Vital Directions for Health & Health Care

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Alan Weil:
Hello. I'm Alan Weil, editor-in-chief of Health Affairs. We're so happy to have you joining us today for our event, Vital Directions for Health and Health Care: Priorities for 2021. Health Affairs is pleased to hold this event in conjunction with the National Academy of Medicine, which operates under a congressional charter dating back to 1863. We published online the day after the inauguration and then published in print in February six papers arising from the Vital Directions project. You'll hear a lot more about that project, but it sets a course and agenda for a new administration to follow and take advice from over the coming four years.

Today's program is outstanding. You'll hear from a collection of policymakers and leaders in the field who will discuss the recommendations within the various papers and help us understand how to turn the great thinking behind those papers into the reality of better health and health care.

It's my pleasure now to turn the microphone over to Dr. Victor Dzau, president of the National Academy of Medicine. Victor?

Victor Dzau:
Thank you, Alan. I'm Victor Dzau, the president of the National Academy of Medicine. And I thank you all for joining us for this virtual briefing. I do want to thank Alan, my partner in crime, and Health Affairs for partnering with us on this very important briefing.

I want to give you a little history behind this. In 2016, in anticipation of the U.S. presidential election and forthcoming new administration, the National Academy of Medicine launched a strategic initiative to marshal expert guidance on pressing health and health care priorities. This was initiative co-chaired by Mark McClellan and I, myself, but it was overseen by a steering committee of experts. And we had the foresight of bringing the very best bipartisan former leaders, such as Bill Frist, Mark McClellan, Tom Daschle, Mike Leavitt, Elias Zerhouni, Peggy Hamburg, and others.

We engaged 150 experts and wrote 19 articles on the important topics in health and health care. It was published as Vital Directions. Now, we call it 2.1 -- 1.0, if I may, in JAMA. And the papers provided trusted evidence-based analysis of critical issues in health and health care and biomedical sciences. You know, Vital Directions 1.0 is particularly important in engaging Congress during the debate on repeal of the Affordable Care Act.

Now since 2016, that publication, much has happened in health and medicine, including declining life expectancy in U.S., certain -- in certain segments of population, deaths of despair, opioid crisis, maternal mortality, COVID-19, of course, and pervasive health inequalities -- inequities, among others.

So, building on the initial Vital Directions effort, we complete a more focused but important

update assessment of the key priorities and issues of urgent attention for the new Biden administration. We brought together 30 experts to address high priority issues that have a particularly compelling need for attention. With each article, it reveals trends and analysis of the challenge and potential actions. As you will hear, they include health care, health costs, and financing challenges, optimizing health and wellbeing for women and children, transforming mental health and addiction services, actualizing better health and health care for the older adults, infectious disease threats and outbreaks, particularly COVID-19, and the disproportion negative impact on health inequities on the vulnerable and underserved populations.

As you heard, in February these papers were published in Health Affairs under an issue called Vital Directions for Health and Health Care: Priorities for 2021. And we're here today with experts, health leaders, policymakers to discuss the findings of these papers.

I do want to point out that there's another vital direction which is not covered in our series and is critically important. It is, of course, climate change and human health. Climate change is one of the biggest existential threats facing humanity. The health effects of a challenging climate are overwhelmingly negative. At the NAM, we recognized the vital importance of attending to effects of climate in health, and the December issue of Health Affairs was dedicated solely to this topic. We strongly support the findings and the recommended -- recommendations for actions.

So, following the release of Vital Directions publication, we now are ready and eager to partner with the Biden administration to address the urgent policy issues and the five vital directions just as we're also working actively with the administration on the sixth vital direction, which is climate change in human health.

I want to point out they are underlying all these health challenges. This is a crosscutting theme of disproportionate negative impact of health inequities on vulnerable and underserved populations, which underscored the compelling need to address the root cause of systemic racism, as the Vital Directions report concluded that "health equity is the most important vital direction for 2021."

So, we are an unprecedented juncture to make progress on these critically important topics. We want to make sure they have impact. This is why we brought together major leaders today for a discussion on the key policy recommendations of the articles and their implications for Biden administration and the overall health community. Thank you very much.

Let me now turn the meeting over to my good friend, Dr. Mike McGinnis, who's the executive officer of the National Academy of Medicine.

J. Michael McGinnis:
Thank you very much, Victor and Alan. It's a tremendous pleasure to be with all of those involved in the production of Vital Directions. I'm going to go provide a little context through some graphics that will revisit the important themes that Victor mentioned. As he said, I'm the executive officer of the National Academy of Medicine.

And if I can have the next slide, please, which I can't see, but I assume it's the map of the U.S. And it indicates that -- from a quote with -- from Vital Directions that "U.S. health care has reached a critical inflection point. The climate in health care is ripe for meaningful change." Essentially, this reflects the fact that for the first two decades of the 21st century a number of pressures, good and bad, were growing that emphasized the need to draw attention and stimulate action to address them. Some of them were good. The growth in technologies at the high end, for example, could be applied in a number of increasingly marvelous ways to provide public health and clinical interventions. And at the low end, in some ways they provide a better access to people everywhere to be engaged in their health. Much of that potential has yet to be achieved, but nonetheless the developments were encouraging.

On the other hand, the gap between rich and poor continued to increase. As Victor mentioned, there were -- there was actually a turnaround in the life expectancy rates among the certain groups. The cost of care continued their inexorable growth, squeezing out the potential for investments in other parts of the economy and in the social services necessary for those who are most in need.

The importance of ensuring that -- the relationship between health and medical -- public health and medical care became more acute as the issues that link the two in terms of the future health of the nation began to strain with the weakness of public health. COVID in the last year has shown a very strong spotlight on those challenges. And as Victor mentioned, he especially indicated the vulnerability of much of our population and accentuated the problems of public health, of the -- of those who are on the margins of our society and made it more clear that we have to change.

Next slide, please. We had a very -- a steering committee, as Victor mentioned already, from the 2017 version of the Vital Directions, the first iteration. Senator Frist and Mark McClellan, who are on this panel, were here, as Victor mentioned. And there are a number of other steering committee members who are on the line. And thank you very much to each of you.

The three arenas that were focused on in the first Vital Directions are better health and wellbeing, high-value health care, strong science and technology. And the 150 authors and 19 papers that were developed provide a very strong base for action across the board. Therefore, it was logical for us as an academy to look into specifically at the key issues that have been the focus of Vital Directions 2.0.

Next slide, please. In the first edition, there were action priorities identified and infrastructure priorities identified. The action priorities were pay for value, empower people, activate communities, and connect care. Each of which an important mandate in order to achieve the vision of the Vital Directions across the board, and that is a health system that performs optimal in promoting, protecting, and restoring the health of individuals and populations, and helps each person reach their full potential for health and wellbeing. Along with those action priorities, some key infrastructure challenges were underscored as well, the importance of our measuring what matters most, the importance of modernizing our skill set in our health professionals, the importance of accelerating real-world evidence, and the importance of advancing science.

Next slide, please. After the issuance of the Vital Directions 1.0 framework, we moved into a variety of implementation efforts including moving to the state. The action occurs at the state and local level, and that's become ever more apparent, especially throughout the COVID pandemic. And we see here an example of a 2019 pilot that we had in North Carolina around Vital Directions.

The next slide, please. As Victor mentioned, the "Vital Directions: Priorities for 2021" had us undertaking a deep dive on the issue of costs and financing, on the issue of optimizing the wellbeing of women and children, on the issue of transforming mental health and addiction services, on the issue of infectious disease threats, and on the issue of improving the prospects health and wellbeing for older adults.

Next slide, please. As you heard from Alan and Victor, in the February issue of Health Affairs, the -- these five reports, along with an overview report, were released.

And next slide, please. I'd like to underscore one element in particular. If you look at the overview of the -- that's printed in Health Affairs, you'll see a headline. And the headline, in many ways, is a clarion call for all of us. And that is "Health Equity: The Most Vital Direction for 2021." As we assessed some of the common themes in each of the papers, it was very clear that health equity is a clear and present danger -- health inequity is a clear and present danger to too many of our population. And if we're going to succeed in reaching the vision of Vital Directions, it's a first and foremost priority for us.

So, as we move from context into the opportunities beginning with Secretary Sebelius, I'd like to thank our sponsors in the Vital Directions effort, the Gordon and Betty Moore Foundation, The John A. Hartford Foundation, the Robert Wood Johnson Foundation, and turn it back over to you, Victor. Thank you very much.

Victor Dzau:
Oh, thank you. Okay. I'm now unmuted. Thank you, Michael, for setting the stage.

And now, it's my great pleasure to introduce our opening keynote, the Honorable Kathleen Sebelius. She, of course, does not need any introduction, but Kathleen Sebelius is one of America's most followed expert on national and global health issues, human services, and of course, executive leadership. A CEO of Sebelius Resources, she provides strategic advice to companies, investors, and nonprofit organization. From April 2009 to June 2014, Secretary Sebelius served as President Obama's Cabinet as the 21st Secretary of Department of Health and Human Services, where she worked to pass and implement the Affordable Care Act. Honorable Kathleen Sebelius served as governor of Kansas from 2003 until the Cabinet appointment in April 2009 and was named one of America's top five governors by Time Magazine. So, please join me in welcoming the Honorable Kathleen Sebelius to deliver the opening keynote remarks.

Kathleen Sebelius:
Well, thank you so much, Victor, for inviting me to join the National Academy of Medicine today. And thanks for that gracious introduction. I'm not sure that my mother didn't write that, but I appreciate it.

