 14 years now and I just have no freedom anymore."*
- *"I used to go out to different clubs and bars and theme parks and stuff, so it feels like everybody else has to get on that level of deciding to get the vaccine for everything to be able to open up before me feeling comfortable to do those things again."*
- *"I'm not 100% against the vaccine. If I lived with somebody older than it would kind of have to be a sacrifice, I'll have to make. But, since it's not like an adamant thing for me right now, 'cause I don't live with anybody older, and I make sure my movements are limited right now."*

**Perceived social and subjective norms** were briefly mentioned by some participants. They share their:

- Perception that "waiting" to get vaccinated until there is more certainty about the effectiveness and safety of the vaccine is a social norm in their close social networks.
  - *"I've been in the medical field for years. I'm not practicing right now and a lot of my friends here in LA are working in the COVID units and they're not taking the vaccine."*
  - *"It's a waiting game. Everyone is waiting right now."*
  - *"There's a lot of people in my family who's had it [the vaccine] but they're at the age... You know how certain states won't do it under 65. I mean, they're fine. I'm just listening to what they're saying. They were not afraid to go do it, so it actually has a calming effect that they are going through the process."*
- Perception that family members disapprove of their getting the vaccine.
  - *"If it was up to my family, I wouldn't get a shot."*

## Information Sources

African American community members shared their trusted and most frequently consumed sources of information and spokespeople.

**1. Mass media channels** were most frequently mentioned as sources for COVID-19 testing or vaccine information. Specifically:

- National and local TV news outlets including ABC, NBC, MSNBC, CNN, KSLA network (in Los Angeles), and Louisiana Public Broadcasting (LPB) were mentioned as the primary information outlet even among those who do not completely trust the information they provide.
  - *"The local news here. Also, I watch LPB news, and they talk about it a lot. But on the local news here, they let you know when places have the vaccine, what the mayor is doing to get more vaccines to high priority area."*
  - *"When you think about tangible things, forms of information, for me it would be news outlets. But again, it's not something that you trust, because in Georgia I know we all have heard numbers being reported, but you know, those can be skewed in awfully big ways. So, it's not a matter of trust in it, but just keeping up to date with that information."*

- *"I wouldn't listen to Fox 5 if I needed any information. I try to listen to MSNBC or CNN. Those are the two that I listen to probably 15 hours out of the day."*

- Participants mentioned conducting internet searches in Google and visiting websites from trusted organizations (see trusted organizations below).
  - *"I'm a big Google fan, so I will Google anything that I need to figure out pretty much."*
  - *"When I got my testing, um, I went to try to find where I can set up an appointment, but you know handy dandy Google couldn't help me out."*
  - *"The first 2 places I go depending on what my question is I always look at the CDC website, or the governor's website 'cause I know here in Georgia he gives an update every so often to see if they have any information."*
- Participants recalled social media posts from outlets including Twitter and Instagram
  - *"I guess I'm in the younger crowd, so Twitter normally has kind of what's going on the majority of time before stuff really happens or takes off. Some of it can be fabricated. But it at least gets you kind of like okay maybe I do need to go and check out and see what's going on."*
  - *"For social media, mainly Instagram for me. Sometimes when you login, they have the COVID testing thing at the top and you can just click on that, and it will provide you with information and so forth."*
- Local radio stations mentioned included Power 106 and 92.3 in Los Angeles.
  - *"As far as the radio station, it was Power 106, that I was listening to most likely or 92.3. Those are my top 2 radio stations that I listen to for L.A."*
  - *"On the radio, I heard a few. I'm gonna assume that everyone is in the L.A. area. They were promoting a lot at the Dodgers Stadium when they were doing the COVID testing. So that's where I went. And then I did hear that they were changing as well on the radio. The Dodgers Stadium is now no longer going to be a testing site, it was going to become a vaccine site."*
- Participants recounted receiving emails and text messages from and visiting websites of insurance carriers, local hospitals, or employers.
  - *"I get text messages directly from the hospital."*
  - *"I received information from email from my employer."*
  - *"When I was looking to be tested, I went to my insurance carrier first to see if I could find where they had testing being done. And when me and my husband were trying to find some place, we could go quickly without an appointment that's where we went first. And their website was helpful."*

2. **Interpersonal channels** mentioned by participants included close friends, family, and online communities.
   - *"I have friends who are in the medical field who have actually taken the vaccines, so they work in the front line. But we're all in different group chats, group messaging applications, and we forward and share all kinds of crazy things that we either see, that we think is truthful or not. We actually try to ask our friends who supposedly study this stuff to answer the truth or false in it."*
   - *"My mom, but that's only 'cause I know she's taking care of my grandmother right now, her mom. And she's really gonna think safety as a 65-year-old woman dealing with an 80-year-old woman. So yeah, I trust her, but even her information, I have to source it 'cause I'm like ehhh you might have got tricked too Madam."*
   - *"I get feedback from family members who got the shot. I belong to community online chat rooms where people are telling you where to go, who's doing it and this, that and the third. So that's how I get information about the vaccine."*

**3. Trusted organizations** mentioned most commonly mentioned by participants included the CDC, local health departments, and state government websites.

- *"My local health department, the CDC website."*
- *"The first 2 places I go depending on what my question is I always look at the CDC website, or the governor's website 'cause I know here in Georgia he gives an update every so often to see if they have any information."*
- *"For me, it would have to be a state agency that's responsible for this reporting. The CDC and from the new administration."*

**4. Trusted spokespeople** included:

- The doctor, who was the most frequently mentioned type of trusted spokespeople.
  - *"If I was interested in taking the vaccine now the first person, I would speak to would be my doctor."*
  - *"I'm not taking the information from just anybody. You know the doctors that I've been with, I've been with for several years and I trust them."*
- Public figures, in particular those perceived as role models for a healthy lifestyle or influential celebrities for the African American community, were mentioned by some participants.
  - *"I think Michelle Obama is the closest you gon' get 'cause she was pushing healthy lifestyle, eating healthy, exercising."*
  - *"If Serena Williams came out and said "man I'm taking this shot" I'm trusting Serena as an athlete. I thought about that athlete part. I trust Serena. She won a world title pregnant, and she almost died giving birth and she knew her health enough to say, "hey do this."*
  - *"Maybe like Kendrick Lamar, Dave Chappelle, Donald Glover, Kevin Hart, he's really into health, Laverne Cox, Oprah, Will Smith, Viola Davis. So, I just think seeing people that we trust, people that we bring into our homes all the time. Um, if they're speaking out about it, that makes me definitely put more trust into it. And if I see that they're getting vaccines, that is gonna make me feel more confident to get it for sure."*
- The pastor was mentioned by a couple of participants.
  - *"I trust my pastor with up-to-date information, and they don't do vaccinations. They just do testing and I'm glad that he's doing that 'cause he's helping the community."*

**Materials and Creative Execution**

Participants did not provide insights related to preferred materials or preferences related to the creative execution of the materials.

