Dr. Walensky: Thank you. It is my honor to introduce this year's Langmuir lecturer, Dr. Mary Bassett, the 17th Commissioner of the New York State Department of Health. Dr. Bassett's work, like the work of CDC, has been rooted in tackling structural racism and ensuring health equity.

As a young physician, she served on the medical faculty at the University of Zimbabwe, where she implemented a range of AIDS prevention interventions. In 2002, she was appointed deputy commissioner of health promotion and disease prevention at the New York City Department of Health and Mental Hygiene, where she launched her signature program opening district public health offices in neighborhoods long harmed by racial, ethnic, and economic health inequities.

From 2014 to 2018, Dr. Bassett served as commissioner of the New York City Department of Health and Mental Hygiene, continuing her focus on addressing the structural racism at the root of the city's health gaps between White communities and communities of color by establishing the Center for Health Equity and hiring Dr. Aletha Maybank to serve as its first director and Associate Commissioner of Health. Dr. Bassett recognized Dr. Maybank as a person who was ahead of her time in thinking about health equity, and, learning from her successes, we are lucky to have Dr. Maybank serving now as Senior Advisor for Diversity, Equity, Inclusion, and Accessibility at CDC.

In 2018, Dr. Bassett became director of the Francois-Xavier Bagnoud, or FXB, Center for Health and Human Rights as well as FXB professor of the Practice of Health and Human Rights at Harvard's T.H. Chan School of Public Health.

Now as Commissioner of Health for New York State, Dr. Bassett continues to address disparities, working to reduce the differences in health outcomes that can be traced to unequal economic, environmental, and social conditions.

Thank you, Dr. Bassett, for the work you have done for so many years in addressing health inequity and thank you for joining us today to give the 2022 Alexander D. Langmuir Lecture *Undoing the Racial Patterning of Health*.

Dr. Bassett: Ah, so the camera has turned to me. I want to start out by thanking Dr. Walensky for that very kind introduction and saying to everybody who is here, good afternoon, and for those who have joined us virtually, good morning, perhaps even good evening. It is truly an honor to deliver the Alexander Langmuir lecture, this is the first in-person meeting now in two years for this annual meeting, so I decided I better join you in person myself. So this was a last-minute decision, and I would like to thank the organizers for going with the flow as I decided to join you in person.

This is a true honor to give this talk, but it is also an important opportunity. I view this audience as both public health leaders and future public health leaders, so I am delighted to be here. I am here coming from a state that had a period of green, low burden by the CDC community levels, that's once again a hotspot for rising COVID case rates and increased hospitalizations. We now have, based on the latest CDC update, over half of New York State counties, 37 out of 62, in the highest category of community burden. This time, the increase began upstate, not in New York City. The largely Black and Brown

population of New York now has the lowest infection rate, although these are also rising. So I flew here in my N95 mask out of an airport where the overhead voice still says “Masks are required in this airport.” But the devastation of the first wave means that New York State still ranks in the upper half nationally for COVID-19 deaths, with a disproportionate number of deaths among Black and Brown New Yorkers. I do not need to tell this audience that, as I gaze out at your masked faces, but every time anybody gives me a microphone, I feel obligated to declare that this pandemic is not yet over. So today, I'm going to talk about the centrality of race, ethnicity, and understanding the United States and its pattern of health. I often say, and it is true, that COVID pulled back the curtain on race and ethnic inequities in health. But the fact is that these inequities have been in plain sight for many years, centuries, in fact. One of my very first papers written with Nancy Krieger, right out of my clinical training, I wrote, “ever since the crude tabulation of vital statistics in colonial America, Black people have been sicker and died younger than Whites.” It is a fact, not an opinion, that there has not been a single year when this has not been true. So my main point today is that our public health practice has been impaired by a failure to see as unnatural our racial patterning of health and the ongoing health advantage of people who are classified as White. Yes, this is a moral failure, but it is not simply a moral issue. The failure undercuts efforts that are core to the CDC and the EIS program, in particular, to be truly excellent in our work. Racism has contributed and continues to contribute to a sorry performance in the COVID pandemic response, and it also predates it. So I'm going to argue to you over the next 40 minutes or so that it is racism and not race that patterns health, and undoing its impact will be better for all people who reside in the United States.

