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VACCINES: AMERICA'S SHOT AT ENDING THE COVID–19 PANDEMIC

HEARING

OF THE

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS

UNITED STATES SENATE

ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

ON

EXAMINING VACCINES, FOCUSING ON AMERICA'S SHOT AT ENDING THE COVID-19 PANDEMIC

JUNE 22, 2021

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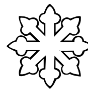

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C O N T E N T S

STATEMENTS

TUESDAY, JUNE 22, 2021

Page

COMMITTEE MEMBERS

Murray, Hon. Patty, Chair, Committee on Health, Education, Labor, and Pensions, Opening statement 1
Burr, Hon. Richard, Ranking Member, a U.S. Senator from the State of North Carolina, Opening statement 3

WITNESSES

Bailey, Susan, M.D., Immediate Past President, American Medical Association, Fort Worth, TX 6
Prepared statement 7
Summary statement 12
Nichols, Michelle, M.D., M.S., Associate Dean of Clinical Affairs, Morehouse School of Medicine, Atlanta, GA 13
Prepared statement 14
Summary statement 16
Chang, Curtis, Consulting Professor, Duke Divinity School, San Jose, CA 17
Prepared statement 18
Summary statement 20
Betancourt, Jeanette, Ed.D, Senior Vice President for U.S. Social Impact, Sesame Workshop, New York, NY 21
Prepared statement 22
Summary statement 25

VACCINES: AMERICA'S SHOT AT ENDING THE COVID–19 PANDEMIC

Tuesday, June 22, 2021

U.S. SENATE,
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,
Washington, DC.

The Committee met, pursuant to notice, at 9:58 a.m., in room 430, Dirksen Senate Office Building, Hon. Patty Murray, Chair of the Committee, presiding.

Present: Senators Murray [presiding], Casey, Baldwin, Murphy, Kaine, Hassan, Smith, Rosen, Hickenlooper, Burr, Paul, Cassidy, Braun, Marshall, and Tuberville.

OPENING STATEMENT OF SENATOR MURRAY

The CHAIR. Good morning. Senate Health, Education, Labor, and Pensions Committee will please come to order.

Today, we are holding a hearing on how to get people the information and encouragement they need to get vaccinated so we can end the COVID–19 pandemic.

Ranking Member Burr and I will each have an opening statement, and then we will introduce today's witnesses. After the witnesses give their testimony, Senators will each have 5 minutes for a round of questions.

While we remain unable to have this hearing fully open to the public or media for in-person attendance, live video is available on our Committee website at *help.senate.gov*. And, if you are in need of accommodations, including closed captioning, you can reach out to the Committee or the Office of Congressional Accessibility Services.

President Biden has declared June a month of action as we near his goal of having 70 percent of adults vaccinated with their first dose by the 4th of July. We have made incredible progress toward that goal. In fact, several states, including my home State of Washington, have already reached it. But, nationally, we are still short. Only 65 percent of adults have received their first dose.

While the progress we have made so far is promising, it has not been consistent. Some states may have vaccinated over 70 percent of adults with one dose, but some have not even reached 50. And even in states like mine, there are areas, especially in rural communities, that are falling behind. In some rural counties in our state, the rate of adults who are partially vaccinated is below 40 percent. We are also continuing to see huge inequities when it

comes to the rate of vaccination, including in Black and Latino communities.

It is so important that we keep pushing because, as the rapid spread of the Delta variant in India is showing, this pandemic is not over, and the threat it poses is still very real. The new Delta variant of COVID–19 is more contagious, more likely to send people to the hospital, and it is already here. Researchers in Washington State have identified 170 cases in my state, and the Centers for Disease Control and Prevention says it now accounts for 10 percent of COVID cases across the Country.

In the United Kingdom, the Delta variant has already delayed efforts to reopen and surged among youth aged 12 to 20. That should be a red flag, especially as CDC recently found, even as cases across the Country have been trending down, hospitalizations for adolescents due to COVID increased in April.

We have to stop this pandemic. We need to do it soon. And, we know vaccines are the best shot we have, which is why, starting in January and February 2020, I worked with then-Chairman Alexander and other Members of this Committee to fund and scale up COVID–19 vaccination efforts throughout our response bills.

Working together, we made historic investments that allowed experts to create a remarkable system to speed up the manufacturing and development of COVID–19 vaccines and that I believe will be seen as the cornerstone of our efforts to beat COVID–19 here in the United States and around the world.

Throughout our work, I also pushed to make sure we focused on how we distribute and administer vaccines quickly and equitably, and how we promote confidence and fight misinformation. And, I'm pleased the Biden administration is prioritizing vaccination both domestically and internationally by providing millions of excess doses to fight this pandemic globally.

We managed to administer over 200 million vaccines in the U.S. during President Biden's first 100 days in office. But, in the past few weeks, our vaccination rate has dropped down to where it was in January, less than a million vaccinations a day.

As remarkable as the last few months have been, everyone in this room knows, even with our system to develop, distribute, and deploy COVID–19 vaccines, we will not reach the goals in many states and communities if we do not continue to address the hesitancy, misinformation, and other issues holding back Americans from getting vaccinated.

We have to continue increasing access and addressing barriers, which make it hard for people to get vaccines, especially for people of color, people with disabilities, and people who live in rural areas. As we tear down those barriers, we also have to tell people they can get vaccinated quickly, close to home, and at absolutely no cost.

We are also still seeing an alarming number of people say they do not trust vaccines and do not intend to get vaccinated. People want to make the right decisions for their family's health, but too many people with genuine concerns are being misled by false information. We need to address the misinformation and make sure people with questions are getting reliable answers. Facts, science, and experts are a central part of that work. But, encouraging people to get vaccinated is not just about getting the facts right; it is about

trust. That is why we need to make sure we have messages that resonate with people and address their unique concerns, delivered by messengers they know and trust.

We need to work with healthcare providers, as well as advocates and leaders from every background, people of different races and religions, different geographies and generations, and yes, even different political parties.

I am glad we are having this bipartisan hearing today to talk with experts from different backgrounds about how we meet people where they are when it comes to trust in vaccines, what messages are most effective in reaching people, where people are getting their information, and who are the voices they trust the most.

I hope our discussion will provide helpful answers to anyone listening who might have concerns about getting vaccinated themselves. People are not sure how to productively discuss those issues with others in their life, and leaders and communities across the Country.

At the end of the day, we need people to understand choosing not to get vaccinated does not just put themselves at risk. It puts at risk the people around them, including people who are fighting cancer and are immunocompromised, and kids who are not yet eligible for vaccines.

Getting vaccinated also does not just help you stay safe; it helps us get back to school and work and concerts and sport games and family gatherings without people having to fear getting sick with this virus, which has now killed over 600,000 people in this Country.

I look forward to hearing from our witnesses today. Thank you all for being with us. We want to hear from you about how we get these messages out, how we get vaccines in arms, and finally get through this pandemic.

With that, I will turn it over to Ranking Member Burr for his opening remarks.

OPENING STATEMENT OF SENATOR BURR

Senator BURR. Thank you, Madam Chair. I am glad we are able to hold this important hearing together today.

The COVID–19 vaccine is the fastest way for our Country to recover from this pandemic. We all have to do our part in encouraging Americans to take this safe and effective vaccine. I have experienced the hesitancy of some Americans to take the first shot firsthand with friends, family members wondering whether the vaccine is safe enough for their families. The answer is absolutely yes.

I got the vaccine. So did my wife. So did my children. When the FDA authorizes the vaccine for children under 12, I will encourage my children to vaccinate my grandchildren. The staff in this hearing room have gotten vaccinated. My Senate colleagues have either gotten vaccinated or had COVID themselves, which provides a natural immunity.

Clinical trial data shows that Moderna and Pfizer vaccines are 100 percent effective in preventing hospitalization and death, and the Johnson & Johnson vaccine is 85 percent effective for preventing hospitalization and death from the virus.

A year ago, when we were in the darkest days of the pandemic, I thought people would line up for miles to get a vaccine that kept you out of the hospital and prevented you from dying from COVID–19. I still believe that, which is why this hearing, I believe, is so important. We have experienced much loss in this Country over the last year, and now we have a tool—the vaccine—to end this and to return to normal. Let's use it.

The efforts of Operation Warp Speed brought our Country and the world three vaccines to protect against COVID. They are safe, and they are effective. Operation Warp Speed is a testament to American innovation and ingenuity, and shows that the framework we designed and the statute actually worked.

The vaccines we have for COVID are safe, and they do work. Pfizer is 95 percent effective, Moderna is 94 percent effective, Johnson & Johnson, 67 percent effective in preventing COVID–19.

Today, over 177 million people have received at least one dose.

Fifty-five percent of adults in America are fully vaccinated.

Over 87 percent of seniors, those most vulnerable to the effects of the virus, have received at least one dose of the shot.

At least 10 percent of the Americans have had COVID–19, so there is also a number of people who have some natural immunity to the virus.

Even with all this progress, there is so much more work to be done. I said during our last COVID–19 Task Force hearing with the Administration that we would reach a point where we have more shots than we do arms. This moment has arrived in the United States, and we cannot be complacent.

Israel showed us the roadmap for what to expect where vaccination rates began to level off as roughly 60 percent of the population became vaccinated.

Reports out of India and the U.K. of the Delta variant are evidence of the importance of protecting Americans now and encouraging everyone who still needs to get vaccinated to get it.

The number of doses administered in the United States per day is falling. Earlier this month, the rate dropped below one million doses per day for the first time since January. That is compared to a peak of 3.3 million doses per day in April.

Of the 328 million Americans, almost 284 are 12 or older, making them eligible today for vaccine. Nearly 177 million people so far have received at least one dose, which means about 106 million are still eligible. Clearly, we still have a lot of ways to go to get all eligible people vaccinated and put this pandemic firmly behind us.

We also cannot forget about the importance of global health security. If we do not help other countries access the vaccine, we will not see the end of the pandemic. The way to help other countries access vaccines to protect against COVID–19 is through the extremely successful public/private partnerships that have developed and manufactured the vaccines we have today. As I have said before, removing the intellectual property protection only ensures that we do not have the vaccines we need when the next pandemic occurs.

Americans that have not yet gotten the COVID–19 vaccine need to know the benefits that come along with it. The most compelling case to me is that the shot keeps you out of the hospital. It also

gets you back to work and helps keep people who you work with safe.

Senator Kaine—he is not here this morning—said at the last hearing earlier this year that he wore a mask so the grocery clerks felt safe. Getting a vaccination helps keep you safe, it helps keep your family safe, and it keeps those around you safe. It also helps Americans return to the things they enjoy, like concerts, movies, baseball games, or watching the Panthers in Charlotte play.

Over the next few months, important outreach efforts will continue to focus on younger people. Schools are reopening in the fall, and one of the vaccines is already available for children 12 and up. In-person learning is critical, and our efforts over the summer should be to focus on getting kids the shot, protecting them from the virus. As a grandparent, I look forward to the day when the vaccine is available to young children, as well.

I am pleased to have representatives from Sesame Street here today to talk about the information families need as we prepare for that round of vaccinations. Our efforts should be focused on reaching communities that have questions.

I look forward to hearing from each of our witnesses today about the partnerships and programs that you have underway to meet America where they are, answer questions, dispel myths about safe and effective vaccines, and get more shots in arms.

Before I yield back, Madam Chair, let me just say, it is hard for me to believe that the best example of innovation in this Country seems to be the thing that makes individuals hesitant about being vaccinated. It happened too quickly. Well, let me assure my colleagues, let me assure the American people what I think the witnesses know. These vaccines went through the most exhaustive clinical trials of any medication that we have ever approved for this market. We have not shortcut anything in any area of Government. But, we did set up a pathway for accelerated consideration that was taken advantage of.

As I think Dr. Cassidy would agree, it is the science that you follow. And when the clinical trials come back and prove safe and effective, then you should feel comfortable taking this vaccine.

I thank the Chair.

The CHAIR. Thank you so much, Senator Burr.

With that, we will now introduce today's witnesses. I will start with Dr. Susan Bailey. She is a pediatric allergist and immunologist from Fort Worth, Texas; a distinguished fellow of the American College of Allergy, Asthma and Immunology; and, she recently finished her tenure as President of the American Medical Association.

Dr. Bailey, thank you for joining us today.

Our next witness is Dr. Michelle Nichols. Dr. Nichols is an Associate Professor of Family Medicine and Associate Dean of Clinical Affairs at Morehouse School of Medicine. She has led the historically Black university's community vaccination efforts and research focused on community engagement, health disparities, preventive health, and COVID–19.

Thank you for joining us today, Dr. Nichols.

With that, I am going to turn it over to Senator Burr to introduce our next witness, Curtis Chang.

Senator BURR. Thank you, Madam Chair. As the son of a minister, I am privileged to be able to do this.

Mr. Chang is the cofounder of Christians and the Vaccine, a group that aims to promote vaccine confidence among evangelical Christians. To conduct this outreach, Christians and the Vaccine has partnered with the Ad Council, National Association of Evangelicals, COVID Collaborative, and The Values Partnership.

In addition to his faculty appointment at Duke Divinity School, Mr. Chang is a senior fellow at the Fuller Theological Seminary. His ministry experience includes serving as Senior Pastor of an Evangelical Covenant Church in California, and as a campus minister with the Intervarsity Christian Fellowship. He has also done mission work in South Africa and is the founder of an award-winning, non-profit consulting firm.

Mr. Chang earned his Bachelor's degree at Harvard University and is a former Rockefeller Fellow.

Mr. Chang, thank you for being here with us today.

The CHAIR. Thank you. And finally, our last witness is brought to us by the Letter S for Sesame Street. (Laughter.)

Dr. Jeanette Betancourt is the Senior Vice President for U.S. Social Impact at Sesame Workshop. She is a licensed, bilingual education therapist and leads Sesame Street's community initiatives to improve the health and well-being of children and families.

Dr. Betancourt, thank you for joining us today.

With that, we will begin our testimony with Dr. Bailey.

STATEMENT OF SUSAN BAILEY, M.D., IMMEDIATE PAST PRESIDENT, AMERICAN MEDICAL ASSOCIATION, FORT WORTH, TX

Dr. BAILEY. Good morning, Chair Murray, Ranking Member Burr, and Members of the Committee. The American Medical Association commends you for holding this hearing today, and I thank you for the opportunity to testify.

I am Dr. Susan Bailey, and I am the Immediate Past President of the American Medical Association. I am also a practicing allergist/immunologist in Fort Worth, Texas. And those two roles have given me a unique perspective on the COVID–19 pandemic and its impact on our patients, on our physician community, and on our Nation's health.

COVID–19 is a watershed moment in our Nation's history. It is both an epic tragedy and one of the greatest scientific achievements in our lifetimes, thanks to the courageous efforts of physicians, nurses, scientists, researchers, and the tireless efforts of so many working in government.

The AMA has been committed from the beginning of the pandemic to making sure that physicians have the information and the resources they need to take care of COVID patients, to keep their offices safe, and to answer all of the questions that patients and physicians have about COVID–19 vaccine development.

COVID–19 remains a very serious threat for certain high-risk groups and for those that have not been vaccinated. But, much has changed in the last few months to give us hope that the worst of the pandemic may be behind us. The good news—and I think it is good news—that more than 55 percent of adults are fully vac-

cinated, and 65 percent have received at least one vaccine shot. And, while there are racial and ethnic differences in vaccination, as well as regional differences, attitudes are shifting in most groups. To maintain this momentum, however, and finally bring an end to this pandemic, we need to work to get as many people as possible vaccinated against this virus.

Many individuals are hesitant to receive the shot for personal, religious, or political reasons. The speed with which the vaccines have been developed and the politicization of the pandemic has naturally led to concern among the public about safety and efficacy.

Physicians play a critical role as vaccine Ambassadors for our patients. Experience has shown us that our patients place great faith in a strong, positive recommendation from their physicians; and that the information and education provided by physicians and other healthcare professionals results in higher vaccine acceptance rates. So, the responsibility falls to us to answer their questions honestly, to address their concerns, and to be firm and encouraging them to receive the vaccine. This is our surest way through the pandemic.

Regardless of the reason, though, we need to engage these vaccine-hesitant individuals and find ways to reach a common understanding of why these vaccines are important and safe, not only for the health of individuals and their families, but for the health of our Country.

We have to lead with the science. To do this well, physicians need to be part empathetic counselors, part research scientists, and part myth busters. Obviously, our messages may differ depending on the reason for our patients' hesitancy or refusal, but that personal relationship and trust, built in many cases over years, can make all the difference.

That is why we have advocated for distributing the vaccines to physicians' offices. It is a lot easier to get shots in arms when your patients are actually in your office and the vaccines are in your office.

We are also working with partners, including the Ad Council and the COVID Collaborative, which are leading a massive communications effort to educate the American public and build confidence around COVID–19 vaccines.

We have a lot more work to do to convince as many people as possible to get vaccinated. It will take all of us working together.

