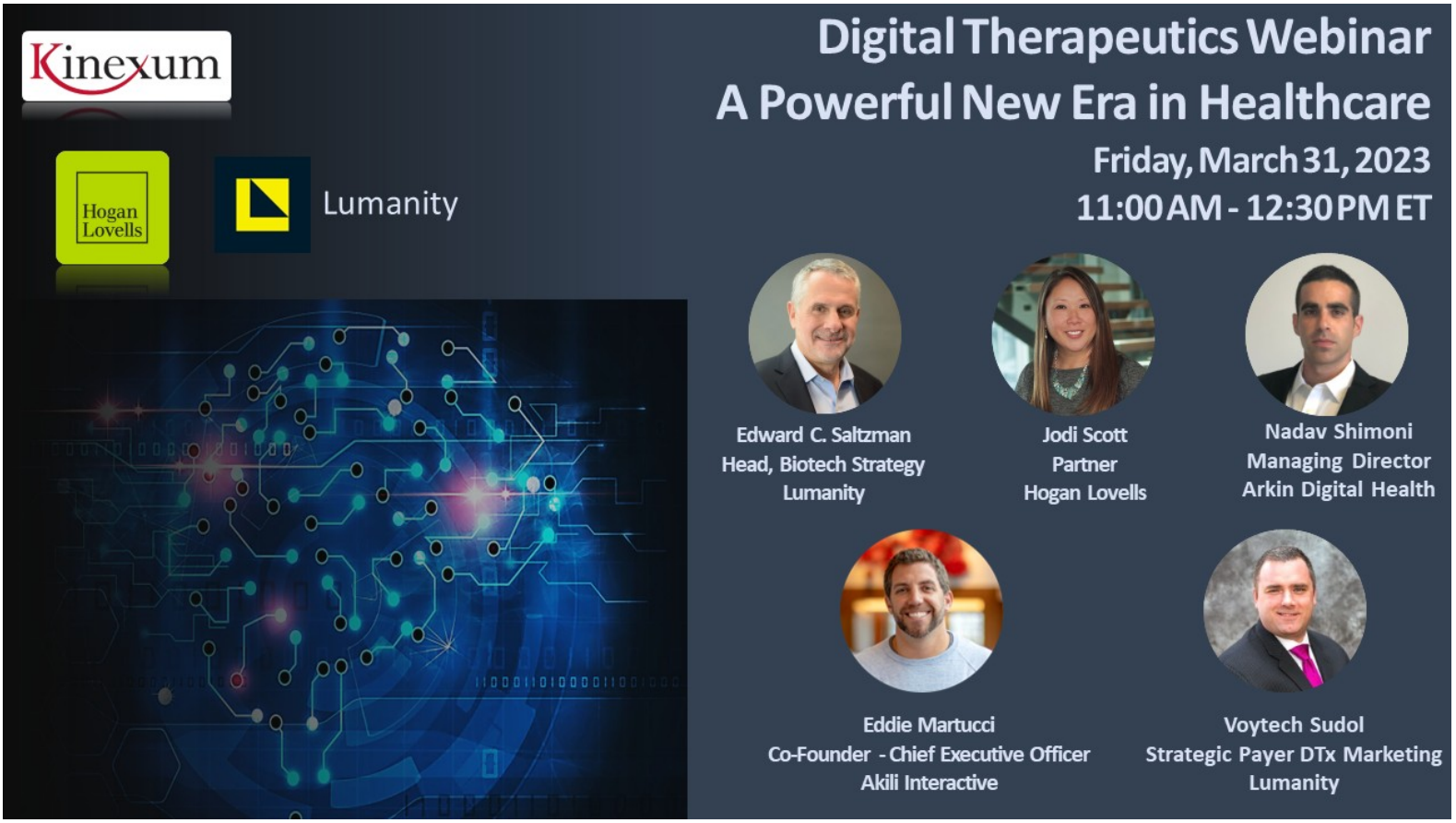
Kinexum
Hogan Lovells
Lumanity
Digital Therapeutics Webinar
A Powerful New Era in Healthcare
Friday, March 31, 2023
11:00 AM - 12:30 PM ET
Edward C. Saltzman
Head, Biotech Strategy
Lumanity
Jodi Scott
Partner
Hogan Lovells
Nadav Shimoni
Managing Director
Arkin Digital Health
Eddie Martucci
Co-Founder - Chief Executive Officer
Akili Interactive
Voytech Sudol
Strategic Payer DTx Marketing
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## Meet the Speakers & Moderator:

**Eddie Martucci, PhD**

Dr. Martucci co-founded Akili Interactive in 2011 with the bold vision of challenging the status quo of medicine. The realization of that vision came in 2020 when Akili received FDA Clearance and CE mark approval in Europe for EndeavorRx in ADHD, making it the first and only prescription treatment delivered through a video game. Eddie is a founding Board member of the Digital Therapeutics Alliance. He is actively involved in setting standards for the industry and frequently serves as a speaker on the digital therapeutics industry and healthcare innovation. Prior to starting Akili in 2011, Eddie helped launch PureTech Health's digital health initiative and co-founded two other health-focused start-ups. He completed his graduate work at Yale University in the Departments of Pharmacology and Molecular Biophysics & Biochemistry. Eddie received his B.S. in Biochemistry from Providence College, and his M.Phil. and Ph.D. from Yale University.

**Jodi Scott, JD**

Jodi Scott developed and honed her practical, real-world sensibility and business acumen during the time she spent as an in-house FDA counsel with Medtronic PLC, the world's largest medical device manufacturer. Today, she uses that background to solve the challenges that confront her clients in areas that include MDRs, regulatory due diligence, importing and exporting medical devices, advertising, and promotion, preparing for and managing FDA inspections, developing systems to mitigate the risks associated with the unapproved use of approved products, developing digital health technology, and securing the necessary state medical device manufacturer and distributor licenses. She spends much of her time developing and implementing strategies to manage FDA-initiated enforcement actions. She also applies her regulatory knowledge in assisting clients with regulatory due diligence related to mergers and acquisitions and funding, such as private equity deals, initial public offerings, and other financial transactions. Jodi co-leads the firm's cross-functional Digital Health Working Group and regularly assists clients in navigating the complexities of FDA regulation of digital health technologies with an eye to helping them meet their business objectives while being mindful of the potential for regulatory obligations. Jodi holds a J.D. from The Catholic University of America, Columbus School of Law and a B.S. from Drake University College of Pharmacy and Health Sciences.

**Nadav Shimoni, MD**

Dr. Shimoni joined Arkin Holdings in 2020 as head of Digital Health sector. He comes from a diverse background combining experience in medicine together with venture capital, business development, and deep technological project/product management. Dr. Shimoni is a physician, previously the Director of Hospital Business Development at Clalit Health Services, Israel's largest integrated payer-provider system, governing one of the world's largest and richest

longitudinal healthcare database. He also conducted research in public health focusing on implementation of data/AI-driven solutions in the clinical workflow. Dr. Shimoni is the founder of 81 HealthTech Network, a 250-members community for IDF intelligence core technological unit alumni active in the HealthTech sector. In his prior positions, he served as Head of Business Development at Rambam Medical Center while practicing internal medicine and as an Associate at Accelmed, VC & PE medical device investment firm. He holds an M.D. from Ben Gurion University.

**Voytech Sudol, MBA**

Mr. Sudol is an enterprising, analytical, and strategic Global Marketing & Sales Executive with 15+ years of expertise spearheading product and process innovations in the Pharma/BioTech industry. Throughout his career, he has built lucrative strategic partnerships, innovated product launch strategies, generated record-breaking business growth, and achieved award-winning sales performance. He has had vast success leading initiatives that analyze quantitative data and translate key insights into business strategies that drive continuous process improvement and high-performance results. He's always skillful in leveraging his in-depth knowledge of the evolving market access landscape, as well as pricing and reimbursement requirements. He has directed development and implementation of market and commercial strategies that foster product launch success, amplify brand awareness, and propel profitability. He also effectively builds, motivates, and leads high-performance teams, facilitating engagement, efficiency, and productivity. Mr. Sudol got his MBA from Rutgers University and his BA from Montclair State University.

## Moderator:

**Ed Saltzman**

Ed is Executive Chairman of Cello Health BioConsulting (CHBC), previously Defined Health, after having led the sale of Defined Health to Cello Health in 2017. CHBC is a leading strategic business development advisory firm serving senior executives in pharma, biotech and investment sectors at clients based in the US, Europe, Japan/Asia and Israel. Ed possesses a vast knowledge of the pharmaceutical and biotechnology industry accumulated over Defined Health's 25+ years of consultancy to pharma, biotech, specialty pharma and investors. From this breadth and depth of experience, he provides guidance to CHBC's senior project leadership who work with clients across multiple therapeutic areas. Ed is a well-regarded and in demand speaker on industry issues and has been recognized widely as an early "spotter" of key trends that go on to have significant impact within the life sciences industry, especially as these pertain to the licensing and business development field. He has spoken over the past 20 years to large audiences at Defined Health's Therapeutic Insight and Cancer Progress conferences, the Licensing Executives Society Annual Meeting and numerous industry conferences. In addition to these public events, Ed has presented targeted strategy briefings and held discussions privately with scores of boards of directors, executive management committees and

licensing and business development teams at large pharma, specialty pharma and biotech companies as well with the leading life sciences venture capital firms. He notably coined the term “Proof of Relevance,” to describe indisputable demonstration of clinical and economic value in drug development. He is a recent recipient of the LES Frank Barnes Mentoring Award for his contributions to education in the life sciences sector. Ed held prior positions at the Ayerst Laboratories unit of American Home Products, where he had responsibility for evaluation and forecasting of compounds being considered for licensing, and at FIND/SVP, where he managed the Healthcare Information Center. Ed serves as a Venture Advisor to the Israel Biotech Fund, is on the Board of Directors of Saniona and is a member of the Licensing Executives Society (LES) and the New York Pharma Forum. He is a graduate of New York University.

## Transcript:

**Thomas Seoh:**

Hello, everyone. I'm Thomas Seoh, CEO of Kinexum. Welcome to our webinar on Digital Therapeutics. This is jointly organized by Kinexum, a regulatory and clinical consulting firm, Hogan Lovells, an international law firm with a large food and drug law practice, and Lumanity, a global life science consulting firm dedicated to accelerating and optimizing access to medical advances.

