“That’s Understandable” Season 2 - Episode 7
“Equitable Partnerships” Transcript
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Brendan (00:08)
Hello everyone and welcome to That's Understandable. I'm your host, Brendan McEvoy, US head of external communications at AstraZeneca. If this podcast has been enjoyable and informative for you, take a moment to like and follow on your favorite streaming service. And if you know anyone else interested in today's topic, be sure to share because our goal is to help make everyone, because our goal is to help everyone to better understand what science can do when we all work together.
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Have you ever seen an old western where a house catches fire and it threatens to engulf the entire town? A crowd gathers, a few people grab buckets and start running back and forth, bringing water to the fire, trying to put it out on their own. Suddenly, a town elder steps up and forms the crowd into two lines from the fire to the water. She tells one line to pass filled buckets from the water source toward the fire and she tells the other line to pass the empty buckets from the fire back to the water source. Within minutes, the fire is doused, and the house and town are saved.

There are several issues facing US healthcare that are like that house on fire and, if not quickly contained, could wreak havoc on the entire system, causing devastating impact on patients – particularly those from marginalized communities. One of the hottest burning “fires” is the issue of equity – especially access to care.

The National Academies of Sciences, Engineering, and Medicine stated that many people face barriers that prevent or limit access to needed healthcare services, which may increase the prevalence of disparities and poor health outcomes. Some of these barriers include a lack of adequate health insurance (affecting nearly 43% of all working-age Americans), language barriers (impacting one in five US households) and implicit bias (impacting millions of patients annually).

Until now, our system has operated a lot like the townspeople in my example from earlier. Individual groups or organizations are figuratively throwing water on a raging inferno. But fortunately, we’re seeing a rise in corporations thinking creatively and leaning into what they do best, to forge partnerships – some of which are unlikely – to address these barriers, benefiting patient health and increasing equity.

Joining us today is someone who has dedicated his career to help foster such partnerships: Dr. Kedar Mate, President and CEO of the Institute for Healthcare Improvement – also known as IHI – and Assistant Professor of Medicine at Weill Cornell Medical College. Dr. Mate has more than 20 years of experience in healthcare management, public health and healthcare quality improvement. He leads IHI in its mission to use improvement science to advance and sustain equitable health outcomes across the world. Welcome to That's Understandable, Dr. Mate. Thank you for being here.

Kedar Mate (03:01)
It's a pleasure to be here, Brendan. Thank you for having me

Brendan (03:04)
So let's jump in. I'd like to start today's episode by asking you to give us a brief description of what IHI does and how organizations like yours are working to address access barriers and challenges to health equity.

Kedar Mate (03:16)
Well, once again, thanks for having me on. So let me start with IHI, the institute that I have the privilege of leading. The Institute for Healthcare Improvement has been around for about 35 or so years. It was started here in the US, primarily with the idea that we could make healthcare a lot safer, a lot more reliable, a lot more efficient, and a lot more equitable.

The origin of the organization is that it was borrowing methods from industry, from manufacturing, from aviation, from nuclear power, from our military. Methods that had been used for decades in those industries to help make the production of new products or services more reliable, make them safer so that everyone could benefit from the products and services that were out there in a way that was better and that was indeed more equitable.

The idea that the founder of iHide, gentleman named Dr. Donald Berwick had, was that those methods from other industries could be brought to health care to make health care more efficient, more effective, more reliable, safer, etc. And in the mid 1980s, they ran an experiment essentially, to prove that that could be true. They took 20 American hospitals, they partnered them with 20 industrial partners, major corporations as you describe places like at the time

Florida Power and Lights, Corning, Xerox, FedEx, major Fortune 50, Fortune 100 companies, all of whom who had experience using those methodologies called quality improvement to help make services more reliable. And the companies taught the hospitals how to use those methods. And guess what? They worked in healthcare just as they did in other industries. They made care safer. They made care more efficient in emergency rooms and in operating rooms. They reduced error in hospitals, and very quickly the Institute was born to help teach those methods to other parts of the healthcare industry. So that's the story of how IHI got started, and really to this day, 30 plus years later, that's what IHI does. It teaches hospitals and health systems all over the world now how to use those methodologies to make care safer, more reliable, more patient -centered, more consumer -centric, more efficient, et cetera, and indeed more equitable, which I know we're going to talk a lot more about.

