Physician Vox Pop (00:04):
I was stressed a hundred percent of the time and all I could think about was how much I wasn't getting done rather than focusing on the things that I was achieving.

Seán Collins (00:19):
On today's program, we look at innovation in healthcare as one means of combating burnout

Physician Vox Pop (00:26):
For all of us who take care of patients. In the course of our workday, [00:00:30] we have been trained and conditioned by our educational process to continue to work despite the fact that our batteries are completely empty.

Seán Collins (00:41):
We didn't hear a lot about burnout before the pandemic, but it was there and one of the culprits may just have been a tech advance itself.

Physician Vox Pop (00:51):
Even before Covid, we saw the electronic health record as being a very large driver of burnout with covid and patients being able to access their [00:01:00] health record and access their physicians at much higher rates. We are seeing even more burnout related to the electronic health record

Seán Collins (01:08):
Coming up, a conversation about innovation in healthcare with someone at the cutting edge. Stay with us.

(01:28):
It's the Hear Me Now Podcast. [00:01:30] I'm Seán Collins. Glad you're with us. Burnout was already a topic of conversation in medical circles well before we ever

heard of Covid, and the pandemic only accelerated the departure of healthcare professionals from established careers. So maybe it seems counterintuitive to look to burnout as the germ of innovation, but that is exactly what seems to be happening.

(01:58):
Providence has embarked on a multifaceted [00:02:00] approach to addressing clinical burnout, and just as no one issue causes burnout, no one solution will cure it. Instead, they have a Swiss Army knife approach that includes innovation in a variety of areas, believing that by improving the experience of delivering care, they will improve the patient's experience of receiving it. Or as I've seen members of the team write, they're all about "restoring [00:02:30] joy in the practice of medicine." Dr. Maulin Shah is Chief Medical Information Officer for Providence and VP of Informatics and Engineering, and he's with me now from Portland. Dr. Shah, welcome to the podcast. It's really great to have you here.

Maulin Shah, M.D. (02:47):
Thanks for having me

Seán Collins (02:49):
"To restore joy in the practice of medicine." That's a tall order, but one that I imagine is really gratifying when you make strides towards it.

Maulin Shah, M.D. (03:00):
[00:03:00] Yeah, for sure. I'm a physician myself and seeing my peers, my colleagues burning out, getting tired. I was just talking to my sister literally yesterday at lunch about how she's a hospitalist here for Providence and how she was feeling like she just wasn't sure how much longer she could do it. It's a real problem. And Covid or not, like you mentioned, and so my job here at Providence and I think all of our jobs is to do everything we can to [00:03:30] take the burden away from administering care and being there on the front line so that you can focus in on your patient and the stuff that

you brings you joy, right? The stuff that as a frontline caregiver brings you joy and allows you to do the most good.

Seán Collins (03:45):
Yeah, and it makes financial sense too. How much does it cost to recruit and hire and onboard a new physician?

Maulin Shah, M.D. (03:54):
I better not quote the number because I'll probably get it wrong, but it's definitely six figures. It's a lot of money, [00:04:00] and by the time they're onboarded and seeing a full panel of patients and understand all the providence nuances of how we care for patients and what we do, it can take quite some time as well.

Seán Collins (04:10):
So anything you can do to retain and improve the work environment for existing caregivers, as long as it's below that six figures, you're ahead, aren't you?

Maulin Shah, M.D. (04:21):
Absolutely. And just think about the patient experience, right? I mean, you don't want your doctor to leave and have to see a new doctor, then have to see a new doctor. I mean, it's important for the commitment [00:04:30] we have to our patients.

Seán Collins (04:32):
As I noted around this topic, in preparation for the episode, you get the sense that people begin to equate burnout with the sort of simultaneous adoption of electronic health records that happened historically. I know that that's too simplistic of an association, but I think a lot of people are making it, and that idea is out there in your work environment. How do [00:05:00] you approach that issue?

Maulin Shah, M.D. (05:02):

It is a good point. I mean, if you think about how health records got wedged into healthcare, it was through a government initiative. It was through initiatives that forced the utilization of a tool no matter how mature or immature, because frankly, healthcare was kicking and screaming when it came to health information. It's funny, we're cutting edge when it comes to robotic surgeries. All the docs want to do it, but when it comes to health information management, it was something that they were really kicking and screaming. [00:05:30] And so if you think about the initial incentives being how often are you clicking here or doing this one thing or doing this other thing, the tools got built for physicians and for care first out of the need for better billing, and then out of a need to address these meaningful use, which is what they would call the meaningful use criteria.

