Podcast Episode 43

COVID-19 Pandemic 7:

Both pandemic and syndemic – how clusters of preexisting comorbid conditions have driven up fatalities.

Featuring Dr. Emily Mendenhall and Dr. Robert Like.

Medical anthropology may not be the first discipline we associate with public health, but it provides perspectives that are vital to understanding the many and complex intersections at the root of health disparities. Syndemics are clusters of epidemics with synergies that reinforce each other, and are driven in part by social, environmental and political determinants. Can the syndemic concept help us better understand why certain populations are disproportionately impacted by COVID-19, and does viewing disparities through the syndemics lens offer insights into potential solutions? Featuring host Dr. Mary O'Connor, with Dr. Emily Mendenhall and Dr. Robert Like.

All views and opinions are participants own.

Dr. O'Connor: Welcome to the Health Disparities Podcast. Sponsored by Movement is Life. We're recording on May 12th, 2020. My name is Dr. Mary O'Connor, Chair of Movement is Life and Professor of Orthopedics and Rehabilitation at Yale School of Medicine. I'm looking forward to hosting today's discussion, which will hopefully help you, our podcast listeners, understand the concept of a syndemic and how this can help us explain the horrible death rates we're seeing with this COVID-19 pandemic. Having this inclusive framework to see the complex interplay of

factors impacting outcomes will help us create solutions for tomorrow. My guests are two leaders in the field, Dr. Robert Like is Professor and Director of the Center for Healthy Families and Cultural Diversity at the Department of Family Medicine and Community Health at Rutgers Robert Wood Johnson Medical School. He's a family physician with the background in, are you ready, it's very interesting, medical anthropology and is nationally known for his work in the area of cultural competence and health professional education. He's also an advisor to Movement is Life. Who has suggested to us that the syndemic concept helps explain patterns of common comorbidities and their intersections with social determinants? Welcome Dr. Like. We thank you for your previous contributions to Movement is Life, and we're looking forward to our discussion on syndemics with you today.

Dr. Like: Thank you very much, Dr. O'Connor. It's been a privilege and honor to work with you and your colleagues at the Movement is Life Caucus in terms of raising awareness about the causes and potential interventions for musculoskeletal health disparities and other inequities. As we think about this horrendous COVID-19 pandemic, I'm also reminded of a quote from Sir Austin Bradford Hill, who was the pioneer of the randomized clinical trial, who once said, quote, “Health statistics represent people with the tears wiped off." It's really critical that behind these numbers of people who are dying, who are getting sick, who are becoming disabled, that we

understand the stories of individual people, the patient's family members, colleagues, and others, and we must never lose track of this. So, I'm looking forward to our discussion today.

Dr. O'Connor: Dr. Like that's so beautiful, "Health statistics are patients with the tears wiped off." I'm going to use that. That's very powerful. Our second guest today is Dr. Emily Mendenhall, a leading thinker on syndemics, the framework for social determinants of health we're discussing today. Dr. Mendenhall is also a medical anthropologist and Provost Distinguished Associate Professor at Georgetown University. Her recent book, "*Rethinking Diabetes: Entanglements with Trauma, Poverty, and HIV*," invokes hundreds of life histories among low-income people living with Type 2 diabetes in Chicago, Delhi, Johannesburg, and Nairobi. These case studies investigate how social cultural and epidemiological factors shape people's experiences and why we need to take these differences seriously when thinking about what drives diabetes and how it affects the lives of the poor. In 2017, Dr. Mendenhall led a series of articles on Syndemics in the Lancet, which was the most frequently downloaded series of that year in that leading British medical journal. Welcome Dr. Mendenhall, thank you for joining us and sharing your insights with us today.

Dr. Mendenhall: Thank you. It's a real privilege to spend this time with you.

Dr. O'Connor: We're delighted to have both of you with us. So, I'm excited to get right into the discussion. Dr. Mendenhall, let's start with the basic question of what is a syndemic and what is the history of the development of this new paradigm?

Dr. Mendenhall: Thank you for that question. I think it's really interesting since the publication of the Lancet series, it has busted into public health and global health, and people are really thinking with it more. If you look over the last 10 years, it's actually been kind of incremental use of people in public health. And I think that syndemics is a really good example of an idea from critical medical anthropology that is really applicable, and that people could use and understand, and it's like anthropology-lite in some ways and how it's applied, but it brings together these deep, theoretical and decades long, centuries long studies. Going all the way back from Edwin Chadwick, Rudolf Virchow from the 1800's. And we're talking about how people are sick and why and how structural inequality, structural racism, institutional inequalities really are fueling why some people are sick and others aren't.

So, these are deep seeded questions and anthropology that are at the center of a lot of anthropologists' work. And what syndemics does is it makes this extraordinary effort to put ideas of depth of intersectionality, of structural violence, of historical inequality in conversation with biological

realities, interactions between mental and physical health, social stressors like stigma and also epidemiology. So, when I explain syndemics, I often describe it with these three underlying rules or basically framing. Framing rules for what a syndemic is. So, the first rule is that often you can look at the epidemiological literature and if you look internationally, how people talk about disease, there's been a shift, at least in the funding cycles, and how people think about moving from epidemics to co-morbidities and multi-morbidity. What syndemics is, is it pushes us to think about the fact that diseases never exist in isolation. And when we talk more about COVID, we can talk more about what that looks like, but diabetes may travel for example, within a population and cluster often with depression, for example. And so, that's the first rule. Number one, that two diseases clustered together over two or more conditions. Often people experience more than one condition, and you can see those diseases of poverty, especially clustering among some communities and not others. And then the second rule is that there is an explicit interaction among the conditions that cluster together. So, this brings together by clinical medicine studies of biology, of psychophysiology that really bring into focus, how diseases in the body, how society gets under the skin.