Thank you, and I look forward to answering your questions.

[The prepared statement of Dr. Bailey follows:]

PREPARED STATEMENT OF SUSAN BAILEY

The American Medical Association (AMA) appreciates the opportunity to provide testimony to the U.S. Senate Committee on Health, Education, Labor, and Pensions as part of its June 22, 2021 hearing entitled, "Vaccines: America's Shot at Ending the COVID–19 Pandemic." As the largest professional association for physicians and medical students, and the umbrella organization for state and national specialty medical societies, the AMA and our members have been, and continue to be, strongly engaged and committed to confronting and ending the unprecedented COVID–19 pandemic and ensuring that as many people as possible are vaccinated against COVID–19 (SARS-CoV–2). We commend the Committee for holding this important hearing to examine barriers to a successful vaccination campaign and how to overcome them, as well as lessons learned from this pandemic that will better prepare us for future vaccination activities related to COVID–19 and other public health threats.

Introduction

The United States is at a critical juncture in its battle against the COVID–19 pandemic. While there has been a sharp decline in new infections and deaths, over 600,000 Americans are known to have died from COVID–19, and people are still dying from the virus and related complications, particularly in certain parts of the country and among certain population groups. COVID–19 remains a very serious threat, yet much has changed in the last few months to give us hope that the worst of the pandemic may be behind us. According to the *most recent data* from the Centers for Disease Control and Prevention (CDC), more than 55 percent of the adult (age 18 or over) population is fully vaccinated and 65 percent have received at least one vaccine shot, although there are stark racial and ethnic inequities in rates of vaccination as well as regional differences. But, in order to maintain this momentum and finally bring an end to this pandemic, we need to work to get as many people as possible vaccinated against the virus. Physicians play a critical role as vaccine ambassadors for their patients, and surveys show that even when people have a general distrust of medicine at-large, they tend to trust their personal physicians.

Large numbers of the population remain unvaccinated and are hesitant to receive the shot for personal, religious, or political reasons or due to vaccine access issues. The supply of vaccine is now outpacing demand in many areas of the U.S., particularly in the South and Midwest, even with the Administration's push to vaccinate at least 70 percent of adults by July 4. While at one point in mid-April more than three million people received a vaccine every day, vaccinations had decreased to only about 1.2 million daily as of early June. Enough Americans are reluctant to get the vaccine that it may be difficult to reach a level of immunity in certain communities, which would prevent illness and death from being limited and from such communities being able to fully move on from COVID-era restrictions. This is especially the concerning given the continued spread of variants, such as the highly transmissible "Delta" variant first identified in India. *The Delta variant* is quickly becoming the predominant variant in many countries and now makes up at least 19 percent of all cases in the U.S.; as an illustration of how quickly it is spreading, on May 22, the variant made up only 2.7 percent of cases. The CDC also now designated Delta as a variant of concern, which means the agency officially recognizes that the variant may carry a risk of more severe illness and transmissibility. In addition to Delta, the CDC has noted five other variants of concern.

The rapid rise of the Delta variant in the United Kingdom—where it now accounts for 90 percent of cases—has slowed that nation's reopening efforts by four or five weeks and should serve as a warning to other countries. At the same time, other parts of the world are experiencing their worst COVID–19 surges yet, and in addition to issues accessing COVID–19 vaccines in many countries, a *recent Gallup poll* showed that 1.3 billion people or 32 percent of adults worldwide are unwilling to get vaccinated. Until more people in the U.S. and around the world are fully vaccinated, especially as international travel increases this summer, the global pandemic will be far from over.

Vaccine Hesitancy and Refusal

Unfortunately, there has been increasing vaccine refusal and hesitancy over the past several years in the U.S. In many cases, this lack of confidence has surrounded established vaccines despite long track records of safe and effective use in the population. With vaccine hesitancy on the rise, as well as the ongoing spread of medical misinformation and disinformation related to COVID–19, it should not be surprising that there has been, and continues to be, even greater concern regarding the safety and efficacy of a vaccine developed through "Operation Warp Speed" in a much shorter timeframe than has usually been the case for past vaccines.

Moreover, trust in scientific institutions, public health, and health professionals has been seriously eroded, especially throughout the course of the pandemic, and this has spilled over to fear of the vaccines and potential side effects. There are a several reasons for this, including the spread of misinformation and disinformation and conspiracy theories, particularly by social media, and the politicization of COVID–19 and COVID–19 vaccines. Black Americans, for example, report lower levels of trust in the health care system, a result of historical abuses such as the Tuskegee study (in which Black people were experimented on without their consent), but also day-to-day discrimination they often experience during health care encounters. However, vaccine confidence has grown since February *among Black adults*, with about 14 percent more saying in May that they already had been vaccinated or planned on being vaccinated.

Among the most challenging issues to address is that the highly partisan nature of the Nation's politics has spread to many aspects of interpersonal discourse, including the highly politicized debate over COVID–19 vaccines. According to the *Kaiser Family Foundation*, hesitancy is the highest among some Republicans, specifically men, who have questioned the severity of the COVID–19 pandemic and have significant doubts and concerns about vaccination, and who have expressed unease about government mandates of vaccines and personal liberties/freedoms. In addition, White evangelicals, who have similar concerns and doubts but also are concerned about regarding rumors of the use of fetal tissue in vaccines, are among the most reluctant; a March poll by the nonprofit *Public Religion Research Institute* found that White evangelicals ranked highest among those who are religious and refusing to get vaccinated. Only 45 percent of White evangelicals said they would get the vaccine, the second-lowest acceptance of any religious affiliation behind Latino Protestant groups. Another reluctant group is young adults, who do not believe they are susceptible to COVID–19 or that it poses a risk to them and are the most likely group to engage in behaviors that result in high rates of transmission. With the rise in the Delta variant, it is critical that this group is vaccinated. Women in this group are also more susceptible to false information regarding vaccine impact on menstruation and fertility, as well as concerns regarding pediatric vaccinations.

While it is beyond the scope of this hearing and not the intent of the AMA to engage in a First Amendment debate, the role of social media in allowing misinformation/disinformation to spread rapidly and unchecked must be acknowledged. This allows medical misinformation to be conveyed as real news. While social media has the potential to help provide accurate, evidence-informed health information, during the pandemic it has contributed significantly to vaccine hesitancy with very little being done, until recently, to combat the spread of blatantly false information. This has done tremendous damage to vaccine confidence in certain groups, such as women of child-bearing years—for example, rumors about vaccines impacting fertility have been rampant and difficult to overcome. In December 2020, the AMA *wrote* to the chief executive officers of leading technology companies, urging them to guard against disinformation that could derail the vaccination campaign and to remain vigilant against the proliferation of unintentional misinformation and purposeful disinformation on their platforms. The AMA further stressed how important it is for social media platforms to share timely, transparent, and accurate information about COVID–19 vaccines from public health institutions like the U.S. Food and Drug Administration (FDA) and the CDC that are rooted in science and evidence.

At the AMA's policy meeting last week, the AMA adopted new policy to address misinformation on social media. The House of Delegates directed the AMA to:

- Encourage social media companies and organizations to further strengthen their content-moderation policies related to medical and public health misinformation, including enhanced content monitoring, augmentation of recommendation engines focused on false information, and stronger integration of verified health information.
- Encourage social media companies and organizations to recognize the spread of medical and public health misinformation over dissemination networks and collaborate with relevant stakeholders to address this problem as appropriate, including but not limited to altering underlying network dynamics or redesigning platform algorithms.
- Support the dissemination of accurate medical and public health information by public health organizations and health-policy experts.
- Work with public health agencies in an effort to establish relationships with journalists and news agencies to enhance the public reach in disseminating accurate medical and public health information.

Delegates also modified existing policy that calls on the AMA to support COVID–19 vaccination and information programs. According to the amended policy, the AMA will educate the public about up-to-date, evidence-based information regarding COVID–19 and associated infections, as well as the safety and efficacy of COVID–19 vaccines, by countering misinformation and building public confidence. Moreover, the AMA will educate physicians and other health care professionals on ways to disseminate accurate information and methods to combat medical misinformation online.

Vaccine Access Issues

Concern over access, especially equitable distribution and availability, to the COVID–19 vaccines has been a top AMA concern since the vaccines received FDA emergency use approvals. Preventing racial disparities in the uptake of COVID–19 vaccines has been, and continues to be, critical to mitigate the disproportionate impacts of the virus for people of color and prevent widening racial health disparities going forward. According to Thomas R. Frieden, MD, MPH, former director of the CDC during the Obama administration, *the biggest impediment* to getting more people fully vaccinated for COVID–19 is access, not vaccine hesitancy. During an episode of the "AMA COVID–19 Update" examining vaccine hesitancy and the role of politics at the end of May, Dr. Frieden stated, "Most of the people who are not yet vaccinated aren't strongly opposed to being vaccinated. They just haven't had the vaccine be as convenient as it should be." He stressed that providing easier access to vaccines "means walk-in hours. That means easy locations, easy hours, supporting transportation and setting up pop-up sites outside of everywhere, from ball games to bars to bowling alleys to shopping centers. We need to make it the default choice, basically, to get a vaccine." The AMA strongly agrees. We must ensure that communities struggling with access are met where they are. These communities need local solutions and partnerships with local leaders to find the best possible strategies to bringing vaccinations to communities struggling with access.

Some communities have been falsely accused of driving vaccine hesitancy, when easy access to vaccines, lack of transportation to vaccine sites, and concerns about issues such as unpaid time off for vaccination are driving lower rates of vaccination. Health care services are not as easily accessible in many communities of color. These communities also struggle with being able to find time to both get vaccinated and recover from any potential side-effects of the vaccine. Taking time off work to get vaccinated can result in lost jobs or pay for many, which makes getting vaccinated difficult and has led to many individuals deciding not to get vaccinated. According to a recent *issue brief*, "Latest Data on COVID–19 Vaccinations by Race/ Ethnicity," by the Kaiser Family Foundation, Black and Hispanic people have received smaller shares of vaccinations compared to their shares of cases and compared to their shares of the total population in most states. The share of vaccinations received by Black people also continues to be smaller than their share of deaths in most states and the share of vaccinations received by Hispanic people is similar to or higher than their share of deaths in most reporting states, although in some states it continues to be lower. For example, in California, only 29 percent of vaccinations have gone to Hispanic people, while they account for 63 percent of cases, 48 percent of deaths, and 40 percent of the total population in the state. Similarly, in the District of Columbia, Black people have received 41percent of vaccinations, while they make up 56 percent of cases, 71 percent of deaths, and 46 percent of the total population.

Rural communities also lag behind urban areas in vaccination rates. These communities frequently lack easy access to health care. Since they have higher proportions of uninsured and those with comorbidities, leading to higher risks of morbidity and mortality from COVID–19, it is essential to ensure they are vaccinated. Rural areas in the Southern U.S. are particularly at risk, especially since the Delta variant is about *12 to 14 percent of cases in the South*, higher than the national average.

AMA Activities to Encourage Vaccination

The AMA and its physician and medical student members, as well as its partners in medical specialty and state societies, have worked tirelessly during the pandemic to educate physicians, their patients, and the public about the safety of the COVID–19 vaccines, dispelling myths and misinformation about the vaccines, and building confidence in patients' willingness to get a vaccination. Physicians remain one of the most trusted sources of information for patients on COVID–19 vaccines and it is critical to continue to involve physicians in this work and ensure physicians are able to vaccinate potentially hesitant patients. It makes a big difference to be able to talk to patients face-to-face about their vaccine concerns and answer questions and be able to vaccinate them while they are onsite in the office for an appointment. That is why we have urged, and continue to urge, that vaccines be distributed to physician offices. Physicians are leading by example, with a *recent survey* among practicing physicians conducted by the AMA showing that more than 96 percent of surveyed U.S. physicians have been fully vaccinated for COVID–19, with no significant difference in vaccination rates across regions. Of the physicians who are not yet vaccinated, an additional 45 percent do plan to get vaccinated.

More specifically, the AMA has developed dozens of resources free on our website, including the flagship *Journal of the American Medical Association* (*JAMA*) website to ensure physicians have a clear understanding of the COVID–19 vaccines, including the development process and the safety and efficacy data underlying them so they are prepared to discuss this with their patients. The AMA also strongly encouraged Federal officials to be as transparent as possible throughout the vaccine development process, to explain the key steps, and to share the vaccine trial data, and we continue to provide updates on a regular basis, including through the *COVID–19 (2019 novel coronavirus) Resource Center for Physicians* on the AMA website. We also developed extensive frequently-asked-questions documents on COVID–19 vaccination covering safety, allocation and distribution, administration and more. There are three FAQs documents, one designed to answer *patients' questions*, another to address *physicians' COVID–19 vaccine questions* and a third to address *physicians' clinical concerns*. The AMA also launched a free AMA webinar series specifically for physicians called *What Physicians Need to Know* that aims to gain fact-based insights from the Nation's highest-ranking subject matter experts, including from the FDA and CDC. The most recent episode focused on vaccine misinformation. The AMA recently joined other leading organizations and corporations in a national campaign with the Ad Council and the COVID Collaborative, which are leading a massive communications effort to educate the American public and build confidence around the COVID–19 vaccines. *The COVID–19 Vaccine Education Initiative* is designed to reach different audiences, including communities of color who have been disproportionately affected by COVID–19.

The AMA is also encouraging all state and medical specialty members to help involve their members in efforts to increase COVID–19 vaccination rates and ensure COVID–19 vaccination is equitable. The AMA has partnered with *Made to Save*, a national organizing campaign working closely with the Biden administration to help increase vaccine equity and access in communities of color. Made to Save has identified individuals most likely not to be vaccinated and is asking for assistance in reaching those people through a number of events for health care providers. These upcoming events include "Housecalls," a phone banking opportunity where physicians and other health care providers are invited to call people in key communities to listen to their concerns, answer any questions, and help them get their shots. Made to Save is also sponsoring "Ask Me Anything about COVID–19," where physicians and health care providers participate in one-on-one conversations in their community about vaccination.

Lessons Learned

There have been many lessons learned throughout the pandemic, especially about the importance of open communication, information sharing, and targeted messaging, particularly focused on specific populations and communities. Whether for medical, political, religious, or other personal reasons, all vaccine-hesitant groups need to be engaged to reach a common understanding of why these vaccines are important—not only for the health of individuals and their families, but for the health of the country. Physicians have more work to do to reach all communities with a clear and consistent message: that the vaccines for COVID–19 are safe, they are effective, and that they have followed the same rigorous scientific process that every vaccine does before it reaches the public. In addition, specific messages and initiatives need to be geared to different populations and communities: what works for one individual or in one community may not work for a different individual or in another community. Physicians have played a critical role throughout the COVID–19 vaccination campaign and will continue to have a leading role as vaccine ambassadors in educating and their patients and communities about why they should get vaccinated.

The AMA believes the following lessons learned are critical to move beyond this pandemic and be able to address the next one:

- Transparency and early information sharing from government officials is critical, based upon evidence and science rather than politics.
- Trust must be restored in science, scientists, and public health professionals—public health officials need to be empowered to communicate clear, consistent, and credible evidence-based public health information to the public.
- The spread of misinformation and disinformation, especially from online sources, must be addressed.

- Private physicians need to be involved as partners early in all phases of a vaccination campaign, including planning and implementation.
- Increased Federal, state, and local funding is needed to modernize the Nation's public health data systems to improve the quality and timeliness of data and support electronic case reporting, which alleviates the burden of case reporting on physicians through the automatic generation and transmission of case reports from electronic health records to public health agencies for review and action in accordance with applicable health care privacy and public health reporting laws.
- Public health preparedness and response must be bolstered, including surveillance systems, preparedness and response efforts, and leadership capabilities of public health agencies. Public health agencies will need considerable support to maintain core public health activities: detecting and investigating cases, identifying underlying causes and etiologies, assessing the needs of vulnerable communities, communicating with the public, collecting data and developing comprehensive plans with stakeholders to enact actions for mitigation, preparedness, response, and recovery.
- Communities of color and underserved communities should receive early intervention in any future pandemic and vaccination campaign, given their disproportionate lack of access to health care.

Conclusion

The United States is emerging from the most serious public health crisis we have faced in a century, but much work remains to be done before the pandemic can be declared over or no longer a threat. It will take all of us—government, physicians and other health care professionals, communities, individuals—working together to get as many people vaccinated as soon as possible. Widespread access to accurate, evidence-based information that is grounded in science is key to our success. The AMA and our members are strongly committed to ending this global pandemic and to fighting medical misinformation. The AMA looks forward to working with Members of this Committee and your colleagues to advance these critical goals.

[SUMMARY STATEMENT OF SUSAN BAILEY]

The American Medical Association (AMA) appreciates the opportunity to provide testimony to the HELP Committee as part of its June 22, 2021 hearing entitled "Vaccines: America's Shot at Ending the COVID–19 Pandemic." the AMA and our members have been, and continue to be, strongly engaged and committed to confronting and ending the unprecedented COVID–19 pandemic and ensuring that as many people as possible are vaccinated against COVID–19 (SARS-CoV–2). Physicians have a critical role as trusted Ambassadors in the current vaccination campaign, and the AMA has helped prepare our members to be ready and able to educate their patients and the public to reduce vaccine hesitancy and refusal.

