BUILDING TRUST AND BATTLING BARRIERS: THE URGENT NEED TO OVERCOME VACCINE HESITANCY

HEARING

BEFORE THE

SELECT SUBCOMMITTEE ON THE CORONAVIRUS CRISIS

OF THE

COMMITTEE ON OVERSIGHT AND REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

JULY 1, 2021

Serial No. 117–34

Printed for the use of the Committee on Oversight and Reform

Available at: *govinfo.gov, oversight.house.gov* or *docs.house.gov*

U.S. GOVERNMENT PUBLISHING OFFICE

45–369 PDF WASHINGTON : 2021

COMMITTEE ON OVERSIGHT AND REFORM

CAROLYN B. MALONEY, New York, *Chairwoman*

ELEANOR HOLMES NORTON, District of Columbia
STEPHEN F. LYNCH, Massachusetts
JIM COOPER, Tennessee
GERALD E. CONNOLLY, Virginia
RAJA KRISHNAMOORTHI, Illinois
JAMIE RASKIN, Maryland
RO KHANNA, California
KWEISI MFUME, Maryland
ALEXANDRIA OCASIO-CORTEZ, New York
RASHIDA TLAIB, Michigan
KATIE PORTER, California
CORI BUSH, Missouri
DANNY K. DAVIS, Illinois
DEBBIE WASSERMAN SCHULTZ, Florida
PETER WELCH, Vermont
HENRY C. "HANK" JOHNSON, JR., Georgia
JOHN P. SARBANES, Maryland
JACKIE SPEIER, California
ROBIN L. KELLY, Illinois
BRENDA L. LAWRENCE, Michigan
MARK DESAULNIER, California
JIMMY GOMEZ, California
AYANNA PRESSLEY, Massachusetts
MIKE QUIGLEY, Illinois

JAMES COMER, Kentucky, *Ranking Minority Member*
JIM JORDAN, Ohio
PAUL A. GOSAR, Arizona
VIRGINIA FOXX, North Carolina
JODY B. HICE, Georgia
GLENN GROTHMAN, Wisconsin
MICHAEL CLOUD, Texas
BOB GIBBS, Ohio
CLAY HIGGINS, Louisiana
RALPH NORMAN, South Carolina
PETE SESSIONS, Texas
FRED KELLER, Pennsylvania
ANDY BIGGS, Arizona
ANDREW CLYDE, Georgia
NANCY MACE, South Carolina
SCOTT FRANKLIN, Florida
JAKE LATURNER, Kansas
PAT FALLON, Texas
YVETTE HERRELL, New Mexico
BYRON DONALDS, Florida

JENNIFER GASPAR, *Select Subcommittee Deputy Staff Director*
BETH MUELLER, *Chief Counsel*
SENAM OKPATTAH, *Clerk*
CONTACT NUMBER: 202-225-5051
MARK MARIN, *Minority Staff Director*

SELECT SUBCOMMITTEE ON THE CORONAVIRUS CRISIS

JAMES E. CLYBURN, South Carolina, *Chairman*

MAXINE WATERS, California
CAROLYN B. MALONEY, New York
NYDIA M. VELÁZQUEZ, New York
BILL FOSTER, Illinois
JAMIE RASKIN, Maryland
RAJA KRISHNAMOORTHI, Illinois

STEVE SCALISE, Louisiana, *Ranking Minority Member*
JIM JORDAN, Ohio
MARK E. GREEN, Tennessee
NICOLE MALLIOTAKIS, New York
MARIANNETTE MILLER-MEEKS, Iowa

C O N T E N T S

Page

Hearing held on July 1, 2021 1

WITNESSES

Joshua Garza, Coronavirus Survivor
Oral Statement 6

Georges Benjamin, M.D., Executive Director, American Public Health Association
Oral Statement 8

Katy Milkman, Ph.D., Professor of Operations, Information, and Decisions, Wharton School; Professor, Division of Health Policy, Perelman School of Medicine, University of Pennsylvania
Oral Statement 9

Jerome Adams, M.D., M.P.H., Former Surgeon General of the United States (2017 - 2021)
Oral Statement 11

Written opening statements and the written statements of the witnesses are available on the U.S. House of Representatives Document Repository at: docs.house.gov.

INDEX OF DOCUMENTS

Documents entered into the record during this hearing are listed below.

* Op-Ed in *USA Today* by Reps. Foster/Miller-Meeks - Urging Americans to get vaccinated; submitted by Rep. Foster.

* Letter from AAFP; submitted by Chairman Clyburn.

* Letter from ACP; submitted by Chairman Clyburn.

* Letter from American Diabetes Association; submitted by Chairman Clyburn.

* Letter from American Medical; submitted by Chairman Clyburn.

* Letter from American Nursing Association; submitted by Chairman Clyburn.

* Letter from American Nursing Association; submitted by Chairman Clyburn.

* Letter from CSIS; submitted by Chairman Clyburn.

* Letter from CSIS; submitted by Chairman Clyburn.

* Letter from Emory Division of Infections Diseases; submitted by Chairman Clyburn.

* Letter from GW Milken Institute School of Public Health; submitted by Chairman Clyburn.

* Letter from IDSA; submitted by Chairman Clyburn.

* Letter from National Council on Aging; submitted by Chairman Clyburn.

* Letter from National Health Law Program; submitted by Chairman Clyburn.

* Letter from NCAPA; submitted by Chairman Clyburn.

* Letter from Redeeming Babel; submitted by Chairman Clyburn.

* Letter from Seattle Indian Health Board Abigail Echo-Hawk; submitted by Chairman Clyburn.

* Letter from University of Nebraska De Alba; submitted by Chairman Clyburn.

* Letter from Whitman-Walker Health; submitted by Chairman Clyburn.

* Letter from the Robert Wood Foundation; submitted by Chairman Clyburn.

* Statement from AHIP; submitted by Chairman Clyburn.

* Statement from APhA; submitted by Chairman Clyburn.

* Statement from Chicago Community Trust; submitted by Chairman Clyburn.

* Testimony from Hispanic Federation; submitted by Chairman Clyburn.

* Article - *USA Today* "He rejected the COVID-19 vaccine and almost died. Now he's preaching itsvirtues to Congress"; submitted by Chairman Clyburn.

* Article - *USA Today* "Getting a COVID-19 Vaccine is a Patriotic Act"; submitted by Chairman Clyburn.

Documents are available at: docs.house.gov.

BUILDING TRUST AND BATTLING BARRIERS: THE URGENT NEED TO OVERCOME VACCINE HESITANCY

Thursday, July 1, 2021

HOUSE OF REPRESENTATIVES
COMMITTEE ON OVERSIGHT AND REFORM
SELECT SUBCOMMITTEE ON THE CORONAVIRUS CRISIS
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:08 a.m., in room 2154, Rayburn House Office Building, Hon. James E. Clyburn (chairman of the subcommittee) presiding.

Present: Representatives Clyburn, Waters, Maloney, Velazquez, Foster, Krishnamoorthi, Scalise, and Miller-Meeks.

Chairman CLYBURN. Good morning. The committee will come to order.

Without objection, the chair is authorized to declare a recess of the committee at any time.

I now recognize myself for an opening statement.

We're here this morning to discuss an issue of broad, bipartisan concern: the critical need to overcome vaccine hesitancy so that more Americans get vaccinated against this deadly virus.

I would like to thank Ranking Member Scalise for joining me in inviting witnesses to testify at today's hearing. This is not a partisan issue. The virus is equally dangerous for Democrats and Republicans, and the vaccines are equally safe and effective for Democrats and Republicans.

I would like to also thank today's witnesses for taking the time to testify about this critical issue.

The coronavirus vaccines authorized in the United States are proven to be safe and effective, and they have enabled our country to make significant progress in containing the virus and saving lives.

We have a graph here that speaks for itself. As more and more Americans get vaccinated, fewer and fewer are dying from the coronavirus.

Yet too many Americans remain unprotected against this deadly disease because they are hesitant to receive coronavirus vaccines. This vaccine hesitancy is allowing the virus to continue to spread in areas with large unvaccinated populations and increasing the risk that vaccine-resistant variants will emerge.

Polls show that up to one in five American adults say they are strongly opposed to getting a coronavirus vaccine. Vaccination rates are particularly low in the South and rural West. In both regions,

less than 40 percent of the total population of multiple states is fully vaccinated. In my home state of South Carolina, for example, only 39 percent of the total population is fully vaccinated.

Most concerning, we are still losing hundreds of Americans to the coronavirus every day. Nearly all of the more than 8,500 Americans who died from COVID–19 last month were unvaccinated. I want to repeat that: Nearly all of the more than 8,500 Americans who died from COVID–19 last month were unvaccinated. If more Americans got their shots, we could reduce coronavirus deaths to nearly zero.

At this critical juncture, we must not lose sight of the work that remains to fully stop the spread of the virus in the United States. We must undertake dedicated efforts to overcome vaccine hesitancy and redouble our outreach and education so that we can find a way to convince those who are reluctant of the importance of getting vaccinated.

We must overcome access barriers and address informational needs, particularly in communities of color, so that we can make it easier for everyone to get vaccinated. We must identify innovative ways to increase vaccine uptake.