Victor is a great leader of the National Academy, as well as a colleague on the Aspen Health Strategy Group, a strategic thinker who not only helps to identify challenges, but always works to find solutions and partners. I'm glad you'll be hearing from Bill Frist who's a friend, a colleague, a health care provider, a former policymaker, and one of the great leaders in rethinking health in America. And I'm very proud of Lauren Underwood who worked with me at Health and Human Services. She did great work then. But watching her become a leader in the effort to combat maternal mortality, be elected to Congress, and speak out has truly been inspiring. Always a shout out to the distinguished editor-in-chief of Health Affairs, Alan Weil, and the panel he'll moderate, as well as the recognition of the articles he has published. They're great thinkers involved in the conversation today.

Many of you are listening to this dialogue. And I have been involved and engaged in identifying these priorities and the solutions. And I'm encouraged about the opportunities to educate, motivate, but more importantly mobilize some real action on the issues identified.

In 1966, 55 years ago, in a speech to the convention of the Medical Committee for Human Rights, Dr. Martin Luther King Jr. told the audience that "Of all forms of inequality, injustice in health care is the most shocking and inhumane." Shame on us that we continue to have the same conversation about health care in America today, but thank you to NAM for identifying health equity is our most urgent issue, providing really a unifying theme in the five priority challenges addressed in Vital Directions.

And we gather today on the first anniversary of the WHO declaring COVID-19 as a health emergency and "a probable pandemic." One year later, we're in what we all hope might be the final chapter of our great national nightmare. The failure of America to protect our citizens from death and economic chaos in a pandemic is shocking and grim. Of the two and a half million lives lost around the globe, 20 percent occurred here in America. And what the COVID-19 data highlights is America's health inequalities. Life expectancy, as Victor said, has dropped a full year for all Americans, but by almost three years for Black Americans.

Now, the attention of the American public is focused in a way that decades of reports could never achieve. They've seen the gaping holes in our health system, deaths in Black and Brown communities which far exceed population numbers. And I've actually learned the daily lesson about the intimate connection between health and our economy and prosperity, that America can't be a resilient, prosperous country without being a healthy country. And that does give me some real hope for the future.

Doing a better job responding to infectious disease is critical and begins with ground up resilience focused on the least healthy and most vulnerable communities at a local level. We have unfortunately a grim roadmap from a year of COVID illnesses and deaths. And unless we tackled health disparities at a community level, expand the access, improve quality, invest in social drivers of health, no top-down expenditure on stockpiles, vaccines, and treatments will erase the impact of infectious disease on an already vulnerable population.

But this is a possible post-9/11 moment for population health. And the same urgency and

attention to building security resilience is required now for health resilience. And Senator Patty Murray, who chairs the Health Committee, just introduced legislation which I think provides some great framework and a starting point for in NAM engagement.

Confronting the huge gaps in health care access must include an honest assessment of the massive, underserved population dealing with mental health and substance use issues. Removing stigma for providers, patients, and workforce is a -- is an important starting point. Mental health care is health care, not a carve-out or an add-on. And addiction is a health disease, not a criminal offense. Now those issues were part of our pre-COVID health challenges. But what experts know is that mental health impacts of any disaster far outlive the physical damage and can affect individuals for years. The waves of silent grief in loss for lives, for jobs, and home, for friendships, and social connections will require an even stronger integrated network of health care. The tsunami of trauma as individual submerged from lockdown will affect all ages and incomes, and we need to recognize that full recovery won't be possible until all individuals are able to fund health. And the COVID era advances of telehealth for mental health services is critical to continue and expand access and affordability. Health providers should actively press policymakers to finally declare the war on drugs and enormously expensive failure that has wrecked far too many lives and families, particularly in Black communities.

As we expand services for substance use issues, it's critical to also press for a change in laws, adjusting sentences, expunging records, and assisting individuals rebuilding lives without a criminal record. The graying of America is here, and 11,000 baby boomers turn 65 every day, and most want to age in place. The sheer numbers are staggering, requiring a massive new workforce. Advances in palliative care, hospice service, and community supports need to be accelerated. And provider training and expansion must change to make the moment.

I think there's a real urgency about rewriting government programs written in the mid-60s which pay for and support senior health. They're currently divided between state and federal government, between Medicaid and Medicare. Medicare often lacks the benefit and support services needed for an aging population. And Medicaid pays for services only for the lowest income population. Those programs need to be integrated and rethought so they serve the senior population that we're facing.

I began working on children and family issues 35 years ago when I entered the Kansas legislature as a mother of young children. My kids were 2 and 5, and I was trying to balance parenting and work. And now that my daughters-in-law are working moms with young children, I realized just how little progress has been made as a country investing in children and their mothers.

It should be declared a national health emergency that the U.S. has arising maternity -- maternal mortality rate. And I'm constantly shocked to find out how few people even know this fact. Now I know you're going to hear from Congresswoman Underwood, a national expert on this topic, but I am joining her call urging the health care provider community to call for policy and provider changes. Paid parental leave, safe and affordable childcare, expanded access for mothers to choose appropriate maternal health care.

The good news is few children have become terribly ill or died from COVID. But the terrible toll this disease has taken on children is going to take decades to overcome. And the most serious impact has fallen on poor and minority children. And here's what we know. We know most of the 525,000 deaths impacted children who lost elders they love. We know the 20 million children now live in households where someone lost a job. We know that 14 million children don't have enough to eat every day. And that's almost three times the rate of food insecurity from 2018, 30 percent of those children are Black and 25 percent are Hispanic. And we know that the gaps in tech and safe housing and support has made remote school much more difficult, particularly for low-income children forcing some mothers out of the workforce who are unable to balance schoolwork for their kids and work for themselves.

This is a moment to get focused and get to work. If Black lives truly matter, if children are our most important resource, we have a crisis. And we know the solutions are within reach, because they're in place in other countries in the world. Focus spending from the state and federal government on mothers and children is a long overdue investment, not an expenditure. And congratulations to Congress for including provisions in the Rescue Act addressing child poverty. But unfortunately, they're temporary and discussion has to begin right away to make those investments permanent and add changed policy.

And finally, the topic of health care spending and financing is a looming challenge, but not a zero-sum game. Other countries currently spend $2 on social determinants on health for every dollar they spend on clinical health care. America spends 50 cents on social supports for every dollar in health care. While we spend more, America has more uninsured, and some are the worst health outcomes of any developed country.

And if we seriously want to address health equity, this challenge is critical. We've learned a hard lesson that America can't be a prosperous, safe country, unless we're a healthy country. It's time we stop talking about costs and begin thinking about long-term investments starting with the sickest and poorest communities.

The National Academy of Medicine call to action to focus on these five priority areas within the framework of eliminating health inequity. And with the lessons learned from COVID comes at a pivotal time for America. There has never been a more important time for health care providers to engage, within your own communities, with patients and local leaders, with experts and legislators at the state level to influence the policy of the state we live in, and with members of Congress and the new administration.

But I would be remiss if I didn't call for action right away. The Biden administration has opened an expanded enrollment period for the Affordable Care Act. This is a policy that can help millions of Americans achieve health care access right away. The open enrollment period lasts until May 15. And the Rescue Act includes lots of provisions to help people afford that insurance coverage. There are more generous subsidies up and down the income scale. There are provisions for people who are unemployed to obtain free health coverage. There are opportunities for people to have their COBRA coverage paid for. But folks have to know it's around. And the health care provider community is the perfect voice to help spread the word. healthcare.gov continues as a good place to go for enrollment information. But again, this time

period is -- lasts only until the 15th of May, and could help to ensure 2 to 3 million additional Americans right away.

So, I want to again thank the National Academy for including me. Thanks to your great efforts, and I look forward to working along with all of you to achieve progress on these vital priorities.

Victor Dzau:
Well, thank you so much, Kathleen. I mean, it's such a thoughtful assessment of the nation's health condition, and a really compelling message particularly on issues of child support, health inequities, and so many others. And your call to action, I'm truly inspired by your message. We thank you so much for joining us. I know that we don't have everybody here. We have 1,500 people watching, so I'm going to give a round of applause this way [applause]. Thank you very much.

Kathleen Sebelius:
[laughs] Thank you.

Victor Dzau:
Thank you. I know you have to go. So, thank you again very much for your words.

Kathleen Sebelius:
Thank you.

Victor Dzau:
Now, it's my also great pleasure to introduce a good friend and a special speaker. That is, in fact, Senator Bill Frist, doctor and senator. William Frist is a national acclaimed heart and lung transplant surgeon. I know that well, because I'm a cardiologist. And although we didn't overlap at Stanford and also in Boston, but of course, his reputation precedes him as a surgeon and a great health leader. But as you all know him as former U.S. Senate Majority Leader. And of course, during his time, I would say those were the really great heydays. And he's the founding partner of Frist-Cressey Ventures and chairman of the executive council of health service investment from Cressey & Company. Senator Frist is actively involved with business as well as the medical, humanitarian, and philanthropic communities. He's the chairman of both Hope Through Healing Hands, which focus on maternal and child health and global poverty, and SCORE, statewide collaborative education reform, organizations helped propel Tennessee to prominence as a K to 12 education reform state. And, of course, he's a good friend and a role model. So, please join me in welcoming Senator Frist. Over to you.