### 4.2. Hispanic/Latino Community Members

#### COVID-19 Testing

Most Hispanic/Latino participants indicated they have gotten a COVID-19 test and had a favorable opinion about testing.

**1. Perceived barriers and self-efficacy** were the most frequently identified constructs among Hispanic/Latino participants. In particular:

- Most participants said they could easily find a testing location, schedule an appointment, and get tested suggesting that they have a higher self-efficacy for scheduling and getting a COVID-19 test
  - *"For my test, all I did was put my zip code. I looked for places around my area, it showed you like different parking lots or parks and then you could schedule the appointment right in one. I found it to be very easy because I just added my information and my telephone number, my email, they sent me a confirmation and that was it. It was very easy."*
  - *"I think the process lasted about 5 minutes. When you enter the parking lot for the testing site you get a QR code, you scan it with an information and walk where the registration is and they even give you a packet to give take the swabs and you take it to the technician to do the nasal swab. But it's all super easy."*
  - *"I initially I looked on Google which was the nearest place and online I made my appointment. Then when I went to the place you didn't even have to get out of the car. One person would give you a bag with the little cotton swab for one for the exam and then, well, there were all the instructions, then you would do your test. There was no delay or anything, everything was really easy."*
- Most Hispanic/Latino participants perceived the test was low cost or free.
  - *"I would get it. Maybe I would worry if I was charged for it and I didn't need it. But the government offers it for free and it's the best. The test is very easy."*
- A few participants mentioned some potential barriers that older adults or individuals with disabilities could face for getting a test including inability to get to a testing site, or lack of the technology proficiency required to schedule the appointment:
  - *"People who do not have access to transportation or who are disabled, who cannot leave their home or who do not want to leave their home for distancing reasons and want to avoid getting infected, it might be good if they had could be tested at home."*
  - *"In most places where someone wants to go get a test, you have to make an appointment, but the problem is that appointments are through the computer so that's a problem for older people, many people who are 65 years or older, do not know how to use it for computer or do not have internet."*

**2. Perceived susceptibility** was the second most frequently identified construct. Hispanic/Latino community members who reported not having gotten a COVID-19 test indicated not feeling vulnerable to getting COVID-19 as the reason why they did not feel the need to get tested or only did it because it was required. They explained that their family members or they had low or no exposure to the virus.

- *"I haven't taken the test, because like I said, there's no one near me who thank God had symptoms or had the test and realized they were positive".*
- *"Well, we are 5 in the family, 3 kids, my wife and I [and] people close to us haven't had COVID. If anyone we are frequent [ly around] find out [they are] positive, then it would be worth it".*

**3. Cues to action** or triggers for getting tested were also discussed by Hispanic/Latino participants, in particular among those who have gotten a COVID-19 test. They mentioned:

- Getting the test only because it was required for travel or by their employer.
  - *"At work, in one department, they didn't tell us who it was, but all of a sudden they closed the office and said that there was a case. Then we all had to go get the test and [they told us] that we couldn't go back until we had a negative test result."*
  - *"It was around September that I had planned a trip to Spain to visit a relative. By then it was a requirement that before getting on the plane, I had to get tested and I had to be negative in order to travel.*
- Having experienced COVID-19 symptoms.
  - *"Yes, on two occasions I felt pain on my throat, I was sneezing. I didn't have a fever or cough, but I sent myself to do it [the test] as a precaution."*
- Visiting elderly relatives.
  - *"For me, my mom, she doesn't go anywhere so I had to get tested before going to her house."*

    *"The thing is I wanted to visit my parents and since they are older. My dad is 83 years old and my mom I think is 68. Even though I wasn't in contact with anyone that was positive or anything. Either way I thought you never know, so I didn't want to be guilty of taking something to them."*

## COVID-19 Vaccination

The discussions among Hispanic/Latino community members centered on the COVID-19 vaccines. None of the participants had gotten the COVID-19 vaccine due to their ineligibility at the time of this study. The group of Hispanic/Latino participants was split, with nearly half of the participants indicating that they were planning to get the COVID-19 vaccine and half saying that they were not planning to do so. In some cases, Hispanic/Latino participants discussed how their beliefs made them more favorable toward vaccination.

**1. Negative outcome expectations** of getting the COVID-19 vaccine were the most salient construct participants reported as a reason for vaccine hesitancy. Participants explained their:

- Need to wait to see if there are long-term effects that have not emerged yet due to the novel and changing nature of the vaccines.
  - *"For me, there have been people that have had secondary effects, but they don't know if those are directly related with the vaccine or if it was previous conditions that they had. Therefore, because they released the vaccine rather quickly, well, really quickly, for obvious reasons, because of the pandemic, that makes you pause and want to see more information long-term about what consequences it could have."*

    *"I don't just want to do something I have no idea about. Because I know that it [the vaccine] has side effects and I have heard in the news of many things that have already happened and many things that are not being disclosed."*

    *"I'd like to wait a bit more for later in the future in any case getting it. But I've decided not to get it because there are a lot of unknowns still of what could happen or what the vaccine could cause in the future."*

- Perception that the vaccines can change people's DNA or be lethal due to widespread misinformation and conspiracy theories.
  - *"I did hear that people have already passed away after what the vaccine is getting. On the other hand, I've also heard that it's a way to manipulate our DNA."*
  - *"This vaccine is not made, let's say, like a flu vaccine, which already has inside the actual virus. But it's something they're playing with people's genes. It's different from like a regular vaccine, which can give you fever, a headache or muscle pain or even fever, but the side effects won't be seen until after 10 years, because it's something that's playing with people's genes and so we decided we weren't going to get the vaccine".*
- Perception of immunity from liability granted to pharmaceutical companies for the COVID-19 vaccine and their economic interest.
  - *"The three big companies that released the biggest vaccines. They signed some papers where they say that they are not liable, they don't have liability if there are side effects. With the flu, if someone has a side effect with the flu vaccine, for example if a kid dies from the vaccine. One can do a lawsuit and get to millions of dollars, or however it is, but with this one no, you can't. To me that's something very interesting".*
  - *"They mentioned that the FDA hasn't approved it yet and I have seen the consent of the places that have given the vaccine. And they have a consent that says that they are not responsible for people who get the vaccine".*
  - *"This vaccine was made, first I think because of economic benefit for laboratories, because there's a lot of money in between".*

**2. A mix of trust and distrust in institutions and science** was the second most frequent topic of discussion. Participants were divided in their trust:

- Some Hispanic/Latino participants expressed trust in the pharmaceutical companies and their scientific process for vaccine development.
  - *"I have faith in the vaccines. I've heard a lot of good things, of course, the concerns that many people have is that they came out so fast. I also had thought about that. But then I realized that they were saying that these vaccines are different, they used a different method. Also, the amount of money that was put into these is completely different to any other thing that has been done before. Therefore, the information that I've seen sounds good to me and, well, for me, I want to get it as soon as it's available for me."*
  - *"I do believe in the vaccines. There are many conspiracy theories. That they will leave you sterile, that they will put in the chip. So many things. I mean, the vaccines, the Moderna, the Pfizer, go through three testing phases. For phase three, the trials are published in a journal, in an international journal so everyone can see it".*
  - *"I had heard that the Pfizer one is the best [vaccines]. I think if I had an option, it would be the one I'd prefer, Pfizer. Because they have been in the health field for many years, making medicine and everything, I think it's more trustworthy."*