The Biden administration has made tremendous progress in making coronavirus vaccines available to all eligible Americans. They are continuing to work to enhance vaccine access for all communities and to promote confidence in the vaccines. Their unprecedented efforts have helped to vaccinate more than 179 million Americans in record time. But more work is needed to prevent backsliding on this hard-fought progress.

I look forward to hearing from our witnesses about the strategies that are effective to overcome vaccine hesitancy and increase vaccine uptake and about how we can better inform the American public and encourage those who may be hesitant to feel confident in getting these shots.

Once again, thank the members and guests for being here today. And I now yield to the ranking member for an opening statement.

Mr. SCALISE. Well, thank you, Mr. Chairman. Appreciate you holding this hearing.

Thank our witnesses for coming today.

As Americans move into the Fourth of July weekend, Independence Day takes on special meaning this year. Thanks in large part to the vaccines, this is the first holiday weekend where virtually all of America is back open, free. Families and friends will celebrate together. Grandmothers will visit and hug their grandkids. Crowds will gather again for fireworks.

Every one of us on this subcommittee can tell the American people there is total bipartisan agreement on this subcommittee: The vaccine ended this pandemic.

So how did we get to the point where America created the fastest vaccine in human history, manufactured, produced, and distributed enough vaccine to give a shot to every American who wants one?

The story really begins 30 years ago, when the United States Trade Representative began negotiating international trade agreements in earnest. On a bipartisan basis, for three decades, USTR made protection of U.S. intellectual property a cornerstone of those agreements.

About 25 years ago, Congress decided to make a major push on biomedical research. The Republican-controlled Congress worked with President Bill Clinton to double the size of the National Institutes of Health. During the administration of George W. Bush, Congress made yet another major investment in NIH, with strong bipartisan support.

And then came former Energy and Commerce Committee Chairman Fred Upton, working with Diana DeGette across party lines. Their leadership brought us the 21st Century Cures Act. That was one of the most proud moments I worked as majority whip, on a piece of legislation that was bipartisan, working with then-President Obama. We doubled yet again our commitment to the NIH. And, just as importantly, we established in that bill the Emergency Use Authorization process, which these COVID–19 vaccines were ultimately approved based on. These are provisions, Emergency Use Authorization especially, that helped save millions of lives.

Operation Warp Speed, of course, then built on those decades of work. America created the fastest vaccine in human history. But all Americans should be assured and confident, the vaccines were not rushed. They were built off a platform decades in the making, with the best minds in public health and private sector coming together to create world-class innovations and breakthroughs in a step-by-step fashion.

If you want to get vaccinated, it is safe, effective, free, and available.

Today, nearly 154 million Americans are fully vaccinated. That's about 47 percent of the population. At least 180 million people, or 55 percent of the population, have received at least one dose. And remember, we're not vaccinating children under 12 years old. Many Americans, thousands and thousands of Americans, who contracted COVID–19 also have the antibodies. We're approaching that elusive goal now of effective herd immunity.

Every American, again, who wants to get vaccinated can now get vaccinated.

Scientists have made it clear that we don't need to achieve 100 percent vaccination for effective herd immunity. So, let's give folks who are hesitant the reassurance that they're not going to be forced by the Federal Government to do something against their will. It's ultimately every American's decision. But we want it to be an informed decision.

First, the vaccine works. Pfizer and Moderna's Phase III clinical studies found that their two-dose regimens were 95 and 94 percent effective, respectively, at blocking COVID–19, while Johnson & Johnson's one-shot vaccine was found to be 66 percent effective in its studies.

All three, however, have been found to be extremely effective in preventing people from getting severely sick from COVID. So, even if someone does get sick from the vaccine, the severeness of that sickness is dramatically reduced.

Since vaccinations began, emergency room visits related to the virus have declined 77 percent among older adults. As we saw, the highest percentage of COVID deaths in those early months were from seniors in nursing homes, especially, and the more vulnerable populations—diabetes, hypertension.

While some breakthrough infections were reported—that is, infections that occurred after vaccination—those illnesses tended to be milder than infections among unvaccinated people. As we know, no vaccine is 100 percent effective. A very small percentage of vaccinated individuals will get sick, but that is not evidence that the vaccination does not work.

Second, the vaccination is safe. Over 324 million doses of COVID–19 vaccine have been given in the United States from December 14, 2020, through June 28 of this year. COVID–19 vaccines were evaluated in terms of thousands of participants in clinical trials. The vaccines met the Food and Drug Administration's rigorous scientific standards for safety, effectiveness, and manufacturing quality that is needed to support Emergency Use Authorization that I talked about earlier.

Many people experience side effects after receiving the vaccine. We've seen reports of fatigue, fever, soreness. These last for a short period of time. A very small percentage of individuals experience an allergic reaction.

The bottom line is, for the overwhelming majority of Americans, the benefits of getting vaccinated clearly outweigh the small risks. COVID is a dangerous virus that has killed 600,000 Americans, but the risk of death from COVID drops dramatically for vaccinated individuals.

Let's all work together to get the facts out to the people of this country, particularly populations that have concerns or hesitancy. Let's present the evidence but also reassure individuals that this decision is their decision. I believe that this is the strategy that will ultimately maximize the number of Americans who choose to take the vaccine.

And as I'm closing, Mr. Chairman, I also would be remiss if I didn't point out the fact that this committee does need to hold a hearing on the origins COVID–19. As we've pointed out many times for over a year, this is a virus that killed over 600,000 people in America, 4 million worldwide. More and more evidence is growing in the scientific community that this virus originated in the lab in Wuhan, not naturally occurring from bat to animal to human.

And, in fact, earlier this week, the Republicans on the committee, after over a year of calling for this hearing, held our own hearing. We brought in scientific experts. Every one of those scientific experts, Mr. Chairman, reported during their testimony that this vaccine, based on the genetic sequencing that we now see, started in the Wuhan lab. The evidence is overwhelming.

If China would've been honest with us in those early months—and I'm going back to September, at least, of 2019, well before the first cases were reported, where now we do know anecdotally that people with flu-like symptoms, both in the lab and near the lab, were starting to experience those symptoms. If China would've been honest back then, instead of waiting until March 2020, hundreds of thousands of American lives could've been saved and millions of lives globally could have been saved if they were forthright with us.

We still have many questions to ask based on the testimony we heard. In many cases, the people who can give those answers were

invited and refused to come forward. Mr. Chairman, with your subpoena authority, you could compel them to come forward.

So, I will reiterate once again, for the ability for us to prevent something like this from happening again, the sooner, the better, we need to have a hearing on the origin of COVID–19 before the full committee.

I'll be happy to get you a copy of the transcript. In fact, C-SPAN carried the hearing that we held, so we can get you all of that information. A lot of important scientific information was presented. There is more scientific information that needs to come forward from people who refused to come forward.

So, I would urge that we have that hearing, again, and, with that, I yield the balance of my time.

Chairman CLYBURN. I thank the gentleman for his opening statement, and I look forward—I would like to get a copy of that, and you and I might be able to discuss that sometime in the not-too-distant future.

As all of us have just heard, there is a vote on. And we are going to work together here to make sure that everybody gets a chance to cast their vote and to return. Mr. Foster has cast his vote, and he's coming here. He'll be taking my place while I go vote. And we have several other members who need to go vote as well.

But before we do that——

Mr. SCALISE.

[Inaudible] have someone chair during your absence.

Chairman CLYBURN. I'm sure you would, but I think I'd better keep this gavel on this side of the aisle. Thank you so much, though. Thanks for the offer.

I'm going to introduce the witnesses so that we won't hold them up. And then I think Mr. Foster will preside while the three of us go cast our votes so that we won't miss that, OK?

Let me now introduce our witnesses.

Joshua Garza is a coronavirus survivor from Sugar Land, Texas. After turning down an opportunity to receive a vaccine, Mr. Garza contracted a severe coronavirus infection that rapidly destroyed his lungs. Mr. Garza was placed on life support and then suffered complete lung failure, requiring an emergency double lung transplant. After a miraculous recovery, Mr. Garza has shared his story publicly. He hopes to save lives by inspiring others to learn from his mistake and get vaccinated.

Dr. Georges Benjamin serves as the executive director of the American Public Health Association, the Nation's oldest and largest organization of public health professionals. He previously served as the secretary of health for the state of Maryland. He is a board-certified internal medicine—in internal medicine, a master of the American College of Physicians, a fellow of the National Academy of Public Administration, a fellow emeritus of the American College of Emergency Physicians, and a member of the National Academy of Medicine.

Welcome back, Dr. Benjamin.

Dr. Katy Milkman—and, Katy, I hope I'm pronouncing that correctly—is a professor of behavioral economics at the Wharton School of the University of Pennsylvania. Professor Milkman is an award-winning scholar who has applied her research to assist

states and vaccine providers create incentives to increase vaccinations.

Dr. Jerome Adams served as our Nation's 20th Surgeon General. He also served on the White House Coronavirus Task Force during the previous administration. Prior to becoming United States Surgeon General, Dr. Adams served as health commissioner of the state of Indiana and as a vice admiral in the United States Public Health Service's Commissioned Corps.

Welcome, Dr. Adams.

