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Unlocking Patient Engagement: Enhancing the Clinical Trial Experience with Consumerization

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Webinar Transcript

Ryan Muse:

Well, good day to everyone joining us, and welcome to today's XTalks webinar. Today's talk is entitled, Unlocking Patient Engagement, Enhancing the Clinical Trial Experience with Consumerization. My name is Ryan Muse, and I'll be your XTalks host for today.

Today's webinar will run for approximately 60 minutes, and this presentation includes a Q&A session with our speakers. Now, the webinar is designed to be interactive, and webinars work best when you're involved, so please feel free to submit your questions and comments for our speakers throughout the presentation using the questions chat box, and we'll try to attend to your questions during the Q&A session.

This chat box is located in the control panel, which is on the right-hand side of your screen. And if you require any assistance along the way, you can contact me at any time by sending a message using the same chat panel. At this time, know that all participants are in listen-only mode, and please note that the event will be recorded and made available for streaming on x talks.com.

At this point, I'd like to thank Medable who developed the content for this presentation. Medable is on a mission to get effective therapies to patients faster by transforming clinical drug development with disruptive technologies. The company's digital platforms streamline design, recruitment, retention and data quality for decentralized trials, replacing siloed systems with integrated digital tools, data and interfaces to accelerate trial execution.

Medable connects patient sites and clinical trial teams to improve patient access, experience, and outcomes. Now, I would like to introduce our speakers for today's event. Mike Decastro is currently the head of sales at Uber Health, working with health systems, health plans, and risk-bearing organizations to address social determinants of health through Uber's transportation and delivery solutions. Prior to Uber, Mike held various commercial roles within the medical device and digital health industries with market leaders.

Shawn Tedman has deep clinical development and technology expertise gained from roles in biopharmaceutical contract research and most recently health technology organizations. He has built and scaled global feasibility site intelligence and clinical technology teams with a focus on patient centricity, diversity and real-world data insights.

Aadhar Shaw is Medable's Vice President of Growth and Strategy, where his mandate is to drive market strategy and structure value at scale for enterprise customers. His career has focused on life sciences, healthcare, digital and data, to construct multiplier opportunities at the intersection of these fields to create step change for the ultimate benefit of patients and their health.

And our moderator for today's discussion is Colin Weller. Colin has worked in the drug development industry for more than 20 years, having spent large portions of time with big pharma biotech companies such as Pfizer, Amgen, and AstraZeneca.

Now, before we move into our presentation, we have a polling question for audience members to interact with. This should be appearing on everyone's screen at this time, and you can participate by selecting any of the answers that you see in front of you. And then click submit. What we'd like to know is how happy are you with the current patient experience in healthcare and clinical trials. Your answer options are happy, somewhat happy, indifferent, somewhat unhappy or unhappy. I'll give everyone some time to consider your answer as it best applies, of course, to how happy you are with the current patient experience in healthcare and clinical trials. And then in a moment, we'll hear from our speakers to discuss today's topic.

It looks like most of you have submitted your answers here, so thank you very much for participating. Let's take a look at where your results have come in. We have here 45% of you selecting somewhat unhappy, and 35% for indifferent, but 10% are unhappy, and then only 5% each were happy and somewhat happy. So very, very interesting results. Without further ado though, I'm gonna go ahead and hand the mic over to our moderator for today's discussion. Colin Weller, you may begin when you're ready.

Colin Weller:

Thank you, Ryan. And first of all, thanks to Xtalks for hosting this panel discussion. And thank you to the panelists for taking the time out and having this discussion. I know it's gonna be an interesting discussion as we move forward, and I can already see from the poll results that clearly, we're talking about something that's close to people's hearts with you, I think from a quick calculation of those numbers, well over 50% of respondents saying somewhat unhappy or unhappy with the patient experience of clinical trials. And we know that part of the genesis of this panel discussion and this webinar today, it kind of came from the idea of why isn't it as easy for patients to take part in clinical research as it is for them to interact with Amazon or to order off Instacart or any of their other, favorite apps where, where really the consumer-grade experience has really revolutionized various industries.

And that's sort of alongside the known issues we have with access to healthcare generally but clinical trials in particular where we still see only 3%, three to 5% of eligible patients ever taking part in a clinical research program or a clinical trial. There's clearly an issue and there has been a lot of progress through the pandemic that helped. We move forward a long way. But we know there's still a long way to go. And this slide sort of talks about some of the other industries where we've observed these revolutions in consumer-grade experience, the banking industry, where we all used to go along to the High Street Bank to do all of our banking, whether it's just a simple withdrawal of cash or the more complex parts of banking.

We then started to talk about mobile banking as we were able to do some of those activities online. But really, we don't talk about mobile banking anymore. We just talked about banking. And so not only the sort of geographic or the locale part of that conversation but also the functionality has changed significantly. To be honest, we can do a lot more now with the banking app on our mobile phone that's in our pocket all of the time than we ever could going to the High Street Bank, with the phone industry or

the communications industry where there was a time where we had to go to a call box, a phone booth on the corner of a road to make a call and pay for the privilege of making that call.

Now, that seems like a lifetime ago, and we can do so much more than that with the phone that's in our pocket all of the time. We are hopeful that there will be a similar revolution in the clinical trials industry and healthcare. And as I say, I think we've all seen some of that change through the Covid pandemic, how we now all interact with our healthcare systems and particularly seeing some of those signs with the clinical trial industry decentralized clinical trials, we're able to do a lot more without the need to go to a hospital without that inconvenience of traveling 2, 3, 4 hours to go to a site visit as part of a clinical trial. We can now do a lot more of that from home. There's still a way to go. I think we're not quite at the point where we'd describe decentralized clinical trials just as clinical trials again.