William Frist:
Victor, thank you very much. And it's a delight for me to be with our audience today. And I look forward to the panel later. In the next few minutes, I do want to wear the multiple hats that you mentioned. That of a doctor or physician who has been deeply involved in the acute clinical care as a surgeon doing heart transplants every week year after year, and also chronic care, the managing of chronic heart failure and chronically immunosuppressed patients. A head of a policymaker sensitive to the extreme and harsh partisanship of the reality, as we all know, of today's Congress recognizing that for the near mid-term future there is likely to be no

compromise on any major structural reform in health policy. A head of a -- as you mentioned, a builder of health service solutions through venture capital. And that's the venture capital private equity world. You know, a lot of people dismiss it, push it to the side, but it is where innovation and the flow of capital, especially today in health services, health and wellbeing, is extraordinarily resilient and rampant. It's big and it's responsive. And then as Kathleen sort of set up and as Victor did as well on this whole issue of health equity as an active board member at the Robert Wood Johnson Foundation were health equity and vulnerable populations has become the centerpiece.

You know, I can summarize what I'm about to say by stating that from the perspective of having worn and wearing all of those hats, I believe that there is one, a single central organizing, central sphere of influence that will have the single most impactful and I would say even the most powerful incremental impact on accelerating faster progress in all of the five fields or the five papers, with the five fields that we highlight today, reducing healthcare costs, childhood and maternal health, behavioral health, reaching seniors, identifying the spread of infectious disease.

And the pandemic over the last year has thrust upon us the awareness. And I would argue equally important the cultural acceptance and application of this game-changing sphere of influence. So, what is it? It's the explosive adoption I believe of telemedicine and virtual care. Care that is more convenient, more affordable, delivered remotely in real-time that reaches children and mothers and seniors and frail elderly and vulnerable populations in ways that none of us, none of the 1,500 people listening right now thought possible just 12 months ago.

When we think of telemedicine as a relatively recent invention or innovation, only made possible by the internet and smartphones, not really. I had my first taste of it 60 years ago. As a boy in the 1960s, I witnessed my dad, a physician, reading from our home not too far from where I'm sitting now in the middle of the night, really night after night, several times a week emergency EKGs 60 years ago sent over the old analog telephone lines from clinics, far away clinics in remote Tennessee.

And then years later in the 1980s, I relied on telemedicine as Victor mentioned in my own practice as I personally managed the chronic immunosuppression, the immunosuppressive care of all the heart transplant patients, and the lung transplant patients that I transplanted over about a 14-year period. And then while I was in the Senate two decades ago and my colleagues were to build programs establishing T1 lines 20 years ago to Native American reservations to provide that remote critical virtual real-time care to those remote regions that otherwise had zero access.

And today as a board member, I heavily involved with virtual care on the business side and the board and the leadership side Teladoc Health which is sort of the domestic -- the largest domestic and global leader. It covers 50 million people, for example. Teladoc Health access to telemedicine as well as other companies on the board of a highly disruptive teledentistry company called SmileDirect.

So, telemedicine and by that, I mean, telehealth, remote monitoring, and virtual care eliminates patient travel. It improves access. It saves time. And it smartly distributes and redistributes this workforce in real-time and then moves care closer to the home. So, if we look at our focus areas,

I'll just run through and give some examples as we go through. Health cost, it's no secret we spend more on healthcare than any other developed nation and we all know in the aggregate our outcomes are poor. Administrative costs account for 15 to 30 percent of overall healthcare span and we all know half of that is probably wasted or at least unnecessary.

Much of the administrative overhead and the bricks and mortar cost of in-person visits think the nursing, the checking in, the getting there, the insurance behind all of that is eliminated with virtual health or telehealth. Hospital care, hugely expensive. We all know the pie charts. Getting appropriate care closer to the home is cost-effective. Advancing home-based care is a fundamental lever we have learned over the last 12 months to rein in the true cost. And telemedicine the -- and it can be by text, it can be by video, it can be by telephone, but telemedicine is the tool to accomplish that.

You know, why wait two weeks and that's being generous for a doctor's visit. Bad things can happen especially when you've got a problem. Well, dialing from home at 10:00 at night, wherever you are today is easy. In fact, most of the dominant telemedicine companies out there today can connect you. You right now on screen by phone, by text, by video to a board-certified physician within 15 minutes. That's access.

So, when we look at these spheres, we need to jump into the world where we are today, not a year ago, not five years ago, and that is virtual care. A faster diagnosis means less progression of the disease and earlier diagnosis typically means less cost. Emergency rooms, expensive. We all know many people use it as primary care because they're underinsured or they don't have insurance or they don't have other access. Telehealth has the potential. It's been demonstrated to divert to appropriate sites of care generally less expensive 20 to 30 percent of all emergency room visits, expensive, inconvenient visits to these more cost-effective sites.

Chronic disease, it does account for most of our healthcare cost today. And you look at a company like Livongo Health, a digital health pioneer and leader, has shown a 20 percent reduction in cost in things like diabetic care, all with outcomes that are equal or better or actually better than quality. Think of remote digital monitoring of your blood sugar or weight gain for heart failure in my transplant patients, all of these are warning signs before the patient really gets sick and it's all made possible today by telemedicine and telehealth.

Our second entry that we're looking at is on early childhood and maternal health. And again, a lot of these blend together but just recently, I spoke to Dr. Sarah Homitsky from Pittsburgh and she runs a really state-of-the-art, a really neat, one-of-a-kind nationally recognized clinic for perinatal mental health. And what she told me was that within a month of transitioning to telehealth visits for their new and expected mothers, they saw a 10 percent drop in no-show cancellation rates among what some people would say as a challenging population, the Medicaid population. Just remarkable 10 percent just in bringing on the virtual component.

You know, many of the barriers to making a child's visit for an expectant mother or an expected mother or for both of moms and children, they've got to take off work, they got to find childcare, they got to find the transportation, they have the travel time. With the effectively well-organized telehealth, all of that goes away. And remember telehealth is not just video like we're doing now

but it can be by telephone the way I've done telemedicine for 20 years or 40 years or even by the increasingly popular single text messaging which increasingly is probably the fastest-growing part of virtual health today.

The third category, mental health, and addiction. You know, it's already been said and Kathleen said it. The pandemic has laid bare the mental health crisis in our nation, not just during the pandemic has faced but has long been facing as well as that woefully inadequate resources we've devoted to it and it's the provider shortages, it's the inadequate insurance coverage, it's the social stigma, all exacerbated by the dire situation of the pandemic and demand has skyrocketed. We were already outstripping. The demand was already outstripping our supply but we've outstripped our infrastructure, our bricks and mortar infrastructure, and supply as well.

This morning, the Kaiser Family Foundation found that nearly 190 million Americans live in mental health shortage areas, a region, a shortage. Only 27 percent of the need is being met. The council -- the National Council of Behavioral Health reported that 77 percent or three-fourths of the counties in the United States are experiencing a severe shortage of mental health providers.

Well, virtual care and telehealth delivery has the opportunity to seamlessly and instantly address these mental healthcare deserts, the linkage, the matching of the workforce in real-time where the demand is instead of having the geographic barriers. The virtual health and the telemedicine greatly expand the effective -- the active, the effective workforce matching that patient to provider. We've all seen this explosion in behavioral health services but just so if I share with my audience, if you look at BetterHelp, Talkspace, American Well, MDLIVE, Teladoc, in all of those the single fastest-growing component of these independent telemedicine companies is behavioral and mental health.

Our fourth category is better care for seniors. The AARP tells us that 90 percent of people over the age of 65 want to stay in their homes and with the vulnerabilities that we've seen and brought to light with long-term care facilities this year, it's imperative we find solutions and alternatives and virtual care can do that. Virtual care with remote delivery. I'll have to throw it also includes social determinants of healthcare. Also, that it has come on the forefront as we all realize how important they are to health and wellbeing.

One company called PurFoods or Mom's Meals will deliver to the homes of Medicaid patients and the frail elderly over 50 million medically tailored meals. Meals that are specifically and medically tailored to their condition, diabetes, heart failure, kidney disease. And with our older populations who are more likely to suffer from a chronic condition, imagine if a doctor has the ability to monitor remotely not in their doctor's offices but key vital signs over time.

A patient with hypertension or high blood pressure instead of adjusting treatment which the doctors do today on a single blood pressure reading in an office at one point in time can have a continual virtually and digitally transported reading every single day or three times a day or 10 times a day. It's better science. It means costly. Emergency room visits can be eliminated. Hospital stay is eliminated. Emergency surgical procedure is eliminated. Better outcomes and better health.

And lastly, infectious disease. You know, with the COVID-19 virus that has been the accelerant. It has been the accelerant and infectious disease has been the accelerant that in six months advance virtual healthcare by more than six years in six months. As Kathleen said and Victor restated responsible government, I put my policy hat on, really matters. Thanks to the quick and effective and robust federal response that federal regulatory changes happened. Providers from around the country who have been isolating in their homes were able to provide care remotely and virtually for the first time ever and were reimbursed for it for the first time ever.

Nationwide patients sheltering in place who were at home as we all were could still see their physicians virtually. The transition was made quickly. That reduced the burden on the systems which were overloaded with COVID and we saw that play out in New York. And all the time people are socially distanced, avoiding viral spread. Then American health systems notoriously is really slow as we all know to change -- radically transformed their approach to care, to virtual care with lightning speed, in large part driven by that government, lowering those barriers. So, government does matter.

And again, right now, as Kathleen mentioned, must act soon and I believe it will. Telemedicine is one of the areas. I said up front, we're not going to see a lot of bipartisan support and I condemn it. I hate it. It makes me sad but telemedicine is the one area of strong bipartisan support. And Kathleen mentioned we need to allow telehealth access regardless of patient-provider location and we need to address cross-state licensing barriers, continue reimbursement.