So, going back to the example of diabetes and depression, how inflammation or heightened release of cortisol due to microaggressions or

structural violence over time contribute to heightened levels of cortisol in the body, which then work on the cells to make you insulin resistant. So, there is actual psychophysiology that links, distress and diabetes, for example. And there's a number of conditions that you can see this. Including, for example, immune responses already weakened by cardiometabolic conditions and response to an infection like acute respiratory infection, like COVID.

So, I also like to argue that when we think about this interaction, it's not just biological. So, there's some who think it is biological interaction is what makes it syndemic. And I would argue that obviously mental health plays a really important role. So, psychological and biological interactions are fundamental to what is health. But if you go back to the WHO definition, it's social as well as psychological and biological, ways of being healthy or unhealthy. So, also thinking about, and through most of my more ethnographic work, when I thought about what makes syndemic or individual levels, I think about stigma is really what comes to the forefront of what ties conditions together and affricates experience of one or another.

And the third rule is that social, political ecological or economic factors drive syndemics. And this is really where ecological theory comes to the forefront from intersectionality to structural violence, to, even more

traditional institutional ideas about what's driving some populations to be sick and others not to be.

Dr. O’Connor: I want to see if I can make that concept a little simpler for our listeners, because as I hear you describe it really what I'm hearing is a much more holistic view of how health is impacted and not just in the moment at the present, but the impact of historical policies or environment or historical events, all impacting what is happening today.

Dr. Mendenhall: There's no way to get around that. Our generations before us, even if you look at epigenetics, we know that even things that have happened to, some populations and not others deeply affected. Some of the earliest work on epigenetics from the Dutch famines indicated that external stressors have fundamental long-term effects on people's bodies. Turn on genes or turned off genes along with all the aspect of survivors and many other, especially African Americans, we've seen that there are extraordinary impacts of historical inequalities and depression and trauma on the body. So, what syndemics does is it allows us to put all of these factors in conversation, because whenever we're studying one disease, if you look at it in a vacuum, you're never going to understand it or solve it. And band-aids never work. They are used all the time and always fail. But if you want to sum it up the easiest way to think about what is syndemic, two or more conditions clustering together that there's a fundamental

interaction that makes the experience worse for that population affected. And that social political, ecological or economic factors derived that cluster and interaction.

Dr. O'Connor: Dr. Like, share with us how you would describe this syndemic. I'm just looking to give our listeners another opportunity to help digest this information, because this is a concept that will be new to a lot of people.

Dr. Like: Well, thank you. And you're right. The concept can sometimes be very complicated. So, I'm just going to put on my physician's hat for a moment and think about that when my patients come in to see me, they tend not to just come with one disease at a time, but they often have multiple conditions that are taking place. Many of which are the ones that the Movement is Life Caucus have been dealing with such as diabetes and osteoporosis and depression and arthritis and mobility limitations.

And the thing is though that in medicine, when we've learned, we only hear usually about co-morbidities coexisting conditions, but it strips away the social and environmental contexts in which people live. And it strips away any knowledge about how did people develop these conditions in the first place. And sometimes reduces it to just genetics and leaves out all the other major factors. The other piece for me, syndemic when I started learning about this, Dr. Merrill Singer, I believe he was one of the originators in the mid-1990s, and he coined a number of different,

acronyms. I think the first was SAVA syndemic, which was Substance Abuse, Violence, and AIDS. And there were similar ones in the Hispanic, Latino community with the VIDDA, V-I-D-D-A syndemic with Violence and Immigration stress, Diabetes, Depression, and again, I think Abuse.

Dr. Mendenhall: That was the one I developed in my first book. So, I could talk about it.

Dr. Like: That's right. So, that's Dr. Mendenhall and her work with syndemic suffering, which I highly recommend to folks because this is what's informed me. But the piece that I find very interesting is you hear the word epidemic. We get very nervous, quickly, like we're dealing with, and we have endemics, and we have pandemics that we're living through now. But there was no language to create the immediacy and the urgency to dealing with other conditions. And often, when I share with my clinical colleagues syndemic is spelled S-Y-N not S-I-N because people tend to think, what do you mean it's about sin and evil and stuff like that. So, for me, the syndemic is a way to tie these aspects together. It builds also for those of you that have listened to other Movement is Life podcasts, Dr. Claire Pomeroy had two previous excellent sessions dealing with social determinants of health issues from her work both before and during her time at the Lasker Foundation. And as I listened to that, and as I come to several of the previous Movement is Life Caucus meetings and spoken,

back in 2017, when we discussed social determinants of health, I said, maybe we could come up with an acronym or mnemonic for the Vicious Cycle, that Dr. O'Connor described. And I don't know, if this is the right sort of a mnemonic, but I called it 'MADD HOOP', M-A-D-D-H-O-O-P with the 'M' being mobility limitations, the 'A' arthritis, the 'D' diabetes mellitus, and other 'D', depression, heart disease, 'O' obesity, 'O' osteoporosis and pain, because that was a way to link these sorts of things together. And as we look back at so many of the conferences that have taken place over the years, dealing with the -isms, whether it's racism and sexism and ageism, and ableism, all the -isms and their different incarnations and the work in community to deal with it. It seemed to me that the syndemic concept would be one way of tying these things together. Needless to say, though, that we tend still not to hear it in the press, in the media. So, the question is, can the word, it exists in academic circles, but how do we bring it into the mainstream?