But that's certainly what we're seeing. So, with that said, Ryan, maybe we'll open the floor for some questions. And so maybe Mike coming to you, first of all, from your perspective the consumer grade experiences or the patient experience that we've just talked about from those other industries, how do you see that having impacted patients' expectations of what's a good experience now when they interact with healthcare and with clinical trials? And what do you see as the role of technology in improving the patient's experience overall?

Mike Decastro:

Great question, Colin. And great to be here with everybody today. I think ultimately, it's about meeting patients where they are, right at this point, patients expect to access healthcare with the same ease and convenience as less critical areas of their life. For example, you might think of Uber as the app in your pocket, or transportation we're certainly that, but achieving that level of perceived ubiquity, it required us to address a broad array of consumer preferences which you see in multiple products like UberX, UberXL, Uber Black, Uber Eats, et cetera.

How that's influenced our involvement in healthcare is we've taken a very similar approach in that we're not only providing rides for ambulatory patients who can take a taxi primarily through UberX, but we've been through these products such as RX delivery, wheelchair accessible vehicles, door-to-door service, and select markets, which are all accessible through multiple booking mechanisms. Could be by the patients themselves through the app, could be by calling an 800 number or through a call center or their provider's office, or in some cases a stored credit. The patient can even redeem through a text message without even having access to the Uber app at all. Right? So we believe technology can essentially serve as a conduit for speed, efficiency, and most importantly, patient choice.

Colin Weller:

That's awesome. thanks, Mike. And yeah, I think that flexibility and choice is key, Shawn, from your perspective with the IX layer, I don't know if you wanted to add onto that at all.

Shawn Tedman:

Yeah, absolutely. working in health testing as a service space for better or worse, people became much more familiar with at-home testing very quickly during COVID. It doesn't necessarily mean that it's always the right option for patients, but there's less education for us to do when we reach out to patients to do at-home sample collection, for instance. This trend toward consumerization of other industries means that the bar has been raised for us in clinical trials and healthcare as well. And there's definitely no going back. There's an expectation out there with consumers that things are gonna work in a certain way. And it's disappointing to them when they don't find that's the case. We're really focused on closing the gap

between patient expectations and what life science organizations are able to offer in the testing space specifically.

So, lab testing is really well-regulated. It's standardized, which means that we're actually in a really great position to do a lot of standard diagnostics or monitoring tests from home, having people collect their own samples at home, which dramatically decreases the burden on the patient. That's exactly what they're expecting right now. The other unlock that we see is that when they do need to go into the clinical trial site, maybe they take their Uber and go meet with their clinical trial physician, they can discuss the results of the test or take actionable next steps instead of just having their sample drawn and then having to come back again to have that discussion with the investigator. It's really, I mean an incremental change, but it actually is a big change in terms of patient accessibility. It opens up trials to lots more patients and it brings it to them in a way that is what they expect these days.

Colin Weller:

Yeah. Thanks, Shawn. And Aadhar, maybe coming to you, we've talked before about this sort of flexibility and optionality being nice to have. I think we've moved away from that place now. It's moved to that expectation; I think as Shawn's describing. But, please, anything from your side to add in there, Aadhar?

Aadhar Shah:

Yeah, Colin, I think you're right. And I agree, with both Mike and Shawn, I think that is the expectation, for patients and clinical trial subjects as well. I mean, essentially there has been a transformation and expectations from patients themselves that's been borne out by the examples given by Mike and Shawn. Certainly, globally, 85% of clinical trials still don't meet their enrollment targets. In the United States, at least a clinical trial subject must travel an average of 50 miles to their closest clinical research site, and only about 5% of those clinical research sites in the US conduct about 70% of the clinical trials in the US. So, we're seeing, those are the issues that plague the clinical research industry.

And with the transformation of patient expectations, there is a large gap, certainly, I think there's progress being made in this arena, but even thinking about how technology applied to clinical research can be a tool, really can be a tool to help democratize awareness of clinical research and clinical trials, access continued engagement, but also data capture. Essentially, the point of these clinical trials is to gather enough information to meet your primary objectives or at least test those hypotheses that you have.

So, I think there's certainly a transformation of that patient expectation, but there's a balance of also ensuring that you're also getting the right information, but allowing patients to have that flexibility, that choice can be a way for researchers, life sciences companies, healthcare organizations, to get that data in a different way, in a much more pronounced and patient-centric way.

Colin Weller:

Yeah, I love that. And it's hard, right? I mean, if we sort of play forward the patient experience that we are imagining where I might be in a long-term clinical trial and I need some vacation time, or I need to be in a different location than my normal home and sort of to be able to still meet the protocol requirements and to still be part of that clinical trial while my life goes on around me, that's complex. And you can very quickly build a very complicated system that would support that. But yeah, maybe it's a little bit controversial, but for me, I think it's been too easy for too long for pharma companies or the drug development industry, in general, to just say, the protocol is strict, rigid we've got to, the science says it needs to be that way. We've got to stick to the protocol very rigidly. But I'm not sure that's the case anymore. And so, you could sort of start to take a response around, what technologies have you seen

work? Well, what has started to move us in that direction? Where have we seen some successes that show us that nirvana flexibility and optionality are possible in research?

