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EXAMINING OUR COVID–19 RESPONSE: IMPROVING HEALTH EQUITY AND OUTCOMES BY ADDRESSING HEALTH DISPARITIES

HEARING

OF THE

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS

UNITED STATES SENATE

ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

ON

EXAMINING OUR COVID-19 RESPONSE, FOCUSING ON IMPROVING HEALTH EQUITY AND OUTCOMES BY ADDRESSING HEALTH DISPARITIES

MARCH 25, 2021

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EXAMINING OUR COVID–19 RESPONSE: IMPROVING HEALTH EQUITY AND OUTCOMES BY ADDRESSING HEALTH DISPARITIES

Thursday, March 25, 2021

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

The Committee met, pursuant to notice, at 10:05 a.m., in room 430, Dirksen Senate Office Building, Hon. Patty Murray, Chair of the Committee, presiding.

Present: Senators Murray [presiding], Casey, Baldwin, Kaine, Hassan, Smith, Rosen, Lujan, Burr, Cassidy, Murkowski, Braun, and Scott.

OPENING STATEMENT OF SENATOR MURRAY

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

Today we are holding a hearing on how we can address the health inequities that have made this pandemic so much more deadly for some communities than others. Ranking Member Burr and I will each have an opening statement, and then Senator Burr and I will introduce today's witnesses. After the witnesses give their testimony, Senators will each have 5 minutes for a round of questions.

Before we begin, I want to walk through the COVID–19 safety protocols in place. We will follow the advice of the attending physician and the Sergeant at Arms in conducting this hearing. The Committee Members are seated at least six feet apart, and some Senators are participating by video conference. While we are unable to have the hearing fully open to the public or media for in-person attendance, live video is available on our Committee website at *help.senate.gov*.

If you are in need of accommodations, including closed captioning, you can reach out to the Committee or the Office of Congressional Accessibility Services.

We are grateful to everyone, including our clerks, who have worked hard to get this set up and help everyone stay safe and healthy.

When we talk about inequities, we are talking about the reality that people's health suffers because of systemic issues like how far they are from quality, affordable, accessible, culturally competent care; whether they are recruited for clinical trials or the health care workforce; and issues including social determinants of health, things like where people are born or live and work. The reality of health inequities is that how you live and even whether you live or die in a pandemic is impacted by your race, your income, your ZIP Code, your disability, your gender identity, and your sexual orientation, and these factors intersect in ways that compound injustice if you are, for example, a woman of color or a person with a low income and a disability. And now the COVID–19 pandemic has deepened these inequities to a devastating effect and made it even more urgent we look at how we got to this awful point and what to do.

Here are the facts. Native Hawaiian and Pacific Islanders have the highest COVID–19 infection rate. American Indian and Alaska Natives have the highest death and hospitalization rates. One of the strongest predictors of death for COVID–19 next to age is having an intellectual disability. In the wake of this pandemic we have also seen an unacceptable and ugly uptick in hate crimes against Asian American and Pacific Islanders, like we saw in Georgia last week. And while the hospitalization rate for Black people and the rate for Latinx people are both around three times that for white people, and the death rates for each group are twice as high as that for white people, their vaccination rates are both half of the white population.

The picture painted by the data so far is grim, and despite improvements, that picture is still incomplete. I secured a provision in law last year requiring the Centers for Disease Control and Prevention to provide monthly reports on COVID–19 demographic data with information on sex, age, race, and ethnicity. And since the first report last May, the percentage of cases with complete racial data has increased from 21 to 71 percent, and complete ethnic data has increased from 18 to 55 percent, meaning we still have room for progress.

Even on hospitalizations, where we've gone from having data on 40 percent of the cases a year ago to nearly 100 percent of cases now, the data fails to break out certain race and ethnicity data, for example, aggregating data on Asian American and Pacific Islander populations in a way that leaves us without a full vision into health inequities.

We also still lack Federal reporting requirements for congregate care facilities, including for people with disabilities who have also been hit particularly hard by COVID–19. And the challenge before us is to not only accurately collect and report the data but act on the realities we see in front of us and keep gathering information so we can improve our response.

Which is why I'm glad we were able to make critical investments in the American Rescue Plan to support communities of color, people with disabilities, tribes, and other underserved communities. President Biden has also made this a priority by establishing his COVID–19 Health Equity Task Force on January 21st, and today the Administration announced a $10 billion investment of funding from the American Rescue Plan to expand vaccine access and build vaccine confidence in underserved communities.

The Administration also recently announced over $2 billion for an initiative supporting state, local, and territorial health departments as they address COVID-related health disparities; and has set up a program to distribute vaccines directly to 950 community health centers, which have been a lifeline to some of our hardest hit and hardest-to-reach communities during this pandemic.

These investments, along with efforts from state and local governments and trusted community partners, are critical to making sure we get vaccines and information to communities of color, people with disabilities, rural communities, people with limited English proficiency, and people who lack access to the Internet, which in turn is critical to ending this pandemic for every community.

Of course, while the pandemic has put a harsh spotlight on inequities in health care, there were problems long before the crisis began, and our work to end them must continue even after it ends, because the same injustices we are seeing play out with COVID have been playing out with maternal mortality, mental health, cancer, and many other health issues for years.

I put out a report last year that outlined the many ways our health care system has failed communities of color and others due to entrenched bias, discrimination, ableism, and racism. The history is a long and painful one, and comprehensive action is overdue.

Steps not only to address the inequities of this pandemic but also to root them out of the health care system altogether, like prohibiting discrimination in the health care system and requiring anti-racist and anti-bias training, providing support for people in under-represented communities to participate in clinical trials, pursue a career in medical research, or become a health care provider, assuring everyone has quality, affordable health coverage, the support of strong public health infrastructure, and paid family sick and medical leave, those are a few of the recommendations I made in that report, and I look forward to hearing from our witnesses about these challenges during today's discussion on improving health equity.

I really want to underscore, as I said when I first spoke about becoming Chair of this Committee, health equity is personally important to me, and I know to so many of us here today. We've all heard about it from people we represent. We know how painful and how present this injustice is across our states, and I believe the work on this Committee can make a difference. And I look forward to our discussion today and the work ahead.

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

OPENING STATEMENT OF SENATOR BURR

Senator BURR. Thank you, Madam Chair. And I want to thank our witnesses for being here today to discuss ways to improve our pandemic response for those hit hardest by it, especially low-income, minority, and rural populations.

This Committee has a long history of working together on health care issues that affect our seniors, our children, Americans with disabilities, and in supporting our hardest-to-reach communities.

To our witnesses, thank you. Thank you for the work you've done during the pandemic and for taking time away from your critical work to share your experiences today. On behalf of the Chair and

I, we apologize that we may temporarily be out of the room because, as this hearing goes on, we'll have a series of four votes. But we're going to try to do it as seamlessly as we can, and we encourage all of the Members to please be here or let us know that you're not going to be here so that we can appropriately schedule time.

The disproportionate impact of COVID–19 on minority populations, people in rural areas, and others has revealed cracks in our health care system that persist despite efforts to improve care, including through community health centers and the National Health Service Corps, which seek to improve care for underserved communities. This pandemic has given us another perspective on these challenges and demonstrates a need to redouble our work to address the underlying problems facing these and other affected populations. Each response requires the ability to identify the problems local communities will face, strong leadership to recognize the best solutions, and an ability to leverage the right approaches and technology to execute those changes.

With each emergency response, we learn about the ways each threat affects Americans differently and have adjusted our laws and our plans accordingly. That's why we designed a response framework that is flexible: you never quite know how a new infectious disease or a natural disaster may impact us until it's on the ground and we are forced to respond. For example, during the last PAHPA reauthorization, Senator Casey and I included new advisory committees to identify the specific needs of our seniors and Americans with disabilities during emergencies. We also codified the Children's Preparedness Unit at CDC to improve the availability of information for health care providers and families during the response to a public health threat.

We made changes to the PAHPA statute after the tragedies that occurred in Florida nursing homes in the 2017 hurricane season, allowing states to have better plans in place to protect their nursing home residents. Some states have done a great job of taking care of their nursing home residents during the COVID–19 response, and we can learn from the failures in New York and Pennsylvania about what not to do going forward.

We have also made changes to the PAHPA statute to improve the development of countermeasures to meet the needs of different populations, and we've made sure we wrote it in a way that allowed maximum flexibility to respond to affected populations. During the response to swine flu, we realized that young children were coming into the hospital in need of treatment, so we worked quickly to get an emergency use authorization for flu antivirals, saving lives in real time. While we were working to treat children with swine flu, the science also showed us that some older Americans were less affected by the virus because that generation was exposed to a similar strain many years ago.

In contrast, most children appear to be less likely to experience serious illnesses from COVID, and older adults are at significantly higher risk. This virus has also compounded existing challenges that many communities—including rural and racial and ethnic minorities, and low-income populations—face. These differences underscore the importance of maintaining flexibility as part of a public health response so that the state and local governments can most effectively reach those in their communities most at risk for a particular public health threat.

The novel coronavirus has shown us that we cannot fully anticipate the ways in which a threat will affect different communities across the country. We have to utilize new technologies throughout the response to better understand just how the virus takes its toll and to do something about it.

The FDA has provided greater flexibility in clinical trial designs, working with drug developers to enhance enrollment in clinical trials in ways that reach more communities by deploying remote technology that allows for patient monitoring without traveling to a major hospital. Manufacturers have gotten creative with targeting their trials to those who stand to benefit the most from a drug, with one developer creating mobile units to bring their COVID therapies directly to nursing homes as soon as they found an outbreak of the virus. Mobile health units have also been deployed to bring testing and vaccines to areas that needed countermeasures, and partnerships with Historically Black Colleges and Universities improved outreach to racial and ethnic minority populations on testing, participation in clinical trials, and providing information on vaccines and ways to prevent COVID.

Now, as we look toward the weeks and months ahead, this ingenuity needs to continue. Our response efforts must leverage technology to improve our surveillance capabilities and inform our public health decisionmaking, and our policies should encourage the incorporation of new technology, strategies, and partnerships to solve problems and overcome challenges.

I look forward to hearing from the witnesses today on their testimony, and I yield to the Chair.

[The prepared statement of Senator Burr follows:]

The CHAIR. Thank you very much, Senator Burr.

We will now introduce today's witnesses, and I'm pleased to start by welcoming Dr. Consuelo Wilkins. Dr. Wilkins is the Vice President for Health Equity and Professor of Medicine at Vanderbilt University Medical Center, and a principal investigator at the Vanderbilt Miami Meharry Center of Excellence in Precision Medicine and Population Health, which aims to reduce disparities among Black and Latino communities. She is also recognized for her innovative work to engage patients and communities in health research.

Dr. Wilkins, welcome. Thank you for joining us today.

Next I would like to introduce Abigail Echo-Hawk. She is a nationally recognized leader in tribal health and health inequities from my home state of Washington. Ms. Echo-Hawk is the Executive Vice President of the Seattle Indian Health Board, Director of the Urban Indian Health Institute, and an enrolled member of the Pawnee Nation of Oklahoma.

Welcome, Ms. Echo-Hawk. We're very glad to have you with us today.

Next I would like to introduce Taryn Williams. Ms. Williams is the Managing Director for the Poverty to Prosperity Program at the Center for American Progress, specializing in disability issues. She previously worked at the Office of Disability Employment Policy at the U.S. Department of Labor, where she handled a variety of issues related to education, workforce policy, Social Security, Medicaid, civil rights, and more. And I should also mention she is a HELP Committee alumnus, serving as policy advisor when Senator Harkin was the Chair.

Ms. Williams, welcome back. Thank you for joining us today.

Now I will turn it over to Ranking Member Burr to introduce our final witness, Mr. Gene Woods.

Senator BURR. Thank you, Madam Chair.

Before I introduce Gene Woods, let me say to Dr. Wilkins that I apologize that we have stolen your provost from Vanderbilt to become the next president of Wake Forest University. I understand she is a wonderful individual, a biologist, I think, by profession, and we look forward to having her on board at the end of next month.

Madam Chair, Gene Woods really needs no introduction. He's from Charlotte, North Carolina, and I'm extremely proud of the incredible work of Atrium Health and of North Carolina's health systems during the pandemic this year.

Thank you, Gene, for taking time out of your work to be with us today remotely.

Mr. Woods currently serves as President and Chief Operating Officer of Atrium Health and brings to the panel over 30 years of leadership experience in the health care sector. Atrium Health is a nationally leading non-profit health system with 42 hospitals and over 1,500 care locations across four states. Under Gene's leadership, Atrium Health has been recognized by the American Hospital Association with the Equity of Care Award for its commitment to serving underserved communities, and by the Centers for Medicare and Medicaid Services as a 2020 CMS Health Equity Award winner for its dedication to reducing health disparities.

Gene has been recognized as one of the most influential people in health care and as one of the top 25 minority executives in health care, and is one of the most admired CEOs and is the 2020 Person of the Year by the Charlotte Business Journal. He was awarded the Senior Executive of the Year Award by the National Association of Health Services Executives.

Gene is a leader among his peers, having served as Chairman of the American Hospital Association Board of Trustees, as well as the Wall Street Journal CEO Council. Gene holds three degrees from Pennsylvania State University, including a bachelor's degree on health planning and administration, a master's degree in business administration, and a master's degree in health administration.

Gene, thank you for being with us today and for the important work that you're doing in North Carolina. I look forward to your testimony.

The CHAIR. Thank you.

Again, welcome to all of our witnesses. We appreciate you joining us today.

I will reiterate what Senator Burr said. We have a number of votes occurring today, so he and I will both be in and out. I would ask all of our Members if you want to ask questions, please let our staffs know so we can schedule everybody in a timely fashion.

With that, we'll begin our testimony. Dr. Wilkins, you may begin with your opening statement.

STATEMENT OF CONSUELO H. WILKINS, MD, MSCI, VICE PRESIDENT FOR HEALTH EQUITY, VANDERBILT UNIVERSITY MEDICAL CENTER, NASHVILLE, TN

Dr. WILKINS. Thank you, Chairwoman Murray, Ranking Member Burr, and distinguished Members of the Committee. My name is Dr. Consuelo Wilkins. I am a physician, clinical researcher, and Vice President for Health Equity at Vanderbilt University Medical Center.

Since March 2020 I have been deeply entrenched in managing COVID–19 operations, as well as COVID–19 research. As part of our COVID work streams at Vanderbilt, I've led the health equity work, and part of our goals is reducing disparities and increasing access to care.

At Vanderbilt, we performed more than 185,000 COVID–19 tests. We've cared for more than 3,400 hospitalized patients with COVID–19. And most recently, we vaccinated more than 115,000 doses of vaccine.

It has been harrowing to witness the devastating impacts of COVID–19 on marginalized and minoritized communities across the Nation. These are the very communities I've spent the last 21 years striving to improve the lives of.

As you know and has already been described, across the United States individuals who identify as African American, American Indian, Hispanic and Latino have been extremely impacted by this disease, bearing the burden of deaths and hospitalizations. Additionally, individuals who speak languages other than English, individuals who are unhoused, and people living in rural communities have been disproportionately impacted by COVID–19. And now, with three vaccines already available and the United States leading the way, these populations are being vaccinated at less than half the rate of other Americans.

To address these COVID–19 inequities, I offer three critical areas we should prioritize as a country.

First, the data. At Vanderbilt, we have disaggregated data by race, ethnicity, language, and ZIP Code. By doing so, we found the most striking disparities occurred in individuals who speak languages other than English, specifically those who speak Spanish and Arabic. We also found that the ZIP Code with the highest number of COVID–19 cases is one where African Americans are more likely to live, where individuals are actually more likely to be employed but have a per capita income of much less. This represents essential workers and individuals who are striving to take care of their families but cannot work from home. They live in households with more people, so there's more crowding. They're more likely to take public transportation, so they're at increased risk of the disease.

Unfortunately, as Chairwoman Murray already pointed out, we're still lagging behind with collecting data on race and ethnicity. That alone, those strides we've made, won't be enough. We need better data. We need data that's detailed for ethnicity. We need social demographic data, social determinants of health data if we're truly going to actually develop strategies that are specific to the communities we intend to improve the lives of.

That can't happen without funding. The reason that we're not actually collecting this data is we don't have people who are dedicated to it, who know how to do it in a meaningful, socially and culturally appropriate way. So that is necessary to move to the next stage.

Second, we must invest in community-driven solutions. While I'm extremely proud of the work we've done at Vanderbilt, I am keenly aware that we are not able to address these health inequities alone. In Nashville, we are grateful that Meharry Medical College, an historically Black academic health center, has led city-wide COVID–19 testing and is now vaccinating individuals in the most vulnerable communities.

Community health centers like Matthew Walker are vaccinating individuals in the most disadvantaged neighborhoods in Nashville. Salom Health has worked closely with our metro Nashville health department to offer community health workers who are bilingual and bicultural to do contact tracing and assist individuals with access to care.

To be successful, we must prioritize trust. We have to invest in community organizations who are trusted and trustworthy, and they must be given the opportunity to lead with decisions that reflect the perceptions, the needs, and the preferences of the individuals that they represent.

I'm grateful to hear that additional funding is being made available to these communities, but I fear it is not enough. They need to be able to provide transportation, resources to register for vaccinations, and develop long-term solutions.

Finally, we must prepare for the long haul of COVID–19. As the early data indicate, more than a third of individuals will experience long-term consequences. The very populations who have been disproportionately impacted will suffer. They need care, we need research, and, of course, long term we need solutions that will address the underlying structural racism, inadequate public health infrastructure, and lack of health care.

Thank you.

[The prepared statement of Dr. Wilkins follows:]

PREPARED STATEMENT OF CONSUELO H. WILKINS

Chairwoman Murray, Ranking Member Burr, and Members of the Committee:

My name is Dr. Consuelo H. Wilkins. I am a physician, clinical researcher, professor, and Vice President for Health Equity at Vanderbilt University Medical Center (VUMC). I am board certified in both Internal Medicine and Geriatric Medicine and practice on the inpatient geriatrics service. I lead a portfolio of research awards focused on health equity, health disparities, and clinical trial recruitment and am one of the Principal Investigators of our Clinical and Translational Science Award (CTSA) supported by the National Institutes of Health.

Thank you for hosting this hearing "Examining Our COVID–19 Response: Improving Health Equity and Outcomes by Addressing Health Disparities". COVID–19 health inequities have become intractable and I appreciate the invitation to share about the challenges VUMC faced addressing these inequities in addition to the lessons our team has learned implementing a systems approach to COVID–19 health equity. My testimony is based on my expertise in medicine, clinical research, community engagement and health equity, as well as my experience during the past year as member of the VUMC COVID–19 Command Center and COVID–19 Mass Vaccination Executive Team.

I will first provide background and contextual information related to COVID–19 inequities then share recommendations in three areas:

1. Key data needed to drive more equitable decisions in the COVID–19 response
2. Community-driven solutions to COVID–19 inequities
3. Preparing for COVID–19 long-haul

My testimony will draw from two publications I co-authored: “Equitable Pandemic Preparedness and Rapid Response: Lessons from COVID–19 for Pandemic Health Equity” and “A Systems Approach to Addressing COVID–19 Health Inequities”. Both papers have been submitted to the Committee for inclusion in the record of the hearing.

Overview of COVID–19 Inequities

Inequities in the burden of COVID –19 have been uncovered among marginalized populations across the world and have been particularly striking among African American, Indigenous, American Indian, Hispanic and Latino populations in the United States. These groups are 3–4 times more likely to be hospitalized and 2–2. times more likely to die from COVID–19 3. Individuals with limited English proficiency, people who are unhoused, and those living in rural communities have also been disproportionately impacted by COVID.

With three COVID–19 vaccines now available, the United States is leading the world—vaccinating more than 2 million people each day. Unfortunately, the populations suffering the greatest burden of the COVID–19 pandemic are not fully benefiting from the tremendous scientific advancements in vaccine development. As of March 22, 2021, nearly 83 million Americans have received at least one dose administered of a COVID–19 vaccine and nearly 24 million are fully vaccinated. Of fully vaccinated persons with race/ethnicity data available, 7.4 percent are Hispanic/Latino, 7 percent are Black, and 4 percent Asian, which is substantially lower than their representation in the U.S. population (18.5 percent, 13.4 percent, and 5.9 percent, respectively). These lower vaccination rates are particularly concerning in light of the higher rates of COVID–19 hospitalizations and deaths among Black and Hispanic/Latino populations. Conversely, White Americans are being vaccinated at a higher percentage (68.9 percent) than their representation in national demographics (60.1 percent).

Etiology of COVID–19 Inequities

Although COVID–19 inequities are acute, they reflect long-standing disparities in health that many communities, clinicians, public health practitioners, and researchers have striven to address, often with too few resources. The causes of COVID–19 inequities are multifold and involve differences in exposure, susceptibility, testing, and treatment. Groups socially disadvantaged because of race, ethnicity, social position, and/or economic status have greater exposure to COVID–19 because of jobs that prevent work from home, dependence on childcare outside the home, reliance on public transportation, and household size. Poverty and experiences with discrimination and racism lead to chronic psychosocial stress, causing prolonged secretion of stress hormones, which has profound physiological impacts. These changes lead to increased susceptibility both acutely, through impaired immune response to the virus, and chronically, through predisposition to diabetes, obesity, and cardiovascular disease, which are linked to worse COVID–19 outcomes. Marginalized groups are less likely to have a primary care provider, medical home, or regular access to care and may have limited access to COVID–19 testing, treatment, and vaccination.

Lessons from a Systems Approach to COVID–19 Health Equity

At Vanderbilt University Medical Center (VUMC), we have tested more than 185,000 people, admitted more than 3,400 people COVID–19, and administered more than 100,000 doses of COVID vaccines. At VUMC, we are utilizing a systems approach that emphasizes interdependence and interaction across the health system and community to address the complex drivers of COVID–19 inequities and rapidly respond to data trends in real time. As part of our COVID–19 Command Center, we created a health equity workstream to prevent, identify, and address COVID—related inequities. (The Command Center refers to the team that coordinates the health system’s response to an emergency or disaster, as well as the designated work space for those involved.) We identified five initial areas of concentration: four

COVID–19—specific areas focused on prevention, testing, treatment, and clinical research; and the fifth area, telehealth, which, although not specific to COVID–19, is increasingly used because of the pandemic and could lead to inequities in access to care. By integrating health equity into our health system's COVID–19 operations, it is a priority, not an isolated stream of work. This approach has allowed us to identify and work to mitigate inequities in real time as our response to the pandemic has evolved. Our key lessons so far are:

1. Executive leaders should clearly state that achieving health equity is a priority and allocate resources, including people, to do this important work; in the case of Vanderbilt University Medical Center, institutional funds totaling more than $1.5 million annually were committed to the Office of Health Equity prior to COVID–19, facilitating our ability to pivot and rapidly respond;
2. Health equity—related goals and programs should be integrated into the health system's organizational readiness and response with clear expectations for accountability and action;
3. Race, ethnicity and language data must be available in real time, and new processes may be needed to collect and aggregate data;
4. The COVID–19 Command Center includes a wide range of clinical, administrative, and operations leaders, some of whom have limited knowledge of health equity; this exposure could facilitate culture change and innovative ways of advancing health equity in the long term—an example of a learning health system; and
5. Hospitals and health systems must work closely with public health departments and trusted organizations that are closely connected to communities.

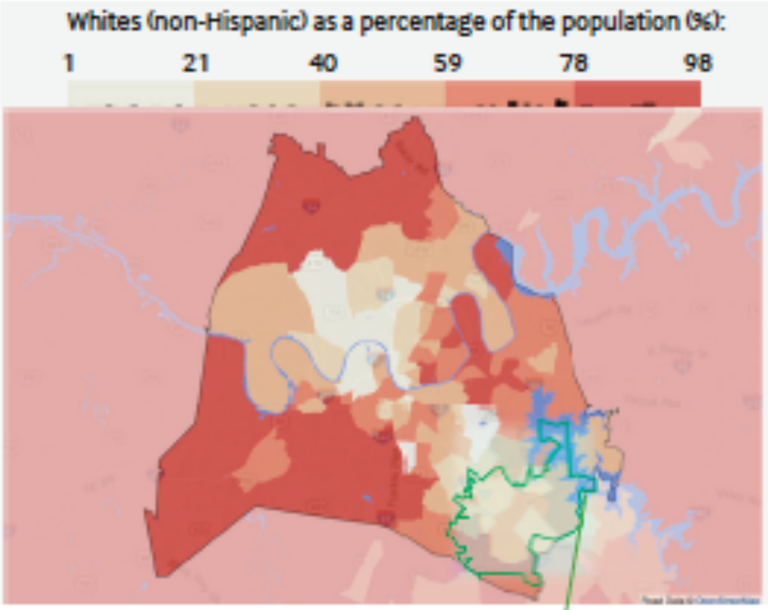
Ongoing Challenges and Recommendations to Advance COVID–19 Health Equity

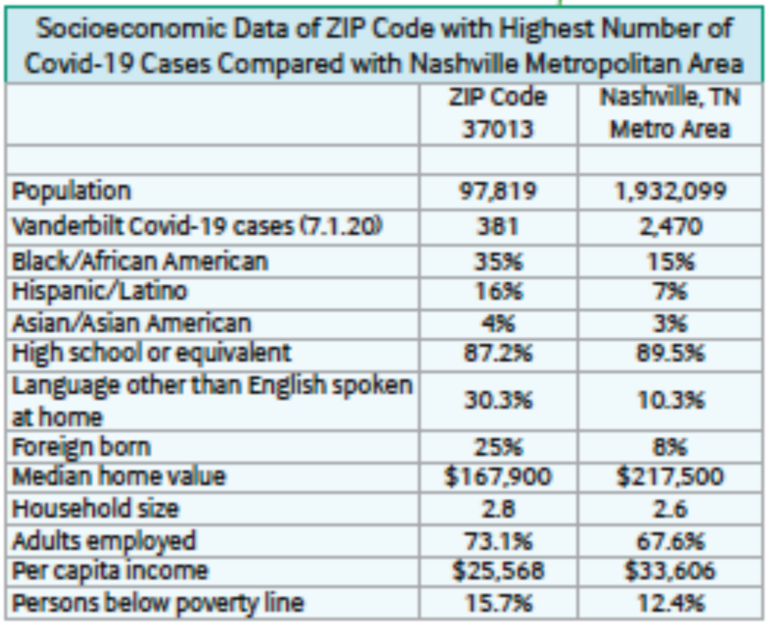
Key Data Needed To Drive Decisions

The importance of race, ethnicity, and language (REAL) data to understanding COVID—19 cannot be overstated. Without these data, we are unable to disaggregate data to identify disparities in COVID–19 testing, care, vaccination, and outcomes. Even when race, ethnicity, and language are available, these are insufficient for mitigating health inequities, which also requires data on social determinants of health.

At VUMC, we created visualization dashboards for all patients tested for COVID—19 that can be filtered by race, ethnicity, primary language, and ZIP Code, which can be linked to community-level socioeconomic data and social vulnerability indices. For example, the ZIP Code with largest number of COVID–19 cases at VUMC is 37013 (Figure 1, outlined in green). Compared with the Nashville metropolitan area, 37013 is home to twice as many people who are Black/African American or Hispanic/Latino and three times more people who speak languages other than English at home. Despite a higher percentage of adults in this ZIP Code being employed, per capita income is 24 percent less than the Nashville metropolitan. We used this data to inform our communications strategies including the development and compilation of materials in Spanish and Arabic and to connect with trusted organizations serving communities in this ZIP Code to leverage and amplify the impact of communications efforts.

Most Covid-19 Cases at Vanderbilt University Medical Center
(as of July 1, 2020)





Socioeconomic Data of ZIP Code with Highest Number of Covid-19 Cases Compared with Nashville Metropolitan Area

	ZIP Code 37013	Nashville, TN Metro Area
Population	97,819	1,932,099
Vanderbilt Covid-19 cases (7.1.20)	381	2,470
Black/African American	35%	15%
Hispanic/Latino	16%	7%
Asian/Asian American	4%	3%
High school or equivalent	87.2%	89.5%
Language other than English spoken at home	30.3%	10.3%
Foreign born	25%	8%
Median home value	$167,900	$217,500
Household size	2.8	2.6
Adults employed	73.1%	67.6%
Per capita income	$25,568	$33,606
Persons below poverty line	15.7%	12.4%

Unfortunately, race and ethnicity are missing in data reported by the CDC in 46 percent of COVID–19 cases, 24 percent of deaths due to COVID–19, and 47 percent of COVID–19 vaccinations. Although the CDC's recommended reporting documentation9 includes fields for primary language and use of an interpreter, the CDC does not include primary language in its COVID Data Tracker or COVID-Net Hospitalization Data Tracker. Some local and state departments of health are reporting language data, however, there may still be a high proportion of missing/unknown data. For example, the Washington State Health Department reported 60.6 percent of unknown language data for confirmed or probable COVID–19 cases from 03/01/2020—03/13/202110. Several cities and states have mandated the collection of language data including California, Massachusetts, Michigan, North Carolina, Oregon, and New York City.

Recommendations:

1. Require capture of self-reported sociodemographic data including race, ethnicity and preferred language in ways that allow for the valid, non-stigmatizing collection of potentially sensitive personal information.
2. Capture individual and/or macrolevel data on the social determinants of health geocoded to home addresses when possible, at units of geography that correspond to meaningful, locally defined neighborhoods (i.e., census block).
3. Allow for data sharing across those sectors (health care, public health, social services, etc.) while protecting individuals' information.

Community-Driven Solutions are Needed to Advance Health Equity

One-size-fits-all approaches are unlikely to address the striking disparities evident in COVID–19. Many racial and ethnic minorities, individuals with limited English proficiency, and people living in rural communities face unique sociocultural and economic barriers to COVID–19 testing, care, and vaccination. Interventions most likely to be successful in receiving health equity are often embedded in the community and are built on trusting relationships, which are developed over time. Without well-established, mutually beneficial relationships, it is difficult to effectively mobilize resources and partner with trusted community organizations.

Many community organizations are well positioned to lead or work closely with health systems and public health agencies to implement effective strategies to mitigate COVID–19. Trusted community organizations and leaders can develop and disseminate messaging about COVID–19 testing and vaccination that is relevant to socially vulnerable communities and recognizes the varying socioeconomic needs and differing levels of trust of health systems and government. Organizations already serving these communities can be sites for testing, distribution of PPE, multi-lingual communications, and vaccinations. Community organizations have the potential to address vaccine readiness and support/provide care for individuals experiencing long-term sequelae of COVID–19.

Recommendations:

1. Fund trusted organizations within communities experiencing inequities to be COVID—19 resource centers—providing access to testing, educational information, access to vaccinations. Include funds to support transportation to sites, child care, operating evenings and weekends, interpreters, tailored messaging, resources in multiple languages, and training for peer educators and vaccinators.
2. Create community-based surveillance programs that leverage community assets and use community health workers to collect surveillance data, share risk-reduction information, support care for individuals with COVID–19, and serve as access point for healthcare. Efforts to support utilization of community health workers specifically for COVID–19 should be considered, however, long-term strategies for reimbursement of community health worker models are also needed.
3. Provide additional funding to safety net providers in recognition of the differential needs of safety net providers who disproportionately care for populations experiencing COVID–19 inequities and typically have fewer resources at baseline.

Preparing for COVID–19 Long-Haul

Early data indicate as many as a third of people with COVID–19 will experience long—term symptoms due to the disease. The full extent of the disease is yet unknown, however, given the disproportionate impact of COVID–19 on specific groups, we should expect these groups to also be burdened by the long-term sequelae. To date, people who have survived COVID–19's acute symptoms are experiencing extreme fatigue, shortness of breath, short-term memory loss, tinnitus, and hypersensitivity to light. For some individuals, these symptoms are debilitating, and with no known treatment, quite distressing.

The potential long-term consequences of COVID–19 bring additional concerns for populations disproportionately burdened by the disease. These groups are less likely to have a primary care provider, medical home, or regular access to care. Although many states now have Long-COVID clinics, individuals without routine access to care may not be referred. Additionally, these clinics are likely to be located in large cities and difficult to access for rural populations.

Recommendations:

1. Provide long-term follow-up care and monitoring for people diagnosed with COVID–19 including free care for those without health insurance
2. Make care available to individuals who experienced COVID–19 symptoms who may not have been tested.
3. Provide specific research funding to understand and address the long-term physical and mental health consequences of COVID–19 in populations disproportionately impacted.

Conclusion

Communities of color and other marginalized populations—those living in or near poverty, people who are unhoused, those living in rural communities, etc.—have limited to no resources or access to information address their communities' increased vulnerability to COVID–19. Importantly, the inequities emerging in the COVID–19 pandemic are not due to race or social class. Rather, they are the result of structural racism and social inequalities embedded within the economic, political, education, health care, criminal justice and other systems and social structures in the U.S. Understanding the fundamental causes of COVID–19 health inequities requires appreciating that the more proximate causes—higher rates of serious medical conditions, living in crowded housing, inability to work from home, etc.—are themselves the result of social inequalities produced by social systems reinforced through policy. We must act now to mitigate the immediate and long-term consequences of COVID—19 on populations already burdened by health inequities.

[SUMMARY STATEMENT OF CONSUELO H. WILKINS]

Consuelo H. Wilkins, MD, MSCI is a physician, clinical researcher, professor, and Vice President for Health Equity at Vanderbilt University Medical Center (VUMC) in Nashville, TN. Board certified in both Internal Medicine and Geriatric Medicine, Dr. Wilkins also leads a portfolio of research awards focused on health equity, health disparities, and clinical trial recruitment. She is a member of VUMC's COVID–19 Command Center and Mass Vaccination Executive Team.

In her testimony, Dr. Wilkins will offer observations about health inequities exacerbated by COVID–19 and lessons learned at VUMC with respect to a systems approach to addressing health equity. Marginalized groups across the U.S. are experiencing a higher burden of COVID–19. African American, American Indian, Hispanic and Latino populations are 3–4 times more likely to be hospitalized and 2–2.5 times more likely to die from COVID–19. Individuals with limited English proficiency, people who are unhoused, and those living in rural communities have also been disproportionately impacted by COVID–19. **To address these COVID–19 inequities, Dr. Wilkins recommends the following:**

To address these COVID–19 inequities, I recommend the following:

1. **Increase capture and use of key sociodemographic data needed to drive strategies.** Race and ethnicity data are missing in 46 percent of COVID–19 cases and 47 percent of vaccinations (CDC). Without this data, we are unable to fully understand the extent of COVID–19 inequities or develop specific approaches to mitigate. Primary language and social determinants data are also essential to effectively addressing inequities.

-Require collection of self-reported sociodemographic data including race, ethnicity and preferred language—Capture individual and/or macrolevel data on social determinants of health geocoded to home addresses, at units that correspond to defined neighborhoods (i.e., census block).—Allow data sharing across health care, public health, social services, sectors

2. Invest in community-driven solutions. One-size-fits-all approaches will not address the striking disparities evident in COVID–19. Solutions must be built on the specific needs, perceptions, and assets of communities. Trusted organizations embedded in communities must help drive solutions.

-Fund trusted organizations within communities experiencing inequities to be COVID–19 resource centers—providing access to testing, risk prevention, and vaccinations.

-Create and fund community-based programs that leverage community assets such as community health workers to collect surveillance data, share risk-reduction information, support care for individuals with COVID–19, and serve as access point for care.

-Provide additional funding to community safety net providers who disproportionately care for these populations

3. Prepare for COVID–19 long-haul. Early data indicate as many as a third of people with COVID–19 will experience long-term symptoms due to the disease. The full extent of the disease is yet unknown, however, given the disproportionate impact of COVID–19 on specific groups, we should expect these groups to also be burdened by the long-term sequelae.

-Provide follow-up care/monitoring for people diagnosed with COVID–19 including free care for those without health insurance—Make care available to individuals who experienced COVID–19 symptoms but not tested

-Fund research specifically to address long-term physical and mental health inequities

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The CHAIR. Thank you, Dr. Wilkins.

We will turn to Ms. Echo-Hawk.

STATEMENT OF ABIGAIL ECHO-HAWK (PAWNEE), EXECUTIVE VICE PRESIDENT, SEATTLE INDIAN HEALTH BOARD, SEATTLE, WA

Ms. ECHO-HAWK. Thank you so much, Madam Chair and Ranking Member, and distinguished Members of the Committee. My name is Abigail Echo-Hawk. I am a citizen of the Pawnee Nation of Oklahoma, and I currently serve as the Director of the Urban Indian Health Institute, one of 12 tribal epidemiology centers located across the country. In addition, I serve as the Executive Vice President of the Seattle Indian Health Board, which is a federally qualified health center and Indian health care provider in Seattle, Washington.

I want to start my testimony with a story. Seattle was the epicenter of COVID–19 in February 2020. We soon became overrun by folks who were looking for COVID testing and were experiencing symptoms and had been infected with COVID–19. We quickly ran short of PPE. We sent out requests to our state, our Federal, and our county partners. Soon we received a box at our clinic, and the CEO and myself opened up that box expecting to see gowns, masks, and the PPE that our providers needed. Instead, what we found was a box of body bags. We had been sent a box of body bags instead of the PPE that we had requested.

While this was a very literal example of Indian health care funding and the way we have been treated in the United States that has created the health disparities that currently exist for my people, it is also a metaphor for the way many tribal nations experience getting resources for the COVID–19 response early in the pandemic.

As a result of this, what we find is that Native people are 3.5 times more likely to be infected with COVID–19, and we are also more likely to die. As the co-author of those papers which were released by the CDC, what I was most disturbed by was not just those rates but with the fact that we were only able to do analysis on 23 states in the Nation because they were the only ones that had at least 70 percent of the race and ethnicity data that allowed us to do the science to establish what was happening in our communities, and we know as a result of that gross underreporting of race and ethnicity in COVID–19 cases that is not a true reflection of what's happening in our communities. The death rates, the hospitalization rates are much, much higher.