Sophia Bush is an actress, activist, and entrepreneur. She has starred on the drama series "One Tree Hill" and "Chicago PD," along with numerous films. Ms. Bush's activism includes supporting the empowerment of women and girls, fundraising for those affected by the Deepwater Horizon oil spill, and serving as founder and board member of I Am a Voter, a nonpartisan movement to increase voter participation. Most recently, Ms. Bush has used her platform to educate others about the importance of vaccinations.

Will the witnesses please rise and raise your right hands?

Do you swear or affirm that the testimony you're about to give is the truth, the whole truth, and nothing but the truth, so help you God?

You may be seated.

Let the record show that the witnesses answered in the affirmative.

Without objection, your written statements will be made part of the record.

Mr. Garza, you are now recognized for your opening statement.

STATEMENT OF JOSHUA GARZA, CORONAVIRUS SURVIVOR

Mr. GARZA. Good morning to everybody. My name is Joshua Garza. I'm 43 years old, residing in a suburb of Houston, Texas.

Due to my initial hesitancy regarding the COVID vaccine, I passed on a chance to obtain the vaccine in early January. Due to underlying health issues that I was aware of and treating, I was eligible for the early dose. As a result of not following through with the vaccination, I ended up contracting the virus in late January and endured a four-month stay in the hospital, resulting in a double lung transplant to save my life.

When approached about the vaccine in early January, I felt that I was adhering to all the protocols. I wore the mask when out, made sure to be socially distanced, continued washing of hands, et cetera. At the time, I strongly felt that I was doing everything I needed to protect myself and my family. It's a decision that I have to live with for the rest of my life.

On January 28, I started to feel ill with the usual symptoms of the coronavirus. As my condition worsened, my wife and I decided to get tested on January 30. Results were sent to us the next day. My wife was negative, but I was given the dreaded results of being tested positive.

My condition worsened in the following days to a point where I no longer had enough strength to walk. My oxygen levels started to drop as a result of the virus attacking my lungs. I tried to walk to the front of the house and ended up falling due to oxygen levels being so low. My wife called an ambulance to take me to the hos-

pital immediately. I was first admitted into a hospital on February 2.

The first hospital I was at ran the usual tests, but my condition continued to get worse. After receiving results from the testing, doctors were able to determine that my lungs were hit the hardest and deteriorating at a rapid rate.

After a two-week stay and countless tests, we received the news we did not want to hear. The doctors had done everything they could have done, and my condition was too far gone to fix. This hospital had given up on me, and I was not ready to give up.

I reached out to my family and explained the situation and said my final goodbyes, as I did not know what was to come or how long I had to live. The toughest call I had to make was to my 12-year-old son and let him know the situation.

After the call, I decided that I was not ready to give up. My wife and I decided, in order to continue fighting, I would have to transfer to a different hospital. This was February 13.

On February 14, I was able to secure a bed at Houston Methodist Hospital Medical Center. After being transferred to the Methodist—after being transferred, the Methodist staff started testing immediately. The doctors had the same conclusion, that my lungs were being destroyed by the coronavirus, but they had options for treatment not offered at the previous hospital.

I was moved to the ICU floor and was placed on an ECMO system to help my lungs function during this time. The ECMO system prolonged my life enough to get evaluated for a lung transplant. After evaluation, it was determined that I was a candidate for transplant. I was on the ECMO system for almost five weeks before being approved for the transplant list.

Once placed on the list, I waited three weeks in order to find a match. Successful transplant surgery was done on April 13. After surgery, I had to start the rehab process within the Methodist network and was released from the hospital on May 27.

Here is a photo of me on the ECMO system.

While in the hospital, I was faced with many uncertainties that are not controllable due to the situation. You have time in the hospital to reflect on life decisions and the outcome of each. The amount of pain I endured during this ordeal is something I never want to replicate. If I could change my decision back in early January to go forward with the vaccination, I would.

We live in a country where we're free to make your own decisions. With respect to the coronavirus vaccine, I would ask my fellow Americans who are on the fence to think of not only yourself but also your family and community to avoid the pain and suffering many families have gone through, as many have lost loved ones due to COVID–19.

I have a second chance at life, and I intend to share my story as much as I can to help someone save their life.

Thank you.

Mr. FOSTER. [Presiding.] Thank you, Mr. Garza.

Dr. Benjamin, you are now recognized for your opening statement.

STATEMENT OF GEORGES BENJAMIN, M.D., EXECUTIVE DIRECTOR, AMERICAN PUBLIC HEALTH ASSOCIATION

Dr. BENJAMIN. Thank you, Mr. Chairman and members of the subcommittee. I want to thank you for the opportunity to address you today.

You know, the SARS-COVID–2, the virus that causes COVID–19, has infected over 33 million individuals and taken over 600,000 lives. I just remind us that it would've been much worse had we not really implemented many of the important public health measures—masking, handwashing, social distancing, closing selected venues.

But the best tool we have in public health is vaccination. It's good that we have a safe and effective vaccine, but, you know, having a shot and getting those shots in the arms are really two different things.

And we've done a lot of things to really get to this point. You know, people have had—over 323 million doses have been delivered. We've really made substantial progress as a Nation. But it clearly isn't enough. As Chairman Clyburn pointed out, it does save lives.

But I want to focus my remarks on just the fact that I think we need a new strategy. And that is one that builds on the successful national strategy that we've certainly had but one that is grounded in communities. And I'm talking about one that's using old-fashioned, grassroots, shoe-leather public health.

And what often happens is that we get close to these benchmarks that we've set for ourselves and then we get complacent, and we don't finish the job. And we need to make sure that, in this case, we finish the job. And we really need to double-down particularly on the vulnerable populations—communities of color, communities that, quite frankly, have not taken the virus as seriously as others.

So, we're really recommending a four-step approach that has been endorsed that we believe is community-driven. And this framework has, really, four components.

The first one is using data to identify those communities where there is a lower-than-expected level of vaccination.

Second, exploring which challenges those communities have to coverage—meaning, where are people not confident enough to get the vaccine and why? Because it's turned out that there are lots of reasons, there's a whole spectrum of reasons why people are not willing to get vaccinated, from simply haven't gotten around to it, to not having all the questions that they need to have answered answered and, therefore, they're not that confident.

And then engaging local community-based stakeholders to help design those solutions; and really monitoring what we do; and then, in a cycling manner, doing these things all over again until we get an adequate number of people vaccinated.

Over the last month, there has been a national effort to do this kind of strategy, and I'm pleased to report that we're beginning to see success in that strategy. But we need to double—redouble those efforts if we're going to be successful.

I think we should anticipate that, over the next part of this year, we're going to have intermittent outbreaks, and we're probably going to have those outbreaks over the next several years. The way

to kind of conceive that is, it'll be like these measles outbreaks that we have. We have a well-vaccinated population for measles, but we have a population where people are not adequately vaccinated, and people get infected.

This is a very, very severe disease, and we need to take it very seriously.

I also want to point out, because this disease is raging in many parts of the world and we, quite frankly, have not done enough as a planet to get that part of the world vaccinated, we are going to have entry of new variants for some time to come.

I know people are very worried about the Delta variant, and I am too, but just let me say, there is very likely to be a variant that develops in any of our communities where we're under vaccinated. And so, we need to be concerned about any of these new variants that occur and watch them very, very carefully. And I know the CDC has revved up its surveillance of these, but we just can't let our guard down.

So, I thank you for this, and I look forward to the opportunity to testify today, and I look forward to working with Congress and the administration and, quite frankly, our community in making sure we address this.

And let me just say one final thing to Mr. Garza.

Mr. Garza, I'm very glad, as a physician, that you're better and want to thank you very much for your advocacy.

Mr. FOSTER. Thank you, Dr. Benjamin.

Dr. Milkman, you're now recognized for your opening statement.

STATEMENT OF KATY MILKMAN, PH.D., PROFESSOR OF OPERATIONS, INFORMATION, AND DECISIONS AT THE WHARTON SCHOOL; PROFESSOR, DIVISION OF HEALTH POLICY AT THE PERELMAN SCHOOL OF MEDICINE, UNIVERSITY OF PENNSYLVANIA

Ms. MILKMAN. Thank you, Mr. Chairman and distinguished members of the committee, for inviting me.

I'll focus my remarks today on how behavioral science suggests we can encourage COVID vaccination by changing the cost-benefit calculus.

First, we should be making vaccination radically convenient to reduce its hidden costs. People are busy, forgetful, and generally far more dissuaded by "hassle" factors than we appreciate.

One recommendation is to prearrange vaccination appointments for unvaccinated Americans. Research shows that prescheduling people for flu shots, while making rescheduling easy, leads to a 36-percent increase in vaccination over simply telling people how to schedule an appointment.

If we can't give every unvaccinated American an appointment to get a vaccine, we can still repeatedly remind them of how to schedule one and convey that a vaccine has been reserved for them, as opposed to just made available, which evidence suggests will also help.

In two studies that included over 700,000 Americans and tested dozens of different text-reminder messages encouraging flu vaccination, my collaborators and I found that reminding people a vaccine

was reserved or waiting for them boosted vaccine take-up in pharmacies and doctors' offices by 7 to 10 percent.