You know, you also asked a little bit in your question about how we're working on overcoming barriers and challenges related to health equity. And again, part of that origin story is about equity, but in our work at the Institute, we focused on the work that we do. We've worked with health systems through an initiative called Pursuing Equity which is now engaged over 200 health systems all over the United States and indeed all over the world, use those same methods of making care more reliable to also reduce the inequities that health systems are seeing in their patient populations. We now run a coalition, a multi -sector coalition called the Rise to Health Coalition. That coalition partners pharmaceutical companies together with healthcare delivery organizations, health systems and hospitals, and together with with payer organizations, health insurance companies, regulators, federal agencies and state agencies, and all together this ecosystem, if you will, of providers is now all working together. There's no single part of the health system can solve the challenge of a big challenge like health inequity on its own. We need to work with payers need to pay to solve inequities. Delivery systems need to respond to that. Pharmaceutical companies need to make their products and services more accessible and more affordable to folks. So we need to be working across an ecosystem to try to create more equitable care and health outcome. And that's a lot of what IHI spends its time working on doing.

Brendan (07:16)
It's fascinating. So it's expansive in many ways in terms of the types of organizations or in sort of non -health care related organizations that are partnering with those in the healthcare sector. What are the, as you think about some of the partnerships that have occurred, how are these

sort of impacting patients directly, or how are you seeing improvements in tackling the health equity or access issue?

Kedar Mate (07:50)
Yeah, you know, so we've had a lot of experience now working across those different actors on health inequities. I'll give you an early story from our work with a health care delivery organization. This is a health system in the Pacific Northwest in the U .S. very early on in our Pursuing Equity Initiative, which was a group of health systems, basically about 25, 30 health systems. We put them together in something we call a collaborative. So all the health systems are there. They talk openly about the inequities that they're seeing and they I think the concept of the collaborative is interesting. The basic idea is that someone somewhere has solved the problem that you're facing today. together we go faster, essentially, towards solving all those problems. So in this case, this health system in the Northwest had noticed actually in its data that the patients who were coming into their emergency rooms, this is a big system, so they had many emergency rooms, patients who were coming in, black and white patients who had exactly the same signs and symptoms of a stroke. So they came in with similar clinical presentations, they actually experienced a big delay. Black patients experienced a big delay compared to white patients in getting stroke care. Now, for our audience, stroke, know, blood clots in the brain or a blood vessel in the brain exploding, essentially causing a big bleed in the brain, those situations are highly time dependent. So delays in care of any kind can result in disability, long -term and in many cases death, you know, avoidable potentially death. And so a delay of any kind would result in a significant amount of morbidity and potentially mortality. And what they found was black patients who had the same symptoms and same signs and same concerns and same complaints were essentially having their care delayed about twice as long as white patients. So the time to getting a clot busting medicine twice as long. And what these folks did with this, you know, the first part of experience in this collaborative was questioning the data. know, there's a very common experience of the data aren't right, the data are problematic, the data aren't fully adjusted for risk or otherwise, all these kinds of, in some senses, excuses for not really understanding what the data are telling us. But then we did the work of, or they did the work, I should say, of really digging in to try to understand. And they proved that the data were in fact correct, that there was a problem present, that it was not simply attributable to adjusting or otherwise, that they had a problem that they needed to solve. And once they got to that point, and this is the thing that gives me lot of comfort and faith in American healthcare providers and systems, is that once the clinicians sort of get it in their understanding that there's a problem here, none of them can really conscience the fact that there's such an inequitable care outcome taking place. And they started working on what we do. Essentially, they use our methods of quality improvement, which

