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Geri Amori, PhD, ARM, DFASHRM, CPHRM: Hello everyone, and welcome to *Healthcare Perspectives 360*, a podcast dedicated to exploring contemporary healthcare issues from multiple perspectives. I'm Geri Amori, and today I'm joined by Irene Dankwa-Mullan, MD, MPH, a physician, executive, researcher and thought leader in health technology innovation, currently adjunct professor at George Washington University's Milken Institute School of Public Health, Chief Health Officer at Marti Health, with expertise on the ethical use of AI in healthcare, aiming to bridge gaps in access for underserved communities and ensure personalized, precision care for equitable outcomes.

I'm also joined by Danielle Bitterman, MD, assistant professor at Harvard Medical School, who is a radiation oncologist at Dana-Farber and Mass General Brigham, who has unique expertise in AI applications for cancer and AI oversight for healthcare. Also, I'm joined by Chad Brouillard, Esq., a medical malpractice defense attorney and partner at the law firm of Foster, Eldridge LLP, in Massachusetts, with expertise in electronic health record liability, AI implications, and all things technologically related to healthcare liability and risk. Welcome to our panelists and welcome to our audience.

Today, we're going to be talking about the promise of AI: What is positive for patients and providers. To start us off, let me just say that there is so much in the public news and medical news about AI. It's overwhelming to those of us who don't live in the world of large language models and generative AI. Heck, I'm still trying to figure out passkeys. And furthermore, for those of us who don't deal with the fine points of AI, the daily information we hear can seem to focus on what risks AI exposes us to.

We tend to say, yes, it can do this but look what it can go wrong and what that means. My guess is, as a human, as a healthcare professional, that the reality is somewhere in the middle. So yes, AI creates new conundrums about safety and reliability and liability, but also what a great gift it is. We can augment the limitations of the human brain and the stressors of time and memory with a machine that is fairly reliable, consistent, and fast. So today's episode, we're going to discuss what is new and positive for our patients, providers, and even our growing emerging providers who are in school that AI is making available to us and to future generations. I'd like to start with Irene today. Irene, you work with underserved populations, and I assume there must be challenges in finding information that takes into consideration the needs of your patients. In what ways has AI supported your work from the diagnostic and treatment perspective?

Irene Dankwa-Mullan, MD, MPH: Well, that's a great question, and I'll be honest right now that AI has not been as helpful in supporting diagnosis and treatment for underserved populations, and I'm talking in terms of personalization or precision. And there are few key reasons. I mean, first, it comes down to the data, where most AI systems in healthcare are trained on data sets that significantly underrepresent these communities. And so when AI isn't exposed to diverse populations during training, it tends to make less accurate and even biased recommendations.

For example, diagnostic algorithms might miss diseases that present differently in patients of different socioeconomic backgrounds, ethnicities, culture, and so this lack of representativeness means that the AI tools cannot reliably support personalized treatment for underserved patients. But there is promise. I'm hopeful, you know, with research and data sets that are looking to build more robust data sets and

architecture, and then there's an issue of access and infrastructure. We need that robust data infrastructure. We need the best AI tools that can support multi-real-world data sets and make an impact, especially where it's needed. So definitely inclusive data collection, also auditing biases and transparency and making sure that there is practical data from all sources to address the specific needs of communities that are underserved.

Amori: Okay, good, good. Danielle, in hospitals like Dana-Farber and Mass General, where you are, you must have access to much of the latest AI support for diagnostics and treatment, I would assume anyway. What do you see is upcoming and exciting?

Danielle Bitterman, MD: Well, one thing that I'm particularly excited about AI, where we're at now with AI, is the ability to, kind of to now provide patients with access to really high level medical education and information about their own medical data, not only when they're here in clinic seeing us, but also so that they can go home and learn more or revisit what they discuss with their physician. I think AI really makes a lot of that information a lot more accessible and can put more power in the hands of patients, and I see huge opportunity for improving education, health literacy, compliance with health recommendations via those types of AI applications.

Amori: Okay. So Irene, what about from the patient's perspective? What are you able to offer patients that make their ability to be an engaged and knowledgeable patient easier and more effective and more satisfying? Or are you?

Dankwa-Mullan: That's a fantastic question because patient engagement is such a critical part of achieving better health outcomes, especially for patients that are underserved. From the patient's perspective, a lot of focus is on accessibility, it's on personalization, it's on trust, and I think AI can really play a big role in making that happen, and one of the impactful things that we can offer is information that is accessible, that is understandable. For many patients, medical jargon can be a huge barrier, right, to engagement. So AI power tools can help simplify these complex information into plain language. It can provide real-time translation for non-English speakers. It can even offer culturally relevant explanations for medical conditions and treatment. So when patients truly understand what's going on with their health they're far more likely to engage with their health plan. So definitely, personalization is a game changer, and that's what I excited about, right, where AI is allowing us to tailor those information and care recommendations.