As a result of the crumbling infrastructure of public health surveillance systems, we currently do not have the ability for both the states and the CDC to properly report COVID–19 data, which now includes vaccinations. Recently my organization released a report titled "Data Genocide," detailing how American Indians and Alaska Natives were being eliminated in the data across the Nation by grading states in four categories on how they reported the data and how it was reported to the CDC. What we found was appalling.

More than 50 percent of the states in the Nation received a C or below, and the Nation as a whole received a D+. I may not have graduated high school with that grade. And unfortunately, it is deeply impacting our ability to serve our communities. It is essential for us to begin to properly fund the surveillance systems across the United States from the local, tribal, all the way to the Federal level in order to make the change that we need to get the information so policymakers like yourselves can actually make data-driven decisions, and scientists like me are actually able to do good science, because right now with the system that we have, I can't do that.

As part of that, as we reflect on the under-enrollment of minority populations into both the clinical trials on testing, on COVID–19 treatment and vaccines, we have seen the impact of not having the numbers that we need of minority populations enrolled in those trials despite the best efforts of the NIH. And unfortunately in the Native community, we've actually seen that in the last few weeks reflected in an attack on vaccines that use the lack of clinical trial data to try to warn Native people to not take certain vaccines. So it's actually being used as a weapon against us by the fact that we haven't been enrolled in those clinical trials.

We need further concentration on the proper enrollment in clinical trials that also, in working with tribal nations, ensures that they are working to preserve and uphold tribal sovereignty.

COVID–19 is impacting most of our essential services beyond the everyday services we do for those who are coming in for testing, for treatment, and getting vaccinated. In fact, at the Seattle Indian Health Board, we have seen a 13 percent decrease in our prenatal care. One of our programs in Great Falls, Montana has seen a 40 percent decrease in their substance abuse programs as a result of their people not being able to access telehealth as a result, again, of the lack of broadband Internet access, phone access, the things that are needed for telehealth. And while the expansion of telehealth has been absolutely essential, we cannot forget those rural populations who do not have the same access to broadband Internet, and also those who are socioeconomically disadvantaged and don't have access to phones.

However, despite all of these obstacles, what we have seen is Indian Country, our tribal communities, both urban and rural, have done what nobody else in the Nation has done, and that is we have been more successful at vaccinating our population than anywhere else. In fact, the Black Feet Nation in Montana has a 95 percent vaccination rate of their reservation. Ninety-five percent puts them at herd immunity numbers if the rest of the United States could simply catch up. In fact, the Seattle Indian Health Board has vaccinated 100 percent of our elders.

There are lessons learned, and as part of that the investment that initially came through the CARES Act and now is coming through the American Rescue Plan have provided the resources, essential resources we need and assisted us in having some of the highest vaccination rates in the country. In fact, there are lessons learned that the rest of the country should be looking toward tribal nations so that we can as a nation address the devastating impact in this community and concentrate on serving those most desperately in need.

Thank you.

[The prepared statement of Ms. Echo-Hawk follows:]

PREPARED STATEMENT OF ABIGAIL ECHO-HAWK

Members of the Health, Education, Labor, and Pensions (HELP) Committee, my name is Abigail Echo-Hawk, and I am an enrolled citizen of the Pawnee Nation of Oklahoma, currently living in an urban Indian community in Seattle, Washington. I am the Executive Vice President of the Seattle Indian Health Board and Director (SIHB) of the Urban Indian Health Institute (UIHI), a tribal epidemiology center, where I oversee our policy, research, data, and evaluation initiatives.

I am an American Indian health researcher with more than 20 years of experience in both academic and non-profit settings, and am part of numerous local, state, and Federal efforts to support and American Indian and Alaska Native communities in research, including serving on the Tribal Collaborations Workgroup for the National Institutes of Health All of Us precision medicine initiative. I am co-author to four groundbreaking research studies on sexual violence and Missing and Murdered Indigenous Women and Girls (MMIWG) where I have called national attention to the institutional barriers in data collection, reporting, and analysis of demographic data that perpetuate violence against American Indian and Alaska Native people. Most recently, I was a committee member for the National Academies of Sciences, Engineering, and Medicine: *Framework for Equitable Allocation of COVID–19 Vaccine*. As the only representative from the Native community, I worked to ensure the needs of our Indian Healthcare System and tribal and urban Indian communities were appropriately included in the framework that is informing states and policymakers nationwide.

For over 5 years, I have worked to address institutional barriers to public health surveillance data experienced by Tribal Epidemiology Centers. During the COVID–19 pandemic, this advocacy has been amplified through the collective power of the *We Must Count Coalition*—a group of health and racial equity and civil rights organizations. Together we are calling for the uniform collection and release of COVID–19 testing, cases, health outcomes, and mortality rates using data disaggregated by race, ethnicity, primary language, gender, disability status, and socioeconomic status. However, the crumbling public health data infrastructure nationwide is inhibiting our ability to reach these goals as evidenced by UIHI's recently released report, Data Genocide.

These experiences guide my statement today that is directed at the government's failure to appropriately address the COVID–19 health disparities raging within our communities—including American Indian and Alaska Native, Black, Hawaiian and Pacific Islanders, Hispanic/Latinx, and Asian American communities.

Data, Evaluation, and Research by and for Indigenous Communities

UIHI is an Indian Health Service (IHS)-funded Tribal Epidemiology Center, providing services to more than 62 urban Indian organizations who provide culturally attuned health and social services in areas that represent approximately 1.5 million American Indian and Alaska Native living in urban settings nationwide. UIHI recognizes research, data, and evaluation as an integral part of informed decision-making for not only our American Indian and Alaska Native community, but also our policy and funding partners. We assist our communities in making data-driven decisions, conducting research and evaluation, collecting and analyze data, and providing disease surveillance to improve the health and well-being of our entire American Indian and Alaska Native community. UIHI's mission is to advocate for, provide, and ensure culturally appropriate, high quality, and accessible data for American Indian and Alaska Native public health organizations that provide culturally attuned care to American Indian and Alaska Natives living off tribal lands in urban settings. Recognizing the migratory patterns of our population as they move between urban and rural locations, we also serve tribal nations and tribally based organizations.

Tribal Epidemiology Centers are IHS division-funded organizations who serve the Indian healthcare system compromised of IHS Direct, Tribal 638, and Urban Indian Health Programs by managing public health information systems, investigating diseases of concern, managing disease prevention and control programs, responding to public health emergencies, and coordinating these activities with other public health authorities. There are currently 12 Tribal Epidemiology Centers nationwide with the mission to improve the health status of American Indian and Alaska Natives through identification and understanding of health risks and inequities, strengthening public health capacity, and assisting in disease prevention and control. UIHI is unique in that it serves the urban American Indian and Alaska Native population nationally, while sister Tribal Epidemiology Centers service regional IHS areas including Alaska, Albuquerque, Bemidji, Billings, California, Great Plains, Nashville, Navajo, Oklahoma, Phoenix, and Portland.

In response to the COVID–19 pandemic, UIHI has mobilized to create COVID–19 fact sheets, reports, and online resources for tribes, tribal organizations, and urban Indian organizations. This includes conducting original research to guide the creation of culturally attuned public health messaging. In late January of this year UIHI released the first, and to date, the only national survey on vaccine hesitancy in Native communities. Since August 2020, UIHI and other Tribal Epidemiology Centers co-authored two COVID–19 studies on American Indian and Alaska Native people in partnership with the Centers for Disease Control and Prevention (CDC). These Morbidity and Mortality Weekly Report (MMWR) revealed American Indian and Alaska Native communities experience disproportionate morbidity and mortality due to the COVID–19 pandemic, with the rate of new infections and death among American Indian and Alaska Native people are estimated to be 3.5 and 1.8 times that of non-Hispanic Whites, respectively. [1]

However, the MMWR report on COVID–19 infections notes the authors were only able to include 23 states in the analysis, as they were the only states that had collected at least 70 percent or more of race and ethnicity data, [2] highlighting the need for Tribal Epidemiology Centers to advise and improve data collection and reporting practices of American Indian and Alaska Native data by Federal, state, and local agencies.

As healthcare and public health organization on the forefront of serving urban Indian communities, we are alarmed by the on-going data genocide that continues to perpetuate negative COVID–19 outcomes among American Indian and Alaska Native people by eliminating them in the data.

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[1] Arrazola J, Masiello MM, Joshi S, et al. COVID–19 Mortality Among American Indian and Alaska Native Persons—14 States, January-June 2020. MMWR Morb Mortal Wkly Rep. 2020;69(49):1853–1856. doi:10.15585/mmwr.mm6949a3.

[2] Hatcher SM, Agnew-Brune C, Anderson M, et al. COVID–19 Among American Indian and Alaska Native Persons—23 States, January 31-July 3, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(34):1166–1169. doi:10.15585/mmwr.mm6934e1

Disproportionate Impact to Indigenous People

As Director of a national Tribal Epidemiology Center, UIHI's service population represents approximately 71 percent of the 5.2 million American Indian and Alaska peoples (alone or in combination) in this country. In this work, I am often asked to speak on the pervasive health disparities experienced by American Indian and Alaska Native people. What I must continue to remind people, is that these disproportionate outcomes are a direct result of centuries of chronic underfunding of trust and treaty obligations, particularly chronic underfunding of our health care, public health systems, and infrastructure have long impacted access to medical care, education, housing, clean water, healthy foods, and traditional medicines among Indigenous communities.

It is clear that the disproportionate impact that COVID–19 is having on Native communities is not an accident. It is the product of systems of inequities that have created and perpetuated rampant health disparities for Native people.

Disparities Across Communities of Color

The *Color of Coronavirus* project by APM Research Labs provides weekly updates on COVID–19 mortality by race and ethnicity. According to the APM Research Lab, as of March 5, 2021, the past 4 weeks have yielded the highest number of new deaths since the start of the COVID–19 pandemic for all racial groups except Black and Pacific Islander Americans, for whom it is the second most deadly stretch.[3] As our Nation continues to roll out vaccination programs, it is more important than ever to accurately collect, report, and analyze race and ethnicity data. These data are essential to understanding racial equity impacts and developing equitable strategies for vaccine distribution. The following statistics reveal the devastating impacts of COVID–19 among Black, Indigenous and people of color (BIPOC) communities. As of March 5, 2021:

- Indigenous Americans had the highest actual COVID–19 mortality rates nationwide. While the CDC reports a mortality rate of American Indians and Alaska Natives 1.8 times higher than the non-Hispanic Whites, reports by the APM Research Lab suggest is it closer to 2.2 times higher than White Americans.[4] Data from APM also notes they were unable to gather data from all states due to the lack of data reported by them, and rates are not calculated for those identified as "Other" race. Indian Country has had at least 5,477 Indigenous Americans lose their lives to COVID–19,4 but we know this number is a massive undercount due to the missing and inconsistent data collected by health care providers and governments nationwide; and
- 73,236 Black Americans have lost their lives to COVID–19 and Black Americans have the second-highest mortality rate of all groups, behind Indigenous people and are 2 times more likely to have died compared to Whites.; and
- nationwide, Pacific Islanders are 2.6 times more likely to have died as Whites. Since March 5, 2021, the Pacific Islander community has had at least 830 community members lose their lives to COVID–19.4 However, we know these are not exact numbers. Arizona, Connecticut, Delaware, Michigan, New Mexico, North Carolina, Virginia, and Wisconsin report deaths for Asians and Pacific Islanders jointly. Without disaggregated data, the true impacts to the Pacific Islander community continue to be undercounted; and
- 89,071 Latinos have lost their lives to COVID–19 and Latinos are 2.4 times more likely to have died as Whites from COVID–19; and
- Over 17,747 Asian Americans are known to have lost their lives to COVID–19. Nationwide, Asian Americans have experienced 3.6 percent deaths by race, while they represent 5.6 percent of the population.

As devastating as these data are, we know they are an undercount of the true impact COVID–19 is having in our communities of color. The gaps in this mortality

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[3] APM Research Lab. The Color of Coronavirus: COVID–19 Deaths by Race and Ethnicity in the U.S. February 4, 2021. Retrieved from: *https://www.apmresearchlab.org/covid/deaths-by-race.*

[4] Painter EM, Ussery, EN, Patal A, et al. Demographic Characteristics of Persons Vaccinated During the First Month of the COVID–19 Vaccination Program—United States, December 14, 2020-January 14, 2021. MMWR Morb Mortal Wkly Rep 2021; 70;174–177. DOI: *http://dx.doi.org/10.15585/mmwr.mm7005e1*

data are a stark reminder that our Nation's inability to accurately collect, report, and analyze race and ethnicity data that directly contributes to health inequity and erasure. Today, Native people—and communities of color—are fighting to address the COVID–19 pandemic and are demanding equitable solutions and equitable distribution of the vaccine to communities most impacted.

A National Data Failure

On February 15, UIHI released a national report card, titled *Data Genocide,* analyzing the current status of collecting and reporting state COVID–19 surveillance data on American Indians and Alaska Natives. This analysis reviews state and national data reported on American Indian and Alaska Native people including percent of confirmed cases with complete race and ethnicity information.

The report revealed more than half the states in the Nation received a C grade or below with a total of 13 states receiving a F. The five states in the Nation that ranked the worst in collecting and reporting racial demographic data are Texas (50th), New York (49th), Maryland (48th), West Virginia (47th), and Delaware (45th). The national average was a grade of D plus. Overall, states are doing a poor job of tracking and reporting racial demographic COVID–19 data for American Indians and Alaska Natives and other people of color. A recent study by the CDC, found that current data on vaccinations is missing 48 percent of race/ethnicity data.

It is not possible for policymakers to make data-driven decisions on COVID–19 with incomplete data. States must be held accountable to improving their data practices if we are to ever achieve data-driven decisionmaking for allocation of resources to end this pandemic.

Gaps in the Indian Healthcare System

Due to chronic underfunding of trust and treaty obligations, the Indian healthcare system is only resourced to serve a fraction of American Indian and Alaska Native people. Across the Nation, Indian Health Care Providers are seeing an influx of IHS beneficiaries visiting tribal and urban Indian clinics seeking the COVID–19 vaccine and other healthcare services. We welcome our relatives into culturally attuned care—many for the first time. Yet, our Indian healthcare system is in need of additional resources and support to appropriately serve our community.

The California based Indian Health Center of Santa Clara Valley, along with Urban Indian Health Programs nationwide, report rising cost including increased personnel and sanitation costs of serving the growing number of relatives seeking care. Many programs are holding vaccination clinics along with mass vaccination sites. A mass vaccination sites requires 25–30 people to be effective, which requires diverting staff from their normal duties and hiring temporary staff which can be cost prohibitive. Urban Indian Health Programs that do not provide direct clinical care, such as Lifelines of Boston and Baltimore, have found themselves struggling to find partners to host vaccination clinics for their American Indian and Alaska Native clients. The urban Indian provider in Great Falls, Montana has seen an influx of patients who tried to access the vaccine elsewhere and despite being eligible under the state distribution guidelines were told "go to the Indian clinic." Indian Health Care Providers are making decisions every day on what services to prioritize recognizing that with the scarce funding and resources, they will not be able to provide all the services our community needs.

This is not a new issue for the Indian healthcare system. In a 2009 report to Congress, IHS identified 17 urban areas that would benefit from and Urban Indian Health Program.[5] In 2017, UIHI expanded their service population to reach 62 urban Indian organizations nationwide. Among the 17 IHS-identified cities with high American Indian and Alaska Native populations, many have strong local support and active efforts to develop health care programs for urban Natives. The report also recommended increasing funding to grantees for satellite expansionsites, new partnerships with community health centers, and identifying local providers to serve the needs of urban Native people. We know that the current health needs of urban Natives are not being met, despite the mounting evidence that increased Urban Indian Health Program facilities would benefit the health status of American Indian and Alaska Native nationwide.

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[5] U.S. Department of Health and Human Services Indian Health Service. New Needs Assessment of the Urban Indian Health Program and the Communities it Serves. Accessed March 2021. Retrieved from:*https://www.ihs.gov/sites/urban/themes/responsive2017/display—objects/documents/ReportToCongressUrbanNeedsAssessment.pdf.*

Tribal partners are also calling out the concern for our urban dwelling relatives who do not have access to the Indian healthcare system. In February 2021, the National Indian Health Board passed Resolution 21–01[6] requesting the Department of Health of Human Services and IHS to implement COVID–19 vaccination clinics in the Washington, DC. Metropolitan Area and prioritize American Indian and Alaska Native people in the 17 cities identified in the 2009 IHS report. This call for an equitable distribution model that prioritizes high-risk communities should be reproduced throughout local health jurisdictions to support Indigenous, Black, and communities of color who disproportionately experience negative impacts of COVID–19.

In addition to addressing gaps in provider access, Indian Health Care Providers are in need of additional vaccine access. As the Biden Administration has implemented its initiative to distribute the vaccine directly through Community Health Centers, we have seen only a fraction of Indian Health Care Providers represented. Of the 250 Community Health Centers invited thus far, ten were Urban Indian Health Programs and 16 were Tribal health programs. It is urgent to supply more Indian Health Care Providers and Community Health Centers with additional access to the vaccine. As seen in Alaska, who represents 11 of the 16 tribal facilities receiving vaccines through this initiative, additional access to the vaccine has amplified the success of Alaska Native health providers to reach their priority groups. Currently, 28 percent of Alaskan residents have received a first dose of the vaccine—higher than the national average. Alaska is now encouraging other states to do the same: invest in protecting our most impacted communities, enlist entrusted members of the communities to educate, and adapt to the health care needs of local residents.

Impacts to Maternal and Child Health

As our Nation moves toward addressing COVID–19, we must simultaneously work toward improving healthcare systems impacted by COVID–19. COVID–19 has also disrupted routine care in the healthcare system for child immunizations.[7] In Washington State, the Department of Health (DOH) reported a drop in immunization rates among children during the COVID–19 pandemic, as well as a drop in vaccines ordered by providers. During the pandemic, DOH reported that thus far, 30 percent fewer vaccines were given in 2020, compared to the year before.[8]

At SIHB, we have seen a 13 percent drop in our relatives seeking prenatal care and a 38 percent decrease in relatives seeking pediatric immunizations. We are hearing similar stories across the Nation as birthing people express fears related to exposing themselves and their child to COVID–19. Responding to this crisis requires safe environments to be created such as dedicated pediatric clinics that are family friendly and COVID–19 safe. However, with already over-stressed systems, many clinics do not have the resources needed to rapidly adapt and respond without impacting other essential programs. There needs to be additional support efforts to stabilize prenatal and child immunization healthcare systems among Native communities who most impacted by maternal and infant health disparities.

Increase in Domestic Violence, Gender Based Violence and Missing and Murdered Indigenous Women and Girls

Studies have shown one in three Native women will experience violence in their lifetime, a much higher rate as compared to the general population. In a soon to be released survey, UIHI assessed the impact of COVID–19 on Native female identifying sexual assault survivors. We found that 20 percent of the respondents were experiencing an increased lack of physical safety due primarily to domestic violence. Another national study found, 40 percent of rape crisis centers have seen an increase in demand for services since COVID–19, with over 534 of these organizations requesting $100 million in emergency stimulus funding to provide support and

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[6] National Indian Health Board Resolution 21–01: Promoting and Prioritizing AI/Ans in the DC Metropolitan Area for the COVID–19 Vaccine. February 2021. National Indian Health Board. Retrieved from: *https://www.nihb.org/docs/03012021/21*–01—NIHB percent20Resolution percent20Prioritizing percent20Vaccines percent20for percent20AIANs percent20in percent20DC.pdf.

[7] Sanoli JM, Lindley MC, DeSilva MC, et al. Effects of the COVID–19 Pandemic on Routine Pediatric Vaccine Ordering and Administration—United States, 2020. MMWR Morb Mortality Wkly Rep 2020; 69:591–593. DOI: *http://dx.doi.org/10.15585/mmwr.mm6919e2.*

[8] Washington State Department of Health. May 2020. Drop in vaccination leaves children vulnerable to other diseases. Accessed March 2021. Retrieved from: *https://www.doh.wa.gov/Newsroom/Articles/ID/1161/Drop-in-vaccination-leaves-children-vulnerable-to-other-diseases.*

emergency assistance to survivors.[9] These finding echo what many advocates have been sharing, that there is a national increase in violence as COVID–19 continues to increase stress on every American. For those unable to leave, they are now quarantine with their abusers increasing the likelihood of more violence. This violence impacts the entire family and children who are not yet in school, are now experiencing violence they would normally escape while attending in person schooling.

In UIHI's *groundbreaking report on Missing and Murdered Indigenous Women and Girls,* we found that there is an ongoing crisis. And now we are seeing the crisis increase as rates of violence go up nationwide. Over the course of the pandemic there have been horrific murders and numerous Indigenous women and girls who have gone missing. One leading missing organization reports they have seen a spike in requests for assistance to find missing people and increased need for support services to families of murder victims. Many of these essential support services are provided by county, tribal, and non-profit organizations with support from Violence Against Women Act (VAWA) funds. These funds have allowed these providers to continue and expand essential services to victims of violence while allowing for culturally specific services for tribes and Native organizations. In UIHI's recent survey of sexual assault survivors, 90 percent asked for culturally specific services citing their struggles with non-Indigenous methodologies for healing highlighting the need for continuing to allocate funds for culturally attuned programs and services.

National Institutes of Health Research

The National Institutes of Health (NIH) has been working to quickly roll out research initiatives to address and understand the disproportionate impacts of COVID–19. However, we continue to see under enrollment of Native people in clinical trials for COVID–19 vaccines and treatments nationwide. This lack of diversity in the clinical trials continues to increase hesitancy and has been used by anti-vaccination advocates to push misinformation into Native communities. Recently UIHI responded swiftly to misinformation targeting Native people nationwide that was misinterpreting clinical trial data that was resulting in increased vaccine hesitancy. The impact of lack of Native people in the clinical trials is having, and will continue to have, tangible impacts.

Current NIH initiatives also are often not inclusive of urban Indian populations, despite 71 percent of all Native people living in urban settings. We do not advocate for taking away funding for tribally based research, instead we urge the NIH to increase funding overall with dedicated funds for research on health disparities for urban Indian populations.

The Expense of Not Leading with Equity

In July, the average cost for COVID–19 inpatient care ranged $51,000-$78,000 depending on age, with younger people paying the most.[10] In 2020, it is expected that COVID–19 related hospitalizations cost will range from $9.6 billion to $16.9 billion with Medicare expected to pay $3.5 billion to $6.2 billion.[11] As the mounting costs of preventing, preparing, and responding to COVID–19 totals, we must look to equity as the fastest solution to ending this pandemic.

With over a year of devastating economic impacts to individuals, industries, and governments, the vaccine has been a sign of hope for many. Yet, inequity in vaccine distribution threatens to increase costs and slow our national recovery. While many policymakers are committed to mass vaccination in short time periods, it is becoming increasingly clear that our most resourced community members are among the first to access the vaccine.

According to the CDC, in December 2020, the Moderna and Pfizer vaccines were distributed to health care personnel and long-term facility residents. However, available demographic data shows of people vaccinated, 63 percent were women, 55 per-

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[9] National Alliance to End Sexual Violence. April 6, 2020. Responding to COVID–19: Rape Crisis Center & Survivor Needs. Retrieved from: *https://documentcloud.adobe.com/link/track'uri=urn:aaid:scds:US:1d3534ee*–960e–4f94–96dd–8196d2017c90—pageNum=1.

[10] Mallory Hackett. November 5, 2020. Average cost of hospital care for COVID–19 ranges from $51,000 to $78,000 based on age. Healthcare Finance. Accessed 2021. Retrieved from: *https://www.healthcarefinancenews.com/news/average-cost-hospital-care-covid*–19-ranges–51000–78000-based-age—:text=In percent20July percent2C percent20the percent20report percent20'showed,23 percent20to percent2030 percent20age percent20bracket.

[11] Sloan, Chirs., Markware, Nathan., Young, Joanna., Frieder, Miryam., Grady, Lance., Rosacker, Neil., Vidulich.. June 19, 2020. COVID–19 Hospitalizations Projected to Cost up to $17 B in US in 2020. Avalere. Accessed 2021. Retrieved from: *https://avalere.com/insights/covid*–19-hospitalizations-projected-to-cost-up-to–17b-in-us-in–2020

cent were 50 and older, and 60 percent were non-Hispanic White while 39 percent of those vaccinated were represented racial and ethnic minorities.4 Of the racial and ethnic minorities vaccinated, 11 percent were Hispanic/Latino, 5 percent were Black, .3 percent were Pacific Islander, and 2 percent were American Indian and Alaska Native. However, of the data collected on individuals vaccinated, race/ethnicity was unknown or not reported for 48 percent or people. This first report of vaccine distribution reveals vaccine distribution is inequitable and not going to our most marginalized communities most impacted by COVID–19. Vaccination programs must plan for distribution to priority groups at highest risk for infection, hospitalization, and mortality.

We will not end this pandemic by vaccinating the privileged masses that can afford to shelter in place. The Seattle Indian Health Board recently had an incidence, where well-resourced people showed up at our clinic because they had the privilege of language access, technology access, and transportation access. They were capable of social distancing, capable of accessing healthcare systems, and could wait to access the vaccine through their primary care provider, but they didn't. They swarmed our urban Indian clinic and demanded access to the vaccine. However, we did not comply with their demands. Instead we continue to prioritize those most at risk for morbidity and mortality as we apply an equitable approach to vaccine access. We must be prioritizing people more likely to work in high risk settings, living in congregate and multi-generational settings, experiencing high rates of co-morbidities that increase COVID–19 risk and associated healthcare costs, and at risk for mortality. Leading with equity in our national vaccine distribution strategy is essential to reducing the number of hospitalizations, inpatient length of stay in hospitals, and associated costs to the healthcare system. Vaccine distribution can't just be about how many arms we inject, it has to be an equity-based decision that acknowledges it's about whose arm receives the injection.

Centering Communities Most Impacted Drives Equitable Success

Despite our Nation's on-going challenges with data, tribal and urban Indian communities continue to demonstrate that culturally attuned and community-driven approaches are essential to reaching our most impacted communities. As our Nation moves toward addressing data challenges, we must simultaneously resource and amplify the work of our trusted messengers and community organizations. To take a lesson from Indigenous communities, we must ensure trusted messengers are included in the creation and distribution of COVID–19 vaccine programs and outreach.

Throughout the pandemic, UIHI has disseminated culturally attuned through fact sheets, reports, and a *COVID–19 Vaccine Poster series to address vaccine hesitancy* in the Native community. A recent study from the UIHI, and to date the only national study conducted, reinforced what we already knew. Seventy-four percent of American Indian and Alaska Native people surveyed were willing to get vaccinated because of their cultural responsibility to protect Elders and next generation. These are the teachings the Elders instilled in us—our responsibility is to our community. This Indigenous knowledge is also a public health understanding that can increase adherence to COVID–19 safety measures, including masking, social distancing and vaccinations.

In December 2020, SIHB was the first organization in Washington to receive a shipment of the Moderna vaccine[12] and since has vaccinated over 3,900 people in our community. In phase one, we vaccinated our health care providers and partners organizations that serve the local urban Native community. We are now in Phase 2, where we vaccinate American Indian and Alaska Native Elders and all people age 50 and older. Our vaccination plan is a model for a community-centered approach where we value those who are on the frontlines of addressing the pandemic, protecting our culture keepers, and ensure our intergenerational households are safe.

As an Indian Health Care Provider, we have been able to exercise sovereignty alongside our tribal partners in the Indian Healthcare System to respond to the needs of our community. While other vaccine distributors were forced to adhere to strict guidance from state and local governments, we have demonstrated that culturally attuned and community-driven approaches have meaningful impact. How-

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[12] Sandi Doughton. December 21, 2020. Moderna Vaccine Arrives in Seattle, with more coming later this week. The Seattle Times. Accessed 2021. Retrieved from: *https://www.seattletimes.com/subscribe/signup-offers/’pw=redirect&subsource=paywall&return=https://www.seattletimes.com/seattle-news/health/moderna-vaccine-arrives-in-seattle-with-more-coming-later-this-week/.*

ever, this provision of care has come with significant costs that are not covered by the Federal reimbursement for the vaccine. Urban Indian and tribal programs providing vaccines have experienced an influx of American Indian and Alaska Native people nationwide who are not normally patients of record at our facilities. While we welcome all our relatives, including IHS beneficiaries, the chronic underfunding of our Indian healthcare system is again becoming evident. To adequately reach the American Indian and Alaska Native population in our current system, our state and local health jurisdictions must prioritize American Indian and Alaska Native people who experience higher rates of co-morbidities that worsen the impacts of COVID–19.

Tribal and urban Indian communities continue to demonstrate a culturally attuned and community-driven vaccine distribution model is essential to reaching our most impacted communities. In Washington State, Muckleshoot Indian Tribe, Lummi Nation, Suquamish Tribe, and Seattle Indian Health Board have demonstrated our commitment to ensuring Native elders and healthcare providers are fully vaccinated and are now moving toward vaccinating teachers to support the reopening of schools.[13]1 Nationally, the Blackfeet Nation has vaccinated 95 percent of eligible residents.[14] Navajo Nation, who was impacted heavily by COVID–19 is now reporting 70 percent of its citizens are vaccinated administering over 120,000 doses to its community members.[15], [16] Cherokee Nation has recently opened its COVID–19 vaccine distribution to its 14-county area for both Native and non-Native residents.[17] The Bay Mills Indian Community in Michigan has vaccinated over 1,300 adult tribal members who live in their service region,[18] and remote villages in Alaska are reporting vaccination rates of 50–60 percent of adult village occupants.[19] Indian Country is proving the exercise of our sovereignty rights create equitable vaccine distribution that is attainable and successful for the benefit of our service population and surrounding communities.

We are encouraged by the allocation of $6.1 billion in COVID–19 resources authorized under the American Rescue Plan Act of 2021 to IHS. It will be necessary for IHS to make short-and long-term plans for these dollars, however this cannot be seen as a one-time investment. Since its inception, the IHS has suffered from chronic underfunding and systematic issues that have resulted in poor health outcomes for Native people. It will take continued financial support and systematic change across the Federal agencies if we are ever to see the health care system required under the Federal Governments treaty and trust responsibility.

Nationwide, we must demand more accurate racial and ethnic demographic data collection, reporting, and analysis. We must identify gaps in service delivery and ensure the health disparities experienced by our Indigenous communities do not worsen as our healthcare systems adapt and respond to COVID–19. We must resource and amplify the work of our most impacted communities and trusted messengers. We must lead with racial equity to reach low-income, communities of color, and those most impacted by the virus. We cannot end the pandemic or re-stabilize our healthcare systems impacted by COVID–19 without equitable distribution of resources that advance health equity.

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[13] Hellmann, Melissa. February 2021. How a Native American COVID–19 vaccine rollout is a model for community-centered approaches. Seattle Times. Retrieved from: *https://www.seattletimes.com/seattle-news/health/we-take-it-for-our-community-how-a-native-american-survey-and-vaccine-rollout-models-a-community-centered-approach/.*

[14] Franz, Justin. March 2021. Blackfeet Tribe reopens border with Glacier. Montana Free Press. Retrieved from: *https://montanafreepress.org/2021/03/17/blackfeet-tribe-reopens-border-with-glacier/.*

[15] Healy, Jack. March 2021. Plenty of Vaccines, but Not Enough Arms: A Warning Sign in Cherokee Nation. New York Times. Retrieved from: *https://www.nytimes.com/2021/03/16/us/vaccines-covid-cherokee-native-americans.html.*

[16] Newton, Creede. February 2021. Navajo Nation forecasts ‘community immunity’: 120,000 jabs given. Aljazeera. Retrieved from: *ttps://www.aljazeera.com/news/2021/2/26/navajo-nation-sees-community-immunitycoming*–120k-jabs-given.

[17] Tulsa World. March 2021. Cherokee Nation opens vaccine to public living in 14-county area. Retrieved from *https://tulsaworld.com/news/local/cherokee-nation-opens-vaccine-to-public-living-in*–14-county-area/article—63891098–8124–11eb-a6bd-c3f6eeb8bd94.html.

[18] Steeno, Paul. February 2021. Bay Mills: Nearly 700 community members have received one dose of COVID vaccine. Up North Live ABC. Retrieved from: *https://upnorthlive.com/news/local/bay-mills-nearly*–700-community-members-have-received-one-dose-of-covid-vaccine.

[19] Andrew, Scott. March 2021. Rural Alaska is getting COVID–19 vaccinations right. Here’s what the rest of the US can learn. CNN. Retrieved from: *https://www.cnn.com/2021/03/09/us/alaska-covid*0919-vaccine-success-trnd/index.html.

[SUMMARY STATEMENT OF ABIGAIL ECHO-HAWK]

As Executive Vice President of the Seattle Indian Health Board and Director of the Urban Indian Health Institute (UIHI), my testimony highlights the successes of Indigenous communities, continued challenges in health services and data, and recommendations to advance health equity.

Indigenous Resilience in Action

Tribal and urban Indian communities continue to demonstrate that culturally attuned and community-driven approaches are essential to leading an equitable response to COVID–19. We are modeling a community-centered approach while exercising our sovereignty rights as tribal people to advance equity among our service population and surrounding communities. For example,

- The Blackfeet Nation has vaccinated 95 percent of eligible residents;[1]
- Navajo Nation has vaccinated 70 percent of citizens and administered over 120,000 doses;[2], [3] and
- Remote Alaska villages are reporting vaccination rates of 50–60 percent of adult occupants.[4]

Worsening of Health Disparities

Data shows Native communities experience disproportionate morbidity and mortality due to the COVID–19.1,2 We are also seeing other health disparities worsen as a result of disruptions to our healthcare systems including concerning trends in domestic violence, child immunization, and prenatal outcomes and services. Recent data reveal:

- 20 percent of respondents in a UIHI study experienced an increase in lack of physical safety due to domestic violence and 40 percent of rape crisis centers have seen demand for services increase;[5] and
- Decreases in accessing clinic services, SIHB has seen a 13 percent drop in patients seeking prenatal care and a 38 percent decrease in pediatric immunizations.

Advancing Equity through Community Health Center Partnerships

Community Health Clinics (CHCs) have struggled to gain access to the vaccine. As culturally attuned and community-based healthcare providers, CHCs are trusted messengers in our most impacted communities. With additional and continuous funding to respond to and recover from COVID–19, CHCs are best positioned to help overcome health disparities.

Advancing Equity through Data Improvements

UIHI has drawn national attention to the data challenges experienced by Tribal Epidemiology Centers. Most recently, UIHI released Data Genocide, a report card on states revealing our national failure to collect quality data and the impacts of decades of chronic underfunding of public health infrastructure. There continues to be institutional barriers to making significant progress of data improvements with Health and Human Service (HHS) agencies. Ultimately, it is not possible for policymakers to make data-driven decisions on COVID–19 with the current data available for people of color.

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[1] Franz, Justin. March 2021. Blackfeet Tribe reopens border with Glacier. Montana Free Press. Retrieved from: *https://montanafreepress.org/2021/03/17/blackfeet-tribe-reopens-border-with-glacier/*.

[2] Healy, Jack. March 2021. Plenty of Vaccines, but Not Enough Arms: A Warning Sign in Cherokee Nation. New York Times. Retrieved from: *https://www.nytimes.com/2021/03/16/us/vaccines-covid-cherokee-native-americans.html.*

[3] Newton, Creede. February 2021. Navajo Nation forecasts 'community immunity': 120,000 jabs given. Aljazeera. Retrieved from: *https://www.aljazeera.com/news/2021/2/26/navajo-nation-sees-community-immunitycoming-120k-jabs-given*.

[4] Andrew, Scott. March 2021. Rural Alaska is getting COVID–19 vaccinations right. Here's what the rest of the US can learn. CNN. Retrieved from: *https://www.cnn.com/2021/03/09/us/alaska-covid–19-vaccine-success-trnd/index.html*.

[5] National Alliance to End Sexual Violence. April 6, 2020. Responding to COVID–19: Rape Crisis Center & Survivor Needs. Retrieved from: *https://documentcloud.adobe.com/link/track'uri=urn:aaid:scds:US:1d3534ee-60e-4f94-96dd-8196d2017c90-pageNum=1.*

- A CDC study,[6] found that 48 percent of race/ethnicity data in missing in COVID–19 vaccination data; and
- UIHI found that the national average among states COVID–19 surveillance data on Natives is a D-.

Recommendations

- Continue to invest in the Indian healthcare system including public health and healthcare infrastructure, maternal and child health, gender-based violence services, research, and CHCs;
- Leverage oversight authority to ensure HHS compliance with data sharing requirements; and
- Increase the supply of COVID–19 vaccines directly to CHCs and Indian Health Care Providers.

The CHAIR. Thank you, Ms. Echo-Hawk.

We'll turn to Ms. Williams.

STATEMENT OF TARYN MACKENZIE WILLIAMS, MANAGING DIRECTOR, POVERTY TO PROSPERITY, CENTER FOR AMERICAN PROGRESS, WASHINGTON, DC

Ms. WILLIAMS. Good morning. Thank you to Chairwoman Murray, Ranking Member Burr, and Members of the Committee for having me here today. I'm Taryn Williams, Managing Director of the Poverty to Prosperity Program and Disability Justice Initiative at the Center for American Progress. I testify today not only as someone who has spent more than a decade in disability policy but also as a Black woman who lives with multiple chronic conditions, and as someone who has seen and personally felt the devastating impact of this pandemic on communities of color and people with disabilities.

In addition to the disparate data presented on racial and ethnic communities, there are stark disparities for the disability community. The CDC reported that all people seemed to be at higher risk of severe illness from COVID–19 if they have serious underlying chronic medical conditions. As of February 11th, among the states reporting data, there were 111,000 cases and over 6,500 deaths, resulting in a fatality rate of 5.9 percent for people with disabilities. Even more startling, a cross-sectional study revealed that having an intellectual disability was the strongest independent risk factor measured for presenting with a COVID–19 diagnosis and the strongest independent risk factor other than age for COVID–19 mortality.