The United States is at a critical juncture in its battle against the COVID–19 pandemic. While there has been a sharp decline in new infections and deaths, over 600,000 Americans are known to have died from COVID–19, and people are still dying from the virus and related complications, particularly in certain parts of the country and among certain population groups. COVID–19 remains a very serious threat, yet much has changed in the last few months to give us hope that the worst of the pandemic may be behind us. Large numbers of the population remain unvaccinated and are hesitant to receive the shot for personal, religious, or political reasons or due to vaccine access issues.

Unfortunately, there has been increasing vaccine refusal and hesitancy over the past several years in the U.S.. With vaccine hesitancy on the rise, as well as the ongoing spread of medical misinformation and disinformation related to COVID–19, it should not be surprising that there has been, and continues to be, even greater concern regarding the safety and efficacy of a vaccine. Moreover, trust in scientific institutions, public health, and health professionals has been seriously eroded, especially throughout the course of the pandemic, and this has spilled over to fear of the vaccines and potential side effects. While it is beyond the scope of this hearing and not the intent of the AMA to engage in a First Amendment debate, the role of social media in allowing misinformation/disinformation to spread rapidly and unchecked must be acknowledged. This allows medical misinformation to be conveyed as real news. While social media has the potential to help provide accurate, evi-

dence-informed health information, during the pandemic it has contributed significantly to vaccine hesitancy with very little being done, until recently, to combat the spread of blatantly false information.

Concern over access, especially equitable distribution and availability, to the COVID–19 vaccines has been a top AMA concern since the vaccines received FDA emergency use approvals. Preventing racial disparities in the uptake of COVID–19 vaccines has been, and continues to be, critical to mitigate the disproportionate impacts of the virus for people of color and prevent widening racial health disparities going forward. There have been many lessons learned throughout the pandemic, especially about the importance of open communication, information sharing, and targeted messaging, particularly focused on specific populations and communities. Whether for medical, political, religious, or other personal reasons, all vaccine-hesitant groups need to be engaged to reach a common understanding of why these vaccines are important—not only for the health of individuals and their families, but for the health of the country. It will take all of us—government, physicians and other health care professionals, communities, individuals—working together to get as many people vaccinated as soon as possible. Widespread access to accurate, evidence-based information that is grounded in science is key to our success. The AMA and our members are strongly committed to ending this global pandemic and to fighting medical misinformation. The AMA looks forward to working with Members of this Committee and your colleagues to advance these critical goals.

The CHAIR. Thank you very much.

Dr. Nichols.

STATEMENT OF MICHELLE NICHOLS, M.D., M.S., ASSOCIATE DEAN OF CLINICAL AFFAIRS, MOREHOUSE SCHOOL OF MEDICINE, ATLANTA, GA

Dr. NICHOLS. Good morning, Chair Murray, Ranking Member Burr, and Members of the Committee on Health, Education, Labor, and Pensions. Thank you very much for convening this important hearing on Vaccines: America's Shot at Ending COVID–19 Pandemic.

I am Dr. Michelle Nichols, and I am presenting testimony on behalf of Morehouse School of Medicine, and I bring you greetings from President and Dean, Dr. Valerie Montgomery Rice. I am a family physician, and I am the Medical Director of our COVID–19 Community Vaccination program, as well as the Associate Dean for Clinical Affairs.

According to the CDC, the COVID–19 pandemic has brought social and racial injustice and inequity to the forefront of public health, and that has applied to vaccines, as well. We were an early adopter in becoming a COVID–19 community vaccinator, vaccine provider. Based on our commitment to health equity and being a trusted entity within the African-American community in both healthcare and research, we knew that we must tackle the hesitancy, mistrust, misinformation, and myths. We knew what we had to do to tackle this virus.

When vaccinations were first offered to the 75 years and older population in early January, we did a kickoff event and invited legendary civil rights leaders to become vaccinated because we wanted to build confidence and trust in the community. As we were vaccinating, we were concurrently doing educational programs, doing weekly town halls, panel discussions, and community outreach programs.

Lessons learned from our first couple of months of the vaccinations led us to applying for and receiving grant funding to reach beyond Atlanta, Georgia via our traveling vaccination mobile pro-

gram. Since we are a trusted entity within the communities of color, over 75 percent of our vaccine recipients have been African-American, compared to only approximately 9.9 percent nationally, based on yesterday's CDC data.

To help expand vaccinations in our Hispanic community, we started engaging and partnering with Latino organizations and the consulate, and particularly the Mexican Consulate, because patients tend to trust people who look like them, talk like them, and have similar backgrounds in education and experiences, which resulted in our current Latino vaccination rate being 13 percent, which has positively impacted the Hispanic population rate, vaccination rate, in Georgia.

At Morehouse School of Medicine, with our community outreach and focus on decreasing health disparities, vaccinations for Black and Brown people and communities of color represent approximately 88 percent of our vaccinations.

Lessons learned over the last 6 months are to impact trust by engaging the community and being part of the community, as well as having vaccinators who look like, sound like, and have similar experiences. Also, providing information and education to dispel myths and misinformation and to educate and make sure that material is multilingual, also multimedia, and also with the appropriate educational level, and to meet people where they are in their vaccine journey, and to know that we are ready to vaccinate whenever they are.

As far as our adolescents, we want to engage and educate both the parents and the children and plan back-to-school vaccine events with incentives, such as book bags and supplies. And, at the same time, doing school physicals, preventive health reviews, and health checks. And when people come to get tested for COVID–19, we need to vaccinate them at the same time. We need to travel where the vaccine recipients are and make it as convenient as possible. And finally, we do not want to politicize this. We need to stay focused on the goal and educate and meet people where they are in their vaccine journey.

Thank you for the opportunity to share our views with you. I am pleased to respond to any questions. Thank you.

[The prepared statement of Dr. Nichols follows:]

PREPARED STATEMENT OF MICHELLE NICHOLS

Chair Murray, Ranking Member Burr, and Members of the Committee on Health, Education, Labor, and Pensions, thank you very much for convening this important hearing on "Vaccines: America's Shot at Ending the COVID–19 Pandemic."

I am Michelle Nichols, MD, MS and am presenting testimony on behalf of Morehouse School of Medicine (MSM). I bring greetings to you from our President and Dean, Dr. Valerie Montgomery Rice. At Morehouse School of Medicine, I serve as associate professor of family medicine, medical director of Morehouse Healthcare (MHC) which is our faculty practice plan, medical director of MSM/MHC Community COVID–19 Vaccination Program, and Associate Dean for Clinical Affairs.

According to the CDC, the COVID–19 pandemic has brought social and racial injustice and inequity to the forefront of public health. Unfortunately, it has highlighted that health equity is far from being a reality since COVID–19 has unequally impacted many racial and ethnic minority groups, putting them at greater risk for infections, hospitalizations, death, and access to vaccinations. These findings were not a surprise to us at Morehouse School of Medicine since we are on the front lines in leading the creation and advancement of health equity by engaging, educating, serving, and providing healthcare and research in communities of color.

When the opportunity presented itself in December to become a community vaccine provider, Morehouse School of Medicine became an early adopter. Based on our commitment to health equity and being a trusted entity within the African American community in both healthcare and research, we knew that we must tackle the hesitancy, mistrust, misinformation, and myths associated with not only the vaccine but also the novel coronavirus in general. When vaccinations were first offered to those 75 years and older in early January, we did a kick-off vaccine event and invited and vaccinated Atlanta's prominent civil rights, church, and community leaders, legendary icons and role models, all whom were >75 years old such as former Ambassador and civil rights leader Reverend Andrew Young, former HHS secretary Dr. Louis Sullivan and other prominent >75 year old Atlanta legends, whom all consented to publicly be vaccinated so they can impact trust and to serve as role models (like they had done earlier as trail blazers in the civil rights movement and their careers) as we rolled out vaccinations for the seniors. Within days after that event, we set up a drive through vaccine event on our campus doing the first week in January and continued these events for 2 months. Since we are an academic health center, we engaged our students to not only vaccinate (vaccinators for medical students and PA students) but also to provide preventive health information (navigators for MPH and graduate students) during the observation period. This was very important because the pandemic resulted in many people missing on several preventive health services such as mammograms and colonoscopies and we wanted to encourage people to resume their in-person healthcare and procedures. We also helped vaccine recipients complete paperwork and register for CDC V-safe while waiting. As we were vaccinating, we were concurrently doing educational programs through weekly town halls, panel discussions, community outreach programs, Public Service Announcements, and social media.

Lessons learned from the first 2 months of vaccinations were that the keys to success were community engagement, education, accessibility, and outreach. This led to us applying for and receiving grants to expand our reach beyond Atlanta, through our mobile unit for the traveling vaccination program that started in April.

Since Morehouse School of Medicine is one of the four HBCU medical schools, we are a trusted entity in the community. This has resulted in over 75 percent of our vaccine recipients being African American compared to only approximately 9 percent nationally based on recent CDC data tracker from June 18, 2021. Additionally, starting in March as the vaccine supplies increased, we expanded our vaccination outreach and review of other vulnerable populations, and the DPH data on vaccination rate within the Hispanic community stood out as being low in Georgia. To help expand vaccination in the Hispanic community, we started engaging and forming partnership with Latino organizations and the Mexican consulate. Additional keys to success in impacting trust in the Latino community were through the consulates and traveling to the consulate facilities to vaccinate. Patients tend to trust people who look like them and have similar backgrounds and experiences. For these events, we also added and engaged our bilingual Spanish speaking students, nurses, and providers to vaccinate and educate. Currently, as we expand on our traveling vaccination program, we have started to engage with other Latino consulates as we go into rural migrant agricultural areas. From this we have learned that other languages and educational materials must be done besides English and Spanish. For example, as a result of engaging the other consulates-consents, videos, and educational materials were developed using the Mayan language. Because of these efforts, we are reaching more communities of color. At MSM, our current Latino vaccination rate is 13 percent which has positively impacted the Hispanic vaccination rate in Georgia. At MSM, with our community outreach and focus on decreasing health disparities, vaccinations for communities of color represent approximately 88 percent of our vaccinations.

Lessons learned over the last 6 months are:

(1). Impact trust by engaging the community and being a part of the community as well as having vaccine providers who look like, sound like, or have similar experiences and backgrounds to the vaccine recipients. Define the community (church, civic organization, consulates, ethnic organizations, HBCUs, schools, sports, etc.) and determine who are the best spokespersons (civic rights or community leaders, athletes, people that look like them and speaks their language, etc).

(2). Provide information and education to dispel myths and misinformation and to educate on vaccines through panel discussion, town halls, media, PSAs, social media, Q&As, pamphlets. Ensure material is multi-lingual,

multi-media, and at appropriate educational levels. Do not make assumptions. Do not stereotype.

(3). Meet people where they are in their vaccine journey. Realize that not everyone is ready to be vaccinated. Do not judge. Let potential vaccine recipients know that we are ready to vaccinate them whenever they are ready.

(4). As for adolescents, engage and educate both the parents and children (12–17 year olds) so that our schools can resume a sense of normalcy again, plan back-to-school vaccine events with incentives (book bags, school supplies, etc.) while at the same time doing sports physicals, preventive health reviews, and health checks.

(5). When people come for testing because of potential fear of exposure, offer vaccinations at the same time. Never waste an opportunity to educate and vaccinate.

(6). Travel to where the vaccine recipient is and make it convenient (go to school/college, work, home for the homebound and senior communities, sporting events, fitness centers, rural areas, etc.)

(7). Do not politicize. Stay focused on the goal, educate, and meet people where they are and vaccinate.

Morehouse School of Medicine because of its mission is uniquely positioned to help boost vaccination rates because we are viewed as a trusted source of COVID–19 help, health, and vaccine information within communities of color.

Thank you for the opportunity to share our views with you. I am pleased to respond to any questions.

[SUMMARY STATEMENT OF MICHELLE NICHOLS]

I am Michelle Nichols, MD, MS and am presenting testimony on behalf of Morehouse School of Medicine (MSM). At MSM, I serve as associate professor of family medicine, Medical Director of Morehouse Healthcare (MHC) which is our faculty practice plan, Medical Director of MSM/MHC Community COVID–19 Vaccination Program, and Associate Dean for Clinical Affairs.

Beginning in December 2020, based on our commitment to health equity and being a trusted entity within the community in both healthcare and research, Morehouse School of Medicine endeavored to serve as a community vaccine provider and to tackle the hesitancy, mistrust, misinformation, and myths associated with not only the vaccine but also the novel coronavirus in general.

To date, over 75 percent of our vaccine recipients have been African American, compared to only approximately 9 percent nationally, based on recent CDC data tracker from June 18, 2021. Given our intentional efforts to reach more communities of color, our current Latino vaccination rate is 13 percent which has positively impacted the Hispanic vaccination rate in Georgia.

In our efforts to continue to advance health equity by providing vaccinations to our community, we have learned several critical lessons. These lessons learned will be expanded upon in my testimony, but can be best summarized as:

(1). The keys to success are in community engagement, education, accessibility, and outreach.

(2). Impact trust by engaging the community and being a part of the community as well as having vaccine providers who look like, sound like, or have similar experiences and backgrounds to the vaccine recipients. Define the community (church, civic organization, consulates, ethnic organizations, HBCUs, schools, sports, etc) and determine who are the best spokespersons (civic rights or community leaders, athletes, people that look like them and speak their language, etc).

(3). Provide information and education to dispel myths and misinformation and to educate on vaccines through panel discussion, townhalls, media, PSAs, social media, Q&A's, pamphlets. Ensure material is multi-lingual, multi-media, and at appropriate educational levels. Do not make assumptions. Do not stereotype.

(4). Meet people where they are in their vaccine journey. Realize that not everyone is ready to be vaccinated. Do not judge. Let potential vaccine recipients know that we are ready to vaccinate them whenever they are ready.

(5). As for adolescents, engage and educate both the parents and children (12–17 yo) so that our schools can resume a sense of normalcy again, plan back-to-school vaccine events with incentives (bookbags, school supplies, etc) while at the same time doing sports physicals, preventive health reviews, and health checks.

(6). When people come for testing because of potential fear of exposure, offer vaccinations at the same time. Never waste an opportunity to educate and vaccinate.

(7). Travel to where the vaccine recipient is and make it convenient (go to school/college, work, home for the homebound and senior communities, sporting events, fitness centers, rural areas, etc.).

(8). Do not politicize. Stay focused on the goal, educate, and meet people where they are and vaccinate.

The CHAIR. Thank you.
Mr. Chang.

STATEMENT OF CURTIS CHANG, CONSULTING PROFESSOR, DUKE DIVINITY SCHOOL, SAN JOSE, CA

Mr. CHANG. Senators, the road to ending the pandemic runs through the evangelical church, especially the White evangelical church. At the national level, White evangelicals comprise the single largest vaccine-hesitant demographic in the Country, with almost half signaling that they will not get vaccinated.

At the state level, if you took a map of the least-vaccinated states, it corresponds very tightly to a map of the Bible Belt, with some states not reaching even one-third vaccination rates.

At the global level, American evangelical culture is highly influential in parts of Asia and Africa. We are already exporting our misinformation and fears to the rest of the world, especially via social media.

Reaching every demographic in our Country matters, but we are not ending the pandemic unless we convince more White evangelicals to get vaccinated. And this is why I, along with Chris Carter, who is here today, founded Christians and the Vaccine. It is a partnership with the Ad Council, COVID Collaborative, the National Association of Evangelicals, and Values Partnerships. We have produced and distributed a range of online video content to equip the evangelical community to address vaccine hesitancy in our own community.

Why are White evangelicals so hesitant? Well, vaccine trust is essentially a proxy for institutional trust. Every one of us only takes the vaccine to the extent we trust the FDA, the CDC, pharmaceutical companies, and public health. Unfortunately, the level of distrust among White evangelicals with large institutions is at an all-time high.

Now, there's complex and longstanding reasons for this growing distrust. Our own communities' vulnerability to misinformation is certainly a big factor. But, in the context of the vaccine, this tendency toward distrust has been exacerbated by public health's inattention and overlooking this particular community. While there has been hammering about evangelical attitudes in the mainline media, there has been little targeted outreach from public health. As one state health official admitted to us, she said, we have spent maybe 2 minutes thinking about White evangelicals.

To the extent that the public health has engaged with faith communities, it has overwhelmingly been with minority faith communities, where it has succeeded with remarkable effect, driving a 10-point jump in vaccine acceptance among Black Protestants in just a few months of outreach.

Now, this racial equity emphasis has been absolutely necessary, given historical inequities and current barriers of access. However, this focus has not been matched by attention to the largest and most vaccine-hesitant community. And this inattention is simply counterproductive in a national pandemic where we are all connected. As a person of color, I need public health to focus on White evangelicals because what they decide affects my community.