Dr. Mendenhall: And that's a really important point. I think another way of thinking about it for a clinical audience is thinking about what the endpoint is. So, someone walks into your clinic and you're looking at them often as a physical being, someone with diabetes, for example, or someone with HIV or someone with depression. Instead, they're actually walking with a syndemic cluster. So, they have maybe domestic violence going on. They have had untreated diabetes or undiagnosed diabetes for a decade, and

now it's getting worse. They maybe have an infection now COVID, it could have been HIV. It could have been another one that they carry with them as well, and that they're taking care for, and then, they're managing the structural violence, political medicine, or the complicatedness of actually accessing care. So, what they have is a syndemic problem. They're not just a diabetes patient or an HIV patient, or someone living with depression and seeking care. They have the actual interaction of all those conditions.

Dr. O'Connor: Let me ask, and I think I know the answer, but you two are the experts. So, I'm going to ask you, do you consider the COVID-19 pandemic that we're currently living through a syndemic, Dr. Mendenhall?

Dr. Mendenhall: Interesting to think, to see how people are reacting to what we're seeing. So, Merrill Singer, the architect of syndemic theory, who first wrote about, we talked about it a bit earlier, he first wrote about, and I've heard him talk about how he used to scribble it at the diner on napkins ideas about what is the syndemic. He was working with HIV because in the early days of the HIV epidemic, he saw that people in inner city in Hartford, who were really affected, who were dying, who were struggling with HIV, also were struggling with violence and substance abuse. So, he said you can't understand HIV without really thinking about these critical interactions that these other conditions they are, what make people sick. This syndemic

makes people sick. So, if we look at what's making people sick with COVID, it is the syndemic. We're looking at the structural inequality and structural racism in the United States. You look at the Navajo reservation. If you see the distribution among African Americans, for example, in Chicago, we're seeing extraordinary inequalities around the nation. These are historical inequalities that are existing and are just taken out of the shadows through COVID because it's affecting the fault lines of sickness that we already have. So, now, it's going to be very interesting to also see the public talking about these health inequalities that we have, that we've all been writing about for a really long time. And it's important to say that COVID is pandemic, but it's, syndemic differently in different places. It's pandemic. It's hit New Zealand, but it certainly hasn't affected people, especially, minority in the same way that, Native Americans in the United States have been affected. It's not the same experience in part because of the political response. And if we see the political response in the US, as part of why COVID is syndemic and so widespread, we can understand a little bit more about, why people are sick.

Dr. Like: I would agree with that. I think that COVID-19 is both a pandemic and its very much part of a syndemic. And again, as we look at the articles that are increasingly being published in JAMA, in various medical journals, public health journals, as well as on the media, the whole discussion about

the disparities and the increased death rates in African American, Latino, Asian, Pacific Islander communities, Native American communities.
And then, if we also look through the life cycle in older adults, in different settings, the syndemic concept really lends itself to beginning to think about and hopefully generate interventions to begin to deal with these things. Too often, I do remember back probably in the late nineties, HRSA funded, what were called health disparities, collaboratives. And they started off looking in federally qualified health centers with diabetes, with heart disease, with asthma, with depression, and they developed quality improvement teams and community partnerships. And they really were looking at one disease at a time. Then, over time, they said, "Gee, we're developing similar interventions," similar challenges came up and they said, maybe there's something about the chronicity of these things that cut across. So, I think that there are infectious disease syndemics. There are non-infectious disease syndemics. There are mixed types of syndemics.

And, again, if you even go back to the pandemic flu, in 1918 or so, it was then followed very quickly by tuberculosis, if my memory serves me. And so, people were talking about co-existing epidemics at that time. And there's a book called the "*Anthropology of Infectious Disease"*, that Dr. Singer wrote, which really aptly describes this, and it relates to Ebola and many other global health conditions that people are challenged with to figure out why did these diseases emerge. From the social conditions,

from the environmental conditions, from the economic and the political conditions. So, again, I think that the syndemic concept lends itself to the work of Movement Is Life.

Dr. O'Connor: We completely are aligned, that the syndemic concept relates to the work that we're doing at the Movement is Life. And Dr. Like, you already commented on how we look at our Vicious Cycle, where, an individual develops, e.g., knee pain, they become less active, they're more sedentary. They don't change their eating patterns. So, they gain weight that added weight puts more pressure on the joint. And now they're in a cycle of joint pain that ultimately results in severe arthritis. But what is linked to that immobility and obesity is the development of diabetes, hypertension, heart disease, depression. And I like to use the term that is an equal opportunity employer. Anyone can get trapped in that medical Vicious Cycle. You could be an affluent white male CEO. You could be a low-income woman of color, but we know that women, individuals of color and even low income, Caucasian, rural Americans are far more likely to get trapped in that medical Vicious Cycle, because surrounding that is a rendering of social determinants of health and surrounding that is public and private policy. We can even put a new ring, outer ring, which would be pandemic or syndemic because all of these factors impact the patient or the individual at the very center of the conversation. So, I do think it is a fascinating and very appropriate way for us to look at disparities because

what we're really trying to accomplish is, how can we decrease disparities, improve health equity, and improve the health of people in our communities.

I want to turn for a minute to how we can apply the concept of syndemic in real life medical practice, especially when our doctors and nurses have such limited time with patients. So, how can we screen for and address these social determinants of health that you both have identified as so critical in the syndemic concept. Dr. Like, we'll start with you for this one.

Dr. Like: Well, you've raised, certainly one of the big challenges for us in clinical practice, and you, as well as an orthopedic surgeon know that in our busy practices, there's a lot going on at multiple levels. One aspect is that much of our work is downstream versus upstream sorts of orientations. Reimbursement is usually for what's called quote rescue medicine versus primary care and preventative and public services. We have a lack of time. We often have competing demands. The clinical focus tends to mainly be on diagnosis and treatment and rehabilitation or palliative and end of life care. Often, we have a lack of education of clinicians about socio-behavioral sciences and public health in medical school and residency training. And I can speak if interested a little bit more about what's going on to change that. There are also technology issues galore, especially in the wake of COVID 19, as we know with more places moving to

telehealth, telemedicine type services, and whether there's a digital divide in terms of whether people can even access the services just as we're busy, trying to very quickly, implement them and doing this in a safe way.