These types of reminders were proven to increase COVID vaccinations too, and they likely work because having a healthcare provider remind you to claim a vaccine that's set aside for you communicates the vaccination's recommended, suggests it will be easy, and because we strongly dislike giving up things that have been allocated to us.

I also want to discuss financial rewards. For someone who isn't rushing to get a vaccine, maybe because they're young and don't fear infection or because they're concerned about the indirect costs of vaccination, like lost income, incentives increase the immediate benefits of getting inoculated. Thirty-four percent of unvaccinated Americans surveyed this spring reported they'd be more likely to get a vaccine if they were paid $100 to do so.

A caveat, though, is that a recent study of unvaccinated Medicaid patients found cash payments only actually compelled more vaccination among people who already intended to get their shot but just hadn't gotten around to it.

Another caveat to cash payments is that research suggests paying people a small amount to get their vaccine could unintentionally convey that there's a health risk associated with vaccination, even though greater risks accrue to those who decline a vaccine. If you have to pay me to do something, I may incorrectly infer you're paying to offset a risk you're imposing on me.

In one study, people said they'd be more likely to get vaccinated if paid $100, but a payment of $20 would actually reduce their interest in getting a vaccine, probably because of the incorrect inferences low payments produce about risk.

Lottery payments for vaccination may help dodge this issue, as we infer different motives for guaranteeing a reward versus offering up a chance at a jackpot. Moreover, lottery incentives are generally cost-effective, in part because we tend to overestimate the chances of low-probability events. For instance, we act as if a chance that's one in a million of an event is more like one-in-a–10,000 chance. So, when we're entered in a lottery, we overestimate our chances of winning.

And data from the benefits of Ohio's Vax-a-Million lottery are very promising. The week after that lottery was announced, Ohio's 16-and-up vaccination rate jumped 28 percent. And estimates suggest that lottery caused an extra 50,000 to 80,000 Ohio residents to get vaccinated in just the two weeks post-launch, implying a cost of about $85 per dose.

In Philadelphia, my collaborators and I recently designed a vaccination sweepstakes that uses what's called a regret lottery. We're drawing names from a Philadelphia residential data base but requiring those we contact to prove they were previously vaccinated to accept their winnings. Since all residents are entered in the lottery, some unvaccinated Philadelphians will be notified that they would've won a cash prize if only they'd gotten their vaccine, which is the regret component.

Past research shows that, because people imagine the regret they'd feel if they got that call and couldn't cash in, regret lotteries can be even more motivating than standard lotteries.

Our lottery's grand prize is also just $50,000, because we doubt a million-dollar jackpot is necessary. And half of the winners in each drawing will come from a preannounced ZIP Code with a particularly low vaccination rate to target incentives more efficiently.

It's too early to know the program's impact, but we hope it could be a model for motivating local vaccination.

And, finally, I want to discuss non-monetary incentives.

One survey found that offering Americans the opportunity to stop wearing masks after vaccination was highly motivating.

Giving only vaccinated Americans access to certain opportunities will also matter. Over 500 U.S. colleges and universities are requiring students to be vaccinated to return in the fall, and many employers are setting similar mandates.

Mandates are understandably controversial, but a recent review showed that workplace policies like vaccine mandates increased flu vaccination coverage by an average of 25 percent, whereas surveyed incentive programs only boosted vaccination rates by 9 percent. This means encouraging mandates that allow for medical and religious exemptions could increase vaccination rates immensely.

I'll close now but note that I've only provided testimony on evidence-based ways to change the costs and benefits associated with vaccination. There are many other ways to encourage vaccination and reduce health disparities, and I look forward to perhaps discussing some later in this session.

Thank you very much.

Mr. FOSTER. Thank you, Dr. Milkman.

Dr. Adams, you are now recognized for your opening statement.

STATEMENT OF JEROME ADAMS, M.D., MPH, FORMER SURGEON GENERAL OF THE UNITED STATES (2017 2021)

Dr. ADAMS. Well, thank you for the opportunity to testify at this incredibly important and timely hearing.

The increasing spread of the Delta variant makes this conversation all the more urgent, but the COVID–19 pandemic is just the latest example of how our efforts to address overall vaccine hesitancy must improve.

And I want to applaud your use of the phrase "vaccine hesitancy," because I never say "anti-vax." There is a small, albeit vocal, contingent who are what I call "vaccine-resistant," but most vaccine-hesitant people simply have questions or barriers that, when addressed with compassion, can be overcome. Or, as I often say, the more people know we care, the more they care what we know.

Herd immunity is about having enough people with antibodies by vaccination and/or prior infection to stop disease spread. So, in other words, we could achieve sufficient protection to contain COVID outbreaks with less than 70 to 80 percent of all people in the U.S. vaccinated. That's good news, because we also have to quite simply acknowledge we may never achieve 70-percent nationwide vaccination rates.

What we need to focus on, in my opinion, is defining micro-herds and striving to achieve overall containment through vaccination within those smaller groups, because that's really where outbreaks start. Your herd could be your church, your workplace, your child's

sports team, the neighbors you gather with, and especially your family. The more these smaller herds achieve 70-percent-plus vaccination rates within their groups, the less likely the virus and variants will find quarter to spread within the larger population.

And moving on to populations and interventions, the most important lesson you should take from this hearing is that we absolutely must change our strategy from broad mass-vaccination campaigns to more focused education and engagement of smaller groups and individuals.

We're well past the days of vaccine eagerness, where you could simply set up at the local sports stadium or fairgrounds and expect people to drive miles and wait for hours for a vaccine.

My conversations with community nonprofit public health and healthcare groups and organizations have revealed a number of strategies to combat vaccine hesitancy, which I'd invite the select committee to consider. They're grouped into three main "mis"es that I think we need to focus on: misinformation, mistrust, and a misperception that access is no longer an issue.

I'd refer you to my written testimony for more details and 10 key recommendations I've gleaned from my engagement with these groups, and which address these "mis"es. But at a very high level, they are:

One, make the conversation about more than just COVID.

Two, recognize and address continuing access issues as a matter of health equity.

Three, we've got to get more shots in doctors' offices.

Four, encourage and fund efforts to better understand hesitancy at the ground level and empower people with factual information.

Five, work with states to award micro grants to community groups who are doing the work on the ground.

Six, through the Department of Labor and Small Business Administration, fund an effort to have businesses and employers understand the benefits of encouraging and offering vaccinations.

Seven, through the Department of Education, support school-based vaccination clinics for COVID and all other vaccines students have fallen behind on, because guess what: Our kids are at as much and possibly more risk from other vaccine-preventable diseases as they are from COVID right now.

Emphasize—No. 8—the non-health benefits of vaccination. Focusing on the social positives of the vaccine to a constituency that in many cases fears the social harms of COVID more than the potential health harms is more likely to motivate behavior change.

Nine, work with vaccine manufacturers and the FDA to gather the data necessary to move toward full approval of vaccines. I really, really hope the committee hears me when I'm saying this. This is something that people on the ground level are continually saying. It took five months to go from Phase III trials to EUA. It's taken already longer than that to go from EUA to full licensure of these vaccines, and the American public wants to know why.

And, number 10, stop talking about vaccine hesitancy in political terms, for goodness' sake, and find different and credible spokespersons for different groups. I've never heard a single person say, "I'm not getting vaccinated because I'm a Republican." I've heard plenty of people say, "I won't get vaccinated because I don't trust

the government," "I don't trust the healthcare system." And when we focus on this mistrust, versus focusing on political ideology, we win people over.

In summary, vaccine hesitancy did not manifest itself out of nowhere, especially in communities where trust of the medical establishment is tenuous at best. Our country needs to fundamentally change how it values and invests in caring, quality, and expert public health services and communication.

Because vaccine hesitancy, quite frankly, isn't the root problem. It's just the latest symptom, the latest example of our collective failures to engage, educate, enable, and empower all citizens to be their healthiest selves.

So, thank you for the opportunity to testify today, and I look forward to taking your questions.

Mr. FOSTER. Thank you, Dr. Adams.

Ms. Bush, you are now recognized for your opening statement.

STATEMENT OF SOPHIA BUSH, ACTRESS, ACTIVIST, ENTREPRENEUR

Ms. BUSH. Thank you, Mr. Chairman, Ranking Member Scalise, and honorable members of the committee, for the opportunity to testify before you today.

My name is Sophia Bush, and I am a storyteller. As an actress, an activist, an entrepreneur, and the host of the "Work in Progress" podcast, I have committed myself to learning about people and communities so that I might highlight the change-makers working to unite and propel us all toward a better future.

In being afforded the opportunity to tell people's stories, I have found both my personal purpose and the passion for what lies ahead for us as a Nation. And I feel incredibly privileged to have this opportunity to carry their voices into the chamber with me today.

In early 2020, like so many of my fellow citizens, my workplace shut down, and shortly thereafter I was locked down at home.

I was terrified of COVID. As a child with severe asthma, I suffered bouts of pneumonia that further weakened my respiratory system, and, as an adult, what might present as a seasonal cold for my coworkers has quickly turned into bouts of bronchitis that have sent me to the hospital for emergency breathing treatments.

Even with the unearned privilege of my less at-risk group, one with better racial outcomes, and with my financial ability to access quality healthcare, I wondered if I would be one of the young Americans to suffer severe complications or carry a deadly virus home to my family.