As our work has gained prominence, we did have the opportunity to speak with several key national public health institutions, all of whom showed great interest. However, they had no available pathway to partner with us to expand our efforts. Again, a key reason given was the fact that our focus did not fit the minority-focused communities.

Another issue was that the vast majority of Federal funding on vaccine outreach simply gets distributed to state public health agencies, meaning there is no efficient pathway for the Federal Government to partner with us on a coordinated national outreach.

But, it is not too late. It is not too late to persuade the White evangelical community. Faith-based efforts do work as demonstrated by the success reaching Black Christians. And one very recent study by PRRI showed that 44 percent of vaccine-hesitant evangelicals say that they would still be influenced by faith-based efforts.

The key recipe is a partnership between public health and faith leaders in the evangelical community. The message and the voice have to come from the faith leaders themselves because they are the trusted voices. But, public health can make a big difference by convening the faith leaders, by providing resources to amplify their voices, and then especially by taking cues from those faith leaders on which public health efforts will work in their communities.

The last point about taking cues from faith leaders is critical because there is no one-size-fits-all approach. For instance, what works in the Black church, such as having churches host vaccination sites, often does not work in the White evangelical church context.

I respectfully submit the following two requests to this Committee for consideration. First, please consider supplementing the current state-focused approach with additional resources and national coordinated outreach. A state-by-state approach may be effective in some health issues, but in pandemic, we need coordination.

Then, finally, please direct Federal outreach to pay attention to White evangelicals. This community requires a specific type of outreach, and failure to do so puts all communities at risk.

[The prepared statement of Mr. Chang follows:]

PREPARED STATEMENT OF CURTIS CHANG

The pathway to ending the pandemic runs through the evangelical church. Almost half of all white evangelicals are *resistant to getting vaccinated*. The sheer size of this population nationally and within concentrated regions mean evangelicals could

make or break the vaccine's potential to restore life to normal in communities across the country. Yet for many outside the evangelical world, this resistance seems incomprehensible.

As life-long evangelicals, we worry about how our people could become a barrier for recovery from the pandemic. But as insiders, we also have an understanding of how we got here. Evangelical resistance to the vaccine is driven by larger forces that have reshaped our tribe's relationship with the broader secular world. Vaccine outreach efforts to our community must account for these deeper dynamics, and should partner with evangelical leaders who know best how to navigate this altered landscape.

For everyone—evangelical or not—the decision to take the vaccine is essentially a decision to trust institutions. Few of us are equipped to understand the vaccines' scientific complexities. We only take the vaccine when we decide to trust "Them:" the constellation of scientific, government, and media institutions assuring everyone that the vaccine is truly safe, effective, and necessary.

But what happens when this trust in "Them" is thoroughly undermined within a particular community?

American evangelicals are historically prone to ambivalence toward the dominant secular institutions of the day. In fact, a posture of critical evaluation is built into the fabric of our faith. Evangelicals interpret Jesus' teaching that his followers are in the world but not "of the world" (John 17:16) to mean we should engage with the world's secular institutions with a certain measure of caution. In proper doses, a certain amount of caution is healthy for all communities—not just evangelicals. No institution is infallible, and critical thinking can be a civic virtue.

Unfortunately, in recent years, the evangelical posture of critical engagement with secular institutions has mutated from caution into outright fear and hostility. Reminders to be on guard while engaging "Them" have turned into a belief that "They are out to get us!" Many social forces—both internal and external to our community—caused this, but three current forces have especially exploited our built-in ambivalence toward secular institutions.

First, conservative media have mastered the art of sowing evangelical suspicion of "the Establishment" to attract our eyeballs and grow their ratings. Second, politicians—some Christian and some not—have mastered the art of leveraging fear of elite institutions to gain our votes. Third, online conspiracy movements such as QAnon and the anti-vaxxers—which are thoroughly secular in their origins—have mastered the art of creating fictional enemies that are out to destroy our values, and in the case of the vaccine, our actual bodies. All of these forces now actively shape how large segments of our community perceive the vaccine.

In our vaccine outreach with evangelicals, we hear a variety of reasons for suspicion, ranging from common fears that the vaccine was rushed to conspiracy theories that the vaccine contains tracking chips or is the "the mark of the beast". But underneath all of those diverse reasons is the sharply intensified reflex of institutional distrust.

This reflex has taken root so rapidly that an alarming gap has opened up between evangelical pastors and the people in their pews. One survey from the National Association of Evangelicals conducted in January showed that *95 percent of leaders were planning to take the vaccine themselves*, a marked contrast to other surveys that show *45 percent* to *55 percent* of evangelicals continuing to be reluctant on the vaccine. This gap follows *a well-researched trend* of pastors feeling afraid to speak on public issues for fear of alienating some portion of their members.

Even so, there is a path forward. A *just-released study* from Public Religion Research Institute and Interfaith Youth Core (PRRI/IFYC) reveals two key encouraging truths. First, there still exists a large "moveable middle" even among vaccine-hesitant evangelicals. Second, faith-based appeals—distinguished from secular public health appeals—are an effective strategy. Among vaccine-hesitant white evangelicals, 47 percent said that more faith-based outreach would encourage them to get the shot.

Several high-profile evangelical leaders have already begun faith-based outreach. NIH Director Francis Collins, a well-known evangelical, has worked tirelessly to promote the vaccine. BioLogos, a Christian nonprofit that promotes the integration of faith and science, has rallied other evangelical scientists for the cause. Russell Moore, head of the Southern Baptist Convention's Ethics & Religious Liberty Commission, has provided important guidance to the country's largest Protestant denomination. Even Donald Trump-supporting conservatives like Franklin Graham

and Dr. Robert Jeffress have come out strongly in favor of the vaccines, willingly enduring hostile reactions from their base.

These national voices are important, but we are now at a pivotal moment: the ground game phase of vaccination outreach. The PRRI/IFYC study spotlighted that the remaining vaccine-hesitant evangelicals will be most persuaded by a mixture of subtle, local and highly relational efforts: e.g. people learning that their pastor or fellow church member got vaccinated, or getting help from their church in scheduling a vaccination appointment.

Evangelicals on the ground must take the lead in implementing these efforts because the underlying problem is our community's distrust of secular institutions. Resistance won't be overcome by more well-intended PSAs from the Biden administration; it can only happen via millions of granular exchanges like that between a pro-vaccine evangelical and a vaccine-hesitant friend who attends the same church.

While evangelicals are best-equipped to reach evangelicals, secular institutions still have a critical role to play, particularly to achieve the scale of outreach necessary in this crucial moment. Philanthropy, social media platforms, public health all can meaningfully accelerate this ground game phase—if those institutions are willing to partner with evangelicals.

American evangelicals must help our own community find their way out of the thicket of vaccine confusion and distrust. But we still need the partnership of secular institutions. The pandemic has provided this Nation many lessons in humility, perhaps none greater than the realization that none of us—and no sub-community—ever stands fully alone.

[SUMMARY STATEMENT OF CURTIS CHANG]

The road to ending the pandemic runs through the evangelical church. At the national level, white evangelicals comprise the single largest vaccine hesitant demographic. At the state level, a map of the states with the lowest vaccination rates corresponds tightly with a map of the Bible Belt. And at the global level, US evangelical culture is already exporting our misinformation and fears to the rest of the world, especially via social media.

Evangelicals are prone to vaccine distrust because vaccine trust is essentially a proxy for institutional trust. Every one of us will take the vaccine only to the extent that we trust the FDA, the CDC, public health, pharmaceutical companies, and others. Unfortunately, white evangelical distrust of institutions is at an all time high.

There are complex and longstanding reasons for this distrust. But in the context of the vaccine, this distrust has been exacerbated by public health overlooking the need to reach out to white evangelicals. There has simply been little targeted outreach efforts from public health.

To the extent that public health has engaged faith communities, it has overwhelmingly been with minority faith communities, where it has succeeded with remarkable effect, driving a 10 point jump in vaccine acceptance among Black Protestants in just a few months of outreach. The racial equity emphasis has been necessary, but it unfortunately has excluded attention to the largest and most hesitant population, which is counter-productive in a nationwide pandemic. Because of this exclusive focus on minority communities, there has been no available pathway to partner with the government to expand our efforts. Moreover, the vast majority of Federal funding on vaccine outreach was simply distributed to the state level, meaning there was no efficient pathway for the Federal Government to partner with us on national outreach.

It is critical that faith based outreach increases for white evangelicals with the COVID vaccine, and for future public health crises. This is because studies show that faith based public health outreach works. One study by PRRI showed that 44 percent of vaccine hesitant evangelicals say that they would be influenced by faith based efforts.

The key recipe is a partnership between faith leaders and public health. The message and voice has to come most directly from trusted voices within the faith community, but public health can make a big difference in convening faith leaders, providing resources to amplify those faith voices, and taking cues from those leaders on what public health efforts work best in their particular communities. This last point about taking cues from faith leaders is critical, because there is no one-size-fits all approach.

We respectfully submit the following two requests to this Committee for consideration: (1) Please direct Federal outreach efforts on the vaccine and future public

health crises to pay attention to white evangelicals, in addition to minority faith communities; and (2) Please direct public health funds on the vaccine to include coordinated national outreach efforts.

The CHAIR. Thank you very much.
Dr. Betancourt.

STATEMENT OF JEANETTE BETANCOURT, Ed.D., SENIOR VICE PRESIDENT FOR U.S. SOCIAL IMPACT, SESAME WORKSHOP, NEW YORK, NY

Dr. BETANCOURT. Thank you very much. Thank you, Senator Murray, Senator Burr, and all of the Committee in terms of HELP.

First of all, what I would love to do is introduce our process that we have engaged in throughout the pandemic because one of the things I am hoping to leave you with is the idea of looking at young children's perspective, along with parenting.

At Sesame Workshop, which is the non-profit, global organization whose mission is to help all children grow smarter, stronger, and kinder, we continually, not only through our programming, but through our social impact work, tackle the toughest topics. We have dealt with parental addiction, foster care, family homelessness. And throughout the process of the pandemic, we have actually structured this to meet the stages that families and children are engaged in throughout the pandemic.

When the pandemic first hit, we called that stage the "For Now Normal." Suddenly, young children and their families were in shelter-in-place. All the safety routines that are so typical for young children were lost. They no longer had the physical contact and routines that they generally have.

The next stage, that we are in now, is the "Different But Before Normal." In other words, we are transitioning back, but it is in steps. And additionally, we are preparing children to adjust, along with their families, to those steps.

However, they have had quite a bit of crisis. It is the focus on our young children's and their families' mental health that we need to look at as we are making decisions around vaccination, as well.

We also look at our third stage as "Long-Term Consequences," what is the mental health of now this young COVID generation.

Tying all those pieces together now, we have also partnered, like many of the colleagues here, with the Ad Council and the COVID Collaborative around messaging on improving and informing parents with young children that they should be vaccinated. There, the approach that we took is, how do you return to those safety moments, those things that you have missed before, that relevance to family life, and, also, the relevance to young children's well-being in their safety routines.

In addition to that, we created all of these resources bilingually, in English and Spanish, in different formats. Not only in terms of video, audio, and also digital resources that can be posted, whether it is posters specific for the Latino community, or the African-American Black community, or the immigrant community. Again, using the trusted power of our Muppets as a trusted source for parents and caregivers and children.

Now, as we are reaching this next vital stage, we believe very strongly of the idea of creating a circle of care, a circle of safety, when we get to the stage of now encouraging parents to vaccinate their young children.

But, I also ask you to look at the way we have messaged thus far. Our role, many times, is, how do we message in a friendly way for children and families and the adults who influence them so that they are making the decisions for the well-being of their children.

However, throughout the pandemic, and rightly so, we have mentioned the young children are the least influenced or impacted by the pandemic. Again, it is not adverse; it is true. They are also very much likely the first to have returned to, quote, school, early childhood programs, whether it is through family, friend, and neighbor care, through center-based programs, or family childcare.

From a parent's point of view, children, young children especially below five, are Okay. The decision on vaccination will be a little harder because, along the way, they have been sort of told they are doing Okay. It is the priority on children, on youth, and adults.

We are here to work with all of you, to partner, to also continue our messaging. And we believe that the next stage of convincing young parents in terms of vaccinating their young children is the idea of forming a circle of safety. I do it. My family does it. I include my children. But, also, the idea of bringing back those valuable routines to young children's well-being in which all of us, as a Nation, should be invested in.

Thank you very much for this opportunity, and I look forward to your questions.

[The prepared statement of Dr. Betancourt follows:]

PREPARED STATEMENT OF JEANETTE BETANCOURT

Introduction

Good morning Chair Murray, Ranking Member Burr, and other distinguished Members of the Committee on Health, Education, Labor, and Pensions.

I am Jeanette Betancourt, Ed. D., Senior Vice President of U.S. Social Impact at Sesame Workshop. I wish to thank all of you for the opportunity to share Sesame Workshop's response to the COVID–19 pandemic, especially in meeting the sudden and evolving needs of young children and, most recently, our focus on encouraging parents and caregivers to get vaccinated as an important part of the whole family's well-being. If I can leave you with only one major takeaway, apart from the joy of sharing a few special moments with our Sesame Street Muppets, it is the importance of considering the child's perspective and of recognizing what children and families have experienced over the past 18 months and how that has informed their decision-making process regarding vaccination.

Who We Are

Sesame Workshop is the nonprofit global organization with a mission to help children around the world grow smarter, stronger, and kinder. We do so through a wide range of media, formal education, and philanthropically funded social impact programs. Our iconic and beloved *Sesame Street* premiered at the height of the Civil Rights movement with the first racially integrated cast on children's television, and it has remained a place where humans and Muppets of all shapes, sizes, and skin (or fur!) colors model diversity, equity, inclusion, and mutual respect and understanding. While our efforts are made on behalf of *all* children—and all children stand to benefit from them—our primary aim from the outset has been to improve outcomes and well-being among the most marginalized children and their families, who are so often impacted by the effects of poverty, trauma, and racial injustice.

Sesame Workshop's U.S. Social Impact team develops philanthropically supported initiatives that address critical challenges impacting children, parents, and care-

givers as well as the community providers who support them. Our initiatives are research-driven, proven, and innovative, especially the wide-ranging and ever-growing *Sesame Street in Communities* (*SSIC*), which creates and delivers free bilingual resources in response to widespread issues such as: trauma, food insecurity, a parent's incarceration, family homelessness, divorce, school readiness, health and well-being, and other important early childhood topics. These initiatives model parent and caregiver strategies that are vital to ensuring that every child—especially those most at risk—can succeed in school and in life. The success of our initiatives is rooted in our approach, which ties together curriculum, research, and accountability for achieving results. We are also extremely nimble, with the ability to respond immediately to crises or plan out for the longer term.

Our COVID–19 Response: Caring for Each Other

The COVID–19 pandemic prompted unprecedented disruption and uncertainty in the lives of young children and their families. We knew immediately that we had a responsibility to respond and that, having built a half-century's worth of trust and dependability among parents, we were uniquely positioned to explain for children the many changes that were so dramatically altering family life, while offering responses to their questions and concerns. Sesame Workshop acted quickly. To help young children feel a sense of comfort, engage in playful learning away from school, and maintain a more hopeful outlook, we created our *Caring for Each Other* (*CFEO*) initiative and the *SSIC Health Emergencies* topic page and brought families clarity, comfort, and moments of joy through televised specials such as *Sesame Street: Elmo's Playdate* and a series of CNN Town Halls.

Foreseeing the ongoing impact of constant change in children's lives, we developed a phased approach to meeting the needs of families—as always, from the child's perspective. We grouped our efforts into three stages, creating bilingual *CFEO* resources for each, aligned with the progression of change as the COVID–19 pandemic evolved.

- *For Now Normal*: Initially, families and their young children found themselves dealing with a complete halt to their everyday routines, the need to shelter-in-place, and facing questions about a deadly virus that did not have a child-friendly explanation. As families settled into a "for now normal," *CFEO* offered ways to support children's emotional ups and downs, including challenges such as missing friends, coping with sickness, and grieving the death of a loved one. As the urgent reliance upon essential workers became more prevalent, we offered special support, encouragement, and gratitude to frontline workers and their families while helping them explain to children why sometimes-lengthy separations were unavoidable.
- *Before But Different Normal*: This is our current stage. As children and families transition back to pre-pandemic routines, *CFEO* continues to provide resources across a broad variety of experiences, from understanding mask wearing (including resources for autistic children) and other safety precautions, to managing separation anxiety, building mindfulness and fortitude, and, for many, returning to school. As guidelines and mandates for in-school learning have shifted, parents and caregivers have had to prepare children for changes to school as they had known it, while staying flexible to handle fluctuations between in-school and at-home learning. Community providers, especially early childhood educators, have had to learn to connect with children while wearing PPE and staying physically distant. They must also understand children's emotions during these constant changes, find new ways to nurture them, and maintain open lines of communication with parents/caregivers.
- *Longer-Term Consequences*: Often there is a tendency to assume young children are resilient and that they can easily and/or quickly recover from (and even forget) challenging situations. Although children do possess a certain resiliency, recovery from the longer-term consequences of the pandemic will likely take time and consideration, due to the traumatic disruption of their established routines and sense of safety. In many marginalized communities, which have been the hardest hit, children are expressing stress, anxiety, and major effects on their mental health and well-being. Furthermore, we must acknowledge that parents, caregivers, and community providers have been deeply affected as well, and what they model will ultimately reflect upon young children.