Here is another fact: compared to other wealthy nations, people in the United States who are classified as White are not doing that well either. These are data from a study by the Institute of Medicine. It is a little complicated to read, but these are ranked mortality data among peer wealthy nations, and these are non-Hispanic Whites, what we call White people. As you can see, across the life’s course, the U.S. ranks at or near the bottom, until you get to advanced years, in which it becomes an advantage for people who are classified as White to be in the United States. The connection between racism and health in the United States is a very long story, and it is one that I have spent much of my working life -- in fact, much of my life -- working to address, and this is a story which, for me, also has personal dimensions. My mother is White and my father was Black. My parents’ marriage was illegal in the state of Virginia, my father's home state, all through my childhood. It was in 1967 that Virginia lost its final appeal to retain laws that made interracial marriage illegal, and it argued this all the way to the Supreme Court in Loving versus Virginia, you may have seen a movie about this. So I was named for my paternal grandmother, Mary Travis, and she was named for her paternal grandmother. That long-ago Mary Travis appears here in the U.S. 1860 census where she was recorded by name, born in 1835. The reason I know she was free is because she was recorded by name. Enslaved people were listed by age and gender only, like livestock. So I mention this because, for me, and I would argue for all people who, regardless of their classification, racism is also personal. So I will speak mainly about African-Americans, this is the group that has been most studied in this country in terms of racial disparity research and has long been my interest. But we stand here on Muskogee land, land that belonged to what was once called the Five Civilized Tribes, and I also must acknowledge the terrible consequence of European settlement on the people whom the Europeans found here. So today, I am asking you to join me in a conversation about

race and racism, thinking out loud about this. It is a conversation that will take us through history and through concepts. And I want you to listen with me and think with me, because we can change these things. And it is especially important that government, public health, embrace a truly inclusive public health. That means being more thoughtful about all of these issues, the data that we collect, and I include here surveillance data, as well as research, the narratives we tell, how we explain and interpret the data we collect, and the interventions that we promote, including the use of policy and the use of place, which Dr. Walensky referenced in talking about district public health. Government has a very special responsibility in this, in promoting this conversation, because it was the U.S. government that played a key role in enshrining discrimination based on race, and because it is a core responsibility of government to promote people's health. Vanquishing microbes, to which some would like to confine public health, is only part of this charge. Some will argue that my way of thinking means that we must hoist too heavy a load, that we have neither the mandate nor the tools to address racism or its impact on health. But we can raise our voices. You can raise your voices. And we can act. So I have not been in the CDC orbit, but one can't work in public health anywhere in the world without intersecting with the CDC, and more specifically with its stellar EIS officers and alums. As you heard, I spent the first half of my working life working in Zimbabwe, where for nearly 20 years I was a member of the faculty of medicine at the University of Zimbabwe. This was my first job after finishing medical training. The entire Ministry of Health ran its disease reporting system on Epi Info. I hope all of you have heard of Epi Info. All of our data were captured on Epi Info, which we were told was developed largely by a high school student who was the son of a CDC officer, and we could use it because it was public access and because it was really easy to use. I was never happy, I will have to say, with its more modernized versions. Well, Alexander Langmuir has an iconic status -- obviously you know that we just heard of the award winners -- that EIS and the MMWR, by the way, are attributed to him. Both of these are extremely important conditions and contributions to public health. But I want to tell you how I came across his name, because it was not because of him but because of Leona Baumgartner, to whom he was married. She was New York City's first female Health Commissioner, she was Health Commissioner from 1954 to 1962. It was a health department that was already more than a century old, and she was the first woman and an absolute force. In my book, she was the most important and powerful Health Commissioner in New York City in the 20th century, committed to community-oriented district public health, a decentralized approach to neighborhoods. She began herself as a district health officer, as did George Rosen, who we will get to in a bit. She expanded community-based services beyond child and maternal health to include high blood pressure screening, which was a really forward-thinking way of acknowledging the rising importance of non-communicable disease. She supported family planning, she convinced the mayor to create a fund to directly support scientific research aimed at one dollar per resident -- that would have been about $8 million per year -- so that the city's renowned research institutions could be engaged to support work that advanced the city's priorities. These projects included, among others, the identification of methadone, long the single treatment drug available for opioid dependence; a screening tool that is still used to identify childhood development delays; and also a household survey in Harlem. She had a weekly radio show. And perhaps her most famous act was injecting or assisting in injecting Elvis Presley with the polio vaccine. This photograph appeared in all the major media outlets. So I do not know how many of you have heard of Dr. Baumgartner. Whether it is in the arts, science, or in general, women have a way of fading away and being written out of history. But it was because of her that I heard for the