Now, fortunately, there is a growing interest and activities involved in screening and addressing the social determinants of health. I'll just mention a few initiatives. CMS has their Accountable Care Communities models, and they've developed screening tools to help find out about social needs that people have, indeed electronic health records.
And again, Dr. Pomeroy spoke a little bit about this in one of her previous podcasts, have fields in place that permit, members of the health professional team to collect that information, code it, and potentially be reimbursed for developing interventions to deal with that.

The American Academy of Family Physicians has an excellent thing called the EveryONE with O-N-E capitalized, project and a website with all kinds of tools that clinicians can use to begin to elicit social determinants of health. And then the National Association of Community Health Centers has a tool called PRAPARE, P-R-A-P-A-R-E, which is the protocol for responding to and assessing patients, assets, risks, and experiences.
And what some places are doing now, you can do screening, but if you don't have any place to refer people, it's not a comprehensive system. And if you screen inappropriately, there are ethical issues that can arise for

trying to collect this information in a culturally insensitive way or in a stereotypic way, but in terms of community resources, again, there's a technology thing called Aunt Bertha and another one called Healthify, which permit people to look up zip codes and find out what sorts of social services may be available to help individuals, but being mindful that, just because someone is there doesn't mean it's truly accessible and sometimes these things are not updated completely.

The last thing I'll just mention is in a quick and dirty way, we developed a mnemonic. If you remember Greek mythology, Theseus was the hero of Athens, and he fought the Minotaur in a Labyrinth and many of our patients live in a whole Labyrinth of challenges relating to their social and economic circumstances. And so, the mnemonic is a way that we often will use to teach our medical students, how to elicit social determinants of health. The 'T' stands for transportation issues. How do people travel or not travel to go places? Housing and its potential instability and different types of housing situations, or even if one is homeless or if one lives in a nursing home or congregate living or a group home or a prison. The next 'E' is for education, which can relate to information literacy and health literacy languages that are spoken. And again, this also relates to the digital divide. There's another 'E' in THEESEUS, which is about eating and food insecurity, food deserts. Safety is the 'S' for interpersonal abuse, social safety, mental health issues through the life cycle. The next 'E' is

the economic situation which can relate to employment status, insurance coverage, workplace issues. We again know now about the increased COVID infections that have been happening in some meat, packing plants, poultry, and other settings. The 'U' is utilities with electricity, phone, internet, heat, air conditioning, and the last 'S' for social supports. And again, when we think of social and physical distancing and later contact tracing that will need to take place, what are the impacts in terms of how this plays out in communities? So, believe it, or not some years ago, the THEESEUS mnemonic was used in our medical intensive care unit from some intensivists who were concerned with the fact that patients were being readmitted to the hospitals with diabetic ketoacidosis, with asthma, with respiratory conditions of different sorts. And they treat them well in the hospital but send them out and they'd come back in again. And so, they wanted to start finding out, are there different social determinants that could be related to their repeated missions or their longer lengths of stay?

And some of that was driven in part for financial reasons, because if people were being re-admitted in less than 30 days with heart failure or COPD, and a 3% penalty from CMS now there's a financial reason to begin to address this. So, there are a lot of different aspects of the social determinants piece, but it is challenging to bring into play.

Dr. O’Connor: Dr. Mendenhall. I would like you to comment on that, too. The challenges that you see for clinicians, for primary care doctors, for healthcare providers to incorporate these concepts of syndemic into the delivery of healthcare.

Dr. Mendenhall: When I think about interventions, I often think about it through the framework of diabetes, because I spent the last 15 years studying people's lives with diabetes who often have depression or have experienced other kinds of social problems. I think this mnemonic is really helpful. And I look at interventions through four levels. So, I'll just mention the four levels. And then I'll talk about the clinical focus, because everyone wants a silver bullet. Everyone wants to be like, okay, well, "What do we do?" Okay, well, the silver bullet would be patient centered medical homes. There's a lot of people who've been writing about that and showing how impactful they are. And it really would be the biggest struggle that people have around the world who I've interviewed with diabetes is if they have to take one day off of work to go to the doctor, it's just to treat one disease. They spend hours and hours and hours, and they only are partially cared for. And sometimes you have to pay out of pocket. Sometimes you don't, it all is built into the health system, whatever health system they're using.

So, what I often talk about responses for people who've experienced, for example, the VIDDA syndemic, which is, something that I came up with working with Mexican immigrant women in Chicago with diabetes, who also faced depression. Extraordinary, different types of abuse, financial insecurity, and immigration stress and fear and isolation.

So, I usually talk about upstream solutions, which are all policy relevant and then clinical interventions, community-based interventions and downstream solutions, because I actually think solving syndemics cannot be only in the clinic. The clinic is such a small piece of how you can actually help people. I think I read this morning on Twitter of a physician who was like, "I always tell my residents that the work you do in the clinic is only 10 to 15% of what you can do to encourage people to live a healthy life." So, when we think about, I'll go specifically to clinical interventions for people with chronic illness, especially with COVID, it really brings, basically to the forefront. These struggles are what patient centered medical homes do is basically coordinate, people's ability to manage all of their conditions. People in the US are over-medicated, and their medicine is often not well, organized in a way that really affects them. It's really expensive. They may be having conflicting medication, or they may just be on too much and it makes them lethargic and sick. And it affects all of these issues like moving or, following clinical recommendations that don't always make sense culturally for them.

