#### Ruth Adewuya, MD:

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## Ruth Adewuya, MD:

This episode is part of the COVID-19 mini series, addressing up-to-date insights on COVID-19. In today's conversation, I'm joined by Dr. Megan Mahoney. Dr. Mahoney is Chief of Staff of Stanford Health Care and Clinical Professor in the Department of Medicine at Stanford University. As chief of staff, she represents 3,000 physicians and provides oversight of medical staff clinical activities within Stanford Health Care. She has a passion for teams and technology in health care and leads team-based care redesign efforts and the precision health initiative called Humanwide. Her career has focused on developing innovative and transformational approaches to integrated team-based care that empowers patients, healthcare providers and communities in the US and globally.

# Ruth Adewuya, MD:

In the initial episodes of this podcast, I have been focused on the science behind the COVID-19 virus and progress being made to produce a vaccine. Today our conversation will be centered on the impact of the social determinants of health, as it relates to COVID-19 and a broader discussion of racial bias in healthcare. Dr. Mahoney, thank you so much for joining me to discuss this very important topic.

# Megan Mahoney, MD:

Happy to be here.

## Ruth Adewuya, MD:

I've seen numerous reports in the news, as well as scientific articles that have indicated how black Americans and Latinx communities have been impacted by COVID-19 at a higher rate. In what ways do you think that COVID-19 has exposed the healthcare disparities in US communities?

# Megan Mahoney, MD:

Yeah. Latinx, indigenous and African-Americans persons in the United States have a three times higher chance of becoming infected with COVID-19 and nearly twice as likely to die from the virus compared to Caucasians. And the higher mortality rate is likely less related to innate biological or genetic differences in these communities and are likely related to known longstanding social and economic factors affecting these communities such as discrimination and bias, economic disadvantage, food insecurity, and poor access to healthcare.

## Megan Mahoney, MD:

Also, some minority populations carry a higher burden of co-morbidities such as obesity and diabetes, known to place COVID-19 patients at higher risk for serious illness and death. Finally, low-income minority populations likely have constraints on their ability to practice social distancing. They're living in more household members on average in their homes, and they're likely to hold jobs that require interaction with the public sometimes with poor access to PPE, although I hear that it seems that that's getting better.

# Megan Mahoney, MD:

And so the confluence of all of these realities for Latinx, indigenous and African American communities has led to a higher severity of COVID-19 disease. And these healthcare inequities should be addressed immediately if we're going to curtail this epidemic in the United States. We must measure and track racial differences to identify, measure and intervene on the consequences of systemic racism and to have an impact on the COVID-19 epidemic and other conditions as well.

### Ruth Adewuya, MD:

I was interested in an article that you wrote along with several others, entitled: Racial Bias... I'm Not Sure if It Has Affected My Practice. And I wanted to maybe see if you could give us a brief overview of how did this research study come about?

# Megan Mahoney, MD:

Right. In 2018, we were evaluating a new primary care model being implemented within the Stanford Health Care clinics. It was called Primary Care 2.0. And this involved interviewing healthcare providers, a diverse group of individuals from different roles and team-based care. Over half were non-white, though no Black providers were involved in the evaluation. And we thought since we're going to interview them about their experiences in team-based care, we might as well add on some questions to better understand the impact of social justice movements like BLM, like Me Too, on healthcare providers perceptions of health equity.

## Ruth Adewuya, MD:

What were your findings from this study?

# Megan Mahoney, MD:

At the time when we conducted the interviews, mind you it was a few years ago. Among those who were being interviewed, there was a general denial of the impact of racial bias in healthcare. And this denial range from being passively unaware to more actively rejecting any role of bias in primary care and stating that medicine is colorblind. The other finding was that providers offered several strategies to engage in anti-racism in healthcare, which was fantastic. And these strategies were offered at an individual level and at a systems level. I'll just tell you what they are in summary.

# Megan Mahoney, MD:

One at the individual level was remaining informed about social movements. These are movements that impact our patients. And so therefore we should be informed and aware of when they are happening.

# Megan Mahoney, MD:

The second was assisting our patients with insurance navigation to promote access to healthcare. They also talked about internally checking our own assumptions when we're seeing our patients asking ourselves, "Do I have any facts for that assumption?" Or, "Where did that assumption come from?"

