

Lillian Labs

Internal COVID-19 Vaccine Messaging Research

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Background

Vaccinating a majority of the U.S. population in a timely manner is critical to ending the COVID-19 pandemic. However, due to a multitude of factors, sizeable segments of Americans are skeptical about receiving the vaccine when it becomes available to them.

Boost Oregon is an organization dedicated to educating the public with accurate, scientific-backed information about vaccinations so people can make better informed decisions concerning their and their family's health. With regard to the COVID-19 vaccination, a specific area of focus is outreach to minority communities who have been disproportionately impacted by the pandemic.

Lillian Labs/Dialsmith, in conjunction with Boost Oregon, seeks to offer research-based recommendations for how to effectively message to minorities (specifically, communities of color) about the COVID-19 vaccine in an effort to support and enhance Boost's efforts to reach these minorities with accurate information. Specifically, we seek to understand:

- Attitudes, perceptions, and barriers related to COVID-19 vaccines
- Language and approaches that will resonate and build trust with the communities we're trying to reach with COVID-19 vaccine information

Initial thoughts are that a message that addresses individual benefits will resonate better than one that refers to community benefits, and that a loving, caring tone is more effective than a technical, scientific one.

Research Approach

Lillian Labs and Dialsmith fielded a national, online survey, using Perception Analyzer Online (PAO), Jan 29 – Feb 4, 2021 with 200 adults with a moderate need and qualification to receive a COVID-19 vaccine due to their age:

- Ages 40 - 64 years – Higher mortality risk than <40 years; Mid-tier priority for availability
- Mix of 50% Caucasian (CAU) and 50% African American (AA) to compare/contrast intentions and mindsets
- Low-to-moderate willingness to receive COVID-19 vaccine when available (based on 0 to 10 willingness skill, where 0 = not at all willing and 10 = extremely willing, and only those who responded 0 to 7 completed the survey)

The survey included moment-to-moment testing of two audio recordings that gave information about the COVID-19 vaccine and why people should be vaccinated. One recording, the "Scientific Approach," included technical information about the vaccine with a focus on benefits to individuals and their families. Conversely, the "Loving Approach," focused more on people's obligations to help others by being vaccinated and on the benefits of businesses and schools getting back to normal. Respondents used an on-screen "slider" (or "dial") to continuously indicate how intensely they liked or disliked what they were hearing. After the moment-to-moment exercises, respondents answered a few rating and open-ended questions about each of the recordings.

As a follow-up, we conducted a series of 30-minute, online in-depth interviews (IDIs) with six of the AA survey respondents to further understand their perspective.

Key Survey Findings

Survey data was analyzed by two breakouts: Persuadable vs. Opposition and Caucasian vs. African American. “Persuadables” were defined as those respondents who gave a 4-7 response on the likely to receive the vaccine question compared to “Opposition” who gave a 0-3 response.

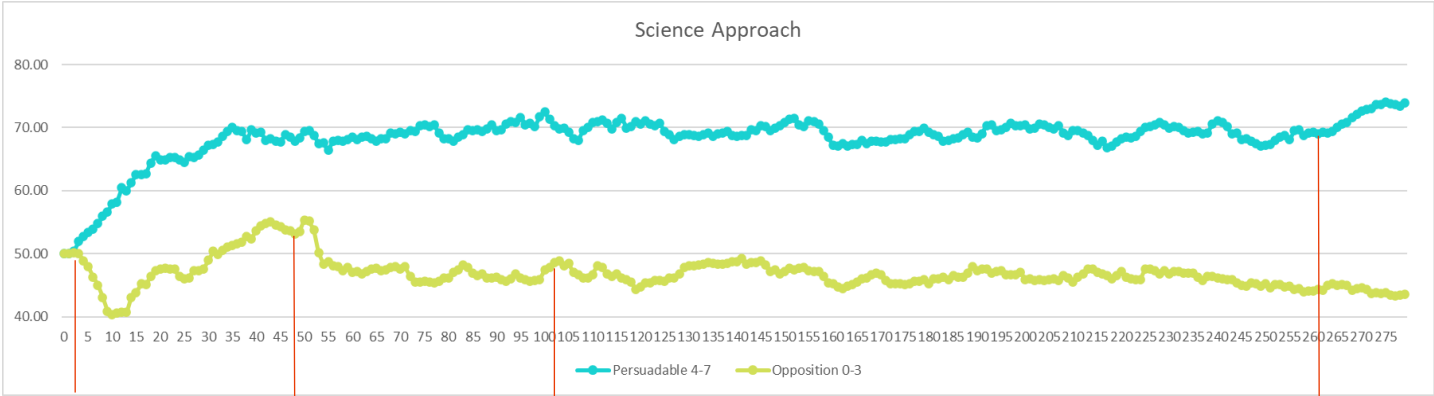
- **How do Persuadables differ from Opposition?**
 - By definition, Persuadables are more likely to take the vaccine when it becomes available and will wait a shorter time to take it.
 - Persuadables are also more concerned about getting COVID and say they follow social distancing and mask-wearing more rigorously than the Opposition.
 - Both seek more information about the side effects and effectiveness of the vaccine, while Opposition tends to share a tone of distrust of the government, vaccines, public health officials, pharmaceutical companies, etc.
 - Persuadables skew more liberal, while Opposition skews more conservative.