again, sort of at their very basic, their very basic problem solving methods that have been used across industries, as I said earlier, and they started applying those methods in incremental tests of change to try to figure out how to solve these delays. And it worked after a period of, and this is the other part that I find really interesting about this story, is that it didn't take them years to conquer this problem. It took them 11 weeks to go from problem to complete resolution. In other words, they eliminated the gap in care, they eliminated the inequity, and they did that in 11 weeks. And one other aspect of the story that I find really interesting is that not only did care get better for the Black patients in the emergency rooms, that were present, but care got better for everyone, whether you were Black, Brown, Alaska Native, American Indian, or white. Care across the entire system got better because they had standardized their care practice with regards to stroke. And so everyone got faster and better stroke care as a result of this and the inequity or the delay had evaporated.

Brendan (12:10)

Is it are the the corporations that are that are sort of opting in to participate if you will are they what's that process look like? You know is it are you all going out there and you know seeking part you know collaborative partners or or organizations coming to you because they have a keen interest that they know there's an issue and they're have a keen interest in helping to improve it what's kind of

Kedar Mate (12:36)
Yeah, so the Rise to Health Coalition, which is now this multi -sector partnership that I was just describing a moment ago, you know, we have a pharma bio research company subgroup, if you will, or we call it a pillar in the campaign. So there's a group of about 35 or so pharma research organizations, biotech companies that are all part of that work. And they join that through visiting Rise to Health Equity. The name of the website is rise to healthequity .org. So it's a very straightforward thing. you can on that website is a join, a button to join essentially the companies come in and what they what they're committing to is participating in a collaborative not unlike the collaborative I described earlier of health systems that were coming together to solve each other's problems. In this case it's a collaborative of pharmaceutical companies and biotech organizations and research companies and they are working together to help understand what how the inequities are present in populations that they try to take care of that they're producing products for and services for. They talk a lot about both commercial aspects of their enterprise, you how can they make their products more affordable and accessible. They also talk about the research side. How do we diversify clinical trials? How do we make sure that the things that we're studying are actually the conditions and diseases that affect vulnerable marginalized communities more often. They also talk a little bit about how they are trying to change themselves. And this is another thing aspect of how IHI is not about this. Not only are we trying to address outwardly the inequities that we see in the world, but we're also trying to improve ourselves as an organization. And the pharma biotech companies that we work with often are trying to do the same on their side. How do they diversify hiring, for example? How do they ensure that the vendors that they work with are committed similarly to solving inequities? How do they source from local businesses if possible? Not everything is sourceable from local businesses but how do they if they can? That kind of thing. all of those types of ways, so there's sort of three ways in which these companies or three types of commitments these companies are making. One is to make themselves more equitable inside. The other is to how to make their products on the commercial side of the business more affordable and accessible to populations that need them. And then on the research side, how do we ensure that we're studying the conditions that affect the vulnerable and marginalized more often? And again, all of you can find more information on that on rise to healthequity .org.

Brendan (15:22)
Great. I think there's maybe a misperception that I think your example is helping to remedy in that throughout the whole healthcare ecosystem that maybe each is sort of operating in its own silo, right? And there's resistance to collaboration or there's competition between industry partners. I think the way that what I'm hearing from you, which is great, I mean, know, work at a pharmaceutical company. So I get to see this, but not everyone gets to see is that they're, to your point, very, there are issues, right, that every company, every industry, the healthcare system or hospitals are all facing, right? And so the power of coming together to tackle those, it doesn't take anything away from any one, you know, hospital system, pharma company, other healthcare partner, but ultimately it kind of puts them all on an equal playing field or kind of gets them all into an equal spot that then they can even advance further, you know, either individually or collaboratively.