We have a terrific panel ready to cover several topics. I'll just remind you to enter any questions in the chat column and the panel will try to get around to them in the last segment of the webinar. Just to warm up the chat function, those of you who are willing, please say hi in the chat and indicate where you're logging in from. All registrants will receive the link to a recording of this webcast within a couple of business days and a transcript will follow. I'm now going to turn the mic over to Kinexum Founder and Executive Chairman, Dr. Alexander Fleming, who will introduce our moderator - Zan.

**Alexander Fleming:**

Well, thanks Thomas. What a great panel discussion we've got today. I'm delighted that we have one of the best moderators in the life science universe, Ed Saltzman, Strategic Advisor at Lumanity, who is leading the panel. No one better to do that. Ed coined the term proof of relevance to describe indisputable demonstration of clinical and economic value in drug development. This expresses what he does to help advance the value of products. *Indisputable relevance* is the apt term for our subject today. So, let's find out what, why, and how. Without further ado, Ed, take it away.

**Ed Saltzman:**

Thank you Zan, and no pressure whatsoever as being called the best moderator in the universe.

**Alexander Fleming:**

That's right.

**Ed Saltzman:**

I hope not to live up to that. I will say that Zan Fleming has perhaps the best powers of persuasion in the universe for persuading me to take on this role. I will say that when Zan first reached out, he asked me, would I moderate this panel with Jodi and some panelists to be put together about digital therapeutics? I saw it and said, "What is a digital therapeutic?" Just to put that in context for you, I've spent three and a half decades working really on the edge of biotech strategy, particularly for early-stage science driven companies, really focusing on therapeutics. That's my context. But I do presently work for and advise a large firm that is

leveraging several platforms, particularly one that's developing a really differentiated real world evidence platform. So, I'm quite interested in the intersection of platforms that are looking at real world evidence and sort of the evolution of what I've now learned or what I think I've learned is a digital therapeutic.

Fascinating to me, great timing, I think. I spend my time mirrored in biotech markets and capital markets, which most of you probably know are not very encouraging right now. So, if nothing else than a distraction, an interesting distraction from the funk of the conditions in the biotech markets, it's delightful to be exposed to this new field and a delightful opportunity to learn so much from the panelists that we have today. I'll try to live up to the role to keep the discussion flowing and get everybody involved. I already see that there are 15 comments in the chat. So, hopefully we'll have a live discussion. Thomas will take on the role of monitoring the questions. Thomas, if you see questions that come in, that appear to be relevant to a point we've just made, just submit them and we'll take that question. But we'll have plenty of time at the end for Q&A. My goal is to leave maybe 30 minutes or more at the end for Q&A.

So, with that, I'm just going to turn to the panelists. I'm going to ask them to just very briefly self-introduce and then while you self-introduce, just give us a sense of where you come from in this digital therapeutics' discussion. Don't worry about defining it, we'll get to that in a minute, but tell me where you come from. So, I'll start in no order. Well, let's start with Jodi.

**Jodi Scott:**

Hi, thank you. So, good morning, I'm Jodi Scott. I'm a partner with Hogan Lovells medical device practice. I'm sitting in Denver, not with the rest of my people in D.C. I'm an FDA Medical Device Lawyer, which means I help companies with anything FDA-related and specifically only in the medical device. So, in the past probably 10-12 years, we've been doing a lot more digital health work. I co-lead our firm's Digital Health Working Group, which is a cross-functional group of any lawyer that touches anything related to digital health, which means we have gotten involved in sort of everything from kind of birth to death of these products. So, we do a ton of work in the submission space. We've actually helped bring a number of these products to market, get a good number of them actually through FDA.

Then of course once you get the product to market, you need to commercialize. So, there's a lot of things you need to think about when commercializing any product, but in particular digital therapeutics because the healthcare system, and the distribution networks, and the reimbursement scheme is not really set up for these products. So, it has taken a lot of creative thinking on top of how the system works to figure out how do you do this stuff and how do you help companies commercialize products in a way that meets their FDA obligations and all their legal obligations, and also their obligations to their investors and patients. Let's never forget the patients. So that's a little bit about me. Ed, thank you.

**Ed Saltzman:**

Thanks, Jodi. Why don't I let my panelists go in what order they see themselves? So, I've got a big screen here with a bunch of people on it, so I'm not even sure now who are the panelists. But Eddie, why don't you go next?

**Eddie Martucci:**

Sure, happy to. Thanks everyone. Glad to be here. My name's Eddie Martucci, I'm the Co-Founder and CEO of Akili. Akili is a public company listed on the NASDAQ, one of the early digital therapeutic companies that really specializes in making true medical treatments out of digital. What I mean by that is **products that are studied and validated in clinical trials, brought through full FDA regulatory review, and then prescribed by doctors and starting to be covered by insurance, which is exciting. So, our lead product is called EndeavorRX, which is a treatment for children with ADHD.** It is the first product in the world and still the only product in the world that has regulatory authorization as a prescription that is delivered through a video game. So, this treatment is truly a new type of medicine in that it's experienced like a video game based on groundbreaking research out of UCSF.

**The platform is meant to target cognitive dysfunction across the range of diseases**. So, we're working in ADHD, we have studies ongoing in a wide range of ADHD ages and we have clinical data in depression, autoimmune disorders, like MS and Lupus, and beyond. So, the way I view this is we are one of the early companies in the field. I've been kind of growing this company and this field. I also sit on the board of the Digital Therapeutic Alliance, which is the organization for products in this industry and companies in this industry. So, I get to see how this field is evolving, the ups, the downs, the positives, the negatives, and I'm really excited about some of the green shoots I'm seeing in this industry today. So, happy to be here.

**Ed Saltzman:**

Great. Nadav, you want to go next?

**Nadav Shimoni:**

Sure. First, thank you all for having this great event. I'm looking forward to the discussion. My name is Nadav Shimoni, I'm leading the digital health fund within Arkin. Arkin is a $2 billion healthcare and life science investment group located in Israel. I'm personally located in the U.S. in the great State of New Jersey. Arkin is based on essentially the second-largest pharmaceutical company that ever came out from of Israel and sold it about two decades ago.

So, we live and breathe pharma for more than half a century in the organization. So, for us as a digital health investor, digital therapeutics is an area of interest. We've been targeting that area and trying to examine what could be relevant for us within this space for quite some time now. Shared some thoughts in our blog for our participants who are interested in having more color about our thoughts in the field, but I'm sure we'll cover at least some of this in today's discussion.

I'm also, in a sentence about myself, I'm a physician by training. So, in a way coming to that space with some, I would say clinical perspective, think about how physicians are perceiving that advantage and how we can make physicians more receptive to the therapeutics is a question we're having in mind constantly. Very much looking forward to today's discussion and we'll leave time for further comments later. Thank you, Ed, and thank you all.

**Ed Saltzman:**

Voytech is one of my colleagues at Lumanity who I've had the pleasure to just recently not too long ago meet, showing that we're growing fast and we're a larger and larger organization, but Voytech, you want to say a few things?

**Voytech Sudol**:

Sure. So, my name is Voytech Sudol. I've been in life sciences for a little over 15 years on the commercialization side, always in very innovative spaces where things are different, anything from CNS to hereditary cancer diagnostics. Then spent a couple of years in software which led me to Cyan Health at the time, now part of Lumanity, as we were expanding our presence in digital therapeutics, which was about two years ago. But Cyan Health and the value and access communication, all the strategy and communication that we developed, we've been in digital therapeutics, I think the original product was somewhere around 2010. So altogether institutional knowledge of about 13 years now in this space, which feels like ancient history. The space is developing quickly, so day-to-day it's super exciting. We have clients every day that have products in digital therapeutics, prescription digital therapeutics, platforms as a service, and then some software accompanying medical devices. So, this is a broad view of the market and combined with the extensive research that we do on a day-to-day basis, it makes it a very exciting space to be in. So, I'm happy to join the discussion.

**Ed Saltzman:**

Great. So, I think we've covered everybody. So, let's get the conversation started and I sort of teased this up before. I'm going to ask the panelists, and this is the one question I think I'll get everybody's perspective on. In terms of moderating style, I love to just go down the panel one, by one, by one and have everybody answer the same question. But if for some reason I don't call on you and you want to jump back in, please do.

I just think it's really important and as I set out reading through and trying to come up to speed on this fascinating topic, it was clear to me that articles on digital therapeutics start talking about companies that have just raised major rounds that don't look like they're doing anything related to a therapeutic which would be the kind of thing that Eddie just described in the introduction. So, let's talk about **what is and isn't a digital therapeutic**, how big is the tent? How big can the tent be? What fits under the umbrella of digital therapeutics? Since Eddie, I'm going to get to you on that because I can tell from the earlier discussion that you're passionate about it, but because you are, I'm going to start with Jodi on this one because I think we started

talking about that early in the formation of this panel. So, tell me Jodi, what is and isn't a digital therapeutic to you and why does it matter?

**Jodi Scott:**

The Digital Therapeutics Alliance has a really nice pretty simple definition that I think sort of touches on all the points and then I'll try and put a little bit more meat on the bones. So, they define it as: **'A medical intervention directly to patients using evidence-based clinically evaluated software to treat, manage, and prevent a broad spectrum of diseases and disorders'**. I think each of those bits is important. But in terms of digital therapeutics, they are evidence-based. I think there's sort of a component, at least it has been, where people just wonder whether these things will work. But they are really science and evidence based. They run clinical studies, they prove their outcomes and it's exciting to see these things have an impact. Let me talk a little bit about what they look like.

So, digital therapeutics are software-based and in some cases they are standalone. **The whole therapy for treating diseases and conditions is the software and that's it. Sometimes they're coupled with sensors that provide information and data back into the software and sometimes they're coupled with pharmaceutical agents.** It is really intended to synergize with the pharmaceutical and hopefully improve efficacy and outcomes for patients. So, it's kind of all these things, but when we're talking about digital therapeutics, it's the software component that the patient and achieving a therapeutic outcome. Let me just give you a little bit of idea about what there is, and I know Eddie can talk a little bit more about the Digital Therapeutics Alliance, but so far FDA has approved some cool technology and it's not all in the space where you would think it's just mental health apps. Things like treating insomnia, the substance use disorders are probably the ones that most people are familiar with or the opioid use disorders, ADHD, diabetes management.