first time of the person for whom this lecture was named. I do not really know a thing about Dr. Langmuir personally. He looks rather austere in his photographs. But he sure married one very impressive woman, and under her leadership, New York City innovated from the frontline of public health to biomedical research. She was a master at communication, not easy for government public health officials, and I also should mission that Dr. Langmuir had a New York connection, served his early career in the New York State Health Department and was at one time the Deputy Commissioner in Westchester County. So history is important, an important way not only of honoring those who came before us but because of what they can teach us. And for those of you who have not read it, I would highly recommend the two volume history of public health by George Rosen, published initially in 1958, revered but hard to come by until it was reissued in the 1990's. It's pretty massive in scope but starts with the ancient world, goes to the modern era, and I am going to quote from some of his more profound ideas in the book. He wrote, "History performs a social task. It may be regarded as the collective memory of the human group and, for good or evil, helps mold its collective consciousness." He made the important, and at the time radical, observation that human beings are both biological and social beings, so that health reflects both social and biological processes. And he made it clear that it was not only individual action or behavior that was required to achieve health. And I quote him again, on the signal importance of community action and the promotion of health and the prevention and treatment of disease, he said, "This recognition is summed up in the concept of public health." So when I found this book in the 1990's, I was really smitten, and it was only quite recently that I reflected on the fact that Leona Baumgartner, George Rosen, and earlier social reformers, including Jane Addams of Hull House fame, based their public health thinking on the European emigrant experience. They scarcely recognized or referenced the population of African dissent in the United States, the descendants of the enslaved who were living in truly deplorably squalid conditions. Jane Addams, often seen as the founder of social work, a pioneering figure, had some particularly regrettable reflections. She described the settlement house model as appropriate to European emigrants because they came from civilized societies and not appropriate for the Black population, which did not. I am paraphrasing her, but that's basically what she said, and Rosen hardly mentioned Black people at all. But before Rosen's 1958 book, there was W. E. B. Du Bois. He was a towering intellect, lived a very long life – 95 years, and in 2018, that marks his sesquicentennial, that's 150 years. At the beginning of the 20th century, actually in 1899, he published "The Philadelphia Negro." He was the first PhD to graduate from Harvard, he went to Europe, to Germany to study sociology, a burgeoning new study that sought to bring scientific methods to the study of society, and he opposed the idea that Blacks were inherently disease prone, a notion rooted in scientific racism. The idea that race identifies biological differences is deeply rooted in U.S. medical thinking and in public health, to be frank. You may or may not have heard of drapetomania, which was identified by prominent southern physicians, published about in well-recognized and reputable medical journals, this condition, drapetomania, was a diagnosis for what caused people who were enslaved to run away from captivity, and the disease was treated, maybe not surprisingly, by whipping. So this seems ridiculous today, but scientific racism lives on, and race adjusted algorithms, which I hope one day are considered equally ridiculous. Du Bois opposed these ideas in terms of his personal beliefs, but he was determined to apply data. So he returned to the U.S., got a modest grant, and he -- with one assistant -- conducted and hand tabulated 5,000 surveys in The Philadelphia Negro that included health data, and he showed in these data, one, that mortality, which was supposed to be proof of the lack of

fitness in the Black population, was declining rapidly. Genes do not do that. So this was not something that could be ascribed to genes. He also showed that in the city of Philadelphia, mortality varied substantially with the impoverished Fifth Ward, having much higher mortality rates than the more affluent 30th Ward. So throughout the study of The Philadelphia Negro, he talked about the context of people's lives as a driver of the observed racial inequities in health outcomes, including mortality, and he even referred to the fact that there had been a time when the pale complexion of Irish people was considered a marker of susceptibility to tuberculosis. And in the time he was working on The Philadelphia Negro, it was considered that Blacks were especially susceptible to TB. He is not only a neglected American scholar, he is a neglected public health thinker. And I cannot talk about Du Bois, and this is the real reason I used slides today, without showing some of his incredible graphics that he assembled for the 1900 Paris Exposition. By this time he had taken a post at Atlanta University and was continuing his work on the statistical description of the Black population in the state of Georgia. He was offered to have a booth in Paris at the 1900 Expo. He and his students got to work. I have to remind you that emancipation was in 1865. This was 35 years later. And I cannot imagine how radical and even impudent it must have seemed that he took it upon himself to compare the age structure of the Black newly freed population with the age structure of France, the pinnacle of sophistication and civilization. And you can see from this graph that Black America was much younger. But look at these visually stunning images. I really don't know what he was thinking. But to me, it reminds me – he was an interesting person, he wrote science fiction, philosophy, history, as well as doing this earlier public health study. But to me, it reminds me of modern art, and I cannot help but think that he and his students traveling to Paris in 1900 wanted to show that barely two generations out of slavery, that the descendants of the enslaved new how to embrace modernity. We can reach back even further to other untold stories in epidemiology. Recently, Jim Downs published a piece, a book, in fact, that challenges the foundation stories of epidemiology. He shows how record-keeping during the slave trade, and this shows how people were stored under deck, that [this] record-keeping provided the infrastructure for epidemiological studies. Some of these slave ship medical men, and they were all men, were instrumental in funding the London epidemiological study. They used the experience of the slave ship to study ventilation, nutrition, and the transmission of communicable diseases. And they published about it, but they rarely mentioned that their data had come from this setting. Downs also does not mention the proverbial John Snow and the pump handle. But he makes the point that prisoners, enslaved people, colonial peoples were sources of medical knowledge, and some, including the study of cholera outbreaks, some of which occurred before that famous London outbreak. So I am going to turn now to the present. It is almost a cliché to say that history belongs to the victors, but certainly it is the powerful who record and recount it, and that is what makes George Rosen's work so special, because his history of public health is not a story of great men, but the impact of racism casts a very long shadow and extends to the present. So I doubt that many of us were surprised when data showed that COVID's impact was felt unequally among racial ethnic groups, including Blacks, and that Blacks were hit hardest. So I am going to turn now to this. It was in January of 2020 that the first case was reported from the United States and February that the first death was reported, and it was in March, very soon in the pandemic that we first started seeing cities reporting a striking predominance of Black and later Latino deaths, disproportionate to their presence in the population. Milwaukee, the first city to report, out of just 15 deaths reported statewide, 8 were in Milwaukee and all were among Black people. This was in