KEY DIFFERENCES BETWEEN PERSUADABLES AND OPPOSITION	Persuadables N=96	Opposition N=104
How likely are you to receive the COVID-19 vaccine when it is available to you? 0-10 (no 8-10 responses)	All responded 4-7 5.5 mean	All responded 0-3 0.9 mean
How concerned are you about you personally getting COVID-19? 0-10	6.5 mean	4.5 mean
How long do you expect you will wait to receive the COVID-19 vaccine after it becomes available to you?	17% 1 year or more	86% 1 year or more
Why will you wait to receive the COVID-19 vaccine? (a few examples)	<ul style="list-style-type: none"> • “I want to wait to see the side effects that others will experience.” • “Not enough facts and info on effectiveness or side effects.” • “I want to see if the vaccine is effective. Right now I’ve read that a new strain of COVID may make the vaccine ineffective.” • “I don’t believe that it’ll be available to me anytime soon even if I wanted to receive it. It’s taking the government a long time to distribute the doses to the elderly.” 	<ul style="list-style-type: none"> • “I don’t trust the person who made it or the government.” • “I don’t trust vaccines. Two of my grandsons have autism due to vaccines.” • “I have never had a flu shot and not about to start getting one now when I do not know what all is in the vaccine.” • “I believe that these vaccines were made too quickly and that there will be fatal side effects that will be covered up by the pharmaceutical companies that made these vaccines.”

Which of the following best describes your ethnicity?	46% Caucasian 54% African American	54% Caucasian 46% African American
Which of the following best describes your political outlook and/or party affiliation?	45% very/somewhat liberal 21% very/somewhat conservative	32% very/somewhat liberal 32% very/somewhat conservative
How often do you practice social distancing/wear a mask when you are with close friends or family, who are NOT a part of your immediate family (i.e., they do not live in your home)?	75% always/most of the time social distancing 63% always/most of the time wear a mask	51% always/most of the time social distancing 44% always/most of the time wear a mask
Agreement: All children should be vaccinated against childhood diseases	2% disagree	18% disagree
Agreement: I regularly schedule visits with my healthcare provider for annual check-ups	17% disagree	31% disagree
Trusted information sources (top ranked in order)	CDC officials Personal healthcare providers Local healthcare providers Global public health officials	Personal healthcare providers Local healthcare providers Close friends/family Non-profit research organizations

- **How did the messaging approaches perform?**

- Both approaches performed similar for how well they were liked among each group. Both were rated higher by the Persudables than Opposition; the difference was significant though ~20 points.
- The biggest changes in liking occurred at the beginning of each message, where Persudables' liking increased sharply, but for the most part, receptiveness was fairly flat throughout each message.
- Among Persudables, both messages scored similarly well for being informative, believable, and sharable and generated a modest increase in willingness to take the vaccine.
- Not surprisingly, Opposition scored the messages lower than Persudables on all measures, with little differentiation between the two approaches.
- Slightly more Persudables found the SCIENTIFIC approach to be more convincing and trustworthy compared to slightly more Opposition finding the LOVING approach to be more convincing and trustworthy. (Note that all respondents saw the SCIENTIFIC approach first due to study design.)
- In general, language about getting kids and businesses back were more liked than talking about taking care of our elders.
- Respondents liked the positive tones of the messages and appreciated the information and testimonials that were provided, but really wanted more information, especially around the side effects of the vaccine and how it was approved, clinical trial details, etc.