(05:52):
So no question that these were not clunky tools that were designed with the [00:06:00] clinical encounter in mind, they just jammed stuff in there. I think over time that's actually gotten better, but you only get one chance to make a first impression, and so it's taking a very, very long time to really show people how things have improved. And one of the things my team really focuses it on is saying things have improved, but you've chosen not to do them. We have these modern web browsers or we have modern things, and you guys are still using Internet Explorer [00:06:30] from 2002. So how do I get you to move forward along with these tools and get you out of your practice patterns?

Seán Collins (06:37):
So walk us through some of the innovation that you're bringing to that training, mentoring that goes on in helping physicians and nurses to adopt a tool that they think they may not like.

Maulin Shah, M.D. (06:52):
Yeah, we have a number of different kind of approaches Now, like you said earlier, no one approach is going to work for sure [00:07:00] at the highest levels. We've got to

make sure our tools are as fast as they can be just from a performance perspective that they have a nearly 100% uptime. So there's infrastructure, right? There's security, there's these things that you don't want to ever have to think about. Wireless network infrastructure, all that stuff that nobody really wants to think about, things should just work. That's the first thing about building trust, and that's what we work on as an IS organization. But then you dive into the, okay, I trust that this thing will not be broken. That's good, but now what do I [00:07:30] do? We can kind of split our approach into a few different areas. On the front is training. People get very stuck on training being the thing that happens when you join the company.

(07:46):
Well, that may have been 10 years ago For me, it was 17 years ago. That doesn't help me anymore. And so changing the paradigm of training to an ongoing process to be able to be something that you're constantly learning, [00:08:00] however we can deliver that training to you in a busy clinician's life is sort of the first piece that includes us looking at the data provided by our electronic health record vendor that says, this particular clinician, this particular physician is super efficient, or this person is not efficient. And so we can target those physicians or nurses that are not as efficient, say, okay, well these are people that we need to spend a little time with, but also just ubiquitous training for everybody. And then for [00:08:30] those high performers, giving them even more training power user, if you will, is with what Epic calls it our E H R vendor calls it so that they can then they can pass that along through osmosis with their peers. They know people know, oh, I can talk to such and such and I'll get better at this, or I have. So there's that. That's training and part of that's what we call coaching where you can reach out and have a one-on-one session scheduled with an expert to say, how can I make my workflow [00:09:00] better? So lots of different opportunities.

Seán Collins (09:03):
You seem to be pointing to a really ancient tradition in medicine, which is that people are mentored by their elders and they learn by watching and they get good at

something because of that training, and then they teach others how to do what has been passed on to them.

Maulin Shah, M.D. (09:22):
Absolutely. "See one, Do one, Teach one" is what we all learned in residency, and to the extent that we can do that and [00:09:30] leverage that culture, the better off we are, right?

Seán Collins (09:33):
Might need to be see fify, do a thousand...

Maulin Shah, M.D. (09:38):
It should have been see fifty all along. Let's just be clear. I shouldn't see one appendix and do one that was never a good idea. I'll close out on training, but the last thing about training is that it's the best bang for our buck. So if we spend a dollar on training, we'll get the highest return compared to spending a dollar on making the tool easier to [00:10:00] use or a dollar on some new innovation. So it's simple, but it's clearly the best work. It's just when you go and talk to a doctor, they're like, well, why can't you just make it easier? Well, we spent a lot of time making it easier. You're not using it, and that's why we have to train and train and train. So that's number one.

Seán Collins (10:19):
So as a person who has watched his primary care doc during encounters, I've noticed part of her work seems to be pulling down multiple [00:10:30] nested menus and clicking, click, click, click, click. It seems like there's so many steps sometimes to get to what she's trying to put into the record, and that just seems like kind of awful web one user interface design. I mean, as a complete newbie, I can't believe that it's not easier.

Maulin Shah, M.D. (10:56):

And so now you've said the speech that every physician [00:11:00] I've ever met tells me, so you just got your M.D. No, you're absolutely right. I mean, the user interfaces have not come along. Some places where they have come along, and again, our vendor is working very hard on that, they're not in the traditional, you kind of have to change how you do your work to get to that, and it generates a note differently. But what I really feel like, and this is where the innovation stuff comes in, is we have to step away from the paradigm. You can only improve [00:11:30] something for so long. Great, make the computer better, make the computer better, make the computer better. You can only do that for so long. So one of the things that we've done is we've partnered with a company called Nuance, who is a Microsoft company.