In order to ensure a comprehensive response to the pandemic, it is incumbent upon us to understand the factors that shape this crisis. The 1999 Supreme Court case, Olmstead v. Lois Curtis, confirmed that people with disabilities have the right to receive care within an integrated community or home setting. Yet, preserving access to resources in home-and community-based services has been an ongoing challenge. Absent this critical funding, people with disabilities are compelled to live in congregate settings and, as we've seen, these settings can be deadly.

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[6] Painter EM, Ussery, EN, Patal A, et al. Demographic Characteristics of Persons Vaccinated During the First Month of the COVID–19 Vaccination Program—United States, December 14, 2020-January 14, 2021. MMWR Morb Mortal Wkly Rep 2021; 70;174–177. DOI: *http://dx.doi.org/10.15585/mmwr.mm7005e1*

Equally critical in this moment is an ongoing fight for equal protection under the law, particularly in medical settings. In the past year the disability community has feared and fought to prevent health care providers from withholding or withdrawing life-sustaining treatment on the basis of arbitrary standards about quality of life. We know that calculations made in these critical moments are at great risk to be colored by bias and stereotypes or, in short, ableism, the ongoing devaluing of the lives of people with disabilities that gives rise to discrimination and the belief that disabled lives are not worth saving.

In addition to ableism, we must discuss racism and the ways that it contributes to disparate outcomes during the pandemic in these communities, particularly those that have been ravaged by COVID–19. We see the ways in which poverty and its correlates—low wages, inadequate means, lack of affordable housing, and a lack of affordable health care—have been inextricably linked to higher rates of infection and mortality from COVID–19. Our society has codified a two-tier economic system that overwhelmingly excludes Black and brown workers, women, and people with disabilities from opportunities to earn competitive wages and have their basic needs met.

With this history, it is no wonder that we have observed some of the worst outcomes of COVID–19 among these communities. We cannot begin to understand or come up with improved policy without comprehensive data, not only on fatalities but also on infection and COVID–19 long haulers. Indeed, a measurable improvement in the equitable response to the pandemic can only occur when we have ongoing collection and reporting of all COVID–19-related data by race, ethnicity, socioeconomic factors, and disability.

As U.S. efforts to vaccinate our communities continue to scale up, we need to take steps to ensure a more equitable rollout of the COVID–19 vaccines. This includes taking steps to ensure that communities of color and people with disabilities are prioritized in vaccination efforts. It is imperative that people receiving care can remain in their homes and communities rather than being admitted to crowded, unsafe congregate settings. We are pleased to see the addition of dedicated funding to HCBS in the American Rescue Plan. We applaud Representative Dingell and Senators Brown, Casey, and Hassan for their release of a discussion draft of the HCBS Access Act, and we know it is key to ensuring that states have what they need to keep people with disabilities in their homes.

My colleagues at CAP have noted that while the coronavirus crisis has led to significant job loss, it has not been as severe of an increase in uninsurance as predicted earlier in the pandemic. I would note that ongoing support of the ACA and its role in expanding access to health care is critical. Equally important is support for Medicaid expansion. One way that members can act is to continue to expand coverage and further incentivize state Medicaid expansion.

To guarantee equitable recovery, we urge Congress to address the low wages that keep people in poverty. An increased minimum wage, basic worker protections like the right to form a union or receive overtime pay, coupled with access to paid family and medical leave stand to benefit the marginalized communities that have been most impacted by this crisis.

It may not be possible to avert another pandemic. However, it is certainly within our power to ensure that the next one doesn't devastate individuals, families, and communities to the extent that we've seen in the last year.

Thank you.

[The prepared statement of Ms. Williams follows:]

PREPARED STATEMENT OF TARYN MACKENZIE WILLIAMS

Good Morning. Thank you to Chair Murray, Ranking Member Burr, and Members of the Committee, for inviting me to speak today.

I testify today not only as someone who has spent more than a decade in disability policy but also as a Black woman who lives with multiple chronic conditions. And, as someone who has seen and personally felt the devastating impacts of the pandemic on communities of color and people with disabilities.

The Magnitude of the Crisis

First, I will note where we are today.

According to the Centers for Disease Control and Prevention (CDC), as of March 22, 2021, 539,517 people in the U.S. have died from COVID–19. Nationwide, as of March 12, Black people have died at 1.9 times the rate of white people.[1] Hispanics and Latinos are 3.1 times more likely to be hospitalized from COVID–19 and 2.3 times more likely to die from COVID–19.[2] And, from January to June 2020, American Indians and Alaska Natives were 3—5 times more likely to be diagnosed with the disease than non-Hispanic whites and their mortality rate was almost twice as high.[3]

The stark disparities are also apparent for the disability community.

The CDC reported that all people seem to be at higher risk of severe illness from COVID—19 if they have serious underlying chronic medical conditions. As of February 11th among states reporting data, there were 111,000 cases and over 6,500 deaths, resulting in a fatality rate of 5.9 percent for people with disabilities.[4] Even more startling, a cross-sectional study of nearly 65 million patients revealed that having an intellectual disability was the strongest independent risk factor measured for presenting with a COVID–19 diagnosis and the strongest independent risk factor other than age for COVID—19 mortality.[5]

Factors that Exacerbated the Crisis

In order to ensure a comprehensive response to the pandemic, it is incumbent upon us to understand the factors that have shaped this crisis.

People with Disabilities

The 1999 Supreme Court case *Olmstead v. L.C.* confirmed that people with disabilities have the right to receive care within an integrated community or home setting.[6] Yet preserving access to resources and home and community based services (HCBS) has been an ongoing challenge. Absent this critical funding, people with disabilities are compelled to live in settings such as nursing homes, group homes, or institutions. And, as we have seen, these settings can be deadly.

Equally critical in this moment is the ongoing fight for equal protection under the law, particularly in medical settings. In the past year, the disability community has feared and fought to prevent health care providers from withholding or withdrawing

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[1] Centers for Disease Control and Prevention. Risk for COVID–19 Infection, Hospitalization, and Death By Race/Ethnicity. 03/12/21

[2] Ibid.

[3] Talha Burki. "COVID–19 Among American Indians and Alaska Natives." The Lancet: Infectious Diseases. March 2021.

[4] MaryBeth Musumeci and Priya Chidambaram. "COVID–19 Vaccine Access for People with Disabilities" KFF: March 01, 2021

[5] Shaun Heasley. "Intellectual Disability Among Greatest COVID–19 Risk Factors, Study Finds." Disability Scoop. March 10, 2021

[6] About Olmstead. Retrieved on March 22, 2021 from: *https://www.ada.gov/olmstead/olmstead—about.htm*

life-sustaining treatment on the basis of arbitrary standards about quality of life.[7] We know that calculations made in these critical moments are at great risk to be colored by bias and stereotypes. In short, they are subject to ableism. The ongoing devaluing of the lives of people with disabilities that gives rise to discrimination, and the belief—entrenched within our policies and systems—that disabled lives are not worth saving.

Racial and Ethnic Minorities

In addition to ableism, we must discuss racism and the ways it contributes to disparate outcomes during the pandemic. As noted, COVID–19 has ravaged communities of color, which includes people with disabilities. In these communities, we see the ways in which poverty and its correlates: low wages, inadequate leave, lack of affordable housing, and a lack of affordable healthcare have been inextricably linked to higher rates of infection and mortality from COVID–19.[8]

Far from coincidental, the relationship between racial and ethnic minorities, low wages and the results: inadequate housing, healthcare, and poorer health outcomes is by design. Our society has codified a two-tiered economic system that overwhelmingly excludes Black and Brown workers, women, and people with disabilities from opportunities to earn competitive wages and have their basic needs met. With this history, it is no wonder that we have observed some of the worst outcomes of COVID–19 among these communities.

Steps Forward for Improved Equity and Outcomes

Data Collection

We cannot begin to understand or come up with improved policy without comprehensive data not only on fatalities, but also on infection and COVID–19 long haulers. Indeed, a measurable improvement in the equitable response of the pandemic can only occur with ongoing collection and reporting of all COVID–19-related data by race, ethnicity, socioeconomic factors and disability. Many states do not publish vaccine data that includes race and ethnicity and—a year into the pandemic—no comprehensive data exist detailing the full extent of the pandemic on people with disabilities throughout the U.S.

Equitable Vaccine Roll-Out

As the U.S.'s efforts to vaccinate our communities continue to scale-up, we need to take steps to ensure a more equitable rollout of the COVID–19 vaccines. The distribution of vaccines should take into account the disproportionate impacts that the pandemic has had on marginalized communities.[9] This includes taking steps to ensure that communities of color and people with disabilities are prioritized in vaccination efforts.

Investment in Home and Community Based Services

It is imperative that people receiving care can remain in their homes and communities, rather than be admitted to crowded, unsafe congregate care settings—particularly during an ongoing pandemic and as we move into the future. We were pleased to see the addition of dedicated funding to HCBS in the American Rescue Plan (ARP), we applaud Representative Dingell and Senators Brown, Casey, and Hassan for their release of a discussion draft of the HCBS Access Act and look forward to working with Congress to ensure that states have the resources they need to enable people with disabilities and older adults to live in their communities.[10] [11]

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[7] Joseph Shapiro. "People with Disabilities Fear Pandemic Will Worsen Medical Biases." NPR: Morning Edition. April 15, 2020

[8] Molly Kinder and Martha Ross. "Reopening America: Low-wage workers have suffered badly from COVID–19 so policymakers should focus on equity." Brookings Institution. June 23, 2020.

[9] Jamila Taylor. "The Path Toward Equity in COVID–19 Vaccination." The Century Foundation. March 15, 2021.

[10] American Rescue Plan of 2021. Retrieved from Congress.gov on March 23, 2021. *https://www.Congress.gov/bill/117th-congress/house-bill/1319/text*

[11] Michelle Diament. "Waiting Lists May Be Eliminated for Disability Services Provided by Medicaid." Disability Scoop. March 22, 2021

Investment in Affordable Healthcare

My colleagues at CAP have noted that while the coronavirus crisis has led to significant job loss in the United States, it has not been as severe of an increase in un-insurance as predicted earlier in the pandemic.[12] This is in part because the programs established by the Affordable Care Act (ACA) are robust, helping those who lost their jobs in the past year secure new sources of coverage. Ongoing support of the ACA and its role in expanding access to healthcare in the US is critical.

Medicaid Expansion

Equally important is support for Medicaid expansion.[13] One way that Congress can act to expand coverage is to further incentivize state Medicaid expansion. States that have yet to expand Medicaid under the ACA have left millions of people—whose incomes are below the Federal poverty level—without access to either Medicaid coverage or financial assistance toward marketplace coverage.[14]

Increased Wages and Access to Affordable Housing

To guarantee an equitable recovery, we urge Congress to address the low wages that keep people in poverty. An increased minimum wage, basic worker protections like the rights to form a union and receive overtime pay coupled with access to paid family and medical leave stand to benefit the marginalized communities that have been most impacted by this crisis. In addition to wages, it is critical that we continue to provide support for individuals who are housing insecure. The ARP's investments in assistance for renters, landlords and individuals who are at risk for homelessness is an important first step toward addressing a key risk factor for poor health outcomes.[15]

Conclusion

It may not be possible to avert another pandemic. However, it is certainly within our power to ensure that the next one doesn't devastate individuals, families and communities to the extent that we have seen in the last year. In the coming months, we should work hard to identify what went wrong, take action, and be undeterred in our effort to commit the investments necessary to guarantee a better future.

[SUMMARY STATEMENT OF TARYN MACKENZIE WILLIAMS]

This testimony will explore the magnitude of the COVID–19 crisis; factors that have exacerbated the crisis; and proposed steps that Members of Congress can take to address the needs of the communities most impacted by the pandemic. It will begin with an overview of the available data from the CDC describing the disparate impacts of the pandemic on communities of color and people with disabilities. Next, it will address how congregate settings and ongoing discrimination in medical settings has detrimentally impacted people with disabilities. It will also explore how low wages, inadequate leave, and lack of affordable housing and healthcare have affected COVID–19 rates in communities of color. In the final sections, proposed recommendations will be discussed.

The Magnitude of the Crisis

Where we are today:

- CDC Data on the Disparate Impacts of COVID–19 on Communities of Color
- CDC Data on the Disparate Impacts of COVID–19 on the Disability Community

Factors that Exacerbated the Crisis

In order to ensure a comprehensive response to the pandemic, it is incumbent upon us to understand the factors that have shaped this crisis.

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[12] Emily Gee and Thomas Waldrop. "Policies to Improve Health Insurance Coverage as America Recovers From COVID–19" Center for American Progress. March 11, 2021

[13] Ibid.

[14] Ibid.

[15] American Rescue Plan of 2021. Retrieved from Congress.gov on March 23, 2021. *https://www.Congress.gov/bill/117th-congress/house-bill/1319/text*

People with Disabilities

- Lack of Access to Home and Community Based Services
- Ongoing Discrimination in Medical Settings

People of Color

- Low Wages
- Inadequate Paid Family and Medical Leave
- Lack of Affordable Healthcare and Housing

Steps Forward for Improved Equity and Outcomes

It is imperative that lawmakers take into consideration the needs of the communities most impacted by the COVID–19 crisis. Critical next steps include:

- Invest in Robust Data Collection
- Commitment to Equitable Vaccine Roll-out;
- Investment in Home and Community Based Services
- Investment in Affordable Healthcare
- Continued Incentivization of Medicaid Expansion
- Increasing Wages and Access to Affordable Housing

The CHAIR. Thank you very much.

We will turn to Mr. Woods.

STATEMENT OF GENE A. WOODS, PRESIDENT AND CHIEF EXECUTIVE OFFICER, ATRIUM HEALTH, CHARLOTTE, NC

Mr. WOODS. Senator Burr, first let me begin by saying thank you for that kind introduction and for being a friend to Atrium Health and for being a true champion for the communities that we serve throughout North Carolina.

Chairwoman Murray and Members of the Committee, my name is Gene Woods, and I'm the President and CEO of Atrium Health, and it's an honor to be with you here today.

Let me just first start by saying that in my 30 years in leadership positions in the health care field, this past year has been unequivocally the most challenging. But it's also been a year where my 70,000 teammates and I have never felt more connected to our purpose, because when you're on the front lines battling a pandemic to save lives every single day, one's purpose becomes brilliantly clear.

As one of the very few CEOs of color leading one of the largest academic health systems in the country, I was profoundly distressed to see Black and brown people die disproportionately of COVID. It was extremely personal for me. They could have been members of my own family.

COVID has beamed a blinding spotlight on the racial inequities that have existed for too long in this country. However, it fueled my passion and that of my entire organization to adopt a not-on-our-watch stance. We wanted to look back on these extraordinarily trying days and say that the very best of who we were showed up, and I couldn't be more proud of the Atrium Health heroes that I get the chance to work with every single day.

When the first patient showed up with COVID in our community, we leveraged the full breadth of our capabilities and our talents to rethink every single thing that we did, everything. The silver lining is that the key learnings from battling COVID present new opportunities to fundamentally change and improve health care in America post-pandemic. That can be good for the national budget, it can be good for business, and above all it can be better for our patients and our communities.

For example, early in the pandemic we used our analytical capabilities to geographically pinpoint hotspots down to the specific ZIP Code where there were disparities in testing and treatment. And working with local pastors and community leaders, we deployed our roving medical units well beyond our hospital walls, deep into the community, in church parking lots, on the grounds of the local YMCA, and even on construction sites.

In a matter of weeks, we completely eliminated all testing disparities that existed through the Charlotte region. Doing so reinforced the fact that data is only noise until we collect it, analyze it, and then very quickly put it into use, because as General Patton once famously said, "A good plan executed now is better than a perfect plan next week."

We also learned that health systems alone cannot create a healthier America. This pandemic proved that we need the whole community—businesses, government, and citizens alike—working together to create real solutions. For example, early in the pandemic we built a public-private coalition that ultimately delivered 2.6 million free masks across our community, with a specific focus on the most vulnerable. And in January, together with Honeywell, Tepper Sports and Entertainment, Charlotte Motor Speedway and others, we hosted among the country's largest and most successful vaccination events. In fact, we had a shot in arms every 4 seconds and published our learnings in a booklet titled "A Leader's Guide to Safer, Faster, and More Equitable Community Vaccination Events."

Through these partnerships we demonstrated that we can be both pro-business and pro-health. In fact, as the Chair of the Board of the Richmond Federal Reserve, I am acutely aware that both of those are inextricably connected. And as the veterans on my team remind me, both are required for national security.

We also used technology in new ways to reach patients across a very broad geography. For example, we launched the new Atrium Hospital to Home Program and equipped people's bedrooms with the most sophisticated monitoring equipment, and then used our medics to administer needed interventions, including Remdesivir, in the home.

Today we have cared for several thousand patients who would have otherwise been in the hospital with over 50,000 patients experiencing symptoms, thereby preserving critical bed capacity. And this is just a glimpse of what the future of health care can look like.

Finally, I'd like to say that we have arrived at many battled-tested beliefs from our experience this year. For one, there are deep disparities in both rural and urban communities to solve for. In fact, the major components of health equity can be similar whether you're a poor African American mother in New York, an Hispanic farmer in Texas, or even a white farmer in rural North Carolina.

Let me conclude by saying this. It took us less than a decade to put Neil Armstrong on the moon, and doing so required tremendous collaboration and ingenuity that showed the world who we were as Americans at our very best. I believe we can apply the same collaboration and ingenuity in these times to eliminate health care disparities by 2030, whether in urban or rural communities, if we take this moment to collectively say, “Not On Our Watch.”

Thank you for the opportunity to share our experiences and learnings from this past year on the front lines of battling this pandemic.

[The prepared statement of Mr. Woods follows:]

PREPARED STATEMENT OF GENE A. WOODS

Chair Murray, Ranking Member Burr and Members of the U.S. Senate Committee on Health, Education, Labor, and Pensions.

My name is Gene Woods and I am the president and chief executive officer for Atrium Health, one of the most comprehensive and highly integrated, not-for-profit healthcare systems in the Nation. With nearly 30 years of healthcare experience, I joined Atrium Health in April 2016, having overseen non-profit and for-profit managed hospitals, academic and community-based delivery systems and rural and urban facilities, as well as serving as the previous chair of the American Hospital Association (AHA). As a multi-racial healthcare executive, I am most passionate about protecting and expanding access and coverage to all Americans, connecting with our communities to advance positive health outcomes and achieving equity of care by eliminating health disparities.

It is now my great honor to present my written testimony to the U.S. Senate Full Committee on Health, Education, Labor, and Pensions on behalf of our 70,000 Atrium Health teammates, detailing some of the many successes we have achieved and lessons we have learned during this unprecedented pandemic period, including the disproportionate effect COVID–19 has had on communities of color and its impact on pre-existing health disparities.

Our Past & Present

It’s quite remarkable to think back to our humble beginnings in 1940 when a group of ambitious, young clinicians, not being satisfied with the services available to the public, relentlessly lobbied for a new hospital to better meet the needs of the community. Over time, we have evolved from these simple roots, understanding that our responsibilities are becoming less about what happens inside our hospitals and more about what happens in our communities; less about what our clinicians are telling our patients and more about what patients are telling us. In fact, it is less about healthcare and more about health. Today, we’re proud to be known as one of the nation’s leading health organizations. Our mission to improve health, elevate hope and advance healing—FOR ALL is forever bound to our rich heritage.

When it comes to keeping populations healthy, we know that our responsibilities do not begin or end at the hospital door. This important work starts well before a person becomes a patient, particularly within vulnerable ZIP Codes and census tracts—areas that do not have enough access to health services or fresh foods and where the rates of diabetes and heart disease are above the national average. So, we’re bringing people and organizations together in new ways and collaborating on what matters most.

With 42 hospitals and 1,500 care locations across the Carolinas, Georgia and Virginia (welcoming Wake Forest Baptist Health and Wake Forest School of Medicine into our family this past year), we serve a population of 7.8 million. We are also the largest provider of community benefit (i.e., the value we give back to our community in uncompensated care, medical education, cash and in-kind contributions, community-building activities, etc.) in North Carolina. And with world-class service lines in Cancer, Children’s, Heart & Vascular, Neuroscience, Musculoskeletal and Surgery & Transplant, we are recognized by our patients and industry experts to be among the very best, demonstrating that healthcare can be both exceptional and compassionate at the same time.

Our Awards & Recognition

Atrium Health has also been recognized as one of the Best Employers for Diversity, for new grads and for Women by Forbes; No. 1 on the list of Best Places to Work for Women & Diverse Managers by DiversityMBA; one of the 150 Top Places to Work in Healthcare by Becker's Healthcare; and the No. 1 military-friendly employer in the country. In addition, our organization has been recognized by U.S. News & World Report, Leapfrog Group and the American Nurses Credentialing Center as among the very best in the Nation and honored by the American Hospital Association with the Equity of Care Award and one of its first-ever Quest for Quality honors.

Most recently, Atrium Health was recognized by the Centers for Medicare & Medicaid Services (CMS) as a 2020 CMS Health Equity Award recipient for its dedication to health equity by reducing disparities, enabling communities to achieve the highest level of health. Atrium Health is one of only two organizations to win this prestigious award in 2020 and is the only non-profit healthcare system in the Nation to be recognized by CMS in this manner.

Introduction

Eighty years ago, our organization rose from the ashes of the Great Depression as Charlotte Memorial Hospital. It was a time when institutions of every kind were struggling economically, and our country was being further strained by war. And while born in the midst of uncertainty, through all the twists and turns in our storied history, we have become stronger in the face of each new challenge.

Fast forward to today—facing the challenges brought by the novel coronavirus, COVID–19—our resolute perseverance and passion to help others have never shined brighter. From within our care facilities to the makeshift offices now set up within their homes, every single member of our Atrium Health family is playing a unique role in protecting the health and safety of our patients, loved ones, friends and neighbors throughout this pandemic. Working together, during some of the longest and hardest days, our teammates are bringing health, hope and healing—FOR ALL front and center in new and remarkable ways, demonstrating undeniable courage and dedication.

As a recognized leader in diversity, inclusion and health equity, we have also witnessed and responded to the disproportionate effect COVID–19 has had on communities of color. A spotlight has been shone on the structural social and health inequities that exist, and we are asking ourselves the question—what does the next iteration of FOR ALL look like and how can we play a role in eliminating health disparities completely?

Within the following sections I will detail the work Atrium Health has done throughout the pandemic to address health disparities and inequities. I will also share recommendations we humbly present to this Committee that can better inform action beyond the Southeast region and eliminate health disparities across the entire United States.

Out of the Box Thinking—Data Infrastructure

When the first COVID–19 cases appeared in our region in early March 2020, Atrium Health invested in our data infrastructure and built our own COVID–19 Electronic Dashboard. The Dashboard is updated every 2 hours and provides a variety of analytics including COVID–19 positive cases and mortality, all stratified by race, ethnicity, age and test location.

In order to evolve our data-driven operations, we also created a sophisticated COVID–19 GIS (Geographic Information System) Map that linked data on COVID–19 geographical spread, hot spots, and testing density to population density, median income, higher poverty ZIP Codes, the concentration of Blacks or Hispanics all to help our teams gain granular insights on health disparities. To drive successful operations, we knew that partnerships, access, and mobility were critical, so we added layers to this map that included location of churches, schools, certain businesses and bus routes. In health disparities, we often talk about ZIP Codes. But our experts knew that social vulnerability indices (SVI) are far more local. Accordingly we developed features within our GIS map to analyze the home addresses of patients tested on specific testing days and mobile locations to assess the neighborhood footprint and geographical reach of our marketing outreach and grassroots communications efforts.

By the end of March 2020, our data clearly showed there were gaps in testing for communities of color and that the majority of tests among the Black population were taking place in the Emergency Department. We quickly formed a Multi-Disciplinary COVID-Disparities Task Force that developed and implemented an aggressive set of initiatives to mitigate these disparities.

Minority Testing

To address the testing disparity among underserved and minority communities, we launched our nationally leading, innovative testing model, integrating actionable GIS data with our mobile medical units. With our GIS data, our mobile units target COVID–19 hotspots in underserved neighborhoods and break down barriers to screening and testing for COVID–19 in low-income communities of color by:

Reducing administrative barriers; no appointment or payment barriers

Establishing trust; partners in media, churches, other organizations

Increasing access to care; telemedicine, mobile care

With these efforts, by April 20, 2020—less than a month after the start of the initiative—Atrium Health closed the gap in testing for the Black population in our area. By May 4, 2020, the gap in testing had been closed for Hispanics as well.

To date, the mobile units focused on underserved communities have tested close to 30,000 community members. And of the patients tested by the mobile units, 24 percent are Black/African American and 41 percent are Hispanic/Latino. In addition, our mobile unit have partnered with over 60 community host sites, including a variety of churches and organizations that serve large African American and Hispanic populations.

"Para Tu Salud"

In May 2020, we also convened a Hispanic COVID–19 Response Roundtable that included many key stakeholders from the Hispanic and Latino community. The goal was to hear from the community about gaps in the COVID–19 response and to get feedback about how to communicate messages and conduct additional community outreach to the Hispanic and Latino community related to the pandemic more effectively.

The result of this meeting, as well as some smaller community discussions, was the launch of our new initiative, *"Para Tu Salud"*—simply translated to "For Your Health"—to further educate and inform Hispanic communities on how to stay safe and healthy relative to COVID–19. Since the launch of this initiative, we have deployed several communications tactics to target Hispanic and Latino populations. This includes developing educational materials for social media; creating videos in Spanish featuring Atrium leadership and physicians; and partnering with local Hispanic news outlets and community leaders and influencers.

Atrium Health Hospital at Home Program

Though we continue to see COVID patients in our care facilities, we have also been embracing virtual care like never before. So much so that Atrium Health is leading the country with our efforts. Our new telehealth program, Atrium Health Hospital at Home, opened on March 20, 2020 and is enabling us to care for hundreds of patients at a time from the comfort of their homes.

Atrium Health Hospital at Home provides hospital-level care to patients who would otherwise require inpatient hospitalization. Principal components of this model of care include telephonic assessment and monitoring by a registered nurse, as well as daily provider virtual visits and in-home care provided by community paramedics for the most acutely ill. To date, Atrium Health Hospital at Home has cared for over 3,000 COVID–19 patients who would have otherwise been in the hospital. In addition, the COVID–19 Virtual Observation Unit has cared for nearly 54,000 patients experiencing mild symptoms not requiring hospitalization. Along with the significant impact on improved clinical outcomes, the virtual hospital has also created additional inpatient bed capacity, resulting in less PPE use and helping limit the community spread of the virus. Patient feedback has been overwhelmingly positive as they report feeling less fearful and alone throughout their illness.

This program also has tremendous potential for impacting access to care in rural America. When used at scale, this model prevents the need to stand up costly field hospitals in times of crisis while also advancing a new model of more routine care. It is critical that CMS continue to invest in this type of program to build resilience for future crises—from hurricanes to pandemics—and introduce another level of value into traditional healthcare. To evolve telemedicine capabilities we also recommend:

Establishing a payment structure the supports the technology and reasonable efficiencies

Modernization of credentialing and licensing requirements

Multi-state licensure

Broadband expansion and novel access rules for health care purposes, such unlimited data as waiving data plans for unlimited data and high-speed access under specific conditions.

Callout: *Senate HELP Committee Member Senator Tim Scott (R-SC) is commended for the introduction of S. 368 "The Telehealth Modernization Act" which would empower the HHS Secretary to leverage telehealth beyond the public health emergency, as clinically appropriate.*

Partnerships: Two Million Mask Initiative

At a June 26, 2020 Statehouse news conference, North Carolina Governor Roy Cooper issued a statewide requirement for citizens to wear masks while in public in order to slow the spread of COVID–19. Alongside Governor Cooper and Secretary of the North Carolina Department of Health and Human Services Dr. Mandy Cohen, Atrium Health proudly announced our leadership of private-public partnership with the state's largest businesses and organizations—including Bank of America, Blue Cross Blue Shield of North Carolina, The Carolina Panthers, Honeywell, Lowe's, Red Ventures and Wells Fargo—to distribute one million face masks across the region. This partnership is a great example of how health professionals, working in concert with businesses, can improve well-being.

Our initial emphasis has been providing masks to our underserved communities through our deep, existing relationships with Hispanic, Black, elderly, millennial and faith communities. In the days following our initial announcement, Mecklenburg County—where Charlotte is located—joined our effort, pledging an additional one million masks and bumping our supply to two million masks for the region. By partnering with the private sector, we were able to improve our data analytics, access an entirely new group social media influencers to build trust, create a series of hyper-focused targeting and distribution operations, and innovate at the speed of the pandemic.

The impact was dramatic. At the state level, we saw total COVID cases drop 21 percent and the percent positive rate drop 10 percent (from 7.7 percent to 6.9 percent) starting 2 weeks after the mandate. However, in Mecklenburg County, over the first 10 weeks of the Million Mask Initiative we observed a decrease in total daily positive test rates by over 60 percent. Critically, we noticed significant decreases in hospitalizations.

This shows correlation, it does not prove causation. That said, the initiative was the leading factor in helping Mecklenburg County over perform and get control of COVID–19. The teams spanning the business, sports, health, government and nonprofit communities got masks in people's hands and the message that "Masks Save Lives" had impact. As of March 1, we have surpassed our goal and distributed nearly 2.6 million masks, all while modeling and encouraging COVID–19 safety and best practices while we wait for herd immunity.

Partnerships Part 2: Mass Vaccination Playbook

In January, North Carolina needed to quickly build the capacity to vaccinate with zero vaccine waste. On Jan. 14, 2021, Atrium Health, Honeywell, Tepper Sports & Entertainment (The Carolina Panthers) and Charlotte Motor Speedway (NASCAR) announced a unique public-private initiative with a bold goal of administering 1 million doses of the vaccine by July 4, 2021. With support from North Carolina Governor Roy Cooper, the North Carolina Department of Health and Human Services and local governments, our organizations collaborated to administer vaccinations, provide logistics and operations support, and offer venues for an efficient and safe initiative. These mass vaccination events brought together each organization's unique strengths in logistics, healthcare and technology to vaccinate as many eligible community members as quickly as possible. The public-private initiative organized the first mass vaccination event at Charlotte Motor Speedway from January 21 to 24, with second doses February 11 to 14. After these successful events, the team developed a plan for future vaccination events that can accommodate an estimated 30,000 vehicles. With multiple people in each vehicle, the vaccination capacity could be significantly higher.

The second event was held at Bank of America Stadium from January 26 to 29, with second doses February 26 to 28. These highly efficient mass events safely vaccinated a diverse group of more than 36,000 people with scalability at a rate of nearly 1,500 vaccinations per hour with average total vaccination times of less than 30 minutes. With each event, we get better and more efficient. In fact, last week we partnered with American Airlines and the Charlotte Douglas International Airport to vaccinate nearly 5,100 transportation workers, 44 percent of whom were minorities.

I would like to submit our "Leader's Guide to Safer Faster and More Equitable Community Vaccination Events" for the record. In this playbook, we offer several best practices to get "shots in arms" quickly, efficiently and safely. While each event and venue are unique and require some adaptation, this guide is intended to lay out the high-level elements of planning, preparing, and executing a mass vaccination event.

Key Statistics:

During our mass vaccination events we were able to give a shot in the arm every 4 seconds.

To date (3/22/21), Atrium Health has administered nearly 350,000 vaccines. o 21 percent of whom are people of color with a goal of reaching the overall state population rate despite age and workforce regulatory limitations.

Vaccination Hesitancy

When the first FDA-approved COVID–19 vaccine became available in December 2020, Atrium Health became the first health system in North Carolina to administer the vaccine to our teammates. A Vaccine Hesitancy Taskforce was established to address vaccine hesitancy among teammates and community members. The taskforce uses a multi-pronged approach grounded in data to create innovative processes that remove barriers to getting the vaccine and create culturally sensitive education and communications to address myths and misconceptions in minority communities about the COVID–19 vaccine. Our community efforts are grassroots in nature, working with community partners to co-create collateral that is bilingual, culturally responsive and health literate. The taskforce also uses real-time data through a COVID–19 Vaccine Demographics Electronic Dashboard, which provides a variety of analytics updated every 6 hours, stratified by race/ethnicity, age, and vaccine location. In addition, the taskforce applies a data-informed decision approach to prioritize vaccine distribution in communities with the greatest need.

Atrium Health also created "Community Immunity for All," a new collaborative to vaccinate underserved communities and those most disproportionately affected by the coronavirus disease. The goals of "Community Immunity For All" are:

Acknowledge the history of health injustice in communities of color

Listen to and collaborate with partner organizations

Educate and support individuals in making informed decisions to best protect their health and well-being

Increase the vaccination rate in underserved communities and communities of color

Through the efforts of Community Immunity for All, African American and Hispanic teammates (employees at Atrium Health) acceptance or uptake rate of scheduling their first appointment increased 24 percent in the first 6 weeks of our efforts, exceeding our goal of a 20 percent increase.

In addition, to address the vaccine disparity among underserved and minority communities, Atrium Health has expanded its nationally leading innovative mobile COVID–19 testing model to vaccine distribution. Specifically, we have deployed our mobile medical units to target underserved neighborhoods and breaks down barriers to obtaining a vaccine in low-income communities of color by:

Not requiring an appointment

Holding vaccination locations trusted by underserved communities such as churches and community service organizations.

Leveraging grassroots communications channels such as church emails and phone calls to inform community members of site locations and dates and times and preserve capacity for the underserved community

Staffing the units with interpreters

Making it clear that Atrium Health will not share an individual's immigration status and that the organization will not report if a patient is undocumented.

Educating community members that the vaccine is provided at no cost to them

Offering alternate operational hours on certain days to accommodate essential workers

To date (03/17/21), the mobile units focused on underserved communities have vaccinated over 9,000 community members at over 20 events at 23 community host sites, including a variety of churches and organizations that serve large African American and Hispanic populations. People of color represent 75 percent of those vaccinated to date at these units. Specifically, Blacks comprise 54 percent and Hispanics comprise 9 percent of community members vaccinated in the roving unit model to date. Atrium Health has scaled its roving unit vaccination capacity to offer 10 sites a week (including both testing and vaccinations). Future plans include adding two additional mobile units for a total of 20 sites a week.

Social Impact and Rural/Urban Strategy

It is without question that the COVID pandemic has forced a re-examination of every aspect of how we deliver care; and going forward, we would assert that we all have an opportunity to completely re-examine how we can create greater social impact and eliminate the inequities we see, once and for all. In fact, our country is depending on us to do just that. As we know, social determinants of health (SDOH) are environmental conditions—like socioeconomic status, quality of education, access to job opportunities, income, transportation, access to technology and social norms—that affect a person's quality of life and health outcomes.

> **Callout:** *The "Black Maternal Health Momnibus Act of 2021" S. 346 represents a comprehensive set of policies to help mitigate inequities from birth. I want to acknowledge HELP Committee Members Senator Tim Kaine (D-VA), Senator Bob Casey (D-PA), and Senator Tammy Baldwin (D-WI) for their support.*

We know that non-clinical, community services are crucial and impact health outcomes, such as mortality, morbidity and healthcare costs, by as much as 80 percent, indicating that clinical care impacts less than 20 percent of health outcomes. That's why, this past year, Atrium Health developed a Social Impact Strategy to follow our mission to improve health, elevate hope and advance healing FOR ALL to support patients and communities affected by the health inequity crisis facing our Nation. Led by our Enterprise Board (through the Health Equity and Social Impact Committee), our social impact strategy will ultimately become a center piece of our entire corporate strategy. Our strategy is built upon four pain pillars:

Equity in Social Determinants of Health
Equity in Acute Social Needs
Equity in Quality and Outcomes
Equity in Access

As you heard at the March 9 hearing, "An Update from the Front Lines," our teammates also need support. So, we made a commitment to start first with our own by piloting our social impact strategy internally to bring best practices to scale in the community. We initiated:

Teammate Well-Being Surveys: Survey tracked food, housing, utilities, internet, mental health, career development; Expanded proactive, ongoing outreach to lower-income teammates with resource information and support

Career Development Center Expansion: Committed to growing teammates and promote economic mobility in our community; Hope to grow our reach by 5x (from 100 to 500+)

Teammate Meal Kit Pilot Program: Offering easy affordable family options to our low-income teammates; Pilot launched January 2021; 2 meals per week, each meal feeds 4 people

Housing Opportunity Promoting Equity (H.O.P.E) Program: In 2021, 50 teammates will be placed in affordable housing; Program targeted to teammates with household income of 31–80 percent of the area median income.

Since 2018, Atrium Health has also embraced "Leveraging Integrated Networks in Communities" (LINC) as a means of connecting patients to social services. By leveraging local expertise and technology, people are connected to food, housing, child development, job training, and transportation supports. Atrium Health relies on Aunt Bertha, a growing multi-state social care referral platform. This interoperable resource not only helps our teammates connect people to resources, but it also provides Atrium Health with real-time data on needs, patterns and utilization of services in the communities we serve.

Since we adopted the platform in 2018, we have connected more than 14,000 people to services in N.C., S.C., and G.A. More importantly, however, we were able to see the impact the pandemic, the economy, and distance learning had on families in our region. For example, we saw a drop in utilization (down to 200 connections in March 2020) when hospitals and the community went into lock down, and then a tremendous spike (more than 700 connections in August 2020) when schools did not reopen for in-person learning.

> **Callout:** Legislation introduced by Sen. Dan Sullivan (R-AK) and Senate HELP Committee Member Sen. Chris Murphy (D-CT), S. 509 the "Leveraging Integrated Networks in Communities (LINC) to Address Social Needs Act" aims to assist states in building statewide or regional collaborations—like Aunt Bertha—to better coordinate health care and services.