Also, I had my first baby in London and what blew me away was when I would talk to the general practitioners that they would say, because of course I would query them and ask them, I'm an anthropologist so I'd ask them all sorts of other questions, while I was there, but they would say that they were incentivized by keeping people out of the clinic. So, if someone actually went off insulin or went off Metformin or whatever, they were taking to control their insulin, they were incentivized. So that is fundamentally the structure, we've been talking about this in the US, how do you flip the structure in which clinicians care for people? How do you actually transform how we think about, and actually deliver care that encourages people to be healthier and live healthier lives?

The other factor is medical teams, how do we actually see what a clinic looks like? Clinics that don't have a lawyer on their team or a social worker that can actually do social work and counseling are really facing an uphill battle. For example, if someone comes into your clinic and has a consistent cough and runny nose, and the problem is mold, medicating, that is not going to make them better. You actually need someone who can go to their landlord and actually get them to fix the mold. You need someone who can actually defend them and fix the social determinant of health. You can understand it, or you can give them medication to deal with it, but that's not going to solve anything. And also, really thinking in

the US this is one of the best examples of how people in the US can learn from global health, can learn from other places best practices are really elevated in mid-level professionals because of the strength of the American Medical Association, still, we don't have enough middle level professionals providing the care that we need to have a dearth of general practitioners in the United States. Primary care is marginalized. And still, we don't have enough people providing this care. We really need to elevate nursing. We really need to be able to provide health care. For example, in the YMCA. This needs to be not just in the clinic, but it needs to be community wide. And then also house visits. I think you mentioned, Bob, about the super utilizers model, or you were referring to it, but really focusing on going to making house visits. During COVID, this is actually an amazing time to re-energize and re-think how we deliver care. And having these mobile units for testing, but also going into people's homes.

There's a great study in the 1995 heat wave in Chicago, where most people died were elderly, were because of social isolation. It's really important to think about it and its super utilizers also focused on people who would go into the emergency room and don't have healthcare, but actually going to them. So, if we're going to the elderly to care for them. If we're going to people who are facing these DCS, social determinants and getting through the barrier of transportation, which everywhere in the world is one of the biggest barriers besides losing wages to actually seeking

care, you can go beyond and actually get to the heart of the matter, which is people who just need to be checked on and cared for. And so, those are the clinical recommendations I always suggest. And then community-based, interventions that are very much aligned with these. When you think about something that's endemic, there's always some sort of psychological or social factor that is basically co-existing and underlined and always overlooked in clinical interactions because clinicians just don't have the time that they need to actually care for people as people because they are so overburdened by expectations of time, of patient load, of financing that they can't actually fundamentally do the care that they often want to care.

So, one of the easiest is basically having clinicians who speak multiple languages and not always having to depend on a translator. Also, community-based interventions are improving access to counselors who speak the language of the patient, especially the first language, because sometimes when you speak about deep trauma, for example, or stresses in your daily life, it's harder to talk about it in your second language. And that's very common.

And also making house calls, mental healthcare at community centers. Also, apps are really impactful, for getting people the care that they need. And even that's another thing with COVID that is totally transforming how

we're thinking about healthcare and healthcare delivery. And then also peer group counseling, not only for AA, but also for diabetes and thinking about, all sorts of conditions. Because what these support groups do is, they provide spaces for conversation and they provide spaces for people to come together and find others to talk through their social and maybe psychological stresses that are affecting their physical body as well as their social life.

Dr. O'Connor: So, this is fascinating. And what I'm hearing from both of you are comments, that to me, I distilled down to doctors and our traditional healthcare providers simply don't have enough time to provide the kind of care that they want to patients. They may not also be skilled in knowing the right questions to ask patients to uncover, some of these syndemic challenges that directly or indirectly impact their health. And we don't have resources aligned. So, the system is still quite broken as we're trying to improve health. I'm just going to pause and let you comment on my comment first.

Dr. Like: I would very much endorse that and want to add to what Emily said and what you said. And there's also a conundrum because there are plenty of physicians and nurses and others who say, is it really my responsibility to medicalize social determinants of health? We're already busy enough. We don't have the knowledge and skills. Is there a downside to really taking

this on? In fact, there was a controversial op-ed in The Wall Street Journal, I think back in the fall from a person who said teaching about these things in medical school is taking us away from some of the very important things that doctors need to learn about in terms of basic physiology and all that. So, it's kind of creating a dichotomy. By the same token the new England Journal of Medicine has an excellent thing called Case Studies and Social Medicine, which they've now been publishing on a regular basis, which shows how physicians working in teams with others, as Emily mentioned, and talking about how medical home models and other sort of integrated delivery system models can make a difference. And so, I really want to endorse the fact that any single practitioner cannot do this by themselves. There's really a need for an expanded interdisciplinary team of healthcare. I would add public health, social service professionals. There are community health workers who are increasingly getting involved in these activities. Emily mentioned medical legal partnerships. So, even if we screen for some social determinant of health issues, such as a housing problem, or a benefit for somebody who has a child with special needs, we as a clinician may not have the skills to deal with that. Whereas there are attorneys who we can work together with. There are even medical accountancy partnerships that are developing.

One really fundamental thing, which is also a part of many medical homes, is the idea of creating a patient or family or community advisory council where the input comes from people, themselves from diverse backgrounds, from different demographics. So, people of different ages, gender, sexual orientation, race, ethnicity, language, LGBTQ, veterans, deaf and hard of hearing, can all help teach us what we don't know in the industry. And I think the most advanced models, there are places like the Institute for Patient and Family-Centered Care, The Plane Tree Institute, where people themselves are teaching us what we really need to do in a way that matters to them.