(11:48):
They've put together some pretty amazing innovation called the Dragon Ambient Experience or DAX. So to get to your example of you're sitting in the exam room, your physicians clicking, clicking, looking at their computer, [00:12:00] maybe they look up and look at you once, and then they start looking at it like, who are they taking care of you? Or the computer Dragon Ambient Experience. DAX attempts to address this directly, so it listens to the conversation so that you and your physician can be having a conversation directly. It listens to that, and then from that it generates a clinical note, so the physician's not busy looking for dropdowns, but instead can just have the note already there. Then when the physician's interacting with computers, [00:12:30] very specific things like decision support or how can I best take care of this patient? Or What are your medications doing and that kind of stuff.

(12:37):
So you still have the computer, but you're doing the right work with it. You're not just sitting there transcribing that somebody else can do. I'll just add that the current version of DAX that we're one of the larger users of with our physicians creates a note, but it takes four or six hours to get the note back, so you get the note at the end of the day, you review these notes and then you sign them and off [00:13:00] you go. With that in and of itself, overall there's been a lot of satisfaction and things have really

gotten better with that, but it wasn't enough, and so Nuance has recently announced a product called DAX Express. So this is a GPT, so ChatGPT. It's enabled by ChatGPT, not the public ChatGPT, but a private version that's hosted in Microsoft, but basically it uses GPT to create that note in real time. So now I have a conversation [00:13:30] with you. Then when I look to the computer, I've got a note, so all that work I'm doing with a note, it's all right there.

Seán Collins (13:36):
It doesn't generate a transcript. It generates something that is a note, a synthesized version of what was said.

Maulin Shah, M.D. (13:43):
Yes, absolutely. Yeah, both versions, yeah, they are a synthesized version of it. So they'll say a patient comes in with X and has been feeling such and such and it's a really impressive tool.

Seán Collins (13:57):
Have you used it with a patient?

Maulin Shah, M.D. (13:58):
I have not used it with a patient. Actually. [00:14:00] It's not available for a general availability yet. They're kind of on a private preview, but we're definitely excited to pilot it as soon as they get out of that preview.

Seán Collins (14:11):
And can I ask whether you've used it in any sort of beta form with a colleague, sort of not with a patient, but with someone else?

Maulin Shah, M.D. (14:19):
No, not yet. Not that instantly available one. We haven't got our hands on it yet.

Seán Collins (14:25):
I'm really curious what that experience is going to be like for the clinician. Right,

Maulin Shah, M.D. (14:29):
Absolutely. [00:14:30] We are as well, and again, the chief Medical Information officer, we have a couple in our organization. We have an ambulatory focus, chief medical information Officer, Dr. Scott Smitherman. He's been using this in his clinic, the DAX version, and he's like, for the first time, I can just go home on time again, you were talking about burden and burnout, right? I get to go home on time. I don't have to open my chart again after going home. That's just a huge win, and without the newer version, that's going to be real time, [00:15:00] which we're super excited about.

Seán Collins (15:01):
It's like someone hands the doctor "here are four hours of your life back."

Maulin Shah, M.D. (15:07):
Absolutely. What's really interesting is yeah, you get an hour, maybe 90 minutes out of the DAX, you get another hour from training, which is what we've quantified. So when you're talking about a couple hours a day of people's lives coming back to them, I mean, that's not subtle.

Seán Collins (15:23):
Wow. Do you know how many episodes of Survivor you can binge if you use it?

Maulin Shah, M.D. (15:28):
(laughs)

Seán Collins (15:30):
[00:15:30] So we should be keeping an eye out for this DAX, which again stands for Dragon Ambient Experience, right? Yeah. When do you think it'll be ready to beta test in a clinical setting? At Providence?

Maulin Shah, M.D. (15:44):
Yeah, at Providence, probably end of the year, maybe early next year would be my guess. And we got to be careful. I mean, especially the generative ai, right? It is exciting, but it's also not only new, but there are some very real risks with [00:16:00] the generative ai. Many of you probably heard about hallucinations where it'll just make stuff up. So it's listening to your conversation and theoretically it could just make stuff up. Now, dragon, I mean the nuanced company is clearly checking it and making sure it doesn't do that, but that's what we're waiting for. We want to make sure it doesn't do that. But there's a lot of other things that are really hard to test. Things like bias. Could it create a different kind of note based on the way people talk, [00:16:30] right? This is a model that was just trained on the internet conversations on Facebook and Reddit. So is it possible that we'll be creating bias in our care because somebody speaks with a particular vernacular? I don't know. I hope not, but hope not, doesn't feel good enough for patient care, and so we're waiting a little bit. We want to see what's going to happen.