"Teammates First" During COVID–19

Since the onset of COVID–19, it is important to note that Atrium Health has been committed to a "Teammate First" strategy to support our teammates, leaders, physicians and providers as they work to fulfill our mission each and every day. We recognize that in order to care FOR ALL, we also must care for each other as well. In doing so, by the end of 2020, we invested more than $179.7 million to patient safety and teammate well-being. Ways in which we continue to support our teammates throughout COVID include:

> Safety—Ensuring our teammates have access to testing and proper PPEs, while moving as many teammates as possible (9,000+), as quickly and effectively as possible, to a remote work environment.
>
> Communication—Providing daily, often more than daily, updates from our Emergency Operations Center. Focusing on consistent and open lines of communication. Implemented texting technologies to enhance screening of teammates for COVID–19
>
> Stress and Burnout—Convening workgroups to quickly and effectively provide opportunities to support our teammates through the challenging times of reduced hours, testing and screening for COVID–19, back-to-school issues, etc.—and keeping in mind that our leaders face the same challenges and need support too.
>
> Engagement and Productivity—Re-energizing the conversations and opportunities around engagement and productivity to fit the times and support teammates, without losing sight of our commitment to our patients. Providing tools and resources for growth and development—whether in a remote or on-campus environment.
>
> Flexibility—Adapted for parents with remote learning and back-to-school support. Leaders provided flexibility as much as possible without compromising the needs of the business and safety of patients.
>
> Supporting Teammates—Used partnerships, for example with the YMCA, to offer childcare at no cost. Employee hardship fund established to provide financial support to teammates facing financial challenges.
>
> Onboarding—Shifting to virtual, rather than in-person onboarding, while keeping new teammates excited and engaged to join our team. Streamlining processes and adapting flexible policies to expedite health screenings and background checks.
>
> Cross training—Providing training and education to equip staff with the knowledge and competencies needed to adapt in a rapidly changing environment.
>
> Talent pool—Expanded talent pools to include students, paramedics/military vets to support staffing surge demands. Includes hiring 90-day, clinical temporary workers in support of surge.
>
> Finances—In 2020, launched the Atrium Health Caregiver Heroes Teammate Emergency Care Fund to support teammates suffering catastrophic events, including extreme hardship through COVID–19.

Following the death of George Floyd last year, our already stressed teammates faced the additional pressure of social injustices. We respond with a sense of urgency, but also with a voice of compassion, credibility, and call to action through activities that engaged and supported our 70,000 teammates—in particular our teammates of color—in healing during a time of emotional unrest. Atrium Health's comprehensive work in the social justice space for our teammates now totals more than 300 hours of programming, has attracted over 13,000 teammates, and supported over 1,000 Atrium Health leaders.

This included initiatives like Courageous Conversations to engage teammates. Working alongside our diverse Black men's and women's System Resource Groups (SRG's), our Office of Diversity and Inclusion hosted a system-wide Courageous Conversations 3-part virtual series allowing teammates to share their personal stories, perspectives, and emotions, in a safe space and to begin the healing process. The second part of the virtual series was open to all teammates and focused on the experiences of Black/African American men and women personally, and at work. Total attendance was over 1,700 teammates. Through these programs not only were our teammates able to speak their truth, but they also found comfort, support and hope in their Atrium Health family.

As a system, we also provided mental health, emotional support and resources for teammates through our Racial Justice Toolkit: a curated collection of resources for teammates and community members to explore racial justice, improve cultural competence and start productive conversations about race. Our resources have also been referenced by local and national partners and organizations. In addition, we provided training and informative material for leaders to engage with their teams. For instance, in June 2020, our Office of Diversity & Inclusion held a series of enterprise-wide leader-only education sessions about racial justice to support leaders in understanding how to support teammates through the emotion curve, strategies for connecting and initiating conversations, mitigating unconscious bias, working through scenarios and best practices for leading during unprecedented, unpredictable times.

Recruitment & Retention of Diversity Teammates

In 2019, a study showed that firms owned by women and minorities managed just 1.3 percent of assets in the $69 trillion asset management industry. However, the study found that the performance of minority owned funds was overrepresented in the top quartile of performance.

At Atrium Health, we believe we could do more to ensure that its investment decisionmaking processes promoted equity and inclusivity. As part of our own self-assessed, we determined that, while we had made some progress in diverse manager selection, our portfolios were underrepresented by Black-owned investment management firms. So, over the past several months, we (1) re-evaluated our manager search processes; (2) met with Black-owned investment firms to learn about their history, processes, and performance; (3) engaged in significant discussions about diversity with industry colleagues and our board, (4) and; most importantly, took action.

We recently committed over $320 million to Black-owned investment funds bringing our total investment in women and minority-owned investment management firms to 12 percent of our assets. And we are not done. We will continue to bring a fresh diversity lens to our investment manager selection and increase our allocation. This is just one example of our commitment to diversity. We have and will continue to incorporate the same rigor and accountability into other areas of our organization for the good of our institution and the patients that we serve.

In addition to investing in diversity, Atrium Health also signed the Parity Pledge, which pledges that we will interview at least one woman and one person of color for all executive positions. We are also participants in the AHA Equity of Care pledge. With these pledges, we have overhauled our executive search and selection policy to ensure a fair, open and equitable search and selection processes for all executive positions. Our Diversity and Inclusion team has also developed a DEI scorecard and business review process that proactively identifies diversity gaps and works collaboratively with our senior leaders to address these gaps. With this, in 2020, 122 leaders of color were promoted (supervisors and above) at Atrium Health. As a system caring FOR ALL, being made up of and representing ALL is equally important to delivering health equity and equality to our communities.

Closing

The COVID–19 pandemic has come at a great cost to the world. We should view this reality as an investment that allows us to emerge stronger. Through unity and collaboration, government and industry are capable of great things. This has been, and still is, a core tenet of American exceptionalism. Much like when NASA was formed and the power of partnership through technology landed Neil Armstrong on the moon, the possibilities of caring for and leading better lives—especially in the realm of health equity—are endless. Atrium Health's experiences this past year proves just that, whereby the value of bringing together the resources of government and industry have greatly supported the well-being of our population. So much so that, much like President Joe Biden's "Cancer Moonshot Initiative," we firmly believe a health equity moonshot is also not out of reach. Therefore, based on the work we have done this past year, we recommend a platform built on:

> A. Coverage: Continue access beyond the Public Health Emergency by closing coverage gaps with a combination of innovative government-based and private models.
>
> B. Standardize Data Sets: Enable real-time analytics through full interoperability. Through international cooperation worldwide standards for data collection can be established.
>
> C. Real-Time Care and Interventions: Build the national infrastructure needed to make broadband available to every rural and urban community in the country. It is critical to education, health and the economy.
>
> D. Sustained Well-being: By using technology to support well-being, our brothers and sisters in rural and urban communities will lead healthier, more productive lives.

On behalf of Atrium Health, I would like to thank the Committee for this opportunity to share our observations and what we learned this last year. While COVID–19 and the public health emergency we have faced may fade over time, the health inequities the pandemic uncovered will persist if we don't take this moment to come together around an ambitious goal. The country, and indeed the world, is ready for a health equity moonshot.

[SUMMARY STATEMENT OF GENE A. WOODS]

About Atrium Health

Founded in 1940 as a hospital to better meet the needs of the community. Our mission to improve health, elevate hope and advance healing—FOR ALL. With 42 hospitals and 1,500 care locations across the Carolinas, Georgia and Virginia (welcoming Wake Forest Baptist Health and Wake Forest School of Medicine into our family this past year), we serve a population of 7.8 million. Most recently, Atrium Health was recognized by the Centers for Medicare & Medicaid Services (CMS) as a 2020 CMS Health Equity Award recipient for its dedication to health equity by reducing disparities

Out of the Box Thinking—Data Infrastructure

When the first COVID–19 cases appeared in our region in early March 2020, Atrium Health invested in our data infrastructure and built our own COVID–19 Electronic Dashboard—updated every 2 hours with COVID–19 analytics: cases and mortality, all stratified by race, ethnicity, age and test location. Using GIS data, mobile units target COVID–19 hotspots in underserved neighborhoods and break down barriers to screening and testing for COVID–19 by:

- Reducing administrative barriers; (no appointment or payment need)
- Establishing trust; partners in media, churches, other organizations
- Increasing access to care; telemedicine, mobile care

With these efforts, by April 20, 2020—less than a month after the start of the initiative—Atrium Health closed the gap in testing for the Black population in our area. By May 4, 2020, the gap in testing had been closed for Hispanics as well.

Atrium Health Hospital at Home Program

Tremendous potential for impacting access to care in rural America. When used at scale, this model prevents the need to stand up costly field hospitals in times of crisis while also advancing a new model of more routine care. It is critical that CMS continue to invest in this type of program to build resilience for future crises—from hurricanes to pandemics—and introduce another level of value into traditional healthcare. We recommend:

- Establishing a payment structure, the supports the technology and reasonable efficiencies
- Modernization of credentialing and licensing requirements
- Multi-state licensure
- Broadband expansion and novel access rules for health care purposes, such unlimited data as waiving data plans for unlimited data and high-speed access under specific conditions.

Support S. 368 “The Telehealth Modernization Act”

Partnerships: Two Million Mask Initiative

Atrium Health and the state’s largest businesses and organizations—including Bank of America, Blue Cross Blue Shield of North Carolina, The Carolina Panthers, Honeywell, Lowe’s, Red Ventures and Wells Fargo—committed to distribute one million face masks across the region.

At the state level, we saw total COVID cases drop 21 percent and the percent positive rate drop 10 percent (from 7.7 percent to 6.9 percent) starting 2 weeks after the mandate. However, in Mecklenburg County, over the first 10 weeks of the Million Mask Initiative we observed a decrease in total daily positive test rates by over 60 percent. Critically, we noticed significant decreases in hospitalizations. This shows correlation, it does not prove causation. That said, the initiative was the leading factor in helping Mecklenburg County over perform and get control of COVID–19.

Partnerships Part 2: Mass Vaccination Playbook

Atrium Health, Honeywell, Tepper Sports & Entertainment (The Carolina Panthers) and Charlotte Motor Speedway (NASCAR) announced a bold goal of administering 1 million doses of the vaccine by July 4, 2021. See: “Leader’s Guide to Safer Faster and More Equitable Community Vaccination Events”

Key Statistics:

- During our mass vaccination events we were able to give a shot in the arm every 4 seconds.
- Atrium Health has administered nearly 350,000 vaccines, 21 percent of whom are people of color.

Vaccination Hesitancy

Taskforce was established to address vaccine hesitancy among teammates and community members. Uses Dashboard to track progress. The Taskforce uses analytics to prioritize vaccine distribution in communities with the greatest need.

Social Impact and Rural/Urban Strategy

Support the “Black Maternal Health Momnibus Act of 2021” S. 346

Support S. 509 the “Leveraging Integrated Networks in Communities (LINC) to Address Social Needs Act”

“Teammates First” During COVID–19

Social equity starts with our own team members.

Closing

We recommend a “Moonshot” platform built on Coverage, Standardize Data Sets, Real-Time Care and Interventions, to Sustained Well-being.

The CHAIR. Thank you very much to all of our witnesses for really excellent testimony.

We will now begin our rounds of 5-minute questions for our witnesses. I ask my colleagues to please keep track of your clock and stay within those 5 minutes.

COVID–19 has really exacerbated underlying health inequities and been especially deadly for our communities of color, including

Black, Latino, Asian American and Pacific Islander communities, tribal populations, people with disabilities, people living in rural areas, and low-income families. We have struggled to get tests and therapeutics and vaccines to those communities even as they have been the hardest hit. And we saw a troubling lack of diversity in COVID–19 vaccine trials, perpetuating an historic trend.

As vaccine rollout continues and we work to end this pandemic, we have to ensure that vaccines and reliable information about them are getting to the populations who are most at risk. I want to ask Ms. Williams and Dr. Wilkins both, how can we make sure COVID–19 vaccines are available in our most impacted communities and that people are actually willing and able to get vaccinated?

Ms. Williams, I'll start with you, and then we'll turn to Dr. Wilkins.

Ms. Williams.

Ms. WILLIAMS. Great. Thank you for that question. And I appreciate it because in late 2020, national surveys found that Black and Latino respondents were less likely than white respondents to say that they planned to get a vaccine, but surveys done in the past month have begun to suggest that gap has diminished, or at least started to disappear.

There's been a perception that Black Americans are more hesitant than whites to receive a COVID–19 vaccine, but roughly equal proportions of Black and White respondents in a recent poll said they planned to get vaccinated.

I don't want to understate the amount of vaccine hesitancy or the lack of trust that still exists in our communities, but what I do want to emphasize is our need to prioritize equity in the vaccine rollout. If they have access to it, we are starting to see in those data that we know Black and Latino communities will seek it out.

This requires accessible and equitable systems that help to bridge the technological divide. For example, we know there are people in communities who don't have access to broadband. Further, we need to ensure that they are accessible systems. The technology used in some portals may not be accessible to screen readers used by individuals who are visually impaired or blind. There is also an economic divide. I consider myself fluent in technology, and I have paid leave, and yet I've struggled to navigate my own system for accessing a vaccine here in Washington, DC.

I would note that as we think about prioritizing these communities in the vaccine rollout, we must make sure that we have accessible transportation, that we address the lack of broadband access, and that we're making the information about vaccines available in plain language and multiple languages to ensure that communities of color and individuals with disabilities will have access to information about the vaccines.

The CHAIR. Thank you.

Dr. Wilkins.

Dr. WILKINS. Yes. Thank you, Chairwoman Murray. I would echo the emphasis on making sure that we understand that availability of vaccines is more than—there's more to access than availability. There are several steps: transportation, being able to register, get to a site where vaccines are. So getting to where we can actually offer and administer vaccines where people live, work, play and pray.

Taking vaccines out to communities is really important, and I think we need to increase the opportunities for others to be trained in vaccinations, nurses who are leading health ministries. Individuals who can be trained to give onsite vaccinations will be very important.

I will say as far as information, we have to also shift away from the terminology of “vaccine hesitancy,” because that is putting the blame on the individuals for not being ready to be vaccinated. We need to understand that individuals have questions. They want to know the data. They want to know if people like them were included in studies. And we need to take the time to explain that to them. That is one of the strategies that we used at Vanderbilt, especially early on for our employees, our environmental services workers, food and nutrition, workers who were more likely to be minority. We did onsite town hall meetings to answer their questions. We made sure that information was available in multiple languages, and we also have gone back to them multiple times to allow them the opportunity to become ready.

The CHAIR. Thank you very much, and good point. I appreciate that.

We are starting a series of votes. I am going to turn the gavel over to Senator Burr. I will go vote and be back as soon as I can and let him go vote. So again, to all of our Members who are going to be doing this dance here for a bit, thank you.

Senator Burr.

Senator BURR. Thank you, Chair.

Dr. Wilkins, you have conducted a tremendous amount of research on the recruiting and retaining of minority populations to participate in clinical trials. How can lessons from that work be applied to increase access and administration of COVID–19 vaccines in the minority populations?

Dr. WILKINS. Thank you for acknowledging that. We certainly at Vanderbilt have led a national recruitment innovation center, and we also have a mass online course available to support individuals becoming trained and better prepared to enroll racial and ethnic minorities into clinical research.

I think a key thing that we’ve learned as part of the COVID–19 research is that we have to understand the kinds of studies we’re doing, when we need to enroll individuals, and where we can do that. So if we’re going to actually do testing onsite and require individuals to be enrolled in trials in the short term, we need to understand what their needs are as far as, again, transportation, access to information, linkages to health care. All of those things are necessary if we’re going to actually enable individuals to participate in research.

Those are the things that we can do also for vaccinations. As others have testified, being able to leverage systems and technology during COVID–19 has also been very helpful. So we’ve been doing remote trial monitoring. The ability to connect individuals to trials and studies and information digitally has certainly substantially increased, but not everyone has those opportunities. So we need to be able to support people who might not have access to the digital tools, as well as high-speed Internet.

Senator BURR. Great. Thank you for that.

Gene, welcome. Always good to talk to you. I have to admit, after Dr. Wilkins' comments and some of the things that you—the challenges you had in Charlotte and how you overcame them, there were many times early on in this pandemic I thought we made a huge mistake by not turning over vaccinations to Chick-fil-A, because Chick-fil-A changed their system overnight and processed people through, and if you look at the outside of it, it looks totally different than it did at the beginning of this. And as we went back to statute, we found out that we provided everybody within health care the same degree of flexibility that Chick-fil-A displayed in their process.

Gene, you were able to take advantage of some of that. How did Atrium successfully change the way it used its data systems and patient information during the pandemic response to determine where and how people were getting COVID?

Mr. WOODS. Thank you for the question, Senator. I mean, if I step back, we changed just about everything that we did, and we were changing it on a 12-hour or 24-hour cycle.

One of the things I highlighted in my opening testimony is that we have this geo-mapping capability, and it's updated every 2 hours. So we know exactly to the neighborhood what the income disparities are, where testing was occurring, what were the mortality rates. So that enabled us to really take these roving vans, and if we found that in a particular neighborhood there were disparities, we would work with the pastors and the community leaders there, and we were very targeted in our ability to then use that data, mirror that data with our ability to deliver care.

As was mentioned before, it's really about getting outside of our walls. We knew that there were transportation issues, there were Internet access issues, and people couldn't come to us. So if you think about our vans, our medical roving vans, they're like a hospital room on wheels. So we would go into these communities.

But what we found also, Senator, is that it wasn't just about solving for testing. We have a gentleman that I remember named Samuel. He came to us and was waiting for his test results. Well, the staff found out, where was he going to sleep that night? He didn't know. So we had to arrange for temporary housing that evening. A nurse realized that he didn't have many clothes, and his shoes had holes in them. So she called her husband to bring clothes in, and we got him food as well.

What we realized is that it was about mirroring this data capability with our ability to reach deeper into the communities, but also in a holistic way. It wasn't just about COVID. We have a bunch of other needs that exist in the community.

Senator BURR. Gene, thank you. It strikes me in hearing and seeing some of the things you did in Charlotte that the historical precedent didn't apply to COVID. Historically we relied on public health departments to determine the geo-location of the spread of a disease. In this case you and maybe Vanderbilt took the responsibility to look at it and to identify it yourself in real time, versus with delayed data that might be coming in. I'm sure it was not cheap, but the mobilization that you made in Charlotte to overcome the challenges that you identified, transportation and other issues, this is unusual for a hospital system to get outside of its walls, but the flexibility existed because the need was there.

I thank all of our witnesses today.

Senator Casey.

Senator CASEY. I want to thank Ranking Member Burr, and I want to thank our witnesses today for giving us the benefit of your expertise and your experience.

I'll start with Taryn Williams with a question that relates to individuals with disabilities. I especially appreciate your ongoing and significant advocacy on behalf of people with disabilities, continuing with your testimony today. I know that in your testimony today you indicated that individuals with disabilities have been disproportionately impacted by the COVID–19 pandemic, and that's a certainty.

For example, these individuals may be both at higher risk of contracting the virus due to underlying conditions, but also at the same time face challenges in taking preventive measures and also having to experience disruption to their essential health services. And now that we're in the rollout of the vaccine—vaccines, plural, I should say—we're hearing about barriers to accessing the vaccines for people with intellectual and developmental disabilities.

We know that the CDC guidance on prioritization recognizes that people with Down Syndrome should receive priority in getting the vaccine, but people with other types of developmental disabilities or intellectual disabilities, such as Prader-Willi Syndrome or autism, and who are also greatly at risk, these individuals are not included, not included, among the groups to be prioritized.

My question is simple but important. Given your professional background and your personal experience, what guidance do you think the CDC should provide states regarding prioritization of vaccinations of people with both developmental and intellectual disabilities?

Ms. WILLIAMS. Thank you for that question. I would note that there are a number of researchers, and we've observed in our advocacy efforts the ongoing challenges and barriers that people with disabilities are experiencing as they attempt to access the vaccinations in their state.

Few state vaccination plans explicitly mention people with disabilities other than stating people with high-risk medical conditions, and we know that prioritizing certain high-risk medical conditions may include some people with disabilities, but it may not include all of them.

It is our belief that we need to urge the CDC to release updated guidance that explicitly names the need for people with disabilities and those higher-risk underlying medical conditions, that they should be prioritized in the rollout of vaccines. Absent that critical guidance from the CDC, we will continue to see our community lag behind in the vaccination rates.

Senator CASEY. Ms. Williams, thanks very much for your answer.

Moving next to Dr. Wilkins for a question about so-called long haulers, you made reference to those Americans in your testimony. We have focused today on the fact that people of color are overrepresented among those who have been adversely impacted by the disease, and at the same time, in addition to being overrepresented, also face barriers to access to care. You made specific recommendations in your testimony to address the needs of these COVID long haulers, and I'd ask maybe one or two questions in my remaining time.

How should we ensure access to care for these individuals, No. 1? And No. 2, is it about access to comprehensive health insurance, whether through Medicaid or the marketplaces, or is it about access to specific clinics dedicated to treating people with so-called long COVID?

Dr. WILKINS. Thank you, Senator. I think the answer is perhaps both. I believe that, from my standpoint as a physician and a clinical researcher, I think it's most important that people have access to care. The symptoms that we have identified so far—extreme fatigue, shortness of breath, a ringing in the ears, short-term memory loss—we have no idea how long these are going to occur or what other long-term sequelae people are going to experience.

We do need to have systems in place for people to access care in a meaningful way, and when I say access, I mean in a local area. So sometimes that means specific clinics, safety net providers. Individuals in rural communities who don't have access might need to use telehealth. We need to be thoughtful in that approach, and I don't think a one-size-fits-all approach is going to work, but we have to be really thoughtful and we have to remove any financial barriers to accessing that care.

Senator CASEY. Doctor, thank you.

My question period is done, but I do want to say to Mr. Woods, I will get him a question in writing. After getting three degrees from Penn State, I don't know how we let you get away to Ranking Member Burr's state, but we'll get you back. Thank you.

Senator BURR. Senator Kaine.

Senator KAINE. Thank you, Ranking Member Burr and Chair Murray, for doing this important hearing.

I think I'd like to ask a question about public health data. Dr. Wilkins, you had a good bit about that in your testimony. And then maybe a little bit about long COVID and about mental health, all in the equity space.

It seems to me that one of the important kinds of lessons from this pandemic is our public health data systems are inadequate, and we really haven't been able to share information between local, state, and Federal agencies in the way that we should.

Now, the good news is I introduced a bill a couple of years ago with Johnny Isaacson from Georgia. The CDC is very much an item of passion for him, to invest more in our public health data infrastructure, and in the act that we just passed there's a $500 million investment to do just that. I want to thank Senator Isaacson—maybe he's watching or somebody can tell him—and bipartisan colleagues who supported it.

I think data helps us understand inequities. If we're not measuring well, we don't have a full grasp on who is being affected by a pandemic, who might be affected by the long-term consequences, and even getting the data about who is being vaccinated and where inequities are in that space becomes much more difficult if we don't have good metrics and data systems.

Dr. Wilkins, if you could just share your advice to the Committee as we grapple with trying to buildup a robust public health data infrastructure in the United States.

Dr. WILKINS. Thank you, Senator Kaine. I think the issue is not just data in public health. It's data in health care and health systems, social services as well. We are not collecting the types of data that we need, nor are we collecting it in complete enough ways. So there's missing data, and it's not detailed enough.

I do think this is a great opportunity COVID has brought to light, the need for all of these sectors to come together and identify really a core set of data elements that we should all be capturing and finding ways to share that. So race, ethnicity, detailed ethnicity needs to be captured in ways that people actually identify.

As was already brought up today, when we talk about people who are Asian or who are of African descent, we're talking about entire continents of people with very different ethnicities and backgrounds, and languages spoken at home, and cultures. So if we're going to actually develop individualized or customized approaches, we need to have that data.

We also need to be able to link it to community-level data, to geocoded data at a meaningful neighborhood level so that we can actually bring in information about food deserts or food swamps, where are community health centers or access to other health systems. We need to be able to bring that all into a single space and share it across different sectors.

Senator KAINE. I think the equity discussion around vaccines has been a really good one to kind of demonstrate to people the difference between equality, which we should always desire, and equity, which we should certainly aspire to.

For example, in Virginia, the state had multiple ways to sign up to get vaccinated, and they ended up combining them into a single statewide registration that you could do online. So when it was time for Group 1B to be able to register, what could be more equal than that? Everyone in Group 1B can now get online and register. But not everyone has access to devices and can afford them. Not everyone has good broadband connectivity, depending upon the part of the state where they live. People who telework from home or may not have to work have a lot more time to go on and hit Refresh over and over again like they're trying to buy Rolling Stones concert tickets, versus somebody who is working as a cashier at a grocery store who doesn't have the same amount of time to try to register.

If we just have a system that's "equal," like first-come, first-serve, everybody in 1B can get online and try to sign up, we're guaranteed to end up with outcomes that are inequitable. And, frankly, the folks who have been hit the hardest by the virus probably have the hardest time accessing vaccine registration. So that's why some of the testimony of the witnesses about outreach, going out and doing vaccinations where people are, not waiting for everybody to come to the central vaccination site, is really, really important. And again, better data helps us get there.

I'll just say, because I only have 30 seconds left, that the two issues that I've been really interested in is long COVID and mental health, because the day that the President says the national health emergency is over, the mental health consequences and the long COVID consequences won't be over. And because this has been disproportionately tough on especially Latino and African American communities, those two issues will be disproportionately tough on those communities, and we have to understand it, have the data to measure it, and commit the resources to remedy it.

Thank you. Thanks, Madam Chair.

The CHAIR. Thank you.

Senator Cassidy.

Senator CASSIDY. Thank you.

Dr. Wilkins, has anybody—and I'm sorry if this has already been answered. But knowing that there are different reasons why people are not vaccinated, the relative contribution of vaccine hesitancy, has anyone teased out to what degree that is an issue versus, perhaps, as Senator Kaine said, not having a phone which is connected to the Internet?

For context, I was just on a focus group that Frank Luntz ran with white Republicans. As it turns out, certain white Republicans are the least likely to be vaccinated, and it turns out vaccine hesitancy is a huge aspect of that. So the whole thing is how do you approach white Republicans who, as it turns out, have a lower rate as that subgroup than any other subgroup, according to Luntz.

To what degree is vaccine hesitancy playing a role there?

Dr. WILKINS. Thank you, Senator. Yes, you're correct, Republicans, individuals who are living in rural settings, are among the most likely to not be ready to be vaccinated. I use readiness instead of hesitancy because I do think that we have to make sure that we are giving the right message, that we're sharing information——

Senator CASSIDY. I get that, but I have limited time. Let me ask you what percent, if we're just taking now people of color, what percent of their not being vaccinated is related to vaccine hesitancy or being an anti-vaxxer or something such as that?

Dr. WILKINS. I don't think we know that. I don't think we can tease it apart, either. I will say, though, that——

Senator CASSIDY. But we do know historically because—I'm sorry, I just have limited time. I do my medical practice in a hospital for the uninsured in Louisiana and did lots of vaccine work, and so became somewhat familiar with this data. Vaccine hesitancy is disproportionately, at least among African Americans—I don't know about Hispanics or Native Americans. You're familiar with that information, that data, I'm sure.

Dr. WILKINS. Yes.

Senator CASSIDY. Indeed, if you look at childhood immunization rates, there is, even when you make them generally available, the immunization rates among African American children is lower than that—and it was interesting, when I did my programs, African American boys are less likely than African American girls, and I didn't quite know that because they have the same African American parents, presumably. But nonetheless, little boys still have that sense of agency. So, that said——

Dr. WILKINS. I'm not sure that we can actually project or infer from prior vaccination information. This is a pandemic——

Senator CASSIDY. Now, that would be important, though, because there seems to be a lot of this undercurrent of conversation that somehow there is discrimination taking place, which quite likely there is. Again, as Senator Kaine said, if you don't have access to the Internet, it's more difficult to get on. If you're working full time, it's harder to just sit there and let the phone roll.

But on the other hand, just like Frank Luntz did, it is important to actually look at the relative contribution of personal agency. "I don't want it, I'm not going to show up for it."

It seems as if—let me ask you—if we look at health care workers, is there any data among health care workers who could receive the vaccine at work divided down by race or by socioeconomic class, et cetera, as to the relative rate of immunization?

Dr. WILKINS. We do know that, from our Vanderbilt experience, that individuals who are working in the lower-wage-earning positions, environmental services, food and nutrition, were less likely to be vaccinated. That's across the board, although we still did see lower vaccination rates among some of our nurses who were younger and white women.

Senator CASSIDY. Let me ask you, I presume Vanderbilt was giving those vaccinations for free?

Dr. WILKINS. Of course.

Senator CASSIDY. They could receive the vaccine at work?

Dr. WILKINS. Yes.

Senator CASSIDY. I assume it was well publicized that they could get it for free and receive it at work?

Dr. WILKINS. Yes. I will point out, though, that there are some similar issues. Individuals who work for environmental services and food and nutrition are not sitting at desks and not able to actually sign up online the way that others of us have. So we did actually have to go onsite and do in-person town halls and support them in signing up. And we did find that actually bringing that information did make a difference. We did find that direct information, the opportunity for them to ask questions and get answers and talk about these myths that are widespread due to social media, addressing those actually increased the uptake of the vaccine among our health care workers.

Senator CASSIDY. That's exactly what Frank Luntz found with white Republicans. And I point that out because we fool ourselves if we say the only reason that people are not getting vaccinated is X, Y, and Z, without ignoring the role of personal agency. We've got to address it. Congratulations to Vanderbilt for addressing it, and that's where we should be going as a society, acknowledging personal agency and then giving the information. But I also note that it seems as if there still was a difference even after you did all that. Again, we have to kind of acknowledge the state of play.

With that, I yield back. And thank you, Dr. Wilkins, for very informative answers.

The CHAIR. Thank you, Senator Cassidy.

I would ask any of our Members who wish to ask questions, either remotely or in person, if you could let our staffs know within the next several minutes so we can make sure we hold the Committee open for you.

With that, Ms. Echo-Hawk, I want to go back to you. We have seen alarming evidence that rates of COVID–19 infection, hospitalization, and death are higher among American Indian, Alaskan Native, Native Hawaiian and Pacific Islander populations than white populations. And at the same time we know that tribal communities and community health centers, such as the Seattle Indian Health Board, are leading impactful vaccination campaigns to combat COVID–19 and reduce health inequities. These campaigns are really critical to defeating COVID–19, but much more needs to be done to ensure vaccine equity, and that's why I fought to make historic investments for tribal communities in the American Rescue Plan.

Ms. Echo-Hawk, if you can share with us, as we continue to grapple with the pandemic, how are we going to ensure tribal communities have equitable access to and uptake of COVID–19 vaccines?

Ms. ECHO-HAWK. Yes, thank you so much for that question. My organization has done, to date, the only national survey of American Indians' and Alaska Natives' willingness and what questions they need answered if they have any expressed hesitancies toward receiving the COVID vaccine. When we look at all the national polls and other evidence, it didn't include data related to American Indians and Alaska Natives. When we got at that information, what we found is 75 percent of Native people were willing and wanted to take the vaccine, and their main reason for doing that is they saw themselves as an individual who had a responsibility to their community, and that is a core public health practice, that we take care of our communities as individuals, doing that through masking, social distancing, and other public health practices. The Native community saw vaccinations as part of that.

Using that survey, tribal nations nationwide have implemented incredible programs. So today here at my organization, I've already got a line starting out at the back of our agency waiting for vaccinations. We have people who are going out to homeless encampments working to get to those who are most marginalized, knowing that they may only vaccinate 15 instead of the 100 they could do at our agency.

But right now, as we think about equitable approaches, the one thing that tribal nations have done is exert our tribal sovereignty to define who are priority populations. So those homeless individuals who may be 18 years old, who may be 75 years old, we know they are most at risk for hospitalization and death, and so we are out there getting them vaccinated.

In addition, tribal nations, as a result of being able to determine who are their priority populations outside of the state mandates on priority populations, have done incredible things for the communities, not just the tribal nations. But we see ourselves as part of the communities in our states and in this Nation as a whole.

In Oklahoma, there are tribes who will vaccinate any resident of Oklahoma within the tribal facilities, not just tribal members. The Seattle Indian Health Board a week ago vaccinated public school teachers, starting with special ed teachers, before the State of

Washington did because there's a mandate starting to get them to head back into the schools and we recognized we needed to protect them. There are also other tribes across the Nation doing the exact same thing. These dollars that have been invested in our community are benefiting our communities and are addressing our health disparities, but they are also working to address the health disparities and the outcomes of COVID–19 for all communities.

As we see these investments roll in and we see tribal nations take the responsibility of serving those most in need, we are seeing that impact all Americans, and there are so many lessons that could be learned on how we are rolling that out right now.

The CHAIR. Thank you very much.

Senator Baldwin has joined us. I will turn to her for questions.

Senator BALDWIN. Thank you so much.

This question is for Dr. Wilkins. Even before the pandemic, women of color, particularly Black women, faced significantly higher rates of maternal complications and deaths than white women. Experts are concerned that maternal health inequities will only worsen during this crisis due to the impact of COVID–19 on communities of color.

Last month I introduced the Perinatal Workforce Act, which would improve access to maternity care and grow and diversify that perinatal health workforce to better address some of the staggering maternal health inequities we face as a country. This bill is certainly a step in the right direction, but I'm worried about how the pandemic will only worsen this existing crisis.

Dr. Wilkins, can you speak to two issues: one, the impact of the pandemic on maternal health disparities; and second, why it's important to prioritize the diversity of our health care workforce in responding to these crises and what we can do to mitigate the effects of the pandemic?

Dr. WILKINS. Thank you, Senator. I share your concern about worsening disparities, especially related to maternal health. We certainly are seeing issues related to follow-up care for patients across the board, but certainly for individuals who are from racial and ethnic minority groups, especially Black women who are least likely at times to present for maternal care, prenatal care in a timely manner.

I share those concerns, and it's probably going to worsen due to some of the issues related to access to telehealth, the challenges with having children at home and making sure that they are being educated remotely, the burdens that they're bearing, the loss of jobs. All of those things are actually increasing the amount of stress and burden on Black women.

Those are issues that are not related, actually, to health care delivery that are increasing their risk for maternal mortality and morbidity.

As far as the workforce is concerned, we need more diversity and more people of color in the health professions, from physicians to nurses to doulas, and making sure that when women are with child and in this environment, that they don't feel the toxicity of the environment, that they feel welcome, that their pain is acknowledged, that their symptoms are considered, that they feel welcome and that they belong.

We need to ensure not just that we increase the number of individuals who are in traditional medical roles but in non-traditional ones like doulas and birthing experts, as well as individuals who are supporting mothers breastfeeding.

Senator BALDWIN. Thank you.

In 2019, before the pandemic, Milwaukee County, Wisconsin declared racism a public health crisis. They were the first in the Nation to do so. And since, others have followed suit. Central to this declaration was a commitment to taking action, which we saw during our response to COVID–19. From the beginning, the city included race and ethnicity as factors in its COVID–19 data, and as a result they were one of the first to recognize who was being most impacted by COVID–19, the city's Black community.

Ms. Echo-Hawk, how does the recognition of racism as a public health crisis improve our understanding and response to crises like the COVID–19 pandemic, and what can state and local governments do to improve their data collection efforts?

Ms. ECHO-HAWK. Yes, such a great question. Thank you. These are absolutely integral things as we think about what it means to declare racism as a public health crisis. We recognize, and the research has shown us, that the impacts of racism impacted the overall health outcomes of racial and ethnic minorities. If we think about Milwaukee, I know there are incredibly high rates of infant and maternal mortality in the urban Indian community in Milwaukee, who are served by the Urban Indian Health Program located there. That is a direct result of not having access to transportation, access to safe and affordable housing, walkable spaces, all of the things that create the stress on a body that we know through the research that racism actually impacts the stress in your body, and it impacts whether or not you can carry a baby full term.

It's in the recognition like that you're able to take a holistic view of health and look at what is impacting your most vulnerable populations. In taking that into consideration, you're able to identify policies and procedures that can allow for ensuring you're getting the resources to the right people.

However, you can't do that without the data. So if you're not collecting the race and ethnicity data, what happens is these health disparities are effectively hidden and you're not able to direct the resources to the right people to make the right impactful changes that are needed in order to improve the health outcomes. I would love to see every city across the Nation declare racism a public health crisis so we can begin to take that holistic look at health and recognize that it's beyond just access to basic medical care. It's the holistic way that every one of us lives, breathes, where we pray, and where we spend time with our families. No matter where we are or what time of the day it is, it impacts our health overall.

Senator BALDWIN. Thank you.

I yield back, Madam Chair.

The CHAIR. Thank you very much.

Senator Scott.

Senator SCOTT. Without any question, the pandemic has brought real challenges and really illuminated a lot of disparities that we see in health care, whether those are chronic conditions like sickle cell anemia or, if it's focused on the pandemic, COVID–19. There's no doubt that we have to improve the delivery system for our Nation's most vulnerable.

As we look toward solutions, not just combatting this pandemic but also addressing disparities in the long term, it seems clear to me that telehealth is a vital part of the new apparatus that's necessary. Mr. Woods, you and I had a discussion last year, if you recall, during the Aging Committee about the importance of telemedicine, and I took your words to heart, and we worked on bipartisan legislation called the Telehealth Modernization Act that will help stop that Medicare cliff from happening.

Can you talk about the importance of such legislation, whether it's mine or others, that would help us focus attention on making permanent the telehealth delivery system? And I thank you for your leadership on this very important issue.

Mr. WOODS. Thank you, Senator, and thanks for your leadership on that. It's great to be able to come to do testimony and see legislation come out of that which is fully needed.

Before COVID, we were running about 1,300 telehealth visits a month. That jumped up to about 130,000 in the middle of COVID, and now it's hovering around 60,000 to 70,000. We could not have served not just the population in general but the most vulnerable populations without that capability. And to your point, we're really concerned about the cliff because I don't think we can put the genie back in the bottle in terms of how we delivered care before. I spoke in my opening testimony about our hospital homes. We treated 50,000 people in their home, and it was the telehealth capability.

As we look to affordability of health care going forward, these are the things we need to continue going forward past this pandemic. So your bill and what it includes, including looking at broadband access in rural communities and things of that nature, are really critical, and we applaud that, and we're the biggest advocate of that because we know it works as we've gone through this pandemic.

Senator SCOTT. Mr. Woods, you just touched on a very important point, that point being broadband, because if you have telehealth available but you don't have a connection in your home, I'm not sure how available it really is. So the importance of us prioritizing, as part of an infrastructure conversation and a health care conversation, the broadband piece of the puzzle, I can't think of that as being less important than telehealth, because if you don't have the ability to have the connection, it just doesn't work. Am I missing anything there?