- Other Hispanic/Latino participants expressed concern that the vaccine studies and approvals were rushed and not sufficient.
  - *"I've decided not to take it because it seems to me like there's not a lot of research yet about what could happen in the future."*
  - *"I imagine they haven't researched as much as with the measles vaccine or the flu vaccine, there hasn't been. There hasn't been much research and that's what stops me."*
  - *"But, well, I think that I need a bit more for more time to pass because, yeah, they rushed a lot to release it."*
  - *"I have heard that it's been a vaccine that has been given too quickly; more research is needed."*

**3. Perceived effectiveness** of the vaccines was another important factor that Hispanic/Latino participants reported to be associated with either their vaccine hesitancy or willingness to get it. Participants expressed:

- Uncertainty about the effectiveness of the vaccine including on new COVID-19 strains.
  - *"Since this is something new, a lot is not known about the coronavirus. Now they are saying that there are new strains. There are a lot of things, many factors that are changing that maybe influence the vaccine, therefore, maybe what they are giving now will not work for what changes in COVID in the future."*
  - *"And the vaccine what covers is with the first dose 50% and with the second dose up to 95% of protection rate. So, there's still a factor there that can be ineffective for COVID-19."*
- Certainty about vaccine effectiveness.
  - *"Well, what I've heard about the Moderna one is that they have the second dose with 95% efficacy. The Pfizer, I think it's at 92% with the second dose. I've heard that Johnson & Johnson, I think, already requested the emergency fund. I can't remember how it's called, with their vaccine of only one dose, which I think it's at 80 and something percent efficacy. It's not the same as the others, but because it just has one dose, it has its great advantage, I think especially with one part of the population."*
  - *"Many people have already been vaccinated, millions of people have been vaccinated, the number of deaths has been minimal. I think that right there shows that the vaccine works and that it is a positive thing for humanity."*

**4. Perceived susceptibility** of getting COVID-19 was another salient construct discussed by Hispanic/Latino participants that are hesitant about getting vaccinated. The participants shared their belief of not "needing" a COVID-19 vaccine as a result of having good health or a healthy lifestyle, and/or taking other preventive measures.

- *"We have spoken here in the house and we do not plan to get the vaccine until it is mandatory. Also, we think that we've taken care of ourselves and been immune for over a year, so there's no such rush."*
- *"Overall, if we've reached this point without getting COVID, we're doing something right, no? I think."*
- *"Essentially, the vaccines they give you as a child, the normal ones, but otherwise I try to maintain a healthy diet, exercise and above all, a positive mentality trying not to be afraid, not too negative and always with prayers."*

**5. Perceived severity** of COVID-19 was a frequently mentioned construct. Hispanic/Latino participants did not consider the severity of the virus as a strong determinant of getting vaccinated, and most of the perceived severe consequences mentioned were social while just a couple were health related. Participants discussed:

- Both the positive and negative social consequences of the pandemic.
  - *"There have been positive things because I think many families have become more united because they can't go out anymore, they can eat together at home. Trying not to go to any restaurants, not go to places where there can be risk of infection. Therefore, many families have become united, but at the same time there are many families and friends that have grown farther from each other because there's no longer that closeness like before. For example, a hug, celebrating a birthday, celebrating a baby shower, things like that."*
  - *"I like the activities we do now, but I miss much the life I had before so much because so many things stopped. But at the same time, it has been a lesson for everyone in different ways because society completely changed for a whole year."*
- Negative impact of the pandemic on children and older parents.
  - *"My bigger concern is for my kids that are at school age and it's really frustrating to see how they are used to go to school and being surrounded by their friends. Now they are in front of a machine where there's no personalized attention from the teachers. It's a stress at the house, it frustrates them, it frustrates us."*
  - *"I do feel it more for my parents because they are older and the fact of having to take things to them and not been able to spend time with them, you can't be with them. That makes me feel bad because I know that they may sometimes not say anything to not feel like they are bothering us."*
- Negative impact of the pandemic on their jobs, finances, and school.
  - *"I worked for many years with an airline and with this pandemic unfortunately my work has been very affected because I can no longer travel. Airlines have cut down their flights. This is a very difficult situation."*
  - *"As everyone mentioned, financially quite a bit, and also I am a student so due to everything that is happening they had to push a bit more the graduation date."*
  - *"Well, personally and financially it has affected me. I lost my job. I work for myself. But I lost all the work I had since March, last year and so I am a lot more at home."*

**6. Perceived benefits** of getting the COVID-19 vaccine were discussed by a few participants who were willing to get the vaccine when it becomes available to them. Their main motivations to get vaccinated included the social responsibility to protect oneself and others and stop the pandemic

- *"I understand that the vaccine is an important thing for us, that we all get vaccinated specially to protect those who cannot be vaccinated, that do not have the possibility of being vaccinated because their immunologic system is too weak, and they can't be vaccinated. Therefore, the more people that are vaccinated, the higher the number of people vaccinated, the better it will be for this segment of the population."*
- *"I'm waiting for my turn to come so I can do it. As soon as it's my turn, I will do it because it's the only way to protect us."*

**7. Policy** related to vaccination eligibility was briefly mentioned by some Hispanic/Latino participants. Participants discussed the phases of vaccine eligibility, which covered older adults and essential workers at the time of the focus groups.

- *"We have been hearing that the vaccination in the country goes first to older people with 75 years old and essential workers."*
- *"I've heard that right now in Florida, in South Florida, they're really just putting the vaccine on the people that are at least 65 years old."*
- *"In the United States you have to enroll to see when's your turn. Here in California, there's My Turn California, and you put there, there they ask you what is your age, what you do for work and it gives you different questions to determine what's the priority in which one will enter for the vaccine."*

## Information Sources

Hispanic/Latino community members shared their trusted and most frequently used information channels and spokespeople.