Kedar Mate (16:22)
Well, mean, in the end, Brendan, I think there's a lot of opportunity in working on health equity, very real opportunity. And so there's a lot of discussion about making the business case

around equity. And I think, you know, just to be clear about this, and I do want to talk a little bit about that, but there is obviously a case, a social case, you know, that is very obvious and apparent and probably doesn't need to be fully stated, but it does need to be, we need to be aware of that and conscious of that and be addressing that. And that on its own is in some ways the only case that needs to be made. But I would argue that to make the work on equity sustainable for the long haul, we do also need to make sure that we are building the equity programs that we're building a that is sustainable for the long haul. And that sometimes means that we need to be making economic arguments alongside of those moral and social arguments. And the truth is that they are not hard to make. That's the interesting aspect of this effort, which is that for a pharmaceutical company, for example, finding a way to access a market that has been underserved with products, medicines that are accessible and affordable to that community,

makes sense, logical sense for a company that is trying to have its products be sold and consumed by the market. so right now we are by virtue of creating inequities or perpetuating inequities, we're actually denying ourselves opportunities for creating not only better health, but also better business. So I think in this particular case, we can both do good and do well. And that's true not only a but it's also true of payer organizations, it's true of delivery organizations as long as we have a fee for service system or some part of the fee for service system. It's true even in value -based arrangements. in truth, equity can be, or the pursuit of equity can in fact be a win across the board for pharma, for delivery environments, for payers, and indeed for, and most importantly, for patients and communities.

Brendan (18:36)
It's almost taking it from what sometimes is considered sort of a social issue into, I'd say maybe like a business imperative, right? Like it's obviously, it's an important issue that needs to be solved regardless. But I think to your point, there's looking at it from a business standpoint as well. I guess essentially whatever it takes for people to focus and improve the issue.

But sometimes you have to make that case differently depending on who it is that you're trying to get sort of involved or engaged or part of the solution.

Kedar Mate (19:10)
And the arguments are not mutually exclusive, right? You can have both, it turns out, in this particular case. We were doing some work recently through our Rise to Health Coalition on lung cancer. And there's about 50 ,000 cases of lung cancers right now that are in underserved communities that are undiagnosed or under addressed. In other words, they're

Either the patient doesn't know that they have lung cancer at all, or they might know, but they are not getting care that is appropriate for their level of cancer or their situation as it presents. Every one of those cases means an opportunity to both do better by the patient and to be creating a better care environment for them, whether it's in the delivery system, providing the care, whether it's a payer, providing the economics to make that care possible, or whether it's a pharmaceutical company, providing the medications that are needed or the treatments and services that are needed for that individual to have a better outcome. Altogether, we estimate that even if you take a small proportion of that total of fifth, about 20 % of that, that's an addressable economic opportunity of a billion dollars. And that one under addressed, that's one condition with only 15 to 20 % of it being addressed is a billion dollars. That we're leaving right now on the table, not actually finding a way to create. So that's value, that there's value out there in equity that is going to be really important for all of us. And again, the moral and social position, the human case is the more important case, is the vital case. But there is a

sustainability issue that we need to be able to address. And I think that takes economics as well.

Brendan (20:59)
TRANSITION 1
Dr. Mate really brought home the impact of inequality both in terms of patient outcomes and in terms of the economic impact on the entire system. With this in mind, I wanted to learn more about what was being done to address it – especially as it pertained to technology innovators.

In the last few years, I think we've seen specifically around tech giants that have really sort of revolutionized everything that we do, how we shop, make reservations, et cetera. And now many of them are turning their attention to providing solutions in the healthcare space. But obviously there's, you know, potentially a bit of a disconnect, right? And that, know, while they might be good at sort of helping someone shop for a product, they might not be as good, or it's not the same as finding, you know, a healthcare provider per se. So how can big corporations best partner with health organizations to address the issues like you've outlined?