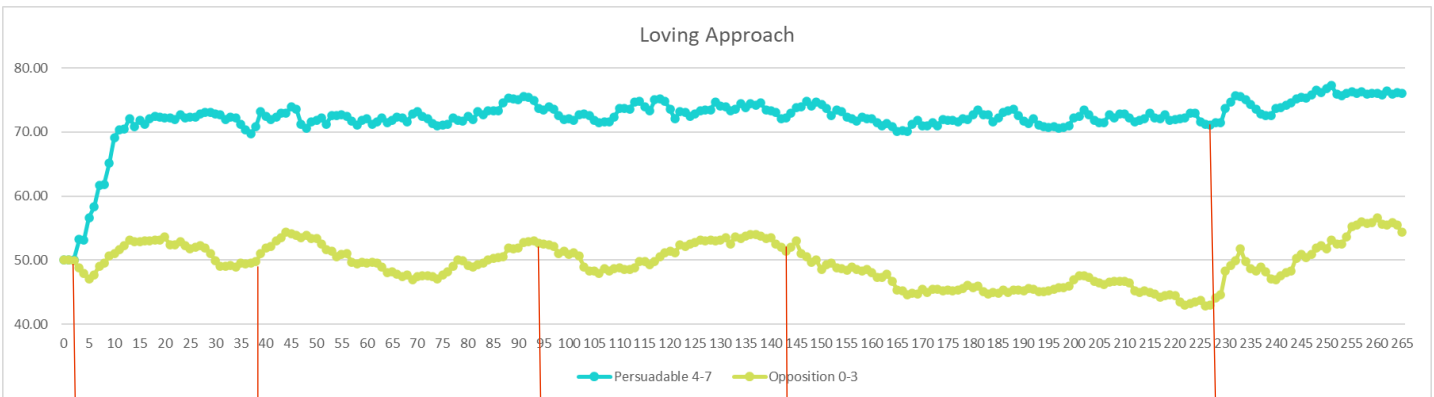


... the need for you and your family to be vaccinated when the COVID-19 vaccine becomes available to you.

...Were important steps skipped that may make it risky to receive? The answer is no.

...Since some vaccines actually inject a weaker version of the virus into humans.

"We do know that this vaccine is safe and can prevent symptomatic COVID-19 and severe disease." (Fauci)



... It's been critical that we all do everything we can to protect others.

... Even beyond the health impacts, others are suffering ill effects in terms of financial health and mental wellness.

... While being one of the first people to be vaccinated might make people feel uneasy.

... It just takes every one of us to make the loving gesture of getting vaccinated to help preserve their health..

... "However, we can't get to the other side of this pandemic without you." (Frederick)