March and nobody knew how to protect themselves from infection. And the list continued to grow, involving Chicago, Minneapolis, Atlanta actually. New York City was not among the first -- I was disappointed, my former health department, but in April they published the data and did so in the right way, they offered rates. And you can see the rates here. And I am pleased to point this out in front of an audience that will understand it, they also age-standardized their rates, and it was comparing the crude to the age standardized rates that first gave the hint that not only were people of color dying at higher rates, they were dying at younger ages. So the New York State Health Department also got to work, did a study of 15,000 convenience sample, covering an area that was about 90% of the state population, looking for evidence of past COVID infection, and they found a two-and-a-half- to three-fold increase in antibodies present among Blacks and Latinos. So these data demanded an explanation. And we got them. The main explanation was that Black people are always sicker than White people, and this replicated a pattern that was long-established. The then Surgeon General went on to invoke smoking and drinking and other things that people consider not to be too good for you and a personal failing and implore communities to try and do better to protect themselves from COVID. The federal government did not make data available until May of that year, but once it did, the findings from New York City prompted me and my colleagues, then at Harvard, to look at the national data set, and we did that and showed, as we have all heard, that there was an excess, particularly among Black Americans, but the most stunning finding for me was the huge excess in young people. The bulk of deaths occur in older people, but among people between 35 and 44 years of age, the rate ratio reached nine-fold higher among Blacks as compared to Whites, and ranged from five to nine. So this said to me that we couldn't attribute this to comorbidities, that premature mortality is about 50% higher in Blacks as compared to Whites. Common comorbidities range from 20% to two-fold or 100% higher, so that does not account for 500% to 900% higher rate ratios in terms of mortality. This showed that the math just does not work, unless we consider exposure. And there was very good reason to consider that there was a racial ethnic variation in exposure, who kept going to work because they had to earn a living or were considered essential. Think about these warehouses or the meatpacking plants and in terms of the crowding or the personal protective equipment that was available to people in these settings. And the fact is, and this graph, what you should look at are the blue and green lines, and you can see that Black and Latinos comprise the majority of people who are classed as frontline workers. Add to this traveling to and from work, going home to crowded homes, multi-generational households, so this was all pretty much a set up, and we know from mobile phone data that commuting patterns in poor neighborhoods were consistent with people going to work and in wealthy areas in a place like New York City emptied out and people just left town. This was actually mostly collected by journalists, I have to say, and not by public health researchers either in the academy or government. Finally, of course, there is access to health care. This actually looks at the challenge of the undocumented. But in New York City, we do a little bit better than the nation, and in New York State, we do a lot better than the nation. We have 95% of the population has health insurance coverage. But of the 900,000 who don't, about half are undocumented. So this was all figured out very early in the pandemic. After that, we got data released on education using education as a proxy for socioeconomic status, and we could show that that does not account for the racial variation in risk of infection, cases and deaths. This was reported by Justin Feldman with whom I worked at Harvard. He put it this way, that if people age 25 to 44, if all people of color had the same mortality rates as White college-educated individuals, nearly 90% of the deaths in this age group

would not have occurred. These disparities continue. I think sometimes people think that omicron was so fast that it eliminated disparities. These are data from New York state. On the red line, you can see that it reached a two-fold higher rate of hospitalizations among African-Americans as compared to Whites. There was a difference in the vaccination coverage of admitted patients but it was not enough to explain this difference. L.A. has also posted data showing that among the vaccinated, people who are vaccinated as we want everyone to be, we still continue to see large racial and ethnic differences and as we add to this, we know we have to have a conversation about racism. With the death of George Floyd with images that none of us will ever forget, we really have come to a moment when all of our country and the world has focused on the U.S. legacy of racism and enslavement. So these days, you will hear a lot about structural racism along with its near synonym systemic racism. I prefer the word structural because to me it means sort of built-in, whereas systemic seems to imply processes. But it's really important that we are beginning to have this conversation, not only in public health but by business leaders, by political leaders, by the director of the CDC as you've just heard, even our president -- the one that we have now. I think that what people usually mean by structural racism is that there are inequities that are not accounted for by individuals. And I'm going to take some time to talk through what I and colleagues long before COVID at the city health department came up with, what I call a taxonomy of racism. It includes these categories. You probably have thought of all of them but I think it is useful to try and divide things up. There is internalized racism, which is how we all think of ourselves living in a society which has a hierarchy of human value based on race. That's a photograph of the famous study on dolls done by Mamie and Kenneth Clark in which Black children, small children, were asked to pick their preferred doll and nearly all of them picked the White doll. Then there is interpersonal racism, which is what most of us think about when we think about racism. That's the either implicit or explicit bias that individuals have in their personal interactions. And then there is institutional racism, little Ruby Bridges there being accompanied into a school by U.S. marshals as she integrated a White school in New Orleans. It wasn't because the teachers didn't like Black children or the parents, although some of them didn't. It was the institutions -- the schools were racially segregated by law. That is what we mean by institutional racism when institutions have patterns of behavior that are not simply the sum of the individual belief systems of the people who work there. We can see this today when we do experiments looking at what happens to CVs -- what happens to Jamaal versus Jared in terms of being offered an interview, and you can add Jane in there, too. So, when these patterns exist and they are perpetuated, we have to believe there is an institutional endorsement of these patterns of behavior. So I'm going to just read to you the definition that we used for structural racism because it is basically the platform for which individualized racism and institutional racism exists. I think of it as antecedent to what we call the social determinants of health. Just think about just about anything and you can stratify the risk by race and these, in turn, have an impact on the health patterns of populations. So structural racism refers to the totalities -- structural racism involves interconnected institutions whose linkages are historically rooted and culturally enforced, and it refers to the totality of ways in which societies foster racial discrimination, through mutually reinforcing inequitable systems that in turn reinforce discriminatory beliefs, values, and distribution of resources; together these affect adverse health outcomes. I often use the example of red-lining and this is a picture of red-lining in the city of Atlanta. Over 200 cities in the United States were red-lined. This was a policy put in place by government in the 1930's when government wanted to increase homeownership and they asked the