So, I'm going to long enough. It's a -- you know, we've experienced a seismic shift in this culture of telehealth. And I really want to sort of underscore, it's the culture that has changed for the provider and the recipient. The old 12 months ago, 2020 culture of doubt, of fears around privacy, of inadequate reimbursement, fears of the unknown has now been replaced by a culture of confidence and trust, a culture which underscores and values convenience and affordability and rapid access to quality care, where you need it and when you need it, all of these in the safe environment of home.

Very last thing, it was -- Victor Dzau will remember it and then we talked about it recently. It was four years ago to this week, exactly to this week that Dr. Dzau and I went from office to office in Washington on Capitol Hill sharing the Vital Directions report that Michael and others have outlined earlier with the House leadership, the Senate leadership. We explained why investing smartly in healthcare and public health needed should be deserved to be a top priority. What we hope to convince policymakers of then is even more true today. Thank you.

Victor Dzau:
Well, thank you so much. Yeah. Great. Thank you so much. And Senator, I look forward to go to the Capitol with you again taking this fight of directions to people at Congress. By the way, I think your message of innovation using telehealth and connected care is what the Vital Directions is all about.

As I'm thinking about what you say, you're so right. I mean by taking this opportunity to change the way we do healthcare, particularly in telehealth, not only reduces the cost of care but it brings

care much closer to community, to the population. But let me add in the kind of piece as you think about moving from disease intervention to telehealth, the carbon emission will go down and we'll be doing our job also in the climate change side. So, thank you very much, Will.

William Frist:
Well, thank you, Victor.

Victor Dzau:
So, let me -- it's a great honor for me to introduce Congresswoman Lauren Underwood whom I admire. She serves in Illinois's 14 congressional district, as one into the 116 U.S. Congress on January 3, 2019. She's the first woman, the first person of color, and the first millennial to represent her community in Congress. She is also the youngest African American woman to serve the United States House of Representatives.

Congresswoman Underwood serves on the House Committee on Veterans' Affairs, the House Committee on Appropriations Division. She co-founded and co-chairs the Black Maternal Health Caucus which elevates Black maternal health crisis within Congress and advances policy solutions to improve maternal health outcomes and then disparities.

I mean, it is really quite amazing in my mind, that in fact, we have our work resonate and we have a champion in Congress looking at maternal health, look at health inequities, et cetera. So, please join me in welcoming, Congresswoman Underwood.

Lauren Underwood:
Well, good afternoon. I am so delighted to be with you for this important event on the National Academy of Medicine Vital Directions for Health and Healthcare in 2021. I'd like to thank Dr. Victor Dzau and Alan Weil for hosting today's conversation. And I would also like to acknowledge my fellow keynote speakers, Secretary Kathleen Sebelius and Senator Bill Frist for their decades of leadership in health care quality, access, and equity in the United States and globally.

We are gathered virtually for this discussion nearly one year to the day that full scale shutdown swept across the United States as the coronavirus began to spread throughout our communities. And the months that have followed, we've seen the very best in our nation's healthcare system starting with our nurses, doctors, and other healthcare workers who've been on the frontlines of this crisis saving lives in the most difficult circumstances imaginable.

We've also seen the limitless possibilities for biomedical breakthroughs when we fully mobilize the resources of the federal government in support of innovative private sector partners leading to the development of three safe and effective COVID-19 vaccines already with more in the pipeline. But despite these achievements, we know the past 12 months have also shined a bright light on the structural problems in our healthcare system that long predated COVID-19.

The issues identified by the Academy of Medicine as priorities for 2021 from the health and wellbeing of mothers and children to mental health and addiction services to healthcare access and affordability are not new challenges nor will they be eliminated when we finally crushed the

virus. And that's why the National Academy of Medicine's focus on these issues is so critically important. By advancing research and sharing concrete policy recommendations, your leadership will improve the lives of individuals, families, and communities across the United States for years to come.

I've been honored to work on so many of the initiatives that the National Academy has identified as priorities for 2021 including healthcare costs and access to affordable care. In fact, when I joined the Department of Health and Human Services during the Obama administration or before my service in the Obama administration, I worked on the administration and the implementation of the Affordable Care Act under then-Secretary Sebelius. In Congress, I carried that work forward through legislation like my Healthcare Affordability Act which will extend coverage to millions of uninsured Americans and provide significant savings to individuals and families who are struggling with the cost of care.

I was proud to see provisions of my bill included in the American Rescue Plan. And I look forward to building on these efforts with other legislation I've introduced to eliminate cost barriers to primary care, mental, and behavioral healthcare, and lifesaving treatments, and preventive services like insulin. Ensuring that out-of-pocket costs don't stand in the way of people accessing the care they need is essential but sometimes access to the highest quality care in the world isn't enough.

You probably heard some of the stories by now, Serena Williams, Beyonce, Allyson Felix, Black women who had the resources to receive care from the world's greatest medical professionals. And yet, all three had harrowing childbirth experiences near misses that threatened their very lives. No amount of education or family support or income was enough to protect these women against the disproportionately high risk facing African American mothers. I am encouraged to see the National Academy of Medicine focus on our nation's maternal and infant health crisis as one of this year's Vital Directions priorities.

In the Health Affairs commentary on optimizing health and wellbeing for women and children, authors note that while pregnancy-related mortality rates are falling around the world, they are rising in the United States. We now have the highest maternal mortality rate among developed countries. And indeed, in my entire lifetime, maternal mortality in the United States has only worsened and I am 34 years old. We've also have glaring racial and ethnic disparities and outcomes. Black women are three to four times more likely to die from pregnancy-related causes than White women. And other women and birthing people of color also suffer from elevated rates of maternal mortality and morbidity. These risks have only grown in the past year.

The Centers for Disease Control and Prevention has found that pregnant people with COVID-19 are at an increased risk for severe illness from the coronavirus and they might be an increased risk for adverse birth outcomes as well. The solutions, well, they're not a mystery. To protect moms and babies during this pandemic and beyond, we need to take bold, multisectoral action based on data and evidence that centers the voices of families impacted by this crisis.

And when it comes to evidence on maternal health policy solutions, the data are clear. The single best thing that we can do to save mom's lives and tackle the glaring disparities is to extend

postpartum Medicaid coverage from 60 days to one year. Currently, Medicaid coverage for postpartum people extends only two months after the end of a pregnancy. Even though we know pregnancy-related complications can occur well after 60 days postpartum. In fact, nearly a quarter of maternal deaths happened more than six weeks after delivery which is why medical and nursing associations recommend extending postpartum coverage to one year.

That's why I'm excited about the progress we've made in the past year to advance legislation by Congresswoman Robin Kelly to extend postpartum Medicaid coverage. In September 2020, the House passed the Helping MOMS Act with unanimous bipartisan support which would give states the option of extending coverage for the full yearlong postpartum period. And the American Rescue Plan will enact this policy on a temporary basis.

We're making progress. We're building momentum but we can't stop until yearlong postpartum Medicaid coverage is a permanent reality for every mom in every state. But as we see from examples like Beyonce and Serena saving lives of pregnant people and new moms requires a more systemic solution than expanding healthcare coverage alone.

To better understand the broader changes we need to make, I work with Black women-led organizations and families affected by this crisis. Nurses, doctors, midwives, community organizations to assess the evidence space, identify gaps in existing federal policy proposals, and develop legislation to save mom's lives and racial and ethnic disparities and promote true equity and justice for all.

And the result is the Black Maternal Health Momnibus Act. A suite of 12 bills that I introduced last month with Senator Cory Booker and more than 120 of our House and Senate colleagues. Two of these bills are already bipartisan and we hope more will be soon. The 12 bills build on existing legislation to comprehensively address every driver of maternal mortality and disparities in the United States including policies that are closely aligned with the recommendations of the National Academy.

For example, the Academy identifies the need to address both clinical and non-clinical factors that influence health outcomes. The Momnibus, it includes policies to provide trainings unbiased and racism in maternity care providers ensuring that clinical care is consistently respectful and culturally appropriate for every pregnant person and new mom. But the legislation also recognizes that social determinants of health like housing and transportation and environmental conditions also impact health outcomes for moms and babies.

The Momnibus includes funding to ensure that every mom has access to the robust social services they need and deserve throughout pregnancy and the full yearlong postpartum period and beyond. One of the most important social determinants is nutrition. And there's robust evidence showing that the WIC program which provides nutrition support for women, infants, and children improves health outcomes for moms and babies and it even reduces mortality.

However, many families that need WIC the most, they don't have access to those benefits. The Momnibus extends WIC eligibility and the postpartum and breastfeeding periods ensuring that new moms and their children can receive the nutritional support they depend on. It also -- the

Momnibus also includes provisions to support women veterans and incarcerated bonds, data collection enhancements, investments in the perinatal workforce, funding for digital tools, and policies that specifically address COVID-19.

The package also includes policies that are reflected in other Vital Directions priorities like transforming mental health and addiction services. Maternal mortality review committees which are CDC-supported initiatives to address the causes of every maternal death but in a state have found that mental health conditions are one of the leading causes of pregnancy-related mortality. And in my State of Illinois, postpartum opioid overdose deaths have been skyrocketing which is why we are particularly focused on enhancing and advancing the Moms MATTER Act, one of the 12 titles in our bill and it's bipartisan. Lisa Blunt Rochester from Delaware, John Katko from New York, and Brian Fitzpatrick from Pennsylvania are leading that bill.

The Moms MATTER Act provides robust funding for programs to support pregnant and postpartum people with mental health conditions and substance use disorders including initiatives to address stigma, provide culturally appropriate services and support, strengthen suicide prevention services, and raise awareness about the warning signs for perinatal, mental, and behavioral health risks. The bill also provides funding to accredited mental and behavioral health education programs to grow and diversify the workforce addressing the gaps in care that we see in too many communities across the country particularly communities of color and other underserved areas.