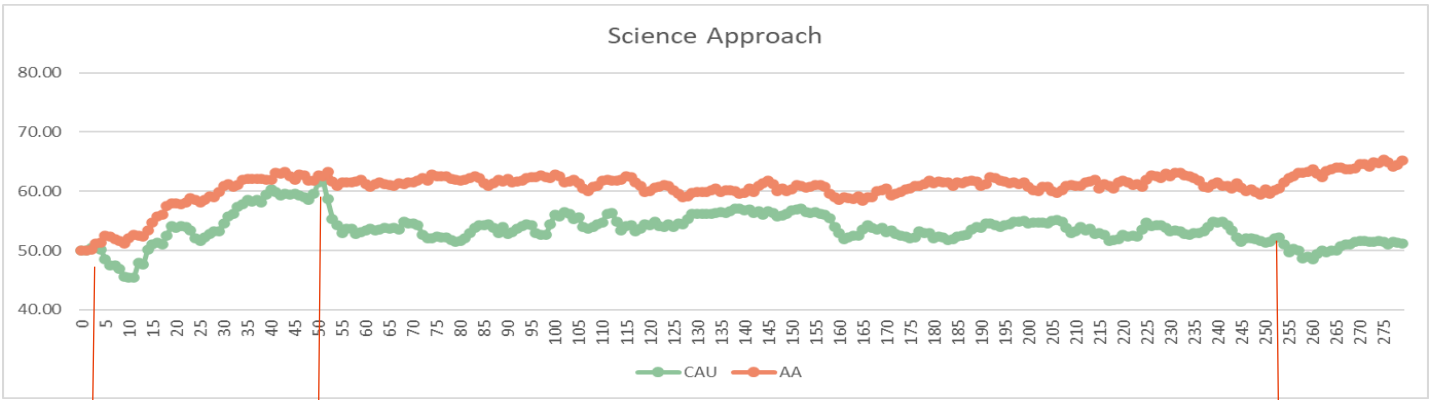
EVALUATION OF APPROACHES	Persuadables N=96		Opposition N=104	
	SCIENTIFIC APPROACH	LOVING APPROACH	SCIENTIFIC APPROACH	LOVING APPROACH
Likely to share audio, 0-10 mean	6.3	6.3	4.0	3.7
Informative, 0-10 mean	8.0	7.6	5.8	5.2
Believable, 0-10 mean	7.5	7.3	5.1	4.8
Likely to get vaccine, 0-10 mean	6.4	6.2	2.3	2.2
<i>Initial likely to get vaccine, 0-10 mean</i>	5.5	5.5	0.9	0.9
People whose vaccine likelihood changed	52% Increase 21% No change 23% Decrease	48% Increase 26% No change 22% Decrease	42% Increase 52% No change 10% Decrease	36% Increase 59% No change 9% Decrease
Most convincing approach, choice	57%	43%	49%	51%
Most trustworthy approach, choice	54%	46%	45%	55%
What did you like?	<ul style="list-style-type: none"> • "It seems to address the fears of many who are a little hesitant to take it like myself" • "It explained how the vaccine would actually work in the body. I also liked that it was clear on the side effect of the vaccine and how long they would last." • "It was detailed and informative without being condescending." • "Encouraging that this wasn't rushed" 	<ul style="list-style-type: none"> • "It reminds us that we're all in this together." • "It was a positive take on getting the vaccine." • "A man with sickle Cell was one of the first to get it. Leading by example." • "The practical part about why we should get inoculated to provide herd immunity." • "It told some things about how many people in the trials that it helped." 	<ul style="list-style-type: none"> • "Only the science was presented, without any left wing bias." • "I like how honestly it was told, how the vaccine came into being, and how it is made." • "It was nice to hear that the scientists weren't actually starting from scratch, they already had a good foundation to work from when producing a vaccine so fast." 	<ul style="list-style-type: none"> • "It makes people think about saving the generation before us that are so very valuable to our lives." • "The President of Howard University has taken the vaccine." • "You should take all safety measures to keep you and everyone else protected." • "Getting kids back in school and businesses back up and running at full capacity."

	<i>Government red tape was relaxed to get things going."</i>			
What did you dislike?	<ul style="list-style-type: none"> • "It sounds like it doesn't make much difference if I take the vaccine or not." • "I love analogies, but the particular analogy about the fortune cookie was a little weird. I'd keep an analogy but think of something better." • "I would still want to know more about side effects and how it really is effective towards the virus." 	<ul style="list-style-type: none"> • "It seemed to barely talk about potential side effects but spoke a lot to sell the idea of getting the vaccine." • "It was a guilt trip, and I don't appreciate that at all ... it is a free country and peer pressure is unacceptable." • "The emotional manipulation when it comes to talking about the elderly." • "The phrase 'It should be an easy decision.' I don't agree ... The point is not that the decision is easy. The point is whether it is easy or not you are not just thinking about yourself alone you are also considering others around you--not being selfish." 	<ul style="list-style-type: none"> • "It didn't mention how the vaccine would work in African Americans." • "Trying to convince people how safe the vaccine is, when, as Dr. Fauci said, there's still so much that is not known about the virus. How sure can you be about the vaccine?" • "They can say all they want. It hasn't been around long enough to prove its safety." • "There were no statistics referred to when making claims of the vaccine's effectiveness." 	<ul style="list-style-type: none"> • "Why don't they explain why the drug companies have been exempted from liability for the vaccine's after-effects?" • "I believe some of the information is over played to scare people." • "The information was not correct. Researchers do not know for certain if the vaccine prevents you from getting COVID. That's why it is being recommended that you continue to social distance, wear a mask, etc. even after getting the vaccine." • "No details were given about the clinical trials, such as length of the trials, how many participants etc."