**1. Mass media channels** were the most frequently mentioned dissemination outlets participants indicated using and trusting for obtaining COVID-19 testing or vaccine information. Specifically:

- National and local TV news outlets including CNN (English and Spanish), Univision, Telemundo, the BBC network, ABC News, VICE News, Apple News, KTLA network (in Los Angeles), and international channels were mentioned as the primary information outlets. Note that African American participants did not mention international outlets.
  - *"I watch programs of BBC, which is from England, but in Spanish, they translate it to Spanish."*
  - *"I watch Univision 34, which is the local in Los Angeles."*
  - *"I honestly don't follow people, I go more for the, for the news that I get from CNN."*
  - *"I am also subscribed to different news channels, like VICE News, like the Washington Post. I also receive Apple News to my email."*
- Hispanic/Latino participants indicated heavily relying on social media outlets including Facebook, Instagram, YouTube, Snap Chat, TikTok, and Reddit.
  - *"The Facebook pages of the Los Angeles county, because those are more trustworthy, and the ones that keep us up to date."*
  - *"Facebook, because there I follow local news, like the KTLA, CBS from here in Los Angeles."*
  - *"I like to watch videos on YouTube where they explain. Simple videos of 3 minutes about the process of the vaccine and the benefits of the vaccine."*
  - *"I like Reddit, which is like a forum where people talk and share information and there are a lot of discussions. Therefore, I like it because one sees different points of view."*
  - *"I think on Instagram, the same as many of my friends. In Snap Chat also. Snap Chat has a part that is all pure video, and they have news; there, I find a lot. I think that TikTok, sometimes I put hashtag corona, COVID-19 and a lot of things come up, many things are funny, but sometimes they have information that really helps a lot."*

- Internet searches and applications were mentioned by a few participants.
  - *"Google or Yahoo. Those are for communication, for news, everything."*
  - *"Every morning my best friend is Mr. Google".*
  - *"I subscribed for an app called the Citizens app. In that app, at the end of the day, they always send like an account of how many cases there were that day or important updates in the county of Los Angeles."*
  - *"I have an app called News app and also Smart News."*
- A few participants mentioned local radio stations (100.3 - "La Mega," 98.1, and 107.5).
  - *"I listen more than anything in Spanish. I am in Florida; therefore, I listen to, for example, 100.3 called La Mega, 98.1. Very few in English."*
- Emails and text messages from insurance carriers, and websites of federal or state agencies were also mentioned a few times.
  - *"I know there's plenty of information on the CDC page. In the health department. When I went to take the COVID test, the health department called me to give me the info."*
  - *"I get messages from the Kaiser health insurance that I have saying to keep taking care of ourselves and that they will let us know when the vaccine is available."*

**2. Interpersonal channels** mentioned by participants included friends and family directly or via WhatsApp.

- National and local TV news outlets including CNN (English and Spanish), Univision, Telemundo, the BBC network, ABC News, VICE News, Apple News, KTLA network (in Los Angeles), and international channels were mentioned as the primary information outlets. Note that African American participants did not mention international outlets.
  - *"I have WhatsApp groups also with friends and it always comes up, there's going to be someone that doesn't believe and brings their thoughts and reasons for not believing".*
  - *"Well, I don't watch the news a lot, but my grandmother sits in front of the television all day and she gives me all the information".*
  - *"My wife. She is Dominican, but she studies medicine in an American school and she of course has knowledge because she is in that world. She seeks specific information for other people, including myself".*

**3. Trusted organizations** were not mentioned by Hispanic/Latino participants; instead, they mentioned trusted spokespeople within those organizations.

**4. Trusted spokespeople** included:

- Popular news anchors and doctors who are invited to news outlets such as Univision or Telemundo were the most frequently mentioned trusted spokespeople among Hispanic/Latino community members.
  - *"On the radio that is associated with Univision 107.5 here in Miami with Javier Romero always has a lot of information, I always listen, that is my station and Univision and I like it a lot. Because they give us a lot to learn and know about coronavirus."*
  - *"I always watch the news with Jorge Ramos from Univision, and I stay informed because of Jorge Ramos. I've seen him since I was a kid."*

- *"I watch a CNN marathon that starts, sometimes when I have time, from Anderson, then Cuomo and then Don Lemon."*
- *"They [Univision] have interviews with doctors, they are very recognized. Dr. Juan. I follow Dr. Juan on Facebook."*

- Spokespeople from federal, state, and local government organizations trusted by the Hispanic/Latino community members included Dr. Antony Fauci, state governors, The Mayor's office (in Los Angeles County), and school superintendents.
  - *"I do like to listen to Dr. Fauci, really, outside of him I don't have faith on anyone else."*
  - *"I base a lot on the governor of Florida for information. Dr. Anthony Fauci was already mentioned."*
  - *"Here in Los Angeles and usually live streaming of press conferences from the mayor Eric Garcetti."*
  - *"I never miss the testimonies or the representatives of Governor Newsom, even though he's burned right now with politics. But well now he is obviously the person that is giving us the information more to the facts related to California."*
  - *"Every Monday morning the superintendent of the unified district of Los Angeles provides an update about everything that's happening, what are the steps they are taking to be able to reopen schools."*

### Materials and Creative Execution

Hispanic/Latino participants shared a variety of preferred ways to receive COVID-19 testing or vaccine information. They suggested:

- Brochures or other material in Spanish via mail for people that do not use email, do not go out, and are at higher risk for COVID-19 (e.g., older adults).
  - *"Here in Los Angeles, we find information about COVID and the vaccine even in the soup. But it would be helpful to send flyers for those of us who don't drive."*
  - *"Thinking about the Latino community also something that is in Spanish that people can read it and for older people a phone number where they can communicate."*
- Billboards and messages in public transportation and radio for commuters.
  - *"I think that a billboard is the more visible because we all drive somewhere, so I think a billboard or a bus stop banner or something like that."*
  - *"I try to go out daily, so I see a lot of information in the billboards and the bus stops. I also listen to the radio a lot, a lot, when I'm driving."*
  - *"In the buses, because many people use them still, even though they are not going out as much obviously. But in public transportation, someone will see it, these places that are accessible for the public."*
- Participants wanted to see more data that provides a balanced, "real" overview of the positive and negative outcomes of vaccination, vaccine ingredients, and pros and cons of the vaccine.
  - *"For me it has to be something neutral. Tell me the benefits and the cons, the contraindications. Those two things side by side. Give me all the reality and I will decide."*
  - *"I would like to see the trials, the data they used to release the vaccine."*
  - *"I haven't been able to see online the ingredients of what is in this vaccine."*

## 5. Conclusions and Recommendations

In February 2020, news about the novel COVID-19 began spreading across the U.S.10 Almost a year later, focus groups with African American and Hispanic/Latino community members indicate that while knowledge has increased from nothing to something, it is not the primary factor influencing their decisions about whether to get the COVID-19 test or vaccine. Instead, these behaviors stem from a complex constellation of perceptions. This research identified key constructs or beliefs that African American and Hispanic/Latino community members have about COVID-19 testing and vaccinations and that are impacting their testing and vaccination intention and behavior. These insights can guide the development of messages and materials for the NCRN COVID-19 communication campaign.

- **Messages and materials can aim to increase perceived susceptibility given its relevance to both COVID-19 testing and vaccination.** Results from the focus groups revealed that many African American and Hispanic/Latino community members did not describe themselves as vulnerable to getting COVID-19 and as a result many argued not "needing" to get tested or vaccinated. They rationalized that they have good health or a healthy lifestyle, and they are taking other preventive measures (e.g., mask wearing).