Seán Collins (16:53):
So you're going into it with your eyes open.

Maulin Shah, M.D. (16:55):
Absolutely.

Seán Collins (16:57):
At the sort of practical [00:17:00] level, is there a way, not with the generative version, but is there a way to sort of trigger it to make a verbatim note, almost like a Siri encounter,

Maulin Shah, M.D. (17:13):
And that's stuff that we're looking into. There's a tool called, Hey, epic. Epic again is the name of our EMR. So you say, Hey, epic, and you can have it do things. There's

some talk about the Dragon experience having a similar thing where you can turn it on [00:17:30] as an assistant, a virtual assistant. None of that's super far along. Hey, epic is live in our system and it's pretty low, just to be honest. I mean, I think frankly, I use my Alexa a lot more than before when I first got it than I do now. Now it's a glorified shopping list and an iPod, so it's that kind of a thing. We just have to find the right use case.

Seán Collins (17:56):
Dr. Shah, I think whenever there's talk of innovation, [00:18:00] and particularly when there's artificial intelligence mentioned in the conversation, I think some people are going to put up mental roadblocks. They're going to think they're turning us into bot fodder. Really long, long numbers, and I'm curious, what does Providence do to ensure that the humanity of the people that are being [00:18:30] cared for doesn't get forgotten in the environment of innovation?

Maulin Shah, M.D. (18:35):
Yeah, that's a great observation. I think the biggest thing to think about is the AI is about not necessarily about helping patients, to be honest. It's about helping your caregiver, your clinician, your physician so that they can still help the patient. It's about allowing physicians to be human again, creating that human to human contact, [00:19:00] which right now, like we said earlier, they're busy looking at the computer and they're not looking at you. So if anything, what my hope and vision for AI is to get rid of all the administrative stuff, even serve up the clinical stuff in a way so that as the human, as the physician can sit and talk to you and have the information I need at the tip of my tongue so that we can make a decision together. So it's far more about that than it [00:19:30] is about we're not replacing positions. Even if the technology was there, I don't think the humanity is there and the technology is not there. So it's not about replacing really any kind of staff, but about augmenting our ability to do a better job.

Seán Collins (19:47):

Can we talk about whether this move that you're undertaking at Providence is going to have any impact on the care for diverse populations [00:20:00] who might be slipping through the cracks in other ways? Is there any hope here that this could make care better for more people

Maulin Shah, M.D. (20:09):
In a number of different ways, and maybe they're a step or two further, but if I can more systematically and more consistently interact with my patients, so I know I'm going to have a certain set of information about my patients, I don't have to go searching in a chart for it because for example, [00:20:30] AI has served it up for me. I know that my team has had standardized workflows enabled by AI to be able to prepare your patient for a visit, whether it's make sure you're bringing your medications or make sure you find the records for something or whatever it might be, so that I have a consistent approach to every patient. Then by being standardized and consistent, I know that I'm going to be able to, one, [00:21:00] just make sure I'm reducing any implicit bias and making sure that we're being inclusive and really respecting the diversity of our patient population.

(21:11):
Secondarily though, the mission at Provenance is around care of the poor and the vulnerable, and as you think about how AI or other innovations can impact that care, things that come to mind right off the bat are just access to care. [00:21:30] So making access more ready, more available, being super smart about how we schedule patients, how being super smart about who's going to not show up. We have a machine learning AI model that helps us to predict whether a slot is going to be filled or not or somebody's not going to show up for whatever reason, and if not, we call them to try to get them to show. We don't want them to nohow. We don't say, these are the targeted people that we can call and try to have them come. Can I send you an Uber? Whatever it might be, [00:22:00] we need you to come to this appointment, but then if you're not, I've opened up access. So you've done a couple different ways by predicting who might not show using AI to help improve access to the clinic or access

to our care. There's a lot of different examples of how you really optimize the time of the clinician

Seán Collins (22:20):
And access to the information about your care. Now that the health record is available for patients to read, does everyone [00:22:30] have access through a phone or through a computer to be able to access that on their own or if they're elderly in their not interested in learning a new technology, there's that diversity angle to it.