There are therapeutics for irritable bowel syndrome, which I think is cool because I wouldn't have conceived of that being one, but it works. Some for mood disorders and there are more and more of these getting through FDA as FDA gets more and more comfortable with the process. I did want to just mention, I think one of the reasons it's become so murky around what is and is not a digital therapeutic is because it's cool. So, a lot of people want to be able to say that they're in this category. Also, this is sort of one of the good things that came out of the pandemic, which is FDA had several policies that allowed companies to develop and release products for psychiatric mood disorders and several other disorders. So, there's a lot of technology that came out in that time to try to help patients while we were all at home in our pajamas. I think that it's good, but I do think it's sort of made things murky around what is a digital therapeutic.

**Ed Saltzman:**

So, Eddie, what did Jodi leave out if anything? I thought it's a comprehensive overview. I think I now understand what a digital therapeutic is and probably I understand what it isn't. I think

that's the real question. What can we take out of this conversation? Do we take out anything that's not going through an FDA process? Do we take out anything that's not making a drug-like therapeutic claim? How do we focus what really is a digital therapeutic?

**Eddie Martucci:**

Yeah, great question and I agree with pretty much everything Jodi said. I think the point at the end was critical, which is why this has become a bit confusing, which is it's cool, as Jodi said. **It has been a hot area, it's gone through bumps, and ups, and downs, but it's been a hot area and frankly it's pulled in a lot of money.** Our company has raised a couple hundred million dollars and gone public, another company had raised a few hundred million and gone public. So as soon as people started seeing B rounds, and C rounds, and public rounds, this is what happens in the innovation ecosystem is companies and products try to pitch themselves as something and they're probably not. It does confuse for a while, but this is very normal. We're seeing it in AI right now, right? Every company apparently on earth does AI for something. The truth is 90% of those companies probably don't even do AI. So, I think you're seeing the same thing. I think it will calm down.

What's critical, and I'll just underline Jodi's point there, is these are products that are meant to be studied and clinically validated and themselves, this is how I always define it for people, **these software products themselves drive a clinical outcome**. Meaning you use the product, it treats something in your body, it treats something in your condition, and it drives an outcome. Now the easiest, I'll work backwards, the easiest version I think that people understand is something like what we do. Our product doesn't use human practices or teach someone's strategies to cope with their condition. It directly changes the neurological structures in the brain through exposure to what people, and in this case children, are using an EndeavorRX. We have half dozen publications showing just a drug, very differently, but conceptually you'd think about a therapeutic drug, it's being exposed to the body, it's having a physiological effect on the body, and then there are outcomes that you get one month, two months, three months later. That's it, and it's approved by the FDA, and today it's being prescribed by docs.

That's easy I think for people to understand. It's like what I call the magic of medicine. You use a product; it actually changes something in your body, and it leads to an outcome. I think **what is debatable, but I do include as digital therapeutics are taking human practices, that are putting those human practices into apps. So, they're digitizing them, they're a digital therapeutic if they're being evaluated in clinical trials and by themselves having some sort of positive outcome.** So, some of the products that Jodi mentioned are behavioral therapies. I think that's cool. Behavioral therapies are great. I don't think it's what everyone sees as the future of this industry. I think people want to see dramatic big idea pieces of software that change human physiology, but it can be very helpful for patients and if it's studied in clinical trials, has a label that is clearly trying to treat or manage a condition, and that product has the effect, then that to me it qualifies.

But you can see how that muddies the waters a little bit because cousins to that concept are not digital therapeutics. So, you asked me to define a little bit of what's not.

So, let's define what's not. **Medication management is not a digital therapeutic**, even though most medication management companies now are positioning themselves as digital therapeutics. Monitors, right? **Things that monitor a condition for someone and then give them data so that that person can try to adapt their life, monitors even if they're super digital and cool, are not digital therapeutics. Disease management applications, meaning giving you tips and tricks and tools to cope with your condition and have a better quality of life just because you know a little bit more about your condition, are also not digital therapeutics.** So, I think that's where the line starts to draw. Is this software in and of itself powerful? Has it been proven in clinical studies, and does it directly drive a clinical outcome that's easy to prove through clinical trials? I think we're going to see a lot more products coming to the world that are very clearly in the camp of what we're all excited about in talking about digital therapeutics and a whole lot of also ran products that are fine but are not.

**Ed Saltzman:**

That's great. I think that's comprehensive. So, unless any of the other panelists wants to weigh in on what is and what isn't, because I think between Jodi and Eddie's comments, I think we've got a pretty good feel for what is, I just want to remind everybody in the audience to please mute because there is an echo that comes when people are not muting on my microphone. I'm going to try to work through it.

**Nadav Shimoni:**

Ed, maybe I'll do pitch in for a second and hopefully be a bit provocative because I do think there is some semantics or maybe things worth adding. I will just be brief and mention two things. I think currently I fully agree with Eddie around the kind of the clinical element. I will just say I have tons of respect to the great work that folks at FDA are doing, but I think right now the FDA bar is a bit too low. I think one of the things that will truly differentiate true digital therapeutics is showing the level of evidence we will anticipate from drugs and not just from software to some extent. I think it'll be great to double click on that later in the conversation. Second, I think the prescription element is also important.

**I think some of the differentiating factors are that digital therapeutics for me are like drugs, things that clinicians will prescribe and not just things people will download from the app store.** For that reason, many things that I think Eddie very rightfully so mentioned are not relevant as true software as drugs as we try to call digital therapeutics. This is I guess my two cents on the question that I felt worth mentioning.

**Ed Saltzman:**

So that teased up the question and Voytech, I'm going to get you into this conversation in a minute, I promise. But it was a very good segue. So, what I just heard, Nadav, you say is that the

FDA bar isn't high enough. Usually, people in biotech and pharma don't make that complaint, right? I mean I've never heard of a biotech or pharma executive saying the FDA bar isn't high enough. Zan, I doubt you ever heard it either. So, we're clearly in different territory here, right? I had a question teed up, and Voytech, feel free to comment on this if you'd like, but this will go out to everyone, anyone who wants to take it. I think we've got an idea of what the current regulatory status sort of is, but we could get a little clearer on that.

But I guess, Nadav, to your point, do we need to raise the bar? Do we need regulatory innovation? And what forms is it likely to take? **As we get more companies raising more money and pushing more software with more claims, does this path get tougher?** Does it need to get tougher or does the FDA just got to be a little bit smarter and adapt? I mean, the first thing I thought of when I saw what was going on with digital therapeutics, it occurred to me that when it came to things like gene therapies and cell therapies, the agency needed to move along, it needed to innovate, it needed to keep up with the innovation and what was going on. This may be a similar kind of case. So, can I get some thoughts from the panel? Eddie, I see you went to off mute, you want to jump in?

**Eddie Martucci:**

Yeah, I would love to jump in because respectfully to, Nadav, I disagree. I think it's a myth. I think for most digital health, because there's a whole lot of digital health stuff out there that has been through the FDA in different ways that might very well be true that there's a couple of different layers. But there's a myth floating around those digital therapeutics, meaning the things that Jodi and I define, don't have a high enough bar. **There's a bad myth out there, including in payers and insurers, that digital therapeutics aren't even judged by efficacy. A lot of people have this myth that, oh, it's a medical device and therefore it's mainly judged on safety. That could not be farther from the truth.** So, they're about nine products right now: EndeavorRX, my product, is one of them that have gone through FDA approval.

The vast majority of those have gone through a de novo process. **The de novo process forces that this must have a reasonable assurance of safety and efficacy. It also defines efficacy as a clinically meaningful benefit to patients.** I promise you; I can give you my word, our nearly two-year review for EndeavorRX, 95% of the questions and the work and time spent was on efficacy. We had to give five clinical trials over 600 patients. So, I understand that with the confusion of what digital health and digital therapeutics are that it might be an issue. But these real therapeutic, these pieces of software that are treating disease, I want to kind of yell from the mountaintops here that these are hitting a bar that is very similar to what you see in any other category of medicine requiring prospective clinical data, well run trials.

What the difference is, is the label. Right? So what FDA is looking for is a reasonable assurance of safety and efficacy for the label. So, sometimes if you see a digital health product and it has a weak label, that's why. The data's not there. But if you look at a product that's treating ADHD,

for instance, or treating substance use disorder, and it's gone through a de novo process with the FDA, that has been put through a very rigorous threshold of efficacy. The reason I'm so passionate, you can hear my passion coming through, about this is I was okay with that kind of myth circulating around for the last couple years until I started hearing insurers use it as an excuse.

**Ed Saltzman:**

Okay, so let me exactly pick that up as a, and Nadav, I want to give you a chance to come back on that in a minute, but I want to get Voytech involved, and I've got the perfect segue to do it. So, when we talk about in the conventional therapeutic realm, the payers, getting regulatory approval is your first step, right? I mean, you've still got to sell the product and you still got to get it through payers. So Voytech, **how are payers feeling about this innovation in digital therapeutics, the path? Is the evidence that these programs are being approved on sufficient for payers?** Does it need to get better? Nadav, I'll come back to you.

**Voytech Sudol**:

So, I love this question. My answer is always the same, which is: 'It depends'. So, if we're talking about digital therapeutics, we're bucketing a lot of things. We are throwing everything into one bucket. So, the conversation is confusing. Jodi, I think you offered the definition that includes the word "evidence", right? Evidence-based. Evidence can mean a lot of things. That confuses things to the next level. Then, there are the payers: do we need approval? Do we need clearance? Do we need a grant from the FDA? The answer is always, it depends, right? Because of wellness apps, I'm going to separate digital therapeutics, yes or no depending on the product, and based on what it treats. Prescription digital therapeutics, I think, this is where this conversation has been for the last 15 minutes about prescription digital therapeutics. It depends on the payer and on the type of payer. So even geographically, depending on the concentration of people in the area, depending on how many providers are in the area for a specific disease, that level of evidence required will be much different. **What's interesting, and this is across all payers, is that payers will look at the evidence first before they look at FDA approval.** This goes to cement Eddie's statement that payers don't necessarily see software as medical devices' approval or clearance process as rigorous, which it's not true.