Our approach has proven effective. During the first phase of our work, we executed a pre-and post-survey[1] with parents of young children after they used the *CFEO Health Emergencies* resources. Results indicated that parents who used the strategies (e.g., belly breathing) helped their child cope with the challenges and stress of COVID–19 more successfully than before exposure to the resources. Parents also rated themselves as significantly more confident in helping their children manage difficult emotions, feel physically safe, and have a greater sense of hope during sheltering-in-place, especially due to their children's connection to *Sesame Street* characters as they modeled behaviors. "*My son was so interested in the video and activities, and would be talking to the characters. I saw relief on his face as he saw his character friends discuss things I didn't realize he was worried about*."

—Parent of 4-year-old boy responding to the survey.

COVID–19 Vaccination

Continuing *CFEO*'s nimble response, we partnered with the Ad Council, COVID Collaborative, and CDC, and launched a series of public service announcements and resources in English and Spanish to guide parents and caregivers about the importance of COVID–19 vaccines. Featuring Elmo, Elmo's dad Louie, and the *Sesame Street* Muppets, the PSAs highlight that COVID–19 vaccines for adults are here and that getting vaccinated can help lead to sunnier days ahead.

- *I'll Be Seeing U*: *I'll Be Seeing You Song* (60'sec). This take on Billie Holiday's "I'll Be Seeing You" is sung by the Letter U and shows what families miss and want to return to.
- *Healthy Family with Elmo and Louie*: *Elmo's Daddy Gets Vaccinated* (60'sec). Here, Elmo's dad, Louie, responds to Elmo's curiosity and explains why he got vaccinated—so he can stay healthy and keep everyone safe.

An additional bilingual digital toolkit includes printable activities, posters, and FAQ that take children's perspectives and build on their curiosity, explaining why grownups are getting vaccinated, answering common questions in age-appropriate ways, and reminding children to practice other healthy behaviors like handwashing. It also customizes messaging to different communities, i.e., Black/African American, Latino, and Immigrant.

Our Learning and Recommendations

We continue to observe that young children are curious about the ongoing transition to recovery, however many are experiencing challenging feelings and/or are unsure how to express their concerns. Parents and caregivers are also struggling. Many are still managing their children's hybrid learning or transitioning back to school; coping with possible ongoing economic hardships; and/or are not considering self-care as a priority. Vaccination and other transitional practices are allowing our collective return to the "before but different normal," bringing greater hope for the future. Yet vaccine hesitancy remains pervasive and, as we approach the phase when young children will be afforded vaccination access, we recommend the following considerations:

- Acknowledge that, for the youngest children and their parents and caregivers, there will be confusion in messaging. Throughout the pandemic, the overall messaging was that young children were less vulnerable to contracting COVID–19 or experiencing ill effects.
- Vaccine hesitancy might be prompted by the fact that young children returned to in-person childcare settings (family, friend, and neighbor care; family childcare, or center-based) much earlier than other "students," and most are doing "fine" as perceived by parents or caregivers.
- Parents and caregivers are likely to be more hesitant of the longer-term effects of a new vaccine the younger their child is.
- There is a critical relationship between the mental health and overall well-being of parents and caregivers and their openness to considering what may seem to be challenging decisions. Many parents and caregivers are still experiencing high levels of stress, anxiety, coping with loss, economic hardships, and/or feelings of isolation.

[1] *Sesame Street Health Emergencies: COVID–19 Parent Survey*. MediaKidz Research & Consulting. July 2020.

- Although young children, parents, and caregivers do rely on the health care community as a trusted source, many may have lost their connection to a consistent medical provider.

Next Steps

Sesame Workshop's *CFEO* will partner with the Ad Council, the COVID Collaborative, and the CDC (and possibly other partners) to create specific resources to encourage vaccination for our youngest citizens. We are in the process of determining the most effective messaging, but we know we will once again rely upon the power of our beloved *Sesame Street* Muppets and our long held trust with parents, caregivers, and providers to continue to make a difference in the well-being of our youngest citizens.

[SUMMARY STATEMENT OF JEANETTE BETANCOURT]

- Sesame Workshop's response to the COVID–19 pandemic has focused on meeting the evolving needs of young children as well as encouraging parents and caregivers to get vaccinated as an important part of the whole family's well-being.
- We must consider the child's perspective and recognize that what children and families have experienced over the past 18 months impacts their decisions regarding vaccination.
- The COVID–19 pandemic has prompted unprecedented disruption and uncertainty in the lives of young children and their families. In response, Sesame Workshop has developed a three-phased approach—*For Now Normal; Before, But Different Normal*; and *Longer-Term Consequences*—to provide resources that bring families clarity, comfort, and moments of joy aligned with the progression of change as the COVID–19 pandemic evolved.
- For COVID–19 vaccinations, Sesame Workshop partnered with the Ad Council, COVID Collaborative, and CDC to launch a series of public service announcements and resources in English and Spanish to guide parents and caregivers about the importance of COVID–19 vaccines.
- The PSAs feature Elmo, Elmo's dad Louie, and the *Sesame Street* Muppets and highlight that getting vaccinated can help lead to sunnier days ahead. An additional bilingual digital toolkit is customized for different communities to help explain why grownups are getting vaccinated, and answers common questions in age-appropriate ways.

Our Learning and Recommendations

- Young children are curious about the ongoing transition to recovery, however many are unsure how to express their concerns. Parents and caregivers are also struggling.
- Vaccination and other transitional practices are bringing greater hope for the future. Yet vaccine hesitancy remains pervasive and, as we approach the phase when young children will be afforded vaccination access, we recommend the following considerations:
    - Acknowledge that, for the youngest children and their parents and caregivers, there will be confusion in messaging. The overall messaging has been that young children were less vulnerable to contracting COVID–19.
    - Vaccine hesitancy might be prompted by young children returning to in-person childcare settings much earlier than other "students," and most are doing "fine."
    - Parents and caregivers are likely to be more hesitant of the longer-term effects of a new vaccine the younger their child is.
    - There is a critical relationship between the overall well-being of parents and caregivers and their openness to consider challenging decisions.
    - Although families do rely on the health care community as a trusted source, many may have lost their connection to a consistent medical provider.
- Looking ahead, Sesame Workshop will collaborate with the Ad Council, the COVID Collaborative, and the CDC to create specific resources to en-

courage vaccination for our youngest citizens. We are in the process of determining the most effective messaging.

The CHAIR. Thank you very much to all of our witnesses. We really appreciate your testimony this morning and find it invaluable. So, thank you.

Dr. BETANCOURT. Sorry.

The CHAIR. Yes.

Dr. BETANCOURT. I forgot to mention that we have actually a PSA. I could not forget that.

The CHAIR. Okay.

Dr. BETANCOURT. We have—sorry. I bring my Elmo friend and also a PSA that we wanted to demonstrate. So sorry.

The CHAIR. Okay.

Dr. BETANCOURT. Demonstrate how we have messaged. And this is Elmo and his daddy, looking ahead.

Oh, we do not have volume.

What we can do is actually send this to you. All Elmo and Daddy are exploring is really why he got vaccinated, and it is that hope for the future and return to routines. So, thank you.

The CHAIR. Okay. Thank you very much.

Dr. BETANCOURT. Sorry.

The CHAIR. I think all of us probably know what they are saying just by having the question——

Dr. BETANCOURT. Yes. And you can imagine. Yes. Children's curiosity.

[Laughter.]

[Video presentation.]

The CHAIR. Can we start it over at the beginning?

[Video presentation.]

Dr. BETANCOURT. Thank you.

The CHAIR. Thank you so much. As a former preschool teacher, I now feel I can start my day.

[Laughter.]

The CHAIR. Thank you.

We will now begin a round of 5-minute questions of our witnesses, and I ask all of our colleagues to please keep track of your clocks, stay within those 5 minutes.

Let me start. We know that the best way to reach people and address their concerns about vaccines is to actually tailor the message to their specific background and concerns. We also know the same kind of outreach will not work for everyone. Different communities may prefer to receive information in different settings, different messengers.

Let me start with Dr. Nichols and Mr. Chang. You frequently talk to people who have not received COVID–19 vaccines. What are effective ways to customize outreach on vaccines to the person or community at hand?

Dr. Nichols, let me start with you.

Dr. NICHOLS. Thank you for the question. So, I am a family physician, so one of the things that I do is, I started back in January a modeling, telling people that I had completed my vaccine series, and I told them what the effects were.

The other thing is, I always say go where—reach people where they are in their journey. So, if people are hesitant, I give them the information, I give them the data, I give them the science, to say that these vaccines are safe.

Also, it is important to go where they are, so I go to their locations. I have actually gone to the various communities and had conversations with them. Preplan—pre now opening up to a sense of normalcy, I also went to—I did Zoom presentations.

Also, when I go toward my adolescents and my younger people, I talk to them about the importance of getting back to normalcy, of going back to playing their sports events, not worrying if they are going to be quarantined because some member of their team is—now has COVID–19. So, I talk about that.

I talk to parents about the opportunities so that their kids can get back to school and learn because we all know that what happened was that we often saw there are—kids were far behind. They were getting behind. And, so, I said, let's do what we can to get it back to normalcy.

When I talk to my patients, I say, let's try—don't you look for the opportunity that you could now hug your grandkids? I have a lot of older patients. So, I said, don't you wish that you had the opportunity to hug your grandkids? I say the same thing to my patients about seeing their parents. I was able to see my parents for the first time in February, and I was very thrilled to have the opportunity of seeing them in over a year, and they are in their 80's.

I talk to people about those things and those family gatherings. So, I talk to people about what is important to them.

Finally, one of the things that I did that was very important is that we engaged people who look like and talk like them. Because I found that in our other communities, that if you had someone who was similar to you, this helped. When we looked at some of our other immigrants, such as those that were from Ecuador and different people, we found out that the—that Spanish nor English were the right language for them. And, so, we did videos that were in the Mayan language so that you can reach and help people to understand.

That is the important thing. Just meet people where they are. And if they are not ready, I say, that is Okay, because I am here and we are here to vaccinate you whenever you are ready.

Thank you for your question.

The CHAIR. Mr. Chang.

Mr. CHANG. I think, given that there is institutional mistrust, the key is providing information and content to friends and family who vaccine-hesitant folks will trust, people in their own social networks. This is why we created short, sharable videos to put in the hands of evangelicals to share with their neighbors, fellow church members, friends and family, and so forth.

The key here, I think, is actually social media. Because, in the pandemic, how we are sharing and influencing each other is significantly mediated through social media. And this is where I would encourage efforts by the government to fund more outreach through social media, through generating content, through targeted advertising, because that is the battlefield right now for the vaccine trust efforts.

The CHAIR. Thank you very much.

Many of you mentioned misinformation in your testimony and the concern about that. These efforts seem to be growing and undermining all of your work and our work. We hear about constituents who are getting misinformation or spreading false information via Facebook, Twitter, other platforms.

Let me just quickly ask Dr. Bailey and Dr. Betancourt. What would you tell all of us that we should be doing to stop the spread of false and misleading information on these platforms?

Dr. Bailey.

Dr. BAILEY. Social media is certainly a double-edged sword. It can be a great venue for spreading good information, but also spreading misinformation. We—the AMA believes that social media networks need to have some responsibility for spreading false information that they know not to be true. And, we need to be able to counter that with factual information from trusted sources, as my colleagues have said.

If we completely bow out of social media and do not participate, then we are ceding that territory to those who are willing to spread misinformation. And, I think it is important to understand that folks that are spreading misinformation are often doing so because they may have a book to sell. They may have a site they want you to go see. They may have something that they are trying to build-up, and, so, it might not necessarily be in your best interest that this misinformation is being spread. I think it is important to know the source and to go to trusted sources.

The CHAIR. Thank you.

Dr. Betancourt.

Dr. BETANCOURT. Thank you for the opportunity. I would say that for our role, it is not directly dealing with misinformation, but how do we provide information that is relevant, valued, research-based for parents, caregivers, and we do so because we do an incredible amount of research in the way we are messaging. Our hope is that we are counteracting that misinformation.

But, the other factor is, how do we deliver this information so that it is relevant to the everyday moments of families and children; that it is also relevant to the key influencers in their lives, whether it is the healthcare community, the social work community, any—the early childhood community.

The other way that we address, as a trusted source now over 50 years, is how do we use—and the reaction that you had—our trusted Muppets and, again, presenting from the child's perspective. Often, because this is viewed as such a grownup issue, we lose the fact of how our young children can be advocates, as well. And that means looking at young children, having information on what helps them keep safe, on what helps their parents keep safe, and how we can do that collectively. Thank you.

The CHAIR. Thank you very much. I am well over my time. I will turn it over to Senator Burr.

Senator BURR. Thank you, Madam Chair.

It is remarkable to me that our whole national campaign from the start, and continues today, is all about TV. The only thing consistent with 30 years ago is Sesame Street, so it is a tremendous avenue for a particular population. The rest of America tunes out

ads. I do not care if they are on COVID or something else. And it is remarkable how much money we have injected into this.

But, where we have seen success, Dr. Nichols, is when you have gone into those African-American churches; Mr. Chang, when you have focused on White evangelicals; Dr. Bailey, when you have said the family doctor, the physician, we totally took out of the loop. Some of the reasons were the unique requirements for vaccines, and we really did not have an explosion in vaccinations until we actually penetrated the retail pharmacies.

Here is my question, Dr. Bailey, just real quick. How much of the challenges behind vaccination is transportation?

Dr. BAILEY. Transportation of the vaccine is a challenge. Transportation of patients——

Senator BURR. Transportation of somebody getting there.

Dr. BAILEY [continuing]. Is a challenge. There—the initial phase of our mass vaccination efforts were to bring patients to the vaccines. That phase is over, and we knew that it would not last forever. We knew that there was a lot of pent-up demand. But, now that patients that have been wanting to be vaccinated are vaccinated, now we are reaching individuals that are more hesitant. Many do not have transportation. Many may have transportation but it is limited. It has been said that over 90 percent of Americans have vaccines available within 5 miles of their home, but that leaves 10 percent out. And 5 miles can be a long way if you do not have a vehicle and if——

Senator BURR. It is a long walk.

Dr. BAILEY [continuing]. You have to walk.

Senator BURR. It is a long walk.

Mr. Chang, should we have anticipated the White evangelical resistance?

Mr. CHANG. Absolutely. The reason we started this campaign as early as end of December, even before vaccines were released, was because I think the masking controversy told us where this was headed; that the commonsense public health effort got politicized, got polarized, got used by folks trying to gain attention and trying to divide our Country and our evangelical community. And we saw that same thing was likely going to happen with the vaccine.

I would say that overall, from where I sit, the public health efforts have been amazing in terms of the logistics and the development of the vaccine. It has been slow and a little bit late in messaging. That is where I would encourage, for the rest of this campaign and for future public health efforts, to prioritize messaging as important of an investment to make as you do in the research and development of the actual vaccine itself, because a vaccine sitting on a shelf is not doing any good to anyone.

Senator BURR. Dr. Betancourt, I commend what you guys have done and, more importantly, the fact that you are thinking in the future because we will be in a situation where we vaccinate one- to 12-year olds. I am convinced of it. We have got to.

Dr. BETANCOURT. Yes.

Senator BURR. I am more curious about how in your organization, in the Workshop, you addressed this change in the life of young people in the Country.

Dr. BETANCOURT. Yes.

Senator BURR. They no longer saw their grandparents.

Dr. BETANCOURT. Yes.

Senator BURR. They no longer went to school. They no longer could go play with a friend. How did the Workshop try to present that to this population?

Dr. BETANCOURT. It was really a—we are very nimble, and we took advantage of taking the perspective of our child development and also parenting information.

We actually addressed it in phases. The first phase that we called was the "For Now Normal." And bringing two factors—how do you normalize something that is now totally changed? And, so, we helped parents establish routines while still working and learning from home.

We also started to bring the factor of joy and hopefulness, because suddenly, everything was shut down. And from a parent, and especially a child's point of view, I no longer get to see my grandparents, my friends, and suddenly, all of those connections are lost.

We used the power of our trusted Muppets in different ways, not only through our programming, but what we also do, like my colleagues here, is work with national and local partnerships to integrate these resources, so as they are connecting in the community, we are so doing, as well.

Last one is really the second phase that we are in now. It is the "Different But Before Normal." And we love these terms because they are very practical. They sort of reflect the stage that we are in. How do you adjust to what were before routines but are now very different in certain circumstances? We use animation. We use interactives. We use what we call printables, posters, to deliver consistent messages that fit into everyday moments.