homeowner loan corporation, which would make the loans, to create maps to identify loan risk. And so that is where red-lining comes from. Literally red-lined areas were deemed hazardous and not available to mortgage lending. These red-lined communities were disproportionately African American. I don't know Atlanta, but maybe some of you do, and you can recognize those areas. But the point is here, it didn't matter whether a banker had prejudice feelings towards a Black person who approached them. If you lived in an area and wanted to buy a house in an area that was red-lined, you were not eligible. All of these institutions, the real estate agents, the homeowner's association that created restrictive covenants – all of these worked together, interlinked institutions, so this was structural, not a thousand private prejudices and I don't need to add that homeownership is a central asset and perhaps the most important source of intergenerational wealth transfer. And certainly the barriers to homeownership contributed to the 10 to 1 gap that we see in wealth – not income, wealth. Red-lining ended with the Fair Housing Act of 1968, but we still see in these communities higher rates of numbers of conditions documented by research -- higher preterm birth, cancers, tuberculosis, maternal depression, other mental health issues -- and this is not only because these neighborhoods are still poor. It's because red-lining became a platform for dis-investment. These became neighborhood that had lousy housing stock, that had low-quality schools, lacked tree cover, had poor air quality, poorly maintained parks, poor levels of municipal services, and so on, all of which, in turn, affect the health of populations. We can unpack all this. I often think people think that I am saying racism is a miasma. It is not. We can unravel it and identify the pathways and it is relevant to our own institutions. It's been nearly 20 years since the Institute of Medicine published a study showing a systematic bias in the diagnosis and treatment of particularly Black patients. But more recent work shows it's not only these practitioners, it's the institutions in which they work. Where a Black serving hospital is far less likely to have any number of assets and far less likely to be able to pursue certain diagnoses, some as common as cardiac catheterization -- I trained at a Harlem Hospital where we did not have a CT scanner. We had to plead with other hospitals to take our patients. So no matter what we knew or what we intended for our patients, we couldn't always deliver on it. For years, I looked at maps like this -- and you don't have to read it. These are numbers of unrelated conditions. Drug overdose, childhood asthma, diabetes – not biologically related. I think you can see by eyeballing it that the same neighborhoods show up. But it was somebody from the emergency preparedness and response group that brought red-lining to the attention of the New York City Health Department, and they brought this to the attention of the department because geography matters when you are planning for an emergency, especially weather – well, all kinds of emergencies. So when I became Health Commissioner, I decided we were going to take on racism and we were not going to do it in a sort of check the box, DEI -- diversity, equity and inclusion exercise. Sometimes I feel like people are trying to just improve the pale pallet and some people have described this as change with no change. This is not just about changing the complexion of the people who lived there. We decided that we were going to really take it on internally and externally, and I had the pleasure of leading a team at the New York City Health Department. You heard of Dr. Maybank, she's there far over on the right, working with you all now. And it was because of these efforts that were under a heading called Race to Justice that we ended up with an emergency preparedness team that taught us about red-lining, a public health engineering team that started a swimming program because of racial inequities in drowning deaths. We also had an -- our I.T. group took up the project of trying to overcome the absence of race and ethnic data in some of the department's datasets -- it included a