Mr. WOODS. I think you're spot on, Senator. If you think about just a rural hospital that's hours away from a major city that doesn't have access—for example, having physicians on staff that understood infectious diseases was really critical. We were able, because we have rural hospitals that are part of our system, able to use our doctors in Charlotte, for example, and beam into those hospitals several hours away. But that's not available to all the communities. A hospital is one thing, but it's not available. I think that should be a major national priority because that's also about collecting data. We've had a lot of conversations about data, and it's important to really know how access is occurring in the most vulnerable communities, rural or the urban poor.

Senator SCOTT. Absolutely. Thank you for that very comprehensive answer.

My last question, and since I'm running out of time I'll sort of abbreviate it. Clinical trial diversity is incredibly important for us to be able to measure the effectiveness of the drugs, whether it's the COVID–19 vaccine or any other drug, and that is an area where I believe we need to focus more of our attention on finding ways to diversify those who are willing to participate in some of the trials. I'm not sure if it's geographic location, factors like distrust based on the long storied history as it relates to trusting the government when it comes to vaccinations and health care.

Mr. Woods, with your experience, can you tell me what steps providers, researchers, and other stakeholders are taking, and what steps should policymakers like myself look at taking in order to increase clinical trial diversity?

Mr. WOODS. Yes. I mean, the fundamental issue, and I think it's been referenced, is an issue of trust. Whether you're a white Republican or whether you're a person of color, there are some fundamental issues of trust that have to be addressed. We're speaking to Latinx people in their language so that we can explain that, for example, the Pfizer trials I think had about 40 percent of people of color in that trial, and we have to explain.

I think part of the things that you, Senator, and your colleagues could do is continue to hold us accountable, but the FDA and others accountable, that in order to approve new treatments they have to have a certain percentage of people of color and Native communities also as part of those trials.

Senator SCOTT. Excellent. Thank you very much, sir.

I know I'm out of time. Thank you, Madam Chair, for the extra 45 seconds.

The CHAIR. Thank you.

Senator Rosen.

Senator ROSEN. Thank you, Chair Murray and Ranking Member Burr. This is a really important hearing, and I appreciate the witnesses for your important work.

I want to build a little bit on what so many of my colleagues have already been talking about, the Latino community access. Our Latino community in Nevada has been the hardest hit by COVID–19. Latinos make up roughly 30 percent of our state's population, but they account for well over 36 percent of the COVID–19 cases, nearly a quarter of the deaths.

Fortunately, local partners in the community have really stepped up in a big way to assist the city of Las Vegas, and we recently partnered with the Mexican Consulate to host a vaccine clinic equipped with bilingual staff to vaccinate over 250 of our most vulnerable Latino community residents. I'm pleased that the Governor and so many elected officials have made it clear that COVID–19 vaccines will be free to all Nevadans who need them.

This is building on Senator Scott's questions, and others. Dr. Wilkins, what more should we be doing to ensure that members of our Latino communities and all underrepresented communities, not just in Nevada but across the country, understand that the vaccines are safe, effective, and free? And how do we get that public health message out there for them? How do we do that?

Dr. WILKINS. Thank you, Senator. I think the key really is that the actions have to be at the local level. We have to find ways to bring in the voices of individuals from local communities to help develop these strategies, the plans, and the messaging. We're still talking about very heterogeneous groups of people, and what works in one setting, system, town, state, might not work everywhere.

You have to understand, as I'm sure you already know in your communities, what their needs are, what their priorities are, but also what are the community assets. I think that is something that we often miss. We keep talking about communities that are disinvested and deprived, but there are many assets and resources in communities that we have not been able to leverage, and bringing the voices of those in to tell us who are the trusted organizations, who are the trusted community leaders, who can actually deliver the message in a culturally appropriate, relevant way that addresses the concerns and the myths and the issues that are circulating, and how do we actually get vaccines and information to places where people already live, work, play and pray, I think that's really important.

Of course, it has to be in languages that people speak and understand, and there are many different dialects even of Spanish. So understanding again what that looks like and how the messaging, the images on the brochures and the videos, what that should look like is very important.

Senator ROSEN. Yes, I agree with you. In Las Vegas, over 180 students from our UNLB School of Public Health, they partnered with our health district to provide culturally competent contact tracing in 27 different languages. We have one of the fastest growing AAPI communities in the country, our Latino population in our state. So really working on this is critical to improving outcomes.

I quickly want to move on to delayed care during COVID–19, which we also know is an issue even before the pandemic, particularly in our minority communities. They were already experiencing unequal levels of medical care, particularly in Nevada where there is a severe provider shortage. And now during COVID, I've heard from providers that patients were still afraid to come into the office to receive their cancer treatment, preventative health care like mammograms or prostate screenings and the like. In Nevada we already rank 47th in the Nation in percent of women who are up to date with mammograms, and we're 49th for people who are current with their colon cancer screenings, and 44th for women of color who are up to date on their cervical cancer screening.

This really has long-term consequences for families, right? So how can we work to increase patient confidence and improve access to basic preventative care to those who already were marginalized and feel increased fear due to the pandemic?

Dr. WILKINS. I do think this is where we should be leveraging community health workers, peer educators, peer navigators, individuals who have the ability to go out into communities, who have the time and resources and who are funded to make calls, to make visits, to actually understand what, beyond the fear of just going in, is preventing the individuals from seeking care. Is it transportation needs? Is it child care needs? What other resources do they need to actually be able to come in for that preventative care? And also what can we provide to them with respect to preventative care in their homes or in their communities?

Senator ROSEN. I think we can see what we might be able to connect with them initially on telehealth and then buildup that trust to bring them into the office for those tests, or wherever those tests are provided, do as much as we can there.

Thank you. My time has expired.

The CHAIR. Thank you so much.

Senator Braun.

Senator BRAUN. Thank you, Madam Chair.

My question is for Mr. Woods. There have been a lot of questions asked already about what we can glean from the whole challenge with COVID. To me it's exposed and accentuated several weaknesses within the system. Heading up a major health care system, I'm going to focus more on two areas.

No. 1, why it's taken so long for the industry to embrace technology in the full breadth of how you could lower costs, because the biggest issue in health care today is not only accessibility but it costs too much. I know in my own business I was able to use certain tools that embraced technology. We were doing telehealth for some of our employees 12, 13 years ago. And now all of a sudden, due to COVID, it seems like it's a revelation.

I think leading a major health care system, being a CEO of it, tell me why it's taken so long for the industry in general, from records to treatments and so forth, to embrace technology, and then give me about a minute to a minute-and-a-half on that answer, and then I've got one other question after that.

Mr. WOODS. Thanks for the question, Senator. You know, actually, at Atrium Health, we invested in telehealth capabilities about 14 years ago. And what we asked ourselves is where is technology going? But at the time we made that investment, very significant infrastructure investments, including establishing all kinds of protocols with our physicians, there was no reimbursement for that.

I think part of the challenge, if you look historically, especially for rural communities and things of that nature, it's just the affordability of really investing in that infrastructure. I think what we learned in COVID is that because of the CARES Act and all the dollars that were allowed to be used for telehealth, that changed pretty quickly overnight.

I think it's a matter of really having the funding for the infrastructure required, and there's very significant infrastructure that's required. I think that's part of the answer. I think we, though, at Atrium, we recognized that even if we weren't going to be reimbursed, it was really the direction care was going in, and we continued to make investments in telehealth.

I think really what COVID has showed us is that this technology has been pulled forward about 10 years, and I don't think the industry will go back. I think going forward we've learned that it has to be part of how we deliver care, to your point to make care more accessible but also more affordable.

Senator BRAUN. I would just have one counterpoint to that. You talk about reimbursement, the rest of the economic spectrum as we invest in technology, we're not looking for a reimbursement or for somebody else to offset our cost. We don't have it. It would beg the question why, with all the wealth—in fact, health care is 20 percent of our economy—that you need reimbursement to invest, making yourself more efficient like all other sectors of the economy do.

That leads to my second question. The biggest issue along with accessibility would be affordability. I didn't disagree with the underpinnings of the Affordable Care Act. In fact, I think that made sense. But it turned into—a better title would be the Unaffordable Care Act, and I think it's mostly due to the industry. You might be a leader, a trendsetter, but in general you have risen from just four or five decades ago when it was 5 percent of our GDP to where it's pushing 20 percent of our GDP.

How are you leading the way to avoid more government involvement in telling you how to run your business, embracing things like full transparency, transparency between hospitals and insurance companies, so the main stakeholders out there who pay all the bills in health care would be all the businesses that are unrelated to health care and those of us, the CEOs that run it who have probably been too sheepish in using our leverage to get you to do what all the rest of us do, compete, be transparent, get rid of the barriers to entry, and it's a whole other question of how you start engaging the health care consumer financially in his or her own well-being.

Mr. WOODS. Senator, to clarify just one point in my former answer, we did invest before there was reimbursement. So I want to clarify that Atrium Health did not wait for reimbursement to do the right thing.

Second, if you look at the transparency, we have fully embraced transparency and complied with the law that exists right now, and we fully continue to try to make that data more available in a way that can be interpretable. So we agree with that, as well.

If you look at most hospitals, for lack of a better way of saying it, they are price takers, not price setters, right? Medicare and Medicaid typically comprise about 70 percent to 80 percent of how we are reimbursed, and then the 20 percent is commercial insurance, up to 30 percent. So if you look at our margins at Atrium Health last year, it's less than 3 cents on the dollar at the end of the year in order to reimburse our communities. And this year with COVID, it was less than 1 cent on the dollar that we had to reinvest in the community because of all the expense with COVID.

I think it's a multi-factorial issue. Health systems have to lean in, pharma has to lean in, industry has to lean in, and we need partnership with our legislators to really deal with the comprehensive and multi-factorial issues that surround affordable care.

Senator BRAUN. Thank you. You'd better get better at it, in my opinion, because you're losing the support of businesses and CEOs that would like to see our health care costs go down. So whatever is being done I don't think is going to escape the heavier hand of government unless you get a little better at it.

Thank you.

The CHAIR. Thank you.

Senator Smith.

Senator SMITH. Thank you, Chair Murray and Ranking Member Burr.

To all of our panelists, it's so great to be with you today. I have been jumping around between votes and hearings, like a lot of my colleagues, but I want to just start out by saying I appreciate the conversation around the importance of telehealth, and I appreciate very much the focus on equity in this Committee.

I just want to note that nearly 37 percent of Black American households, 31 percent of Hispanic American households, and 35 percent of Americans living on tribal lands have no access to broadband or computer access in their home. So the opportunity that telehealth provides to improve access to care is again not widely shared, and this is something that we have to focus on.

Ms. Echo-Hawk, I really appreciated the statement that you made at the beginning about the impact of these inequities and systemic racism in tribal nations, and also the impact on urban indigenous communities. It seems to me that in some sense with culture we have the opposite—I mean, with COVID we have the opposite of a virtuous circle or a healing circle. We have the impact of COVID on top of systemic and historic trauma and racism that has just been so compounded. And yet, I think there are some positive lessons to be learned from this, and I wanted to ask you about this example.

Last Friday I had the opportunity to stop by the Minneapolis urban office of the Bois Forte of Ojibwe in Minnesota. Now, they have already vaccinated all of the eligible members in their tribal lands, and they are now coming down to the city, making stops with an ambulance that they were able to purchase with CARES Act funding, and they are doing incredible outreach and having real impact.

My question for you is what can we learn from efforts like the Bois Forte and others in Minnesota around the country about why this is working to vaccinate people both in tribal land as well as urban communities?

Ms. ECHO-HAWK. Thank you so much for that question. They're doing an absolutely incredible job in Minnesota, across the state, and across the Nation as we look at tribal nations, again recognizing that as a result of exercising tribal sovereignty they have the ability to define who they vaccinate, and that just doesn't apply to their tribal members. They can vaccinate people within their communities, and that's what's happening.

We were also able to get the high vaccination rates within our community by using trusted messengers, and also having an established health care system, the Indian health care system, that had already identified our most vulnerable community members. We had already established how we reached them and we just needed the resources. So the CARES Act funds and now the American Rescue Plan are going to be part of building forward those resources. It really illustrates the need to have trusted community messengers. Those are the ones the community will say, OK, you got vaccinated, that helps me overcome the questions I had about whether or not I should be doing that.

It also allows us to ensure that for Native people—for example, today I sent my son off to a funeral I wasn't able to attend, because like many other Native people I've seen extreme numbers of deaths within my family and friend circle. We are also working to preserve our elders and our community members, those who, when we lose them, we've lost libraries of knowledge systems. So we recognize that those same things exist in other populations, which is why tribal nations have dedicated themselves to not only serving their people but the people around them.

Senator SMITH. Thank you. That is so good. I mean, that is a virtuous circle. It is appreciation of sovereignty. It is getting resources so that they can execute strong plans rooted in culture and community, and it works. I just want to note that the American Rescue Plan, which we have just passed, provides historic new levels of resources for tribal communities to begin to build back from the historic under-investment that we have made, and I have hopes for that, and I look forward to working on that.

Ms. ECHO-HAWK. If I could say one thing with that rescue plan. As Indian Country, it has to be known that it is an incredible investment, but it cannot be seen as a one-time investment, because as it relates to investment in the Indian health care system, this has to be ongoing. It's just a start, and we look forward to working with all of you to continue that to ensure the funding of our systems.

Senator SMITH. It's such a great point. This is an issue, I think, with much of what's in the Rescue Plan. Another example is the child tax credit will benefit families across the country, but we cannot be in a situation where we're reducing child poverty by 50 percent and then have it jump back up again. We need a systemic change in the way we're doing this, so thank you for that.

I am out of time, but I want to just thank Ms. Williams for your excellent discussion on what lies underneath this so-called vaccine hesitancy in communities of color and how we can address it, and I think it ties in directly with this conversation we were just having right now.

The CHAIR. Thank you.

Senator Murkowski.

Senator MURKOWSKI. Thank you, Madam Chair.

Thank you to all of our witnesses at this very important hearing this morning.

Even prior to the pandemic last year, Alaska Natives have lived in fear of disease that might come to their remote communities. When the 1918 influenza pandemic hit Alaska, our Alaska Native populations were significantly impacted. They suffered one of the pandemic's worst death rates in the world at that time. The loss of entire families, the loss of practically entire villages resulted in generational trauma that really carries through today. There are those who still tell the stories of how the influenza wiped out their communities.

During this past year, as we've looked at the disparities in mortality rates, we found that the mortality rates of American Indians and Alaska Native persons aged 20 to 29 years was 10.5 times higher compared to their non-Hispanic white counterparts. Those in the age 30 to 39 bracket had mortality rates of 11.6 times higher. Those aged 40 to 49 were 8.3 times higher compared to their non-Hispanic white counterparts.

The question is we've seen this; we saw it 100 years ago. We have seen other areas where disease has come in where our Native peoples have perhaps been some of the most vulnerable. What investments do we need to make to close these gaps in mortality rates, especially as we're looking to our young people? There was a lot of focus initially, and we need to take care of our elders, we need to take care of our seniors, but it is also the young in our tribal communities.

It's kind of a broad question, and I will throw that out to those of you online and here in the room.

Ms. ECHO-HAWK. Thank you so much, Senator. As an individual who was born and raised in Alaska—I'm associated with Mentasta Village—I recognize I heard those stories. And I'm also the co-author on the paper which you just cited those statistics. And as I was part of writing that paper, I could hear those stories in my head, the ones that I had heard. And it is absolutely essential for us to recognize that these underlying health disparities are resulting in deaths, and people are dying every single day. And unless we begin to invest in these community resources, and for tribal communities specifically investing in tribal sovereignty and the rights of tribal nations through Indian health care systems, unless we do that to the full funding capacity which is needed, we're not going to see this end, and I don't want to see the next pandemic impact us in the exact same way. I don't want to have these same stories that my grandchildren are saying. Unfortunately, unless we continue to invest like we have done in this most recent package, we're going to see that continue.

It also has to be community driven. We know how to serve our communities. We know what they need, and we don't need people coming to us because they think we have all the problems but instead acknowledging we have the answers, and when properly resourced, as we've seen with the high vaccination rates, and in particular Alaska has some of the highest vaccination rates overall, and we had Native communities there that are 80 to 90 percent fully vaccinated as a result of the Indian health care systems, tribal health care systems in Alaska. When we see and have those investments, these are the changes we can bring.

Again, it can't be a one-time fix. It needs to be an ongoing conversation that fully funds for tribal communities the Indian health care system and respects tribal sovereignty and the need for economic vitality through other types of investments to ensure that our people no longer experience these terrible, terrible outcomes.

Senator MURKOWSKI. Ms. Echo-Hawk, maybe you can also join with response to this because another area that we are seeing statistics that just are not in line with where we want to be, the United States is the only well-resourced country with a rising maternal mortality rate, and indigenous moms are dying at a rate two to three times higher than non-Hispanic white mothers nationally. We found that the maternal death rate for Alaska Native women between 2009 and 2018 was significantly higher than that for women of other racial or ethnic backgrounds.

As we're looking at these statistics and the vulnerability of our Native people in this COVID time, I think it's also important to look at where these other health disparities lie. For us as a nation to actually be going the wrong way with maternal mortality is just something that in my mind is almost unforgivable, inexcusable.

And then to see again how that has disproportionately impacted our Native women is something that I would hope we'll have an opportunity to continue to work on. I know that I've got some good partners on this Committee to help me with that.

I'm out of time, Madam Chair, but I want to make sure that these types of disparities, and again statistics that are going in exactly the wrong way, we have an opportunity to address.

The CHAIR. Thank you, Senator Murkowski, and I'm delighted you brought that up. We'll continue to work with you on that. Critically important.

Senator Hassan.

Senator HASSAN. Thank you, Madam Chair, and to our Ranking Member. And I'll just echo what you just said and what Senator Murkowski talked about. It's work we need to do, and I look forward to working with our colleagues on it.

I want to thank all the witnesses for being part of this hearing today, and I want to start with a question to you, Dr. Wilkins. The pandemic has certainly magnified the disparities in access to care for people of color all across the country, not just in cities but also in rural areas, including many places across my home state of New Hampshire. Studies show that people of color in rural areas are less likely to have access to primary care, and they are therefore less likely to have a trusted medical professional in their community to rely on for information and care during this pandemic.

We have to do more to ensure that people of color have access to primary care, which is obviously important during this pandemic, but it's also necessary for preventive screenings and early diagnosis of many life-threatening medical conditions.

Dr. Wilkins, how can we ensure that people of color who live in rural areas have access to trusted primary care providers?

Dr. WILKINS. Thank you, Senator. I think this is a really important point. We saw this very early on in the pandemic, that individuals who had symptoms and needed testing were being told to contact their health care provider.

Senator HASSAN. Right.

Dr. WILKINS. Well, if you don't have one, then who are you contacting, and how does that work? The delays and the lack of access due to that I think are really important.

But we don't have enough primary care providers. We need more, and we also need to acknowledge that you don't have to be a physician to be a primary care provider. So we need to make sure that nurse practitioners and physician assistants also have the opportunity to provide that preventative care, the preventative screening, and be a front door for access to care.

Again, we have not taken full advantage of community health workers as an access point, as people who are great communicators and can actually link to and improve the uptake of care that we're not seeing in so many communities.

There's been a lot of talk about telehealth, and I'll just point out that at Vanderbilt we also saw a dramatic increase, and I'm really proud of the great adoption of telehealth during the pandemic. But when we disaggregate that data again by race, ethnicity, language, and ZIP Code, the communities who are most likely to use telehealth are wealthy and well educated. So even though we saw some individuals in rural communities, some urban racial and ethnic minorities using telehealth, it was not at the same rate, and we need to be prepared for what telehealth looks like for everyone, because it is not all the same.

Senator HASSAN. We have to get connectivity to everybody, and it has to be what they can afford.

Dr. WILKINS. I think it's beyond connectivity. People have devices. They use their smart phones. But having to type in all the information for insurance, and if you need an interpreter to be on the line, connecting a third person, lots of challenges with that. Are you in a room where you actually can be by yourself in a crowded home and have a private health care visit? There are lots of things that we have to consider there.

Senator HASSAN. That's very helpful. Thank you very much.

Ms. Williams, I want to turn to you for a question. Earlier this month I wrote to the Departments of Justice and Health and Human Services pushing for improvements in vaccine access for individuals with disabilities. I was pleased to receive a response that highlighted plans to investigate claims of discrimination and provide technical assistance to states and individual vaccination sites.

However, I know that information about such resources is often not accessible to those who need it most, and I know you discussed this a bit in your answer to a couple of other questions earlier. But, Ms. Williams, what further steps should the Federal Government take to ensure that all vaccination sites and registration portals are fully accessible for individuals with disabilities?

Ms. WILLIAMS. I'm really glad that you've asked this question. Something I think we need to consider, particularly as Members of Congress look for another response bill to this crisis, is we need to ensure that state and Federal responses to the pandemic really account for the needs of individuals with developmental disabilities and the needs of folks who aren't getting equitable access to vaccines across the Nation.

As I noted in my testimony, they are some of the folks who are most impacted by this crisis, and we actually have entities throughout our communities, entities like state councils on developmental disabilities, university centers on developmental disabilities, and protection and advocacy agencies that are able to go into institutions and ensure that folks are getting equitable access to care and equitable access to vaccinations. They are equipped and have, over the last year, rapidly stood up virtual platforms that really do serve the needs and the voices of individuals who have been impacted by this crisis.

As we think about future responses, I would ask that you all consider including additional support activities authorized under the Developmental Disabilities Act and the Bill of Rights to ensure that these entities that exist across our Nation in support of people with disabilities, that they can continue to serve them at this moment of crisis.

Senator HASSAN. Well, thank you very much.

I know, Madam Chair, I am over time. I will just say it's also going to be important that we provide people with disabilities the kind of information they need so they can report violations, and that they can do that in a straightforward way.

The other point I would make that follows up on Senator Murkowski's point and that of Senator Baldwin and others about the maternal health disparities we're seeing is given how big these disparities are, and given a relative dearth of information about the impact of vaccines on pregnant people, we need to make sure that we are addressing those disparities and getting vaccines to people for whom it is safe and answering their questions about the impact on pregnancy.

Thank you.

The CHAIR. Thank you.

Senator Lujan.

Senator LUJAN. Thank you so much, Chair Murray.

I come from a state with large Native American and Hispanic communities. And while all communities of color have been hit hardest by the COVID–19 pandemic, I want to ask some questions specifically in the Native American and the Hispanic community populations.

The racial and ethnic groups for which the CDC reports COVID–19 health outcomes, the American Indian and Alaska Native populations face the highest death rate. Hispanics and Latinos are 1.3 times more likely to contract COVID–19, twice as likely to be hospitalized, and more than three times more likely to die from COVID–19. Data is a double-edged sword. When used correctly it can be an invaluable tool in focusing resources and addressing trends as they emerge. But data can also be used to further marginalize communities through exclusion.

Ms. Echo-Hawk, yes or no? As a public health expert, are you confident the nationally reported data accurately reflects rates of COVID–19 infection among tribal communities?

Ms. ECHO-HAWK. No, it absolutely does not, and my organization recently released a report titled "Data Genocide" that ranks every single state on their ability and how they're reporting race and ethnicity of American Indians and Alaska Natives, and what we found is this Nation is failing.

Senator LUJAN. I appreciate that. You anticipated my next question, which is about over-or under-reporting, and I appreciate your clarification. I don't know if you want to add something about that?

Ms. ECHO-HAWK. Yes, absolutely. So we know there is a chronic under-reporting of race and ethnicity. The current data infrastructure is not allowing for race and ethnicity to be collected. In addition, for American Indians and Alaska Natives, when our race and ethnicity is not collected and then it is used for funding allocations, like what was done in the CARES Act package, what happens is the resources don't go to our smaller communities and do not properly reflect the needs of our communities as a result of that data.

With the non-collection of our data, it's actually a failing of our treaty and trust responsibilities that then Congress is tasked with making sure that happens, and you're not able to do that without the right data. We are seeing an effort right now that I'm actively a part of with the Council for State and Territorial Epidemiologists. We're working to get funding to ensure we can build out the public health surveillance systems nationwide to properly reflect race and ethnicity for not only American Indians and Alaska Natives but for all people of color, and to assure accountability of the states to do that reporting.

Senator LUJAN. Chair Murray, last Congress Senator Tina Smith carried legislation in the Senate, I carried it in the House to address this issue, and we look forward to working with you and others on this specific area.

Ms. Echo-Hawk, looking beyond the pandemic, what is the connection between improved data collection methodologies and improved health outcomes in Native, Hispanic, and Black communities?

Ms. ECHO-HAWK. We absolutely need that data in order to understand where to direct the proper resources. When we have the right information, we have the ability to understand where to go with that, and that includes not only the gaps, and I know we like to focus on the gaps, but it also has to include the strengths and the resiliencies. It is through those strengths and resiliencies we identify the protective factors that allow us to improve the health outcomes. And without all of those together, we are not going to be able to address these health disparities. It is going to take a concerted effort from the states and the Federal Government to ensure that actually happens.

Senator LUJAN. Dr. Wilkins, we're now finally seeing more awareness, at least I'd like to say that. That's my observation. I hope the data supports it. We're getting more support to Hispanics, Native American and Black communities in regards to the disparities that exist with access to care. How can we all work together to ensure that these partnerships are real, that they grow, and that they're sustainable after COVID?

Dr. WILKINS. Thank you for the question. I do think that we need to make sure that we continue to emphasize that the community has assets, and they're often not recognized. So when we build these partnerships, we often see there's the opportunity to get vaccines out or deliver a certain message. But the only reason that can happen is because these communities do have assets, resources. They have trust. They are deemed as trustworthy. And we need to invest in those relationships long term. If there is not a commitment to a long-term partnership, then we'll continue to have these opportunities where we're just doing one-offs and not taking full advantage of the resources, intellect, and people who can actually solve these problems.

Senator LUJAN. Mr. Woods, we know that patients who are able to receive culturally competent behavioral health care have improved outcomes. What is one lesson we should learn from your work at Atrium Health to recruit and retain diverse health care providers who are able to provide high-quality care to their patients?

Mr. WOODS. There are a number of factors. I mean, we do cultural competency training every year, and you can't just do it one time and then not continue. I think in a typical year, I think we have 300 different languages and patients that we have to take care of. When you're talking to somebody in their own language, their blood pressure goes down because they feel like they're in a place that understands them.

But I think the other thing, Senator, is we have to take a long view here. We have to really start in Title 1 schools to grow more physicians and clinicians that are Black and brown that go into the pipeline. We just combined with Wake Forest University in building a new medical school in Charlotte, and that medical school is going to be focused on making sure that we're reaching out to young bright minds that look like the community they serve so that they can go back into those communities.

Senator LUJAN. Thank you, Chair Murray, for this important hearing. I appreciate the time today.

The CHAIR. Thank you.

Senator Burr.

Senator BURR. Senator Murray, I've only got one question left, but I know we've got Members who are frozen on the floor, frozen in other committees. I know you'll do a unanimous consent, but I encourage all the Members to ask questions, written questions, and I would urge our witnesses to please answer those as expeditiously as you can.

Gene, let me come to you just real quick. You talked briefly about the public-private partnerships that Atrium had and has ongoing. Can you expand a little bit on those and what the difference is it's made to the health community of Charlotte and the community herein?

Mr. WOODS. Thank you, Senator. We just could not as effectively have dealt with this pandemic without those partnerships. When I refer to the mass vaccination events that we did, and my good friend is the CEO of Honeywell and lives in the neighborhood, and we took a walk and said how do we get shots in arms faster? Honeywell has tremendous logistical capabilities throughout the world, really. So we blended those capabilities with the ones that we have at Atrium and really were able to effectively, for example, pull off some of the largest, most successful mass vaccination events. We did the same thing for masking. We're working together.

There's a group here in Charlotte that's led by Brian Moynihan, the CEO of Bank of America, and we're working with business communities and the government to deal with things like pre-K education.

I think the problems, the issues that we deal with as a society are too big for any one sector to deal with alone. I think it's those partnerships that actually, quite frankly, have been strengthened in the middle of this pandemic that I'm looking to continue to maintain well past that, because it's only when, as I said in my testimony, when government, when health systems and businesses and citizens work together that we can solve these most intractable issues that we've faced for too long.

Senator BURR. Gene, thank you for that.

I'd point out to the Chair that partnerships have been essential not only to the delivery of vaccines, it was essential to the development of a vaccine. Today we see Big Pharma companies that don't have a vaccine manufacturing for another company; that's unheard of historically. This shouldn't be the exception. It should help to shape how we look at this from a policy standpoint and statute, to continue to allow flexibility out there.

The decision was made very early on, I'm sure with objection, that we leave it up to states and Governors to decide where the deployment of vaccines went. I still think that was much better than us deciding in Washington here's the location it's going to go to. When Governors chose the wrong place, it was Vanderbilt or it was Gene Woods or it was somebody that said to the state people we need different, we need more, we need something that doesn't look traditional because we're not reaching a population, and locally those changes were made. We haven't made them everywhere in the U.S., but as long as we keep in mind that as we write policies the flexibility has to be there so people can change the architecture based upon the geographical location, based upon the disease, based upon the target for that disease, then I think we're going to be just fine.

I thank the Chair.

The CHAIR. Thank you.

In September 2020, I published a report titled "COVID–19 and Achieving Health Equity." Congressional action is necessary to address racism and inequality in the U.S. health care system. That report outlined how the health care system has failed communities of color due to entrenched bias, discrimination and racism, and laid out a series of recommendations for Congressional action, and I ask unanimous consent to enter that report in the record.

So ordered.

[The following information can be found on pages 67 through 112 in Additional Material:]

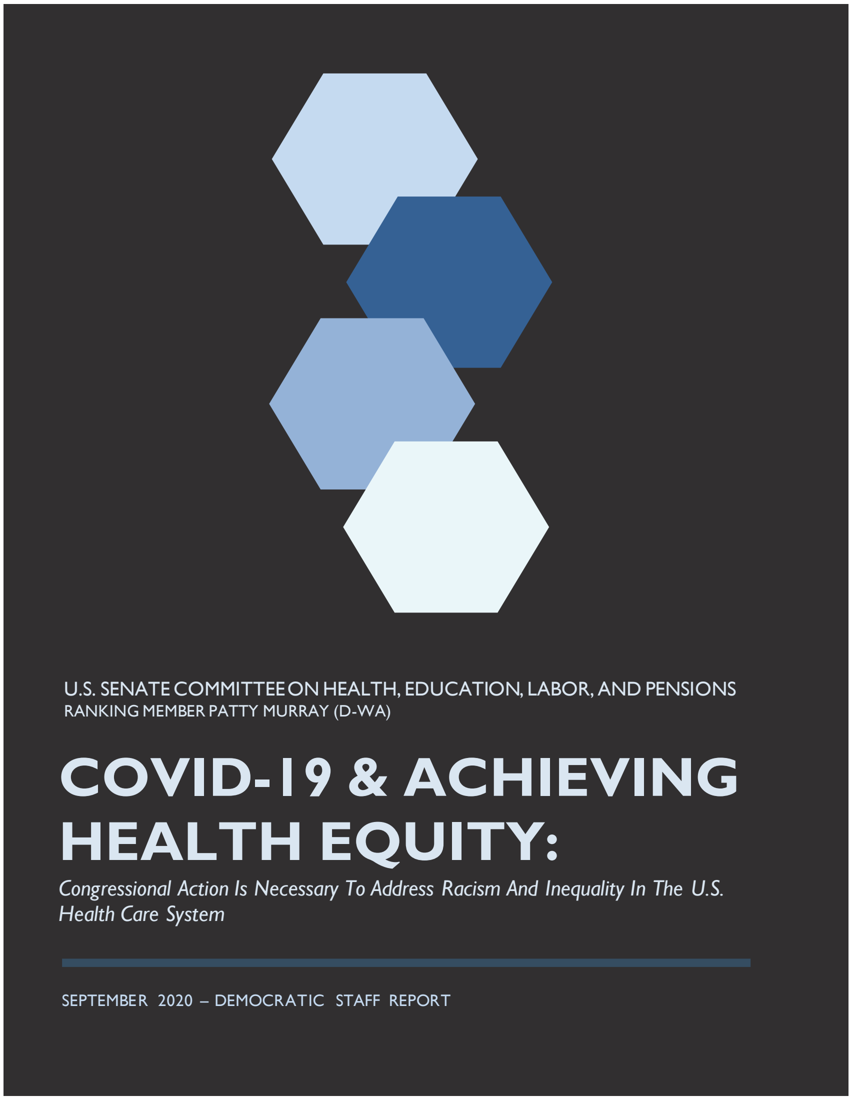
The CHAIR. Thank you. That will end our hearing today, and I'd like to thank all of our colleagues, and I'd really like to thank all of our witnesses—Dr. Wilkins, Ms. Echo-Hawk, Ms. Williams, and Mr. Woods—for having such a substantive conversation on how damaging longstanding health inequities have been, including during this COVID–19 pandemic, and what we can do about it, and I look forward to continuing to discuss these issues and, more importantly, to taking long overdue action to address them.

With that, for any Senators who wish to ask additional questions, questions for the record will be due in 10 business days, on Thursday, April 8th, at 5 p.m.

This hearing record will remain open until then for Members who wish to submit additional materials for the record.

With that, thank you again to all of our witnesses, and this Committee stands adjourned.

ADDITIONAL MATERIAL



U.S. SENATE COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS
RANKING MEMBER PATTY MURRAY (D-WA)

COVID-19 & ACHIEVING HEALTH EQUITY:

Congressional Action Is Necessary To Address Racism And Inequality In The U.S. Health Care System

SEPTEMBER 2020 – DEMOCRATIC STAFF REPORT

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Introduction

On January 20, 2020, the first domestic case of COVID-19 was identified in Snohomish County in Washington State. Since then, the virus has spread throughout neighborhoods in every region of the country. From mid-January to now, at least seven million people in the United States have been sickened and more than 200,000 have died from COVID-19. The virus has significantly altered life as we know it, changing the way we approach health care, education, the workforce, and the economy.

While no one has gone untouched by the pandemic, Black, Latinx, Tribal communities, and other communities of color are getting sick and dying at particularly high rates.[1] Across all age groups, and in all regions of the country, people of color have higher rates of COVID-19 infection and are more likely to die from the disease if they do become infected. This is particularly true for people of color who have a disability, are older adults, have preexisting conditions, are LGBTQIA+, or are low-income workers.

Among many tragic lessons, the COVID-19 pandemic is an appalling reminder of the deep inequities entrenched in our country. The high rates of infection and mortality in communities of color are driven by health and economic systems that were built on foundations of abuse, discrimination, racism, and neglect that continue to hurt communities of color today. And while no family or community has been spared, high- and middle-income families have a greater ability to work and learn from home and have more access to testing and health care when they are sick or exposed to infection. Too many other families lack these options. These inequities did not start with the COVID-19 pandemic, nor will they end when the virus is contained.

This Health, Education, Labor, and Pensions (HELP) Committee Democratic staff report examines the intersection of the COVID-19 pandemic, inequality in infection rates and health outcomes, and structural racism within the health care system. It describes the impact of COVID-19 on the health of communities of color and discusses a few of the factors that have contributed to inequality in health outcomes, including exploitation of communities of color, segregation, discrimination, and bias within the health care system, lack of access to high-quality care, and social determinants of health. Throughout, the report conveys the impact COVID-19 has had on communities of color using data and individual storytelling.[2] This review is meant to be illustrative rather than complete; the factors that contribute to systemic racism and inequality in health outcomes are complex and are not all included in this document. The report concludes with initial steps Congress can take to begin to address inequality and systemic racism within the health care system.

While this report is primarily limited to the health care system, the unfortunate reality is that racism, inequality, and the disproportionate impact of the pandemic on communities of color are

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[1] Committee staff chose to use the term Latinx unless referring to a particular study, in which case Committee staff used the term used by the researcher. As such, the terms used throughout the report differ.

[2] The report includes summaries of interviews of patients, families, and practitioners that are meant as examples of how people of color are experiencing COVID-19. In some instances, personal information has been altered in order to protect the privacy of the people involved.

not. The same communities who have experienced the worst health outcomes during the COVID-19 pandemic have also disproportionately suffered from other interconnected adversity, including high rates of job loss, lack of access to options for high-quality education, and discrimination and harassment. As the country grapples with a pandemic, health and economic disparities, police brutality, and systemic racism, we should recognize these challenges as well as the vast opportunities for improvement and make sustained commitments to achieve equity in health care and beyond.

COVID-19 in Communities of Color

People of Color are Getting Sick and Dying at Disproportionately High Rates

People of color are becoming infected, getting seriously ill, and dying from COVID-19 at disproportionately high rates. The data is stark.

- COVID-19 has had a disproportionate impact on Black people across urban, suburban, and rural communities.[1] As of September 2020, Black people were nearly 3.5 times as likely to die from COVID-19 as white people when age is accounted for.[2]

- Latinx people have experienced some of the highest rates of infection from COVID-19 in the country. As of June 2020, counties where more than a quarter of the population is Latino saw infection rates increasing at higher rates than in counties with smaller Latino populations,[3] and as of July 2020, the infection rate among Hispanic patients was more than three times the rate among white patients.[4] Over the same time period, Hispanic patients were hospitalized at a rate that was more than four times higher than white patients,[5] and COVID-19 accounted for approximately one in five deaths among Hispanic people.[6]

- Data on the health outcomes for Asian patients are reported less consistently by states and do not typically include information about more specific Asian communities such as South Asians, Asian Indians, and East Asians, which can obscure disparities for subgroups at higher risk and mask trends.[7] However, the data that is available suggests there are significant disparities in outcomes for Asian patients. For example, when socioeconomic factors like age, sex, and underlying heath are controlled for, Asian patients have the highest rates of hospitalization and death from COVID-19 compared to white patients as of July 2020.[8]

- There is also less data available on Native Hawaiian and Other Pacific Islander and American Indian or Alaska Native people compared to other communities of color, but the data that does exist suggest that both populations also see substantially poorer health outcomes than white people due to COVID-19.[9] A July 2020 analysis of Washington state residents showed that Native Hawaiian and Other Pacific Islander patients were ten times more likely to be hospitalized and three times more likely to die from COVID-19 than white people.[10] As of July 2020, the Navajo Nation had more COVID-19 related deaths per capita than any state,[11] and as of September 2020, American Indian or Alaska Native patients were being hospitalized at more than four times the rate of white people.[12]

furthering unequal access to necessary care and unequal health outcomes, including higher rates of underlying conditions, for people of color.