Senator BURR. What I have learned is that kids are quite resilient, and adults very——

The CHAIR. Not.

[Laughter.]

Senator BURR. Very counter-resilient. But, let me just say, everything that you guys have shared with us is important, and the challenge is, for me, why are we not doing it all? Why are we not in every Black church that we can find on Sunday with somebody with vaccines and needles? Why are we not in White evangelical churches? Why are we not promoting as much to the generational mix out there? Why have we not got the full complement of doctors with vaccines in their office ready to inoculate folks?

I might add, why are we not pushing the envelope and trying to figure out how to do microneedle patches where we are not relying on a nurse that comes in and draws a vaccine, sticks you in the arm; where you could sit at church and pop these on people's arms and, for 72 hours, they get their first dose and then they come back and get a second dose?

From a technology standpoint, that is available to us, but the bandwidth of how much can you do at the same time as you are innovating? We have also got to look at the communications and the parallel delivery systems if we want to capture as much as we can.

Thank you, Madam Chair.

The CHAIR. Thank you.

Senator Hassan.

Senator HASSAN. Well, thank you, Madam Chair and Ranking Member Burr, and to all of our witnesses. Thank you so much not only for being here today, but for what you do every day.

Dr. Nichols, I want to start with a question for you. As you know, Congress has provided funding to ensure that COVID–19 vaccines are available to all individuals at no cost. However, there remains a perception among some that they will be required to pay a copay or they are going to receive a bill if they go get the vaccine. What can we be doing at the Federal level to ensure that people know that the COVID–19 vaccine is available at no cost?

Dr. NICHOLS. One—thank you for your question. So, one of the things is—I think that message is starting to get out—is to do ads that say, Go for your free COVID–19——

Senator HASSAN. Right.

Dr. NICHOLS [continuing]. Vaccine. And, so, another thing, that is the important thing, is just keep emphasizing the word that this is free.

Senator HASSAN. Yes.

Dr. NICHOLS. The other things besides, social media is just overwhelming.

Senator HASSAN. Yes.

Dr. NICHOLS. That is again where you have to go, is go into social media and keep emphasizing those words, that this—there is no cost to this; that this is our gift to you. Because so many people have lost loved ones, and, so, let people know that our gift, we are giving you a free vaccine. Thank you.

Senator HASSAN. Well, thank you. I want to follow-up, too, on a point that Senator Burr began to make because for many, there are related financial barriers associated with taking the vaccine. We talked about transportation a couple of minutes ago. There is childcare expenses, and some people are concerned if they have a reaction to the vaccine, there might be lost wages involved.

How do we most effectively acknowledge and work to address these barriers so that they do not limit the ability of individuals and families to access COVID–19 vaccines?

Dr. NICHOLS. One of the things that is important is for employers to give people the opportunity; to stress the importance that you get—if you have side effects, we give you, well, both. One, the time to go and get your vaccine.

Senator HASSAN. Right.

Dr. NICHOLS. No. 2, that we give you the opportunity that if you are having side effects, that is a paid leave; that you have the opportunity to be paid. So, that is important.

If we are going toward mandatory requirements, which many employers are doing, that those are things that you must do. So, I think, again, it is just getting the word out through whatever means necessary to let us know that we are going to support you and also your childcare issues and your child—and your transportation.

Senator HASSAN. Anecdotally, I am hearing, for instance, from some workers in long-term care facilities that they do not want to risk losing wages. When you are living paycheck to paycheck, this is a real issue. So, thank you for that answer.

I want to follow-up to both Professor Chang and Dr. Nichols. We have talked a little bit about this. You both have learned from your work and the work of countless individuals across the Country that the most effective way to improve trust in the vaccines is to meet people where they are—you have used that term several times—and engage respectfully about the safety and effectiveness of these vaccines.

The American Rescue Plan included funding to expand access to COVID–19 vaccines. So, is there anything that you have not said about how you believe we can effectively use these resources to continue and expand on your work? Just talk a little bit about what specifically you think we could use—the Federal Government could be using these dollars to do?

Mr. CHANG. Yes. I will repeat again that I think the fact that much of these faith-based outreach has been directed to minority communities, which again——

Senator HASSAN. Yes.

Mr. CHANG [continuing]. Is critical.

Senator HASSAN. Right.

Mr. CHANG. But, to—I would encourage you to redirect some of that attention and resources to the White evangelical community.

Then, second, I do think the fact that the general channeling of these resources to the state level is proving to be ineffective to reaching this particular community. I think a national outreach coordinated at a national level will be your most effective bang for their buck here.

Senator HASSAN. Okay. Dr. Nichols, anything to add to that?

Dr. NICHOLS. I echo what Dr. Chang said, that what you really want to do is a national outreach to make sure that—and like I said, do not politicize this.

Senator HASSAN. Yes.

Dr. NICHOLS. That is an important key, is that we are all working toward the same goal of decreasing deaths, decreasing hospitalization, and getting our world back to normalcy again.

Senator HASSAN. Thank you. Dr. Bailey, I want to turn to kind of a related topic. But, as you know, we have seen a concerning drop in routine pediatric vaccinations during the COVID–19 pandemic. A year ago, I sent a letter to the CDC requesting that they provide additional support to states and healthcare workers in order to reverse this trend. And, while progress is being made, many children remain behind on their routine vaccination schedule.

How do we work to catch children up on routine vaccinations?

Dr. BAILEY. I agree, it is incredibly important that we get our children up to speed on vaccinations. And there have now been advisories issued that COVID vaccines can be given at the same time as routine childhood vaccines, and, so, I think that will be very helpful in trying to get as much done in as short a period of time as possible.

Senator HASSAN. Okay. Thank you.

Thank you, Madam Chair.

The CHAIR. Thank you.

Senator Marshall.

Senator MARSHALL. Thank you, Madam Chair and Ranking Member. My first question would be for Dr. Nichols.

Dr. Nichols, one of my biggest frustrations was that we had a system in place where we would give three million flu vaccinations a day across this Country, and that system consisted of community pharmacies, health departments, and doctors' offices. And, all long, we knew we would hit this wall, that if those people were not involved with this process, we would have not good compliance with getting the vaccine. And, so, we were the last ones to get the vaccine, unfortunately.

Has that been your experience, as well, that doctors were the last ones to get the vaccine? And now, do the doctors have access to it?

Dr. NICHOLS. That is true. So, one of the things is that before, we were really—it was very important that we get the vaccines into the doctors' offices. Majority of the physicians are vaccinated. About 96 percent or so say that they are vaccinated. But, it is important to get it into the offices.

Because I was fortunate. I was one of the people who was an early adopter. And, so, we go into our clinic, and that is part of the routine questions. I ask everyone, Have you been vaccinated? So, we give vaccines while people are in the office, as well, besides going out.

It is important that you give the access to the doctors and get it into their offices so that they can vaccinate during those routine visits. For the pediatricians, during those routine health checks, that you give them their vaccines, when you go to just any other facility. So, that is key getting it into the doctors' offices because often your physician is your most trusted person that people have.

Senator MARSHALL. You bet. Thank you.

Dr. Bailey, I will go to you. Your life and my life has been centered around giving advice to patients, and we typically talk about the benefits and the risk of what we are prescribing. And for me, it was, should you have a surgery? Should you have a C-section? You prescribe treatments that can cause anaphylaxis and you have to weigh that risk-benefit with everybody.

When we started out with this process, no one worked harder than we did to make sure every American adult had the opportunity to get the vaccine. And when we sat down with people over the age of 60, it was a slam dunk, that the benefits outweighed the risk.

Now we are talking about people under the age of 21 and the benefits and the risk of the vaccine. The risk of the virus to a person less than 21, pretty small. More and more, we are seeing some concern about complications and risk to the vaccine, as well.

As you advise parents or young adults, do you feel like you have the data, the science, that you can actually have a great conversation discussing the benefits and the risk of the vaccine to give them advice?

Dr. BAILEY. Yes, I do. These vaccines have been thoroughly studied in adolescents, and we are now studying them in children. And, yes, the benefits and the risks discussion is something that definitely needs to be had. But, I think there is a general misconception among the population that children are at no risk or that the risk is so small that it is less than the risk of getting the vaccine,

and that is simply not true. Children do get COVID. Children get long COVID after having——

Senator MARSHALL. You see the science side by side that would say here is the risk of a serious complication to a person under the age of 21 versus the risk associated with this vaccine? You have seen that side by side? Because I have not seen it.

Dr. BAILEY. Well, we will be happy to share the data that we do have. But, the risks of side effects in adolescents appears to be very, very small, but we know that the risks of long COVID in children can be quite significant.

Senator MARSHALL. Okay. Dr. Bailey, would a T cell test be a benefit to you as you are sitting there considering a person, a young adult especially, that has already had the virus? Would that be a benefit to you in making—in that decision making process?

Dr. BAILEY. I think it would be helpful, but we still do not have the perfect package of laboratory tests that we can run on someone to say, You are immune, you are not immune.

Senator MARSHALL. Right, but if we had a T cell test, it would be very helpful, I think, for most doctors in giving advice.

Dr. BAILEY. It would add to our armamentarium.

Senator MARSHALL. Right.

Dr. Betancourt, as we watched, I assume—was that Elmo?

Dr. BETANCOURT. That was Elmo and Elmo's daddy.

Senator MARSHALL. Elmo's dad. One of the things I noticed is that neither one of them had a mask on, and I assume there is a reason for that because——

Dr. BETANCOURT. There was.

Senator MARSHALL [continuing]. Kids do not trust adults with—or trust people with masks on. Have you all looked into the mental impact on children by making them wear masks and adults around them wearing masks?

Dr. BETANCOURT. Yes. Actually—well, we had also PSAs on mask wearing, and particularly for children, to ease that process. And, also, we used our other character, Julia, who is an autistic Muppet who is 4 years old, and also guided mask wearing at that time.

What we do is, in this case, with the PSA, it was focused on vaccine. It was indoors, and it was, again, parent, child, so the use of—mask wearing in that context would not be the modeling that we would use. The focus was on the vaccination.

Then last, also in that case with the PSAs and transparency, with any Muppet speaking and with the mask over it, it is going to be a little harder in voicing. But, regardless, in that situation, mask wearing was not necessary.

But, we have advocated for, again, the process of easing mask wearing when it was necessary, and how to take that child's perspective to do so. But, also, now what we are dealing with is also how do you transition into the stages where you are not having to do mask wearing. So, we are tackling both. Our focus is how do we ease transitions in a child-appropriate way.

Senator MARSHALL. Okay. Thank you. I yield back.

The CHAIR. Thank you.

Senator Casey.

Senator CASEY. Thank you, Chair Murray. I want to thank the panel for their presence here today and the message you are deliv-

ering. Just your presence and your testimony today and the answers to your question is helping to get the word out.

I will start with Dr. Nichols and, of course, would open this up to others, as well. But, I want to talk to you about people with disabilities as a particular community.

You have great personal experience with family medicine and providing healthcare access across a number of communities. One of them—one of the communities that is often neglected during not only this public health crisis, but others, is people with disabilities as a community. Because of their primary disability or secondary health conditions, they are often at greater risks than others. In fact, during the height of the pandemic, people with developmental disabilities, such as Down's Syndrome, had the highest mortality rate, other than those 75 and older.

Communicating the importance of becoming vaccinated in people with disabilities is, of course, complex. Communication methods needed to take into account including accessible video with sign language interpretation and plain language documents so that someone needing kind of jargon-free descriptions can understand information. You mentioned, and others have, as well, and we cannot say it enough, meeting people where they are, as you have said, on their vaccine journey.

The question I have is, how should we be communicating with this particular community, which is diverse, the disability community, and ensure they receive the information that is necessary about vaccinations?

Dr. NICHOLS. Again, thank you for the question. You hit on a great topic as far as getting to people with disabilities. One of the things is, again, through the physician's office is to ensure that the vaccines are available in the physician's office so you can reach the disabilities. Also, going in, too, if there are places—like we go into our senior homes. So, I am going Wednesday to go and vaccinate within the senior community. So, also going.

We have also—I believe in making it easy as possible. Not everyone can get in a car. And, so, that is something that you have to do as far as going to them. That is what our mobile program is about.

Also, you touched on a great area. Make sure you have the information in multiple languages. Multiple languages, also sign languages, to make sure that people understand. And that is why with the face masks—so, that is a good thing because people who are deaf, they cannot—they do not know what you are saying. So, before, it was important to use the clear masks, but now, since most people are vaccinated that are providing the vaccines, is to make sure that you make it easy for them to read your lips, and also to have the ability to have the sign language available, as well.

But, I think the key is going into the physicians' offices so that they—because they are the ones with the direct interaction with the patients.

Senator CASEY. Anybody else on this question from the panel?

I was going to move to Dr. Betancourt on children—of course, that is your area of expertise—and hesitancy. We have also seen major disparities in the vaccination rollout to date, and particularly

when it comes to vulnerable children getting left behind as more children become eligible for the vaccine.

We have to address, of course, the concerns of parents who are hesitant to get their children vaccinated, and we have to do that, as you and others have talked about, through thoughtful and culturally appropriate community engagement.

What are your thoughts on how we can best engage families, particularly families that have lots of challenges, to help parents make informed decisions?

Dr. BETANCOURT. Yes, it is a couple of things in terms of more marginalized communities, and we always address that as we are developing any of the content that we have discussed.

It is two ways. One, it is looking at the other trusted sources. We have discussed a lot in terms of the medical or healthcare community and its diversity, whether it is the pediatric community, whether it is public health clinics, and making those connections. But, it is also the messaging.

As we have said, for younger children, it is going to be a little bit of a challenge. As we discussed, many times that perception is that they are fine. And, again, it is twisting the messaging a little bit.

How do you, again, try to leverage what we are calling a circle of care, a circle of safety in that care? How do we encourage not only the vaccination, but I think returning to a medical home? Most marginalized families, and many families, have been separated from their medical home.

How do we unite what we call the key influencers in young children's lives? So, it is the healthcare community. It is also the early childhood community. It is the faith-based community.

Our belief is, to make a difference, you need to message with similar messaging across all those groups where they are, but with similar approaches. Use social media or use posters. Use a variety of elements. Use audio, as well. Radio. We have created our PSAs so that they are available also in audio formats. We also close caption, both in terms of visual and auditory, to make sure that everything is also accessible as much as possible.

Last, version it as much as we can into a variety of languages that are culturally relevant.

Senator CASEY. Thank you.

The CHAIR. Thank you.

Senator Paul.

Senator PAUL. Dr. Bailey, I agree with you that misinformation is leading to vaccine hesitancy, and I think probably the largest area of misinformation is actually coming from the government regarding natural immunity. There is actually dozens and dozens of peer-reviewed articles on natural immunity. The natural immunity is robust.

A study from Washington University School of Medicine just recently says, Mild infection with SARS-CoV–2 induces a robust antigen-specific, long-lived humoral immune memory in humans.

Cleveland Clinic study, 50,000 employees showed that those who had the disease previously had the same, if not better immunity than those who have been vaccinated.

If we deny this and we say, stick your head in the sand, everybody be vaccinated, do not worry your pretty little head about whether you have had it or not. We do not do any testing. We have lots of ways of testing for immunity. Guess what? The government—the people are going to have hesitancy because they think you are not telling them the truth, which is true. That is not the truth. We do know that you get robust immunity from this.

We also know that, even taking conservative estimates from the CDC, that about 100 million people have had this. How do we know that? Thirty-four million people have tested positive. But, even the most conservative antibody surveys show that at least two people for every one that got it, also had it. That is 100 million people.

If we discount that, we say, oh, we are never getting to herd immunity. You have all these articles saying we will never make it, we will never make it, we do not have enough people vaccinated. But, then we say, oh, we have to go harder. Now we are going to have to go for the 10-year old, then the 5-year old. Then we are going to go for the 2-year old. Then we are going to say, oh, you cannot leave the hospital until you are vaccinated.

People are going to be hesitant because they do not believe you and they do not believe that the risk of the disease in children anywhere equates to adults. Over 65, it is at least a thousand times more dangerous. The death rate under 25? About one in a million.

If you combine natural immunity with vaccine immunity, Dr. Makary of Johns Hopkins estimates that 80 to 85 percent of adults have immunity and that we have reached herd immunity. Yet, the government insists on discounting or really not counting at all the millions of individuals who have acquired natural immunity. This scientific error causes the government to believe that we have not gotten there, that we have to go harder and harder and harder.

There are reports of myocarditis. It is not decided yet. We are in the means of talking about this. And, if we just say blithely, go take your vaccine, do not think about this, that is not good medicine. We should think about it.

I do not know what the risk is. It may turn out that it is one in 10 million, and then, by all means, I would say go. If you are over 65, I would say without question, the vaccine is way safer than the disease. But, I cannot say that with assurety for a 10-year old. I really cannot say that.