huge effort by finance to figure out how geographically the department spent its money, because almost all of our funding was described vertically. We could not say where the money was being spent. I'm sure that this is what we should talk about the most, but the fact is that I did not have a roadmap. I assembled a great team. One of them there is Dr. Daskalakis who is at the CDC today. I challenged them to apply a racial equity lens to their work. We did trainings, starting with a leadership team. I ran a monthly seminar and we got wonderful people to come, thought leaders from around the world and the nation, to talk with us about social determinants of health, and particularly the role of race in U.S. health patterns. We created a health equity antiracism training module that we put into every job description, so it's now part of the New York City Health Department's training for everybody. We scraped our budget to find the funds to do this. We did not get any additional funding. When I joined the department, there were no Black or Latino people in the leadership team of the health department in a city that was -- that remains more than 50% Black and Latino but it was very rewarding to learn since I left there have been three commissioners. Dave Chokshi, Dr. Chokshi told me that when he was appointed, the number one thing that staff asked him at town halls that he held was whether he would continue the racial equity work. And that's why learning the history and understanding the context is so important because the impetus for this resides with the people who do the work, people like you. And when Dr. Ashwin Vasan, the current Commissioner came on, he described the neighborhood network, these neighborhood health action centers that you heard Dr. Walensky mention earlier, heirs to the district public health system that produced people like Leona Baumgartner and George Rosen. He described this as the infrastructure for equity in New York City, and it turned out to be crucial in the pandemic response. So I am proud and confident that we improve public health practice and gain community trust. The public health engineers focused on swimming pools and teaching kids to swim because of an 8 to 1 higher risk of drowning among Black and Latino children. The communicable disease group noted practically immediately -- and I don't know who can remember Zika anymore. Who knows New York City well enough to understand that on the right, the testing rate was really not appropriate? It was all in the wealthiest section of the city and not as the map on the left shows, in places where people had the highest -- the strongest connections to the Caribbean and South America, where Zika was flourishing. They saw this mismatch and they fixed it, rapidly, because they looked for it. If you don't look for it, you can't find it. So I don't know the roadmap, but I can tell you these six things that it's really important to do. One is to clear that undoing the social patterning, including the racial patterning of health is everybody's job. It wasn't just for the program leaders. It was finance, administration, HR. It meant investing in education and training, it meant improving our data, importantly changing the narrative, targeting our program to the communities which have been most harmed by bad policies like red-lining. And this is last but not least, supporting engagement with communities. We need the twin commitments of government and the communities that we serve. This will not work as a top-down strategy. I will leave you with what Ibram Kendi proposed as a litmus test for checking out whether we were working with a racist idea. He said starting from the idea that all people are equal -- as a group, not that one of us is the same as the person next to us. If we asked the question, have we attributed the racial patterning of disease to the people or are we looking at the context and if you are blaming it on the people, then you should interrogate this as a racist idea. There is no single action that can undo this. This is a photograph of a little girl recently, still picking the White doll. We have a long way to go in our society but the fact is that we did this. As a society, we created it

and we can undo it. I am very worried about where we stand. You can see how badly we fared during COVID. Public health, particularly government public health, has truly taken a battering. You can see on Omicron, we're way out there all on our own compared to other wealthy countries. These are data from the New York Times. We really have to tackle this because equity is equivalent to excellence in public health. It is not a side project. It is core to what we need to do. I would just end with a quote that actually was Angela Davis. Who imagined that she would ever have a quote at the New York City subway system, but there you are. We should not accept this because we can change it. Her quote reads, "I am no longer accepting the things I cannot change. I am changing the things I can no longer accept." Let me end there and thank you. [APPLAUSE] I have no idea how much time I took and whether we have any time for questions.

Dr. Simone: Thank you so much, and we have a good amount of time for questions, and we have a number of questions already teed up. I just want to thank you for taking us through this history of racial patterning of health, and also really appreciate helping us think about practical things that we can do and get started in changing the things we can no longer accept. I will take you through some of these questions. There -- people are adding them to the chat and I will read them to you and let me know if I need to repeat any. The first one: the history of African American contributions to public health would be easy to ignore were they not so well documented. Can you speak to the role of Du Bois and Booker T. Washington on the matter of public health, namely the Negro Health Week launched by Booker T., 1915 to 1951 -- I think this question came in before you talked about Du Bois.

Dr. Bassett: Well, I mean the person is obviously pretty well versed in history, which I think is something all of us need. I actually didn't know that Booker T. Washington had started Negro Health Week. He and Du Bois, they were really contemporaries and philosophical adversaries. Booker T. Washington famously talked about the separation of the races as fingers on the hand and then we can all work together sort of as one hand, whereas Du Bois argued that the Black population needed to be treated as equal. So they – the role of Booker T. Washington in public health is one I'm not familiar with, but I think I have taken some time to review the contributions that Du Bois made as a public health thinker.

Dr. Simone: Thank you. The next question. Algorithms of oppression in medical and public health fields is a real concern. The state of Maryland just changed the algorithms for end-stage renal disease. Where might we address this matter in respiratory function studies or other areas?

Dr. Bassett: The questioner is referring to the idea of race adjustment. Race adjustment occurred with kidney function. It was based on a belief that Blacks had more muscle mass and therefore it was normal to have higher creatinine levels. This is erroneous. But because of it, the pathway to renal transplant eligibility was reduced and Blacks ended up eligible with more advanced disease. I am pleased to hear

that Maryland has addressed this. And in respiratory function, when I trained at Harlem Hospital, some of the spirometers had a race adjustment clicker on them, and I remember being told as a student, questioning was it really true that Blacks have smaller lung volume than Whites? And I was assured by good people -- I don't want to say that any of this was done by people who meant harm – that the lung volume was in fact systematically different by race. This is not logical. There are other things that have happened. There is the recent issue with the NFL players that some of you may be familiar with about the – about assessing intellectual function related to repeated head injuries and being eligible for compensation for these head injuries that began with a lower baseline IQ for Blacks based on the idea that Blacks have, as a rule, lower IQs than Whites. All of these are racist ideas, right? We apply the Ibram Kendi rule, these are racist ideas. They should be done away with.