Maulin Shah, M.D. (22:44):
Exactly, and I think that's what we have to be careful about. So as much as we have adoption of our electronic tools, our mobile tools, the things that are on your phone about your care, that's not everyone. And in fact, the people who are most likely to slip through the cracks are the ones who are not engaged. [00:23:00] So it's very easy for me to do an outreach program to those that are connected. I can say You're due for your colonoscopy, whatever it might be, and so I'm glad I can make the care better for those that are already receiving good care, but that's missing. That's those that don't, the access problems, for example, the one I just mentioned where I'm calling you, I think maybe you won't show 'em, and I have no idea how the algorithm works. That's the beauty of it, but the algorithm works and maybe it's checking you have an account [00:23:30] with us or not. It's unclear, but the point is that we're trying to find a way to be a safety net to catch those people, even when they're not electronically engaged with us, I want them electronically engaged, but be right.

Seán Collins (23:47):
I hate to keep hearkening back to this model of comparing everything to old things, but I sometimes think it's useful for people who are reluctant to embrace new technologies to remember that this is [00:24:00] sort of the way it used to be. If there was a patient on your schedule for the day and your receptionist noticed that, oh, they don't have a car, or their car broke down, then they were late the last time. Maybe I should call and

find out, do you need help getting here today? I mean, in the most humane human way of interacting with patients, it's what used to happen. Yeah,

Maulin Shah, M.D. (24:25):
We're trying to do that at scale and cost, right? So if [00:24:30] I had enough people, if I had enough people, the proportion of people that practices and the proportion of office staff, you could have those same exact relationships, but you'd only have 'em in that clinic. We're trying to do it across a thousand clinics and we want everyone to get the same experience, and the way to do that is to use technology to help our humans be human again.

Seán Collins (24:53):
When you look ahead, I don't know, 20 years, what do you think medicine's going to look like [00:25:00] that's radically different from what it looks like now?

Maulin Shah, M.D. (25:02):
Well, I'd say the biggest change is you're going to have less care. I don't think you need as much care as we're doing if we do it. In other words, we'll be focused on preventative care, lifestyle, medicine, really making sure without you even necessarily being aware that we have shifted the habits and that we've helped you to have the best habits, to take the best care of yourself. That's not to say disease goes away, but I think you'll see a focus on health [00:25:30] that'll be first and foremost in my mind, and by focusing on health, ideally it's as transparent as possible for you, so you're just healthy. I don't know how that works, that's why it's 25 years from now, but it feels like there would be ways, whether it's using wearable technology or that tells us how you're functioning and hey, you haven't walked in a while, or it seems like you might be limping on your left foot, whatever.

(25:56):
I mean, I don't know the level of detail we need to know, but then you put that [00:26:00] into some serious analytics and computational power and create a picture of

lives that have committed and said, you know what? I want you to help me stay healthy and we find a way to help you stay healthy. Again, no idea what that actually looks like. I think disease care is still going to be in some ways, something that's transactional. I mean something that you have to come in and someone has to see you, but even disease care, I think you'll see us be able to [00:26:30] do less and less of it, not just because you're staying healthy, but because we know the exact interventions that are going to work exactly right for you, whether that's because we genomic based care where we know this medicine is going to work, you don't have that.

(26:42):
Oh, I don't tolerate that medicine. We're like, yeah, we knew that upfront, so we didn't even try it. So I think you're going to find more and more targeted care so that even the disease care is going to be more transparent so that we're just doing less of it. [00:27:00] People ask, and I've heard this question before, and you hear things like, well, you won't see this at the clinic or in the hospital, you'll see this thing, or You won't see this thing again. My hope is all those things are just getting smaller and smaller and smaller, and if they're just becoming less a part of our lives, you have to have 'em.