  **Consider prioritizing the following 3 core concepts for the development of COVID-19 vaccination messages among both African American and Hispanic/Latino audiences.** The focus groups revealed that both priority audiences share beliefs that are contributing to vaccine hesitancy. These beliefs are overriding the perceived risk of getting COVID-19 or any motivation to get vaccinated. The 3 concepts can aim to:

  - **Increase trust and decrease distrust in institutions and science.** Participants stated that research has been rushed so that scientists are still figuring out if the vaccine is effective and safe.
  - **Decrease negative outcome expectations of getting the COVID-19 vaccine.** Participants discussed the need to wait to see whether there are long-term effects that have not emerged yet due to the novel and changing nature of the vaccines. They also reflected widespread misinformation that the vaccine is lethal.
  - **Increase the perceived effectiveness of the vaccines.** Participants expressed uncertainty about the effectiveness of the vaccine including on new COVID-19 strains.

- **Tailor vaccination messages for the 3 priority constructs.** Although the three 3 priority constructs were common across African Americans and Hispanic/Latino participants, there were some important differences that can inform the tailoring of the messages.

  To increase trust or decrease distrust in institutions and science:

  - For African American participants, acknowledge their distrust in government and its role in vaccine development and approval, which could be tied to past ethical abuses (e.g., during the Tuskegee and Henrietta Lacks experiments), health inequity, and racial bias and discrimination in healthcare.
  - For Hispanic/Latino participants, whose trusted sources of information included federal, state, and local government spokespeople, address the perception that the vaccines were rushed and not fully studied, while levering trust in pharmaceutical companies and their process of vaccine development.

- To decrease negative outcome expectations of getting the COVID-19 vaccine:

  - For the African American audience, inform about vaccine recommendations and potential adverse reactions for individuals of different age groups, and with different underlying conditions (e.g., allergies, weakened immune system, autoimmune conditions).
  - For Hispanic/Latino participants, correct the misperception that the vaccines can change people's DNA or be lethal. In addition, address the perception of immunity from liability granted to pharmaceutical companies for the COVID-19 vaccine and their economic interest.

- **Focus on key risk communication elements including honesty, transparency, and accountability for the sources of information on vaccine safety.**[11] Hispanic/Latino participants wanted to see more data that provides a balanced, "real" overview of the positive and negative outcomes of vaccination, vaccine ingredients, and pros and cons of the vaccine. Previous studies on vaccine hesitancy have found that transparent reporting of vaccine safety in a way that people of all educational levels can understand is likely to be an effective strategy to increase public uptake of vaccination.[12]
- **Consider the inclusion of clarifying information regarding regulatory terms such as emergency use authorization (EUA) or accelerated approval that are easy to understand across the priority audiences.** Both Hispanic/Latino and African American community members were concerned about the impact of the EUA on vaccine safety and effectiveness. The use of an EUA for vaccine approval is nearly unprecedented and had only been used in 2005 to make the anthrax vaccine available. For this reason, it is important to ensure that the public understands the rigor of the process, the requirement for comprehensive data on vaccine safety and efficacy, and the transparency through review by federal advisory committees which has been found to significantly increase clinician's confidence in vaccine recommendations and public trust in the approval process.[13]

Focus group participants also shared insights that can guide the dissemination of messages and materials.

- **Consider a mix of channels to expose the audiences to messages and materials at different places and times.** The channels relate to:
  - Mass media, in particular national and local TV news outlets, social media, and radio.
  - Interpersonal contacts such as family and friends.
  - Trusted organizations such as the CDC, state and local health departments, state governors' websites, and insurance carriers.
- **Engage trusted spokespeople for each of the priority audiences**
  - African American participants said they trust:
    - Their doctor.
    - Their pastor.
    - Public figures, in particular those participants perceived as role models for a healthy lifestyle or influential celebrities for the African American community.
  - Hispanic/Latino participants said they trust:
    - Popular news anchors and doctors who are invited to news outlets such as Univision or Telemundo.
    - Spokespeople from federal, state, and local government organizations including Dr. Antony Fauci, state governors, The Mayor's office (in Los Angeles County), and school superintendents.

[11] Glik DC. Risk communication for public health emergencies. Annu Rev Public Health. 2007;28:33-54. doi: 10.1146/annurev.publhealth.28.021406.144123.

[12] Fisher KA, Bloomstone SJ, Walder J, Crawford S, Fouayzi H, Mazor KM. Attitudes Toward a Potential SARS-CoV-2 Vaccine : A Survey of U.S. Adults. Ann Intern Med. 2020 Dec 15;173(12):964-973. doi: 10.7326/M20-3569.

[13] Opel DJ, Salmon DA, Marcuse EK. Building Trust to Achieve Confidence in COVID-19 Vaccines. JAMA Netw Open. 2020 Oct 1;3(10):e2025672. doi: 10.1001/jamanetworkopen.2020.25672.

- Their pastor.
- Public figures, in particular those participants perceived as role models for a healthy lifestyle or influential celebrities for the African American community.

- Hispanic/Latino participants said they trust:
  - Popular news anchors and doctors who are invited to news outlets such as Univision or Telemundo.
  - Spokespeople from federal, state, and local government organizations including Dr. Antony Fauci, state governors, The Mayor's office (in Los Angeles County), and school superintendents.

## APPENDIX A: FOCUS GROUP SCREENER

### Introduction

Hello. I'm [RECRUITER NAME] with Schlesinger Group. We are partnering with the Morehouse School of Medicine or MSM on behalf of the Health and Human Services Office of Minority Health or OMH. It is talking with members of African American, Hispanic, Asian, Native Hawaiian and Other Pacific Islander, Native Indian and Alaska Native, rural, and other communities impacted by the COVID-19 pandemic. This is not a sales call. May I speak to [NAME OF POTENTIAL PARTICIPANT]? This should only take a few minutes. (ONCE ON PHONE, REPEAT INTRODUCTION AND CONTINUE.)

Do you have a few minutes to answer some questions? Your insights will guide a national communications program that will take place in the near future. Your responses will stay confidential. Your thoughts are very important. (IF RESPONSE IS NO, TRY TO SCHEDULE A DAY AND TIME TO CALL BACK.)

**Date:** _____ **Time:** _____

SCREENER

1. What is your state? (RECORD 1 RESPONSE. IF APPLICABLE, RECRUIT A MIX OF NCRN STATES FOR THE APPROPRIATE TARGET POPULATION.)

   a. CA (CONTINUE FOR AFRICAN AMERICAN/HISPANIC.)
   b. FL (CONTINUE FOR HISPANIC.)
   c. GA (CONTINUE FOR AFRICAN AMERICAN.)
   d. LA (CONTINUE FOR AFRICAN AMERICAN.)
   e. Other state (THANK AND END CALL.)
   f. (NO ANSWER) (THANK AND END CALL.)