Aadhar Shah:

Yeah, I think that's a great question. What we're seeing, at least in the United States from a healthcare perspective, not just clinical research, about 80% of adults used a mobile health application last year. So that's a great sign. That's a sign of not only changing patient expectations but their usage of technology and adoption of technology as well. About 40% of adults in the United States also use wearables that can have health-tracking capabilities. So again, we're seeing an adoption curve on that too, and a comfort of that as well. I think it essentially comes down to convenience for patients, for subjects as you Colin, Mike and Shawn have mentioned as well, but there are opportunities for healthcare organizations and life sciences companies in that convenience too. So, it's not a binary sort of outcome, I think for patients themselves.

Obviously, you have the convenience factor as you mentioned, like if you're on vacation or you're not in your home territory, or you're out about living your life, how can you integrate within that patient's life is very key and serve those different patient touchpoints and that experience that the patient's having, not only within their healthcare journey, but also their entire life journey. But I think for life sciences companies and healthcare organizations, there's also an interesting thing that technology has been able to unlock, so you can get more data now. There are a lot more diverse modalities of data that you can get it from, and you can get different types of data than you could even 5, 10, or 15 years ago. things such as gathering data when a patient is sleeping, which wasn't really that possible 20, or 30 years ago.

But now that is something that technologies can provide and provide that bridge for. You mentioned Colin, what are some digital tools or platforms that've done this effectively? I think certainly the company's represented here. We're on that journey for deep evidence generation platforms such as Medable, there is a published peer-reviewed benefit of using our type of platform, and our type of technology basically shows the positive expected net present value. Once this type of technology is adopted for different drug programs, by even going back to further in the past, something like the adoption of electronic prescriptions in the United States. I mean, that was a huge boon in such a convenience for patients that really helps the flow of information and for patients getting proper care. And that was a technological achievement way made even today.

I think, Mike, you were mentioning how you can call the call centers and things like that, calling a call center is very low-tech, but it can help pave the way for an improved patient experience as well as provide benefits for the other side of the equation. In this case, life sciences companies and health growth organizations. Even thinking about healthcare in general, scheduling appointments is much easier now. You don't have to remember or keep the card or the appointment, what is written on the appointment time and date was written on even reminders of those appointments, even going back to some of the basics, technology has really helped that convenience factor for the benefit of both patients and healthcare as a whole.

Colin Weller:

Yeah. Thanks, Adar. And so, Shawn may be coming to you with a similar question. We know in clinical trials, you can quote any number but 15, 16, and 17 different systems involved, and technology platforms involved with the running and execution of a clinical trial. And so, it feels like that specific word integration is key in making clinical research and healthcare more simplified for the patient, but also, the healthcare professional. love to hear your views on that sort of integrating the IX layer into clinical trials as a whole.

Shawn Tedman:

Yeah, absolutely. And I like touching on this hybrid notion of, we love to be fully integrated. We love everything to be seamless and flawless. Sometimes there are some of the vendors that we work with that are not as advanced, they're not able to do integrations as quickly. what, we must be the flexible kind of connection point between whoever's running the trial and the multitude of vendors they might need in the health testing space. And so, we're very used to working with some vendors who are all along the spectrum of technical capabilities. And I think we meet the patients where they are, but sometimes you have to meet the vendors where they are too. And you have to be able to sometimes a low-tech approach, a call center a manual transfer of data securely, of course, but sometimes the time it's gonna take to have the smooth, fully automated integration isn't an option when you need to move fast for clinical trials.

We need to be able to operate in all those different paths. And that's what we try to do and try to make that seamless for our partners who are the ones who are running the trials to make the testing part seamless for them. So, having a secure and compliant data platform is a must-have when you're working in a regulated space like clinical trials making the patient engagement part and anything that's patient-facing seamless for them. Also, table stakes. But then, just being able to flexibly customize. So, I'll pat Medable on the back for having a great flexible platform that has been a pleasure to engage with and teams who can adjust the capabilities to meet the needs of the individual projects. That's what we look for in our partners on the technology side because that helps us serve the patients better and makes for a more seamless experience for our sponsor partners as well.

Colin Weller:

Yeah, thank you Shawn, and then maybe Mike coming back to you and just sort of expand on that question a little bit. I think we've talked about the word platform and a clinical trial that may make a number but could be easily run in sort of 40 or 50 different countries at the same time. I'd love to hear your thoughts, particularly, Uber has done this in a number of different sectors already that, something being available outside of the US for example. it's very easy to focus on the US and it's possible in the US and this works well. But would love your thoughts about what's worked well in that sort of global frame as well.

Mike Decastro:

Sure, I think globally, right? Aadhar pointed out earlier that participants have to travel 50 miles to get to a site, right? We see the potential for transportation to play a key role in improving health equity globally and demographic representation in the clinical trial space. The reality is, if you're looking to understand the therapeutic impact of a novel technology on population health, you really have to account for all the social determinants that not only impact that population clinically but also their ability to access those treatments in the first place, right? So I think rather than Shawn 's point about partnerships and finding the right vendor partners rather than a specific tool or platform, what we've truly found truly impactful are partnerships that lean on the core competencies of each partner. For example, platforms like Medable can predict a participant potentially requiring support in the way of transportation to a clinical site or home delivery of remote monitoring devices.