It's very rigorous, there are a lot of studies. However, if there's a product that's digital therapeutic, I know of products that have 16, 18 studies, well-run clinical trials and they never submitted for clearance or approval simply because they know they can get reimbursement based on what the product does to the population. So, I think **as an industry, we need to individualize these conversations and be very, very clear as to what the product does, what disease it treats or manages, and most importantly, what type of payer is paying for this.** Is it a VA, is it IDN, is it a PBM, is it a regional payer? Then communicate accordingly.

**Jodi Scott:**

I think Voytech, if I could step in.

**Ed Saltzman:**

Go ahead Jodi, go ahead.

**Jodi Scott:**

So, I think you point out an important distinction here: there's a lot of technology coming through FDA as software and as a medical device. A lot of them come through 510(K) but a lot of them also go through this de novo path. But the data that they must provide, depending on what their indications are, is less than what is being provided for a digital therapeutic. When you talk about a digital therapeutic, they are essentially proving out safety and efficacy in a similar way to a pharmaceutical.

The other thing that they do is they actually spend and do studies on the user interface, and the ability of the users to actually use the technology successfully to actually achieve that digital outcome, which is a little bit of a different type of study than what you would ever really see in a pharmaceutical space, because it doesn't do anybody any good to have a software application that somebody can't use, the patients can't successfully use. So, their data burden is high, but I hear you, there's a range of levels of evidence, but the small category of digital therapeutics has an incredibly high level of intel of evidence that they're putting forward.

**Ed Saltzman:**

So Nadav, one of the easiest roles of a moderator and most fun roles of moderator when somebody jumps in and says, "I completely disagree with what somebody else just said." So, I want to come back to you in the spirit of having great engaging back and forth and get your thoughts on what Eddie had said in response to your comments.

**Nadav Shimoni:**

No, first, I have tons of respect for what Akili has done. Just to emphasize, I'm not sure we are, as the other panelists mentioned, we are comparing apples to apples. I think there are different companies, different clinical trials that have been performed on a much different level. I'll do say that there were a couple of things the FDA have done over the last couple of years that for us, as an investor, really turned the FDA stamp to be less impressive, I would say, than perhaps it should have been. To your point about FDA providing a high bar.

First, is the pre-certification program and the fact that some products went through that program whereas others didn't, I think made some difference. Second, I do think that **around mental health, there was some relaxation throughout COVID-19 and the bar for products that are targeting mental health in a certain way were addressed differently than other digital therapeutic products.** Finally, I will say we examine a lot of the data coming from different companies. Many of these trials weren't very rigorous.

Without quoting names, but we've done a lot of efforts examining that data and the fact that surveillance progress was short, the fact that there weren't sham procedures, I'm not saying for

a second there aren't no rigorous trials and I think Akili have done tremendous work there. But I do think that **payers, to Voy's point are being a bit hesitant sometimes for a good reason because they want to have a concrete proof on the clinical efficacy and the economic efficacy as well of these products**. So, in a certain way, it balanced the discussion to some extent, but I felt obliged to provide that point of view.

**Ed Saltzman:**

Thanks, I think that's great, and I think it balances out. I think that regardless of whether the underlying takeaway that I have is that you both agree more than you disagree. I think that Eddie's firm and others are pursuing the path that is helping me understand what a digital therapeutic really can be and what it could not be, and what we probably shouldn't call digital therapeutics.

So, let me then switch around a little bit and move that discussion because I think what we've accomplished in the first 30 minutes or so is we've got a good setting of what is a digital therapeutic. I do want to leave a lot of time for Q&A, so this time is going much faster than I thought it would, which is terrific. But let's talk about business models for a little bit. Because when we talk about digital health and digital health approaches, the business model implications aren't always clear because we now understand that digital therapeutics are software as medicine. That's the easiest soundbite way to understand it, but that doesn't necessarily translate into one consistent business model, all right?

So, we know from Voytech, and we know from the discussion that came up that we must, or it's a large part of the industry's mission to get legitimization, have that data, and get coverage in third party reimbursement. That's a very traditional pharma business model, right? So, **what is the business model for digital therapeutics?** I heard a lot about we must convince physicians, we probably must convince patients. Eddie, in your case, in the case of Akili, you probably must convince parents. So, there's a lot of ways to business models. Eddie, since you will probably be testing the market relatively soon, or you are in the market right now, tell me about what you think business models are and are going to evolve to.

**Eddie Martucci:**

Sure, and you're right, we're in market right now. We just launched formally at the end of October. Now, we're excited. We have prescriptions that have come from every state in the country. We have a growing number every month. We have a growing number of new doctors every single month that are prescribing this product over a hundred to 150 docs a month, brand new docs who have never prescribed a digital treatment before, and that continues. So, we are seeing uptake for sure in patients, for sure in doctors, and slowly, very, very slowly with insurers.

What I always tell people is I think the jury is out on what is the perfect business model for digital therapeutics. I don't think anyone has solved it yet. I think we're seeing good success in a more pharmaceutical style business model where you're getting paid for the product, when it's

rendered to patients. Meaning the value is in the treatment itself, the value is in the prescription, that's how we're doing it, priced at parity with medication. **What we want is insurers to cover the burden mostly, but patients to pay a little bit. That's a model that tends to work in American healthcare for other types of medicine and it keeps patients with the little skin in the game, but not too much burden and it pushes burden to insurers.** That's where I think we're going, and we are seeing that that model is starting to work. What I think the big question is time. So, often these models, if you're given unlimited time, in this case five to 10 years, then a model like this, clearly the trajectory is it would work.

But I think what you're going to see in the digital therapeutic space is most of these companies are still startups. Most of these companies are still in an environment where they don't have 5 to 10 years of cash, they have max 2 years of cash, and we're in an economic recession that's going to be deep. So, I think what you'll see, which is a good thing, is that companies will start experimenting with those models. I don't think you're going to see a single model, and my gut is the model that's going to end up winning is going to have some elements of a core prescription model, but maybe some elements of a consumer model because this is software that engages patients.

**Ed Saltzman:**

Voytech, what's your view about the business models out there, and in terms of the urgency of getting third party reimbursement versus perhaps just going on a self-pay basis?

**Voytech Sudol**:

I think that as in Business 101, the business model must fit the market, and there's no single market for prescription digital therapeutics. Even if we go for the payers, we must look at what problem we are solving. So, let's take Eddie's company, it solves a very real problem. It's therapy for kids. It's a defined disease, it's very in line with what the prescription could do, but could probably do better, safer, faster, and more accessible. So, that's one problem.

If you're solving a problem of, let's say, a patient that already takes medication but it's not working, already seeing a psychotherapist, but must drive six hours, that's a much different problem. Then, you're solving a problem of accessibility that no medication will solve. So, payers will look at it differently, they'll pay for it differently.

Potentially now you're going into the realm of employers. How does this impact my employees, and what the impact is on disability? Do we pay long-term disability claims? What does that cost us? That's a much different issue. So, essentially in my view, and I know this is a catch-all, you must look at each digital therapeutic and say: "What problem are we solving and what business model can we apply?" Can we take this over the counter? To Eddie's point, 80% of digital things that claim to be digital therapeutics can simply be sold over the counter, just like any app or Google app and the market will sort it out.

**Ed Saltzman:**

Great. I'm going to move from business models to the broader interest of strategics and Nadav, I want to involve you here, but Jodi, I'm really interested in hearing your view as well. Large pharma, we haven't mentioned large pharma here, right? Yet, every large pharma today has a position called chief digital officer. In many cases, in fact, most of the top 10 pharma, that's an executive level, executive committee level position. So, pharma's clearly signaling that it has a lot of interest in digital approaches, but I'm not so sure pharma has that much interest yet, or we've seen that much interest from large pharma in digital therapeutics.

Nadav, what do you think, what do see out there? Because we're talking about business models, because clearly, we'd like to build businesses, but from the investor point of view, from the venture investor point of view, what we'd like to do is we'd like to seat some exits. I don't want to just assume that large pharma is the only strategic and the only strategic acquirer here, but are they there? When you go out, you conduct diligence or you talk to large pharma companies around some of these approaches, what's the level of interest there? Are they skeptical? Are they getting warmed up, or are they interested?

**Nadav Shimoni:**

I think it's a super important question, and I will start from the bottom line. I think the answer is not yet. We've tried to do a lot of work with pharma. I think honestly there is a big difference from things you are reading online and hearing in conferences and the intimate conversation you can have with people and what they're saying in these conversations. I mean, again, Arkin, we've been in the pharmaceutical industry for half a century now and investing in biotech and pharmaceutical companies for almost two decades with about a billion and a half dollars. So, there is a breadth of work with pharma, just sharing some numbers to provide some additional color on that.

I would say that first, to your point, it seems like these are very senior roles, but when you look at different pharma organizations, you see the cadence of changes pharma are doing. I won't mention names just to be cautious, but different companies every year or two are having changes in their strategy and having some different roles coming in or out, maybe signaling they're still trying to figure it out. I think **pharma are struggling at this point to understand what the real value is they can gain from digital therapeutics?** What is the threat, to be honest by digital therapeutics? I mean, when you consider pharma's tremendous investments in new products and the low percentage of products that reach, mark the market, would digital therapeutics be complementary to these products, or would they cannibalize the revenues from these products? **Would it make sense to consider a digital therapeutic product coming before the actual drug? Would it hinder the efforts made to promote the actual drug? Would it be more reasonable to look at combo treatments?** Maybe digital therapeutics could be a joint go-to market play, lowering adverse advances, maybe they can increase adherence for the core drugs.

I think there are couple of very different questions, pharma is still trying to figure it out. I'm also certain there is no one size fits all and there are very different types of products and different companies and sometimes with certain diseases it'll make more sense than others. So again, coming back to your question, I think the answer is pharma are still trying to figure it out. There will be some exciting progress coming from pharma, but it'll take more time and I will just end with the second part of your question: I do think there are other strategics which are non-pharma that are relevant to digital therapeutics. Big tech could be relevant, payers could be relevant to some extent, and we can elaborate on that later. But I hope that answers the question.

**Ed Saltzman:**

It does. Jodi, do you have any thoughts you'd like to add there?