Physicians of Color

One way of decreasing bias among health care professionals is to increase the diversity of physicians. Research has shown that when patients of color are treated by doctors with similar backgrounds, they tend to have better outcomes.[136] For example, a study of Black male patients in Oakland, California, showed they were more likely to seek preventive care and talk about health issues when their doctor was also a Black man.[137] Another study of Florida hospital births showed the mortality rate for Black newborn babies cared for by Black physicians is half that of Black newborns cared for by non-Black physicians.[138] Other research has found Hispanic patients similarly are more satisfied with their health care overall when treated by Hispanic physicians.[139] In contrast, bias among white doctors may lead to inadequate care; a disturbing study from 2016 found that about half of the white medical students and residents surveyed held inaccurate beliefs about physical differences between Black and white people.[140]

People of color face barriers in entering in and advancing in medical professions, leaving many patients of color lacking access to doctors from communities of color.[141] As of 2019, only 5.8 percent of physicians identified as Hispanic, five percent identified as Black or African American, 0.3 percent identified as American Indian or Alaska Native, and 0.1 percent identified as Native Hawaiian or Other Pacific Islander.[142] Only two percent of physicians identified as Black women.[143] The percentage of medical school graduates of color is similarly low; of 2019 graduates, only 5.3 percent were Hispanic or Latino, 6.2 percent were Black, 0.2 percent were American Indian or Alaska Native, and 0.1 percent were Native Hawaiian or Other Pacific Islander.[144]

Black and Latinx medical students and doctors also report high rates of incidents of discrimination throughout their medical careers, with women of color reporting even higher rates of discrimination than men of color.[145] Recent medical school students of color, female students, and students who identify as LGBTQIA+ report more incidents of mistreatment, including harassment and discrimination, than their peers.[146] Evidence suggests that doctors of color continue to experience bias as they enter their professional careers; after interviewing Black, female physicians, the *New York Times* found that they frequently faced situations where their credibility or authority was questioned.[147]

Since the spread of COVID-19, Asian medical professionals have faced increasing rates of bias and discrimination on the job.[148] Incidents of harassment against AAPI people ranging from racist insults to outright physical attacks have skyrocketed and have been linked to untrue stereotypes and perceptions that people of Asian descent are responsible for the spread of COVID-19.[149] Doctors, nurses, and other medical professionals helping to treat COVID-19 patients have experienced harassment even as they work to save lives during the pandemic.[150]

difficult for policymakers to fully understand the nature of health disparities and to respond appropriately. The failure to effectively prioritize collection of demographic data surrounding COVID-19 is apparent at all levels, from providers to states and localities to the federal government.

Data collection starts with providers and testing sites, which are responsible for collecting initial information about patients. Too often, providers and testing facilities have failed to provide complete information about the race and ethnicity of individuals who are tested.[22] Many health care providers are hampered by an outdated public health infrastructure and have been overwhelmed by the number of patients and hasty efforts to stand up testing sites — especially during the early response to the pandemic — making complete data collection difficult.[23]

States have also failed to consistently collect and report the data they receive from providers, labs, and localities. Initially, some states released racial and ethnic information only for cases, but not deaths, while others failed to report race and ethnicity data at all.[24] States that did collect data varied widely in consistency; as of September 2020, in Vermont, nearly 100 percent of cases included information about race and ethnicity, compared to just 53 percent of cases reporting race data and 39 percent reporting ethnicity data in Alaska and less than 10 percent of cases in Texas reporting either race or ethnicity.[25] Some states do not disclose the percent of reported cases that include race or ethnicity information, making it challenging to infer the cases missing and get a clear picture of potential disparities.[26] Months after the COVID-19 outbreak began, the Department of Health and Human Services (HHS) finally issued guidance requiring laboratories to report demographic data on race, ethnicity, sex, age, and other factors to the CDC with their COVID-19 test results; as of September 2020, all states report some race and ethnicity data.[27]

Data quality issues present particular challenges to understanding the impact of the pandemic on Asian American and Pacific Islander (AAPI) communities. Despite improvements in data collection for some racial and ethnic groups, the impact of COVID-19 on AAPI communities is not well known.[28] Some entities reporting COVID-19 data have not standardized the definitions for AAPI communities, while others have reported them all together, and federal and state governments have not disaggregated data by race and ethnicity using standard definitions.[29] Although the Office of Management and Budget has defined and disaggregated some communities, it has not disaggregated groups by national origin within the "Asian" category.[30]

Similarly, there is little available information about other critical populations, including people of color who identify as LGBTQIA+.[31] The failure to set a federal standard for data collection for these populations has meant there is limited collection or distribution of any targeted information about the prevalence of infections for LGBTQIA+ people of color.[32] In May 2020, Pennsylvania became the first state to track information on LGBTQ COVID-19 patients; California began collecting data on sexual orientation and gender identity in late July.[33]

Without addressing gaps in initial data collection at the provider or testing facility level, there will continue to be gaps in understanding the disparate impacts of COVID-19 by demographic factors. Despite the critical need for accurate and complete information, the Trump Administration has failed to prioritize understanding the role of demographic factors in the COVID-19 pandemic and to tailor its response appropriately. The *Paycheck Protection Program and Health Care*

Enhancement Act (Pub. L. 116-139) required the Trump Administration to submit reports to Congress on COVID-19 testing that include available data on demographic characteristics and information on the number and rates of cases, hospitalizations, and deaths as a result of COVID–19.[34] HHS has submitted five reports so far. Although the reports have improved since the initial four-page document that was simply a compilation of public sources, the Administration has not demonstrated that it is using this demographic COVID-19 testing data to inform its response.[35]

Several Factors Likely Contribute to the Higher Rates of Illness and Death in Communities of Color

High rates of illness and death from COVID-19 in communities of color are linked to a number of factors caused by inequality in our health system. These factors place people of color at higher risk of infection and serious health outcomes. Policymakers have long known that people of color, on average, experience worse health outcomes, have less access to health insurance, and are less likely than white people to have the workplace health and safety protections that have proved critical to keeping communities and families safe during the pandemic. While the pandemic is still far from over, and much more information needs to be gathered to fully understand how health and economic systems contribute to individual illness, there is strong evidence these key factors contribute to the disproportionate burden of COVID-19 on patients of color.

Underlying Health Conditions

There are a number of underlying medical conditions that place adults at an increased risk of serious illness or death from COVID-19, and due to systemic inequality described later in this report, these conditions are more prevalent among communities of color. According to the CDC, severe illness from COVID-19 is correlated with type 2 diabetes, chronic kidney disease, sickle cell disease, and obesity, among other diseases and conditions.[36] People of color are more likely than white people to have each of these medical conditions. For example, Black people experience higher prevalence of diabetes,[37] kidney failure,[38] and sickle cell disease[39] than white people; Hispanic people are more likely to have diabetes or kidney failure compared to non-Hispanic white people;[40] and American Indian and Alaska Native people are almost three times more likely to be diagnosed with diabetes and 1.6 times more likely to be diagnosed with chronic liver disease compared to white people.[41] LGBTQIA+ people also experience high rates of certain diseases – including asthma and diabetes – that place them at risk of getting COVID-19 or experiencing poorer outcomes related to the virus.[42]

Tobacco use has been shown to be a risk factor for COVID-19 complications. The World Health Organization (WHO) and public health researchers have determined people who smoke are more likely to develop COVID-19 and experience complications if they do contract the disease;[43] the risk of serious COVID-19 disease in people who smoke was nearly double that of people who do not smoke;[44] and exposure to secondhand smoke may result in worse outcomes from diseases associated with COVID-19, such as pneumonia.[45] American Indian and Alaska Native populations report smoking at higher rates than other racial and ethnic groups, with nearly double the smoking rate of white people.[46] Black children are more likely to be exposed to secondhand smoke than any other racial or ethnic group, and Black people are more likely to get sick and die from tobacco-caused disease than white people, despite generally starting smoking at a later age, being more likely to make a quit attempt, and smoking fewer cigarettes per day.[47]

A Lack of Adequate Insurance

At the same time Black and Latinx people and people from Tribal communities are more likely to have underlying conditions that place them at higher risk for severe COVID-19 outcomes, due to policy choices from federal, state, and local officials, they are also more likely to be uninsured compared to white people.[48] People of color generally experience high rates of uninsurance: an analysis by the Kaiser Family Foundation of nonelderly individuals found 22 percent of American Indian and Alaska Native people, 19 percent of Hispanic people, 11 percent of Black people, and nine percent of Native Hawaiian and Other Pacific Islander people lacked insurance coverage in 2018.[49] Women of color uniformly experience higher rates of uninsurance compared to white women.[50] According to 2017 data, about 21 percent of American Indian and Alaska Native women, 20 percent of Latina women, and 14 percent of Black, Native Hawaiian, and Pacific Islander women were uninsured.[51] LGBTQIA+ people are also more likely than non-LGBTQIA+ people to lack access to insurance and affordable medical care.[52] Under the Trump Administration, the number of Black people and women who are uninsured has risen, and coverage gains following the passage of the Affordable Care Act (ACA) have stagnated for Hispanic people.[53] A lack of adequate insurance can make it harder for individuals to access care to treat their underlying health conditions that may contribute to serious COVID-19 outcomes.

CARMEN

Carmen runs a federally qualified health center that treats patients who are primarily Latinx Spanish speakers. About 30 percent of her patients are uninsured – although that number has risen during the pandemic – and most of those uninsured are ineligible for insurance due to their immigration status, and some are eligible but have concerns about the public charge rule.

During the pandemic, Carmen's community is in desperate need of testing and treatment. Through April and May, the health center served thousands of frontline workers infected by COVID-19, with a single day high of 72 percent positive cases. Since March, the health center has tested close to 11,000 patients for COVID-19.

While a handful of patients were sent to the hospital each day, many were resistant to go because they were scared they would be unable to afford treatment. Carmen found that her staff was regularly delivering positive test results to patients at their workplaces, and some patients felt they had no choice but to keep working despite medical advice to isolate and monitor symptoms. And although the city set up a system for COVID-19 positive patients to isolate in free hotel rooms to help patients avoid infecting their families, many patients declined; they were worried about being away from their families and did not want to die alone.

Being uninsured can also prevent people from accessing testing and care for COVID-19. People who are uninsured face challenges in getting appointments with private primary care providers; more than half of uninsured people report not having a regular source of medical care.[54] Those who can obtain appointments may be unable to afford them.[55] Although Congress has taken steps to provide free testing, including for uninsured patients, people without insurance may still be reluctant to get COVID-19 testing or care for fear of cost.[56] An April 2020 Gallup poll found 22 percent of people of color would not seek care if they or a member of their household had a fever and dry cough and 14 percent would avoid treatment for suspected COVID-19 infection for fear they could not afford it.[57]

The Trump Administration has refused to take steps to address uninsurance among people of color and others who desperately need access to better coverage during the pandemic. Typically, people are only eligible to sign up for ACA marketplace coverage during the end-of-year annual enrollment period or when they qualify for a special enrollment period (SEP) because of a qualifying life event, such as marriage, loss of employer-based coverage, or the birth of a child.[58] In order to address the impact of lack of insurance during the pandemic, many state-run marketplaces have created COVID-related SEPs to allow their residents to obtain coverage, but the Trump Administration continues to refuse calls for a SEP on the federally-run marketplace.[59] As a result, residents in the 32 states that use the federal marketplace remain unable to enroll in coverage, unless they experience a qualifying life event.[60] This refusal builds upon years of efforts by President Trump and Republicans in the federal and state governments to sabotage the health care system, undermine critical protections for people with preexisting conditions, and restrict opportunities to enroll in quality, affordable health coverage.[61]

Increased Likelihood of Exposure to COVID-19 at Work

One reason for the higher rates of COVID-19 infections in communities of color is the increased likelihood that Black and Latinx workers are exposed to the virus on the job. Workers of color are overrepresented in many frontline jobs, particularly in certain industries, including those that have faced high levels of COVID-19 infections.[62] For example, workers of color make up 53 percent of home health care workers, over 54 percent of bus service and urban transit workers, over 56 percent of building cleaning service workers, and nearly 60 percent of warehousing and storage workers.[63] Black and Latinx workers also report being less likely to be able to work from home than white workers.[64]

Working on-site, especially in crowded workplaces with extended periods of close contact with coworkers, increases workers' risk of exposure to COVID-19.[65] The potential danger of essential work without sufficient health and safety measures has been tragically illustrated by the meatpacking industry. In April, President Trump issued an Executive Order requiring processors of beef, pork, and poultry to continue operating during the pandemic, despite concerns about whether workers are adequately protected.[66] In April and May of 2020, more than 16,200 workers in meatpacking plants were infected with COVID-19, 87 percent of whom were people of color.[67]

Similar concerns have been raised about the safety of workers in airports,[68] transit workers,[69] long-term care workers,[70] home health care workers,[71] and workers in numerous other frontline jobs that disproportionately employ people of color.[72] Moreover, emerging evidence suggests that even within industries with higher exposure rates, workers of color are more likely to become infected than white workers who have the same job. For example, one study found health care workers of color are more likely than white health care workers to lack adequate access to personal protective equipment (PPE) and face a higher risk of becoming infected with COVID-19.[73]

At the same time workers of color are more likely to be exposed to COVID-19 they are also less likely to have jobs that provide critical workplace protections that allow them to keep their families and communities safe when a worker gets sick.[74] The importance of paid sick and paid family and medical leave has never been clearer than during the pandemic: if workers cannot afford to take time off without risking their jobs, they face an untenable position of having to choose between their livelihoods and the health of themselves, their families, and their communities.[75] Congress has failed low-wage workers by not extending paid leave. Currently, only about 30 percent of workers in the industries with the lowest wages have paid sick leave compared to 90 percent of the highest-wage workers.[76] Latinx workers, in particular, are substantially less likely than white or Black workers to have access to paid family and medical leave; more than half of Latinx workers do not have access to paid sick leave.[77]

Finally, when workers of color do get sick, it may be harder for them to avoid exposing members of their families and communities, including older relatives, to disease. More than a quarter of Asian, Black, and Hispanic families live in multigenerational homes.[78] Black and Latinx families are also are more likely to live in more crowded homes with more people sharing the same space; in a study of overcrowded households with at least one worker in a job that requires close proximity to other workers, nearly half were headed by a Hispanic person.[79] As a result, when one family member is exposed to COVID-19 on the job, their families and other members of their communities may be at greater risk of catching the disease.[80]

EDGARDO

Edgardo's father, a Latino meatpacking plant worker, was diagnosed with COVID-19 in April. Within days, Edgardo's mother and teenage sister were also infected. Edgardo's father was hospitalized and intubated; he spent the next ten days on a ventilator in an induced coma. His doctors could not say with confidence if he was getting better, and language barriers meant it was difficult for Edgardo's father and mother to understand the course of treatment.

Meanwhile, Edgardo was dealing with his father's employer to arrange for disability payments and responding to letters and phone calls asking when his father would be returning to work. After ten days, Edgardo's father was taken off the ventilator, and he was able to return home three weeks after he had first been admitted. The family worried about damage to his vocal cords from the intubation, and Edgardo's father has had to do physical, occupational, and speech therapy to recover.

Now, four months after his hospital stay, Edgardo's father has been able to slowly return to work, but he still faces the physical and mental health effects of the disease. Over 1,000 workers at the meatpacking plant where he works have been infected, and some of his coworkers have died.

Abuse, Bias, and Discrimination in Health Care Have Contributed to Disparate Health Outcomes

Neither the disproportionate impact of COVID-19 on communities of color, nor the higher prevalence of underlying conditions, lack of adequate insurance, or greater risk of COVID-19 exposure, is a coincidence. Rather, inequality within the American health care system is driven by a long history of exploitation, bias, and discrimination, lack of health care access, and other interrelated factors. Some of these longstanding, systemic factors are explored in more detail in the section below.

Historic Exploitation and Discrimination Have Caused Mistrust in the Health Care System

The American health care system has a shameful legacy of racism and exploitation that is often unacknowledged. While most medical professionals are deeply devoted to their patients, it is important to recognize that others participated in the abuse of people of color by experimenting on their bodies, denying or providing treatment without consent, stealing genetic information, and more. History is rife with examples, including:

- Dr. J. Marion Sims was dubbed the "father of modern gynecology" in the 19th century for his critical advances in gynecological medicine, which he developed by experimenting on enslaved Black women.[81] Dr. Sims performed the experiments that led to new gynecological treatments on fourteen enslaved people without their consent.[82] Dr. Sims was not the only physician to receive acclaim for his medical accomplishments after experimenting on enslaved people.[83]

- For four decades, the Public Health Service purposely denied Black men treatment for syphilis to study the course of the disease.[84] Starting in 1932, the federal government and the Tuskegee Institute tracked 600 Black men, about two-thirds of whom had syphilis.[85] The men were told they were being treated for "bad blood" and purposely given ineffective treatments, even after penicillin became known as a treatment for the disease and was widely available.[86] The participants were never informed of the real purpose of the study, nor that they were denied effective medications. The Tuskegee Study ended in 1972 after the mistreatment was exposed.[87]

- When Henrietta Lacks, a Black woman, received treatment at Johns Hopkins Hospital for cervical cancer in 1951, a doctor took a tissue sample from her tumor without informing her or obtaining her consent.[88] Lacks died later that year.[89] Her cells, which became known as "HeLa" cells, are among the most important scientific discoveries of the last century as the first immortal human cell line, and have been extraordinarily valuable to the medical community as a research tool – generating millions of dollars in profits and contributing to many medical breakthroughs over the past several decades.[90] The Lacks family learned about the HeLa cells from a social encounter with a cancer researcher more than 20 years after Henrietta Lacks died.[91] The family did not receive any compensation for the unauthorized use of the cells,[92] and while the National Institutes of Health (NIH) and the Lacks family reached agreement in 2013 to allow researchers controlled access to HeLa cells, there are continued controversies about the family's lack of ownership of the cells and lack of compensation from research involving the cells.[93]

- From the 1920s through the 1970s, it was disturbingly common for women of color, people of color with disabilities, and low-income women to undergo coerced sterilization or be sterilized without their consent. A number of states passed compulsory sterilization laws linked to the then-popular eugenics movement.[94] North Carolina's Eugenics Board was

> responsible for the sterilization of about 7,600 people, an estimated 40 percent of whom were people of color.[95] In California – which conducted about 20,000 compulsory sterilizations – Latina women were about 60 percent more likely to be referred for sterilization than white women.[96] And in the 1970s, the Indian Health Service sterilized thousands of American Indian women without their consent.[97] There are still allegations of forced sterilizations in the United States today.[98]

The legacy of these outrageous and unethical practices still reverberates today. People of color report high rates of mistrust of the medical system and medical professionals.[99] For example, one study of patient relationships with doctors in twenty cities found that Black and Hispanic patients, particularly low-income patients, were more likely to mistrust their doctors than white patients with higher incomes.[100] This lack of trust is driven at least in part by the history of racism and exploitation in the medical community; Black patients often cite the Tuskegee experiment as an example of why they mistrust the medical system and are reluctant to participate in medical research.[101]

Unfortunately, as mistrust of the medical community leads patients of color to delay or choose not to seek care, patients experience poor health outcomes that, in turn, may lead to higher death rates from COVID-19. Studies have shown that high levels of mistrust cause some Black men to avoid going to the doctor, which delays the preventive care important to prevent chronic disease and other underlying conditions.[102] Other reports have linked medical mistrust to reluctance to getting treatment for specific conditions including tuberculosis,[103] HIV,[104] and prostate cancer.[105] In fact, one study found lower life expectancy for Black men can be traced directly to avoidance of medical care spurred by the Tuskegee experiments.[106]

Explicit and Implicit Bias Still Pervade the Health Care System

Unfortunately, bias and discrimination are still prevalent within our health care system. Patients of color may face outright discrimination, battle inaccurate stereotypes, find their pain or illnesses are not taken seriously, and they are rarely treated by providers of the same race or ethnicity. Such issues are exacerbated for patients of color who may face bias or discrimination because of multiple aspects of their identities, such as patients of color with a disability, who identify as LGBTQIA+, or who are English language learners. Our health care system fails to meet the needs of many patients of color, contributing to worse health outcomes generally, and in turn, worse outcomes during the pandemic.

Patient Care and Provider Interactions

Today, patients of color and other underrepresented populations report bias and mistreatment from health care providers that can lead to under-treatment and misdiagnoses, which subsequently impact the long-term health of these communities. Adults in underrepresented groups, including people of color, LGBTQIA+ adults, and adults with disabilities, are more likely to report being disrespected or judged unfairly by a provider or their staff.[107] As a result, patients of color receive less effective care than white patients, which contributes to the high rates of underlying conditions that put communities of color at risk for severe COVID-19 outcomes.[108]

Patients of color report lower quality of patient-physician interactions compared to white patients, which are associated with lower overall satisfaction with the health care system.[109] Research has shown that implicit bias results in clinicians speaking more slowly and using less patient-centered dialogue with Black patients.[110] Almost a quarter of Native American patients report being discriminated against when they seek medical care.[111]

For example, providers are more likely to underestimate their Black patients' level of pain,[112] and Black and Hispanic patients in emergency rooms are substantially less likely than white patients to receive medication to ease pain.[113] Research suggests that mental health providers are more likely to incorrectly diagnose mental health conditions for people of color.[114] From 2012 to 2016, white patients were substantially more likely to be prescribed buprenorphine for opioid use disorder than Black patients,[115] even though deaths from opioid use disorder rose faster for Black people over the same time period.[116] Notably, Black women and their babies are substantially more likely to die from complications during pregnancy or childbirth than white women and children.[117] A study of more than 2,000 women in California found Latina mothers were more likely than white mothers to report being treated unfairly during hospital stays and feeling unsupported by medical staff during childbirth.[118]

Transgender patients of color also experience additional barriers to accessing adequate care. The 2015 U.S. Transgender Survey found about one-third of respondents reported being uncomfortable while seeking medical care at least once over the past year, including incidents ranging from having to educate their own doctors about transgender people to being denied care.[119] Almost one-third indicated that they had not disclosed being transgender to their medical providers, and one in four respondents avoided seeing medical providers because they were worried about being mistreated.[120] The Trump Administration has exacerbated these issues by revoking protections against discrimination for transgender people seeking health care.[121]

CECILIA

Cecilia is an entrepreneur, activist, and health care policy expert who travels across the country training institutions, including medical providers, on transgender inclusion. Cecilia herself has long-battled discrimination within the health care system. As a transgender woman, she has routinely been met with derision because of her body, intentionally misgendered, and even denied care altogether. She and her friends often resort to at-home self-care rather than engage with the health care system.

One of Cecilia's very close friends, a widely respected trans woman of color, recently died from COVID-19. Despite experiencing symptoms, her friend did not want to seek medical attention because she was anxious about facing discrimination from providers because she was transgender. Cecilia herself is terrified of become infected with COVID-19 and unable to access a safe provider. Cecilia has a respiratory condition which puts her at risk of serious complications. She is worried that if she does get sick, a single biased or discriminatory doctor or nurse could truly make the difference between life and death.

Like other underrepresented groups, people with disabilities report feeling uncomfortable in health care settings.[122] A 2016 survey showed about 24 percent of adults with disabilities reported feeling disrespected by their doctors, compared to about eight percent of adults without disabilities.[123] Compounding these issues, many medical facilities remain physically inaccessible for people with disabilities, for example lacking accessible transportation and parking, exam tables, and equipment.[124] People of color with disabilities may experience particular difficulty; for example, among people who are deaf, women of color – and particularly Black women – have greater challenges accessing care compared to white women.[125] As a result of these physical and attitudinal barriers, people with certain disabilities may be less likely to seek and receive appropriate care. As just one example, studies have found that women with disabilities are less likely to receive recommended breast cancer screenings,[126] and those with early-stage breast cancer have lower rates of some treatments and higher rates of mortality than other women.[127]

Finally, English language learners also report receiving low-quality care from many providers. In one study, patients who did not speak English as a primary language reported being less satisfied with the emergency care they received and were more likely to report overall problems with that care than English speakers.[128] Another study showed Spanish-speaking patients, in particular, reported lower satisfaction with a health care visit when providers do not speak Spanish or do not provide trained interpreters.[129] The pandemic has only exacerbated this longstanding issue. For example, language barriers may have contributed to an outbreak at a meat processing plant where workers spoke 40 different languages, yet critical information about COVID-19 was provided in only English.[130] The lack of access to translation services has been a consistent barrier to non-English speaking patients getting adequate COVID-19 care.[131]

CHRISTLE

Christle is a first-year internal medicine and pediatrics resident in Baltimore. She is a first-generation American; her family was born in Nigeria and many of her family members are nurses. At the hospitals where Christle works, there are strict limitations about visitation during COVID-19 to protect patient and provider health. However, this has left some of her patients feeling especially isolated. Patients who do not speak the language of their providers have limited access to translators, and their family or community members are not able to provide in-person translation. Her patients no longer have visits from family members or a prayer group to look forward to. While some patients have turned to video calls, that has been difficult for older patients who may not be as familiar with technology. These unanticipated aspects of the COVID-19 response have left some patients – even those uninfected by COVID-19 – with even more barriers to overcome.

As the health care system embraces technology to help providers make care decisions, algorithms that purport to be objective may perpetuate and further systematize biases and disparities in medical care between white patients and patients of color.[132] Physicians use diagnostic algorithms that may adjust their recommendations based on a patient's race or ethnicity in a way that may result in directing care and resources to white patients over patients of color.[133] Even algorithms that intentionally exclude race as a factor can include other variables, such as patient health care costs, that may lead to racially biased outcomes that exacerbate health disparities.[134] Research shows that using race-based algorithms to guide care decisions lead to worse care for people of color, including, for example, admitting fewer Black and Latinx patients who presented at the emergency department with heart failure to the hospital than white patients and being less likely to evaluate for kidney stones in Black patients.[135] Biased algorithms can also amplify and reinforce provider bias when they underlie decisions about who needs care and what care to provide, furthering unequal access to necessary care and unequal health outcomes, including higher rates of underlying conditions, for people of color.

Physicians of Color

One way of decreasing bias among health care professionals is to increase the diversity of physicians. Research has shown that when patients of color are treated by doctors with similar backgrounds, they tend to have better outcomes.[136] For example, a study of Black male patients in Oakland, California, showed they were more likely to seek preventive care and talk about health issues when their doctor was also a Black man.[137] Another study of Florida hospital births showed the mortality rate for Black newborn babies cared for by Black physicians is half that of Black newborns cared for by non-Black physicians.[138] Other research has found Hispanic patients similarly are more satisfied with their health care overall when treated by Hispanic physicians.[139] In contrast, bias among white doctors may lead to inadequate care; a disturbing study from 2016 found that about half of the white medical students and residents surveyed held inaccurate beliefs about physical differences between Black and white people.[140]

People of color face barriers in entering in and advancing in medical professions, leaving many patients of color lacking access to doctors from communities of color.[141] As of 2019, only 5.8 percent of physicians identified as Hispanic, five percent identified as Black or African American, 0.3 percent identified as American Indian or Alaska Native, and 0.1 percent identified as Native Hawaiian or Other Pacific Islander.[142] Only two percent of physicians identified as Black women.[143] The percentage of medical school graduates of color is similarly low; of 2019 graduates, only 5.3 percent were Hispanic or Latino, 6.2 percent were Black, 0.2 percent were American Indian or Alaska Native, and 0.1 percent were Native Hawaiian or Other Pacific Islander.[144]

Black and Latinx medical students and doctors also report high rates of incidents of discrimination throughout their medical careers, with women of color reporting even higher rates of discrimination than men of color.[145] Recent medical school students of color, female students, and students who identify as LGBTQIA+ report more incidents of mistreatment, including harassment and discrimination, than their peers.[146] Evidence suggests that doctors of color continue to experience bias as they enter their professional careers; after interviewing Black, female physicians, the *New York Times* found that they frequently faced situations where their credibility or authority was questioned.[147]

Since the spread of COVID-19, Asian medical professionals have faced increasing rates of bias and discrimination on the job.[148] Incidents of harassment against AAPI people ranging from racist insults to outright physical attacks have skyrocketed and have been linked to untrue stereotypes and perceptions that people of Asian descent are responsible for the spread of COVID-19.[149] Doctors, nurses, and other medical professionals helping to treat COVID-19 patients have experienced harassment even as they work to save lives during the pandemic.[150]

Academic Research

Widespread bias and discrimination against people of color, especially women of color, are also prevalent in the scientific and medical research community. This manifests both as bias against funding for research conducted by researchers of color and bias against funding for research topics that particularly affect people of color. A 2011 report studying the NIH Research Project Grant Program (R01) found that Black applicants were about 10 percent less likely than white applicants to receive a funding award after controlling for factors such as the applicant's training, educational background, and employer.[151] Another study found that white researchers receive funding for new and renewal R01 applications at a rate about 1.7 times higher compared to Black researchers.[152] NIH is working to implement changes designed to reduce bias in the grant awards process, but there is much more work to be done.[153]

KALI

Kali is community psychiatrist who is working to ensure patients of color have access to providers who relate to them. At her previous job at a large academic medical center, she was one of only two Black, female psychiatrists in a department of over 500 psychiatrists. As a Black, queer woman, Kali herself has struggled to find affordable, mental health support from providers who understand her experiences.

It has been difficult for Kali to find funding for programs to educate the medical community about providing care to communities of color. She has found that while many physicians from underrepresented communities want to go back, those communities often have the least access to resources for everything from diversity education for their providers to social services for their patients. Even medical schools and residency programs with substantial endowments and significant research funding have not committed to long-term investments in diversity education.

Kali explained that access to quality mental health services is more important than ever as COVID-19 has been incredibly challenging for her patients. About half her patients have stopped taking their medications, and it is difficult for providers to monitor their patients to ensure they are safe and healthy.

In addition to bias against researchers of color, evidence suggests that, at least in some instances, diseases that primarily impact people of color have been underfunded and received less public and private support than other diseases.[154] For example, an analysis of funding found that sickle cell disease, which disproportionately impacts Black people, has been underfunded by both the federal government and private foundations compared to less prevalent diseases.[155] Research involving health disparities, which is more likely to be proposed by Black researchers, is also less likely to be funded compared to topics proposed by white researchers.[156]

Additionally, female researchers, particularly women of color, experience high rates of harassment both as students and later in their careers. In 2018, a National Academies of Science, Engineering, and Medicine (National Academies) report found disturbingly high numbers of women in academic medicine and other academic researchers experience harassment.[157] In fact, workers at academic institutions have the highest rates of sexual harassment outside of the military;[158] the National Academies found that more than half of female faculty and staff experienced harassment.[159] Between 20 and 50 percent of female students also experience sexual harassment, and the rates of gender-based harassment were more frequent in academic medicine than in other fields.[160] The rates of harassment are even higher for women students and faculty of color, who experience both racial and sexual harassment; LGBTQIA+ people also experience higher rates of sexual harassment than heterosexual women.[161] These experiences can impede women's careers and health in numerous ways, including resulting in women dropping out of the academic profession, seeing reductions in productivity, and feeling negative impacts on mental and physical health.[162]

Clinical Trials

The pharmaceutical industry is the largest sponsor of clinical trials, which have generally failed to include a representative sample of people of color in their patient populations.[163] For example, despite Black people comprising 13 percent of the U.S. population, they accounted for less than five percent of the patients enrolled in clinical trials for 24 of 31 cancer drugs approved since 2015, and have even been underrepresented in trials for drugs that were meant to target diseases with disproportionately high incidence in Black communities.[164] In particular, clinical trials for three drugs recently approved by the U.S. Food and Drug Administration (FDA) for treatment of HIV-1, manufactured by Merck, ViiV Healthcare, and Gilead Sciences, included between 21 and 29 percent of Black or African American patients, although more than 40 percent of new HIV diagnoses in the United States are among Black adults and adolescents.[165]

MELISSA

Melissa is a Latina clinician and researcher, who works with local organizations and community leaders to better communicate with communities of color about their health and the health care system. Over the course of the pandemic, Melissa has been working to enroll people of color in COVID-19 vaccine clinical trials. She strongly believes in the critical importance of having diverse clinical trial participants to ensure that any potential vaccines work for the communities hit hardest by the COVID-19 pandemic.

Melissa has found that many Black, Latinx, and indigenous patients fear and mistrust clinical trials because they do not want to unknowingly participate in medical experimentation that could be dangerous. However, Melissa has found that working with community organizations to pair messages about getting a flu shot with messages about enrollment in clinical trials has been effective at increasing participation in both efforts. Public health organizations have partnered with megachurches and pastors in Black communities and with Spanish-language media outlets in the Latinx community to increase flu and COVID-19 trial vaccination rates.

Similarly, despite the fact that people of color are bearing the heaviest burden of the pandemic, they are severely underrepresented in current COVID-19 vaccine clinical trials. While week-by-week enrollment in Moderna's Phase 3 COVID-19 vaccine clinical trial is improving for some populations of color, data released as of September 2020 makes it difficult to assess the total number of enrollees as a share of the total population, particularly for people who identify as American Indian or Alaska Native, Hawaiian or other Pacific Islander, or more than one race.[166] As of September 14, 2020, Pfizer's Phase 2/3 vaccine trial had also enrolled far fewer people of color in the United States compared to their share of the overall population.[167] The NIH's COVID-19 Prevention Trials Network, which was created to recruit participants and conduct Phase 3 clinical trials for COVID-19 vaccines and monoclonal antibody therapies, has struggled to recruit substantial numbers of volunteers from communities of color.[168] As of mid-August 2020, only 10 percent of the 350,000 volunteers who had signed up for COVID-19 clinical trials through the online registry identified as Black or Latino.[169]

Clinical trials assess the potential benefits and risks of experimental treatments; unless trials represent all demographics of potential patient populations, researchers and drug developers lose an important opportunity to understand the effects of the treatments for all populations.[170] Although there is limited data, research has found that some drugs tested mainly on white, male adult patients may be less effective for Black patients and women; conversely, this suggests trials that do not include enough patients from underrepresented groups may overlook drugs that could work for these populations.[171]

A number of systemic factors influence this lack of representation. As described above, patients of color are more likely to have comorbidities, which can make drug trials potentially less safe; providers may fail to make patients aware of clinical trial opportunities; and people of color may feel reluctant to participate given the length of the trial and the cost of participation.[172] Additionally, the historic exploitation of patients of color and resulting mistrust of the medical community mean people of color may be less inclined to volunteer for trials.[173]

Patients of Color Lack Access to High-Quality Medical Care

In addition to facing explicit and implicit bias and discrimination from health care providers, communities of color have less access to high quality, affordable health care than white communities, contributing to inequality in health outcomes. Our system of medical care is highly segregated; patients of color are more likely to be treated at facilities that see large numbers of patients of color, and they are less likely to have access to high-quality facilities than white patients. The market-based system of health insurance also contributes to segregation and inherently discriminates against people of color, particularly low-income people of color, making care more expensive and, accordingly, less accessible.