Those patient-level insights are integrated with a logistics platform to address that need in real-time. That's what we've found particularly effective and optimizing outcomes. And then I think as it relates to digital tools or platforms in general, we at Uber Health think spend a lot of time thinking about never wasting a patient touchpoint, for example, when you have a rider or a participant patient, right? Whatever the context is, they're in an Uber for an average of 15 to 30 minutes en route. Is that an opportunity to potentially push them notifications, giving them setting expectations for the appointment they're about to arrive at, right? Or filling out a survey or patient engagement materials post-appointment, right? Never

waste any time that we have an opportunity to engage a captive audience when we have that patient's attention.

Colin Weller:

Awesome. Thank you, Mike. Yeah, just spinning the questions a little bit. So, we've talked about, isn't this great? We've all got so many ideas and thoughts about how we can shape the future and if only it was that easy, I guess how I would frame the next question. So maybe Shawn coming back to you, so why haven't we done this already, right? What are the key challenges and barriers that we're facing? And what's preventing us from rolling this out across the board now?

Shawn Tedman:

Yeah, and with my clinical operations background, I've been dealing with these sorts of challenges for a long time and have seen kind of all the ways that things can be slow or stopped or challenging. The good news is coming from a technical perspective, there's been a ton of work put into this space, and the actual technical challenges are minimal at this point. I mean I hate to overstate that, but honestly, a lot of what we run into is more operational regulatory willingness to innovate or to be the first one to innovate. And so, the good and bad news is that the technical challenges have mostly been solved or can be solved if they're identified. So, my advice here in terms of kind of navigating the challenges would mostly be regarding the approach to starting up a new and innovative project.

And this is kind of not even related to diagnostic testing, but just more in general of pushing innovation in a regulated space. knowing your institutional comfort level with innovation, I think is really great, your stakeholders, but then also the institution as a whole both within and outside of a clinical trial setting working with clinical trial partners who have done similar projects and can share best practices, so you're not starting from scratch each time. And I say that as a startup, team member, but we've got things that we've done. We figured a lot of this stuff out. We haven't done all the projects, but we have great best practices that we can share that'll really save the partner's time. Being pragmatic about where, when, or how to innovate, the industry has learned a lot in trying to kind of fully decentralize a lot of things, pulling back and moving to more of a hybrid model.

There are a lot of learnings that we can leverage and help to advise in a consultative manner, our partners and maybe just setting realistic goals that make incremental progress, and that's not necessarily a bad thing. So, look at that as progress. In the testing space, what we deal with is you might dip your toe in the water with something like patient qualification labs that are done remotely, that are not part of a pivotal phase three. Maybe it's qualifying for some other phase. Maybe it's a long-term safety study where it's an oncology study where they have to go in for quarterly labs for 15 years after the study's over. It's a no-brainer to do that kind of thing remotely. And to have the patients just do that from the comfort of their own home, it's more patient-centric, but it's also smarter because you're actually going to get them to comply. You're gonna get that data, you're gonna have more effective monitoring of those patients and a better, more robust submission to the regulators in the end. So just thinking practically a lot of it is applying the technology where it makes sense and then just being smart, knowing the space for the other pieces of it.

Colin Weller:

Yeah. That really resonates with me. Shawn in particular I think we often talk about implementing some of these things only because of a patient experience or a site experience. But what can be measured now that couldn't be measured before means that we can enhance what we're testing, the trials that we're running the frequency of data collection, the amount of data, the types of data, and therefore, protocols

are different and can be different, can be better than we've run before. So, of course, the patient's experience is always the top thing, but sometimes it's been almost seen as at the expense of that kind of pure scientific protocol. But I think what we're seeing now is actually that there are better ways of doing some of the things that we've done before as well.

So, yeah, that really resonates with me. And you brought up the sort of regulations or the regulated industry that we operate in, and Mike may be coming to you on this, the stakes are high, right? The cost of drug development is huge. The kind of risk aversion or the conservatism within drug development is there, this is people's health data that we're talking about and their data in general. So maybe you can just talk about how we deal with that side of things as well within the implementation of these digital systems within healthcare.

Mike Decastro:

Yes. I wholeheartedly agree with Shawn 's point that I think from a techno-technological standpoint in terms of interoperability, the capacity is there, right? Vendors can connect to these systems. We're just at a point where the regulatory questions and legacy systems that we have to traverse, that's really the point of friction at this point. I think more broadly than just the clinical trial space, delivering a consumer-grade experience requires a significant level of interoperability across systems. In reality, it's very hard to find one platform that will house all the data required to deliver a truly personalized healthcare experience in a variety of different contexts. The data required to personalize a patient's interaction with their dentist's office will likely be separate from the data available when visiting primary care or urgent care, or when they call their health plan, right?

I think that's the ideal state, very challenging in practice to your point at Uber, we spend a lot of time thinking about how to choose the right partners that can surface the need, kind of narrow for transportation, right? Or delivery in a variety of those different situations. That is, I described where the patient might find themselves in a situation where they need logistical support but they might not have it at their fingertips, but there's an opportunity for one of our partners to surface that and act upon it. And how do we work with that partner to be proactive, give that co-care coordinator a nudge so that they're able to anticipate that need and act upon it, thus making that interaction with a patient much more personalized?

Colin Weller:

Yeah, thanks, Mike. And Mike, you talked about that proactivity, Aadhar may be switching over to you, I wonder how can we get ahead of some of these challenges? How do we influence proactively that these different approaches workflows or technologies are accepted? Drug development has a long cycle time. So, waiting for the end of a Phase III study to show that this was successful, and we move on from there is difficult. So yeah, I would love your thoughts on that as well.