Dr. Simone: Thank you. Blacks and Latinos are very diverse populations in terms of countries of birth, languages, social determinants of health, disease risk and outcomes. How do you suggest we can better capture that diversity in our public health data systems?

Dr. Bassett: The question has really come up particularly with the Latino population where there is a lot of difference between people from the Caribbean, Puerto Ricans who of course are citizens of the United States and in New York City, at least, have the worst health outcomes after people classified as Black. It is important to see this heterogeneity. The Latino advantage in terms of birth outcomes is probably largely attributed to people from Mexico and Central America and not the Caribbean. So it's important to have this desegregation. And it has also come up with Asians and Pacific Islanders. Having more granular data is a good idea. Among the Black population in New York City, an analysis was done looking at Caribbean-born versus U.S.-born, and Caribbean-born individuals who were classified as Black had better health outcomes than people who are U.S.-born. This kind of granularity is useful, and we can add it to our data. You can always aggregate but if you don't collect it the first time, you can't disaggregate it.

Dr. Simone: Thank you. You have at least one fan on the chat who says they got goosebumps listening to your presentation today. Next question: Disparities in COVID case deaths narrowed at times during the pandemic. What interventions have been the most effective?

Dr. Bassett: Well, I think we have all learned a lot more, right? Those initial impact reflected the impact of a novel virus on a non-immune population. And in my view it was most importantly patterned by the risk of exposure. Yes, there were differences in susceptibility and in risk of adverse outcomes due to comorbidities. So now we have lots of things that we know how to do and I think they have been implemented. I think that we've gotten better protections in workplaces. I think there is more awareness of the importance of mask wearing. Also, we now have vaccinations and at least in New York

State, the racial gap in vaccination coverage was more or less eliminated. All of these things have -- had an impact and it is correct and that the racial gap has narrowed and it reflects all of those, I would say. Both exposure and susceptibility, with vaccination being the main way we modify susceptibility.

Dr. Simone: The next question is epidemiology and public health are fundamentally a study of disparities. Can you share your knowledge of the spectrum of racism by communities and what metrics we can use to measure this, who addresses it best, and what can the rest of us learn from them?

Dr. Bassett: That is an expansive question. I think we should always, in a racially stratified society, we should always examine whether there is variation in exposure and outcomes by racial ethnic group, but that's not the only measure of marginalization and, of course, there is income, education, and although we may not have ready ways of looking at it, national origin, whether people are documented or undocumented. I am the New York State Health Commissioner but I have been at this job for five months and the first three months were totally consumed by the Omicron response. So I will refer mostly to New York City, where what we did in our city-wide health policy that was called Take Care New York, was look for the biggest gap. We looked for whether it was between neighborhoods, whether it was by income, by education, by racial ethnic group, and we said we're going to narrow that gap and that is in addition to lowering the rates, we have to hold ourselves accountable to narrowing the gap and we will pick the biggest gap and seek to narrow that one.

Dr. Simone: The next person asks about the Office of Management and Budget racial categories and finding that -- saying that they are no longer useful, that a Black person from the U.S. is different than a Black person who was born in South America. How do you think these types of sub-groups would affect your approach? So, racial categories and data, I think.

Dr. Bassett: Right, I mean we've talked a little bit about that and how, you know -- that these groups are aggregate groups. But my own view is that the impact of racial discrimination based on racial ethnic group is so powerful that we should just focus on that as a starter. Then we can start worrying about whether it is limited to people of U.S. descent or not. I think that we should have data that enable us to look at the sub-groups, but the ones that we have now are already showing us large gaps. So let's start there.

Dr. Simone: The next question is actually about missing data. What do you view is our best solution to missing race and ethnicity demographic data in the context of addressing persisting health disparities in -- this talks about the COVID-19 vaccine update.

Dr. Bassett: Last time I looked, it was still hanging about 50%. I don't know whether the data have improved since then. This is a role that the federal government really can be very important in. We just have to do better at collecting these data, and I know that it was made required for some outcomes and I really think that we have to be serious about that. Certainly in New York City, the racial ethnic data collected were better than they currently are at the state. So, you know, we have to insist that we overcome missing data.

Dr. Simone: This question is about how do we effectively address inequities using data and facts when we are working in political environments and jurisdictions where sometimes the facts are denied?

Dr. Bassett: Okay, you know, public health, as I have tried to emphasize, takes place at the intersection of biology and society, so it's always political. This is not new. But I think that that's the role that data play, that we have to be honest about the data and make the data as complete as we can make it and be transparent with the data. And again this is an important role for all levels of government public health, at federal, state, and local level. I don't know what to tell you about the fact that sometimes the data shows things that people don't want to hear about. That is – you know, we should never collude with obscuring facts.