• **What differences do we see by ethnicity?**

- AA are slightly more concerned than CAU about getting COVID, likely driven by their higher personal experience of knowing someone diagnosed and/or hospitalized with COVID and also higher incidence of being told to quarantine due to exposure. They are also more diligent about wearing a mask with close friends and family.
- More CAU are self-reported more interested and/or knowledgeable in politics.
- AA also skewed higher in the Persuadables group (54%), where CAU skewed higher in the Opposition group (54%).
- Moment-to-moment data is similar for both ethnicities, with AA slightly more favorable.
- Interestingly, for CAU, the lowest points in the Loving approach are where references to America's leading experts, pharmaceutical companies, and healthcare professionals are mentioned. The steepest gain for CAU is the end where getting children and businesses back to full capacity are mentioned.

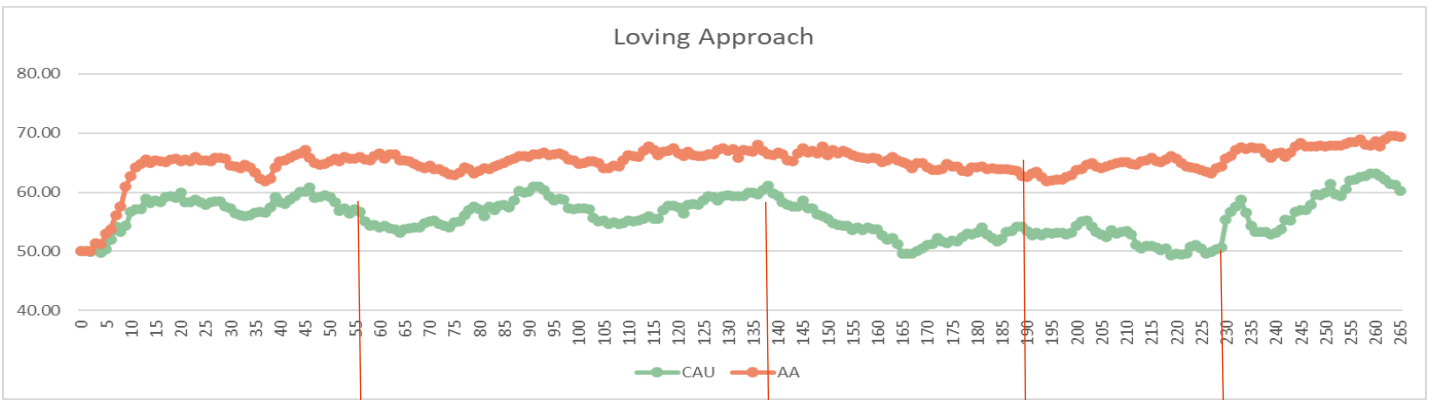
KEY DIFFERENCES BY ETHNICITY	Caucasian N=100	African American N=100
How likely are you to receive the COVID-19 vaccine when it is available to you? 0-10 (no 8-10 responses)	3.0 mean	3.2 mean
How concerned are you about you personally getting COVID-19? 0-10	5.1 mean	5.9 mean
How long do you expect you will wait to receive the COVID-19 vaccine after it becomes available to you?	55% 1 year or more	51% 1 year or more
Have you ever been exposed to someone with COVID-19 and told to quarantine?	8%	13%
Do you personally know someone who has been diagnosed with COVID-19?	50%	64%
Do you personally know someone who has been hospitalized due to COVID-19?	26%	38%
Extremely/very knowledgeable and/or interested in politics	40%	23%
How often do you wear a mask when you are with close friends or family, who are NOT a part of your immediate family (i.e., they do not live in your home)?	46% always/ most of the time	60% always/ most of the time
Trusted information sources (top ranked in order)	Personal healthcare providers Local healthcare providers CDC officials Close friends and family	CDC officials Personal healthcare providers Local healthcare providers Global public health officials



... the need for you and your family to be vaccinated when the COVID-19 vaccine becomes available to you.