Aadhar Shah:

Hey, Colin, that's a great question. I think that's a struggle when you're trying to change old tried and true ways of doing things. That's always a big struggle, always a big challenge. I think one, like you have to present compelling information, compelling data that patients do want we talked about the transformation of patient expectations. This is the expectation now, and you have to tie it to the objectives of their business as well. So maybe if you're not gonna change, maybe other players are changing as well, so what are you gonna do? If we're thinking about one company or one organization or something you also have to make sure that people understand what's actually being done. You mentioned regulations, and rules of data privacy. Health data is very intimate.

It is essentially inherently tied to who you are as a person. And because of that, it becomes extremely tricky to ensure that there's a proper comfort to try things that are a little bit newer that push the envelope of innovation. So I think basically trying to do that in a very low-risk way as possible that is adhering to those regulations. The regulatory environment maybe it's like a lower risk type of trials, different types of trials, smaller patient populations, more narrow in terms of geography or for a medicine that's already been very much studied, or even just a small arm of another, a larger trial. Those can be different ways that you can actually test the technology and test that comfort and really provide those proof points to continue to move on. Nothing's gonna be perfect when you're trying to change something when you're trying to push them.

Innovation envelope, I'm sure Shawn, from my layer, and Mike at Uber can certainly talk about this as well. Nothing's gonna be easy. It's not gonna go as ideal as you want. At least you have the courage to test and learn and do that in an appropriate way that protects your patients, that protects your business itself. I think there are ways to do that. I think convincing the leadership of these different stakeholders of that is certainly the biggest challenge, but I think it can be done and it has been done in the past.

Colin Weller:

Yeah. Thanks. Thanks, Aadhar. So, yeah, again, I think we've talked about the complexity, and if only it was that easy sort of thing. Even in the intro to this panel discussion, we quoted various sources as the, ubiquity of internet connections now, the ubiquity of cell phones, mobile phones, and technology being available to people. But it's not ubiquitous. We know that there are pockets, whether it's social economic, whether it's geographical, whether it's whatever else name your other type of minority group or underrepresented group. So again, sort of going back to how do we make this a better situation than simply replicating the paper process or the analog process that we've always had and just throwing technology at it, how do we make this work for some of those hard to reach populations or underrepresented populations or populations that we know have a historical bad experience with healthcare systems in general and clinical research in particular.

Maybe Mike, maybe I can throw that one to you first.

Mike Decastro:

Sure. Of course. I think it really comes down to understanding who you're best positioned to serve at any given time. Although we all want to believe we can potentially serve everyone, that may be the case at some point in the future of a product's lifecycle. The inch-thick and mile-wide mindset will often show itself in the quality of the consumer's experience. Although Uber has been primarily a consumer app for over a decade once we reached the level of that ubiquity that demonstrated our ability to meet a broad range of consumer preferences, we then thought about how to engage populations that perhaps weren't as likely to download an app right? From there, solutions like Uber Health were born. And at this stage, we're again, in that process of thinking about who we are best positioned to serve? How do we not only meet the needs and preferences of Medicare or Medicaid populations who may not be as tech-savvy, but what are the overlapping needs we can address, like food insecurity or medication adherence that further enable our partners or our customers' ability to deliver care in the most patient-centric way possible?

Colin Weller:

I love that, Mike. I think that is a sort of holistic view of a person, right? That a person is a patient, but they have a life going on around them as well. They might have kids in daycare, they might have these other challenges that you are talking about. And so, if we were only talking about how to get patients a better experience within clinical trials and clinical research or healthcare, that's one problem. But doing

that within that holistic, what's going on in the world for that individual I think you're really right. It's gotta be you've sort of gotta treat the whole person and their life. Not just the problem of clinical research access. Shawn, I don't know if you wanted to talk or add to that as well.

Shawn Tedman:

Yeah, no, I mean, a lot of the things that Mike touched on are very similar for the IX layer and the remote health testing kind of space. So, we've been focused on bringing health tests to patients, where and when is most convenient for them in lots of different settings. And it actually turns out, I mean, my focus is mostly with pharma, life science companies, but bringing some of those learnings from retail, pharmacy, or health systems or all these other places where we've engaged the US military, it helps us understand how to communicate with patients how to meet the needs of a really diverse patient population. And that's something that pharma has worked on for a long time, but there's still a long way to go to really make trials fully accessible to these populations.

We know that remote health testing can be a convenient kind of add-on or option for certain populations, but for other populations, it actually is the thing that's gonna determine whether or not they can participate. So if you think about populations that are elderly or pediatric or patients who have jobs that offer less flexibility with taking time off those are hard-to-reach populations that we've been trying to access for a long time and provide them this opportunity to participate in innovative clinical trials a combination of things like Uber to help with the transportation us to help with remote testing, so they have to take less time off work so they don't have to worry about childcare when it's inconvenient. That's just gonna be a win-win for everybody. It is, again, patient-centric but also smart. It's gonna mean the trial's gonna enroll faster, and that's been our experience is that you present it in a way that patients can participate easily. You're gonna get more enrollment, people are gonna stay engaged and complete the trial, and you're ultimately gonna get medicines to patients faster, which is what we're all aiming for here.