2. (IF Q1=CA, ASK:) What is your county? (RECORD 1 RESPONSE.)

| | |
|---|---|
| a. Los Angeles County | (CONTINUE.) |
| b. Orange County | (CONTINUE.) |
| c. Riverside County | (CONTINUE.) |
| d. San Bernardino County | (CONTINUE.) |
| e. Ventura County | (CONTINUE.) |
| f. Other county | (THANK AND END CALL.) |
| g. (NO ANSWER) | (THANK AND END CALL.) |

3. What is your age? (RECORD AGE. RECRUIT A MIX OF AGES.)

   **Age:** _____

   a. 17 years and younger (THANK AND END CALL.)
   b. 18 to 39 years (CONTINUE.)
   c. 40 years and older (CONTINUE.)
   d. (NO ANSWER) (THANK AND END CALL.)

4. Since January 2020, have any of the following people had a positive COVID-19 test? (READ AND RECORD ALL RESPONSES GIVEN.)

   a. Myself (THANK AND END CALL.)
   b. Someone closely related to me (THANK AND END CALL.)
   c. Someone not closely related to me but in my house (THANK AND END CALL.)
   d. Close friend (THANK AND END CALL.)
   e. Neighbor (THANK AND END CALL.)
   f. Work colleague (THANK AND END CALL.)
   g. None of the people listed (CONTINUE.)
   h. (NO ANSWER) (THANK AND END CALL.)

5. Which of the following best describes your work? (READ AND RECORD 1 RESPONSE.)

   a. I am a migrant worker in farming (THANK AND END CALL.)
   b. I am a migrant worker in meatpacking (THANK AND END CALL.)
   c. I am a migrant worker in another field (THANK AND END CALL.)
   d. I am not a migrant worker (CONTINUE.)
   e. (NO ANSWER) (THANK AND END CALL.)

5. Which of the following best describes your work? (READ AND RECORD 1 RESPONSE.)

   a. I am a migrant worker in farming (THANK AND END CALL.)
   b. I am a migrant worker in meatpacking (THANK AND END CALL.)
   c. I am a migrant worker in another field (THANK AND END CALL.)
   d. I am not a migrant worker (CONTINUE.)
   e. (NO ANSWER) (THANK AND END CALL.)

6. Are you of Hispanic, Latino, or Spanish origin? (RECORD 1 REPONSE.

   a. Yes (CONTINUE FOR HISPANIC.)
   b. No (CONTINUE FOR AFRICAN AMERICAN.)
   c. (NO ANSWER) (THANK AND END CALL.)

7. What is your race? (READ AND RECORD ALL RESPONSES GIVEN.)

   a. White (CONTINUE FOR HISPANIC IF YES AT Q5.)
   b. Black or African American (CONTINUE FOR AFRICAN AMERICAN IF NO AT Q5 /HISPANIC IF YES AT Q5.)
   c. American Indian (CONTINUE FOR HISPANIC IF YES AT Q5.)
   d. Alaska Native (CONTINUE FOR HISPANIC IF YES AT Q5.)
   e. Asian (CONTINUE FOR HISPANIC IF YES AT Q5.)
   f. Native Hawaiian or Other Pacific Islander (CONTINUE FOR HISPANIC IF YES AT Q5.)
   g. Some other race (SPECIFY:) _____ (CONTINUE FOR HISPANIC IF YES AT Q5.)
   h. (NO ANSWER) (CONTINUE FOR HISPANIC IF YES AT Q5.)

8. What country were you born in? (RECORD COUNTRY. RECRUIT A MIX OF ANCESTRIES.)

   **Country:** _____

9. In general, what language do you usually speak at home? (READ AND RECORD 1 RESPONSE.)

   a. Only English (CONTINUE FOR AFRICAN AMERICAN.)
   b. English more than Spanish (CONTINUE FOR AFRICAN AMERICAN.)
   c. Both equally (CONTINUE FOR AFRICAN AMERICAN/HISPANIC.)
   d. Spanish more than English (CONTINUE FOR HISPANIC.)
   e. Only Spanish (CONTINUE FOR HISPANIC.)
   f. (NO ANSWER) (THANK AND END CALL.)

10. a. Female
    b. Male
    c. Non-binary/third gender
    d. Transgender
    e. Cisgender
    f. Agender
    g. Genderqueer
    h. A gender not listed
    i. Prefer to self-describe (SPECIFY:) _____
    j. (NO ANSWER)

11. What is the highest degree or level of school you have completed?
    (READ AND RECORD 1 RESPONSE. RECRUIT A MIX.)

    a. Less than high school degree
    b. High school degree, GED, or other credential
    c. Some college or trade school but no degree
    d. Associate's or trade school degree
    e. Bachelor's degree
    f. More than a bachelor's degree
    g. (NO ANSWER)

12. Do you have any type of health insurance that covers your health expenses in the U.S.?
    (RECORD 1 RESPONSE. RECRUIT A MIX.)

    a. Yes
    b. No
    c. (NO ANSWER)

13. In 2020, did you get a flu vaccine? (RECORD 1 RESPONSE. RECRUIT A MIX)

    a. Yes
    b. No
    c. (NO ANSWER)

14. Have you ever worked in any of the following fields? (READ AND RECORD 1 RESPONSE FOR EACH CATEGORY.)

| | Yes | No | No answer |
|---|---|---|---|
| a. Marketing, advertising, public relations, digital media, or any other communication field | Yes (THANK AND END CALL.) | No (CONTINUE.) | (NO ANSWER) (CONTINUE.) |
| b. Medicine, public health, COVID-19 including contact tracing, or any other health field | Yes (THANK AND END CALL.) | No (CONTINUE.) | (NO ANSWER) (CONTINUE.) |

15. Can you access a telephone or computer with speakers, a microphone, and access to the Internet? (RECORD 1 RESPONSE.)

    a. No (THANK AND END CALL.)
    b. Yes—telephone (CONTINUE.)
    c. Yes—computer (CONTINUE.)
    d. (NO ANSWER) (THANK AND END CALL.)

16. Is the telephone or computer in a place where you can use it with no one else around to see or hear what you are saying or doing? (RECORD 1 RESPONSE.)

    a. No (THANK AND END CALL.)
    b. Yes (CONTINUE.)
    c. (NO ANSWER) (THANK AND END CALL.)

INVITATION

Thank you for answering my questions. You are invited to take part in a focus group activity sponsored by MSM on behalf of the OMH. It is talking with more than 100 African American, Hispanic, Asian, Native Hawaiian and Other Pacific Islander, Native Indian and Alaska Native, rural, and other populations impacted by the COVID-19 pandemic. The discussion will take place in [English/Spanish] via the telephone or online. It will last no more than 1.5 hours. An experienced facilitator will lead the discussion. You will be asked questions about COVID-19 testing and the vaccine. Your input is very important to our team as we work to create new COVID-19 communication materials like radio spots and information that can be shared on social media. You will get a $150 Visa gift card for your time, which will be mailed to you after the discussion ends. Your participation in this activity is completely voluntary. You can choose to take part in the discussion or decide not to participate. After the discussion starts, you can choose not to answer any questions that you do not want to answer. You can leave the discussion at any time. Will you join the interview?

a. No (THANK AND END CALL.)
b. Yes (CONTINUE.)
c. (NO ANSWER) (THANK AND END CALL.)