... The answer is no.

... To get businesses back to full capacity and working business as usual



... America's leading experts recommend that achieving herd immunity through mass vaccinations

... Losing them (elders) before their time is a travesty.

...Howard University President Dr. Wayne A. I. Frederick

"... Wear a mask, keep your social distance, wash your hands, and when the times comes, get vaccinated."

	SCIENCE APPROACH		LOVING APPROACH	
	Caucasian N=100	African American N=100	Caucasian N=100	African American N=100
Likely to share audio, 0-10 mean	4.5	5.7	4.2	5.7
Informative, 0-10 mean	6.3	7.4	5.7	7.0
Believable, 0-10 mean	5.7	6.7	5.5	6.5
Likely to get vaccine, 0-10 mean	4.1	4.5	3.9	4.4
<i>Initial likely to get vaccine, 0-10 mean</i>	3.0	3.2	3.0	3.2
Most convincing approach, choice	53%	53%	47%	47%
Most trustworthy approach, choice	52%	47%	48%	53%

Key Findings from the IDIs

- A common source of hesitation is the need for more information. Some common questions they want answered include:
 - What’s the difference between the first and second shot?
 - What happens if I can’t/don’t get the second shot?
 - Will I have to quarantine after being vaccinated?
 - How do I know if the vaccine works?
 - How was the vaccine tested?
 - What are the side effects? What are the long-term side effects?
Often linked to wanting to “wait and see” until enough other people have received the vaccine and time has passed for more side effects to be known
 - What’s in the vaccine? Are they injecting plasma from people who have had COVID? Are they injecting the virus?
 - Is the vaccine effective against the new variants?
 - Will I need a booster shot?
 - Did they really follow the protocol to get it approved so quickly?
 - Who was in the clinical trial? What were the ages and backgrounds of the people in the trial?
 - They’re looking for reassurance that the vaccine was tested on people like them.
 - *“If I’m not in that group (of clinical trial participants), how do I know it’s going to work for me?”*
- They are interested in getting reassurance to their questions from the healthcare experts, specifically the scientists and medical community that study COVID-19 and developed the vaccine, and people that they know personally that have taken the vaccine already.

They want to hear from people who have taken the vaccine to hear about their experience with side effects; however, they really want to see them a few weeks after their second dose to get the complete picture of how they're doing. Seeing them while they receive the shot or immediately after isn't all that convincing.

"I want to see how he's doing now."

- Besides needing more information, other reasons for waiting include:
 - Waiting for a single-dose vaccine to be available to avoid the hassle of getting a second dose
 - Giving people at a higher risk time to get their vaccines first
 - Scheduling, finding time to get the vaccine, and making time to recover from even mild side effects are not convenient
 - Pain/fear of a needlestick
 - Waiting for others in their household to be eligible, so the entire household is vaccinated together
 - "I don't want to get (the vaccine) without my (16-yo) daughter being able to get it at the same time...So we can be completely covered."*
 - They claim they've heard stories about people who have taken the vaccine and came down with COVID or died as a result of the vaccine
 - They believe these claims, which are likely overstated or inaccurate*
 - The vaccines haven't actually been approved yet (only authorized for emergency use)
 - An underlying feeling that "everyone is different" contributes to two somewhat conflicting views:
 - One view, in which they want to see a large number of people who have taken the vaccine so that the long-term side effects of the vaccine are better known.
 - Another view, where they want to see someone that they personally know, and who is like them, to take it, so they can hear about his/her experience.
 - On some level, these needs likely result from their inherent fear related to the vaccine - because it is less familiar to them, it is perceived to be riskier.
- Related, they also express that they fear they will be the one to have a rare side effect from the vaccine, overstating the real probability of a negative event happening to them personally. They also worry that one who has a greater risk of poor outcomes from COVID also has a higher risk of severe side effects from the vaccine. In fact, most don't articulate a difference between the risks of the virus and the vaccine.
- *"I still don't want to be in the number that could potentially be the one (with a side effect)"*
 - *"It will be my luck that I get the vaccine and I get sick."*
- Comparing the uncertainty and risk of taking the vaccine to the uncertainty and risk of potentially contracting COVID brings about a desire for taking control and ownership of their health. While they feel they can do all of the right things (minimize social interactions, social distance, wear a mask, use hand sanitizer, etc.) to minimize their likelihood of getting COVID, there is little-to-nothing they can do to minimize their likelihood of experiencing side effects from the vaccine.
 - "You can't predict it (vaccine side effects). It's going to treat every individual the ways it's going to treat them."*
 - Interestingly, the IDI respondents did not regularly get flu shots. Some of them used to get a flu shot but then heard something negative about them (for example, a nurse that suggested there were bad ingredients in the shot) or they contracted the flu that season. There is a sense that flu shots are safer than the COVID vaccine because the flu has been around for a long time and is well-studied. Some have never taken the flu shot and never get the flu or only get it for the harshest flu seasons.