# Megan Mahoney, MD:

And then finally on the individual level, we should actively resist dismissing patients' complaints, particularly complaints about pain from patients of color. And then on a system's level participants viewed staff diversity as a real asset to connecting with patients and stress the need for diversity and

recruitment efforts among the faculty and the staff. And this is a pipeline issue that we've been discussing a lot recently. And so it's just a recognition that we're all learning and relearning about the impact of racism and mostly how to address it, how to create a more equitable system.

### Ruth Adewuya, MD:

I'm curious though, out of the participants that did deny the existence of racial bias, was there a followup that was done to understand why that denial was there?

### Megan Mahoney, MD:

I think that we do have a belief that we are trying to do the best by our patients and that we don't like to view ourselves as someone who might actually be practicing from a place of bias. And so it's really just a poor awareness. Now, fortunately, I think because we've had this general reckoning with systemic racism that occurs in the United States, there's a greater recognition and awareness of the role that bias plays in medicine. So I have to wonder if we were to go back and interview those same individuals, whether or not they would answer the same way.

# Ruth Adewuya, MD:

Yeah. That would be interesting.

## Ruth Adewuya, MD:

Taking a step back from the conversation, we've used the term race, we've used racism. Do we even use the social construct of race or ethnicity in an accurate way in medicine?

# Megan Mahoney, MD:

I think that's an excellent question. Medicine as an institution has had a long history of espousing a biological and genetic interaction between race and health. From the epigenetics movement to the tragic experimentation of Black Americans.

# Megan Mahoney, MD:

And in medical school, I was taught to view race as an essential physiologic factor when assessing and treating a patient. And still, today, we continue to adjust the interpretation of laboratory measurements and to select specific medications, particularly in hypertension, based on African-American race alone. So we were guided or misguided rather by numerous studies across many conditions that in these studies, there was an attribution of the differences seen and incidents, prevalence, natural history of disease or treatment outcomes to race alone. Not considering that race might have been serving as a proxy for socioeconomic status, the effect of racism, the environment, and some of these other social factors.

# Megan Mahoney, MD:

But now there is a growing number of physicians who are starting to question the interpretation of those study findings like we've seen in COVID. And we're starting to ask, are those differences and outcomes due to innate biological differences, or are those differences better explained by contextual or societal factors that disproportionately affect certain racial and ethnic groups that then influence the health outcome being studied? There's a growing awareness that race is, like you pointed out, a social construct and it's better interpreted as that than a biologically defined category.

## Ruth Adewuya, MD:

I ran into an article, I believe in The New England Journal of Medicine, where a group of physicians came together and talked about this very topic and proceeded to list just the short list of different laboratory tests that were framed in this way. And first of all, it was very eye-opening for me. I imagine it was for a lot of the clinicians and folks that read that article as well.

## Megan Mahoney, MD:

Yeah, I think it was eye-opening and a number of my colleagues reached out to me directly and expressed the feeling, the emotion of embarrassment. How were we doing this for so long without thinking about it? But now there is a growing movement to change the way in which we do adjust laboratory measurements as you're pointing out. So I do think that this is being addressed now, and I'm so grateful to that New England Journal of Medicine article that you're referring to, to just shed some light on this.

#### Megan Mahoney, MD:

The thing that I think is really remarkable about that article is that it pointed out that our self-identified race, when we are registering as a patient, will then be entered into the electronic health record and then used to adjust these laboratory measurements automatically. And so that the provider looking at the interpretation would then use this approach as race-based approach. And so I hadn't thought about it until I thought all the way through that does that person who is identifying themselves when they're registering, have they consented to that? Do they understand the implications of that? I bet they haven't

# Ruth Adewuya, MD:

We talk about this growing movement of people who are looking at the existing measurements and asking the right questions, which is fantastic. Why do you think that despite advances in genetics that use of race in medicine is still where it is right now? And it seems to be that there's a conflict between the data on population genetics and its implementation in practice.

### Megan Mahoney, MD:

Yeah. Thanks to the genomic revolution, we now have many powerful insights. One is that we as a species share 99.9% of our DNA with each other. That the traits that are associated with race characterizations, such as skin and eye color, are controlled by a relatively few number of genes. And these genes are not linked to health-related genes. And then finally, it was found that there's considerably more genetic variation within races than between them. And so the so-called human race is not really appropriate biological grouping.

## Megan Mahoney, MD:

I will also say that in medicine, there is a growing appreciation for the role of environmental, social, and behavioral factors, the social determinants of health and how they actually influence more of what we previously thought regarding someone's general health and wellbeing. And actually those contributions probably exceed the contributions made by genetics or medical treatment for that matter.