Dr. Simone: How do you think -- what do you think about the role of the – excuse me, about public health's role in building movements of racial equity? So how does advocacy intersect with our work in public health?

Dr. Bassett: Very good question. These offices that I talked about, that were started when I was a deputy commissioner in New York City – so that was a long time ago, they were opened in 2003. When I came back as Commissioner, people would come to me and say, there is this office, a health office in East Harlem and they would ask me if I had heard of them. These were people who work for the health department but people in communities really considered these local offices their allies, because they were. They went to community meetings, they spoke at churches. So this is probably not a role for -- it may not be a role for the CDC but certainly you can enable it. It is very important to ground with the communities that we seek to serve and that is why this district public health office -- and they were later rebranded as the neighborhood health action centers have survived, and are now in place headed to 20 years. So that is my view. I would probably imagine -- I used to call them our young insurgents, the ones who worked often in these district offices. And so the city health department was able to recruit people who were really committed to being community organizers and also had public health training. And that is advocacy. And I believe that advocacy is part of our role as public health workers. I was going to end my talk by reminding us all that the highest authority is the people whom -- whose health we are bound to protect and we should never forget that.

Dr. Simone: Thank you. I have a couple questions about the new federal funding that is available and how can we build equity into those systems with that new funding or what anti-racism content should we see embedded into these programs?

Dr. Bassett: I am not sure what exactly this is, but I would argue that there need to be sort of two prongs of the work that is done. There needs to be investment in the internal life of our agencies, because so little has been invested in our education and giving us complete histories. That's why I spent time today talking a lot about history. So that is what began as the internal reform effort that was led by Dr. Maybank, who is now working with the CDC, and was rebranded as the Race to Justice effort. It was mainly aimed at the internal life of the health department. And additionally, we have to apply the equity lens to our programming and policies and always ask ourselves what the equity impact will be. However -- and we did all this with no additional funding, so funding would sure help with this is what I can say. Whatever becomes allowable as a proposed expenditure would be helpful if there were a recognition that we all need to better educate ourselves and undo our own sets of beliefs.

Dr. Simone: I think we have time just for a few more. Let's see. Perhaps, could you describe some of the targeted programs and interventions that you did in New York State to increase vaccination among racial and ethnic groups?

Dr. Bassett: Yes, well, I mean, this was not rocket science. A lot of it isn't. I was working with trusted community institutions to get the word out, and acknowledging the fact that, as unhappy as it makes me, people don't always trust government public health agencies, so there were efforts to work with faith-based institutions, with settlement houses in New York City. These district health offices, the neighborhood health action centers were critical in getting the word out about vaccination and now getting the word out about treatment. So it was by working with these groups and listening to them, showing up to do vaccination campaigns at the church, at the community center, taking services to people, recognizing that people with stressed lives, working multiple jobs, maybe without internet access or ready internet access, had real problems with arranging appointments, and making it as easy as possible. So all of that really has succeeded in New York State, but it's not good enough. We still have a quarter of the population that hasn't been vaccinated, including the little children who aren't yet eligible, and we have only half of the eligible population boosted with the first booster, let alone the second. So we still have a lot of work to do but that's how it was done.

Dr. Simone: I wonder if we could end by asking you to give advice to the epidemiologists and laboratory scientists who are beginning their public health career. You know, what are things that they can do -- many of them are eager to make a difference as soon as they can, quickly and are impatient to help

make a difference. What advice would you give them in starting their careers and how they can really make a difference in this area?

Dr. Bassett: Thanks for the opportunity to speak to that. I think a couple things I have learned from my own working life is to take chances. I certainly was advised against going to live in Zimbabwe, which turned out to be a really rich experience in which I learned first-hand how important a government can be in protecting the health of a population. And people told me not to go. People told me not to train at Harlem Hospital. And all of these turned out to be very good decisions that I took over the advice of my mentors. The other thing is to understand that there may not be quick fixes to all of this. There aren't quick fixes. So what you can do is really be careful about the narrative. Resist the idea that people are somehow defective and ask the question, what are the conditions of their lives? I earlier heard a talk on dog bites, and I have to confess I was wondering, what would be the geographic distribution of dog bites? Where are we seeing dog bites? [LAUGHTER] So looking at the geography, so always applying this lens, always being careful about the narrative. But I also want to encourage people to invest in processes that may take time and to consider working in the public sector. All of you are in the public sector now and many of the people watching virtually may be. But we need -- We've had horrible blows during COVID. The last number I read was 180 people in leadership positions in state and local health departments were either fired or left their jobs. So we need to replenish the ranks of people who understand the key role of government in promoting the health of people.

Dr. Simone: Thank you and I want to thank you so much for teaching us and inspiring us and for your service to public health. My studio audience, please join me in thanking Dr. Bassett for her presentation. [APPLAUSE]

Dr. Bassett: Thank you.