In addition to the Moms MATTER Act, we have provisions to support more systematic and comprehensive tracking on maternal suicides, overdose deaths, and prevalence of mental health conditions and substance use disorders. These are the necessary investments that will save lives and support families. I look forward to working with my Democratic and Republican colleagues in the House and Senate as well as the Biden-Harris administration to get this legislation signed into law.

By deepening our understanding of these issues and proposing solutions to the most pressing health challenges facing our country, the National Academy of Medicine is playing a critical role in the effort to build a healthcare system that's better and better serves every American. I'm grateful for the work that you do and for the opportunity to be with you today. I look forward to the day that we're back together in person again but until then, take good care of yourselves, and thanks, everybody.

Victor Dzau:
Oh, thank you very much, Congresswoman Underwood.

Lauren Underwood:
Thank you.

Victor Dzau:
I mean, we're so lucky to have your leadership, you're championing the important issues, and effective legislative change to improve the health of nations. So, can you all join me in thanking Bill Frist and Congresswoman Underwood for the great talk. [applause] I'm now going to turn

the podium over to Alan Weil.

Alan Weil:
Thank you, Victor. It's my pleasure to lead the discussion amongst a terrific collection of panelists. I will tell the audience that we are taking your questions. I don't know how many will get through but feel free to submit them through the portal as you're -- right below the screen where you're watching.

We're going to hear today from Garth Graham, global health -- global head of healthcare and public health at Google/YouTube. Dr. Graham is a cardiologist. He was president of the Aetna Foundation, vice president community -- chief community health officer at CVS Health. He has served in two presidential administrations.

We're going to hear from Aletha Maybank, inaugural chief health equity officer and group vice president at the American Medical Association. Dr. Maybank was president of the Empire State Medical Association and deputy and associate commissioner of the New York City Department of Health and Mental Hygiene.

We'll hear from Dr. Mark McClellan, Robert J. Margolis Professor of Business, Medicine, and Policy, founding director of the Duke Margolis Center for Health Policy at Duke University. Mark has been the administrator of CMS, the commissioner of the FDA. And he's, as you heard, played a leadership role in the Vital Directions project.

LaQuandra Nesbitt, board-certified family physician who is the director of the District of Columbia, Department of Health here in Washington, D.C. She's been in that role since 2015. Before that, director of the Louisiana Metro Department of Public Health and Wellness.

And Mark Smith, professor of clinical medicine at the University of California, San Francisco, visiting professor at the School of Public Health at U.C. Berkeley, co-chairs the Payment Learning & Action Network that many of us follow the workup, spent almost 20 years as the founding president of the California Health Care Foundation.

We have five medical doctors being moderated by a lawyer, that's me, so don't use your fancy medical terms on me. We're talking to a lay audience here. I've asked each of you to just kick off with a moment of you've seen the scope of what's covered in the Vital Directions papers. It's obviously very broad. I just like to get a couple of minutes of what pops out to you as a top priority that you would suggest for those who are going to take these papers and turn them into action. And Garth, we'll start with you.

Garth Graham:
Thanks, Alan. I'll try to keep my remarks brief. I think all of the papers touch on an overarching issue of social determinants of health and equity with varied approaches. And I think that has to be carried through. I do want to say one thing, I think, our representative said it well. We have to remember a lot of these issues aren't new. You know, the former Surgeon General David Satcher, you know, called out issues of maternal health, mental health issues almost 20 years ago.

Secretary Margaret Heckler back in the 1980s talked about -- and there were -- issued a report that talked about infant mortality and maternal health. So, these are not brand-new challenges. They're perennial and reflective of a lot of the challenges of that are in our own social issues and racial injustices for a long time.

So, with that being said and done, I think the papers take a different lens on ways in which we can try to address that certainly in the era of COVID. I think that's important to note. One last thing I'll say just in the interest of time and I think Senator Frist said it well, you know, the benefits of utilizing technology, telemedicine, some of the efforts that we're leading around how you build and bring technology to scale particularly in underserved communities and using things like video. And I think that has been accelerated and the era of COVID is here to stay.

And what we really need to think through and what I think the papers bring to light starts with the mental health paper brings to light but I think it's important to understand is how we evolve, where we are with healthcare to where people already are. Patients, consumers, communities are already utilizing technology as a tool in healthcare despite all of the challenges with access and some of the variations there.

So, we have to make sure that we catch up to where communities, consumers, patients, and others like ours and make sure that we're providing healthcare in that convenient manner. Out of textbooks, you know, taking it out of the doctor's office, out of textbooks, you know, out of the kinds of places where people need to go to find the care and bring in care to them. So, those are probably the two issues I'd say stood out the most to me.

Alan Weil:
Great. Thank you so much for kicking us off. Aletha, I'll turn to you.

Aletha Maybank:
Hi, thank you. Good to be here with everyone. You know, continuing on with what Garth was saying, you know, the reality -- all of them mentioned, you know, about equity and talked about equity and the importance of that and it definitely continues on, you know, with the focus that has started during a lot of the work that, you know, Garth did when he was in government.

The opportunity that I think and the need at this point of time is really greater specificity around what it means to actually do equity. I don't feel there is enough discussion around the strategies of equity. I think in the previous talk by the Congresswoman like she definitely elevated some actual strategies but I don't think we're doing enough of that in our spaces of healthcare especially in the healthcare space less in the public health space now.

But I think, you know, we have to better help people understand what it means to do anti-racism and having practices around that. And, you know, if I listen to Dr. Frist's conversation around telemedicine and how a year ago, you know, we didn't really talk about it much and COVID served as an accelerator, you know. It's the same thing as it relates to racism as COVID plus the public murder of George Floyd, really, that served as an accelerator in talking about racism more so than we have done in probably the last 400 years, let alone, you know, six years.

And so, the challenge and the opportunity is that we're talking about it more so. It's -- and I get that it's not equal across the country, I understand that, but we are naming it in ways that we have. And the municipalities across the country are now declaring racism as a public health issue and a public health threat. And so, how do we turn that into actually institutionalizing it and operationalizing it I think is really our next phase and making sure we're naming the context of anti-racism in this progress and this need to advance equity. So, I'll stop there for now and I'm sure I'll be able to continue on.

Alan Weil:
That's great. We'll pick up all of these threads. So, Mark McClellan, give us your opening thoughts on the papers.

Mark McClellan:
Well, thanks, Alan. It's great to be part of this distinguished panel, you know. I had the privilege of working with the first iteration of Vital Directions back in that 2016, 2017 time period. On the one hand, it's maybe concerning that some of the same themes that were important then have come out clearly in the new set of papers and recommendations. And as many of the panelists have already said, you know, many of these issues are not new.

What I appreciated particularly from this new set was, number one, there are a number of new perspectives and as a result, new ideas are included in this set of recommendations. And number two, there's a real sense of urgency in getting to if not easy actions to take at least clear evidence-based directions to address the core challenges of affordability and access to care making healthcare better so that it really works for populations. And especially putting an emphasis on addressing the disparities that have been highlighted and worsened in the COVID-19 pandemic.

And just an example of one of these through lines, you heard just recently about all of the legislative efforts underway to try to address maternal health disparities. That was one big theme of the one big practical set of recommendations in these Vital Directions report but it's one that carries over across all of the other papers that were included in the whole set. So, on the paper that focused on financing mechanisms, a real emphasis there on changing the way that we pay for healthcare. Again, something we've been talking about for a while but doing it in a way that focuses on improving population health outcomes for maternal care.

So, if you apply the ideas of more continuous coverage and also building on what we've learned from efforts like the maternal quality collaboratives on how care can be redesigned, get more upfront support, prevent complications, there's some practical steps for implementing that many states and Medicaid programs and commercial payers are starting to implement. Similarly, for steps in addressing behavioral health.

Well, if we don't integrate behavioral health effectively, we're definitely going to have continuing unmet medical needs. But as a result of what I think will be some permanent changes from the telehealth expansions that have occurred, we've seen opportunities for making behavioral health better integrated into addressing maternal health problems, depression, other issues as well as for people more broadly.

I do want to emphasize though that these steps need to go together. The expansion of telehealth by itself without steps to integrate it more effectively with person-based care, good primary care, good population healthcare supports is likely to just lead to higher cost and some significant continuing missed opportunities. Same thing for more integrated care for older Americans and for building in better capacities to respond to this pandemic and prevent future outbreaks. The kinds of payment and financing reforms that are included in the report, for example, provide a basis for further steps for health plans, for healthcare providers, and public health work together to address the emerging disparities and COVID-19 vaccination rates that we're seeing.

So, an announcement from the administration just last week about some steps to track the data with race and ethnicity information too and support across private health plans and Medicaid and Medicare advantage as well as in public state and public health programs are ways of identifying gaps in vaccine access and effective strategies for addressing them. It's that kind of coming together that I think really gives the report the momentum to have an impact now just as you've heard from the other panelists.

Alan Weil:
Thank you so much, Mark. LaQuandra, what's your reaction as someone right out there in the field every single day?

LaQuandra Nesbitt:
Yeah. So, I want to thank you all for the opportunity to be here and to share views and perspectives, and also to learn from others. And I'm really inspired as others have said that the Academy is elevating some of the issues that are so critically important to improving population health which is a recognition of the social context in which people live and how that influences their ability to be healthy.

We have seen through the COVID-19 pandemic how critically important those, the need to address those challenges and issues are. And we're constantly reminding people from the seat that I sit in that the disparities and inequities that we're seeing are not specific or related to the acute nature of the emerging infectious disease, right?