Colin Weller:

Yeah, absolutely, Shawn. And I think that that link of remembering what we're trying to achieve here in clinical research, the clinical trial industry ultimately is here to serve patients of today and of tomorrow by bringing those medicines or potential therapies through the drug development cycle faster. Yeah, so I think that's clearly, it's a big problem that has many angles, and it's not one that one individual or one company can solve on their own. So, again, Aadhar, I don't know if you wanted to sort of, just add to that from an integrated approach perspective on that ultimate goal of therapies to patients faster.

Aadhar Shah:

Yeah, definitely, and largely agree and aligned with Shawn and Mike as well. I think it's an ecosystem that develops that holistic solution that pushes innovation forward to increase the consumer's consumer-centric experience of clinical research and healthcare in general. I think certainly, rural populations are also a large issue, not only in the United States but also elsewhere around the world. Bandwidth, and internet access, as you mentioned, are also big issues. But that ecosystem of partnerships and stringing together those right solutions or right technologies for that specific patient population is inherently reliant on what you based on understanding that patient's life outside of them as a patient. I think you put it, a patient is a person, but a person's also a patient. So, it's not just, healthcare is imbued in every aspect of our life. And so really understanding that is a key insight that you need to really develop that ecosystem around the patient through partnerships to serve their needs.

Colin Weller:

Yeah. Thanks, Aadhar. Okay. Thanks, Aadhar, Shawn and Mike. I think that's sort of where we'll draw to a close to sort of formal discussion point. I know there's a lot of activity online with questions coming in, so Ryan, maybe to throw back to you and we could open the floor for some questions from the attendees.

Ryan Muse:

Yes. Well, thank you very much for that insightful presentation. As we move into the Q&A session, I want to direct the audience's attention to the handouts module within the Go To Webinar control panel. Well, you'll find some additional documentation to download relating to today's presentation. I'd also like to invite the audience to keep sending their questions or comments right now for the Q&A session. I've already received some questions from the audience, so we'll get ourselves started with those. The very first question that I have for you all states that as healthcare shifts towards home care, home-based care what role can at-home diagnostic testing play here and also what else can be done to remove the barriers for patients?

Shawn Tedman:

That's a good one. Yeah. Maybe I'll start off and we might have others who want to contribute. So, we've touched on some of these themes already. Maybe I'll just give a little bit more context. We're already doing a lot by collaborating with retail, pharmacy, and health system partners to make testing more accessible. So, things like kits on shelves in retail settings kits being sent to homes for sample collection for patients. We're also plugged into the latest innovative sample collection devices that allow for more tests to be done remotely. This is in cases where maybe a finger prick to get a blood sample is painful for some patients. So can do it on the shoulder. We can do different things, or you need to collect a larger volume of a sample.

We're working with all the most innovative sample collection devices, and so when we talk to the sponsor organization or the CRO that we're working with, we tailor the devices and the sample collection kind of flow to what's needed for that patient population and that project. At the same time, we have to really ask the patients and then actually listen to what they respond. So, in our case, one of the things that surprised me is that sometimes it's actually not the most convenient option to have a remote sample collected at home by the patient. Sometimes people actually want to have a healthcare professional assist them with the collection. And so, what if that patient or that patient population is more amenable to that? That's what we're gonna do.

We're not gonna push remote for remote sake or technology for technology's sake. We try to be really responsive to the needs of the population, ask, respond and tailor the journey to what's best. Our North Star really, that we look at is enabling a future where patients have the choice to do testing where and when it makes sense for them. So, if it's at home, if it's sending anybody, somebody to their home to help them with the collection, or if they want to actually go into their PI or HCP to have them assist them with the collection we think we should be able to give them all those options. The technology's there, the vendors are there. And so that's where we're headed and we love working with partners who are on the same page with us on that.

Colin Weller:

And Shawn may be just added to that, yeah, I love where you are going and what IX layer is doing in this space. So certainly, coming from the big pharma and big biotech world where I've been delivering clinical trials or executing clinical trials part of the challenge, I think, sometimes is to really know what's possible

away from a hospital or away from a clinic setting. And I know that the specific technologies of remote phlebotomy are improving all the time. So, what is possible to measure now and from a particular volume or blood draw is evolving all of the time. And so to sort of get that knowledge into the teams within pharma that are designing the trials, because that's the key, right? We can offer these flexible options for patients.

But if we say, fine, you can take a blood sample from home, but you're still gonna have to come to the hospital for your vitals or for your whatever else assessments that are happening at that weekly visit. We're only solving part of the problem. And I remember from early oncology studies, you might have patients coming into the site weekly or even more frequently than that for very simple safety lab draws. And so, if they can be done in a different way from home, from a local setting sending kits out, that's where you can really start to change the design of clinical trials and make it much more patient-centric or consumer grade.

Ryan Muse:

Very good. Thank you both for your insights on that answer. I've got another question here. Wondering if you can expand on the key advantages of adopting remote and virtual approaches in the life science industry, and how you think these approaches enhance patient engagement and recruitment.

Aadhar Shah:

I can take that one. Ryan, I think at Medevel, especially the role that we play, I think virtual and remote approaches, what's great about those is that initially from the beginning of the patient journey, you can increase awareness through that you don't necessarily need to be tied to a specific geography or within a very small radius within that specific geography as well. Access is much easier as well. So, if you're aware, you can get informed and then you can access the clinical trial, and clinical research as well through remote and virtual approaches. It makes it easier for you to engage and continue to stay engaged in that clinical trial. So, retention is also usually important. Retention of patients drives something around 40% of all clinical trial costs and replacing a subject on your clinical trial can cost up to $20,000.