Kedar Mate (21:56)
Yeah, you know, I think that technology is going to be really important almost every, you know, as we look into the future, almost every.

possible future that we imagine is technology enabled in some way, right? And I think that's gonna be true of every industry, it's certainly true of healthcare. So, I mean, just to think a little bit about what is coming at us in healthcare, and then I think it'll become apparent how those things are gonna be important for us. I think that technology, I think that care is moving closer to where all of us are on a daily basis. There'll be certain issues that we need to hospital for, right?

traumatic injury, you want to be close to a major trauma center with all the assist, you know, technologies and services that are present in that institution. But for chronic disease care, and even some forms of acute care, we're increasingly moving that care into the community. We're moving it into the home, we're moving it into the workplace, we're moving it into the schools in some cases. And all of that is happening because of technology enablement. You know, we're able to do those things, move care closer to where

are because of the technologies that are enabling us to have this conversation today, right? If we can be on a video chat like this talking about what we're talking about, you can also be on a video chat with your provider. And increasingly assistive technologies like medical devices are making it possible for us to capture what is happening to an individual on a regular basis. know, technologies like continuous glucose monitors are putting care not just into the home, but they're also putting care into the

of the patient. So we're allowing patients to co -produce their outcome with respect to diabetes because we can now follow our glucose on a continuous basis and figure out that when I have this type of food it makes my blood sugar do this. When I have this other type of food it makes my blood sugar better right and therefore I should maybe for dessert maybe I have this instead of that you know. That kind of thing is co -producing your health care outcome. So technology as a whole and big corporations that are creating these technologies are allowing us to move care closer to where we are, allowing us to engage with our care and our health in ways that we've never been able to do before. Whether it's devices on our wrists like smart watches or whatever you like or in your pockets like your phones, they're allowing us to self -manage our care better than ever before or at least understand it. Even if we're not actively managing our clinical situations, at least we have a greater awareness of you know,

how many steps I took what I've been eating and what and how I've been sleeping which is Generally that awareness, you know, I forget who was it says but awareness being the first step to solving You know, whatever it is that's happening But certainly our awareness is increasing of whether we are creating or making healthy choices in our lives And again, those are all the product of sort of technology is making that stuff possible

Brendan (25:00)
Yeah, it's been fascinating to see, you mentioned like wearable devices, it's been fascinating to see how they have sort of transitioned from maybe more of a sort of a fitness, athletic type of, know, from that field or use to now even more cases or uses within the healthcare industry. Are there other sort of tech innovations that you're seeing, maybe even in the early stages that didn't necessarily weren't necessarily intended to help from a healthcare perspective, but maybe are starting to be utilized in a newer, different way.

Kedar Mate (25:39)
Yeah, I look, I think that AI is going to be interesting to watch, right, in this space, right? I don't think AI was created for healthcare applications, to be sure. If nothing, computational, helping us with large data set, data processing kind of questions. Those are sort of what AI tools were really created for in the early days. But, know, what do we ask Google for information on when we Google things? Where should I go for X or Y travel plans? then what is this constant Google? What is this constellation of symptoms that I'm experiencing?

Please give me a diagnosis for whatever it is. It's a very common experience for all of us, even clinicians like myself to have had. Now with artificial intelligence tools, we're able to, the sophistications of how we interact with those tools is increasing so that it almost feels like we're having a conversation with a fairly knowledgeable clinician type. And that is a predictable future that is on the horizon for us to have essentially doctor bots, clinician bots. Many are developing those right now. I think those will be on the horizon pretty soon. You'll be able to talk to your bot either through your health system or through a subscription type process. You'll be able to essentially have a conversation around, you're either a known clinical condition that you already have in terms of how you manage it more effectively, or to help with differential diagnosis and understanding what you might have so that you can proceed accordingly. So I think those kinds of tools, which again, were not created at all for this purpose, are certainly going to become utilized, I think, for this purpose. But in this context, talking about equity in all of these technologies, we do have to be interesting to watch us figure out how to solve for those types of access challenges that will inevitably plague us in the future.