These are things that are happening because we have communities that live under chronic stress. And when shocks come to them, they have a much more difficult time navigating those challenges, navigating that health, pandemic, and other things. And so, you know, when we talk about the articles as a collective, it's really again inspiring to see that thread of social determinants of health. And it's really inspiring to see how that framing fits into what we need to do for infectious diseases moving forward.

And you know, there's the concept of resilience and truly appreciating that building a resilient response and resilient interventions means that we set up very detailed interventions and strategies that help to mitigate the impact of any stress whether it be a public health emergency that's caused by an infectious disease when it's caused by the floods that we experienced in this country or more recently the ice storms that happened in Texas that really shook up the infrastructure there.

And you know, we can't have a conversation in the public health space about resilience and about the impact of COVID-19 without recognizing how these articles helped to situate us and prepare us for our post-pandemic framework for dealing with and addressing health. We've had substantial challenges in our public health and healthcare system using our old models of delivery of services.

Telehealth has already been elevated here but we see a reduction in people utilizing some of those wraparound services that are meant to improve population health such as home visits, such as being able to go out to farmers market using federal vouchers or local vouchers for their food security and food access. And I think we could all agree that the economic impacts of this pandemic have been devastating and it will transcend -- can transcend any initiatives that aspire to make care more affordable locally.

And I'll just close with this, with alignment of the articles. We've started to think about our post-pandemic framework for health and it'll be released next month. But we're really looking at five key domains where we can take a look back to what we were doing before February 2020 of the things that we've been doing during the pandemic and what infrastructure we really need to have post-pandemic and leveraging so many of the resources that are coming to respond to the pandemic for greater impact long term.

And those five domains include many of the things that are referenced in the articles as opportunities for improvements and for focused strategies such as workforce, health information technology, healthcare facilities access, health systems planning when we think about the D.C. -- or the Healthy People 2030 program, and even how we deliver our health services as I mentioned before. So, you know, those are just my initial thoughts. Very inspired again to see the academy elevating this discussion and to see the thread of recognition of the social context in which people live on their overall health. Thank you.

Alan Weil:
Great. Thank you so much. And I'll turn last to Mark Smith. Mark.

Mark Smith:
Well, the disadvantages are going last just that everybody said everything but not everybody's -- so, I'll say two things quickly. First of all, a note of caution. Because these papers point out the astonishing speed with which things have changed in the last year. Things that we never could have imagined. As Dr. Frist said, the degree to which patients and doctors and hospital systems pivoted on a dime to telemedicine. And we've learned that patients in Vermont being cared for by doctors in New Hampshire do not drop like flies. We've learned that nurse practitioners can do a pretty good job. We've learned that it doesn't really make a difference if a patient has had an in-person contact with a doctor before they have telemedicine.

I want to point out there's a reason why all those crazy regulations were in place before this pandemic happened. And in the revolution of telemedicine, we should expect a counter revolution. For every Napoleon, there's a Louis XVIII. And as sure as I have been born, there'll be people who want to go back to the old ways. So, it'll be important for us to consolidate some

of the lessons from this pandemic. As Mark has said, that ranges anywhere from payment to care delivery, to scope of practice, to cross state licensure, to all sorts of issues that, it turns out, could be changed in much more quickly than anyone could have imagined.

The second is I want to build a little bit on what Dr. Maybank said about the strategies for equity. Many of us who are concerned about equity are concerned about equity because of their passion for social justice. And that is right and that is good and it should be supported. But there are lots of different political attitudes in our country about social justice. And I should not have to convince you to my view of social justice for you as a healthcare provider or institution to join the fight for equity. Because equity is one of the six domains of quality of the Institute of Medicine now in National Academy. You all know them by heart, say it with me, safe, effective, patient-centered, timely, efficient, and equitable. And equitable is the one that is least often measured, least often paid attention to, but it's the one that every professional should be able to get behind regardless of their political persuasion, their party affiliation, or their views of social justice.

So, I think it's going to be important to link the quality improvement agenda which runs throughout these papers with the equity agenda which, as Dr. Maybank has said, is newly rediscovered, and I think paid attention to, in ways that allow everyone to be involved in the struggle to provide more equitable care to every American regardless of their political position or their views of social justice.

Alan Weil:
Well, you all have gotten us off to an incredible start. There's so many directions we could go. Let me start with one which goes back to Senator Frist talking about telehealth. Garth, you picked it up and it's come up a few times. Immediately questions come in, is it the same quality? Mark Smith, you touched on that. Is it a tool for equity? It can actually access to -- broadband can be inequitable. Is it just -- and maybe this isn't quite the kind of revolution you had in mind, Mark. But is it just a way to continue care the way we've always done it just over T.V. as opposed to actually moving sites of care and locus of care into homes and communities?

So, a lot of what was in the vital directions was about changing delivery of care more than just making it virtual. So, how do we look at the move to virtual, not just as the end point but as the weigh station to really moving here to where people want it, need it, where -- in their homes in their communities? How do we make that happen? And I know you're not a shy bunch so --

Mark Smith:
Well, so I believe that every doctor in America, five years from now, will have to have a four-channel practice. They're going to have to be able to take care of patients in person by asynchronous communication, you know, emails and texts, on the telephone, and by video. And we've learned there's an awful lot of stuff that we used to have to do in person, pre-op and post op and communicating information. I tried -- The Leadership Alliance has a principle that says, move data, not people.

So, I think the question is how to have the right side of care for the right patient for the right disease. We will never completely eliminate in-person care. But I'll close with -- there's an old

song by Johnny Mercer that I will paraphrase here. It is no panacea, but our job, I think, is to accentuate the positive and mitigate the negative. Can it help with discrepancies? Of course it can. Can it help democratize care? Of course it can. Is it perfect? Are there downsides and challenges of broadband and access and everything else? Of course. But the job, I think, for us now is not the kind of endlessly wring our hands about them. It's to recognize these issues and get to work on mitigating the negative.

Alan Weil:
Garth, it looked like you were going to start --

Garth Graham
Yeah. I love the way Dr. Smith said it. He said it better than I would, but his point is right. You know, the goal -- we realize that there are challenges particularly faced by low-income communities on all broadband access and other related kinds of challenges. The goal is not to go back. The goal is to figure out how do we bring those communities forward. How do you create infrastructure, so that they can have the access and the benefits from all of the technological advances that we talked about with telemedicine, video, as Dr. Smith said, et cetera.

I do love also what Dr. Maybank said which is, you know, getting out of the esoteric and into the details is always important. And the details of it is really how we, as a country, think through getting underserved communities to where other communities are in terms of access. Not as, as Dr. Smith said, you know, rolling back, but more figuring out how we bring communities forward.

LaQuandra Nesbitt:
And, you know, I would just add to that. Oftentimes, when we talk about telehealth, people think about it, as Dr. Smith said in a very synchronous communication sort of way. But we've seen greater adoption of the use of home monitoring tools during this period of time. So, when we really think about health information technology and health technology more broadly and its ability to help eliminate echo inequities and to advance the health of vulnerable populations, many of those tools have started to be adopted. People are not afraid of them.

And as Dr. Graham said, how do we push on the gas for that? And how do we really, again looking at the social context in which people live and have meaningful solutions, recognize that increasing broadband access so people can use the tablets that we've given them for free and using their cell phone without worry about cost per minutes for some of these interactions. How do we accelerate that as being part of the health agenda?

Mark McClellan:
I'm going to pick up on Dr. Nesbitt's comment about how this is not just about telehealth alone but really about a whole set of services and supports that can help transform care and -- in the pandemic. And now as we're starting to move beyond it where we are seeing some really innovative models of using telehealth. Not as an end in itself but as a piece of along with data monitoring remotely along with using community health workers as a piece of building, really effective care team that meets people where they are, you know, literally in their home and in their community.

Companies like Cityblock Health that work with Medicaid and that do so under these alternative payment models where you're paid for the person, not for that specific type of service alone or specific channel alone, have been able to develop some supports around those four channel physicians. It turns out -- you know, a lot of physicians on this panel. You don't necessarily need last physicians to deliver really good care if you give a care team the right supports and really help them focus on meeting people where they are.

So, even if you don't have -- Cityblock, I think, will tell you. If you don't have broadband in the home, even if a person doesn't have a smartphone and can easily isolate themselves, you get some privacy to have that good telehealth encounter, you can still use technology to support connecting with that person. It just has to be specialized to the particular needs of that individual.

And that's why I think it's so important that we support, as the vital directions and papers, emphasize this shift in the way that we're paying for care. Not just to move to capitation or to move towards new payment models for their own sake, but to really track what is working. And that people are experiencing care better, that they're getting their behavioral health concerns addressed, that they're able to stay on the right medications because they've got a secure enough home environment and the social factors that are -- that make it so difficult for some people to take advantage of care are being addressed. So, I think there's a lot to build on here as these other panelists have mentioned.

Aletha Maybank:
I just want to add in, you know -- my role is, you know, equity and just -- I agree with all that was said. And I agree with the context that we have a good understanding of kind of the descriptive aspects of where inequities exist. And there's always more to learn. And that shouldn't get us caught up on not moving forward.

However, I think, important to move forward and to really hold true to an equity lens. We need to kind of move more upstream, and how we talk about telehealth and the technology and all these pieces of innovation that are emerging at this time that help with healthcare delivery to make sure that we're not exacerbating equity but also that we're not excluding. And so -- and it's not just about, like, the connectivity and the device and all of that, but it's about the design and how do we get to the design moment.