Thanks for accepting our invitation. There are different days and times when you can join the discussion. It would help if I could note at least 2 different times when you are free. (SHARE SCHEDULE.) Which works best for you?

**Day 1:** _____ **Time 1:** _____

**Day 2:** _____ **Time 2:** _____

For contact purposes, may I confirm your full name and get your email address, and phone number? (RECORD.)

**First Name:** _____ **Last Name:** _____

**Email Address:** _____

**Phone:** _____

Thank you for taking time to talk with me. You will get an email on how to join the discussion. You also will get information on the study for your reference. If you have any questions or find out that you cannot attend the interview, please call [RECRUITER'S NAME] at [TELEPHONE]. I will find someone to take your place. If you have any questions about this activity, please contact Kelli Hunter at kelli.hunter@icfnext.com or 301-572-0493 and Cristina Cruz at cristina.cruz@icfnext.com or 571-373-5409.

## THANK AND END CALL SCRIPT

Thank you for taking time to talk with me. The information you shared will guide a national communications program that will take place in the near future. Your thoughts were very important. Goodbye.

## APPENDIX B: FOCUS GROUP PARTICIPANTS PROFILE

| Characteristic | African American | | Hispanic | | Total | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| Total | 18 | 100% | 18 | 100% | 36 | 100% |
| Locations | | | | | | |
| CA | 7 | 39% | 9 | 50% | 16 | 44% |
| Los Angeles County | 5 | 28% | 6 | 33% | 11 | 31% |
| Orange County | 1 | 6% | 1 | 6% | 2 | 6% |
| Riverside County | 1 | 6% | 1 | 6% | 2 | 6% |
| San Bernardino County | 0 | 0% | 0 | 0% | 0 | 0% |
| Ventura County | 0 | 0% | 1 | 6% | 1 | 3% |
| FL | N/A | N/A | 9 | 50% | 9 | 25% |
| GA | 7 | 39% | N/A | N/A | 7 | 19% |
| LA | 4 | 22% | N/A | N/A | 4 | 11% |
| Birth Country | | | | | | |
| Argentina | 0 | 0% | 1 | 6% | 1 | 3% |
| Colombia | 0 | 0% | 1 | 6% | 1 | 3% |
| Cuba | 0 | 0% | 3 | 17% | 3 | 8% |
| Guatemala | 0 | 0% | 1 | 6% | 1 | 3% |
| Jamaica | 1 | 6% | 0 | 0% | 1 | 3% |
| Mexico | 0 | 0% | 8 | 44% | 8 | 22% |
| Nicaragua | 0 | 0% | 2 | 11% | 2 | 6% |
| Nigeria | 1 | 6% | 0 | 0% | 1 | 3% |
| U.S. | 16 | 88% | 0 | 0% | 16 | 44% |
| Venezuela | 0 | 0% | 2 | 11% | 2 | 6% |
| Preferred language | | | | | | |
| Only English | 17 | 94% | 0 | 0% | 17 | 47% |
| English more than Spanish | 1 | 6% | 0 | 0% | 1 | 3% |
| Both equally | 0 | 0% | 4 | 22% | 4 | 11% |
| Spanish more than English | 0 | 0% | 8 | 44% | 8 | 22% |
| Only Spanish | 0 | 0% | 6 | 33% | 6 | 17% |

| Characteristic | African American | | Hispanic | | Total | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| **Age** | | | | | | |
| 18-24 years | 2 | 11% | 2 | 11% | 4 | 11% |
| 25-34 years | 3 | 17% | 4 | 22% | 7 | 19% |
| 35-44 years | 7 | 39% | 6 | 33% | 13 | 36% |
| 45-54 years | 3 | 17% | 4 | 22% | 7 | 19% |
| 55-64 years | 2 | 11% | 2 | 11% | 4 | 11% |
| 65 years and older | 1 | 6% | 0 | 0% | 1 | 3% |
| **Gender identity** | | | | | | |
| Male | 10 | 56% | 9 | 50% | 19 | 53% |
| Female | 8 | 44% | 9 | 50% | 47 | 47% |
| Non-binary/third gender | 0 | 0% | 0 | 0% | 0 | 0% |
| Transgender | 0 | 0% | 0 | 0% | 0 | 0% |
| Cisgender | 0 | 0% | 0 | 0% | 0 | 0% |
| Agender | 0 | 0% | 0 | 0% | 0 | 0% |
| Genderqueer | 0 | 0% | 0 | 0% | 0 | 0% |
| A gender not listed | 0 | 0% | 0 | 0% | 0 | 0% |
| Other | 0 | 0% | 0 | 0% | 0 | 0% |
| **Education level** | | | | | | |
| Less than high school degree | 1 | 6% | 3 | 17% | 4 | 11% |
| High school degree, GED, or other credential | 2 | 11% | 4 | 22% | 6 | 17% |
| Some college or trade school but no degree | 3 | 17% | 3 | 17% | 6 | 17% |
| Associate's or trade school degree | 3 | 17% | 4 | 22% | 7 | 19% |
| Bachelor's degree | 6 | 33% | 3 | 17% | 9 | 25% |
| More than a bachelor's degree | 3 | 17% | 1 | 6% | 4 | 11% |
| **Health insurance status** | | | | | | |
| Have | 16 | 89% | 17 | 94% | 33 | 92% |
| Do not have | 2 | 11% | 1 | 6% | 3 | 8% |

| Characteristic | African American | | Hispanic | | Total | |
|---|---|---|---|---|---|---|
| | # | % | # | % | # | % |
| **Touched by COVID-19 status*** | | | | | | |
| **Yes** | 0 | 0% | 0 | 0% | 0 | 0% |
| **No** | 18 | 100% | 18 | 100% | 36 | 100% |
| **Flu vaccine status** | | | | | | |
| **Got in 2020** | 3 | 17% | 13 | 72% | 16 | 44% |
| **Did not get in 2020** | 15 | 83% | 5 | 28% | 20 | 56% |

*People touched by COVID-19 reported that they, someone closely related to them, someone not closely related to them but in their house, a friend, a neighbor, or a work colleague had had a positive COVID-19 test since January 2020.

## APPENDIX C: FOCUS GROUP GUIDE

### Study Overview and Informed Consent (10 minutes)

Hello. Thanks for talking with me. Before we begin, I would like to give you an overview of this focus group, so that you know what to expect.

1. This interview is sponsored by the Morehouse School of Medicine or MSM on behalf of the Health and Human Services Office of Minority Health or OMH.

2. My name is [INTERVIEWER'S NAME]. I work for ICF Next, a grant recipient under MSM, which in turn has received a cooperative agreement from OMH. I am guiding this discussion.

3. This study involves more than 100 community members from African American, Hispanic, Asian, Native Hawaiian and Other Pacific Islander, Native Indian and Alaska Native, rural, and other populations impacted by the COVID-19 pandemic.

4. This focus group discussion will last no longer than 1.5 hours.

5. During this focus group, we will talk about your thoughts on COVID-19 testing and vaccination.

6. Your input is very important. It will help the NCRN plan a national communication program. You will receive a $150 gift card for your time.