I was inspired by the urgency with which the global health community mobilized to sequence the virus, develop a vaccine, all thanks to decades of prior research on coronaviruses. Researchers around the world collaborated like never before in response to the greatest public health threat of our lifetime.

So, I jumped at my chance to get the vaccine the moment I was able to, to protect myself and my parents, my coworkers' and friends' families.

I jumped at the opportunity to take my best friend to get her mRNA vaccine. She was five months pregnant at the time and has

a clotting disorder, and that made her cautious about receiving a vaccine. But being acutely aware of what contracting COVID could mean for her and her baby, she, too, jumped at the chance to protect them both once experts confirmed the vaccine's safety for pregnant women.

I drove us home with tears in my eyes that day. To be honest, I also cried the day my parents received their second mRNA vaccine, because, for me, vaccines represent love.

My grandfather was a United States Navy man—I have his tags on the desk with me today—and he used to tell stories about polio. My mother, too, remembers the relief when her family stood in line for that vaccine.

Vaccines are acts of love made possible by innovation. And I believe that, in innovation, we have historically seen the best of America. That is where we are exceptional. From skyscrapers to airplanes, eventually landing on the Moon, we are innovators. And the COVID vaccine, in my opinion, is our generation's shot at a Moon landing. This is a step for humankind made possible by science.

Two of the largest groups of unvaccinated people exist in communities you've mentioned: communities of color and rural populations. There have been concerted disinformation and misinformation campaigns to discourage communities, including these, from vaccinating themselves against COVID–19.

We cannot allow people dubbed a threat to this Nation by our own intelligence agencies, no matter if they are anonymous internet marauders or members of our own governing body, to peddle disinformation that keeps us from protecting ourselves and others. Those are harmful stories.

And medicine is not partisan. Science is not partisan. Public health must be supported to the best of our Nation's ability, all of us, by nonpartisan political will.

It is on us to remind our loved ones that this pandemic is not over. New variants, as you mentioned, including the more transmissible Delta variant, are circulating at an alarming rate.

And even before the proliferation of these variants, experts were anticipating a fourth wave in areas with low vaccination rates. We were warned just this week that we could see dense outbreaks in rural areas because not enough of those communities are vaccinated.

And on the subject of community inequity, as the chairman mentioned, Black and Brown communities have suffered unspeakable losses through this pandemic. And it should come as no surprise to us that some people of color who felt abandoned by our government in 2020 may have hesitated to believe that the government would protect them now against COVID–19.

We must collectively come to terms with our historical—with our history of medical trauma and the abuse on Black and Brown Americans. And we must provide culturally competent, evidence-based messaging that is community-specific if we want to prevent more devastation this fall.

We need to spread the word about where people can find more information about the vaccines. My dear friend and science communication lead for the COVID Tracking Project, Jessica Malaty Ri-

vera, likes to say that science isn't finished until it's been communicated with empathy. So, we must work to make sure that our policies and the stories we tell about them, the ways in which we communicate the science, are trustworthy, transparent, and inclusive.

Public health must be our number-one priority, because, by nature, public health requires us to work on behalf of the public. Our doctors and researchers do, and each of us can do the same by standing up for our communities and getting vaccinated to stop the spread.

My fellow millennials watching and the innovative Gen-Z'ers out there, we are looking to you. You can reclaim your academic institutions and your precious milestones in person by getting vaccinated to protect yourselves and your loved ones so that you can write the stories of your futures. I genuinely believe that, together, we can do this.

Thank you for your time.

Mr. FOSTER. Thank you, Ms. Bush.

And thanks to all of our witnesses for your testimony.

Each member will now have five minutes for questions, and so the chair will now recognize himself for five minutes.

And, first, I have to say, you know, as a scientist, I often daydream that we can simply—when there's an issue that has to be communicated to the public, you can just say, here are the statistics, here are the numbers, here's the cost-benefit analysis, and then every one of my constituents will analyze that, apply the statistics to themselves, and say, OK, decision's clear, when do I get vaccinated, for example.

But it's not like that. You know, this job is to get an often-irrational primate to behave rationally. And so, very often, you have to inject sort of an equal and opposite irrationality into that primate with the sort of passion that you described in your testimony. It's important. Or the—what Dr. Adams mentioned about regret and even worrying about future regret. And so, I think—and it all rings true to you as a human being, even once you appreciate the statistics perfectly.

You know, I hosted a telephone townhall last week where we had doctors, public health experts, and we took questions from people about their concerns. And I understand—well, first off, we have to start with the science, and we have to get the science clear, that there is a definite net benefit. And we have to be honest with the public that the risks are not zero, but the benefits are so much more probable, that you must—you must analyze that yourself, and you must really, I think, take that rational approach to your life and your family's. But we need more than that. You know, we need the sort of passion that we saw in the testimoneys here.

You know, there—well, just in terms of the statistics, you know, I think all of us struggle to find, what are the right statistics to simply explain this to people? And the one that I've found as effective as any is that, if you looked at the 180,000 Americans who lost their lives from COVID–19 in May alone, less than 1 percent of those had been reported as being fully vaccinated.

That means 99 percent of those who died in May had vaccines available, by and large, and chose not to get vaccinated and paid

the ultimate price. Not to mention their families, not to mention those who simply became sick and are going to, you know, live with, potentially, a life of long COVID. That's something that's hard to measure, hard to quantify, but it's going to be real, the reality for probably millions and millions of Americans.

So, it's time to get the shot here. You know, vaccines are a public health issue, and, as everyone has mentioned, they are not and should not be a partisan issue.

Just this morning, my colleague on this committee, Dr. Miller-Meeks, and I published a joint op-ed in *USA Today* urging all Americans to get vaccinated.

And, without objection, I'd like to ask unanimous consent that that op-ed be entered in the official—yes, I presume you're not going to be objecting to our op-ed?

Mrs. MILLER-MEEKS. No.

Mr. FOSTER. All right. Great. Yes, it's always nice to stack the committee when there's an answer you want to get.

Mr. FOSTER. Now, Dr. Benjamin, in your written testimony, you referenced a national poll that found that certain words and approaches make people feel safer in getting the vaccine. Could you say a little bit about that?

You know, one of the big irrationalities of human beings is that, you know, labeling or a few words just twist our opinions beyond all rationality. Can you say a little bit about the words that work?

Dr. BENJAMIN. Yes. Thank you for that.

Yes, one of the challenges we have is that words matter. And, you know, we try to make sure that you don't stigmatize people, as the Surgeon General pointed out, that you—what I do is, I ask people what their concerns are and then ask them to—then I try to address those specific concerns. I try not to make an assumption that I know what their concerns are.

And then using words that they're comfortable with. You know, the fact that the vaccine was developed over many years is important as part of that communication. Using words when you talk about who described—who developed the vaccine. Make sure that they understand it was people—scientists, researchers, people in their community, so they don't think these are some abstract people somewhere that went into a back room and made this, you know, "mad scientist" type of image of how the vaccine got developed, that it was very thoughtful people.

Pointing out, for example, that there are—particularly for the African-American community, very, very important—that African Americans were part of both the development of the vaccine—in fact, leaders in the development of the vaccine, that African Americans were involved in the studies themselves and, in fact, there was a Herculean effort, because we're not really very good at getting diversity in these studies, but, in this case, there was good diversity in these studies.

So, doing things like that to make sure that people understand what actually happened. And so, it's not just the message, but it's also the messengers——

Mr. FOSTER. Yes.

Dr. BENJAMIN [continuing]. which is very important.

Mr. FOSTER. Thank you.

And I believe my time has expired, and I will now recognize Representative Miller-Meeks for five minutes for her questions.

Mrs. MILLER-MEEKS. Thank you, Mr. Chair, Representative Foster.

First, I'd like to thank the chairman and the ranking member for holding this important nonpartisan hearing today.

And I would like to thank our witnesses for their testimony, even those that are virtually—or also those that are virtually.

I have been to every county in my district, all 24 counties in southeast Iowa, to administer the COVID–19 vaccines. I also attended a function on getting young people to run for office and administered vaccines there when a pharmacist brought the vaccine.

I've also penned an op-ed on this topic with my colleague, Representative Foster, as he indicated, which was published today in *USA Today* on this exact topic. And I've done multiple interviews and sent letters encouraging the American people to get vaccinated.

I cannot emphasize how important I think it is to get vaccinated so that we can all return to normal.

To date, three vaccines are approved under the Food and Drug Administration Emergency Use Authorization process.

And, Dr. Adams, you mentioned something which is near and dear to my heart and for which I and other members of the Doctors Caucus—I'm an M.D. and a former state director of the Iowa Department of Public Health—sent to the FDA talking about this exact issue.

Can you explain how the Emergency Use Authorization is different from the full biologics license application approval?

Dr. ADAMS. Well, thank you very much for that question.

And it is important for people to understand that, during the EUA process, we are—or the FDA is evaluating to determine whether or not the risk is less than the benefit of an intervention. It hasn't gone through the full licensure process. And so, it is a bar that is especially important in the midst of a pandemic, because people are dying each and every day from COVID–19, but it is certainly not full licensure.