**Jodi Scott:**

I think I agree with everything Nadav said, but I do want to add, so I'm a medical device lawyer, so I come at this from the medical device side, but my background is in pharmacy. What we're seeing with pharma companies, they absolutely feel like it's a business imperative that they be in the digital health space. But I don't know that they're quite ready to get into the digital therapeutic space, but they'd like to. I think they're spending a lot of time on different types of applications right now that increase patient compliance. They are looking at a lot of diagnostics that help them target their patients who are going to do well on their drugs, better. If you can find the right patients who are going to be more successful, then you're going to have better outcomes overall. Maybe not as many patients treated, but better outcomes in the ones that do get treated. So that's a very interesting area for them.

**In terms of the prescription digital therapeutic space, I think what they are exploring is where you can add, you have an existing drug or therapy, and you can add a digital therapeutic to amplify the effect of the drug.** I'm not talking about just getting patient compliance because we all know if you can just get the patients to take the drugs that they've got, many of them will do better. But I'm talking about a therapeutic effect that is synergistic to the drug and gets a greater outcome. That is the type of thing that they are figuring out. How do you transition from being a drug company to a device company? Because from a distance, we kind of look the same. But if you start to think about logistically, how do you implement and execute on a device strategy from a drug perspective, there's a lot of differences.

I think strategically that's why these pharma companies have put these positions and departments in their companies and put them at a high level because it requires people with device experience, but also strategic thinkers to think about, the world right now is greenfield for them. How do you figure out where is the best strategic place for them to enter? Do you do baby steps and get used to it and figure out how to be a device company first? Or do you take the grand leap and say, "We want the big one. We want all of it", so we're going to go right to

the digital therapeutics. We're going to continue to develop our drugs, but as we do that development, we're going to start looking for the digital therapeutic and develop that together. Maybe they won't come to market at the same time, but we will have a strategy that will make us the front-runner because we've done it all.

**Ed Saltzman:**

Jodi, that's terrific. The reason is, you anticipated one of my questions that was going to come a little bit later, which is this fascinating idea of combination therapy and whether it's independently developed or whether from a label point of view, you go to the agency and you produce data on combinations of this drug and digital therapeutic combination. But Eddie, Akili did an alliance, a co-development alliance, right? The one you had entered with Shionogi a while ago. Since you've been on the front of that, any perspectives about working with pharma and not only how it turns out, what are the things you see that throw up a little bit, I don't want to say red flags, but indicate to you that, because it's fascinating, you're coming from completely different worlds, right? Yet you're meeting in the middle for patient need. So, I'd love to hear some of your thoughts on that.

**Eddie Martucci:**

Sure, yeah. So, the deal we did with Shionogi, which is now in phase three clinical trials, we partnered before phase two, the deal goes all the way through commercialization and commercial growth, which we're hoping comes at the next step. So, this deal is Shionogi, which is for Japan and Taiwan rights of our product. The reason we did it was twofold, and I think this defines my threshold of what needs to happen in the industry. First, they have a real commitment to this product in all the ways it can be used, and that's important. So, if I think about red flags, a red flag for me is when a company wants to use something digital to sell a little bit more of their other product, or use a digital product for patient engagement goals, but not really invest in it as a franchise, as a product. The beauty of our Shionogi collaboration, I give them a lot of credit, is they said: we see what's happening in the mental health and specifically the ADHD market. They are the market leading company because they have the licenses to the market leading drugs in Japan. They said, we need more actual therapeutic options. They have a sales force. They intend if all goes well in clinical, to market this alongside and independently from medication. So, they're treating it like a real product. I think it's that mindset that is critical. Do they treat this as a real pharmaceutical asset? In this case, they did.

The second thing is: if they're treating it like a real asset, what did they pay for it? The net present value of our deal with Shionogi is exactly what you'd expect for the net present value of a molecule, a new safe molecule in ADHD. So, to me that's really the test and the threshold that shows at least one company is really thinking about this in a strong way. I'm seeing more movement. As Jodi mentioned, you have different people and groups looking to take either small bites, or maybe some big bites and big swings.

I love what Pfizer recently did. Pfizer now has a unit called DHM, Digital Health and Medicine, and an executive who was a digital therapeutic operating executive is now leading an independent operating business line within Pfizer. So, this is good, it's good momentum. I think you'll see a bifurcation. I think **what you'll see over the next few years is pharmaceutical companies that still view these products as toys or add-ons or just fun accoutrements to what they do. Then I think you'll see maybe the other half who really invest and say this is part of the future of medicine and we want to have a big play and we want to drive scale.** My personal bias belief is that latter group has the right idea and hopefully that means you'll see more internal and more partner development approaches like what we've done.

**Ed Saltzman:**

Great. So, I'm a digital therapeutics developer, and I'm thinking about the world. When we think about the pharmaceutical industry and about the evolution of the pharmaceutical industry, there was a time many decades ago where pretty much this idea of therapeutic specialization didn't exist. Every pharma company was in every therapeutic area, and then they all rationalized and went through, even the largest ones said, "You know what, we're going to be in three therapeutic areas or four therapeutic areas, and that's it."

Cross over to the other side for a minute into digital therapeutics and think about, and everybody can come at this question because Nadav, you can come at it from somebody coming to you with a great new platform for digital therapeutics and you must think about where it would have its most therapeutic relevance, how much you could build on it. So, when we think about these, I guess my question really relates to platforms. How broad are these platforms and how much can they cross therapeutic areas?

We see a lot in CNS. Jodi, you gave a great summary before of all the different therapeutic areas that digital therapeutics can apply to. Eddie, you've certainly started off with CNS applications, some of the other companies that I read about that look like what you are doing, Eddie, within the, let's just call it within the more traditional development environment, most of it seems CNS focused. So, do we have to focus within CNS? Do you go from being an ADHD company for instance, to being able to treat depression, being able to treat movement disorders? I'm thinking a little more broadly about how we think about therapeutic areas, specialization in the context of digital therapeutics. I'll open that to the panel.

**Eddie Martucci:**

I'll just give a quick answer and then let others expand on it. I do think CNS is a logical starting point because when you're interacting with experiential software, the brain is one of the best areas to work. It's the most proximal thing to work on because you're getting information into the eyes and the motor system of the patient. It's frankly the area of medicine that has lagged behind everything else. **We don't do a very good job in treating brain conditions with traditional medicine, so I think that's why you've seen CNS start. But I do believe that the mechanisms of action that you're seeing in the latest batch of digital therapeutics, they**

**absolutely apply across disease, and they go into motor, they go into balance, they go into ocular.** We have some folks that are trying to look at comorbidities outside of areas like cancer, right? Broad oncology. So, I do think that it's a broad spectrum that we will see, probably things that we, no one 10 years ago envisioned a video game that could treat ADHD, that seemed anathema to the condition. I think we're going to see more and more things that really open people's minds that on this panel we probably can't even quite envision today. Research is just moving so fast.

**Jodi Scott:**

I'll add on to that, in the 25 years that I've been doing medical device work, there've been several times that I've had technology come across my desk where I've thought that's not going to work. I think the cool thing, and it does, that's what's amazing. So, the cool thing about this is in CNS applications the delta in terms of how you have to convince people that they would work is smaller because it's a little intuitive that some of these things may well work. I think some of these other applications, it's going to take more convincing that they work, which is why that evidence, the clinical evidence is going to be so important, to be able to show people the data that demonstrates a clinical effect. But I do think it's exciting because it just opens this whole new way of treating patients that was really not an option 10 years ago and the new molecules coming out, there are not as many of them as there were 20 years ago. So, it's super exciting.

**Ed Saltzman:**

Yeah, that's great. Thank you, Jodi. Voytech, listening to what Jodi's saying and listening to what Eddie said and Nadav, I know you can give a wide spectrum of all the innovation that you see that's going on. Let me put my payer hat on. Is this making me excited or is it making me nervous? Why am I excited? What's exciting me? Let's be cold about the payers. I mean, I'm concerned about my budget impact. It sounds good, this sounds very promising. But now, we're going to get a whole industry. If we get a whole industry, does that start to make me nervous? What do I think about my P&T review, and how do we adapt to those approaches? One of the things that fascinates me, I want to know if PBMs are going to be operating in the world of digital therapeutics. What do you think, Voytech?

**Voytech Sudol**:

That's probably a 12-hour answer, but the quick answer is, our organization has done a massive amount of research. When I say massive, it's a longitudinal study, over 160 payers right now on a very granular level for all of those assets. Let's take them one by one and try to answer them quickly. So, P&T committees. There is much less variability than it was 12 months ago. 12 months ago, everybody had a different answer. Right now, the processes are solidifying and defining answers. A lot of it, and without going into the details, we are finding that pilots are working because it is product dependent.

To an earlier point about the business models, it's also about is the sales force able to support them. So, there's a level of integration into the IT systems that you have to do with some of these products that play a role. That's another concern that you must jump over. Every payer type has a different approach also. If I'm a regional payer, am I looking at a large population? Not really. I'm solving different problems. However, and I'll say this generally when we look at the urgency of which therapeutic areas you want to cover, and how quickly you want to cover, there seems to be a trend in some therapeutic areas. So, cardio, and metabolic sort of settled down. Payers have a way of evaluating them. They know what they're looking for, they know how to solve them, and they are slowly progressing into the others.

They've dipped their toes in oncology, and they've dipped their toes in other areas where they are already dropping products. That alone shows you that the market is verifying what's working, and what's not working. To Eddie's point, CNS is one of those areas where it's broad enough, it's safe enough, and there's been enough tailwind to sort of help the situation. I think **with the COVID-19 telehealth, also a lot of the government programs around opioid abuse, mental health, and therapy, it's been a good proving ground and I think that's helping the payers. But in the end, I'm going to wrap up with this, it's all about engagement. Are patients using this?**

**Ed Saltzman:**

Voytech, do I need to have a separate formulary for digital therapeutics if I'm a payer? Or do I put them right through the current formulary management process? Do I drive them? Do I drive the manufacturers to pay rebates? Do I go to Eddie and his sales team and sa: "Sure, you can get onto tier two here, but you're going to have to pay a very..."? Do they fall outside this right now, or are they going to come in, or how's that all going to work?

**Voytech Sudol**:

It's an interesting question because again, I want to say it is product dependent. If I was a payer talking to Eddie, my answer would be, "Let's make this simple." I think it'll create a win-win for everyone. It works like a prescription drug. It doesn't require any crazy integration, so let's just put it on the pharmacy benefit and move on. If it's a diagnostic that's part of a larger medical disease, that probably warrants a medical review.