Seán Collins (27:22):
I could imagine a universal shift in the point of care that it moves to your home. It's like that's the primary place for you [00:27:30] where healthcare gets delivered

Maulin Shah, M.D. (27:32):
Or it moves to your phone. I mean, it moves to wherever you are or whatever your device is in 25 years, it's, it's completely mobile. It's completely with you when you need it, and we've seen that already a transition there happening, but whether it's telehealth that we've been investing in and then skyrocketing, whether it's additional use of wearables, whether it's use of wearables that are now monitored by your clinical team, by your primary care, but I really just [00:28:00] think it's the beginning. I think it's the beginning because, so here's the thing. Fitbit came out whenever 10, 15 years ago, and it was like one of the first wearables and it checked your steps and stuff like that,

and one of the things was like, oh, we have to get this to your physician. And physicians are like, don't care. It's too much information. It's just, I mean, nice. I'm glad you're walking, but it's too much information and the more and more monitors we have to monitor health, who knows what we'll be monitoring the less any one person can look at it, but if you take all that data and you put it through [00:28:30] a machine and you can come out with insights now it's like, oh, you know what? Based on all this stuff, this person could probably use a phone call.

Seán Collins (28:39):
So it's insight at the other side of this sort of data fog of all this data that's going to be available on you rather than asking anyone to try to make sense of it, the machine does that and produces like, you should be paying attention to these three things.

Maulin Shah, M.D. (28:56):
And I don't think that's us not caring for them. It's us targeting our care [00:29:00] to the right thing because nobody wants their doctor to be part of their life. I mean, ideally you wouldn't be sick. So it's sort of changing that paradigm.

Seán Collins (29:11):
Right? I'll just add this as a testament to what you've just described. A couple of weeks ago, we had a guest who talked about food as medicine and talked about the importance of changing diet and the impact that that has on heart disease [00:29:30] and hypertension and all sorts of disease processes. So when you say, I can imagine that people are, and they're getting their care at home, if people changed perhaps the way they ate and moved, that could happen in 25 years. It could be a generational change, but as someone who's obese and who has heart disease and diabetes and it's fallen apart in all sorts of ways, I've [00:30:00] let my watch start to give me more information. Initially, I was afraid to turn on the activity stuff because it's like I didn't want a nagging reminder that I'm not doing what I should do, but it has really helped me. I've lost 55 pounds in seven months. Wow, amazing. And when I was in with my primary the other day, she said, what's different? What have you done differently? It's

like [00:30:30] she saw the data and said, tell me what you're doing. And I quoted the guest from the podcast and said, I've been chopping more vegetables.

(30:40):
And she said, that's great, and I've been moving more, but that's all mediated because there's something on my wrist that's reminding me that, oh, it's been an hour since you got up from your desk and moved around, and I think that's important in some really [00:31:00] important way. For me, I think it's going to change the way I live, and I can see that happening universally.

Maulin Shah, M.D. (31:09):
I'm going to go back to the Swiss Army knife, right? Yeah. So for you, that knife was perfect and somebody else is going to need a corkscrew and somebody else's else is going to need a bottle opener and all the things in that Swiss Army knife, and it's on us to help be creative and imaginative about how we're going to support people. I think that's, again, this is what happens, right? Your story is amazing [00:31:30] and congratulations, and so I hope people hear that and think about the watch as a biofeedback mechanism and about chopping vegetables and can have that experience. But we know others are going to have different motivators are going to be able to be, they are going to think it's a nag and it's going to actually be harder when they do that. So again, the data can help us with this, even though I know that sounds kind of inhuman, but the data can help us and be like, you know what? This person [00:32:00] is most likely to be motivated by a biofeedback mechanism. This person is maybe more motivated by a daily summary of what they did so that they can change tomorrow, or I dunno. So I hope we continue to build more and more innovative ways, but we don't get stuck because when we get stuck, back to your point, people fall through the cracks, right? We got to have ways to help everybody.

Seán Collins (32:25):
Dr. Shah, thanks so much for the work you're doing, but also for taking the time to talk [00:32:30] with us today. I'm really grateful.

Maulin Shah, M.D. (32:31):
Oh, you're very welcome. Thanks for having me. Maybe we'll do it again on a focus topic. I'll send you some cool stuff.

Seán Collins (32:37):
Always interested. Speaking with us, there. from Portland, Oregon, Dr. Maulin Shah, he's the Chief Medical Information Officer for Providence and the Vice President of Informatics and Engineering.

(32:55):
The Hear Me Now podcast is a production of the Providence Health System and its family of organizations. [00:33:00] Find us online at HearMeNowPodcast.org The program is produced by Scott Acord and Melody Fawcett. We have research help from medical library staff, Carrie Grinstead, Basia Delawska-Eliot, Sarah Viscuso, and Heather Martin. Our theme music was written by Roger Neil. The executive producer is Michael Drummond. I'm Sean Collins. Thanks for listening today. Be well.