## Megan Mahoney, MD:

I think that the reason why medicine has been slow to adapt based on what we know now about genetics and race, I think it's because we have gotten into the habit of using race as a proxy for some of these other social determinants of health. But now that we have advances in genetic testing, we have advances in technologies so that we're able to monitor patient's vital signs at home. We now more than ever have the opportunity to move away from those practices and towards a more precise way to engage with our patients.

### Ruth Adewuya, MD:

I want to acknowledge the fact that clinicians as well have been and can be targets of that same bias and racism. Are you aware of kind of the same system-wide effort being done to ensure that our clinicians, our providers are also protected from being a target of bias and racism?

### Megan Mahoney, MD:

Yeah. You're bringing up a really good point. 20% of medical schools students in America are Black, Latinx or mixed race. And over half are now women, yet institutional racism and cultural biases pervade the medical profession. And so mostly what we see in medicine are microaggressions that either come from patients or from coworkers and colleagues, even attendings, and they actually might have a more profound effect than direct racism on our emotions and on our self-confidence. And so you're absolutely right. There will need to be more interventions to ensure that all of the members of our health professions community are feeling included and they feel a sense of belonging.

## Ruth Adewuya, MD:

Given the complexities, the challenges, and the fact that it has to be the global community almost has to come together to address some of this issues. Are we making progress? Are we on the right track to fix this?

#### Megan Mahoney, MD:

Well, we have to fix it because the reality is within the next 30 years, we're going to be more and more diverse. And so we have to address this. I am heartened by what has happened over the summer and have seen corporations and organizations embrace a broad range of anti-racism strategies across the United States. And so hopefully we'll start seeing positive change in the experience of healthcare workers and their sense of belonging like I mentioned earlier. I will say that there is greater awareness, outreach. There's now bias training that's widely available. Diversity statements are on websites, but these are really just first steps and that we really need to think about ways we can fundamentally fix the culture of race and equity in medicine. And that racism and bias is really cultural issue. It's an issue that we know affects all of our country broadly, but more specifically in medicine. And so it's going to take more structural changes to make a meaningful change.

# Megan Mahoney, MD:

And then more recently because of the reckoning with systemic racism in the country, we're starting to witness shifts in all of our institutions, including in medicine. And so a silver lining, I guess in the COVID pandemic is the fact that it drove many important innovations in technology and healthcare, in telehealth and the use of health data through apps, for example, and that probably is going to improve access to care. But there is a dearth of culturally tailored digital health interventions that include racially and ethnically diverse patients or even community members in the development and the implementation of those technologies. We need to co-design interventions with a diverse group of

patients. Partnering with community-based organizations, partnering with the families of our patients and other community members to really realize what we have here, this promise of 21st century medicine with all the technology. We have to include these individuals and these communities in the codesign.

#### Ruth Adewuya, MD:

What can clinicians do as part of their daily practice to be part of the solution of addressing racial bias in healthcare and understanding some of the challenges that the underserved communities are facing?

## Megan Mahoney, MD:

I would point to a book that I really appreciate, is Dr. Augustus White. He wrote a book Seeing Patients: Unconscious Bias in Health Care. And in that book, he offers practical tips for clinicians to combat their own potential bias in healthcare. And these include things like having a basic understanding of the cultures of the patients you're serving. And don't try to resist stereotyping your patients, try to individuate them and see them individually through their lived experiences without generalizations. Understand and respect the tremendous power of unconscious bias. And so just checking ourselves as we're seeing our patients.

## Megan Mahoney, MD:

When you're seeing a patient, conduct what he calls a teach-back, basically confirming the patient understanding of the health care instructions so that we can ensure that they really understand what's being discussed or recommended that is associated with improved adherence, quality, and patient safety. And then assiduously practice evidence-based medicine for each and every patient.

### Megan Mahoney, MD:

Clinicians can be a part of the solution by getting involved at an organizational and policy level as well. For example, at the organization, clinicians can be part of the solution by participating in equity work, by supporting payment models that will promote access to care. They can participate by collecting and analyzing equity indicators in their quality improvement work. And they can also support economic and development opportunities for the staff of the organization by providing mentorship or developing programs. And finally, I'll say that they can partner with community-based organizations that serve the needs of communities impacted by inequities. And so we're bound as the health care professionals in this community to address these health disparities immediately. Eliminate bias as a barrier to care and work towards equitable healthcare for all.

# Ruth Adewuya, MD:

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