Brendan (27:37)
Yeah, and actually Episode 8, our next episode is going to address health deserts, so that’s very timely. And I think there's some applicability here as well as we see technology sort of helping to maybe bridge that either physical distance or other distance between patients and their ability to physically be in front of a doctor or at a health system.

Kedar Mate (27:59)
Yeah, I had a, you just another another sort of you asked about technologies that were not invented for health related purposes, but combining this with this comment about health deserts. I was in rural India a couple of years ago now. And VR goggles were clearly not intended to help with rural India's diabetic retinopathy problems. But this one institution, Arvind Eyecare, in a partnership with Google, as it turns out, were using VR eye goggles, essentially, to take pictures of the back of your eye in order to help. And then they were conveying those pictures to a central, uploading them essentially to a central place where the physicians were reading those images and then basically instantaneously communicating back with somebody in the field thousands of miles away as to whether or not the person had a condition called

diabetic retinopathy, which is a problem with the back of your eye if you have diabetes. And not only were they able to do that, but they were able to then dispense because the person taking the picture with the VR goggle had on them or eye drops or otherwise that the patient could use. So if the patient had a confirmed diabetic retinopathy, you could start addressing that on the spot, which is the kind of thing that, again, the technologies were not built for this purpose, but humans are creative and we can find other ways of using these technologies to actually help us to solve some of these problems in accessibility to care.

Brendan (29:36)
TRANSITION 2
It was interesting to hear how innovations that weren't necessarily designed for healthcare were being adapted to provide benefits for patients and how there was so much potential. But it also raised questions: what challenges did these innovations pose providers, patients, and the entire system.

So we've spent some time talking about how major corporations can partner, collaborate, and address some of these challenges in healthcare. But there are also, potential issues with sort of non -health care related companies getting involved in patient care. I mean, we've seen headlines recently and it's obviously sort of more likely occurrence around data leaks and security breaches and all of that. So as you think about companies or sort of organizations, hospital systems, as they start to think about getting collaborating or potentially partnering with non -health care related companies, what should they be sort of wary about or what should be on their list or on their radar of things they should be considering or asking about before collaborating or partnering?

Kedar Mate (30:52)
Yeah, well, we've seen we've seen some interesting things even just I don't know exactly when this episode is going to air, but we just this last weekend we had this enormous challenge with CrowdStrike, you know, taking down, I don't know something 10 million some odd Windows computers, Microsoft computers, causing all kinds of havoc with airlines and banks and retailers and other other associated industries.

We have, I don't know, at this point, it feels sort of common to have credit cards being stolen. think the AT &T, like two weeks ago, AT &T had a major hack that basically meant that all of your call logs from a certain period of 2022 and 2023 were all stolen by someone. I have no idea what they're going to do with that interesting information. you know, this is a sort of, it's sort of a, it has become so common at this point that I almost, I almost expect that some portion my information is going to find its way out of my hands at some point in time. And we are, as evidenced by the CrowdStrike thing, we are highly dependent on these technologies at this point as a community. And that makes us more vulnerable to cybersecurity issues. It makes us hugely vulnerable to data leakage problems. I think that with artificial intelligence now coming into more common usage and health systems.

I, you know, we, everybody in a health system today ought to be, every leader in the health system today ought to be concerned that frontline staff might be dropping PHI into, know, GPT, chat GPT, which then becomes part of the public domain. There's, you know, there have already been fines that have been administered to health systems who have leaked PHI through AI bots like that. know, thousands, tens of thousands, hundreds of thousands of dollars that are being spent on these things.