I would also add to this that, public libraries or other critical partners as trusted places for information. So, we have patients who will leave our office. They can go online. How do they vet different things going on? And so, the National Network of Libraries of Medicine actually has done a lot of work in the area of health literacy and cultural competency as a place creating a safe place for people to gather. Again, this is pre-COVID.
I think that Movement is Life has been right out in front with this, with many of the community-based programs, dealing with movement, with osteoarthritis and with these different syndemically connected conditions, what have not yet been done. And that's why Emily and Merrill Singer and other people's work in anthropology and social science is important to

bring that science to us. We got the science of biology and biophysics coming in, but the socio behavioral sciences are absolutely critical. Finally, even now in New York, there are faith-based collaborations that I think are getting off the ground as places where, the churches, synagogues, mosques, other places can be safe places for doing testing for COVID and potentially linking up for contact tracing. I think there are many different constituencies that can be brought together, must be brought together so that it's not just for the medical system to do this by themselves. It's just not possible.

Dr. Mendenhall: And I'd say that building on what you said I think there's actually two ways of looking at this. I think that if you want to provide syndemic care, you have to address both it from the top down to the bottom up. So, we're talking about the top down. We have to see how fragmented our health system or health financing is. Number one, we have five or more private health insurance companies per state that are dominating the scene per state. So that fragments them from Virginia to Maryland, to Delaware, to Iowa, to California. So, we have all of these small pools of people who are able to actually manage costs. And what that brings us to the fact is that pharmaceutical companies, medical device manufacturers, medical, providers, they actually have so much more power and we all know this. There's way more power, that they hold in what things cost and what can be delivered, how and when and where then actually providers

or even health administrators. And that comes down to a fundamental question of financing. And then we have five different federal programs for providing care for people. And those have historical roots and they're really, really fundamental programs. Think of Medicaid, we think of IHS, we think of Medicare, we think of BA, we think of web. These programs that are fundamental for caring for people, but what happens with this fragmentation? Well, it limits our power to determine how the system itself is structured. And that means we have less power to negotiate price, and it means we have less power over how care is provided and delivered. And that is a fundamental federal question that needs to be structured from the top. And that is what Bernie is pushing. That is what Warren is pushing. That is his conversation on Medicare for all. And although I don't think it will end up looking exactly like what the most idealistic progressive agenda will look like something has to change. And what COVID has done is it has cracked open all of these extraordinary inequalities that are because of the fragmentation. I really think this is a moment to learn and hopefully something will change. But on the other side, we have the bottom-up issue, which is really the thing I was talking about earlier. So, on one hand you think about health system, you think about health financing and then you think of health provision. So, what does that look like? So, you do have a large Medicare for all. Probably in the US, it won't end up being an extraordinary federal program. It'll be hopefully less fragmented, but you can decide to go to public or private providers in

many countries that have a single payer system. So, what does that look like? Well, communities can design those for themselves. That's often how it is. I worked at Cook County Hospital for five years, studying and doing research and assisting on different programs and doing some translation. And that is an amazing place, first of all. And they do incredibly important work and it's very different than Georgetown where I work now in that hospital. They have different systems in place and programs. One is a public, and one is a private hospital and are fundamentally different. Which are then fundamentally different from primary healthcare centers, from community clinics that are doing that solid every day, justice work, social medicine. And, really thinking about how that care is organized and how it's delivered is a fundamental question, but it's fundamentally even different than the financing and getting both bottom-up and top-down organization, even for clinicians to work together idealistically, with lawyers and social workers, who are not just doing paperwork, but also providing counseling. And you know having a psychologist on staff. It was just there fundamentally every day to care for patients. If we think about the extraordinary effect of anxiety and PTSD and depression, especially among low-income communities, who are just struggling with what it means to be poor in America, having those support systems need to be in place. Really thinking about these two areas, it's just so critical if we're actually going to address syndemics.

Dr. Like: Let me just jump in on one other piece. And I'll say something that may be a little controversial, which is that many years ago, the Robert Wood Johnson Foundation came out with a monograph called a new way to talk about the social determinants of health. And what they did is they interviewed people on the left and right and the middle of the political spectrum. And we're probably moving a little bit into policy types of things here, which is outside my area of expertise, but they made the point that the language we use, even terms such as disparities and inequities speaks to one side, social justice of the political spectrum more than other side. And so, they said, what kind of language can we use that will also engage people, who may not support some of the things that Bernie Sanders and Elizabeth Warren and other solutions to things, and also maybe connect with different industries in the corporate sector in other ways, such as opportunity and journey. What are the emotional means, if you will, that connect with folks? And so, we've seen this come up, even amongst our medical students, because when we start to teach and try to introduce some of these ideas into the curriculum, they are also all over the map politically and ideologically on these things. And so, we have tried to find a language that, for lack of a better term is not partisan or bipartisan, but which is trans-partisan, if that even exists. How can we build those bridges to talk with each other? And that's, again, another possibility for the syndemic concept, because as you've mentioned, Dr. O'Connor and Dr. Mendenhall, it affects everyone in different ways, in

rural areas, people of all different persuasions and backgrounds. And so, I think we need to be mindful of the language that hopefully builds bridges in this process, and it's not easy.

Dr. Mendenhall: I could not agree more with your comment because what I think syndemics does is it provides this way for us, from all different disciplines and all parts of academia and clinical practice and policy to be in conversation. Because it brings together and recognizes all of these important aspects that really fundamentally affect sickness and what that means. And so, I really appreciate that comment.

Dr. O'Connor: I want to go back to a comment Dr. Like that you made and Dr. Mendenhall, you had a follow-up, and that was about the importance of this kind of cross-disciplinary approach, where the healthcare team is a more expanded team where, for example, there's a social worker or behavioral health, a trained individual, or even a lawyer for legal counsel. So, Dr. Like you have been a leader in education regarding cultural competency. And tell us about how some of that work that you've done support these concepts and movement towards cross disciplinary teams.