Amori: I hadn't even thought about the fact that you could make like a chat bot be culturally speaking the language and the idioms that people you…that's wonderful. That's great. Danielle, what about your patients? I would guess you serve a very broad patient group, both in ethnicity and background and even in resources. How does AI allow you to offer help that makes them more engaged or satisfied?

Bitterman: Yeah, this, I want to echo a lot of what Irene just said, and this really is where I see so much potential of AI. It's really the same, similar type approaches of making information available and accessible. It's so hard. It's hard for me to even get a doctor's appointment. It's hard to have to access healthcare nowadays. If we can make that easier for patients to access healthcare, easier patients to navigate healthcare, it seems simple. It's not, you know, the fanciest innovation, but there's so much room for improvement there. I think we could really advance outcomes and improve efficiency and make patients' experiences much better, just by facilitating those processes with AI.

Amori: Okay, so this sounds very exciting because, you know, I really am all about patient engagement, and this is fabulous. So Chad, all right, I'm going to have to speak for myself here, I usually think about lawyers when things go wrong, but lawyers also need to know how things can go right in order to assess when they're going wrong. So from your perspective, what do you see is the benefits available from AI for both organizations and patients?

Chad Brouillard, Esq.: Sure, and we've heard a lot of great clinical uses for AI. So I thought I would put on my lens as the lawyer and say, What is one thing that I see that comes up in many, many cases that would be great if AI could help address and I think part of the problem we have in many types of lawsuits against physicians is that we often have siloed medical information. And by that, I mean there may be a progress note. Well, I'll give you a very clear example.

There was a disease outbreak case that happened, and it was with a large enterprise system and information that was the red flag for the disease occurred in the enterprises, like an outpatient PCP office, but the next day, when the patient reported to the ED with symptoms, the red flag wasn't elicited during interview, but it was there. It was there in the system somewhere, right? And obviously, the emergency room provider, you know, probably didn't have time to go fishing to see, look at all the outpatient visits and figure out if there was any relevant data there that could be accessed in the course of an emergency, you know, quick moving ED.

To me, that's the real promise of AI to be able to coordinate care better and to reduce these information silos because AI can process natural language. It can process those unstructured progress notes. It can look for clinically relevant details, you know, across gigabytes worth of information very, very quickly, beyond human cognitive and time limitations. And to me, that would be the big promise of using AI in the healthcare space.

Amori: I like that. I just was talking yesterday to a person who was very upset because they got information from one part of the system, but not from the other part of the system, and it was totally not coordinated, and it was very upsetting to them, and they didn't get the care they needed. So yeah, that coordination is a good idea. So Danielle, you like predictive analytics, and can AI help the hospital improve its ability to provide the best treatments at the best time in your mind?

Bitterman: So I think hopefully we do get there; it's a very fair question. There are so many things that you can predict, so it's hard to answer that question yes or no, but I will say that there's talk about a promise. But I will caution that we've had a history, you know, that we, my institution and throughout the country, of developing predictive analytics using data from one institution and then widely rolling it out and then it to other institutions, and that just not working well. So predictive analytics are hard because it's very easy for those models to learn biases, and then they end up being incorrect. So I think there's a lot of potential. I would love to be able to say to my patient, you are particularly at risk for this side effect of your radiation; therefore, we are going to prioritize reducing radiation dose to that organ to reduce side effect based on your specific risk. Those are in development. There's a lot of exciting research, and I think there's huge potential there, as long as we do kind of our rigorous, valid internal and external validations to ensure what we're think we're predicting, we're actually predicting.

Amori: Okay, so predictive analytics seems like it's in an early stage. Is that true in your situation, too, Irene?

Dankwa-Mullan: Yeah, absolutely. I agree with Danielle. I mean, to be honest, we also haven't been able to use predictive analytics with with patients, not to the extent needed for truly personalized treatment options, right, because the word here is personalization, as I said because we don't yet have that robust data infrastructure required to leverage their predictive analytics effectively, and we're still building on the science, but they are promising development in the literature, which is great. So there's promises, especially if, example, for managing sickle cell disease, researchers have been able to develop predictive analytics right to forecast onset of pain crisis. We can analyze historical data, vital signs, lab results, weather conditions.

Some models have been able to predict crisis hours in advance, so that can help. I mean, I think the way it depends on what predictions are being made because I'm also advising another startup that works on predictive analytics to tackle a different but equally pressing issue, which is postpartum depression among black mothers, right. Startup is developing algorithms that can analyze their EHR data, their screening results, even social needs to identify those women that will be at high risk of postpartum depression before the symptoms become severe. So while we haven't reached that point yet, I think there's a lot of potential for it to drive more personalized and equitable care in the future.