Hospitals and Other Medical Facilities are Highly Segregated

Patients of color and white patients have long had separate and unequal medical care. Prior to the 1960s, many health care facilities participated in state-sanctioned discrimination against patients of color.[174] Like schools and restaurants, medical facilities in states with formal segregation served only patients of one race or had separate wings for white patients and patients of color.[175] In some states, the blood supply was even separated to ensure that white patients received blood only from white donors.[176] In states without formal segregation, the health care system found informal ways of separating patients by race. Black doctors were often denied admitting privileges to white hospitals, and Black patients were sent to traditionally Black hospitals or doctor's offices, even if those were not the closest facilities to their homes.[177]

Federal civil rights legislation finally forced medical facilities to integrate. When Congress created Medicare in 1965, shortly after the Civil Rights Act, the Johnson Administration made clear it would enforce federal prohibitions against using federal funding to discriminate, allowing only hospitals that integrated to be eligible for federal funds.[178] Federal inspectors were sent to health care facilities to determine whether they were segregated and, therefore, ineligible to receive federal Medicare dollars.[179] Rather than lose access to the large amount of new federal funding, health care facilities complied; 98 percent of the nation's hospitals integrated in just a few months.[180]

Despite the progress made during the 1960s, some medical facilities still primarily serve patients who are white and higher income, while others are more likely to treat low-income patients of color.[181] One study found care for Black patients is concentrated in a very small number of hospitals: nearly half of all elderly Black patients receive care in the five percent of hospitals with the highest volume of Black patients.[182] Another study found 80 percent of African American and Hispanic patients admitted to skilled nursing facilities for post-acute care were concentrated in under 28 percent of all facilities.[183]

Several interrelated factors contribute to the ongoing segregation within the medical system. Housing patterns, in part driven by overt discrimination, have created segregated neighborhoods, resulting in white people tending to live near the same hospitals and doctors as other white people.[184] Patients of color are also more likely than white patients to be treated at safety net hospitals, because people of color are less likely to have private insurance and more likely to have Medicaid or Medicare as their main insurance.[185] And evidence suggests that ambulances take Black and Hispanic patients to different hospitals than white patients from the same zip code, whether because of bias, patient choice, or other factors.[186]

The Medical Facilities That Primarily Serve Patients of Color are Lower Quality

The medical facilities that disproportionately treat patients of color tend to underperform and provide worse patient experiences compared to facilities that treat primarily white, affluent patients. A recent analysis demonstrated that the most prestigious hospitals in the United States serve a patient population that is primarily high-income with good insurance.[187] Facilities that treat higher proportions of people of color tend to have higher rates of infection for infants born with very low birth weight,[188] higher patient-to-nurse ratios,[189] fewer technological resources, and medical professionals with less training and experience.[190] They are also more likely to close than hospitals in affluent white neighborhoods.[191] Similarly, nursing homes with more patients of color had characteristics associated with a lower quality of care; they are larger, are more likely to operate for profit, and have higher resident-to-staff ratios compared with nursing homes serving more white residents.[192]

This gap in quality is driven in part by disparities in resources among medical facilities. Patients of color disproportionately receive care in under-resourced hospitals.[193] Many of these are safety-net hospitals that serve a larger proportion of Medicaid and uninsured patients, which means they likely provide more care that is not compensated or fully reimbursed, operate on thinner financial margins, and have lower financial performance.[194] The most recent annual report by American's Essential Hospitals revealed that while the operating margin for U.S. hospitals is 7.6 percent on average, many essential hospitals operate on margins of only 2.5 percent; the margin would be negative 1.6 percent without Medicaid disproportionate share hospital payments.[195] Another study found total capital assets – the value of land, buildings, and equipment – held by hospitals serving mostly white patients were around 60 percent higher than total capital assets held by those serving mostly Black patients and close to 44 percent higher than those serving mostly Hispanic patients.[196] Compared to white patients, patients of color are also more likely to lack access to high-quality behavioral health services and treatment for substance use disorders.[197]

Limited financial and physical resources at hospitals that serve people of color have been shown to significantly contribute to lower hospital quality and poorer health outcomes, including higher mortality rates for a number of conditions.[198] For example, studies have shown Black patients are more likely to undergo surgery at low-quality hospitals and have worse outcomes as a result,[199] and Hispanic and Black babies have higher rates of morbidity and mortality in part because they are more likely to be born in lower-quality hospitals with inferior neonatal intensive care units.[200]

There is emerging evidence that access to poorer quality medical care may also impact outcomes from COVID-19 in low-income Black and Latinx communities. The *New York Times* highlighted this dynamic in two New York hospitals: a hospital that treats primarily low-income patients who are immigrants has resorted to using plastic tarps and duct tape to create barriers between patients in the intensive care unit, while a wealthy private hospital used private planes to fly in N95 masks from China.[201] Nursing homes have seen similarly disparate outcomes for people of color; those with a higher proportion of Black and Latino residents were twice as likely to have COVID-19 cases in the initial months of the pandemic.[202]

Our Market-Based Health Insurance System Creates Barriers to Care for People of Color

One of the factors contributing to health care segregation, lower quality care, and worse outcomes in communities of color is that high-quality, affordable care and coverage is out of reach for some low-income people of color. People of color are substantially more likely than white people to be uninsured or underinsured and left to shoulder the full cost of their care. About half of uninsured people in the United States are people of color,[203] including about 25 percent of Hispanic and American Indian and Alaska Native people ages 19 to 64, compared to nine percent of white people.[204] There are also disparities in the types of insurance most accessible to certain communities; for example, in 2017, about 80 percent of white adults between the ages of 19 and 64 had private insurance, compared to 56 percent of Hispanic and 63 percent of Black adults in the same age range.[205] Without high-quality health insurance, patients of color may not be able to access the care they need.

By relying on a system that is heavily market-based, significantly more so than in many other industrialized nations, the U.S. health care system has created significant barriers to obtaining affordable insurance and health care.[206] These barriers, in turn, disproportionately affect communities of color and magnify historic racial inequities in access to health care and health outcomes in general.[207] The U.S. system, with its greater emphasis on market-based delivery, is the product of more than half a century of policies adopted by Congress and state governments, many of which favor middle- and high-income families, who are disproportionately white.[208] While Congress has adopted policies that have expanded access to care and lowered costs, in many other cases, it also has made policy decisions that were driven by profit-seeking and other considerations of special interests rather than improving access to medical care for all patients.

In the American system, private sector insurance premiums and the price of health care services are set primarily by private actors, including large, for-profit companies.[209] Policies that encourage profit-seeking limit policymakers' ability to control rising costs.[210] Insurance companies then turn to the limited, blunt tools available for them to compete on price, including increasing out-of-pocket costs and limiting benefits.[211] Insurers also seek to cut costs by restricting patients' choice of providers to narrow networks; patients who then seek out-of-network care are often forced to pay higher out-of-pocket costs.[212] As a result, patients' use of care declines as provider networks narrow and cost sharing obligations rise, too often leading people with the worst health to forgo desperately needed care.[213] This reduction in care-seeking shifts care from the sick and poor to the healthy and wealthy – a system that means communities of color are most often those going without high-quality, consistent care.[214]

The health care system in the United States has relied heavily on employer-based health insurance for decades, in the process favoring high-income workers who are disproportionately white and amplifying inequality within the workforce.[215] The employer-based health insurance system was driven by tax incentives for employers to cover health insurance premiums.[216] Employer-based health insurance systems provide better options for families with higher incomes who get a greater tax benefit from employer contributions to health insurance premiums.[217] The low-income workers who are less likely to have access to quality, affordable employer-sponsored health insurance are disproportionately people of color.[218] The latest data show that 66 percent of white, nonelderly people have employer-sponsored coverage, with 46 percent of Black people, 41 percent of Hispanic people, and 36 percent of American Indian and Alaska Native people having such coverage.[219] Prior to the passage of the ACA, researchers found that lack of access to employer-sponsored insurance and overrepresentation in low-wage jobs were key reasons for the high uninsurance rates for Black and Hispanic people.[220]

Enacting the ACA was a significant step forward – bringing affordable, comprehensive insurance coverage to millions of people, including communities of color, who previously faced barriers to coverage – but the highest financial burden of health care still falls on low-income families and families of color.[221] Even under the ACA, patients can have substantial out-of-pocket risk through deductibles and copayments.[222] These costs are more burdensome for low-income people and can discourage patients who cannot afford those costs from seeking care.[223] Similarly, Medicare imposes regressive cost-sharing measures on the entire health care system; uninsured individuals – who are disproportionately low-income and persons of color – do not benefit from insurers' negotiating leverage and, as a result, are charged the highest prices.[224]

While Medicaid expansion has proven to be an effective tool for improving equity in coverage and access to care, many people live in states that still have not expanded access to coverage through Medicaid expansion.[225] Forty-six percent of Black adults and 36 percent of Hispanic adults live in the 15 states that have not yet implemented Medicaid expansion as of January 2020 – a much larger share than national averages.[226] Additionally, the Latinx community continues to experience the largest disparities in access to coverage, in part due to Trump Administration health care sabotage and in part because undocumented immigrants have limited access to coverage through their jobs and are prohibited from enrolling in Medicare, Medicaid, the Children's Health Insurance Program, or ACA marketplace coverage.[227] Despite the lack of national-level policies to provide coverage to undocumented immigrants, several states use state-only funds to provide Medicaid coverage to some undocumented immigrants.[228]

Factors Outside of the Health Care System Impact Health Outcomes for People of Color

While this report is primarily focused on the issues within the health care system that create and exacerbate health disparities between communities of color and white communities, it is important to acknowledge again that there are many challenges outside the health care system that contribute to these disparities. These additional factors outside the health system, or "social determinants of health," are defined by the WHO as "the conditions in which people are born, grow, live, work and age."[229] Health People 2030 identifies five key areas that can influence health outcomes including: (1) economic stability, (2) education access and quality, (3) social and community context, (4) health care access and quality, and (5) neighborhood and built environment.[230] The legacies of slavery, Indian removal, segregation, and anti-immigrant policies have produced longstanding systemic barriers that mean communities of color tend to have greater hurdles to overcome across the social determinants of health compared to their white peers.[231] The following few examples illustrate some of those barriers:

- Communities of color experience high rates of unemployment and poverty. The unemployment rate among Black, Asian, and Latinx people is higher than the unemployment rate for white people; this remains true among every age group and for both men and women.[232] Black, Hispanic, and American Indian and Alaska Native people and people who identify as multiple races all experience poverty at higher rates than the national average.[233]

- Students of color are more likely than their peers to have less access to high-quality schools and early childhood learning opportunities. The graduation rate among white public high school students is 89 percent, with Hispanic students at 81 percent, Black students at 79 percent, and American Indian and Alaska Native students at 74 percent.[234] White students are also more likely to earn advanced degrees at public and non-profit four-year institutions than are Black or Hispanic students; Black and Hispanic students represent a much larger portion of the student bodies at for-profit institutions.[235]

- People of color also experience discrimination, which itself can be a social determinant of health.[236] Since the first comprehensive reviews of discrimination and health were conducted nearly 30 years ago, a significant body of work has been developed showing how experiencing racial discrimination in and of itself can lead to adverse health outcomes and place people of color at higher risk for negative health conditions.[237]

- Communities of color are incarcerated at higher rates than white people. Black and Latinx people are represented in far higher rates in the U.S. prison population than they are in the share of the U.S. population as a whole: in 2017, Black people were 12 percent of the U.S. population but 33 percent of the sentenced prison population, and Hispanic people were 16 percent of the U.S. population but 23 percent of inmates.[238] By contrast, white people were 64 percent of the U.S. population but 30 percent of the prison population.

- Communities of color face higher rates of pollution and other environmental hazards than white communities. Black and Hispanic people are more likely than white people to live in counties with higher levels of air pollution.[239] Of the more than nine million people who live within approximately 1.9 miles of toxic waste facilities, more than half are people of color.[240] Finally, the risk of lead poisoning is higher for Black and Latinx communities than for white communities; Black children having elevated lead levels at triple the rate of white children, and Latinx children are more likely to experience asthma and lead positioning than white children.[241] Native Americans are more likely to experience threats to their fish and other food sources than other demographic groups.[242]

Social determinants of health can negatively impact health starting from childhood through adulthood, and some experiences or exposures early in life may not manifest in negative health outcomes for years.[243] Social determinants of health are also influenced by other aspects of a person's identity, in addition to race and ethnicity, including disability status, sexual orientation and gender identity, and age, reflecting that one factor alone may not explain health outcomes.[244] Despite the importance of social determinants of health, Congress and the CDC designate almost no funding to programs that target social determinants and alter the conditions that lead to disparate health outcomes for communities of color.[245] In addition to reforms within the health care system, effectively addressing social determinants of health will require sweeping changes, potentially encompassing issues such as affordable housing, environmental justice, and other broad reforms to combat structural and institutional racism.[246]

Recommendations

The Democratic staff of the Senate Health, Education, Labor, and Pensions (HELP) Committee make the following recommendations to HELP Committee members and to Congress. These recommendations respond both to the disproportionate impact COVID-19 is having on communities of color as well as the longstanding systemic issues described in this report. These recommendations are just a few of the immediate things that Congress should consider in order to address inequality, underinvestment, discrimination, bias, and lack of access to care – and are primarily limited to the HELP Committee's jurisdiction.

Congress Must Take Immediate Action to Support Black, Latinx, Tribal, and Other Communities with High Rates of Illness and Death During the Pandemic.

There is no question that Black, Latinx, and Tribal communities are experiencing disproportionately high rates of morbidity and mortality from COVID-19. Every moment wasted without a comprehensive federal response that recognizes these disparities means more sickness, pain, and death for families of color. Congress must take immediate steps to provide unprecedented support to the nation's public health infrastructure and community resources and ensure assistance is reaching those communities that need it the most. Congress should:

- **Provide significant new funding, resources, and support to communities of color and others disproportionately impacted by the pandemic.** All future pandemic relief legislation must include dedicated resources for communities of color, including but not limited to resources to ensure access to testing and therapeutics, enhanced public health infrastructure, and material supports for isolation and quarantine. This funding should include support for organizations that represent and serve these communities.

- **Require the Trump Administration to plan for equitable vaccine distribution and administration, with a particular focus on reaching communities of color.** The Trump Administration must develop and implement a sufficient, comprehensive national vaccine plan that addresses all aspects of a successful vaccination campaign and work toward making that plan a reality. Although the Trump Administration has outlined some elements of a vaccine distribution plan, much more information is required to address equitable allocation of safe and effective COVID-19 vaccines to ensure they are cost-free to everyone, targeted to the most vulnerable, and available through providers in underserved communities. The Trump Administration must also work with communities to build vaccine confidence, especially in communities of color.

- **Fund expanded testing and contact tracing efforts in communities of color.** In order to mitigate the spread of COVID-19, the federal government must support the efforts of state, local, Tribal, and territorial governments to scale up testing and contact tracing initiatives that aim to reduce the spread of COVID-19. Resources should be targeted to ensure these efforts are effective in communities of color.

- **Protect workers from exposure to COVID-19 on the job.** Congress must require the Department of Labor and CDC to issue robust, detailed, industry-specific, and evidence-based guidance and workplace standards about the steps employers need to take to protect workers from exposure to COVID-19. This effort must include the Department of Labor issuing an enforceable Occupational Safety and Health Administration (OSHA) standard for infectious disease so that workers, including the workers of color who hold a disproportionate number of the essential jobs that put workers at higher risk for COVID-19 exposure, can hold employers accountable for creating safe workplaces.

- **Create a federal right to paid sick days and paid family and medical leave.** The pandemic has clearly and dramatically demonstrated the necessity of paid leave for both workers' and their families' economic security and public health. Without paid leave, workers may fall into an untenable position of choosing between their jobs or staying at home to protect their communities and families from COVID-19 – particularly workers in low-wage, essential jobs, many of whom are workers of color. Congress should pass legislation to expand and make permanent the federal right to paid sick and paid family and medical leave, including the FAMILIES Act, the Healthy Families Act, and the PAID Leave Act.

- **Support the aging network to better serve the needs of older adults of color**. Older adults, and especially older adults of color and those residing in long-term care facilities, are being disproportionately impacted by COVID-19. Congress should ensure the aging network, including state and local area agencies on aging and programs authorized under the Older Americans Act, has adequate resources to respond to the pandemic and address the health care needs of older adults. This effort should include significant funding for nutrition services, family caregiver supports, case management services, programs to combat the impact of social isolation, and other supportive services. Additionally, Congress should provide resources to public health departments to build aging expertise and promote older adult health and well-being during and following the pandemic.

- **Support comprehensive and accurate COVID-19 data collection**. In order to fully understand the impact of COVID-19 on communities of color, we need timely, complete, consistent, and accurate data collection. Long-term investments to modernize the public health data system are crucial to inform and enable comprehensive system change to reduce and eventually eliminate disparities. In the immediate term, Congress should require improved data collection and reporting and provide a short-term funding surge to assist state, local, Tribal, and territorial governments and other entities with data reporting and collection tools to better understand and mitigate the impact of COVID-19 across communities of color. Congress should also require CDC to create a plan to collect disaggregated data on COVID-19 among people with disabilities, AAPI communities, as well as on LGBTQIA+ people, when appropriate.

- **Establish a task force to better understand and respond to COVID-19 related racial and ethnic disparities**. Congress should establish a task force comprised of government officials, experts, and representatives from community-based organizations addressing racial and ethnic inequality in health care, with the mandate to focus specifically on COVID-19 related disparities. The task force should provide ongoing recommendations for targeted resource allocation, ensuring inclusion in clinical trials, and policies to reduce the disparities experienced by communities of color.

Congress Must Work to Reduce Bias and Discrimination in the Health Care System.

Since the 1960s, Congress has taken steps to address racism and bias in the health care system by passing landmark legislation including the Civil Rights Act of 1964 and the Affordable Care Act, both of which included explicit prohibitions against discriminatory conduct in health care settings. Unfortunately, the legacy of exploitation and discrimination continue to shape the way our systems are built today. Too often, implicit and explicit stereotypes, bias, racism, sexism, ableism, and other forms of discrimination impact the quality of care that patients receive and the ability of health care workers of color to do their jobs. This is particularly true for people of color who are women, who have a disability, who are LBGTQIA+, and others who may experience multiple forms of discrimination.

Congress should pass comprehensive legislation to reduce inequality and bias faced by people of color and others when they seek or provide medical care. Such efforts could include:

- **Reduce discrimination against patients of color in the health care system.** Congress must ensure no person is discriminated against in the health care system because of their race, color, national origin, sex (including sexual orientation and gender identity,) age, or disability. While some of these protections were included in Section 1557 of the Affordable Care Act, the Trump Administration has revoked these protections and made it harder for patients to enforce their rights. Congress must make clear that such discrimination is prohibited and strengthen enforcement and accountability measures to ensure patients can hold providers accountable for bias and discrimination.

- **Strengthen workplace protections to prevent discrimination in health care settings.** Congress should pass legislation to make it easier for health care workers to hold employers accountable for providing workplaces free of harassment and discrimination. Currently, too few workplaces offer adequate policies and training for staff, and courts have created barriers making it too difficult for workers who are discriminated against to successfully bring claims. Moreover, many workers, including independent contractors, are left out of federal nondiscrimination protections. Passing legislation such as the Be HEARD in the Workplace Act will help to address these issues, including for workers of Asian descent who are facing a resurgence of anti-Asian discrimination, as well as other workers of color, workers with disabilities, women, LGBTQIA+ workers, and older workers.

- **Require anti-racist and anti-bias training for health care professionals and across health care systems.** Health professionals, including public health officials and health care providers, and any health care staff interacting with patients, should undergo anti-racist and anti-bias training to identify and reduce instances of implicit bias and explicit bias against people of color, including those with disabilities and English language learners. Additionally, Congress should support systems of review and accountability to ensure training and other tools for reducing bias and racism are actually working to improve quality of care and health outcomes for patients.

- **Provide support to Black, Latinx, Tribal, and other underrepresented people to train and pursue careers in public health and as health care providers.** Resources should be allocated to encourage, recruit, and retain people of color, including those who are LGBTQIA+, people with disabilities, women, and others often underrepresented in health care fields, to pursue and maintain careers in health care. These investments would help to shape a health care workforce that not only reflects the demographics of the overall population, but may also lead to better care for patients and ensure priorities for improving health care reflect the needs of these communities. For example, Congress should increase investments for the area health education centers (AHEC) program to further enhance health care education and training networks within communities of color.

- **Ensure clinical trials are inclusive of people of color.** People of color and their health care providers need to have sufficient information about the risks and benefits of medical products to make informed decisions about patient care. Ensuring sufficient enrollment of underrepresented populations in clinical trials means designing trials to address barriers to participation. Congress should encourage the implementation of inclusive trial design criteria whenever feasible by all agencies that sponsor or oversee clinical trials and provide sufficient funding for trial sponsors to conduct necessary community engagement. Congress should also support campaigns that raise awareness of the availability and importance of clinical trials among potential participants through culturally aware, multilingual outreach efforts.

- **Invest in researchers of color and research that serves communities of color.** Congress should require research funding agencies, such as the National Institutes of Health, to increase spending that will target researchers of color, as well as Historically Black Colleges and Universities (HBCUs) and research centers that predominantly serve communities of color. Congress should also require federal agencies to provide technical assistance and funding support to build grant management capacity at HBCUs.

- **Reduce disparities in research funding rates and eliminate harassment in the sciences.** Congress should require NIH to develop specific goals and metrics through which the agency will reduce racial, ethnic, and gender-based funding gaps in research awards, with an aim to increase equitable distribution of funding to researchers of color and female researchers. Congress should also require NIH to examine how it can bolster funding for research on health conditions that disproportionately impact communities of color. Additionally, NIH should continue to build on its existing work combating harassment and make concrete commitments to eliminate all forms of harassment within the research enterprise.

- **Authorize and fund grants for interpretation and translation services, and ensure rights to access information are enforced.** For federal resources to effectively address racial and ethnic disparities in health care, they must be accessible to all people. Information about health care services must be widely available in formats accessible to English language learners and people with disabilities to ensure they can fully understand their rights and the resources available to them. Congress should provide grants to state, local, Tribal, and territorial governments, and community-based organizations to assist with interpreting and translation services. Congress should also ensure the Trump Administration responds to violations of the Americans with Disabilities Act when information is not provided in an accessible format for people with disabilities.

- **Authorize and fund grant programs to improve health equity for people of color with disabilities.** Action is needed to improve health equity for people of color with disabilities, including training of health care professionals in reducing bias and providing appropriate care, increasing the number of health care professionals with disabilities to improve representation, and increasing tax credits to ensure health care buildings are accessible. Congress should also authorize a study to assess the current accessibility of health care facilities for people with disabilities.

- **Authorize and fund a CDC grant program to fund a Health Equity Officer in state and local public health departments.** Achieving health equity will require a response from all levels of government, but under-resourced state and local health departments are struggling to keep up, let alone make progress against longstanding structural inequality. Congress should fund, through CDC, grants to state and local health departments for the creation and support of a Health Equity Officer. Health Equity Officers must be fully integrated across departments and empowered to work with social service agencies and organizations to better address social determinants of health and support integration of solutions into the health care system. This official will be responsible for pulling together a comprehensive, cross-cutting strategy to achieve health equity in their community.

Congress Must Ensure Families of Color, Particularly Low-Income Families, Have Access to Affordable, High-Quality Health Care.

The current health care system, with its over-reliance on the market to deliver goods and services essential to physical, mental, and social wellbeing, is largely failing communities of color. Congress must consider comprehensive and expansive reforms to address this tragic history of neglect and longstanding failures, including reforming our patchwork system of health insurance coverage to simplify and democratize access for all. There are a number of options to reform and greatly expand access to affordable, high-quality health care and make the system more accountable to voters–including through the creation of a single publicly accountable payer, the expansion of existing publicly administered payers like Medicare and Medicaid, or the creation of a new public option.

We must consider reforms to the practice of medicine in a market-based system that too often targets the wealthiest patients and seeks the highest profit margin – rather than serving patients who need care to achieve the greatest social gain. Additionally, Congress should consider the following steps to increase access for families of color:

- **Make insurance more accessible and affordable.** Congress should build on the Affordable Care Act to significantly expand the availability and accessibility of health insurance coverage. A Special Enrollment Period (SEP) would widen access to health insurance coverage in the short term for those who need it and who have too often lost coverage as a result of the pandemic’s disruption of the economy. Beyond the context of the public health emergency, increasing the value of Advance Premium Tax Credits (APTCs) for those already eligible, and lifting the cap on APTC eligibility for households with incomes above 400 percent of Federal poverty, would help more patients and families afford comprehensive coverage. Congress should also close gaps in the system that raise costs for families – for example, by fixing the “family glitch,” which locks families out of affordable coverage and by limiting APTC amounts to be paid back if income rises, especially for vulnerable groups.

- **Strengthen and stabilize state-based individual insurance markets**. Congress should fully fund efforts to states to establish state-based health insurance marketplaces in all states and territories. Congress should also provide states with funding to establish reinsurance programs to stabilize insurance markets and reduce premiums. Finally, Congress should ban the sale of short term “junk” plans and rescind waivers that undermine protections for people with pre-existing conditions and weaken standards for essential health benefits.

- **Provide full Federal matching funds to states that expand Medicaid.** Millions of Americans fall into a coverage gap in that they do not qualify for either Medicaid or APTC on the marketplace. Congress should pass legislation to close the coverage gap by providing states that expand Medicaid after 2014 full Federal matching funds. Closing the coverage gap would also have the benefit of making millions of enrollees in those states' marketplaces eligible for Medicaid, and likely reducing their premiums and out-of-pocket costs.

- **Protect existing Medicaid and CHIP beneficiaries from coverage gaps.** Congress should mandate that all Medicaid and CHIP beneficiaries receive 12 months of continuous coverage after initial enrollment and Medicaid-eligible new mothers remain enrolled for at least 12 months post-partum. Congress should enact mandatory screening of Medicaid eligibility for individuals transitioning out of incarceration and require all eligible individuals to be enrolled prior to release.

- **Fund programs to connect communities of color, Tribal communities, people with disabilities, English language learners, and other uninsured or underinsured groups with coverage.** Congress should increase funding for outreach and enrollment activities to encourage enrollment by providing appropriate information to consumers about their health insurance options, including eligibility for APTCs, Medicaid, and CHIP, and explaining key insurance terms such as deductibles, co-pays, and coinsurance. Outreach materials should also be tailored to target key underserved populations, including those who may not speak English.

- **Expand coverage eligibility for immigrant communities.** Congress should expand Medicaid and CHIP eligibility to DACA recipients and remove the existing five-year waiting period for Medicaid and CHIP for lawful permanent residents. Congress should also support expanded coverage for undocumented people, including by enabling them to purchase coverage on the ACA marketplaces and benefit from tax credits and cost-sharing reductions if they are eligible. Congress should also restore Medicaid eligibility for COFA (Compact of Free Association) migrants.

- **Provide robust investments in primary care programs and support the expansion of the health care workforce in communities of color.** Congress should provide robust, long-term investments for primary care programs, including community health centers, teaching health centers, the National Health Service Corps, family planning clinics, and other safety net and Health Resources and Services Administration programs to make sure affordable, quality health care is available to those most in need. These critical programs are essential in providing health care services to underserved communities, including communities of color, as well as fostering the expansion of the health care workforce.

Congress Must Make New Financial Investments in the Health of Communities of Color.

This report and its recommendations focus almost exclusively on issues within the health care system, but Congress and policymakers at all levels must recognize the interconnectedness of health with the other factors that relate to the way people live, work, and engage in their communities. Long-term efforts to address health disparities will ultimately be unsuccessful if they do not also address underlying structures that prolong and entrench racist systems and discriminatory behaviors.

Addressing these social determinants of health outside of the health care system will require non-clinical interventions, such as removing toxins from living environments, removing barriers to safe, affordable housing, providing reliable transportation options, or improving access to nutritious foods. Programs to address these issues should be tailored to better respond to and address inequality that harms communities of color.

Congress should take action to improve public health and ensure communities of color have the opportunity to address their health care needs, including by taking the following steps:

- **Bolster public health departments' capability to address racial and ethnic disparities.** Congress should create a robust, sustained, mandatory investment of $4.5 billion annually in public health infrastructure that bolsters health departments' capability to correct health inequities. Sustained, long-term investment in the nation's public health infrastructure is critical to strengthen foundational public health capabilities, bolster the current COVID-19 response, and prepare for future public health emergencies. These investments are critical to strengthening the work of state, local, Tribal, and territorial health departments to better understand and address racial and ethnic inequality.

- **Support community health workers in communities of color**. Community health workers can assist in connecting individuals and communities with the health care system and other social services. For example, community health workers can help to reduce barriers to accessing necessary health care, including providing education and resources to individuals without internet or with mobility or language access challenges. Congress should support programs that utilize community health workers and other community-driven efforts.

- **Increase support for mental health care for people of color**. Systemic racism and increased risk of contracting COVID-19 can lead to increased anxiety and other mental health challenges for communities of color. Additionally, while Congress has supported many efforts to reduce and respond to substance use disorder (SUD), communities of color are still experiencing SUD at higher rates and often have fewer options when it comes to treatment for opioid use disorder. Congress should provide additional resources for culturally sensitive mental health care providers in communities of color to ensure everyone has access to the mental health care and substance use disorder treatment they need.

- **Authorize programs to improve access to nutritious food within communities of color.** Nutrition is an important aspect of positive health outcomes. Congress should support efforts to improve access to nutritious food in current food deserts through strengthened public health programs, public-private partnerships, funding for community-based agriculture and farmers markets, and support for good nutrition in child care and school settings. Congress should enact stricter requirements for food marketing to children, which often targets children of color, and require the Dietary Guidelines for Americans to consider recommendations related to addressing disparities in the incidence of preventable, diet-related diseases.

- **Strengthen regulation of tobacco products.** The disproportionate impact of tobacco products on communities of color has contributed to shortened life expectancy and increased health care costs, particularly for Black Americans. Congress should strengthen laws to prevent tobacco companies from targeting a new generation of kids and getting them addicted to tobacco products – beginning with banning the use of all flavors in tobacco products, including a prohibition on flavors in e-cigarettes unless or until a thorough FDA review shows they benefit public health, and bolstering investments in culturally and linguistically competent tobacco use prevention and cessation programs. Action to prohibit the use of flavors in little cigars and to prohibit menthol in cigarettes is particularly important in order to address the disproportionate impact of tobacco on Black Americans.

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COVID-19: Politics, Inequalities, and Pandemic

Equitable Pandemic Preparedness and Rapid Response: Lessons from COVID-19 for Pandemic Health Equity

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Abstract The novel coronavirus pandemic has set in high relief the entrenched health, social, racial, political, and economic inequities within American society as the incidence of severe morbidity and mortality from the disease caused by the virus appears to be much greater in black and other racial/ethnic minority populations, within homeless and incarcerated populations, and in lower-income communities in general. The reality is that the United States is ill equipped to realize health equity in prevention and control efforts for any type of health outcome, including an infectious disease pandemic. In this article, the authors address an important question: When new waves of the current pandemic emerge, or another novel pandemic emerges, how can the United States be better prepared and also ensure a rapid response that reduces rather than exacerbates social and health inequities? The authors argue for a health equity framework to pandemic preparedness that is grounded in meaningful community engagement and that, while recognizing the fundamental causes of social and health inequity, has a clear focus on upstream and midstream preparedness and downstream rapid response efforts that put social and health equity at the forefront.

Keywords COVID-19, health equity, preparedness, pandemic, community engagement, inequities

As epidemiologic data regarding the novel severe acute respiratory syndrome coronavirus 2 started to emerge in the United States in March 2020, it quickly became obvious that this virus is not an equal-opportunity threat. The incidence of severe disease and mortality from COVID-19 (the disease caused by the virus) appears to be much greater in black and other racial/ethnic minority populations, within homeless and incarcerated populations, and in lower-income communities in general (Artiga et al. 2020; Mosites et al. 2020). COVID-19-related health inequities—from testing access to mortality—have captured the attention of the mainstream media, clinicians, researchers, and health advocates alike.

Much discussion around COVID-19 inequities has focused on individual-level characteristics and behaviors. Many reports explain the disproportionate burden of severe COVID-19 morbidity and mortality among people of color by noting the higher prevalence within those communities of underlying health conditions such as obesity, diabetes, and asthma (Kendi 2020). This includes Surgeon General Jerome Adams, who beseeched communities of color to follow Centers for Disease Control and Prevention (CDC) behavioral guidelines to prevent the further spread of COVID-19 within their families and communities, and to limit their smoking, drinking, and drug use.

However, as data on COVID-19 inequities emerged, the immediate response of health equity researchers and advocates was one of horror but not surprise, with a different set of explanations and advice. First, at the individual level, people in different socioeconomic circumstances do not have the same ability to follow the chorus of CDC advice: wash your hands, stay home, and self-isolate if you have symptoms. Isolation is impossible in households with multiple families or in settings such as jails and prisons. Hand washing is impossible when your water has been shut off. Further, some of CDC's advice and state and local emergency orders, while seemingly innocuous, were developed and communicated without consideration of the implications for communities of color. For example, recommendations and mandates to wear a face mask in public are problematic for many black men who perceive covering their faces more of a threat to their health than the coronavirus itself.

Second, the novel coronavirus has set in high relief the entrenched health, social, racial, political, and economic inequities within American society. As a result of decades of public policies that have further concentrated wealth and other resources in a smaller, privileged corner of society, communities of color and other marginalized populations—those living in or near poverty, the homeless, people within the carceral system, immigrants, and so on—find themselves with limited to no economic cushion or social advantage while they grapple with physical and mental health comorbidities caused, in part, by the same unjust policies that increase their communities' vulnerability to COVID-19. In addition, the social and economic downsides of stay-at-home orders and other necessary public health interventions also hit lower-income and minority communities harder. Several health advocates, journalists, and researchers have provided insight into how the novel coronavirus has exploited decades of structural inequity — no health insurance, no paid sick leave, no affordable housing, deep underinvestment in inner cities, lack of access to banking, reliance on public schools for food security, and so on — to disproportionally strike historically marginalized and underresourced populations (O'Donnell 2020; Tobin-Tyler 2020; Villarosa 2020).

Importantly, the inequities emerging in the COVID-19 pandemic are not *due* to race or social class. Rather, they are the result of structural racism and social inequalities embedded within the economic, political, education, health care, criminal justice, and other systems and social structures in the United States. Understanding the fundamental causes of COVID-19 health inequities requires appreciating that the more proximate causes — higher rates of serious medical conditions, living in crowded housing, inability to work from home, and so on — are themselves the result of social inequalities produced by social systems reinforced through public policy (Phelan, Link and Tehranifar 2010). As Ronald Braithwate and Rueben Warren (2020) wrote, "Any virulent virus without a vaccine is bound to become a human petri dish in which people of color in the US today are caught. . . . The war against the coronavirus for people of color is part and parcel of the war to eliminate historic inequities and to level the socioeconomic playing field."

The sad reality is that the United States is ill equipped to realize health equity in prevention and control efforts for any type of health outcome, including an infectious disease pandemic. Solutions to the fundamental causes of health inequities will require deep structural changes to American policy, politics, mindset, and culture. While we endorse the vision of long-term upstream policy and system change goals, we are skeptical that such dramatic transformations are realistic in the short or midterm. Thus, as the health equity community advocates for long-term structural changes, in the face of a novel infectious disease pandemic we must also prepare for the interim and respond to the immediate.

In this article, we address an important question: When new waves of the current pandemic emerge or another novel pandemic emerges, how can the United States be better prepared and ensure a rapid response that reduces rather than exacerbates social and health inequities? We argue for a health equity framework to pandemic preparedness that, while recognizing the fundamental causes of social and health inequity, has a clear focus on upstream and midstream preparedness and downstream rapid response efforts that put social and health equity at the forefront.

A Model for Health Equity Infectious Disease Preparedness

Sandra Crouse Quinn and Supriya Kumar (2014) describe the distal and proximate causes of infectious disease–related inequities and put forward a framework to intervene on both sets of risk factors. Building on Blumenshine et al.'s (2008) work on possible sources of disparate and unequal outcomes in an influenza pandemic, this framework considers disparities based on social position (race/ethnicity and socioeconomic status) at three levels: (1) in exposure to the virus; (2) in disease susceptibility, if exposed; and (3) in timely and effective treatment, once disease has developed. Key contributors to disparities include occupational factors, crowding in house-holds, nutritional status, stress, access to health care, primary language, and availability of antivirals.

Based on their prior work in India and the United States, Quinn et al. (2011) and Kumar and Quinn (2012) conceptualized the plausible causes of unequal burdens of illness and death during a pandemic. Their 2014 conceptual model makes explicit that there are both proximal (i.e., downstream, behavioral, and biological) and distal (i.e., upstream, social, and policy) risk factors that contribute to inequities in a pandemic. Key distal factors are population structure, access to clean water, ability to stay away from work, and availability of quality health care. Proximal risks for dis-parities are related to behaviors such as hand washing and social distanc-ing, immediate access to health care, and underlying susceptibility to disease due to nutritional status and chronic stress, which causes phys-iological dysregulations, inflammation, and impaired immune response (Juster, McEwen, and Lupien 2010).

In the sections below, we apply Quinn and Kumar's model to the current COVID-19 pandemic by (1) connecting their framework's "distal" and "proximate" causes of disparities to current taxonomies regarding upstream and midstream social determinants of health and more proximate downstream individual social risks; (2) recommending two spe-cific paths of action, one focused on social determinant–related health equity preparedness and the other on a set of downstream, health equity–promoting rapid response efforts; and (3) underscoring and strengthening the framework's commitment to data collection and community engagement as nonnegotiable components of a health equity preparedness paradigm for infectious disease.

Upstream and Midstream Social Determinants and Downstream Social Needs

There is now widespread recognition that health—at the individual, community, and population levels—is the result of much more than health care quality and access (Solar and Irwin 2010; Woolf and Braveman 2011). The main drivers of health are socioeconomic, environmental, and behavioral factors that play out at multiple levels within society. The socioecological model of population health and human development includes five levels at which social processes and factors produce both health and health inequities (Richard, Gauvin, and Raine 2011). This includes intrapersonal, interpersonal, institutional, community, and system or macrolevel factors. All levels are embedded within and influenced by higher levels in the model and create specific types of health distributions and inequities. In addition, all levels in the model provide opportunities for intervention, although it is the more upstream system, or macrolevel, factors that shape the midstream community and institutional factors, which in turn create unequal health outcomes at the downstream, individual level.

The "distal" and "proximate" causes of pandemic inequalities can be further extended using the socioecological and other models of the social determinants of health to distinguish the system- and macrolevel, or upstream, determinants from the midstream (community and institutional) determinants, and to distinguish both from the more downstream individual-level manifestations of exposures, risks, and social needs (Castrucci and Auerbach 2019). Distinguishing between upstream and midstream determinants of health and the downstream manifestations of those drivers within individuals is important for both understanding the causes of health inequity and identifying key focal points for intervention.

For example, there is a difference between identifying and assisting individuals who are unable to afford rent during pandemic stay-at-home orders versus creating higher levels of housing affordability and paid sick leave within communities and jurisdictions. This distinction is crucial since interventions that address downstream social needs that benefit individuals often do not impact community-level social determinants that are driven by policy choices and are therefore not amenable to person-level action. In addition, focusing on the individual-level needs and outcomes tends to prioritize health care and biomedical responses, conflating *health* with *health care* and conflating social determinants of health with individual social needs (Alderwick and Gottlieb 2019; Lantz 2019).

Quinn and Kumar's (2014) "distal" and "proximate" causes of infectious disease disparities map cleanly onto models of the social determinants of health at the midstream and downstream levels. Institutional policies dictate whether certain classes of workers have the flexibility to isolate at home. Health care provider shortage areas are driven, in part, by government decisions that then unfairly predispose certain communities to inequitable access to care and treatment during an infectious disease pandemic. To prepare for how upstream social factors create health inequities means reforming those systems, policies, and structures to more equita-bly distribute resources and reduce immediate burdens within and across communities.

That immediate burden (Quinn and Kumar's "proximate causes") is characterized by what individuals within those communities need to survive an epidemic: a home in which to shelter, running water, affordable and trusted health care when needed. The rapid responses necessary to help individuals in crisis—temporary housing, flexible deployment of health care resources—are distinct from longer-term policy changes necessary to prepare for and undo the social determinants. Thus, we make two sets of recommendations below: actions to support pandemic health equity pre-paredness at the distal and social-determinant level, and actions to develop a pandemic health equity rapid response at the proximate level. Our rec-ommendations below springboard from prior research and recommenda-tions regarding the critical need for a strong health equity perspective in disaster and pandemic planning efforts (Davis et al. 2010; Lichtveld 2018; Mays 2016) and from what has been observed in the current COVID-19 crisis to date.