Dr. Like: Well, thank you for that and, I'm a learner, like all the other people are in this whole area because interprofessional teamwork, is still fairly new in the medical curricular. We often are trained with each other nurses with

nurses, social workers with social workers, doctors with doctors, and creating those spaces that are safe and really teaching about teamwork and collaborative skills is still a very much a work in progress. There are issues, fortunately, just a few examples. The liaison committee on medical education has developed certain standards, that have helped push medical schools. And so, I'll speak mainly about them around the country to begin to address this. So Standard 7.5 speaks to teaching people about societal problems. Many of the things we've been talking about during today's discussion. 7.6 is about cultural competency and health care disparities. And as Emily knows, many of my medical anthropology colleagues are not particularly in love with the term cultural competence, because it can often be used in ways that, reify that are stereotypical and miss a great deal of the intricacies that exist. So, other people use terms like cultural humility and cultural sensitivity and cultural responsiveness effectiveness. I don't particularly care too much about, what the language is per se, as much as do people start to really practice that kind of contextualized person centered, family centered care. And then, the third Standard 7.8 is interprofessional collaborative skills. This is also going on with the ACG the Accreditation Council for Graduate Medical Education in their milestones and their clear requirements. So that residency training programs are bringing this in and particularly in the areas relating to quality improvement, patient safety and high reliability organizations,

which are very much dependent on teams. If we're going to reduce medical errors, medical mistakes, and communicate better.
And so that has been an entry point for some of the teamwork efforts going on. I will also say that the American Medical Association has adopted, we know of the basic sciences and the clinical sciences, and now they talk about health systems sciences. Which sort of is an umbrella term that brings together, I think all the other things that haven't yet found a home. Whether it's population health and ethical issues and all of that. And our medical school is one of 32 schools that have been part of the AMAs accelerating change in medical education consortium, where people are beginning to transform the curriculum. And some are really focusing heavily on teamwork. Others are focusing on leadership issues. Others are dealing with the medical economics pieces. And interestingly now the USMLE, which since tests often drive things is actually incorporating test questions about this. So that to the degree that people worry about passing exams, I think much more is going to be reported about this going forward. I won't go into details about, what we're doing at our medical school, other than to say there are opportunities. The students are often hungry for these sorts of things. There's particularly a need for faculty development, because most of us were not trained in this way of thinking. And so, having the knowledge, having the skills, finding the time and the curriculum to do this and doing it in ways that are practical. I think talking about teams is very different than really becoming a team. And so,

it means learning together, finding ways to, if you will synergize the curricula of different health profession schools, and also seeing high functioning teams in action. Again, I think actually, Dr. O'Connor you can mention probably say stuff about this because an orthopedic surgeon, you are inevitably working with different teams of people, in terms of dealing with hip and knee replacement surgery, dealing with the disparity's issues. And, so, this is not alien I'm sure to your work at Yale.

Dr. O'Connor: I love teams. I love building teams and being on teams and, I don't think that there's anything that we can do in medicine by ourselves, but I was actually thinking as we were commenting. What would my dream team be as we think about addressing syndemics? We know, and some of our listeners may know this, or may not, that the Affordable Care Act, I believe it was the Affordable Care Act started to require hospitals and health systems to do community needs assessments. And so, hospitals and healthcare systems every year or two, they updated annually, but they do a community needs assessment to go out and say, what are the medical needs in our community and how are we as a hospital or health system working to make the health of the members in our community better? But I don't believe that we have all the right people responsible for those reports on those outcomes, because in an ideal world, if we had not just the health system, but we had community leaders and we had the mayor or politicians, and we had the lawyers and we had social workers.

We really need the village to be responsible to say, how are we going to improve health in these communities? It is not just up to healthcare providers, and I'm not so, saying that healthcare providers are not part of the problem and part of the solution, but as we look to these broader issues. The healthcare providers can't do it all. And part of the frustration that I hear that happens and that I see that happens in clinical practice is people get frustrated because the doctors, the nurses are like, "Listen, all I can do is provide the care I can provide here. I can't go help them in their home environment. I can't make their neighborhood safer. I can't address the fact that they have a food desert and it's difficult for them to buy fresh fruit and vegetables." So, I think that we need a fundamentally new way of thinking in terms of how we're even addressing these community health needs assessment. So, I would just like your comments on that. We'll start with you, Dr. Mendenhall.

Dr. Mendenhall: Yes, I think that's really important. And I also think, like I mentioned earlier, that it requires this complete rethink on what primary health care is. So, there's something that we talk about Medicare for all. We think about healthcare for all. There's a huge movement, decades and decades long, on primary health care for all, and what that could mean in the US. And frankly, I think that doctors are so expensive and really, unnecessary to do a lot of this work. And so, having really, integrative teams led by nurse practitioners, some of the most progressive health professionals I

ever talked to are in the nursing program at UNC. They brought me into consultants on syndemics and they are gone how they were like, “This is what we do. We can create systems and programs that can provide this care, but this is what we do. This is our bread and butter.” And bringing them out of the clinic, just getting to the clinic is such a barrier, putting them in the community and, one of my favorite ideas is just every YMCA having a primary healthcare center that has a counselor, a nurse practitioner, some legal counsel on board who are there, who can help people maintain their health because YMCAs for me are ways in which we address community health. Why is there not some sort of wellness, primary health care, located in those fundamental systems that are all over the nation already? So, really this is what Paul Farmer says all the time or Joia Mukherjee at Partners in Health. They're always talking about how we re-imagine what's possible. And I really think they're right. How can we re-imagine in the US what primary health care looks like? It doesn't need to be in a hospital, in a clinic, a place that's so hard to get to. These minute clinics and/or urgent care has radically transformed how families can care for their loved ones. So why can't we do that? And these other places that we connect so closely to community health.