Creating digital formularies is just my opinion, I don't think they're necessary. **You can simply say it's either a part of a medical treatment or it's a prescription that treats a disease. So, the whole over-complication seems to be somewhat unnecessary, and I think we're going to see a lot of resolution around this.** The biggest problem was that 12 months ago when we did the survey, very few of the payers admitted to understanding the FDA regulation and understanding the differentiation between Software as Medical Devices or digital therapeutics. Right now, that differentiation is there. They understand how FDA approves these products,

and they have pilot programs in place, pilot to coverage programs, where you can tap into and say, "Let's try it together."

**Alexander Fleming:**

I hate to jump in here. The time has just zoomed right past. We've got just a whole boatload of great questions. I think we need to get to them, but just want the panel in a few seconds **to address the myth that in terms of time, money, and risk, development of a digital therapeutic is just a fraction of what it takes to develop a conventional drug.** Maybe quickly, Jodi and Eddie could address that point.

**Jodi Scott:**

Should I start generally, Eddie? Then maybe you can say a couple things more specifically. I think the beautiful thing about medical devices is because the products are the result of targeted engineering. You don't have, like in the pharmaceutical space, this eureka moment where you find a molecule that has therapeutic effect and then you figure out how to make that work. Whereas in the medical device space, we have a target, and we engineer to that target. So, that means you have the ability to develop faster and a methodical development.

But that process for the development does take years, maybe not 20 years, but it does take years. They are, at the same time, developing the data. It's a different type of data that they're developing. They're running in silico studies, animal studies, user studies, different type of data than you are in the pharmaceutical space. But they are making the investment in that data, and they are running clinical studies which are hugely expensive and large clinical studies. Maybe not thousands of patients, but large controlled clinical studies. **So, it is perhaps shorter and perhaps somewhat less expensive, but I wouldn't say that it's quick and dirty by any stretch of the imagination.**

**Eddie Martucci:**

I agree. I don't have much to add. I think you're right. It can be quicker, it's much more efficient. The cool thing as a company is you get to explore maybe a few different angles, where with a pharmaceutical you must go all in on one disease area and do this long step by step process. So, it still takes work. **It took us less than a pharmaceutical, but it still took us five years of an ADHD program and tens of millions of dollars to get to a point where you have a validated therapeutic.** So, I agree with everything Jodi said. It's cheaper and less, but it's not like any random company can spin up with a few bucks and do it.

**Ed Saltzman:**

Great. Okay.

**Alexander Fleming:**

All right. Well, Thomas and Ed, why don't you go to the floor for questions.

**Ed Saltzman:**

Yeah. I just sent a note over to Thomas, and we do have a ton of questions. Some of them are directed at specific panelists and some are broader. Thomas, I know you've been actively monitoring them.

**Thomas Seoh:**

It's been a very robust discussion in the chat, with a fair amount of commentary back and forth by folks as well. So, I've kind of captured open questions. Shmuel asked earlier on how to improve accessibility for the poor and the low socioeconomic groups. Health equity and access obviously are a critical part of the current discussion about healthcare. How does DTx fit into that?

**Voytech Sudol**:

I can certainly help with that one. We've done extensive analysis of health equity in the US, and the low and short is that there'll never be enough doctors of a certain cultural background that will serve every patient. I think **that's where digital therapeutics stands out above and beyond any pill. Because for any pill or tablet to work, you must go to the doctor, and you must have a conversation. A lot of people are simply unable to get help.**

There have been numerous studies showing that diversity plays a huge role in medicine. For example, Walmart had several clinics opened for their own employees, hired a bunch of doctors, and put a lot of money into the problem. It turns out that people wanted to see doctors that looked like them, talk like them, and have cultural experiences just like them. **That's not something that's going to be resolved by either money or tablets. That's where digital therapeutics can really help equalize the field.**

**Nadav Shimoni:**

Maybe I'll jump in for a sec. I agree with Voytech. I will just add that I think it's a question of pricing, how to expand that product to be relevant to more people, and in terms of what the relevant tech is to facilitate that. We can have in mind a couple of numbers, maybe the **most important one is that 25% of Americans don't have access to broadband access, internet, or smartphones. Many of the digital therapeutic products we currently see in the market relies on these two, and these 25% are maybe the most interesting patients or consumers you can reach, because they generally live with a greater distance from sufficient level of care or to large hospitals.** So, how can you make this population, or how can you enable more access for this population? I think that's a very interesting question to ask. How can you make products more versatile and having unit economics to make sense to support these patients? Maybe that is something worth having in mind.

**Voytech Sudol**:

I'll have to jump in here because I am passionate about this specific topic, and I've seen these numbers thrown around a lot. Currently, 98% of people have access to the internet. Do you need broadband to participate in therapy? Very rarely. I think that's number one. Number two, if I'm sitting in, I'll give an example here, in the middle of Montana, it will still be easier for me to get to a public library, use a computer and participate in therapy. Easier and without stigma. It will still be easier than finding a healthcare provider within a two-hour radius where I must use the car, spend money on gas, take time off from work, and so on and so on.

Many numbers are thrown a lot about the usage of broadband, but I think we need to look at the underlying analysis of how they're generated. So, a lot of states, as part of Medicaid, are providing smartphones which are not included in that calculation. That solves another problem and so on and so on. This is a really long conversation, but I think access to digital therapeutics would be exponentially higher than what it is right now.

**Nadav Shimoni:**

That's the promise. Yeah.

**Thomas Seoh:**

Short answer to the question is that digital therapeutics is part of the answer. Can we improve accessibility within digital therapeutics? Undoubtedly. But compared to the alternative, it has a huge promise. Bon asks, "How does the FDA regulatory pathway compare to Germany or other countries for digital therapeutics?"

**Eddie Martucci:**

Very different in Germany. The DiGa program in Germany flips a lot of this on its head. You do have to have clinical evidence, but it's essentially allowing marketing and even whatever price point you initially select to be paid for by the government before even having a super in-depth review of is this working in patients. I think it's a great idea. I mean, all these companies do have to have clinical data that they've demonstrated is safe and effective. So, it's really innovating. It's a little bit less innovating on the regulatory side and a little bit more on that bridge between regulatory and patient access. I think it's strong.

What I will say is the FDA process has been more rigorous in terms of, especially through the de novos. We mentioned that distinction earlier. De novo processes of the FDA have had the highest bar compared to other territories. Each territory does its own thing. The one thing I can mention is in Asia, because a lot of people don't know what's happening in Asia right now, that is mirroring the FDA lot. So, PMDA in Japan, CFDA in China is mirroring the FDA process very much. So, I think what you'll have is the US and Asian countries, not all but many of the large medical markets for Asian countries will be reviewing things similarly. Then, you'll have Europe, which has a little bit of a different review system.

**Thomas Seoh:**

Terrific. Zoe asks: "What can we learn from the experience of Pear?" And e.g., from Better Therapeutics laying off people?" Obviously, these are general currents, but what does our panel say about that?

**Eddie Martucci:**

I feel like I should take this one too. It would be weird for me not to. Achillion and Pear were kind of the two early horses in this industry that now has many, many companies. What we've seen with Pear Therapeutics recently, saying they're looking for strategic options, acquisitions are otherwise on their assets. I think this is a more macroeconomic factor. Yes, it has to do with the uptake in insurance isn't as fast as they had wanted, but the product is getting uptake. The product is doing substantial revenues over their products. I think what you're seeing, and this is what I meant earlier about this industry is going to have to get more creative, because companies, even the leading companies in this industry, are nascent. We're not pharmaceutical companies. We're very susceptible to macroeconomic factors.

What's happening right now is if you don't have enough capital to last through what most people think is going to be a long recession, then financing options, even as a public company, is very, very difficult. Pear kind of hit, in my view, they've done a great job bringing their products out, but what's different is they haven't yet figured out the scalable model. What they're seeing is they're able to get these big state contracts, they're able to get big bulk purchase contracts at the state level here in the US, but what investors are looking for is two things, which is a scalable, repeatable, year-over-year growth model, and they're looking for companies to establish that when they have more than six months of capital.

I think, unfortunately, the position that Pear Therapeutics is in the learning is the model, the year-over-year growth model or confidence in that growth model that can trend toward profitability was not established quick enough. Even though revenues grew, that model wasn't established quick enough. When you have less than six months of capital, it's a tough position to be in this economic climate.

**Ed Saltzman:**

Eddie, I just to throw in and to everybody, that's one of the reasons I asked earlier in the conversation about the business models, and about how we need to think deeply about the business models. I'm sure, Nadav, when you are looking at financing a company or investing in a company, that's got to be kind of front and center to you. So, the business model question is probably not going to go away. I think the issue is there's going to be a fair amount of learning from experience we're going to see, and inevitably with any field, there's some learning in the job. Let me go back to you, Thomas, and questions you have left over.

**Thomas Seoh:**

Sure. Julie asks: "Can the panelists discuss the impact of the 2022 FDA Guidance on “Enhancing the Diversity of Clinical Trials:  Enrollment Practices and Trial Design in Digital Therapeutics?"

**Ed Saltzman:**

Anyone take that?

**Eddie Martucci:**

I'll try to answer it very quickly. **The reason I think digital therapeutics have a potential to make a big impact here, even in clinical trials, from a diversity of recruitment perspective, is that they don't suffer what has happened in the pharmaceutical world, which is aversion to medication, which tends to be skewed and disparate depending on the socioeconomic and racial group that you're talking to.** So, it's well documented across mental health that different mental health conditions have dramatically different approachability to medicine care, meaning pill-based medicine. I can speak from personal experience; we don't see that in our digital therapeutic trials. **We see extremely fast recruitment, and we see a broad base of recruitment across demographics that typically are more averse to pharmaceutical. I do think that's one angle that could potentially have a huge impact in clinical trials.**

**Jodi Scott:**

I think I'll just add that the linkage between access to these technologies is a little bit easier than with drugs and traditional medical devices. That will help. I mean, diversity in clinical trials has not been great, just because generally those populations tend to be a more affluent, middle class, predominantly white population who has access to these clinical trials. Hopefully, **just by the nature of the technology, we will get a better cross section of what the US looks like within those studies, which will make those studies and the data more robust.**

**Nadav Shimoni:**

Maybe one additional observation. I do think that a couple of digital therapeutic companies have, in a way, segmented themselves or pivoting into more like being patient engagement plays. You look at Sidekick, and patient engagement is a huge issue of course. But perhaps with these gamifications of engagement, you will have more people who are alluded to that approach and perhaps a more diverse group participating. So, that's very interesting to watch.