Of interest, one grandmother compared the COVID vaccine to the TDAP vaccine in that she took the TDAP vaccine before her first grandchild was born so she could see him, in the same way that her family could take the COVID vaccine so they could all get together again.

- The term “herd immunity” is problematic. Many people aren’t familiar with the term and have little idea as to what it means except for a subtle reference to getting back to work and normal activities. A few associate it negatively with “herd mentality”.
 - *“The first shot basically gets it into your system...The second shot builds your immunity so you start getting that herd immunity in your system.”*
- Perceptions and beliefs that impact attitudes about the vaccine specifically for people of color include:
 - Limited access to healthcare, including regular visits to a primary care physician, due to poorer types of jobs that don’t provide adequate insurance
 - Avoiding the embarrassment of asking for help for medical care, especially for older people
 - As a result, they’ve come to rely on their own solutions and/or natural remedies for illnesses
 - Important role of faith, where the church/pastor is a source of encouragement, comfort and potentially information
 - *“We feel like if we get it (COVID), we’re supposed to get it. If we pass (die), we’re supposed to pass. At the same time we’re protecting ourselves but that’s how we think. If you go, it’s just your time to go.”*
 - Memories of the Tuskegee experiment lead to lack of government trust
 - Even seeing the President and Vice President take the vaccine on video isn’t effective, as some question if they really received the vaccine or a fake
 - *“It makes me think, did he really take it?”*
 - *“I’d like to see the mayor and our local black leaders going to the black communities and personally talking to them (local people of color). Or have like a town meeting and explain to them and find out what their questions are.”*
- They tend to like the two quotes in the audios. Dr. Fauci’s claim that “we know the vaccine is safe and can prevent symptomatic COVID and severe disease”, along with his promise of “our country will begin to heal and move forward” gave them optimism.
- They related well to Howard University’s President Dr. Wayne A. I. Frederick’s words. All found one or more ways in which he was relatable and a good source to trust: from an HBCU, a sickle cell disease patient, a surgeon, and early to take the vaccine.
 - The sickle cell disease reference is particularly powerful, as it demonstrates that he is at a higher risk.
 - *“He’s saying, ‘Look at me. I’m like you. I’ve got something (sickle cell) that is affecting us, not them...I see you.’”*

Key Themes/Opportunities of Note:

1. Control – how to frame the vaccine as they are in control vs. COVID that they can’t control (although some think that they are controlling COVID by doing the right things)
2. Comparing the uncertainty of long-term side effects of COVID to the uncertainty of long-term side effects of the vaccine. Could the vaccine be more predictable since it was designed by scientists? How can you demonstrate how long people are sick with (time until they have no symptoms at all) to the duration of the vaccine side effects – the risks aren’t equal
3. Bring to life the diversity of the people in the clinical trials – how they represent minorities and everyday people, infographics to show just how many people were tested and how many had side effects
4. Showing people a while after they got their second vaccine dose to show their experience, and perhaps how they are more confident now