Dr. O’Connor: I think we can imagine that we could, and that we need to, the three of us, the challenge is, as we all know, we're coming up on the top of the hour, I'm going to ask a final question of each of you. If you had the power

of the universe to effect one change in the way we're delivering healthcare now, what would it be?

Dr. Like: Can I have one with several parts to it? Let me just quickly throw out just a few thoughts. The first is that some of our early work related to the culturally and linguistically appropriate service standards, that the Office of Minority Health developed the class standards, and I think particularly as we're dealing with COVID, this also deals with the community benefits requirements. That those class standards are a way for beginning to think about how do you tailor services to different communities in partnership with those communities bringing in leadership, and perhaps that can be the topic for a future conversation? So that's number one.

Number two, a part of this is that I also think that we need to deal with what the World Health Organization is called, the infodemic. Which is the epidemic of misinformation and disinformation that is coming out not only relating to COVID, but to many other conditions. Because it also leads to some of the political aspects to this as to whose interests are being served and not served by what's going on. There are conspiracy theories galore that are out there that are being disseminated in the communities, whether it's about 5G or whether there's a documentary called Plandemics, which has been produced by a virologist and by others, which if people pay attention to these sorts of things and get involved with certain anti-vaxxer

and other anti-things, it's going to make it very, very difficult to change our healthcare system. So, I think we need to deal with these infodemics.

The third thing I'll mention is that while we talk about the social determinants of health, there's also the political determinants of health. And if we don't find ways to build those bridges and have those dialogues, we can understand we can develop interventions, but if resources are allocated in ways that really don't take account of these things, it's going to be difficult.

Two more things under my part. My one thing. I apologize for disobeying a little bit. As broad as the syndemics concept is I believe that Dr. Singer has even gone further to talk about eco-syndemics, which is the effect of changing climate and the fact that heat waves and environmental racism, and why are some communities affected more than others? So, if we do this work and leave out the effect of, and you've mentioned this Emily of the ecology and the environment, that's a huge miss. And much of our problem now, comes from the deforestation from strip mining, from other things that are taking place that will worsen these different types of syndemics.

And my final piece that I would just mention is something that was just published yesterday in JAMA, in an article called COVID-19 and Health

Equity, a new kind of quote, "Herd immunity" in quotes and I just like to read this. “The striking racial/ethnic disparities reported for COVID-19 infection testing and disease burden are a clear reminder that failure to protect the most vulnerable members of society, not only harms them, but also increases the risk of spread of the virus with devastating health and economic consequences for all. COVID-19 disparities are not the fault of those who are experiencing them, but rather reflect social policies and systems that create health disparities in good times and inflate them in a crisis. The US must develop a new kind of quote, ‘herd immunity’, where resistance to the spread of poor health in a population occurs when a sufficiently high proportion of individuals across all racial, ethnic, and social class groups are protected from, and thus quote, "Immune to negative social determinants." And it's a wonderful short article by Dr. David Williams and Dr. Lisa Cooper. And I know that Dr. Williams has also spoken at Movement is Life in the past.

Dr. O’Connor: Yes, Dr. Williams is outstanding, and we've been delighted to have him, be a keynote speaker for us twice in the past. Dr. Mendenhall, your closing thoughts.

Dr. Mendenhall: I guess there are three things and I'll be very brief. Number one, I think that this COVID crisis, it's the preempt to climate change. So how are our lives going to be radically transformed by climate that is radically

transforming? And what that's going to look like? We're experiencing quarantine right now. What does that going to look like for changing our urban and rural realities, especially people who are living in coastal communities or going to experience extraordinary drought, for example? So, this is really preemptive of a very changing human experience. That's number one.

The other one is I have this big study looking at the mental health effects of quarantine in South Africa, right now. So, what does that look like also in the United States. From neighborhood to neighborhood, it's different, from country to country, it's different based on what quarantine means. Because quarantine has meant really, different things across the world, even in US State to State, even city to city in some cases. So, what does that mean and how does that affect people in positive or negative ways? Now, quarantine especially if you don't live with people you feel safe with can be an extraordinary trauma. And one of my concerns is how this is going to affect children as they grow up and how they see the world. What does this mean? Especially for those children who are living in very unsafe spaces, and also are missing really important social networks, from schools, but also socialization during really critical times. That's what I'm really concerned about. But the ultimate thing that I am concerned about in the United States is politics because I'm very close friends with Rebecca Katz, a leading global health security expert in the United States,

and she can tell you, we had all the plans, we had all the ideas, we knew how to address this, but we didn't have the politics right. Inherently, our condition is a problem of politics, and we know what to do. We have all the research; we know what's causing these problems. We know the biology. We have all of the experts that you could possibly need to solve this. We don't have the politics. And until we fix the politics of really understanding the problems and creating solutions that are real, that will actually make an effect and put them in place, we will not overcome this syndemic that is happening in the United States, which is politically driven, ultimately. And that's what I think about.

Dr. O’Connor: I'm hopeful that one of the lessons that we all learned from this horrible pandemic is how interconnected we all are and how interdependent we all are. And if we're going to allow communities, who are disadvantaged to have such horrible health outcomes. Those of us who live in communities that are more affluent of which I'm blessed to live in a more affluent community, start to recognize that, we are all our brother’s or sister’s keeper. At the end of the day, we all need each other to be healthy. And so, I'm hopeful that one of the good things that could come out of this horrible syndemic pandemic is really a ground swell of people recognizing that we fundamentally have to address these health equity issues across the broad spectrum from political solutions, social solutions, individual solutions, healthcare system solutions.

Alright. I'm going to close with that because we could just keep going on and on about this topic. And we do have to be respectful of our time. So, I want to thank our guests for a very engaging discussion and to our audience for listening today. So, until next time, everyone please stay safe and strong and active because Movement Is Life. Thank you.

(End of recording)