You know, oftentimes, really, you know, there's exclusionary design and it really fails to center solution development. That's really on historically marginalized communities upfront because they're not part of that development. And I think there are more opportunities across the country to actually connect those dots between the opportunities for innovation and what's happening at the neighborhood level, where there are great ideas around solution. Really relevant ideas around solution. But then the question is, like, who gets funded and who doesn't get funded for, you know, their ideas.

And so, we're doing a lot of work of really trying to push upstream to kind of look where we can push more. So, I guess, you know, this -- the business sector to really challenge you know, the

lenses that they're moving forward to do this work and who are they funding. And so, we now have more engagement with venture entrepreneurs, all the folks within that particular ecosystem, to really start supporting development within the sector that prioritizes resource allocation to launch and scale solutions that are meaningful for advancing health and racial and social justice.

But also, really ensuring that folks who are of color and, you know, identify across the spectrum of identity have opportunities to engage with these venture folks. Also, they have the opportunity to engage with investors as well who will fund their products. Because there's a huge gap in that area. And I think that usually gets left out of the kind of tech, telehealth conversation. How do we move more upstream?

Alan Weil:
I want to follow up on that with your comment at the opening around specificity and strategy. So, congress just sent to the president $1.9 trillion piece of legislation that's designed to help move us forward here. Seems like a great opportunity to address the five areas in the papers. It -- but it obviously was not written. Just with that in mind, what specific opportunities do you see either having been taken a good start, a good first step, in legislation that was enacted? If you were thinking about what comes next, what would come to mind at the level of sustained efforts to try to address some of the issues in the vital directions on papers?

Garth Graham:
Yeah, let me start off and jump in. You know, Dr. Maybank and team wrote a very interesting op-ed around an African American physician who had passed away, potentially due to the impact of systemic racism. And certainly the concept of explicit, not even implicit, bias. And though the current law has a lot of support in community health centers and the kinds of things that we've done for a long time in health policy and new things around testing and expanding and trying to get underserved communities.

One of the things I thought was not there and also was not, I think, explicitly brought out in the papers is this issue of addressing explicit and implicit bias and ways in which we think through that. It shows up a lot around maternal health. Dr. Wallace, physician who passed away from maternal health complications in Indiana, and so many other examples of names of people that we can think through how bias gets its way into healthcare and has a very profound outcome.

And again, you know, really hats off to Dr. Maybank and team who have kind of written a lot more about this. But that's one area, I think, I would like to see more explicitly explored given the time, given the consciousness that we have the ability and capabilities to discuss that a little bit more now.

Alan Weil:
That's a -- yes.

LaQuandra Nesbitt:
So, I would add to that. But I think, you know, in terms of the legislation that was passed, we definitely think that anything that helps with the economic situation of families, because of economics, employment opportunities, et cetera, is such a key driver of health outcomes in our

community, in our society, would be beneficial. To Dr. Maybank's point, however, the implementation of the legislation and how the responsible agencies set up what those requirements are for all of the jurisdictions that may be receiving funding, whether it be around vaccination rollout, whether it be about support to community health centers, et cetera. If we don't reimagine how we provide services and if we don't figure out how to make equity the priority or at a minimum pair equity and efficiency together have them be parallel constructs as opposed to equity always being the, we'll get to it if we can. We're not going to realize the true potential of this legislation.

I think we have to recognize that our health systems, public health, and healthcare systems, have been changed permanently. Some of them have lost capacity because they had to make adjustments to their physical plan just to be able to manage COVID-19 patients. So, they couldn't possibly even see the same volume of individuals in person as they were being pre-pandemic. And that requires substantial investment in the pipeline for the health workforce and that that workforce be very diverse.

We're not talking about continuing to ramp up funding and health professional loan repayment programs as skewed to physicians but thinking very intentionally about how we invest in allied health, how we invest in -- for community health workers, and not have them bound so much to the fee for service payment system in terms of their interaction and engagement especially on the public health and healthcare side.

So, those are the types of things that when you are looking at different jurisdictions that are along the spectrum. Some doing a much better job than others with the rollout of their vaccine program, for example. From an equity perspective, the ones who have really embraced the use of allied health professionals or expanding scope of practice or being very detail oriented in their review of data to get down to the neighborhood level as to where health needs are, are doing a much better job than those who are still taking sort of that macro or meso view.

So, I think that we have to be very intentional that when this legislation is implemented, it comes with the right reporting requirements and the right enforcement tools for jurisdictions to use these funds responsibly.

Mark McClellan:
Some of the most important elements of the legislation that President Biden just signed were for improving health and health equity were not the healthcare provisions but the economic provisions. I particularly point out the big expansion of the child tax credit which is going to make a big difference in the lives of kids in low-income households and underserved communities. And hopefully, something that we can build on over time. It's a concept that's had a lot of bipartisan support even though it's not one that is likely to show some short-term impacts on health outcomes. It might, but certainly a lot of potential for the future.

And I'd be interested in Mark Smith's view on this. We -- Mark and I had a chance to talk a number of times about how much is really within the healthcare purview versus outside. I do think -- thanks to the legislations. Like Dr. Nesbitt said and others, there are some specific opportunities to use public health funding in the legislation paired with steps in healthcare

systems. You're meeting people where they are and going more upstream to make a bigger difference.

Take vaccination as an example in -- here in North Carolina, our state is requiring submission of race and ethnicity information with the vaccination registration system. So, it's a core part of public health, if you don't submit it, you don't get paid. And also, is tying those measures to the allocation of vaccines, not that the measures by themselves tell you how to address disparities. But they can tell you that certain approaches like working with community organizations can make a difference and working with community-based providers rather than maybe just relying on large mass vaccination sites.

And so, for example, we've done some work -- I work with the National Alliance for Hispanic Health. They've got some good examples of models that are helpful in addressing concerns about access and about -- questions about vaccines in the Latinx communities that can be built into these models working with healthcare providers. Say if we have measures that share the same goals, increase vaccination, reduce maternal health disparities outside of healthcare and public health programs and inside of our reform healthcare programs that aren't just being paid on a fee for service basis, but are they're being held accountable and you have a new support to address health disparities. I think we can make some progress there too. So, steps both inside of healthcare including public health upstream steps, as well as important attention to the steps beyond healthcare that matter so much.

Mark Smith:
Yeah, I'm all for upstream. The spidey sense in the back of my neck gets a little irritated when I start hearing hospitals saying they're going to take all the housing and transportation and food deserts, and all the rest of that. So, I think it's important that we focus resources on social determinants. I also think it's important that we be aware of the power dynamics that exist in lots of communities. And so, when you're talking about triaging access to scarce resources, I want to make sure that that triage doesn't happen from the perspective of what's best for the healthcare system, but what's best for the people and community. And sometimes those priorities are not quite the same. So, I'm all for the concept. But as you've heard people say in other contexts today the devils in the details about how exactly that gets done.

Aletha Maybank:
Absolutely. And I also think -- I really appreciate that. I think it's also in our kind of just guiding principles around what equity is and what it means. You know, I usually refer to Camara Jones and the saying, you know, "We value all people right." And people could say, yeah, we do that. But does that really play out in your systems and your structure? That there's a recognition that there's a historical context to why your system has ended up the way it has. Are you really looking into that in the relationships that you've had with your neighborhoods, whether you're a public health system or healthcare system?

And then as Mark just mentioned, you know, the redistribution of resources which is absolutely critical, you know, to an equity approach. And that really gets missed upon people. And so, you know, while I understand folks hesitation in terms of healthcare, focusing are addressing issues like housing, the reality is, is that most people within the space of healthcare, anyway in

medicine, are not well equipped to even understand these contexts that are upstream and then what to do with it. And so, it speaks to terms of solutions. We need a more diverse healthcare workforce. I think that's absolutely true. And racial ethnic diversity, I want to just point that out, along with other things. But also, we need a workforce that even understands what public health concepts are about, understands principles around equity and how to operationalize.

I just feel at this time, we don't have a lot of people who really have a skill set of the institutionalize. How to do it? What needs to be done differently? You know, again, institutionalize. What are those questions that you have to ask yourself to ensure that you are not discriminating exacerbated inequities or denying care in any kind of way? You know, are you asking yourselves about who you are engaging? I would say on the healthcare side, these questions don't get asked enough. And then also, like, who is benefiting and burdening -- being burdened by the proposal and the ideas that you're putting forward.

These are concrete strategies and tools, rather, that people can use in order to do this equity work. And I think the opportunity is, is how do we get more people kind of equipped in that space. Because if not, we are going to be -- from my perspective, we're going to be going in circles. We're going to be saying equity, equity, equity. We need to do this. But we don't have a workforce that's really skilled and equipped to really know how to do that.

And then lastly, I'll just mention, I think the other tremendous opportunity to really institutionalize equity is the executive order for this administration on advancing racial equity and support for underserved communities throughout the entire government. So, that allows for several things. One, just understanding that it's not just, you know, a health thing that clearly needs to have racial equity embedded across all aspects and agencies, but it also provides an infrastructure for sustainability of this work. And I think that -- I get concerned a lot about that as well. And I think we have an opportunity to really embed it into kind of practice and culture of federal government so that it lasts over time. And we see the value in work. You know, we'll see what happens, you know, with united -- NIH, you know, that they launched their initiative to address structural racism and really focused on, you know, the policy aspect and the structural aspect within their organization to make sure that it's embedded.

Alan Weil:
I feel like you've brought together so many things, and I'm going to try to weave them a bit and get one last set of comments from each of you. The concept of workforce, which often is just counting numbers of people, now has come up in so many different dimensions in this conversation. How people practice the diversity of the workforce, the ability to function in teams, the knowledge of public health, the need of people with different levels of training? But then also that the right workforce is part of institutionalizing change, that it's the people and how they interact with each other that are the institution.