So, it certainly is to the benefit of the organizations that are running the clinical trial as well as the patient to continue getting the therapy that they're seeking. What also does, it opens up, we talked about this earlier as well, a more diverse patient population that's much more representative of the population that will be, that the medicine will be available to, once it hits the market, hopefully eventually it hits the market. I think the statistics around virtual approaches or remote approaches, improving retention rates is something at least 30% or even some cases almost doubling as well. That's case study-specific, disease-specific, patient population-specific, and geography-specific. So, I think there's lots of advantages. I think what's necessary is for those organizations to make that leap and ensure that what they're getting back in terms of benefit is also meeting the expectations of regulators in terms of data collection, data quality, and making sure that it's hitting all those rules, right points to accomplish their goals and objectives as well.

Colin Weller:

And Aadhar, just to build on retention. Yeah, we talked about it a little bit in the discussion. We often observe that it's easy to get patients or the use of any app in our lifestyle apps as well, but particularly in clinical trials it's easier to get people on, but then harder to keep them using the app throughout a long clinical trial or through repeated access points. And for me, one thing that helps in that case is the data that patients are recording through the app, having that available, first of all, to themselves. So, they're getting something out of that. They're seeing their data, they're seeing their progress, they're engaging

with the process but also for them, their clinician, or the investigator to have access to that data so that they're discussing it with the patient. It's all too often the data collected through an app goes into the ether never to be seen again. And no one really knows what's going on with it. But I think having that as a conversation, really what I've seen from papers that really motivates.

the patients, it keeps them engaged, it keeps them far more likely to maintain the use of that app and therefore the compliance with the protocol and the retention in the protocol.

Ryan Muse:

Yes. Very good. Thank you. Now I've got a question I think I can direct towards Mike to get you involved a little bit here. Someone's wondering if there's anything that you can expand on regarding learning from other industries such as banking, retail, and telecommunications.

Mike Decastro:

Of course. Great question. I think one thing I learned very quickly, as Uber continues to learn every day is just how fast we're willing to move in order to respond to what the market is telling us. Especially with our focus on the healthcare space, which is at times more careful and cautious about adopting new technologies on a scale and for good reason. We knew that if we were building or launching something that just simply would not work within the existing frameworks, through which benefits were administered, or healthcare was delivered or funded, that product or feature would inevitably fail, right? So we meet regularly about ongoing market feedback from an array of different partners from clinical trial organizations, health systems, health plans, and even the patients that they serve to ensure that we're truly building products that have realistic utility and solve meaningful problems. So I think one, be willing and ready to iterate quickly to pay close attention to how the consumer is responding and be willing to food, your dog, dog food, your own product frequently. And if anybody is not familiar with that term, we actually jump in and act as the rider, react as the patient, react as the coordinator to truly understand their user experience.

Ryan Muse:

All right. Very good. Thank you so much for that. Another question here is curious about what are the biggest barriers in bringing learnings from retail into healthcare and clinical research.

Mike Decastro:

Yeah, I --

Colin Weller:

Oh, go ahead.

Mike Decastro:

No, go ahead.

Colin Weller:

Maybe to take a first swing. So yeah, I mean, I think it's easy to talk about the technology barriers in clinical research, but then we have to look at what happened through the pandemic and the covid experience where healthcare looks different, feels different, the way we interact with healthcare is different. Same

with clinical trials, but when you look at the way that clinical trials were able to be kept running through the Covid pandemic for all of the things that we've talked about, health data, yes, it's personal data and the sort of conservative approach that we typically take. Drugs moved quickly through the covid pandemic and drug development continued. So yes, there are barriers of course, some of which we talked about with the cost of drug development and the speed, the cycle time inherent with the regulations, and the need to protect patients' rights and well-being at every step.

But I would challenge us to say, why clinical research or why does healthcare have any more barriers than something like banking? equally, the banking systems have all of our personal data in them. All of our financial data is up there as well with our health data. And so, it's not to say there aren't barriers, inherently in what we're doing, but I think we need to continue to challenge them. For me, the one that does need more focus is the geographical nature. I think even within most countries, the healthcare system is not always well joined up. Can speak for the UK in particular about that I can go to a hospital in one part of the country and a hospital in another part of the country, and the systems aren't connected. They often don't have access to the records from one to the next. So, that's a challenge where we're talking about technology and the sharing of data. But yeah, I think we just need to not accept those barriers sometimes as being real.

Ryan Muse:

Very good. I don't know, Aadhar, if you had your own thoughts you wanted to share on that question.

Aadhar Shah:

No, I think well, I think Colin, you putter really, really well. I think the only thing that I would add in terms of building on that is that a lot of the time in retail, it is the customer that's being proactive, a lot of times in healthcare it is being proactive. A lot of times in healthcare it's more of the retailer is kind of being proactive. I think in healthcare there is a pathway or an effort that healthcare organizations can be more proactive in offering services, making aware of the clinical trials, offering ways to actually simplify that experience as well that retail has done and is doing very well. In healthcare, it's a lot more of the reactive of you need healthcare services, you'll adapt to our archaic processes and archaic ways of working, which should be the case. But I really like the example that you brought up, Colin.

Ryan Muse:

Yeah, very good. Thank you very much. Our next question here is just really wondering what types of data you collect. Are they biological samples or wearable devices? And I wondering, Shawn, if you might answer that.