Now, that said, I want to hit a point that Representative Scalise mentioned earlier. Three-hundred-plus-million people vaccinated so far in this country—or doses delivered in this country. This vaccine has, again, been administered to more people and we have more safety data on it at this point than we've had for any other vaccine in history—in history—at this point of administering it to people.

So, I, as a doctor, feel it's safe. I got vaccinated. My 15-and 16-year-olds have been vaccinated. But, that said, I continue to hear from the public that the lack of an update on licensure is something that's hanging over their heads. And that's why it's important that the committee address this.

Mrs. MILLER-MEEKS. So, you would agree with me and other members of the Doctors Caucus when we have asked the FDA to look at real-world evidence of the millions of vaccines administered both in the United States and globally, that that should be enough study data information to give full authorization for these vaccines?

Dr. ADAMS. Well, absolutely. Dr. Fauci and I worked closely, and Dr. Collins from the National Institutes of Health, with these organizations throughout the process to get to EUA, and we looked at

data within the United States and outside of the United States. And when you go beyond the United States, you're well over 300 million doses that have been administered. We have even more safety data.

I just personally, as a physician and as someone who was inside this process, really, myself, don't understand why we haven't had more of an update yet.

Mrs. MILLER-MEEKS. Thank you for that. And, Dr. Adams, I want to say also that I remember meeting you at an ASTO) meeting here, and so it's a pleasure to see you again.

I'd also like to say that you mentioned herd immunity. And, in April, in this committee, I asked Dr. Fauci and Dr. Walensky both for herd immunity and the typical average of herd immunity, which you have said is around 70 percent.

Granted, we don't know what it is for this virus. But I think it's important—and I'm in an agricultural state. We know what herd immunity is. And the goal is to get as many people vaccinated as possible, and especially in the risk groups.

But you also mentioned about side effects. And there are so many questions I would love to ask, but I'm going to direct this next question to Ms. Bush.

And, Ms. Bush, your testimony was very compelling, because you mentioned the anxiety that you had, given your health risk. But we also know that, for children, there are tremendous mental health effects associated with not being in a normal school environment, coupled with stunted social and emotional growth of children 12 and over, and it far outweighs the potential effects of a vaccine.

So, what would you say to young people and to parents of children between 12 and 18 as far as getting the vaccine?

Ms. BUSH. Well, I think, again, you know, to the doctor's points, this is about how we protect our communities. I might have been less at risk than my parents, who are older and both immunocompromised, but I still got vaccinated for them and, admittedly, was terrified of this.

And I think the notion that households like some of our friends, who have some children over 12 and some children under 12, could be better protected if kids 12 to 18 were vaccinated, the likelihood that as we reach closer and closer to herd immunity, we will have less incidents of infection is incredibly important.

And it's our responsibility, in my opinion, to get vaccinated for ourselves, our loved ones, and also for those who can't, for immunocompromised people, immunocompromised children. This is a community action that we can take.

And, hopefully, the sooner we reach that herd immunity, the sooner we cross that threshold, all of these kids will be able to get back to the in-person learning that they need for their mental health and also for their cognitive development.

Mrs. MILLER-MEEKS. Thank you so much.

And, Mr. Chair, I know that my time has expired, but I just wanted to say that I thank the witnesses for talking about ending the mask mandate. We asked about this in April, given the data we had, and it should've been ended earlier so that people could see there was another benefit to getting vaccinated other than the lottery system, which I found tremendously interesting.

Thank you, Mr. Chair. I yield my time.

Chairman CLYBURN. [Presiding.] Thank you very, very much.

The chair has now returned via remotely. But thank all of you for your questions.

I do have questions that I would like to raise. As I mentioned earlier, I represent a largely rural district, and I am deeply concerned about vaccination rates in our rural communities. Although the CDC has warned that rural Americans may be at higher risk of severe illness and death from the coronavirus, rural communities are falling behind on vaccinations, and we are seeing cases rise in rural communities with large unvaccinated populations.

Over the next two weeks, I will be having five townhall meetings. Three of them will be in rural communities. And we will have the vaccine available at all of those meetings.

And I would just like to ask Mr. Garza: What would you have me tell my constituents who may not be sure that they want to get vaccinated?

Mr. GARZA. Yes, sir. I think the most important thing to explain is, the side that probably doesn't get shown very much is the side of somebody who went through it, like myself.

You know, you're in the hospital. There are so many uncertainties that you don't know about. And I think you have to explain the—there are just so many—it's hard to explain, being that I was there, and I experienced it, and a lot of people haven't experienced it yet. Maybe these people haven't—they don't know of people that have gone through it. Maybe they don't know of somebody who lost a loved one. You know, I knew of people who contracted the virus and, you know, they were fine within a week or two, and they were back to normal. And I felt like that was the norm.

I got hit very hard, so I went through the experience. You know, you sit in a hospital, you see on a daily basis—you see the people die on a daily basis. I think that needs to be, you know, brought to light. I think it—you know, it's nothing we really want to talk about, you know, all the time, but it's the truth.

And there's ways to protect it, and that's by taking the vaccination and going forward with it. And, you know, I would say, just share the stories as much as you can, because it's something that needs to be out there and for people to know that there is a consequence to not getting the vaccination, and it could happen to you and your family or your community. And that's something that we don't want to do, we don't want to see that happen, you know, but it's happening.

And I think people are on the fence either way, so I would share the stories as much as you can and explain, you know, the situation that—what could happen versus what they see.

Chairman CLYBURN. Well, thank you for that.

And I want to say to our staffs and our technical people here today that I would love very much to get your story. I was not here for your testimony; I'm going to listen to it. And I'm going to ask the staff to see whether or not we can make your testimony and your case available to more people in rural communities.

I can see us getting your story out to various community groups, at least throughout my district, and rural churches so that more

people will know a little bit more about the dangers of not adhering to the science when it comes to this coronavirus.

So, I want to thank you so much for being here with us today.

And, Dr. Benjamin, I want to thank you once again. You may have said strategies before I came back. Is there anything you would add to what Mr. Garza has said to us about getting the word out to rural communities?

Dr. BENJAMIN. Yes, sir. I think that one of the things you want to do is, particularly as you do in your townhalls, you know, you want to prep the community. That means going, you know—as you know, just like an election cycle, getting people going out door-to-door, making sure people are well-educated about the townhall, the opportunity to be vaccinated there, and trying to get some of their questions answered, having not only probably your health department there but also maybe some other community messengers.

And you know the folks we're talking about. You know, I've been to your events, as you know. We've known each other for a long time. And the kind of community outreach workers that you've had for some of the educational sessions that you've done at the university that go door-to-door, bang on doors, getting those folks out to talk to folks so that, when Mrs. Jones comes in, you know, she knows the community messenger that is trying to encourage her to get vaccinated so that it's not someone that doesn't know her or him.

And so, I just think that we need to put our arms around the community and just, as they say, show them the love when they come into those events.

Making sure that they have adequate transportation, providing rides to both your townhall and if the vaccination is at a different site, getting their vaccination there and back.

Recognizing that, yes, people do sometimes not feel well for either their first shot, quite often that second one, but they'll be fine afterwards.

And making sure that they can get off work and working with the local employers to give them time off. And, of course, I'm an advocate for paid time off when they do that.

Chairman CLYBURN. Well, thank you so much for your testimony.

Thank you, Mr. Garza.

The chair now recognizes Ms. Waters, Chairlady Waters, for five minutes.

Ms. WATERS. Thank you very much, Chairman Clyburn.

And I'd like to thank our witnesses for being here today to talk about a subject that's bothering so many of us. We are so concerned about our communities and the hesitancy that is displayed daily.

We know all the stories about why people are hesitant, why they are suspicious. We know the distrust because of the way we've been treated in the medical community with experiments and et cetera. We know all of that.

And we are talking to people and warning them ad nauseam. We're saying, you may die if you're infected and you have not been vaccinated.

So, we've done all of that. So now I'm really looking at incentives. I'm looking at what incentives work and how we can involve maybe

the private sector in supporting us with incentives to get particularly young people out.

Now, either of you have any knowledge or experience that you can share with us about whether or not incentives work and whether or not it is ethical to do incentives?

First, Dr. Adams, what do you think?

Dr. ADAMS. Well, thank you so much. And, actually, I would direct the question to Dr. Milkman, because she wrote the book on this. She is the expert on this.

Ms. WATERS. Oh, she did?

Dr. ADAMS. Yes, she did. And she is the expert on the panel on incentives.

But what I would say to you very quickly is, you need to have the right incentive for the right audience. And a blanket incentive isn't going to work for every population, because it's not going to address the concerns the particular populations have. So African Americans may respond to different incentives than Hispanics and Latinos, than rural communities.

But, again, I'll throw it to the expert who is here, Dr. Milkman.

Ms. MILKMAN. Sure. No, the evidence that incentives work is building. We have decades of evidence that they work for changing health behaviors in other contexts. Of course, we only have a little bit of evidence to date on how well they're working for COVID–19 vaccinations.

But, as I mentioned earlier, the Ohio Vax-a-Million data is already looking very promising. There was a 28-percent increase in vaccinations in the week following the announcement of that, and we believe that, in the two weeks following, there were an extra 50,000 to 80,000 vaccinations given.