And so, that leads me back to the very first comment which was about sustaining change, that the issues actually identified in vital directions are not new. They're the perennial issues. And the question is, how do we have a sustained response this time that leads us to, as Mark said, having been involved in this four years ago. You know, you don't want -- we don't want to have this conversation four years from now. The same one. We want to be in a different place. So, let's

weave together some of these threads of workforce institutional change and the desire to do better. And what advice do you give to those who are in policymaking positions, so that we're not back here four years from now having the same conversation.

Mark Smith
I think the most important thing is data. I think if every line of business, every institution, every organization, every company ought to think about what its most important quality metric is and then analyzing by the axes that we know have disparities in them. A hospital ought to be analyzing its readmission rate by race. And E.R. ought to be analyzing its satisfaction with pain control by gender. A health insurance plan ought to be analyzing its Net Promoter Scores or, hospitals can do their Press Ganey scores by primary language. So, I don't think it requires the creation of a whole new data set. I think it requires what someone called an equity lens. And I think that's the way we can institutionalize a way of seeing what progress we're making and identifying areas where we can make more progress.

LaQuandra Nesbitt:
You know, Alan, I agree that we are at a very pivotal moment where what we do right now at this tipping point matters in terms of setting our system on a different trajectory that can be sustained over time. And, you know, I hate to keep going back to this, but I really think that the more we recognize that investments in non-healthcare activities are investments in the improvement of health if they're the right investments. And we've put together a framework here, even thinking about, you know, when we -- every state has talked about reopening. We have an approach that says we have to focus on health, opportunity, prosperity, and equity. And so, for all of the domains and all of the sectors that were impacted by the global pandemic, so our large employers, our transit system, everything has to do their new work around, what does it look like? What's a reimagined D.C. through the lens of health, opportunity, prosperity, and equity?

So, practically, when we're engaging with our policymakers, whether it be the executive or the legislative branch, we're very keen on acknowledging where investments in other sectors have an opportunity to improve health as opposed to focusing simply on the size of the budgets for the Medicaid agency and their population health initiatives, the size of the health department and its population health initiatives, but really doing a good job of weaving that in.

And the more people buy into that concept, the greater sense of permanence it creates. And the more it depoliticizes, some of the things that we talked about in terms of health reform, in terms of health reform and payment reform, that often can be dismissed. As Mark said, every evolution has a revolutionary. And so -- or a revolution has a has an opponent, rather. And so, I think that we really need to be mindful of why we haven't accomplished, what we want to so far, and being very hypersensitive to what those potential barriers are, so we can have reasonable and practical responses and solutions when they arise.

Alan Weil:
Okay.

Garth Graham:

The one other thing I would add is Congressman Louis Stokes, who many of you may know was kind of one of the old fathers of the Congressional Black Caucus. And he'd always sit down a group of us and tell us what mattered, so it's -- that you don't focus your time and things that don't matter. And he always said, laws, policies and regulations start there. And then he said, if we can get the big health equity things into laws, into the actual policies -- that's how he created the National Institute of Minority Health and Health Disparities. You know, funded all kinds of research around the world -- was -- you know, he moved that law forward, and he created that law, I should say.

And so, I think to the degree that we can sit back right now and have distinct, actual legal and -- grow on the current legal infrastructure but distinct, actual, legal policies and parameters that advance the field. I think that it's harder to take a step back once you kind of make those moves.

Mark McClellan:
I'd like to put an emphasis in making those legal, and now -- and with some new legislation now, a lot of opportunities in the regulatory side for implementing these policies, to put emphasis on Mark's point about measurement. It's hard to measure everything that we care about when it comes to equity and population health and these other complex issues. But that is a way to make sure we're not losing the focus. So, whether it's in making progress on COVID, around tracking race, ethnicity measures, and maybe other socioeconomic measures related to vaccination use, or to test positivity rates, or to access to monoclonal antibodies, or other effective treatments for high-risk individuals who are infected. That's a way of helping to bring together that the healthcare or reminding people on the healthcare side that they can't, alone, address these upstream issues but maybe need to form partnerships and respect. That sharing of power, as Mark said, with what it's really going to take to address those issues. Same thing is true with some of the other issues that we talked about today.

If representative Underwood's legislation could also include some accountability for actually bringing down disparities in maternal outcomes. Think about how that could help be a galvanizing force for making sure that we're --- we really are making progress. You know, we've had healthcare 2020 goals, healthcare 2030 goals, and so on. They have which is -- Garth knows who needs to work on these together and have equity components in them. But if they're not willing to action steps and accountability, I don't think you're really going to get changed.

I think the good news is, coming out of these papers, and what will hopefully be an ongoing National Academy of Medicine commitment in these areas, is that we do have policies that include these steps for accountability, measurement, and really seeing if we're making progress.

Aletha Maybank:
That's an -- I completely 100 percent agree with that. I don't think we can fully do equity work well and really say we're doing it if we don't have accountability to it. And we need policy that helps support that effort, because folks don't just naturally get up and do equity work. It just -- it doesn't happen. We can have it from a value context. And we can have it from a good intention context. But if we don't actually have impact, then we're not really doing it. And so, I think the point of data, absolutely. The point of accountability is absolutely critical as well.

I also think the other opportunity in terms of infrastructure and this awareness -- public health has always been aware of this, but I think there's now awareness in -- on the healthcare side. It's kind of aligning and moving up to where public health has been, is that we have this opportunity and this -- the switch of understanding that health is all policies is health policy, basically. And that there is an opportunity to now try to operationalize things like health and all policies, you know, where -- it really has not been able to, you know, have any kind of legs here in the United States. Maybe in some places like California and certain entities in different places, but not like it has internationally in some countries.

And I think if we want to think about sustainability, we need to have a governance structure. An infrastructure at the federal level. And policy that states that these organizations need to work together to and towards goals that are shared as well as metrics and performance opportunities that are shared. And I think that can move us closer to working across the board and bringing in the context of health as a lens but also equity as a lens.

Alan Weil:
Well, I know it isn't fair to bring this up with moments to close. But I do have to say that it's striking with the emphasis on whether you use the term social determinants or moving upstream when you talked about -- a number of you talked about the legislation on the president's desk, which I guess -- maybe it's been signed. I didn't -- I'm too far away from my phone to know, that many of you emphasize the importance of the economic provisions. The room to pay for those comes from the sense of, "We're in a national crisis." If we're not in a national crisis, the room to pay for those is probably going to need to come from healthcare, since that's a major competitor for resources. So, even as we talk about all of the new agendas we have, we are going to have to have those conversations in the context of some fiscal constraint that's impose whether it's through government budgeting processes or private sector choices. We can't forget that dimension of the vital directions looking at cost as a contributor to equity. But as I say, it's a little unfair to throw that out, right, as we're closing.

I just want to say my thanks to all of you for incredible perspective, richness of conversation. The opening question, if you will, was, are the vital directions set forth in these papers, the ones that should help guide the country? And how can we provide good advice to our policymakers? And I think you've shown the strong platform that they provide, and also provided some really important nuance and additional perspective on what it's going to take to make them achieve their goals. So, I'm grateful to you all for your time and participation.

And again, if we were in a room right now, I would ask for a rousing round of applause. Instead I will applaud on your behalf and say, thank you. And just -- as we come to a close, I want to say how pleased we are at Health Affairs to have been able to publish these papers coming out of the National Academy of Medicine. We work at the intersection of health and healthcare and health policy. And that's exactly what we've been talking about here. And I now get to turn it back with a personal thanks to you, Victor, for your leadership of the National Academy, of which I'm a proud member of this vital directions project and your overall emphasis on making sure that the work of the National Academy of Medicine is relevant to policy and policy makers. You've moved that so far forward. And it's just been great to work with you, not just in this capacity, but in others. So, with -- thanks to you and to your excellent team. I'll turn it back to

you for some closing words.

Victor Dzau:
Thank you. First of all, thank you very much, Alan. And I want to thank this wonderful panel and our speakers, special speakers, for really a great afternoon. I've learned so much. You know, when you think about our name, National Academy of Medicine, it really hardly reflects our aspiration. We're more than an academy, although we found that as an academy. We're more than medicine. We're about health. So, I think what we heard today, I just feel was so privileged to serve this nation, to serve our people, and serve globally. And as reflected today, the final directions is probably hear from all of you. This was not pulled out of the air. This, in fact, is through hard work and hearing from the nation, from people what are those issues that we all have to address together. And I do want to thank my co-chair, Mark McClellan, and of course Mike McGinnis, my executive officer, really to put together this wonderful set. And Jessica Marks [spelled phonetically], our staff, who's really worked tirelessly to put together.

Today's discussion and particularly the last panel to me is truly inspirational. Everything you said is so, so important. We recognize that we, as a nation and society, need to work together. I think you made this point many times. And to achieve equity, it really is not only health equity. But it's been said, it's through the lens of health but in every single sector. And the thoughtfulness and the arguments you make and the recommendation you make are so well put together that we will, as the National Academy of Medicine, take these ideas forward; and certainly want to engage all of you and many others to be sure that, as you say four years from now, we don't have the same conversation. We all like to see, in fact, there's progress. I know that as the famous Chinese saying says, "The journey of a thousand miles starts with the first step." We're taking those steps together.

So, I just want to thank the panel again, the speakers, Alan, for a wonderful afternoon. I know there are 1,500 people who logged on this webinar. And I know they're inspired by many of ideas and comments were made today. So, again, our heartfelt thanks from me on behalf of National Academy of Medicine and everything else that we represent. Thank you.

[music playing]

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