Amori: Okay, well, I want to get to our final question, but before I do quickly, I want to just ask Chad one more question here. You know Chad, maybe I've just been around a long time, but I remember when we used to say, Oh, electronic health records, it's going to make the physician's life so much easier, and they're going to be have less stress and blah, blah, blah. Well, now we're hearing, oh AI, it's going to make the physician's life so much easier, much less stress. What are you hearing from providers? Is that helping with burnout or just another thing to worry about at this point, I realize change?

Brouillard: I think you nailed it on the head, right? I think the big, 800-pound gorilla when we're talking about burnout, besides staffing, which I don't think AI is going to help, is really the electronic health record. It used to be that during the patient encounter, provider would be writing some quick notes, some shorthand in a progress note, and that would be kept somewhere. Now there are so many aspects of an electronic health record charting that can be very onerous, and you have healthcare providers who are staying until midnight trying to get their notes done.

So really, I think, the most attractive use of AI to your day-to-day clinician who is dealing with heavy caseloads and heavy patient loads, and, you know, inability to get documentation done, is, Hey, can we offload some of this documentation? And, you know, I think the use of things like e-scribing or ambient scribing, which are AI tools. You know, essentially, we have a smart speaker in the room, a smart microphone in the room, that's, in essence, recording everything that's happening and then filling in some or all of that documentation for clinical review afterwards. I think there's a lot of promise there. There have been big studies,

I think the Kaiser Permanente system put out an article about this, how they had rolled it out to something like 10,000 providers outpatient. The providers really like it on one hand. But you know, as the attorney, I will just have to point out, you know, just like we saw with dictation systems, it can lead to a lot of inaccuracies, and some of them can be potentially harmful inaccuracies. So just the fact that

the AI scribing took a pass at the note you still as the clinical provider, need to review it closely and make sure that it's accurate because even that first study that I mentioned from Kaiser Permanente, they found something like it was only 85% accurate, right? It requires close reading and editing when needed.

Amori: Okay, so maybe it'll be easier up front, but the responsibility will still be there. Maybe it'll help with burnout.

So my favorite question of the day always is, if you have one or two sentences to tell, leave with our audience about promise of AI, what would it be? Irene, can I start with you?

Dankwa-Mullan: Yes, one thing I'd want listeners to take away is the bottom line is, for AI to really fulfill its promise in healthcare, it needs to be built on a foundation of equitable data, equitable design and equitable access, right? Because if we want to optimize AI's potential to improve health outcomes for everyone, both patients and providers alike, we want that foundation because we all, I mean, as patients or healthcare providers, clinicians really want personalized care that truly considers a patient's unique history, their social context, their lived experience, not generic recommendations that really fail to account for those specific needs.

Amori: So it's important is that we feed the AI, good, equitable, vast amounts of data that really looks at all people and be culturally great.

Dankwa-Mullan: Trusting the tools, right? Trusting. Transparency is key. I think yeah, at that.

Amori: You've definitely taught us that. Danielle, what would you like to leave people with the promise?

Bitterman: Yeah, my take home point is, there is a lot of hype around AI right now. Does that serve the purpose of getting good quality, helpful AI to clinic because it can sometimes overstate where we are right now? But that hype is underlined by there really have been advances in AI in the past five years that are moving us into a space where we can really start to engage with it from the healthcare provider side and the patient side that I do think is going to transform healthcare. So I think staying, kind of seeing through the hype, but kind of acknowledging that there is something changing of where we're at with the technology that likely is going to transform and be ready for that transformation is going to put us in a good position to really get better healthcare to everyone, more efficiently in terms of time, resources, and, most importantly, higher quality, safer healthcare.

Amori: So I'm hearing you say, be patient. We're not there yet, but we will be, and let's keep an eye on the ball. Okay. And Chad, what one thing would you like our audience to take away about the future of AI?

Brouillard: Well, you know, I think it's a logical progression. For two decades now, we've been rolling out electronic health records and creating these big data stores of patient information. And, you know, really trying to hone that down and perfect it really taking AI tools which excel at crunching large amounts of data and then doing really sophisticated things with that data really has some promise. The hope is we're going to get safer healthcare, we're going to get more comprehensive reviews of patients and their risk profiles, things we couldn't do before, and more personalized healthcare based on the

application of those tools. I certainly agree with Danielle and Irene that, you know, there is a lot of hype out there, so we've got to be very careful in the products we select.

Amori: Wow. Well, thank you. This has been an amazing conversation, and I'm frankly excited to see what healthcare looks like with the assistance of AI in the next 10 years, the next 5 to 10 years. It's going to be amazing. And I'd like to thank you, our panelists, for your amazing insights today, and like to thank our audience for being with us today. And I look forward to seeing all of you next time when we look at a healthcare issue from a *Perspective 360*.

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