Now, you asked a question about particular communities and do they work differently in different communities, and I wish we knew more about that. One thing that we're pioneering in Philadelphia, where I co-designed the Philadelphia Vax sweepstakes, is a kind of lottery incentive that's actually focused on communities where there are low vaccination rates.

So, we are running a citywide sweepstakes, but we are giving half of the prizes in each round, in each drawing, to a particular ZIP Code that's under vaccinated. And I think we should be doing more to target those under vaccinated communities.

A nice thing about lottery incentives is that they draw tremendous media attention. We think that's part of why they're so effective. People get very excited. There's vivid stories, which is important. We just talked about the importance of stories. You have vivid stories now of winners, happy stories that people like to hear about.

And so, I strongly encourage more communities to think about doing localized incentive programs.

Ms. WATERS. Well, thank you. This——

Dr. ADAMS. And, ma'am, work sites. Incentives at work sites are key, working with businesses. People spend more of their waking hours at work than what they do at home.

Ms. WATERS. Uh-huh.

Dr. ADAMS. And the people are going back to work.

Active is a company, an electronics manufacturer, that's working with Texas on the border to vaccinate people on both sides.

Again, it's important that—and I encourage the committee and I put in my written testimony that you all should work with businesses, the Department of Labor, and SBA to encourage and empower work sites to offer incentives and onsite vaccinations.

Ms. WATERS. Now, you may be the wrong experts to ask about this, but, of course, I was at the BET Awards this past weekend, and I was looking at Lil Baby and Rapsody and these rappers and how thrilled young people were with them, the young people that they have around the stages screaming.

What about that? Entertainment, athletes, rappers, do you think they could be helpful, you know, in helping us to get certain groups of people out?

What do you think, Dr. Benjamin?

Dr. BENJAMIN. Absolutely. The right messenger is very important.

And I can tell you what we've learned, you know, from our tobacco work, our anti-tobacco work, is that peer-to-peer education is very important, so getting young people to talk to other young people and getting them well-educated.

You know, just up the road here in Maryland, my colleagues at the University of Maryland have barbers that are talking to folks in the community. You know, lots of stuff gets talked about in the barber shop while you're in that chair.

And we did it through a—you know, when I was here in D.C. as a health officer, we used lay barbers and others to educate the community about a range of health threats. And we believe this would be effective.

A dean at the University of—in New Orleans at Tulane also has a barber program, a community program. It turns out it works.

Ms. WATERS. Well, thank you so very much. Like I said, I know we've all been preaching and talking, so we've got to be creative. We've got to come up with some new ways by which to do it.

Thank you very much for being here today. Thank you all.

Chairman CLYBURN. Thank you very much, Chairlady Waters.

The next—do we have anyone present on the Republican side for the next question?

Ms. Velazquez, you are now recognized for five minutes.

Ms. VELAZQUEZ. Thank you, Mr. Chairman, for holding this important hearing, important to the communities that I represent, communities of color and underserved communities.

And I want to thank all the witnesses for being here.

So, recently, I introduced the Building COVID–19 Vaccine Confidence Act of 2021, which directs the CDC to fund grants to local health departments and nonprofit organizations to conduct outreach to combat vaccine hesitancy, especially in communities of color.

Dr. Benjamin, what are the top three recommendations to create a successful, culturally competent, multichannel, targeted vaccine campaign?

Dr. BENJAMIN. So, I think the first thing is to make sure that you engage the community as part of your design. It is important

that we not go in and think that we know what the community needs or what the community thinks. I think that's the first thing.

Second, make sure that the—you know, that we make it convenient for people to get their vaccine. And that's extremely important. And that——

Ms. VELAZQUEZ. So that means opening up vaccine sites where they are.

Dr. BENJAMIN. It means the sites where they are, it means getting them rides, but also, again, asking them what they need.

Ms. VELAZQUEZ. Sure.

Dr. BENJAMIN. When we were trying to do lots of education around infant mortality, it turns out that pregnant women wanted to—needed a place that was safe that they could simply do their laundry. We would've never thought about that. But, you know, just creating a welcoming environment for people to do things that they want to do.

And I think the third thing, of course, is that, if you're going to use incentives, that those incentives are focused. Now, I would like to argue that the most important incentive is that you don't get real sick and die. But people are not good at thinking about risk, but they do respond to targeted incentives that they find valuable.

Ms. VELAZQUEZ. Right.

Dr. BENJAMIN. And it doesn't have to be a lot of——

Ms. VELAZQUEZ. Thank you.

And, Dr. Benjamin, reports suggest that there may be a need for a booster shot. A New York Times article from May raised public skepticism over the COVID–19 vaccine's efficacy, and, just a few days ago, The New York Times indicated the vaccine could lead to years of protection.

So how do we educate the public on the facts and address these concerns?

Dr. BENJAMIN. Yes. One of the challenges is that we're doing science in real-time. In the old days, we would all go into a back room, we'd spend several years exchanging newspapers and articles, and debate amongst ourselves, and then we'd come out and tell the public what we thought our consensus was. That's now occurring in the public, and so the public is hearing the scientific debate.

I think it's important that, as we communicate that stuff, that we tell people that, first of all, we don't know if we need boosters yet. We might. There may be certain populations that need boosters and not others. It may be that if you got a particular vaccine from a different platform, you know, mRNA versus the adenovirus ones, et cetera, with different efficacies. It may be that if we mix and match these vaccines you get better coverage and maybe the booster may be different.

The answer is, we don't know. We need to tell the public we don't know—tell them everything we know but tell them also what we don't know. And then, as we know more, we should do that.

By the way, I know that they're working on creating boosters, but we're not there yet.

Let me say one final thing, is that, you know, the variants are going to drive that booster discussion probably more than anything else.

Ms. VELAZQUEZ. Right. Yes.

Dr. BENJAMIN. The story that we saw in the paper the other day, I think they were talking about assuming that the strain that we are protected from stays stagnant. If we get something that is much more virulent and escapes the vaccine, then we will clearly need a booster down the line.

Ms. VELAZQUEZ. Thank you.

And, Dr. Milkman, a recent poll found that more than half of unvaccinated Americans preferred to get a vaccine from the doctor's office instead of a pharmacy or a vaccinationsite.

So, what can be done to reach vaccine-hesitant individuals who may not have a local doctor, such as individuals experiencing homelessness or undocumented individuals?

Ms. MILKMAN. Yes. That's a fantastic question. And I think one of the things I'm most encouraged by is the fact that there are opportunities to do, sort of, door-to-door—and that can also be, you know, going to shelters and so on—outreach and have physicians who are willing to travel and have those conversations in that setting. Even if it's not your physician, knowing that it is a doctor you're talking to and having that conversation face-to-face can be very important.

And so, I think we need to be looking to tactics along those lines, rather than expecting people to come into pharmacies and request vaccines. The more we can go to the community and bring the information and expertise to them, the better.

Ms. VELAZQUEZ. Thank you, Mr. Chairman. I yield back.

Chairman CLYBURN. Thank you very much for yielding back.

Now, I am told that Mrs. Maloney is on her way. I don't know if she's in the hearing room yet. Is she?

She is not.

I will ask the witnesses to bear with us as we observe a five-minute recess. We will recess for five minutes to give members time to get back from this vote.

[Recess.]

Chairman CLYBURN. Let me thank the witnesses for their indulgence.

And I understand that Mrs. Maloney has returned and let me now recognize Chairlady Carolyn Maloney for five minutes.

Mrs. MALONEY. Thank you, Mr. Chairman. Thank you for your leadership.

I am very concerned about the lagging vaccinations and the rates of the vaccinations in younger Americans. According to the CDC, just half of Americans between the ages of 18 and 39 have received one or more doses of the vaccine, compared to more than 85 percent of Americans age 65 and older.

Ms. Bush, I really admire that you have been so outspoken on this issue. What message do you have for young Americans who have yet to get vaccinated?

Ms. BUSH. Thank you very much, Representative.

I think it's incredibly important for us to acknowledge the facts and then also acknowledge how we feel about them.

We are seeing that overall COVID cases are dropping, but only among the vaccinated. And the rates of infection, hospitalization, and death among the unvaccinated remain unchanged since Janu-

ary of this year. And we know that more and more young people have contracted COVID, and we know that it is not just adults. COVID–19 is among the top 10 pediatric killers currently.

So, this does matter for all of us; this does matter for young people. And I understand that there is an air of invincibility at times, especially because in the initial stages of the outbreak of the pandemic we thought that this was something that mostly affected older Americans. That's simply not true.

And especially for young people, who have so much of their lives ahead of them, who have dreams that they're building on and academic careers to pursue, so much of that is magic, frankly, because it happens in person, because of who we meet, who we fall in love with, where we wind up working, and I don't want young people to lose those opportunities.

And Representative Waters asked how entertainers and rappers and activists and athletes can play a part. What I would encourage any young person watching to think about today is how many of us you know through a screen or through a sport who you've seen get vaccinated, and our bodies are literally our jobs.

When I watched Megan Rapinoe and Sue Bird not only go get vaccinated in Seattle but volunteer at a vaccine site, I knew that that would be meaningful to young people, to see icons, professional athletes, whose bodies are their business, whose bodies have to run like gladiators, go out and get a vaccine to protect themselves and also their families.