I also cannot say that we have not reached herd immunity, and that we are pushing so hard on the kids that we might do damage to children with this. It is an unknown question. The science is not completely done on children. They are discussing it this week.

How frequent is myocarditis? We do not know that. If it is one in 100,000 and the chance of myocarditis in the normal population is one in a million, I would probably say you ought to think twice about it.

But, another way to do it is, we could test the children. We could test the adults. If they have antibodies let them make a choice. Let them make an intelligent choice. Some people will still choose to be vaccinated. But, we are so adamant, get the vaccine, do not think about it, that leads to hesitancy because people do not think

we are following the science or that people who give that advice are following the science.

My question is, should previous infection not be considered in the effort to push vaccination on our children?

Dr. BAILEY. Yes, I think previous infection should be considered. I also think that we need to understand that a previous infection is not as robust in protecting against new variants as——

Senator PAUL. We actually do not know that.

Dr. BAILEY [continuing]. The vaccines seem to be.

Senator PAUL. We actually do not know that. All of the testing on natural immunity and the vaccinated has shown that we have great immunity both with the vaccine and with natural immunity.

The Delta variant that everybody is talking about, the vaccine is very good for it. So, you see hysteria on TV. We are driving—we are still driving this debate by the hysteria of the Delta variant.

If you get vaccinated, there is a 96 percent chance you will not be hospitalized. The numbers are very similar for natural immunity, too. This what if, what if, what if has been played, but it is just not true and we are scaring people needlessly. We should study it honestly in a rational fashion and give people advice, but we should not be pushing people, do not think about it, just take a vaccine.

Dr. Bailey, failure to acknowledge natural immunity has led to the policy of indiscriminate vaccination. So, when we do this, we divert the vaccine from those who truly need it.

In India, getting to herd immunity may take a couple of years. Six thousand people are dying a day recently, and they are taking the advice of the government experts in our Country that they should vaccinate everybody indiscriminately. In doing so, tens of thousands, if not millions of Indians will die because you are going to have millions of people who have already had it. If you could get the vaccine to those who need it more, you will save lives. It is the same way with diverting it to those over 65. In my community, in this Country, we are giving it to young, healthy 28-year old volunteer firemen. That makes no sense at all.

Do you think in countries like India we should take into account whether you have had it to try to make the vaccine go farther so we could save lives?

Dr. BAILEY. I cannot comment on vaccine administration strategies in other countries. I do know that——

Senator PAUL. It is the same as ours.

Dr. BAILEY [continuing]. We need to be a good part of the global community and provide as many vaccines as we are able to make—after we have taken care of our own population, which we have plenty of vaccine for.

The CHAIR. Thank you.

Senator Baldwin.

Senator BALDWIN. Thank you, Madam Chair.

Last fall, a green bean canning plant in Wisconsin experienced a COVID–19 outbreak that killed at least 11 migrant workers. COVID outbreaks hit food-processing facilities in my home state especially hard. And I am increasingly concerned that many workers, who often live and work in crowded settings, have not been vaccinated.

Dr. Nichols, can you describe the specific barriers that wage workers, particularly workers of color, face when it comes to getting vaccinated? And what should employers do to make it easier for workers, including seasonal or temporary workers, to get vaccinated?

Dr. NICHOLS. Senator Baldwin, thank you for your question. You bring up a great point. One of the things that we are doing is going out to the agricultural migrant, agricultural workers to get vaccinated, and we are taking our mobile unit out to them so that they can get vaccinated. So, I think that is one of the important things that partnership. So, you can partner with the various companies to vaccinate their workers.

We have also talked to other companies and vaccinating like the grocery store workers, the people that work at the different organizations, such as the food services, and said that we are here, and if you want a partnership, we will be willing. So, that is one of the things that the employers need to partner with those who have the vaccine.

We have an abundance of vaccines now. We are looking to put shots in people's arms. So, I think that is something that we need to do, is go out to the different organizations, the different companies, so that you can get those essential workers vaccinated, and make it convenient. Because you have to go to them. They cannot necessarily get off to come to us, so you have to go to them. And, so, I think that has been the key. Thank you.

Senator BALDWIN. Thank you. I appreciate that response.

As my colleagues on this Committee know, throughout the pandemic, I have called for the Occupational Safety and Health Administration to issue an emergency temporary standard to protect our Nation's workers. The Trump administration failed, did not work on this at all. And while the Biden administration has finally issued a standard, it really does not protect all workers, including those in food processing. The lack of a comprehensive workplace safety standard for all of our Nation's workers and lagging vaccination rates should concern us, and we really must do more.

I am now going to turn to a pervasive problem of misinformation in Wisconsin. While 45 percent of Wisconsinites are now fully vaccinated, this figure is only 29 percent for Hispanic individuals in my state. One of the factors that has been cited by the Wisconsin-based group, Forward Latino, is—as contributing to this hesitancy is a widespread concern that a state-issued ID is a requirement to receive the vaccine, which it is not.

Dr. Nichols, how can we combat vaccine hesitancy in underserved communities, particularly when that is based on misinformation and fear, widespread rumors like this one that I describe? And further, how can the Federal Government best support communities in addressing the vaccination disparities and other public health challenges?

Dr. NICHOLS. Thank you for the question. I think that is a really good point. We engage the consulates because one of the things that we found, that they are—people are most trusting of going into the place, and we actually went to the locations. So, we have been going weekly to the Mexican consulate, and now we are going

to others. So, it is important that you go to the location. We partner with them and you go out so that people go to a trusted entity.

That is the key, because unless they trust you, they will not come, and they will think that it is a conspiracy or that there are other things that are waiting there. So, you cannot just say come to this vaccination site.

We also tell people we do not require your ID. We just—if you are going to do the two-shot vaccine, we are just saying that whatever name you give right now, make sure it is the same one so we can document it. But, we do not require that they give ID because that will—that is a limiting factor for a lot of people. So, we rest assure and we make sure there are translators that are available so that they can speak the language and tell them that this is free, that this is safe, and that no one will come after you because of your status. Thank you.

Senator BALDWIN. Thank you.

The CHAIR. Senator Tuberville.

Senator TUBERVILLE. Thank you. Thank you all for being here today, and I would like to say thank you for your commonsense approach. We have not had a lot of that up here since this pandemic. And I will say this, too, that when we put politics into this, which we have—it has been heated up with politics, this whole pandemic. People back in Alabama, where I come from, do not trust a lot of things that are going on because they do not understand because they have been told so many different things from CDC and everybody that works for the CDC, and it just has not been a commonsense approach. But, thank you all for being here today and doing this.

We are trying to get everybody to take the vaccine, and everybody in here over 50 should have taken the shingles vaccine. Everybody in here. I have not taken it. I am much over 50, and I have seen people with shingles and, my God, we just keep putting it off, and that is something Americans do. They think that they are not vulnerable to something like this, but they are.

Ms. Bailey, let me ask you this. Back in April, we—J & J, they had a 10-day pause. Now people back in Alabama ask me, Coach, why should I take this vaccine, this J & J? They stopped it. They are scared to death of it. I do not know why we—did you agree with them making the pause to that?

Dr. BAILEY. I believe that the pause that was taken with the J & J vaccine was a sign that our system of detecting what we call safety signals or adverse effects is working. And, I think it was a serious enough issue of having blood clots in the brain that we really needed to look very carefully at what was going on before we decided to go forward out of an abundance of caution. I think it was a reasonable thing to do, but I agree that it planted some seeds of hesitancy in some folks.

But, the fact of the matter is, is that all vaccines have had some reported side effects, but we have always felt that the benefits of the vaccine outweighed the risks. And the beauty is that if someone is of this certain age group that is affected by the J & J vaccine issue with blood clots, especially women of a certain age group, they have choices. The mRNA vaccines are not associated with

those types of blood clots and, so, if someone is concerned about that particular vaccine, they have a couple of great choices.

Senator TUBERVILLE. In Alabama, we have only had 30 percent of the people that are fully vaccinated, and one reason why we got hammered early with the COVID. A lot of people had it. And—but, they see all this information on television. If you have had it you really do not need the vaccine. What would you tell these people?

Dr. BAILEY. Well, I would tell them that they do need the vaccine because I am a belt and suspenders kind of person. I believe that COVID is a bad enough disease that it is worth doing everything you possibly can to keep from getting it and to keep from spreading it to someone else that you love, which you can do with an inapparent infection. And, so, I believe people—and I agree with the authorities, that people that have been diagnosed with COVID should be vaccinated. They should get the second shot if appropriate, and should do everything humanly possible to stop this pandemic in its tracks.

Senator TUBERVILLE. We hear of a booster getting ready to come out for the fall. How are we going to sell that?

Dr. BAILEY. Well, we will have to kind of wait and see what happens. I think we need to have the data to show folks that it really does make enough of a difference to justify getting all these folks in to give it to them. But, I certainly would not do, personally, a big booster campaign until we had gotten the first batch of folks vaccinated in the first place. I think our emphasis should be on complete vaccination for the first time around of the general population before we start worrying too much about boosters.

Senator TUBERVILLE. Thank you.

Thank you, Madam Chair.

The CHAIR. Senator Hickenlooper.

Senator HICKENLOOPER. First, I want to thank all of you for your—not just for your time here today, but for your efforts and your public service. And this has got to be one of the hardest things that we, as a Country, have gone through going back all the way probably to the Second World War.

I was in Aurora, Colorado last week with Secretary Becerra, Senator Bennet, Governor Polis, members of the entire congressional delegation, and looking at these same issues that you are getting questions on and asking. We were touring—looking at a—getting a tour of a bus, as you guys have described, but a bus that goes to those communities that we are having the most trouble getting people vaccinated.

I think maybe I will start with Dr. Nichols, if that is all right. I think it is critical that what we have learned about the health disparities from this pandemic that we use that to better inform our healthcare efforts to communities of color and any community where we see these inequities. You talked a little bit about robust public education as being part of the major lesson learned.

How can we, at the Federal level, boost public health education efforts starting now so that we can—what specifically should you be telling us to make sure we are ready for the next pandemic, which, whether we like it or not, we know is going to come?

Dr. NICHOLS. Thank you for the question. So, one of the things that we really can do to boost this through public education is to

do targeted campaigns. There are a lot of lessons learned, and we need to let people know that these are the lessons learned from this pandemic because there might be another one. There most likely will be.

With that in place, then what we need to do is say lessons learned is, one, is that as soon as you—this, any type of virus or infection hits us that you hit it hard and you hit it fast and you hit it as soon as it occurs.

No. 2, that one of the things that you need to do is that—meet people where they are.

I keep saying you cannot politicize this. This is an effort that is affecting all of us. It does not matter if you are Republican, Democrat, or Independent. This is going to—or Black or Brown or whatever. This is something that has affected all of us.

What we want to do is to say our goal, as a Nation, is to protect our citizens. And, so, that is what I think we need to get out there, is the importance of protecting our citizens and getting people, meeting them where they are, and educating them through every avenue possible, and in every language. Thank you.

Senator HICKENLOOPER. Great. And Mr. Chang, I will ask you just to comment on that, as well, just from the outside of government. Obviously, the—and there is, I think, a significant amount of evidence that it is not politics that are—as a major reason why many people are choosing not to be vaccinated. It is more in that framework of their own autonomy and who they do trust. Do you want to maybe address that in terms of preparing for the next pandemic?

Mr. CHANG. I think one of the things that the Federal Government should think about and putting in its toolkit to prepare for the next pandemic is to develop a roster of trusted faith leaders they can convene very quickly and early on to bring them together to have a unified message.

If you look at what happened with White evangelicals, what happened was individual leaders had to take the position at different times to speak out on this, and then it got slammed by the opposition. So, Franklin Graham did that, got killed on social media. He withdrew and went quiet for a while. J.D. Greear, the former president of the Southern Baptist Convention, then stepped up. He got slammed on social media.

This was one by one, they were coming forward, and all of you, know what that is like, to be the lone target out there. And, so, if the Federal Government had enough foresight to actually do the convening work of bringing leaders together, because unfortunately, the evangelical church does not convene itself very easily. It is a very, by design, a sort of decentralized movement, so it requires an outside body, like the Federal Government, to convene these folks together, let them present a united front. They were there. They just could not bring themselves together to form a united voice. They needed the government to help them.

Senator HICKENLOOPER. Absolutely. I think that is a good point.

Dr. Bailey, the numbers from the United Kingdom on the Delta variant are obviously very concerning to all of us. It now accounts for 90 percent of new infections there, and obviously, whether it is

10 percent or 15 percent now in the United States, who knows how rapidly that is going to grow. Clearly, it is going to spread rapidly.

Given our current rate of vaccination, do you think that we will get to a similar impact from the Delta variation, similar to what we are seeing in Great Britain?

Dr. BAILEY. I certainly hope not. We have been in a footrace with variants from the very beginning, and right now I think we are outpacing them because we have had good vaccine uptake.

But, I think it is important to understand that the vaccine strategy in the U.K. was very different, in the vaccine strategy there. And the U.K. decided to delay the second vaccine in patients in order to get the first vaccine in as many people as possible. And we realize now that is not the best way to fight variants, that you need to get as many people vaccinated on time, with both doses, if you are—if that is the vaccine that you are dealing with, which is the best way to fight the variants.

I think we are better prepared to fight the variants.

Senator HICKENLOOPER. Great. Well, I appreciate that. I hope you are right.

I yield back. Thank you all.

The CHAIR. Thank you. Senator Smith.

Senator SMITH. Thank you so much, Chair Murray and Ranking Member Burr. I really appreciate this hearing. It gives us all an opportunity to kind of dive into where people are on the spectrum of acceptance versus I am not really sure to sort of a hell-no mentality.

As of yesterday, 54 percent of Minnesotans have received at least one dose of COVID–19; 51 percent have been fully vaccinated. And we are making good progress in Minnesota, but we have a ways to go to get to where the Governor has said is our goal in the state of 70 percent.

I have a few questions that I hope can kind of clarify some of the misinformation that is out there, and also help us understand what more we need to do.

Let me just start, if you do not mind, Dr. Bailey. I just want to start with you because Senator Paul interrupted your comments regarding the efficacy of the vaccines compared to immunity when people are exposed to a new variant, like the Delta variant. I just wanted to give you an opportunity to finish your thought.

Dr. BAILEY. Oh, well, thank you, Senator. I appreciate that. And my interpretation of the literature—and it is vast, and there are so many thousands of studies that are available now for review. We have to be able to put them together. But my understanding is that adequate vaccination with both mRNA vaccines or the Johnson & Johnson vaccine gives you better protection against variants than natural immunity does.

Senator SMITH. Okay. All right. Thank you. And, so, the COVID–19 vaccines do protect against the Delta variant is what the science tells us right now?

Dr. BAILEY. Yes.

Senator SMITH. Okay. Thank you. That is very helpful.

Dr. Nichols, can you just quickly sort of say, what do you think are the biggest structural barriers? Meaning there are reasons that people do not get the vaccine not because they do not want to, but

just because they cannot—they cannot make their lives work to get the vaccine. What are the biggest structural barriers?

Dr. NICHOLS. Transportation is one, so that is why I say it is important to go where people are.

Senator SMITH. Right.

Dr. NICHOLS. The other one is hours. Some people work two, three jobs.

Senator SMITH. Right.

Dr. NICHOLS. You have to make sure that the availability is there at all hours. And I really appreciate now the pharmacies and some of the grocery stores are extending those hours for up to 24 hours.

Senator SMITH. Yes.

Dr. NICHOLS. You have to make sure that—those are the main ones.

Also, before structural barriers happened to be internet and computers, so that is why it is important to make sure that when people were making appointments that you made it easy. So, now people do not have to make an appointment. You can just walk up.

I think that those are things that we are seeing are true that were barriers before that we are helping to overcome. But, the main thing is making sure that you are there and make it very convenient for everyone.

Senator SMITH. You are going where people are. You are help—you are just—you are not assuming that everybody has the, has the wherewithal if they are working three jobs to get someplace.

What do you hear are the kind of the most common myths, just the flat out, not true but get repeated, that you hear about why people are thinking the—why not? Why not get the vaccine, the most——

Dr. NICHOLS. My young people, my early 20-something people, a lot of them are talking about infertility.

Senator SMITH. Yes.

Dr. NICHOLS. I told them that is absolute—that does not go with the science. That is a very common one that—that is probably the most common.

Another one is the myth that people say, oh, I already had COVID–19, so therefore, I do not need to be vaccinated. But, there are people getting the—getting COVID for the second time around, and there are variants out there.

Those are the really big two myths. And then the whole thing with Johnson & Johnson. People say, Remember talc powder, so I have to then remind them that this is a very safe vaccine; that this is a vaccine that has gone through all the rigors and the science and everywhere else. So, those are—I just hit them with the facts and the data and the science.

Senator SMITH. Very helpful. Dr. Bailey, are there other myths that you have heard repeated frequently that are different from what Dr. Nichols just laid out?