Shawn Tedman:

To talk Yeah, I'll take the first swing at this. And I think we're a little bit different than some of the other panelists because we do actually deal with test results that can be sensitive. In addition to the regular consenting process, we do have to transmit that data between our platform if there's a separate vendor that collects it, and then back to the Medable platform, for instance, to be part of the clinical data repository. So, for the physical sample, we sometimes do some of that handling. Either do that handling or connect to the people who are doing that handling, but then also handle the data that flows from the analysis of that sample and the results of that sample. So yeah, it's more so the biological sample based for us, but then we connect with all sorts of other vendors who can also flow the sensor data, and movement data through our platform as well to connect that up. And we're seeing that being increasingly used as well. So, I think the key is just being flexible to meet the needs of each individual project and then

knowing the security privacy requirements for each of those sorts of data. So, you can where the bar's at so you can meet it.

Ryan Muse:

All right. Thank you very much. Another question for you here is wondering if there are any examples of trials where these partnerships are live.

Shawn Tedman:

Yeah, I mean, I can give one quick example that I'm pretty proud of because it's my former organization, 23, and me, the genetic testing company. They've got a really interesting project that's looking at genetic propensity for certain conditions. So, it's a study using patients who actually aren't actively patients for a condition. They're just at an increased risk potentially, or decreased risk. They're genetically interested in some way. And they're doing really interesting labs, but they're also very complex labs that are being done by multiple laboratories in order to pull that together with the genetic data that they already have for patients. And so we're actually connecting patients. We're sending somebody out to their home or a place of work to do the sample collection because it needs special processing kind of in the field.

So, we're working with a mobile phlebotomy organization to go out and do that. And then securely freeze those samples, transmitting them to the different labs for analysis, and then pulling all that data back in and getting it over to 23 and me. So, it's interesting. It's one of the things it's the sort of study that really isn't feasible if you're gonna ask these people who don't actively have an unmet need to go into a trial site, sit there for hours, and have different samples drawn, like we're acting as the concierge to bring it to them. And that's actually probably the only reason that this type of study is even able to be conducted is that we're making it so easy on patients that they are signing up and they are enrolling because otherwise, I think it would just be, really, really difficult to execute.

Ryan Muse:

Right. All right, very good. Thank you for expanding on that. Now this next question's a very interesting one, and I'm looking at Mike thinking you might have some very good insight to add to this. The question is, have you seen cases of digitization of any part of the whole patient journey improving the diversity of patients enrolled in trials?

Mike Decastro:

Great question. So, I think sure, of course. I think zooming out a bit may be looking more into the provider space more broadly than just clinical trials. Our work here, with two federally qualified health centers in DC, the two largest essentially last year. By the way, DC unfortunately has the highest rates in the nation of infant and maternal mortality. So, this was really important work that we wanted to address around unlocking the barriers for them to get the care that they need, specifically in the prenatal term. We work with them to offer Uber as a mode of transportation to get to their prenatal appointments. And these were, by the way, Medicaid moms, who by definition have access to transportation by way of their benefit. And just to expound on that, the benefit is typically quite arduous to access.

You're calling 800 number two days in advance, you're waiting for a four-hour window, and there's a high no-show rate. It's a very clunky process, right? So, by enabling providers to offer transportation at the point of care, we saw that 70% of the recipients of that transportation, first of all, opted to take it and said they would've not been able to get to their prenatal appointments otherwise, again, these are patients that had access to transportation. It was just so hard to access. 40% of them took Uber continuously

through their series of prenatal appointments resulting in a significant about 10% increase in appointment adherence during that term. So, if you think about a high-risk population, high-risk Medicaid population, every patient touchpoint is critical. And we were able to help drive that result through the digitization of transportation and enabling those providers.

Colin Weller:

Now, Mike, that's an awesome example. And just I found the question interesting sort of the digitization of a part of the process. The other example I would kind of in there is, that if we only digitize the existing processes and ways of working the risk of us kind of creating disparities in other parts of the population is high. And so, I think for me, this goes all the way back to what we've said throughout this discussion, that only having a digital option is possibly not the right move going forward, but it's having the flexibility to meet all the patients' and potential patients' needs. e-consent is an example that's often thrown out there. Well, if everything goes digital for e-consent and everything goes remote and the a need for an internet connection or a tablet or whatever else might be in the patient's home, you're gonna exclude other patients and potential patients. And so those unintended consequences of digitization need to be considered. And a slight sales pitch for edible, but you have to have the ability to accept a paper consent form into your system as well as a digital consent process at the same time. So, it is things like that, I think it's thinking about how to have the optionality rather than only going after digitization.

Ryan Muse:

Great. That's wonderful. Thank you very much for the answer to that question and for all of the questions. However, we have reached the end of our Q&A portion of the webinar. If we couldnt attend to your questions though, know that the team at Medable will follow up with you or if you have further questions, you can direct them to the email addresses that are up on the screen. I want to thank the audience for participating in today's webinar. You will be receiving a follow-up email from Xtalks with access to the recorded archive for this event. A survey window will pop up on your screen as you exit, and your participation is appreciated as it helps us to improve our webinars. Additionally, there's a link to view the recording of this event in the chat box, which you can also share with your colleagues, so they may register for the recording here as well. Now, please join me in thanking all our speakers for their wonderful time here today. We hope you all found the webinar informative. Have a great day everyone and thank you for coming. Thanks,

Colin Weller:

Ryan. Thanks, everybody.

Shawn Tedman:

Thanks, everybody. Cheers.