So I think this is going to be a huge, these are going to be big issues. We're going to find, we're going to have to find a way to ensure that we create, we don't become too complacent with the technologies that we have, that we create redundancies so that when a machine goes

down or maybe not millions of machines, but when some machines go down, that we have ways of, of backstopping against that possibility. I think that companies that are using artificial intelligence tools, I think it's a little bit of the exuberance chat GBT has in terms of its applications in healthcare. AI has been a little bit slower to be adopted because we are working through today. There's a lot of work going into how do we ensure we don't suffer PHI leakage, personal health information being leaked? How do we make sure that these AI bots are accurate, that they are providing us with information that's reliable, how do we plan for workflows that keep humans in the loop, which are kind of the big kind of present challenges that we're facing with regards to these technology developments. But I think the other big issue is that we have to make sure that we don't bake biases and inequities into the technologies that we're using, either

AI type tools where they're trained on data sets that are biased to begin with, or that we don't bake into the implementation of technologies, the inequities that have always been present, that we actually guard against that notion from the start. So there are ways of, think, ensuring more accessibility to technologies right from the start rather than kind of discovering several months or years later that we have an increasing inequity in our system going forward. So that type of opportunity I think is present for us with new technology developments in the future.

Brendan (34:42)
And we're actually, believe it or not, we're sort of nearing the end of our conversation here. And my last question was really going to be, I think, to further extend what the last comment you just made, which is sort of more of the looking ahead for the future, what we can expect. But before I ask that, I just wanted to see if there was anything else on your mind that we, based on the conversation that we've had so far, that maybe you is still kind of lingering in your head that you want to make sure you get out to the audience before before we move to that last question.

Kedar Mate (35:14)
Well, yeah, I mean, I'd love to love to say a little bit more about one thing that I think that's maybe something worth to just saying. So I think there's something really interesting going on right now in with regards to equity and technology, I think there's something really interesting going on right now in the patient communities that we all work with, both as pharmaceutical companies, provider organizations. think there's a sort of renewed interest in activation, across the board, not every single person, not every single patient, I see that type of, whether it's the technologies themselves, the wearables, et cetera, that are creating this level of engagement, or the fact that our technologies are now allowing people to meet each other and find each other. That type of connectivity combined with more access to your information is leading to a type of engagement from patients and families that I think is a, I believe truly is a positive development in the future. And I hope will lead to not only better technology, because the patients will tell us what they want and need, but I hope this will lead to more equitable technology distribution in the as again patients tell us what they want and need.

Brendan (36:30)
Yeah, that's a great point. it's almost like their patients are being connected to others with similar conditions or other similar health needs, getting that information, and then they're coming to healthcare providers and other organizations with the ask. Yeah, that's interesting.

Kedar Mate (36:52)
Yeah, that's mean, that's the there's a there's an amazing story. But just really quickly, I'll tell you this really quick story. We I learned about this through a podcast that I host actually. So Don Berwick, the founder of the institute that I now lead, and I run a have a podcast called Turn on the Lights. And Turn on the Lights is all about exploring kind of innovations in health care

that are particularly interesting and that we think have a lot of problems. And we are interviewing Susanna Fox, who wrote a book called Rebel Rebel Healthcare. And she was telling us a very interesting story about a guy named John Kostick, who was a software engineer, and his four -year -old daughter had type 1 diabetes. And so she needed a continuous glucose monitor in her arm that basically senses and understands what her blood sugar level is on a continuous basis. So the way it used to be is you had to prick yourself in the finger and take a blood sample like once a day. In this case, it was constantly sensing what the blood sugar was. The problem was that This caustic the software engineer discovered the problem was that you could only get that data from the company, had to apply to get the CGM that was in his daughter's arm. He couldn't read that information from the CGM. So he basically hacked this device. He was an engineer. So he hacked the device and he had the device basically send the blood sugar information to his mobile phone instead of sending it to the cloud and then onto the company. And that way he could follow his blood sugar, his daughter's blood sugar, and then figure out if she became, had a low blood sugar overnight or whether she was responding differently, et