Dr. BAILEY. There is a common, almost an existential, concern that something that we do not know about is going to happen down the road; that, well, how do I know that if I get this vaccine today that I am—something is not going to happen to me in 5 or 10 years.

We have decades of experience with dozens of different types of vaccines, and we have never seen a vaccine cause a distant side effect past about 6 weeks of administration. So, we feel very comfortable about that. There is no reason why COVID vaccines should be any different. But granted, the farther you are from getting the vaccine, it is going to be to correlate an event to that vaccine. But, so many events that have been reported are coincidences and not causal, and it is hard to explain to folks that just because something happened near the time of the event does not mean the vaccine made it happen.

Senator SMITH. I know I am out of time, but that—is that data essentially also true when you are talking about vaccines for young people as well as older people? So, it is not like there is some sort of a different set of data for a young person?

Dr. BAILEY. That is true, Senator.

Senator SMITH. I think that is very helpful, just to remind people that we do have science and facts and data that back up what we are doing. And it is good to help to speak out against these myths that get repeated over and over again.

Thank you. Thank you, Senator.

The CHAIR. Thank you.

Senator Murphy.

Senator MURPHY. Thank you very much, Madam Chair. Thank you all for your testimony. I have been listening to a lot of it from my office.

Dr. Nichols, I had a really interesting conversation yesterday—I put it up on my social media channels—with the Student Body President at the University of Connecticut, talking about the specific challenges around vaccinating students. And I wanted to sort of ask for your opinion about how we build out best practices to make sure that college students are ready to get back to school in the fall.

Data suggests that less than 40 percent of 18 to 29 year olds have received one or more doses, and there seems to be some differences with respect to how colleges are treating this issue. In Connecticut, for instance, our flagship university says everybody has to be vaccinated and have proof of vaccination in by the end of July, but our state university systems have not made a decision yet. And, so, it is confusing to students because some may have a requirement to get a vaccine, but other students may not. In addition, the requirement seems to be that a lot of the proof come in during the summer, which means students may not get to do this while they are on campus.

I know you have been leading a lot of Morehouse's efforts in this regard. What do we know about the specific challenges related to getting students vaccinated, and what can we recommend as a Committee to schools and to school associations to make sure that there is some degree of uniformity in terms of what we expect of kids to get back onto campus?

Dr. NICHOLS. Thank you for the question. So, it is very important that we, again, provide the data and the information to the students and to the administrators on vaccines.

Also, doing town halls and panels—I have one coming up on Thursday—where you talk to them, to the parents of the students about vaccine safety.

Right now, over 500 colleges and universities have made it mandatory. I think that—I personally think that is the right thing, but not everyone is ready to get vaccinated. And there are ways—some people have religious reasons that they feel that they cannot be vaccinated. Other people are medical reasons. So, you do give that option.

But, I think the important thing is to talk about so you can get back to normalcy. Many of the people that are now college-age kids, they did not have a normal experience. They were not able to have proms when they—if they were in high school, or even to have normal graduations. So, I think that one of the things that you have to explain to that age group, which is a very difficult group to talk to, is—because they are young, and they think they are invincible. So, it is to say that this is your opportunity to get back to normalcy, not to wear a face mask, to be able to get out toward your friends. But, also, to give them the data, because these are college kids. So, to make sure that they have the data and the science to show the safety and the rigors that were involved with this vaccination process.

I think that we are on the right path, but I think that we, as an institution, must talk to all the colleges at the administrative level, to the parents of those students, and to the students themselves. Thank you.

Senator MURPHY. Just food for thought. One of the things that the student body president wanted to make clear is that there needs to be safe space for questions to get answered, and sometimes there is a feeling that students are maybe going to be looked down upon when they sort of ask some basic questions about the vaccine. They are always a little careful, right, in not wanting to sort of look foolish or look like they do not—are not as plugged in. We need to make sure that nobody feels bad about asking questions because we have answers. That is the good news.

Dr. NICHOLS. I tell everyone there is never a stupid question. So, I always tell the students, I really want you to ask those questions, and we need to answer it in ways that can relate to them. And social media is very important in that age range, as well.

Senator MURPHY. I know we have a bunch of people that want to ask questions and we are going to have votes, so I am just going to submit a question for the record to you, Dr. Bailey.

I am really interested in some of the comments you made in your opening statement about the dangers of misinformation. And I am working on legislation right now with the American Medical Association that would set up an interagency effort housed within the U.S. Department of Health and Human Services to try to bring together both government agencies, think tanks, academic institutions to both track and evaluate misinformation. Sometimes it is difficult to sort of know what to label as misinformation. And I look forward to working with you and others as we try to work through that legislation.

Dr. BAILEY. Thank you.

Senator MURPHY. Great. Thank you, Madam Chair.

The CHAIR. Thank you.

Senator Kaine.

Senator KAINE. Thank you, Chair Murray, and thanks to the witnesses. This is fascinating.

A couple of quick research questions. So, as I am trying to make the case to my constituents to get vaccinated—and yesterday, our Governor announced that Virginia has just crossed the 70 percent mark on at least one vaccination, which is great—I point out it is effective in stopping COVID if you have not had it. But, there is also two other benefits that I cite based on some initial studies, but I wonder if I am on solid ground in talking about this.

The vaccine is not 100 percent effective, so someone can get the vaccine and still get COVID. But, it does seem like that there is some evidence that if you have been vaccinated and you get COVID, your symptoms might be lesser. Is that a fair statement of the kind of early evidence that is emerging, when people get vaccinated and then get COVID, it tends to be less serious cases?

Dr. BAILEY. That is true, and people who are vaccinated are very unlikely to be hospitalized, and in some situations, it prevents death entirely.

Senator KAINE. That is very, very powerful because obviously, some—I had COVID. I was not hospitalized. The difference between not being hospitalized and being hospitalized, and being hospitalized on a ventilator, serious issues, is very stark, so that is a good piece of evidence for being vaccinated.

Second, there is also some suggestion that people who have had COVID and are suffering long COVID symptoms, which might be 15 to 20 percent of people who get COVID, there is some, again, articles suggesting that some of the long COVID symptoms disappear upon vaccination. And, again, I have seen that reported in media. I do not know if there has been enough research on it to kind of validate it. But, what is the current state of play on that?

Dr. BAILEY. Senator, I have heard the same things that you have, and there have been some case reports of patients with long COVID whose symptoms have improved after vaccination. That is still under study. We do not really know enough about long COVID itself to understand what makes it better or what makes it worse. But, the few case reports are encouraging.

Senator KAINE. That is also positive. So, I think there is multiple reasons to get it.

Dr. Bailey, I have focused some significant attention upon vaccination of pregnant women and wanted to make sure, A, that it is safe; B, that they have access and that there is an effective take-up rate among vaccines. So, what are you able to tell us, again, based upon kind of the initial experience—and I will open this up to anyone—about the safety of receiving COVID–19 vaccinations during pregnancy?

Dr. BAILEY. There were a number of women in the clinical trials, who became pregnant after they had received the COVID vaccine, and did well. There was one pregnancy loss, but that turned out to be in the placebo group, not among the group that received vaccines. There are—the American College of Obstetricians and Gynecologists now recommends that pregnant women get the vaccine. We know that pregnancy is a somewhat immunocompromised state

in and of itself, and pregnant women are susceptible to more severe disease if they contract COVID–19, so we believe it is important to immunize pregnant women. And, those antibodies will transfer to the baby, and, so, the baby will have some degree of protection, as well.

Senator KAINE. Excellent. Thank you.

Mr. Chang, I found your testimony fascinating. I read the written version of it because I was not here during your opening. I was at an Armed Services Committee hearing. You point out that a path to greater vaccination is through the White evangelical church. You have two kind of recommendations, one of which just seems unassailable—find trusted leaders, evangelical leaders, and gather them together so that when there are messages about vaccination, people are hearing them from the folks that they most trust. And I think you have all sort of testified to this—you have to meet people where they are rather than expect people to come to where you are. So, whether that is outreach in minority communities, evangelical communities, that sounds like a really good strategy.

But, the other sort of half of what you said is that sort of a mistrust among evangelicals for sort of governmental authority. And over the course of my public life, that has puzzled me. I had a pivotal experience of living in a military dictatorship in Honduras when I was young, 1983, 1984. So, I guess I saw what a really bad government can do, and it gave me a perspective that our government here, our small-d democracy, certainly is not perfect, but I can—I see how it is elsewhere. So, while I never hesitated to criticize authority, I have a sort of deep appreciation for how lucky we have it compared to elsewhere.

What are strategies that we ought to be embracing to try to bring down that mistrust? In addition to using trusted messengers, what are things that we, as officials, could do to start to tear down slowly that mistrust?

Mr. CHANG. That is a great question. And I think one of the things that I have been trying to do is to actually teach my fellow Christians that institutions are people, too. Institutions are comprised of people, that they are human. These are human institutions, and therefore, they are going to be flawed. And I think part of the problem is—for evangelical Christians is we are in some ways hyper-individualistic. It is probably built into our faith. It is sort of me and God.

Senator KAINE. Personal relationship.

Mr. CHANG. Personal relationship. And the idea that actually, also, human beings also comprise institutions is something that is not very strongly taught in the evangelical community. But, it is critical because if we do not think of institutions as human, then when they do change their mind, we think those institutions are just—cannot be trusted, whereas we are Okay with individuals changing their mind. We somehow are not Okay with institutions changing their mind.

A lot of when we say, well I am hearing so many different things from the CDC, it is because the CDC is made up of scientists, who are human beings, who are responding to new information and new

data and are changing their mind and may not get it right from the first time.

I think certainly within the evangelical community to humanize institutions is critical. And, then, from the vantage point of public institutions, the more you can present a human face behind the institutions, the more that I think that sense of humanity can come through.

Senator KAINE. Thank you very much.

Thanks, Chair Murray.

The CHAIR. Thank you.

Senator Braun.

Senator BRAUN. Thank you, Madam Chair.

My first question will be for Dr. Betancourt. Back in Indiana recently, Indiana University, flagship institution, required students and faculty to be vaccinated before they could return. I have a simple question. Do you believe that American citizens have a right to privacy about their own healthcare?

Dr. BETANCOURT. In—I would think so, absolutely. And from a Sesame Workshop point of view, we do focus on our youngest children and the grownups who make decisions for them, and we know that in terms of privacy or any—that is extremely relevant to their questions and also their information gathering.

Senator BRAUN. Do you think that would also apply to adult college students and faculty, as well?

Dr. BETANCOURT. From a Sesame Workshop point of view, I would say that is a little higher, but I would say that our experiences many times on what applies to young parents making decisions about their children also applies to, again, older college—college-age students or youth.

Senator BRAUN. To zero in on, then, do you think that you need to have a proof of vaccination as a condition for enrollment?

Dr. BETANCOURT. That is beyond—I am going to be honest. That is going to be beyond our Sesame Workshop decision-making. Our focus is basically how do we promote the awareness of vaccination as being something for not only in the moment, but also for your future. So, what I would take into context is that college students come from families, and our message is that, as a family, you are making a decision for safety, for also hopefulness for the future, and that there is advantages if you do that holistically. Regardless of whether you are a college student or you are an essential worker or anything like that. So, our messaging is more in that context, and hopefully it is creating what we have often called that circle of care.

Senator BRAUN. Thank you. Next question is for Dr. Bailey.

Clearly, I think the biggest variable that has gotten this in the rearview mirror was the speed at which the vaccine was developed. I remember interviewing Dr. Fauci and Dr. Collins and Redfield back then, and there was kind of a wrestling match in terms of which bureaucracy was going to lead the dynamic. I think had that gone according to normal procedure, we could still be wrestling with having that vaccination being done. And it was a tribute to the entrepreneurialism in the industry and the agility, I think, of the Administration at the time.

Do you think that, when it comes to something as simple as trying to get people comfortable with vaccinations, that maybe time spent better by the Biden administration to where it would have educated folks on the vaccine instead of still weighing in on mandates and shutdowns and things maybe not directly related to what was going to probably be the only thing close to a silver bullet of getting this in the rearview mirror? Did we waste time?

Dr. BAILEY. That is a difficult question to answer. And I do believe that one of the issues that my patients have concern with is that they feel that the vaccine was rushed, that it was made too quickly. They need more information about that. And I always take great pains to explain to them that the beauty of Operation Warp Speed was that no corners were cut. No scientific rigor was left on the table; that the companies were given the financial security to be able to do this very quickly because there were a whole lot of real smart people and a lot of money involved, and they were able to get it done in an amazingly short period of time.

We can never stop talking about the importance of reviewing vaccine safety and efficacy and how these vaccines have gone through incredible clinical testing and is, I think, one of the greatest scientific achievements in our lifetime.

Senator BRAUN. Well, very good. I think that is well said. How about going forward? We are seeing now variants. I watched something over the weekend where they were talking about using mRNA technology to maybe apply it toward fighting cancer in a particular way. And, also, to where it might end up playing into going about contriving, creating therapeutics versus just vaccinations because it looks like this could be repeating itself through variants, maybe get to where it is in a rhythm similar to how we wrestle with the common flu. Where does emphasis on therapeutics fit in to the long-term journey of how we deal with and live with the coronavirus?

Dr. BAILEY. I believe that is an incredibly important area to pursue because I think all of us acknowledge that, although we want to get as many people vaccinated as possible to get past the pandemic, that COVID is probably always going to be with us in some way, shape, or form. And we need to learn better how to treat COVID at early stages, to keep it from progressing to hospitalization and death in someone that hasn't been immunized, or in a new variant that may be resistant to vaccination. And mRNA technology in and of itself is absolutely mind boggling in its potential across all specialties of medicine. And, so, I think that it is important for us to make sure that we continue to focus on research for therapeutics, research for diagnosis, research for care, for vaccination, and for long-term complications.

Senator BRAUN. That is good to hear that you think that might make sense because it seems like that is going to have to play into the formula in the long run. Thank you.

The CHAIR. Thank you.

Senator Burr, do you have any additional comments?

Senator BURR. Just two quick ones, Madam Chair.

Dr. Bailey, if a patient diagnosed with pancreatic cancer was provided a cure delivered on a mRNA platform today, do you think

they would be as reluctant to take it as they are a vaccine on an mRNA platform?

Dr. BAILEY. I am not a cancer specialist, but my experience is that when patients are really desperate for help, they will take risks that they might not take otherwise.

Senator BURR. Isn't part of the problem that we have is that some people believe that this is not as bad as what we have suggested?

Dr. BAILEY. The disease of COVID is not as bad——

Senator BURR. Right.

Dr. BAILEY [continuing]. As we have suggested? I believe—I worry about that going forward as the huge numbers of hospitalizations and deaths seem to fade into the rearview mirror that we will have some collective amnesia about how bad it really was.

COVID–19 infection is a devastating disease. It is a tricky virus unlike anything we have ever seen before, and we must never underestimate its potential to wreak havoc and cause death. And, I think that someone who still doubts the existence of COVID, gosh, we need to put them in—hopefully—I wish we had time travel so they could back and safely walk through a hospital ward where every patient was on a ventilator. They were unable to speak to their loved ones and had to say their goodbyes over an iPad, surrounded by people that they could not see because they had so much PPE on. I hope we never have anything like this again, and we must always remain vigilant to make it so.

Senator BURR. We would agree with you. And I think if you could take everything that this Committee, the Committee Members have said throughout this process, and sort of add them together, it would have addressed the mental health for children. It would address the physical challenges that are presented, the employment challenges, the society challenges. Hopefully, our memories will not be as short as we have proven in the past.

Last thing. I have said to the Administration, because I think we are destined for a booster, based upon the science. When, nobody knows. But, I have made it perfectly clear that we better have a strategy when we get ready for the booster period, meaning that we are out selling it long before we start it.

I agree with you. We ought to inoculate as many folks as we possibly can in the first round, but you cannot start too early at educating what that booster can mean based upon what we do not know, not necessarily based upon what we do know.

It may be that all three vaccines that are currently approved are sufficient for Delta. Does it mean it is sufficient for what we are seeing in South America today? And I cannot remember what the name that we are calling it, but it is devastating South America. So, the one thing we know about viruses, they continue to mutate as long as they exist. This one will continue to do it. And if the booster provides us a better defense, then I hope we will sell it so that the American people will aggressively take it.

Thank you, Madam Chair.

The CHAIR. Thank you very much. Thank you, Senator Burr. Well stated.

That will end our hearing today. And I do want to thank all of my colleagues for such a thoughtful discussion, and I want to really

thank all of our witnesses today—Dr. Bailey, Dr. Nichols, Dr. Chang, and Dr. Betancourt. Thank you. Mr. Chang, Dr. Betancourt. Thank you so much for sharing your experience and expertise. It was very, very helpful.

For any Senators who wish to ask additional questions, questions for the record will be due in 10 business days, July 7th, 5 p.m. The hearing record will remain open until then for Members who wish to submit additional materials for the record.

With that, the Committee stands adjourned.

[Whereupon, the hearing was adjourned at 11:56 a.m.]