7. Your participation in this study is completely voluntary. You choose whether to take part in this interview. After the interview starts, you can choose not to answer any questions that you do not want to answer. You can leave the discussion at any time. Not agreeing to an interview and limiting or stopping your participation will not result in any penalty or loss of benefits to your organization or you.

8. My colleagues from ICF Next will listen, take notes, and audio-record this discussion. The recording will start after you all agree to participate in the discussion.

9. The research team will keep the notes and audio-recordings of all the discussions in a password-protected computer folder. Only members of the research team will have access to the notes and audio-recordings, and they will not be allowed to share them with anyone else. When the study is over, the research team will destroy the audio-recordings and notes.

10. The research team will use the notes and audio-recordings to write a report. It will summarize everyone's ideas. The report will not connect individuals with their answers.

11. If you have any questions about this research, please contact Kelli Hunter at kelli.hunter@icfnext.com or 301-572-0493 and Cristina Cruz at cristina.cruz@icfnext.com or 571-373-5409. If you have any questions about your rights as a research participant, please contact Brenda Klement, IRB Chair, at bklement@msm.edu or 404-752-1637

12. Do you have any questions about this interview?

13. Do you agree to participate in this interview? (IF A PARTICIPANT RESPONDS "NO," END CONNECTION WITH THAT PARTICIPANT.)

14. Do you agree to be audio-recorded? (IF A PARTICIPANT RESPONDS "NO," TAKE NOTES RATHER THAN AUDIO-RECORD.)

15. Thank you. I ask that you follow some ground rules throughout our discussion:
    a. You will need a piece of paper and a pen or pencil for part of the discussion.
    b. Avoid answering any phones unless a call is an emergency.
    c. Talk loudly enough to be heard in the audio-recording.
    d. Remember that there are no right or wrong answers.
    e. Please provide your honest opinion.
    f. Please do not share the opinions of others you hear during this focus group.

16. Let's start with a fun question. Please share your first name and your favorite fruit or vegetable. (INTRODUCE SELF AND THEN HAVE THE PARTICIPANTS INTRODUCE THEMSELVES.)

Thank you. I ask that you follow some ground rules throughout our discussion:
a. You will need a piece of paper and a pen or pencil for part of the discussion.
b. Avoid answering any phones unless a call is an emergency.
c. Talk loudly enough to be heard in the audio-recording.
d. Remember that there are no right or wrong answers.
e. Please provide your honest opinion.
f. Please do not share the opinions of others you hear during this focus group.

Let's start with a fun question. Please share your first name and your favorite fruit or vegetable.
(INTRODUCE SELF AND THEN HAVE THE PARTICIPANTS INTRODUCE THEMSELVES.)

**Knowledge of COVID-19 Testing and Vaccination (10 minutes)**

1. How, if at all, does the COVID-19 pandemic affect the people close to you?
2. In what ways, if any, does the COVID-19 pandemic affect you?
3. What recent news or information about COVID-19 has been most useful to you? (PROBE:)
    a. In what way has it been useful?

**Participating in Testing and Vaccination (20 minutes)**

1. Who here has gotten a COVID-19 test?
    a. (Those who have) Tell us what prompted you to get tested—not necessarily the symptoms you were feeling, but what prompted you to get tested.
        1. What, if anything, made it easier to get tested?
        2. What, if anything, made it difficult to get tested?
    b. (Those who have not) For what reasons have you not gotten tested?

2. What, if anything, has prevented you from getting tested? (PROBE:)
    a. What barriers are particular to your community?

3. How likely would you be to get a COVID-19 test in the future if you needed one?
   Now let's talk about the COVID-19 vaccines that are available and others that are being developed

4. Tell us what you have seen or heard. (PROBE:)
    a. How might you benefit by receiving a COVID-19 vaccine?
    b. In what ways might the COVID-19 vaccine harm you?
    c. What do you think is going to make it easy or difficult to receive a COVID-19 vaccine? (PROBE:)
        1. What barriers are particular to your community?

5. How likely are you to get the COVID-19 vaccine in the future?
    a. [Those who said likely] Why would you be likely to get a COVID-19 vaccine?
    b. [Those who said unlikely] Why wouldn't you be likely to get a COVID-19 vaccine?

6. What sources would you use to find this information on the COVID-19 vaccine? (PROBE:)
    a. How do you usually receive this information? It can be any way like hearing it on the radio, seeing it on tv, on Facebook or other social media.

7. What kinds of people do you trust to provide information on the COVID-19 vaccine? (PROBE:)
    a. What, if any, spokespeople, including social media influencers do you trust to provide you with information on COVID-19 testing and vaccine?
    b. What makes these people trustworthy?

8. Would you use different sources to find information on COVID-19 testing than you would for information on the COVID-19 vaccine?

9. What types of materials do you look for when/if you're looking for information on COVID19 testing or vaccination? (MODERATOR: Do not give examples unless someone specifically asks. We want to see what comes top-of-mind)
    a. Examples: short, long, science-based, personal stories (testimonials), charts, data, graphics, cartoons

10. What will get people to take notice of messages regarding COVID-19 testing and vaccination?

11. What will it take to get people to respect and believe message regarding COVID-19 testing and vaccination?

12. What language would you prefer to receive information on COVID-19 testing or vaccine and why?

13. Now, let's take a couple of minutes to write down our top three ways you prefer to receive information on COVID-19 testing or vaccine? (MODERATOR: Do not give examples unless someone specifically asks. We want to see what comes top-of-mind)
    a. Examples: through email, social media, radio, ads on public transportation, faith community/ leaders, or other ways?

14. What ways did you write down?

10. What will get people to take notice of messages regarding COVID-19 testing and vaccination?

11. What will it take to get people to respect and believe message regarding COVID-19 testing and vaccination?

12. What language would you prefer to receive information on COVID-19 testing or vaccine and why?

13. Now, let's take a couple of minutes to write down our top three ways you prefer to receive information on COVID-19 testing or vaccine? (MODERATOR: Do not give examples unless someone specifically asks. We want to see what comes top-of-mind)
    a. Examples: through email, social media, radio, ads on public transportation, faith community/ leaders, or other ways?

14. What ways did you write down?

**Closing (5 minutes)**

We are almost done.

1. What final comments, if any, do you have?

2. Thank you so much for your input. My colleagues Kelli Hunter and Cristina Cruz, who scheduled your focus group time, will email you a $150 gift card for your time, which will be mailed to you.

3. If you have any questions about this research, please contact Kelli Hunter at kelli.hunter@icfnext.com or 301-572-0493 and Cristina Cruz at cristina.cruz@icfnext.com or 571-373-5409. If you have any questions about your rights as a research participant, please contact Brenda Klement, IRB Chair, at bklement@msm.edu or 404-752-1637.

# Morehouse School of Medicine National COVID-19 Resiliency Network

## Messages and Materials Audit Executive Summary

### Presented by ICF next

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