Upstream and Midstream Preparedness and Downstream Rapid Response

We recommend that new or revised pandemic preparedness plans at the federal, regional, state, and local levels be grounded in community engagement, built from community assets, and be evidence- and data-driven (discussed in more detail below). We also recommend that these plans identify the key ways in which policy, community, and institutional-level factors could create differences in the ability of people of different socio-economic positions or sociodemographic groups to prevent exposure or avoid severe morbidity or mortality from an infectious agent.

Infectious disease preparedness needs, at a minimum, to address *upstream and midstream policy and institutional factors* in certain key areas, as outlined in table 1.

Table 1 Essential Multisector Actions for Pandemic Health Equity Preparedness

Build strong public health infrastructure that includes:

- Stockpiles of essential materials to prevent exposure (e.g., high-quality masks, hand sanitizer, personal protective equipment, etc.)
- Stockpiles of essential materials for testing, diagnosis, and antibody testing
- Plans for the equitable distribution of stockpiled materials
- Access to rapid disease testing, antibody testing, diagnosis, and follow up
- Rapid contact tracing
- Increases in funding to local, state, regional, tribal, and federal public health agencies

Ensure the material conditions of health for all (as defined by the World Health Organization):

- Strong food access and security systems
- High levels of housing security and affordability
- Low levels of housing crowding
- High levels of air and water quality
- Prohibitions on evictions and significant rent hikes during epidemics and pandemics
- Prohibitions on water and other utility shutoffs during epidemics and pandemics
- Financial access to health care (health insurance coverage)
- Strong health care safety net system, including community health centers and public health clinics
- Sufficient health care providers (doctors, nurses, psychologists, community health workers, etc.) to meet all communities' needs

Ensure basic economic security for individuals and families:

- Living wage policy to reduce poverty and economic hardship in communities
- Paid sick leave
- Rapid and easy access to unemployment benefits and other public assistance
- Consider Universal Basic Income (UBI) proposals

Provide and subsidize access to important technology for information, home schooling, public services, personal finances, public health surveillance and voting:

- Widespread access to free or low-cost internet for individuals and families
- Technology support for home schooling and home-based work
- Financial technology: widespread access to online banking, automobile registration and licensure, rent or mortgage payments, etc.
- Design and implementation of efficient and user-friendly systems for applying for and receiving public assistance, financial assistance, and social services
- Smartphone technology for infectious disease exposure and contact tracing
- Clear policies that make voting by absentee ballot and by mail easy and secure

Table 1 Essential Multisector Actions for Pandemic Health Equity Preparedness (*continued*)

Implement and enforce infectious disease prevention and control in congregate settings:
▪ Better enforcement of current regulations in nursing homes, psychiatric hospitals, rehabilitation centers, jails and prisons, shelters, transitional housing, etc. ▪ Plans for prevention and control of infectious disease in community epidemics and pandemics ▪ Reduction of number of people incarcerated.
Safety standards and plans for public transportation:
▪ Protection of drivers and other essential workers ▪ Plans for physical distancing boarding, disembarking, and traveling

We also recommend that a health equity lens be applied to preparations for *downstream rapid response*. Pandemics place a substantial burden on the resources and capacities of governments, public health, and health care systems, often exposing underlying weaknesses. As these interconnected systems shift to crisis mode, implementing pandemic preparedness plans may leave behind individuals and communities already socially vulnerable (Kayman and Ablorh-Odjidja 2006). During an emergency, health equity must be a priority and intentional strategies are required to embed distributive justice into the immediate response. Given the differing sociocultural and economic needs of diverse populations, the specific strategies will vary in important ways only identifiable through the meaningful community engagement described below.

During an infectious disease pandemic, public health, government, and health care systems must rapidly respond to prevent and address inequities in the areas outlined in table 2 (Bedford et al. 2019; Vaughan and Tinker 2009; Zarocostas 2020).

Data Collection and Community Engagement: Quinn and Kumar (2014: 268) also note the importance of investing in surveillance systems that can both detect novel agents and outbreaks early and capture sociodemographic and GIS information on incident cases to draw “attention to the larger, social, economic and physical environments in which those cases occur.”

The United States’ ongoing difficulty with collecting and reporting race and ethnicity data during the current coronavirus pandemic demonstrates how far we are from the health equity–promoting surveillance capabilities

Table 2 Pandemic Health Equity Rapid Response Tactics

Effectively communicate health risk:

- Engage trusted community organizations and leaders to develop and disseminate messaging
- Develop messaging that is relevant to socially vulnerable communities and recognizes the varying socioeconomic needs and differing levels of trust of health systems and government
- Create materials at the appropriate reading level for broad audiences
- Make information available in multiple languages using processes beyond translation that include a cultural understanding of specific communities with limited English proficiency
- Use channels viewed as trusted and credible by socially vulnerable communities

Implement socioculturally appropriate surveillance and risk reduction strategies:

- Create community-based surveillance programs that leverage community assets
- Use community health workers and public health educators to collect surveillance data and share risk reduction information
- Distribute information and supplies for risk reduction such as masks and hand sanitizer via community- and faith-based organizations

Have emergency policies and executive orders ready to be rapidly implemented:

- Determine before a crisis what constitutes essential versus nonessential services
- Require employers of front-line service providers (e.g., grocery and other retail stores, pharmacies, food plants, delivery services, etc.) to provide workers with PPE and paid sick leave

Ensure timely and easily accessible testing:

- Use community-level data such as social vulnerability indices, availability of transportation, and population density to determine location and hours of operation for testing sites
- Locate testing within the most socially vulnerable communities, ideally co-located with trusted community organizations
- Provide testing at no cost, regardless of insurance status
- Offer free transportation to testing sites
- Monitor testing access data disaggregated by race, ethnicity, and language, and rapidly shift or expand testing based on identified inequities
- Provide resources and post-testing information in multiple languages

Provide equitable and rapid access to quality health care:

- Broadly disseminate maps and location details of health care providers and clinics
- Deploy mobile testing and treatment units in communities with limited transportation access
- Engage trusted community organizations in messaging and ensure information is available in multiple languages

Table 2 Pandemic Health Equity Rapid Response Tactics (*continued*)

Provide equitable and rapid access to quality health care:

- Extend hours of access and provide free transportation
- Suspend any requirements for insurance or documentation of residence
- Prioritize support for health care providers in socially vulnerable communities
    * Local, state, and national funds should give priority to safety net providers and recognize differential needs given availability of resources at baseline
    * Government, public health, and health systems with greater resources should share tools, protocols, and knowledge to enable community-level response
- Compare hospitalizations, use of specific treatments, and deaths by race, ethnicity, language, as well as social risk factors and determinants and create plans to address any differences identified
- Ensure treatment and discharge information is available at the appropriate reading level and in multiple languages
- Provide follow up care at no cost

Provide equitable and rapid access to social and economic relief programs:

- Prioritize distribution of economic relief to communities identified as having the most urgent need based on surveillance data
- Provide financial support to community- and faith-based organizations and other social service agencies to ensure service continuity and capacity

Quinn and Kumar describe. Indeed, after government and nonprofit entities demanded through letters and op-eds that the CDC release the data stratified by race and ethnicity, 78% of the information on incident cases that the CDC (2020) published was missing race and ethnicity information.

Race and ethnicity represent only the tip of the iceberg in terms of what information is needed to orient infectious disease preparedness and rapid response activities toward health equity. Indeed, neither race nor ethnicity are modifiable risk factors. Rather, they are poor proxies for the social risks and social determinants to which communities of color and the residents who live within them are exposed. Beyond sociodemographic data, we need standardized, valid, inclusive data collection on the social needs and social determinants most likely to correlate with increased exposure, susceptibility, and severity of infectious diseases. Fortunately, those data points are known. The CDC released a Social Vulnerability Index (SVI) in 2011 and noted that a "number of factors including poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss in a disaster" (CDC 2011). Unfortunately, the SVI was not incorporated into COVID-19 responses.

To successfully promote health equity, surveillance system data must:

1. Include standardized, core measures that all relevant sectors (health care, public health, social services, etc.) agree to use.
2. Allow for data sharing across those sectors while protecting individuals' information.
3. Relate to and complement other crucial data collections (such as using formal ICD-10 Z codes to identify social needs in clinical settings, or vital statistics reporting for public health departments).
4. Capture macrolevel data on the social determinants of health geocoded to home addresses when possible, at units of geography that correspond to meaningful, locally defined neighborhoods (i.e., census block, not 5-digit zip code).
5. Capture self-reported social needs and vulnerabilities and sociodemographic data including race and ethnicity in ways that allow for the valid, nonstigmatizing collection of potentially sensitive personal information.

To achieve that final requirement, and indeed to make the health equity preparedness and rapid response actions discussed above successful, patient and community engagement is crucial. Broadly defined, community engagement is the application of institutional resources (e.g., knowledge and expertise of faculty and students, technical infrastructure, and physical space) to address and solve challenges facing communities through collaboration with those communities (Gelmon et al. 2005). Community engagement requires bidirectional relationships and interactions that are built on trust, mutual respect, cultural humility, and mutual benefit (Wilkins and Alberti 2019).

To develop appropriate sociodemographic and social-needs screening tools as well as the clinical, public health, and social-service workflows that will yield the most complete and valid data, patients and community members must be engaged as equal partners in the work. Community members must be seen as contributors whose wisdom and experience navigating their communities can ensure the relevance and effectiveness of interventions to address the social factors identified through the data collection. Further, this bidirectional engagement will build trust between local communities and academic, heath care, and government institutions without which public health guidance is less likely to be followed and data collection less likely to be comprehensive and produce actionable information.

Conclusion

The novel coronavirus did not create the conditions for health and social inequity, nor did it reveal heretofore unrecognized health or social injustices. Rather, the virus and its related illness took advantage of long-standing health, social, political, and economic inequities in the United States to once again ensure that the most marginalized and underresourced communities suffer the most. While one could argue that the US response to the pandemic was inadequate across the board in terms of its timeliness and the seriousness with which initial warnings were translated into action, the lack of an intentional equity-focused approach to both preparedness and rapid response was especially egregious given that the results of that omission were so predictable.

We propose twin agendas for action grounded in evidence and community expertise. The first seeks to adjust our policies to specifically and intentionally ensure a more equitable distribution of health-promoting resources in preparedness efforts to improve population health in gen-eral and to mitigate the impact of social determinants of health during a pandemic crisis. The second seeks to adjust our rapid response actions to ensure that when in crisis, we make evidence-informed, community-engaged decisions about how to deploy those resources in ways that ensure the health and well-being of all, not just a privileged few. When the next pandemic hits, or when the next wave of this novel coronavirus crests, we hope this and other calls for action significantly increase our nation's abil-ity to promote social justice and health equity in both our responses and their outcomes.

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ARTICLE

A Systems Approach to Addressing Covid-19 Health Inequities

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Racial and ethnic minorities are dying from Covid-19 at alarmingly high rates, which demands immediate action. Health system leaders cannot allow other priorities to interfere with a commitment to address health inequities. Vanderbilt University Medical Center (VUMC) has embedded strategies to mitigate health inequities in its Covid-19 Command Center. A key strategy is the creation of interactive dashboards, which are reviewed daily and allow disaggregation by race, ethnicity, language, and ZIP Code. Of the first 45,954 patients tested for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) at VUMC, 2,310 had limited English proficiency (LEP). The positivity rate for patients with LEP was 26% compared with 6% for patients with English as a primary language. In addition to alerting local and state health departments of these higher rates, we created multilingual resources, assessed our interpreter services capacity, and engaged trusted community organizations. Early lessons learned at VUMC may help others implement a systems approach and immediately begin addressing Covid-19 health equity.

Inequities in the burden of Covid-19 have been uncovered among vulnerable populations across the world[1] and are particularly striking in racial and ethnic minorities in the United States.[2] In New York City, African Americans and Latinos diagnosed with Covid-19 had mortality rates that were 1.6 to 2 times higher than those of whites.[3] Across the United States, Covid-19 infections are threefold higher and mortality rates are sixfold higher in predominantly Black counties compared with predominantly white counties.[4] In Arizona, Native Americans make up 4.6% of the population but comprise 16% of the state's Covid-19–related deaths.[5,6] Although these inequities are acute, they reflect long-standing disparities in health that many communities, clinicians, and researchers have striven to address, often with too few resources and inconsistent public support.[7]

National and global media have drawn attention to these alarming Covid-19 health inequities, and, in response, communities, health care providers, and elected officials[8-10] are demanding answers and action. The causes of these inequities are likely multifold and involve differences in exposure, susceptibility, testing, and treatment.[11] Groups socially disadvantaged because of race/ethnicity, social position, and/or economic status may have greater exposure to the virus because of jobs that prevent work from home, dependence on childcare outside the home, reliance on public transportation, and household size. Poverty and experiences with discrimination and racism lead to chronic psychosocial stress, causing prolonged secretion of stress hormones, which leads to physiological dysregulation and inflammation.[12-14] The resulting maladaptation increases susceptibility both acutely, through impaired immune response to the virus,[15,16] and chronically, through predisposition to diabetes, obesity, and cardiovascular disease,[17] which are linked to worse Covid-19 outcomes.[18] Disadvantaged groups are less likely to have a primary care provider, medical home, or regular access to care and may have limited access to Covid-19 testing and treatment.[19,20]

Despite widespread concern about the excess Covid-19 burden and deaths among racial and ethnic minorities, little attention has been paid to immediate solutions. Dismantling upstream factors such as racism, economic opportunity, housing inequality, and food insecurity is critical to addressing health inequities, although doing so can be challenging, particularly during a pandemic. Some state and local governments are taking mitigating steps, for example, by placing a moratorium on evictions or expanding access to food assistance programs.[21] Such short-term policies are important for limiting economic burden but may not decrease Covid-19 infection rates or deaths. Directly addressing more proximal or downstream contributors such as lack of access to care and inequity in testing and treatment may be more feasible during this time and could immediately impact health outcomes.

> “*Despite widespread concern about the excess Covid-19 burden and deaths among racial and ethnic minorities, little attention has been paid to immediate solutions.*”

Leaders must do more than set broad goals to lessen or eliminate health inequities; they must develop specific, measurable objectives and implement strategies that will successfully address those inequities.

African American health care leaders recently published recommendations to address Covid-19 disparities.[22] In addition to addressing social determinants of health (SDOH) in the long term, they recommended immediate actions to record and report race and ethnicity data, ensure access to current and emerging treatment, provide mobile access to testing, and communicate via trusted community leaders. Health systems may have difficulty implementing these recommendations during a pandemic, particularly in the absence of an existing infrastructure to support health equity initiatives.

Interventions likely to be successful are often embedded in the community and are built on trusting relationships, which are developed over time.[23-25] Without well-established, mutually beneficial relationships, it may be difficult to effectively mobilize resources and partner with trusted community leaders during a pandemic. The lack of accuracy and incompleteness of race, ethnicity, and language (REAL) data in health records are long-standing issues and limit progress toward eliminating health inequities.[26,27] Similarly, ineffective recruitment and retention of racial and ethnic minorities into clinical trials is an ongoing challenge, and there has been minimal progress in the 25 years since the National Institutes of Health required reporting of race and ethnicity.[28]

A Systems Approach to Health Equity

We used a systems approach that emphasizes interdependence and interaction across the health system to address the complex drivers of Covid-19 inequities and rapidly respond to data trends in real time. As part of our Vanderbilt University Medical Center (VUMC) Covid-19 Command Center, we created a health equity workstream to prevent, identify, and address Covid-19–related inequities. (The Command Center refers to the team that coordinates the health system's response to an emergency or disaster, as well as the designated work space for those involved.) Led by our Office of Health Equity (OHE) and Vice President for Health Equity, we identified five initial areas of concentration: four Covid-19–specific areas focused on prevention, testing, treatment, and clinical research; and the fifth area, telehealth, which, although not specific to Covid-19, is increasingly used because of the pandemic and could lead to inequities in access to care.

The work leverages our OHE, which was established in 2018 to catalyze initiatives that address and prevent health equities. Our OHE has dedicated full-time staff focused on program pillars that align with clinical, educational, and research missions. The OHE is home to VUMC's Community Health Needs Assessment office and maintains ongoing partnerships with public health agencies and more than 100 community-based organizations. Our initial Covid-19 work focuses on racial and ethnic minorities and individuals with limited English proficiency (LEP). We developed objectives, tactics, and workstreams to address the five areas of concentration (Table 1).

We created an interprofessional Covid Health Equity Team, comprising physicians, nurses, social workers, and operational leaders with expertise in minority health, SDOH, quality improvement, public health, health communication, clinical research, diversity and inclusion, and telehealth. In addition to the primary team, each area of concentration has a work group that includes other VUMC stakeholders with content area expertise (such as interpreter services, patient access, communications, and health IT) and decision-making authority.

> “*The lack of accuracy and incompleteness of race, ethnicity, and language (REAL) data in health records are long-standing issues and limit progress toward eliminating health inequities. Similarly, ineffective recruitment and retention of racial and ethnic minorities into clinical trials is an ongoing challenge.*”

Table 1. Covid-19 Health Equity Workstreams at VUMC

Workstream (Team Expertise)	Objectives	Key Tactics

Effective risk communication (public health, health communications, interpreter services, patient education, and marketing)	• Effectively communicate Covid-19 risks and preventive strategies to:
	  • Individuals from groups at risk of health inequities: racial/ethnic minorities, socioeconomically disadvantaged, and people with LEP
	  • Employees, including those in roles beyond direct patient care such as dietary, maintenance, and environmental services
		• Evaluate patient- and employee-facing materials (including website) for appropriate reading level, language access, usability, and ease of finding and making decisions
		• Create/revise materials to be 6th-grade reading level or lower, available in commonly spoken languages, and appropriate for individuals from diverse backgrounds
		• Optimize website for readability and multiple language options
		• Develop standard operating procedures for creating and distributing patient and employee materials
		• Monitor use of various platforms to ensure employees and patients with a range of backgrounds are being reached (e.g., employees without regular email access, patients without computers/ Internet access)
		• Partner with public health and trusted community organizations/leaders to share via multiple channels including Web, print, radio, social media, and virtual town halls

Equitable testing (epidemiology, community health, clinical care, and quality improvement)	• Provide/facilitate timely testing • Report aggregate test results by key demographics including age, sex, race/ ethnicity, preferred language, and ZIP Code	• Assess availability of Covid-19 testing on the basis of location, hours of operation, access via public transportation, access regardless of insurance, availability of interpreters, and surveillance process for opportunities to improve equity • Develop dashboard with Covid-19 testing data by race, ethnicity, language, and ZIP Code • Review percentages of Covid-19–positive within racial/ethnic groups, within language categories, and by ZIP Code • Compare Covid-19 testing utilization by race/ethnicity/language with demographics of VUMC patients and Nashville metro area population • Create plans to rapidly address any inequities in testing • Frequently communicate with local/ state health departments to identify/ address community-level inequities
Equitable care (hospital medicine, nursing, social work, population health, quality improvement, and clinical research)	• Provide quality care that does not vary because of race, ethnicity, sex, or socioeconomic status • Effectively communicate postdischarge plans and facilitate transitions of care • Report aggregate outcomes by key demographics including age, sex, and race/ ethnicity	• Develop dashboard that includes Covid-19 treatment and hospitalization data by race, ethnicity, language, and ZIP Code • Compare hospitalization rates, use of specific treatments (including remdesivir and dexamethasone), discharge rates, and deaths by race, ethnicity, language, and ZIP Code • Assess availability of discharge information at appropriate reading level and in multiple languages • Assess transitions of care/follow-up care • Monitor enrollment in clinical trials

Table 1. Covid-19 Health Equity Workstreams at VUMC (*Continued*)

Workstream (Team Expertise)	Objectives	Key Tactics
Inclusivity in clinical trials (research operations, clinical care, and minority recruitment)	• Increase awareness of importance of clinical research for Covid-19, given there is no proven effective therapy • Engage and enroll racial and ethnic minorities and other socially disadvantaged groups in Covid-19 clinical trials	• Develop and disseminate general messaging about the importance of clinical research for Covid-19 and reasons minorities should consider participating • Create a checklist for Covid-19 clinical trials to avoid inclusion and exclusion criteria that limit eligibility among minorities • Identify research champions from racial/ethnic minority groups • Develop recruitment materials with diverse imagery and culturally appropriate language • Assist with translation of consent forms and recruitment documents
Broad adoption of telehealth (social work, patient experience, quality improvement, clinical care, and IT)	• Effectively use telehealth to provide care for patients including those with limited health literacy, LEP, and limited Internet access • Increase adoption of telehealth among racial and ethnic minorities, patients with LEP, and people living in underserved rural communities	• Develop dashboard that includes telehealth visits by race/ethnicity/language for all ambulatory clinics • Assess telehealth utilization by race/ethnicity/language/ZIP Code • Create telehealth awareness and "how-to" information for individuals with varying health literacy, English proficiency, access to Internet, and availability of telehealth-capable device • Create training materials to support use of interpreters in telehealth visits • Develop specific plans to address any identified inequities

VUMC = Vanderbilt University Medical Center, LEP = limited English proficiency. Source: The authors.

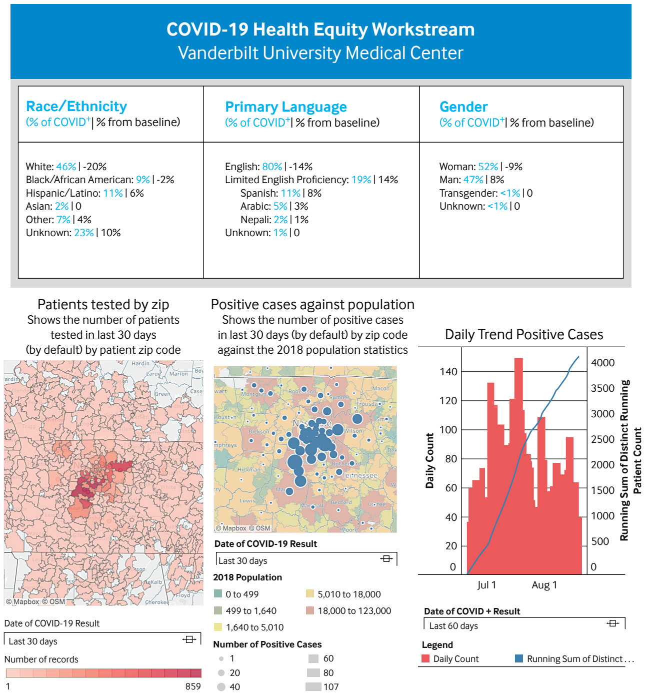
We Need REAL Data and SDOH Metrics To Make Decisions

The importance of REAL data to understanding Covid-19 cannot be overstated.[29] Without these data, we are unable to identify disparities in Covid-19 testing, care, and outcomes. Unfortunately, race and ethnicity are missing in 20% to 30% of health records[30] and, when available, can be insufficient for mitigating health inequities, which also requires SDOH data. Recognizing the issues with missing data and that there is no standardized collection of social determinants, a principal strategy in our work is to use the most reliable information currently available in the health record to disaggregate data, while simultaneously working to improve the quality and accuracy of the data. We have created visualization dashboards for all patients tested for SARS-CoV-2 that can be filtered by race, ethnicity, primary language, and ZIP Code, which can be linked to community-level socioeconomic data (Figure 1).

FIGURE 1

VUMC Covid-19 Health Equity Dashboard

Dashboards reviewed daily by the Vanderbilt University Medical Center Covid Health Equity Working Group include Covid-19 cases disaggregated by race, ethnicity, and language (REAL). The Working Group also reviewed data by ZIP Code.



COVID-19 Health Equity Workstream
Vanderbilt University Medical Center

Race/Ethnicity (% of COVID$^+$| % from baseline)	**Primary Language** (% of COVID$^+$| % from baseline)	**Gender** (% of COVID$^+$| % from baseline)
White: 46% | -20% Black/African American: 9% | -2% Hispanic/Latino: 11% | 6% Asian: 2% | 0 Other: 7% | 4% Unknown: 23% | 10%	English: 80% | -14% Limited English Proficiency: 19% | 14% Spanish: 11% | 8% Arabic: 5% | 3% Nepali: 2% | 1% Unknown: 1% | 0	Woman: 52% | -9% Man: 47% | 8% Transgender: <1% | 0 Unknown: <1% | 0

Patients tested by zip
Shows the number of patients tested in last 30 days (by default) by patient zip code

Positive cases against population
Shows the number of positive cases in last 30 days (by default) by zip code against the 2018 population statistics

Daily Trend Positive Cases

Source: Data from Vanderbilt University Medical Center. Dashboards created in Tableau. Business Intelligence and Analytics Software. Tableau Software, LLC. 2020. https://www.tableau.com/
NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

The dashboards are updated daily and reviewed by our team to assess differences in testing, Covid-19–positive rates, hospitalizations, types of Covid-19 treatments provided, and deaths.

To facilitate collection of missing REAL data, we are creating phone scripts for the team who currently conducts 14-day follow-up calls to patients with Covid-19 (Appendix). We are also reviewing charts to determine whether REAL data are documented in other areas of the health record, such as in the social or family history contained in clinicians' notes. These strategies are intended to improve the accuracy and completeness of REAL data among patients with Covid-19 and will not replace our long-term approaches, which include training staff on data collection, informing patients about self-reporting, and providing opportunities for self-reporting outside the context of a clinical encounter.

We Must Communicate Effectively to All Audiences

Effectively communicating disease risk is vital during a pandemic, and messaging must be clear and easy to understand.[31] Because Covid-19 is novel, evidence is emerging continuously, and health systems may struggle to quickly create and revise public-facing materials at the appropriate reading level and in multiple languages. The evolving information landscape makes it difficult to acquire and apply knowledge, especially for individuals with limited health literacy and LEP.[32] Individuals from groups who have been marginalized and historically underserved may be less trusting of new information and less likely to apply new knowledge or change behavior.[33] Our health equity goals for prevention of Covid-19 are to effectively communicate disease risks and preventive strategies to patients and families from diverse backgrounds as well as to our employees, including those in roles not directly involved in patient care but vital to our health system, such as dietary, maintenance, and environmental services staff.

> “*The importance of race, ethnicity, and language (REAL) data to understanding Covid-19 cannot be overstated. Without these data, we are unable to identify disparities in Covid-19 testing, care, and outcomes.”*

Key strategies involve creating and revising patient- and employee-facing messaging to be at a reading level appropriate for a general audience, making Covid-19 information available in the three most common languages spoken among VUMC patients (English, 95%; Spanish, 2.6%; and Arabic, 1.1%), and creating standard operating procedures for the rapid review of new Covid-19 materials for both understandability and culturally appropriate language. In partnership with trusted community-based organizations and leaders, we are convening virtual town halls in Spanish and Arabic and disseminating Covid-19–related information using multiple channels, including social media. For example, in conjunction with a local community center, we held an Arabic-language livestream event on the topic of Covid-19 and the implications for pregnancy and newborns that received 3,200 views, 28 shares, and 46 comments in June.

Early on, we found the need to clarify which personnel were considered health care workers, a phrase being used frequently in the media and often presumed to be direct patient care roles such as physicians and nurses. To address this, we revised messaging to employees to explicitly include roles such as environmental services and patient transport, positions often likely to be held by racial and ethnic minorities and individuals without a college degree. To support different learning styles and avoid reliance on written educational modules, we provided in-person education on donning and doffing of personal protective equipment for our environmental services team. We also considered methods such as sharing information in huddles and posting in break rooms to ensure messaging reaches patients and employees who do not use or regularly access email and those without computers and Internet access at home.

Dashboards Provide Greater Transparency in Testing, Care, and Research

Timely access to testing is a critical component of identifying, preventing, and addressing inequities, particularly given the mounting evidence of Covid-19 disparities among communities of color. VUMC, a Nashville-based academic health center with more than 26,000 employees and 1,000 residents, has worked closely with the Nashville/Davidson County Metro Public Health Department and the Tennessee Department of Health to facilitate broad access to SARS-CoV-2 testing. As of July 1, 2020, VUMC had tested 45,954 patients for SARS-CoV-2, and 3,171 tested positive. When disaggregated, we found higher percentages of Covid-19 within all racial/ethnic minority groups and among speakers of languages other than English (Table 2).

The most striking differences were among people who spoke a primary language other than English. Forty-eight different primary languages were spoken, and 607 (26%) of the 2,310 people with LEP had positive results.

Table 2. VUMC SARS-CoV-2 Tests by Race, Ethnicity, and Primary Language

	Population Demographics* (Percent of the Total Population in Nashville Metropolitan Statistical Area: 1,932,000)	SARS-CoV-2 Tests, n (% of 45,954)	Positive SARS-CoV-2, n (% of 3,171)	Within-group Positive SARS-CoV-2 Tests (Percent Positive Tests Within Racial/ Ethnic or Linguistic Group)
Race/ethnicity				
White	72	30,460 (66.3)	1,470 (46.4)	4.8
Black/African American	15	5,291 (11.5)	319 (9.3)	6
Hispanic/Latino	7.4	2,190 (4.8)	372 (10.1)	15.6
Asian	2.7	843 (1.8)	64 (2)	7.6
American Indian/Native American	0.2	98 (<1)	11 (<1)	11.2
Other	2.7	1,235 (2.7)	213 (6.7)	17.2
Unknown race/ethnicity	n/a	5,837 (12.7)	722 (22.7)	12.4
Primary language				
English	89.2	43,462 (94.6)	2,550 (80.4)	5.9
All languages other than English (includes 48 languages)	10.8	2,310 (5)	607 (19.1)	26.3
Spanish	5.3	1,206 (2.6)	327 (10.7)	27.1
Arabic	<1	618 (1.7)	165 (5.2)	26.7
Nepali	<1	148 (<1)	63 (2)	42.6
Unknown primary language	n/a	182 (<1)	14 (<1)	7.7

VUMC = Vanderbilt University Medical Center, SARS-CoV-2 = severe acute respiratory syndrome coronavirus 2, n/a = not applicable (data are not collected by that population demographic source). All racial and ethnic groups had a higher percentage of positive SARS-CoV-2 tests compared with white patients. Individuals with a primary language other than English had a more than fourfold higher percentage of positive SARS-CoV-2 tests compared with patients with English as a primary language. Of note, the positivity rate among Black patients is not as high as national averages, which may be attributed to the socioeconomic status of the local population; however, the positive test rate is 25% higher than the positivity rate for white patients. Data include all patients tested for SARS-CoV-2 at VUMC from March 9, 2020, to July 1, 2020. Total tested, 45,954; total positive tests, 3,171. *Population demographics for Nashville metropolitan area include Davidson, Williamson, and Rutherford counties. Data from American Community Survey 2018. Census Reporter. 2020. https://censusreporter.org/profiles/31000US34980-nashville-davidson-murfreesboro-franklin-tn-metro-area/. Source: The authors.

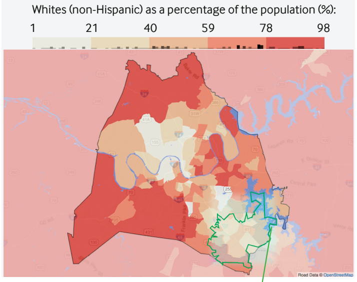
To better understand the social and environmental context, we mapped the ZIP Codes of those who tested positive and found the highest number of cases in two adjacent ZIP Codes in southeast Nashville, where more than 30% of residents' primary language is not English and adjusted gross income is $36,384 compared with the county average of $56,507 median (Figure 2).

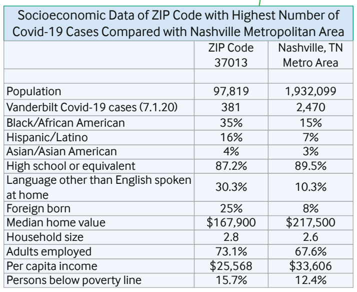
FIGURE 2

Most Covid-19 Cases at VUMC (as of July 1, 2020)

The ZIP Code with largest number of Covid-19 cases at VUMC is 37013 (outlined in green). Compared with the Nashville metropolitan area, 37013 is home to twice as many people who are Black/African American or Hispanic/Latino and three times more people who speak languages other than English at home.

Most Covid-19 Cases at Vanderbilt University Medical Center
(as of July 1, 2020)





Socioeconomic Data of ZIP Code with Highest Number of Covid-19 Cases Compared with Nashville Metropolitan Area		
	ZIP Code 37013	Nashville, TN Metro Area
Population	97,819	1,932,099
Vanderbilt Covid-19 cases (7.1.20)	381	2,470
Black/African American	35%	15%
Hispanic/Latino	16%	7%
Asian/Asian American	4%	3%
High school or equivalent	87.2%	89.5%
Language other than English spoken at home	30.3%	10.3%
Foreign born	25%	8%
Median home value	$167,900	$217,500
Household size	2.8	2.6
Adults employed	73.1%	67.6%
Per capita income	$25,568	$33,606
Persons below poverty line	15.7%	12.4%

Source: Socioeconomic data from Census Reporter. 2020. Accessed November 14, 2020. https://censusreporter.org/profiles/86000US37013-37013/ and https://censusreporter.org/profiles/31000US34980-nashville-davidson-murfreesboro-franklin-tn-metro-area/. Map from Statistical Atlas. Demographics. 2020. Accessed November 14, 2020. https://statisticalatlas.com/county/Tennessee/Davidson-County/Race-and-Ethnicity#data-map/tract

In addition to sharing our findings with the city/county and state health departments, which currently are collecting language data episodically but not routinely, we created additional Covid-19 resources in the languages with the highest number of cases (Arabic, Nepali, and Spanish), catalogued multilingual patient-facing Covid resources from national organizations, and shared these resources with provider teams internally and with community organizations connected with these communities. We also informed our interpreter services department and assessed its capacity to meet a possible increase in demand.

Dashboards are reviewed daily by our Covid Health Equity Team to assess differences in Covid-19 hospitalizations, types of treatments received, and deaths. As of July 1, 2020, there had been 342 hospitalizations, and 209 (61%) were patients with LEP. There had been 25 Covid-19–related deaths at VUMC, including 18 white patients and three patients with LEP. Because there are no proven effective treatments for Covid-19, we are monitoring Covid-19 clinical trial enrollment and working with the Vanderbilt Institute for Clinical and Translational Research and Recruitment Innovation Center to support minority enrollment in trials. Our strategies include developing culturally appropriate messaging, using diverse images in recruitment materials, and making consent forms available in multiple languages.

Mitigating Health Inequities Indirectly Related to Covid-19

In addition to the excess morbidity and mortality related directly to Covid-19, the loss of income, disruption of education, and other indirect effects of Covid-19 will likely disproportionately impact racial and ethnic minorities.[25,34] As VUMC and many other health systems quickly pivoted to provide more telehealth, we wanted to mitigate potential inequities in access among racial and ethnic minorities who might be less trusting of telehealth, have differential access to high-speed Internet and electronic devices, or speak other languages. To assess adoption of telehealth, we created a dashboard with telehealth visits by REAL for each of the 21 VUMC ambulatory patient care centers (PCCs).

> “*At VUMC, where making diversity and inclusion is intentional with values and objectives that guide strategic direction, we integrated health equity into our health system’s Covid-19 operations to make it a priority, not an isolated stream of work.*”

At two PCCs, for example, we found that telehealth visits were 24% lower than the prepandemic in-person visits for African American patients, 54% lower for Latino patients, 47% lower for Asian patients, and 71% lower among people who speak languages other than English.

We identified limited prior use of patient portals, lack of detail in instructions for telehealth use, and challenges to using interpreters in virtual visits as specific barriers to patients with LEP. To address these, we expedited release of a Spanish version of our patient portal and have provided additional instructions to providers and staff to allow interpreters to join telehealth visits. Because some patients have limited technical proficiency, medical students have been deployed to help patients prepare for telehealth visits. To supplement telehealth, we have provided home visits and performed in-home testing for some patients who live in subsidized housing and have limited transportation.

Key Lessons

During a pandemic, health systems face many demands and must rapidly respond in ways to ensure everyone has the best opportunity to be healthy. Tools enable health systems to implement a comprehensive approach to Covid-19; however, systematic ways to address health inequities may be limited.[35] At VUMC, where making diversity and inclusion is intentional with values and objectives that guide strategic direction, we integrated health equity into our health system's Covid-19 operations to make it a priority, not an isolated stream of work. This approach has allowed us to identify and work to mitigate inequities. Our key lessons so far are:

1. Executive leaders should clearly state that achieving health equity is a priority and allocate resources, including people, to do this important work; in the case of VUMC, institutional funds totaling more than $1.5 million annually were committed to the OHE prior to Covid-19, facilitating our ability to pivot and rapidly respond;

2. Health equity–related goals and programs should be integrated into the health system's organizational readiness and response with clear expectations for accountability and action;

3. REAL data must be available in real time, and new processes may be needed to collect and aggregate data;

4. The Covid-19 Command Center includes a wide range of clinical, administrative, and operations leaders, some of whom have limited knowledge of health equity; this exposure could facilitate culture change and different ways of advancing health equity in the long term; and

5. Health systems must work closely with public health departments and trusted organizations that are closely connected to communities.

The impacts of the Covid-19 pandemic will be felt for a long time, and, without intervention, racial and ethnic minorities will likely bear a higher burden of the disease and greater socioeconomic loss. It is not too late for health systems to take systematic and intentional steps to prioritize health equity. By setting clear health equity objectives, disaggregating data by REAL, and implementing strategies informed by social context, we may prevent or lessen health inequities and be better positioned to address the underlying contributors to health that require more equitable infrastructure and broad changes in policies.

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Appendix

Phone Script for Collecting Race, Ethnicity, and Language During Follow-up Calls to Patients with Covid-19

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[Whereupon, at 12:05 p.m., the hearing was adjourned.]

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