**Thomas Seoh:**

So DTx is also part of the solution in recruitment. Peter asks: "Can the panelists comment on the general patent strategy for DTx?"

**Ed Saltzman:**

I don't think we have a patent attorney on the panel.

**Nadav Shimoni:**

Maybe I'll take that because we try to examine that in terms of our diligence process. I think **overall with software, patents are much more challenging as opposed to medical devices.** There is always the question of: "Do you want to expose your secret sauce?" “Is it really something you can protect going forward?" I think there is no silver bullets here. In some cases,

there would be opportunities to patent certain things, but you will always need to balance that with the risk of exposing your code and special approach. I'm very curious to hear Eddie's thoughts on that, but that's at least the way we think about that.

**Eddie Martucci:**

Yeah. We've been able to use patents to good use here. **You do have to expose a little bit of what you do, but the good news is with the changes about four or five years ago to the algorithm patent process, you don't have to expose every little bit of math equation**, which is helpful. We have granted patents that are foundational patents for our technology. We've been able to use that proactively, offensively, and defensively actually in the market, which is great. I think the beauty of digital treatment is you can also tap into alternative or the supplemental IP, like trademarks, copyrights, design patents. We do all the above, and it seems to be a good total protective package.

**Thomas Seoh:**

That's great. Bon asks about the topic of patient reported outcomes. He's attended a conference recently on this - do we see stakeholders adopting it as performance metrics? Are there any specific issues? The FDA seems to be a fan of patient reported outcomes, but they can be confounded, e.g., by a geriatric population, and what sort of questions they'll answer and so forth. Any specific topics or observations in DTx?

**Jodi Scott:**

I think **DTx is an area where FDA is really interested in real world outcomes and patient reported outcomes.** I think the beauty of it is when you're talking about digital applications is you can use the application to automatically gather that the data you need and not wholly rely on your patients picking up, logging things, providing information, and the applications can make it easier for them. But I think **one of the other beautiful things about digital therapeutics is just the amount of data you have from a manufacturer's perspective that you can use to understand how well your applications are being used out there and use it to innovate.** Whereas traditional products, you must go out and seek that information. Whereas I think if you design them right, you have all of that data served right up for you.

**Voytech Sudol**:

I think this is an interesting area, the whole area of gathering data, because pharma's been gathering data for a very long time and has been able to process very little. Payers are interested in data, but they have very limited resources to process and gain insights from the data. There's a lot of talk about gathering data, and obviously, digital therapeutics is the perfect vehicle. In some cases, we got this data on social determinants of health that you would never ever be able to find out through even chart reviews or anything else. The question becomes: "Will the DTx companies really be able to serve that data to their stakeholder, to payers, to hospitals, and to patients, and so on and so on? Because processing this amount of data

requires time and software. We must appreciate how difficult it is. I think most people right now are just asking the wrong question. How do we get the data?

**Jodi Scott:**

**Jodi Scott:**

I have confidence they're software companies.

**Thomas Seoh:**

But Jodi, you were making a point that's quite relevant to a distinction of DTx to molecular pharmacology approaches, which is that patient feedback is very amenable to rapidly improving the product. Of course, the FDA is usually more used to the model of a next version coming back to them to start from zero, if you will, for the review process. I think the FDA, just this week, set out the draft guidance for predetermined change controls. Any comment on the character and the degree to which DTx could help exploit the features, the peculiar aspects of DTx, to improve care in a way that maybe pharmacology hasn't done or can't do?

**Jodi Scott:**

Yeah. I do think that the nature of devices is that they iterate quickly. I think the number that used to be thrown around just for traditional devices is 18 months. You're coming out with a new version. When you talk about software companies, the software is medical device and then also digital therapeutics. They iterate very quickly because most of these are going through as de novos. They do have some ability to tweak products without having to go back to the agency. You can't make major changes, but you can make tweaks to them. For many of them, they're going back with a new 510(k). They're not going back with a new PMA or a new de novo. It does have an easier path for the changes in modifications within some limitations. But I think **just the access to all that data, and to have it served up and available to you as a manufacturer just sort of opens the door to be able to make the products better, get better efficacy, make it more user friendly, create a better patient experience.**

**Ed Saltzman:**

Thomas, I think we're almost up against the hour. There are the many, many more questions than we could get to, which is terrific. Not terrific if you've asked a question and we haven't gotten to it, but a terrific indicator of the interest and the engagement of this audience. So, thank you to all very, very much. We don't really have enough time to go through a wrap up for everybody, but I wanted to say about the questions themselves. If they're directed to a specific panelist or maybe to the broader panel, perhaps the connection team can get them distributed over to the panelist.

I just want to, in closing, just say thank you, thank you to everybody, to the connection team for pulling together this fascinating discussion. We are, I think, I don't want to be pompous and say breaking new ground, but for me, this is breaking new ground. I'll finish where I started. I'm a

multi-decade long strategist in pharma and biotech, and it would be very easy for me to dismiss digital therapeutics. I initially did want to dismiss digital therapeutics, but I've learned a ton. The panelists' engagement was just terrific. So, I wanted to just thank everybody for representing such a diversity of perspectives, doing it so well. Moving forward, what is, at the end of the day, the most important thing, a field that's going to bring benefits to patients.

With that, I'll give it back to Zan and we'll close out.

**Alexander Fleming:**

Well said Ed, and likewise, terrific, wonderful contributions from all our panelists. I know I speak for everybody who tuned in, and for those who'll be watching later, that this was just an invaluable discussion. We look forward to engaging with the audience as we provide our post-meeting minutes and our notes and answers to these questions. So again, Ed and panel, thank you so much. Hope everybody has a great weekend.

**Thomas Seoh:**

Well, we sort of emulate a physical conference, as speakers get off the dais, we're going to keep the room open for a few minutes if people want to mill around and get some more questions in or what have you. But also, a reminder that a link to the recording will be going out to all the registrants within a couple of business days. We do intend to follow with a transcript. So, with that, I would close the formal session. Thank everyone. Wish everyone a good day and a great weekend.

**Ed Saltzman:**

Unfortunately, I do have to go. But thank you very much all.

**Nadav Shimoni:**

Same here. Bye.

**Thomas Seoh:**

Thank you, Jodi, thank you, Voytech, for staying a little after the panel. That was fabulous.

**Jodi Scott:**

Thank you for putting it together.

**Alexander Fleming:**

Jodi, it was really your article in the Hogan Lovells newsletter that got us onto to this topic. So, thank you for initiating it.

**Jodi Scott:**

Of course.

**Alexander Fleming:**

Then to Voytech, who joined his colleague Ed, and provided very important contributions to the subject.

**Voytech Sudol**:

I appreciate this because I have a question for Jodi. So, I'm doing a lot of research right now. I'm writing a paper on the implications of marketing authorization on digital therapeutics and I'm trying to understand the point at which: so, in pharmaceuticals, the marketing authorization is very clear. You have so many years you have to recoup the investment, and everything goes from there. What does that look like in medical devices and at what point, the original product, becomes what we would consider in pharmaceuticals a new indication? Does it have to be a new indication or is there a substantive change in code that then triggers an extension or is just so many patent-related and sort of commercialization-related questions around this that still haven't been discussed. I'd love to get your perspective.

**Jodi Scott:**

I mean for the digital therapeutics that go through FDA, it's clear when they've got a new indication because you can take a look at their, FDA publishes their indications and so it's really just a matter of lining the one up against the other one and trying to see if they overlap. The one thing about the de novos, and going back with changes to a product, so you can go back with technology changes, but when you come up with the new intended use, you need to go back through the de novo process. When you've crossed over is a little murky. So, if you go from mood to depression, that's probably a change, but maybe not, depending on how you gather the data and how you plan to promote the product. But the easiest part is just laying the approvals next to each other and seeing how closely they match.

**Voytech Sudol**:

Interesting. I just don't see it as easy. I've seen a lot of indications and I also, know you guys focus a lot on the conversation around the de novo process, but I've seen a lot of companies with a very substantial amount of evidence through clinical trials that simply it just doesn't make sense for them to go through de novo because there's no reason for it. There's already an Akili or Pear on the market.

**Jodi Scott:**

But the risk they run is that the FDA believes that they are a regulated medical device and they're out there marketing without the appropriate approvals. I think as we get past the pandemic, so FDA is starting to pull back a lot of those COVID-19 enforcement policies. As that happens, and a lot of those companies who launched during that period but didn't go ahead and then get the marketing authorization, they're supposed to go and remove those products from the market. They should be done. I think once that sort of sorts out who is left, I do expect

FDA to start asking some questions to those companies about where's your marketing authorization, what are you doing? If you don't have a plan or you haven't already submitted, to start pressuring those companies to get off the market. So probably in the next year, we'll start to see things settle down where you can see who's either got or is pursuing an approval through FDA and who's just out there with hope is their strategy.

**Voytech Sudol**:

I think the bigger question is when you go for a clearance, right? Because there is already a predicate on the market and the perception of payers or people in general. Most people do not understand the differences between approval, granted, and clearance, right?

**Jodi Scott:**

Right.

**Voytech Sudol**:

How these things work. You can have a substantial amount of evidence and that label cleared may be taken a little bit differently, right?

**Jodi Scott:**

True. I understood how that all plays out. I mean that they don't really understand as well what happens on the device side as they do it on the drug side.

**Thomas Seoh:**

I have a question, but I invite folks, Mustafa, Alex, Michael, Jonca, Gordon, anybody who wants to reveal themselves, please join the cocktail party reception. But I'm interested in the extent to which digital therapeutics can be active in the range of indications that are available now for pharmacology. So, we talked about stuff that's more psychiatric or mood or depression and so forth. We can certainly have visualization that helps improve stroke recovery, so you have physiological recovery. But I don't know what sort of DTx you could expect for cancer treatment or other, bone density.