And so, my hope is that, if you're a little less interested in politics than most of us in this room, that perhaps the people who you look up to, the athletes and the entertainers, et cetera, who you know don't really have anything to do generally with what's happening in these rooms, believe in medical science, believe in the innovation, understand that, as we look at a global number of over—3 billion?—of over 3 billion vaccines that have been administered, we're doing great.

This will save lives, and, in particular, it will allow young people to get back to the futures that they're pursuing.

Dr. ADAMS. Congresswoman Maloney, if I may jump in really quickly. This is Dr. Adams.

One of the points I made in my written testimony was that the Department of Education should support school-based vaccination clinics. And that will especially help with our sports teams.

When you look at Jon Rahm—when you look at Chris Paul, who missed an NBA playoff game; Jon Rahm, who lost millions of dollars because he had to drop out of a golf tournament; when you look at the NC State baseball team, there are numerous examples of people whose lives were harmed by the social consequences of not getting vaccinated as opposed to the health consequences.

And young people, in many cases, aren't going to be scared into getting the vaccine by the health harms, but we need to help them understand how getting vaccinated will help them get their lives back to normal. When they go back to school, some of them in just a few weeks, they won't have to quarantine if they're exposed to someone. They won't have to wear masks, in most cases, if they've been vaccinated. It's important to show the benefits that actually matter to that group of people.

Mrs. MALONEY. Reclaiming my time, as I only have a very limited amount of time, I wanted to ask a question about my home state of New York.

In my home state of New York, we've offered 50 full-ride scholarships to any New York state public college or university to people under the age of 18 who get vaccinated. We also offered lottery scratch-off tickets with a grand prize of $5 million to those 18 and older and free baseball tickets, among other incentives.

Dr. Milkman, what strategies should we be using to increase vaccination rates among younger Americans and anyone else?

Dr. Milkman?

Ms. MILKMAN. Thank you for the question, Congresswoman.

I think it's wonderful what New York is doing. I think, actually, it's fantastic to see these kinds of incentives that, in particular, appeal to young people.

I think, in addition to college scholarships, we could think about, are there ways that we can particularly target young people? And Congresswoman Waters earlier mentioned celebrities. There are lots of things that we could offer in lotteries besides just scholarships that might be even more exciting to young Americans.

And I think there's an opportunity to try to get artists engaged, you know, free concert tickets or an opportunity to meet your favorite musician for lunch. Those are the kinds of things that we could consider also putting on offer in lotteries as prizes that might particularly appeal to young people. And having the kinds of events that were mentioned in Seattle, where sports icons come out and you could go meet them and get your vaccine.

So, I think the more we can engage with artists and entertainers and get them involved, the better we'll do.

Mrs. MALONEY. Thank you.

My time has expired. Thank you.

Chairman CLYBURN. Thank you, Mrs. Maloney.

I don't know that Congressman Krishnamoorthi has returned. I understand he may be on the way, but I don't want to hold our witnesses any longer than we need to. So, if the ranking member is not here for his closing statement, I'm going to proceed to my closing statement. And I will interrupt myself if Mr. Krishnamoorthi were to return.

So, before we close, I would like to enter into the record 21 letters the select subcommittee has received in recent days from organizations representing healthcare providers and advocates. I won't read off the names of all 21 organizations, but each of these groups has written to emphasize the critical importance of overcoming vaccine hesitancy so that we can increase vaccinations across the country and contain this deadly virus.

I'm going to ask unanimous consent that these letters be entered into the official hearing record. And unless there are objections, I'm going to order that they be in.

Without objection, so ordered.

Chairman CLYBURN. In closing, I want to thank Mr. Garza, Dr. Benjamin, Dr. Milkman, Dr. Adams, and Ms. Bush for testifying before the select subcommittee today. We appreciate your personal stories, your expertise, and your leadership.

I would also like to thank the ranking member for his participation in this effort.

We need to inform all Americans of the truth: Coronavirus vaccines are safe and effective.

To overcome hesitancy around the country, we must meet the skeptical where they are. We must enlist community organizations and trusted community messengers to inform the groups they represent.

We must also continue working to break down barriers in vulnerable communities, including technology, transportation, and language disparities, to reach those who want the vaccine but are unable to get it.

We must also recognize that there are many unvaccinated Americans on the fence, not opposed to getting vaccinated but not eager enough to have done so already. We can learn from those states who have come up with smart ways, such as lotteries, free giveaways, sweepstakes, and other incentives, to increase uptake among those who need extra encouragement.

The American public is still at risk. The more that the coronavirus continues to circulate, both in the United States and globally, the greater the risk that deadlier, more contagious, and vaccine-resistant variants could emerge. To lower this risk and to end the pandemic once and for all, it is crucial to get as many people vaccinated as quickly as possible.

We need to continue developing and implementing innovative solutions to encourage everyone to receive their vaccinations. I look forward to working with all of you on this panel, with my colleagues on both sides of the aisle, and with the Biden administration to do so.

But before I close this hearing, I wish to recognize Representative Krishnamoorthi for five minutes.

Mr. KRISHNAMOORTHI. Thank you, Chair Clyburn. Can you hear me?

Chairman CLYBURN. Yes.

Mr. KRISHNAMOORTHI. I wanted to just ask the panel a couple questions. And I'm sorry I'm running back and forth with votes and press conferences and so forth.

But the question is this, which is: Can any of the panelists speak to—and I apologize if you covered this before, but can any of the panelists speak to what has been effective in encouraging people who are hesitant about taking the vaccine to do so now?

And the more specific that you can be in terms of any examples of what has worked, I would be most grateful.

Ms. MILKMAN. I'd be happy to take this one for a moment and then turn it over to others.

Some of the key things that we've seen that do work are lotteries. Lotteries are working. There was a 28-percent increase in vaccination among those 16 and up in Ohio after the announcement of the Ohio Vax-a-Million and an estimated 50,000 to 80,000 additional doses delivered in the two weeks after that lottery was announced.

We know that people also respond to large incentives, payments on an order of magnitude of $100, though there is some risk that small incentives can actually backfire by signaling, "We have to

pay you; it must be risky to take this vaccine," which is inaccurate, but an inference people make. So large incentives work.

And people are also very motivated by reductions in restrictions, like not having to wear masks anymore. That means a lot to a lot of people.

Another thing that works very well are mandates, even though they're unpopular for good reason. However, we know that when there is a mandate it's highly effective. And 500 colleges and universities are mandating that people be vaccinated when they come back to campus in the fall. That's going to make a huge difference. And larger numbers would help, especially given that we know there are low vaccination rates among the young. And so that's another strategy we could think about encouraging.

And employers can also impose mandates. And I think we should be looking at whether or not there are ways to encourage more employers to do that, given the huge impact it has and the externalities of vaccination on your community.

Mr. KRISHNAMOORTHI. Are there any particular messages, especially with young people, that seem to work better than others in getting them to get vaccinated, obviously aside from saying that you have to do it, from a mandatory vaccination standpoint?

Ms. MILKMAN. It's important to hear from people who they trust and who they respect and admire. There was a discussion about, you know, musicians, athletes, the kinds of people we look up to. Young people respond more to that than to hearing from a politician.

Everyone responds well to hearing from a trusted medical source. So, if young people have a doctor, they're used to having conversations with, having those in-depth conversations can be really powerful, as well as just seeing role models.

But social norms spread, meaning I see my friends doing something and that makes me much more attracted to doing it. So, the more we can also convey to young people how many other young people are making the choice to get vaccinated, make that really visible on social media, that's going to help as well, because it will propel more and more. There's a snowball effect when we see someone else who looks like us doing the thing that we are contemplating doing.

Mr. KRISHNAMOORTHI. Would something as simple as having people who have been vaccinated get online and basically share that they were vaccinated, would that make a difference?

Ms. MILKMAN. It should. We know that it makes a difference in other contexts. When young people see on Facebook a number of their friends have voted, for instance, it increases their likelihood of voting. And the closer the social connection, the bigger the impact.

So, the more visible we can make it when young people vote and the more, we can ask them to tell their friends, communicate to their friends, send a message to their friends, the better.

Mr. KRISHNAMOORTHI. And has there been something that has not been done in that vein that should be done? I would imagine that there's a lot of social media campaigns that involve what I just referred to, but perhaps I'm wrong about that. But can you think

of other things that need to be done on social media that haven't been done that would be effective?

Ms. MILKMAN. Well, one thing that I advocate for—and this applies to all populations, but young people in particular—is, I've been advocating for radical convenience, so whatever we can do to make it feel like the lightest possible lift to get this vaccine. Like, you wake up, you roll out of bed, and, boom, it's done.

So, college campuses bringing it to your dorm room, right? Your friend shows up and escorts you to the vaccine center, and you already have an appointment, everything's set up for you. I think that would help a lot with this population, and I don't think we've done enough of that.

Mr. KRISHNAMOORTHI. Thank you so much.

I yield back.

Chairman CLYBURN. Thank you very much for your questions.

And thanks, once again, to the panelists who are here today.

Without objection, all members will have five legislative days within which to submit additional written questions for the witnesses to the chair, which will be forwarded to the witnesses for their response.

Chairman CLYBURN. This hearing is now adjourned.

[Whereupon, at 10:35 a.m., the subcommittee was adjourned.]