He posted this information on Twitter, right? He posted this is when Twitter was Twitter not whatever it is now and He posted it. And very quickly, he was, I think he got to be known as Diabetes Dad. like, all of a sudden there was like thousands of other people out there who wanted to know how to hack their CGM devices. And they taught each other. And this became like a phenomenon that they were teaching each other how to do this. And some of the other people that were on this Twitter thread created other applications that like, for example, sounded a really loud alarm on your iPhone if your blood sugar got too low. Somebody else created an automatic dosing app for their Apple iWatch. You know, it's like amazing stuff that these patients created together, combination of, you know, having a need, which, you know, he clearly had to know his daughter's blood sugar, and then having the sort of smarts and creativity and then this network of other creative people out there who all had similar needs and they found each other and they built all this amazing stuff that now is.

By the way, several of these things that they've created are now features of these devices currently, which is kind of interesting as well as part of the story. Yeah, that's incredible.

Brendan (39:38)
Yeah, that's incredible. So before we wrap, I just want to ask one more question, which is really sort of asking you to put on your fortune teller's hat, Dr. Mate. So how do you see partnerships like those we've discussed during our conversation today helping patients better experience care over the next five years? And then are there any sort current trends that you're seeing right now that either you expect to expand or do you see any sort of new trends on the horizon that we should be keeping an eye on.

Kedar Mate (40:10)
Yeah, well, maybe a lot of lot of what I would think is coming to us in the future is contained in that last story I just told about the about John Caustic and his daughter and the network that they found. But, you know, I would say this, that, you know, increasingly, we've we've treated data and health information as a commodity with everybody trying to accumulate as much of it as they can, essentially over time, whether your insurance provider or pharmaceutical company or research or a delivery system.

But our data, your data is a currency and there's increasing interest in your data as a patient, whoever's out there listening to this at the moment. There's increasing interest in your data, Brendan, in my data. And so our data is individuals and especially our data.

as communities are increasingly of interest to organizations, corporations and others out there. We trade some of it each time we have an encounter with a clinician. We give a little bit of information to the system in order for us to get healthier. and then they kind of, there's a whole discussion at the moment about who owns that data once we've given some of it to a provider of some kind. know, when John Kostek created that, when he put a CGM on his daughter's arm to help understand her blood sugar was, was that her information anymore or was it now the company's information that was tracking that? And his basic premise was, I need to hack this device so that I can reclaim that information, make it mine and my daughter's, and then we can activate around that and do whatever is necessary. So I think, you know, that notion, this notion that data, our data is a currency that we can use to help us get healthier and help others get healthier is I think a big part of our future going forward and how we leverage that information to both create more health as individuals and how companies use that information to create more health for communities I think is going to be a big part of the future development here. But it's this combination of technology, activated patients in communities like I talked about a minute ago, networks, and all of that helps healthcare move closer to us as and moves into our homes. Technology enables that. And it also enables us to make healthcare instead of a full service, we go somewhere else to get healthcare, healthcare becomes a lot more self -service. And we sort of own and help create the care that we want to need. And because we started with equity, not all of us will have equal opportunities to engage in that notion of becoming activated patients and consumers. I think our job, part of our job and part our work going forward will be about how do we engage as many individuals and communities in our society to become activated in the way that I have just described.

Brendan (43:05)
Mm -hmm. That's great. That's two great optimistic, inspiring points to end on there. So I really thank you so much, Dr. Mate, for your time. It's been a really, really great conversation. And I know for me, this is sort of sparking additional interest. So I hope it does the same for our listeners as well.

Kedar Mate (43:21)
Well, thank you, Brendan. It's a great pleasure to be on the program with you.

Brendan (43:25)
It seems like it's an exciting time in healthcare as partnerships bring advances that can help us break down long lasting barriers and overcome challenges. I'm certainly glad that organizations like IHI exists to help shape the future of public health and increase equity. Thanks again for joining us on That's Understandable. For more information about today's episode, be sure to check the show notes. Until next time, be well, be healthy, be understanding.

END OF SHOW