**Jodi Scott:**

I will tell you that I am prepared to be surprised and pleased. I think there's opportunity in any therapeutic space and it's really left to the imagination of companies to explore that and develop the technology. I think where we are now is just the start.

**Voytech Sudol**:

There is supportive care, and palliative care. Although we are seeing now with mental health, has an impact on cardiovascular diseases and things like that, there are actual changes in the body, right? So, utilizing the patient techniques and things that we haven't been exposed to

before as medicine in general. We always assume that there's got to be a chemical that changes the body.

**Jodi Scott:**

I mean we all know in cancer, you all hear the stories of the two patients where the one was like: "Well I guess I'm done" and the other one who's like,:"I'm fighting this to the end," and there's a difference in their outcomes. That seems to suggest that there's opportunity there.

**Jonca Bull:**

Jodi I would add, you've added a factor of patient motivation into that. As we look at measures, you think about the six-minute walk. I was with someone last week who probably is going to have a diagnosis of an atypical Parkinson's disease, but she looked at her Apple Watch and she was calibrating herself as to: "Look what it says that I need to move more." I'm expecting that there are going to be some other areas where functional measures have been important, in my space, in ophthalmology. Thinking about the gene therapy approval for Luxturna a few years ago that used a maze that can't be replicated in real life. But are there measures that can credibly and reliably provide data both in the pre-market as well as potentially impacting post-market surveillance and some novel ways of developing post-marketing studies?

**Jodi Scott:**

I mean it's just the power of the data is amazing. I do think what I love to see is there are organizations that have huge data sets where they are combining through those data using AI to try to identify where is the therapeutic opportunity. When you start to have huge data sets and lots of data points on patients, can you analyze that data and find the opportunities and start to bundle patients together and think about what is it about this patient population that they had a better therapeutic effect, and can we drive that as opposed to just observe that?

**Voytech Sudol**:

I can tell you that as someone who in the past introduced hereditary cancer testing protocols in large organizations, payers love it when you come in and say we want to identify more problems. So, this is going to open a whole can of worms. The problem that I'm sort of struggling with right now is that we, as a society, see clinical trials as the gold standard for evidence generation and what we should or what medicine we should be using. It's been done for so many years, but digital therapeutics have a unique ability to help individual patients in a big way where some patients don't get help at all. Now the question becomes, we're able to connect data, we're able to collect and process the data on a very individual level, but how do we change the laws and change the FDA's thinking about what should be approved and what shouldn't be approved? I think that's going to be a big job for you Jodi.

**Jodi Scott:**

Well, I mean will say FDA has been doing a ton of work and actually a very good job in trying to evolve with the industry and be responsive. They're learning as fast as they can. They're trying

to build the infrastructure to be able to be responsive, but they are inherently going to be behind the technology. That is just the way it is. We have seen evolution in the things that they are interested in and the types of questions that they ask over time, since Pear and Akili went through FDA. So, we have seen that FDA gets smarter and asks better questions, which sometimes means they're tougher questions, but they are getting better than they were and they're trying to look at innovative ways to help bring these products to market that doesn't sort of force everyone to do the exact same thing.

**Thomas Seoh:**

I see Gordon Cutler has a question, or a point.

**Gordon Cutler:**

I'm just curious, there are apps that I see described for cognitive behavioral therapy for example, that also are carried out by practitioners and so there should be maybe some estimate of the relative size and I'm just curious what the market penetration is either for this app or any others. How many people are getting CBT digitally as it compared to getting CBT in a psychologist's office?

**Voytech Sudol**:

So, I think I can take this one. Our analysis shows that vast, and when I say vast, 80% of all apps are based on CBT or they have a component of CBT. So, they might have a proprietary treatment pattern or mechanism of action and then CBT attached to it. So, not sure if that answers your question, but that's a vast majority of what you're seeing in the market right now.

**Thomas Seoh:**

Gordon, were you asking about market penetration?

**Gordon Cutler:**

Well yeah, that's what I wondered. I'm just curious. I could imagine that there are many more people getting CBT by digitally than there are in offices because of reimbursement or other things, or I could imagine that it's still that the uptake isn't that great yet. So, I'm wondering whether, for example, for CBT are the digital apps making this available to vastly more people now or is it just in the early stages?

**Jodi Scott:**

I would say from a CBT standpoint, this is one of the areas, they are more accessible to patients, and I think this is where FDA's policy on releasing some of these technologies under enforcement policies increased access to people to be able to use them at home. In a lot of mental health situations, there simply aren't enough doctors and therapists out there to be able to serve the population. So, to be able to provide care to patients at home, even if it is in

sometimes a stop gap measure, that's beneficial overall. But in terms of numbers, I don't know, Voytech, do you have a better sense of metrics in numbers?

**Voytech Sudol**:

So, what I would say in terms of apps, not regulated apps, there could be millions, that they use some version of CBT. From the prescription digital therapeutics there are right now two apps somewhat reimbursed and even the ones, or the manufacturers are coming to market right now are pulling back and they're hesitating and waiting for different coding and different reimbursement because currently CBT is reimbursed under a generic J code for, I think $200. So, no one wants to enter the market and kind of deal with payers at that level. So, on a prescription digital therapeutic, very few people, for wellness apps, it could potentially be millions.

**Gordon Cutler:**

Thank you.

**Thomas Seoh:**

Bon, you had your hand up next?

**Bon Sy:**

Yeah, I just want to first give a big shout-out to Thomas and Zan for organizing this, as well as a big thanks to Jodi, for all the wisdom and experience that you guys share. Ed, he left already, if you can relay this message to him, and that would be great. Before I start, I just want to ask Thomas and Zan, would it be possible to ask the panelists whether they are open, if any audience, including me, may want to have a follow-up conversation with them and if so, how to contact them?

**Thomas Seoh:**

Sure, we'll pass that message through, and I suspect many, if not most, folks are open to that sort of thing.

**Bon Sy:**

Thank you so much. So, now let me just get to the two thoughts I want to share. In my earlier question when I asked about the parallelism between the DTx here in this country and elsewhere in other countries, we certainly do not have five-year runway or tens of millions of dollars. In the fundraising cycle, I think you pretty much would need to generate enough evidence to get to the round of 10 million just to go through that process if that's the price tag. If you need to demonstrate clinical efficacy for the DTx, will it be more cost-efficient or less expensive if this could have been done outside the US and to have that without having to accepted by FDA here or vice versa.

That really was the driving point of my question between for example, the DiGA program in Germany and the US DTx development. If nothing else, at least what the Germany government is trying to do is to say that if you can make it through to the temporary listing, you can start generating revenue to sustain the further pilot study to get to the final phase about that. That really was the background above my question. So, I guess the crust of my question really is if most startups may have less than five years run with less than 10 million dollars, to be creative to go through that process, would that be something viable then from a legal perspective, is a question on whether FDA will assess the study outside the country or not? A related question is if the idea is to go through consumerism, that patients pay by themselves.

**Jodi Scott:**

So, let me try to address it quickly. FDA is sort of your gold standard still. In terms of clinical data, they will accept some clinical data conducted outside of the US, but you must be able to demonstrate that the data gathered in a different patient population is applicable to a US population. I think a couple of the challenges you have in being able to demonstrate that if you gather all the data in US, is you've got language issues and you've got standard of care issues that you must be able to demonstrate our applicable to US population. Particularly with digital therapeutics because you've got that user interface and you've got to do all the usability studies. So, that's going to be difficult. It may well help you to do less patients in the US, but I suspect, I don't even know what your application is, but I suspect you're going to have to do some patients in the US.

With respect, and this is probably more in Voytech's area, with respect to just going to patient paying, the difficulty with that is if once you set your cost at say $200, that's your cost and you're going to be stuck there probably forever. It's very hard to then say: "Well now we're going, we want to get reimbursed, and we think it's going to, we want to start at a level of a thousand dollars." They quickly know that you started at $200 for cash pay and why should they have to pay more? So, you'd have to be able to make the case for why that Delta makes sense. Voytech, the rest of it's probably better in your space though.

**Voytech Sudol**:

It's a bad idea to go directly to patients. If you ever think about having reimbursements for a payer, for several reasons, we can have a separate conversation, but I would not advise. What I can provide when someone, there's this prevailing thinking that we must do what pharma did. So, we must run these expensive clinical trials to prove the efficacy and everything that surrounds it. I always say: "Look, do we really have to"? Because right now if you look at the payers, payers are saying: "We're open to running pilots," Of all kinds of types.

There are payers that will meet up with you and say: "What do you have? What are you trying to do? Let's design something together, try it out and if it works, we'll actually give you reimbursement on it." That's not unnecessary on already approved products. Because there are

ideas that have, institutions that are looking into research and they're willing to partner, right? It's just a matter of really breaking down the market, understanding who is doing the research, who's willing to partner, and to what extent. The spectrum is extremely wide in this space, unlike pharmaceuticals.

**Jodi Scott:**

I should also say that if you want to go direct to patients, you're going to have to also get an OTC approval, which right now most of the ones that go through FDA, they're not getting over the counter because it requires an extra showing. Everything defaults to prescription and if you want over the counter, you must provide additional data that patients can successfully use the product safely.

**Bon Sy:**

Yeah, we are not thinking about OTC and the reimbursement seems still to be as of now probably the most viable one. I think the lessons that we learned in our research about the DiGA program is that is not in very good shape. I think they have a good system, good concept, and the challenge is somewhat like the CPT reimbursement back in this country about the RPM, the remote patient monitoring. Which is that the reimbursement itself is not sufficient incentive to get the physicians to buy in to write the prescription and anything that is DTx label, you need prescription. If you do not have a physician on board, you kind of don't have that market access channel to the patients at that point. I think those are some of the challenges and it's expected that might be something similar in the US. But I would love to talk to Voytech more after this call just to get more insights about that. With Jodi too, on the regulatory compliance aspect of that.

**Thomas Seoh:**

Super, everyone. I think maybe we should release people to the rest of their Friday afternoons. We may have to close the room. What do you think?

**Alexander Fleming:**

Yeah. Well thank you again, Jodi and Voytech for hanging on. Great to hear from Bon and we'll try to come back with some additional discussion. Thanks to our old and new friends. Hope to see you soon.

**Thomas Seoh:**

Thanks. Have a great weekend everyone. Bye-Bye.