

LIFE SCIENCES SNAPSHOT

A Quarterly Report on Financing Trends

**VENTURE FUNDING AND TECH TRENDS
IN MENTAL HEALTH
Q1 2023**


orrick

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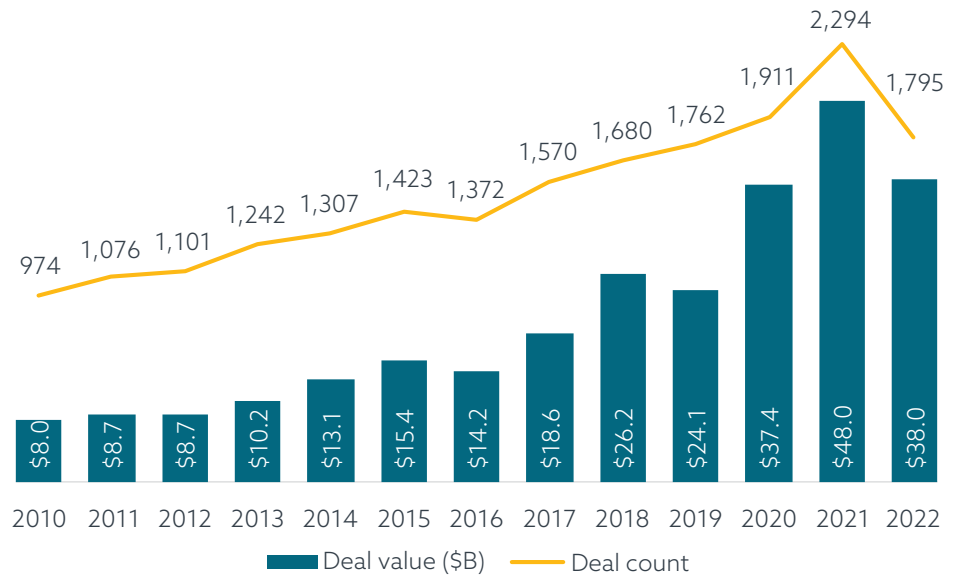
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Key Takeaways

This report series examines quarterly trends in life sciences venture investment. Key findings for Q4 2022 include:

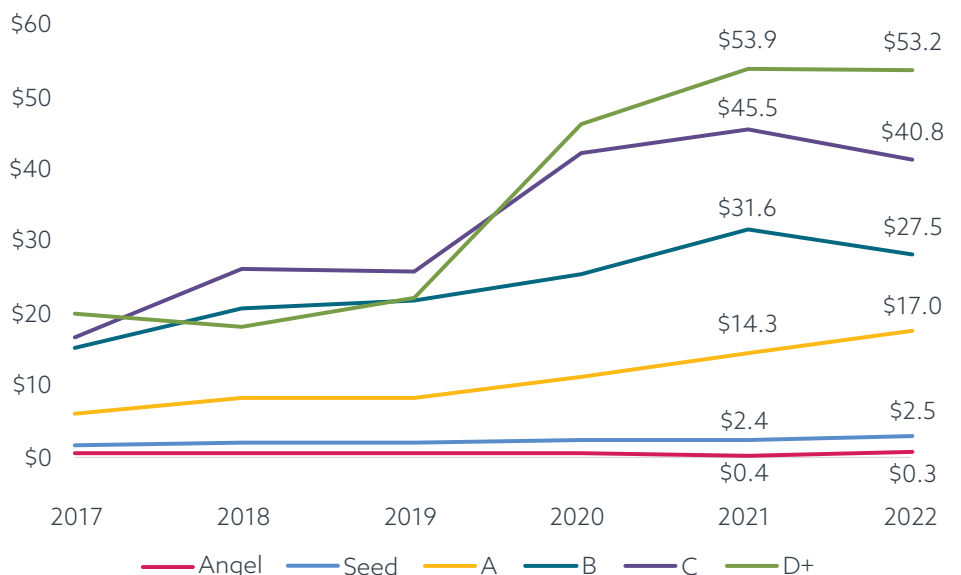
- Deal value reached \$7.1 billion in Q4 across 392 deals, bringing the 2022 annual total to \$38.0 billion across 1,795 deals. Aggregate value dropped between Q2 and Q3 and plateaued between Q3 and Q4 amidst prolonged global volatility.
- Median deal sizes declined for all company stages except seed and Series A, which saw modest growth. Early-stage deals accounted for 53.7% of total deal value in 2022, up from 49.0% in 2021.
- Late-stage companies experienced a modest decline in median pre-money valuations, while early-stage companies saw material growth.
- Exit activity stagnated in 2022, reaching just \$16.2 billion, marking the worst year for exit value since 2012. Acquisitions accounted for 70.3% of exit count compared to 44.3% in 2021, underscoring the impact of public market volatility.

Life sciences VC deal activity



Source: PitchBook | Geography: US

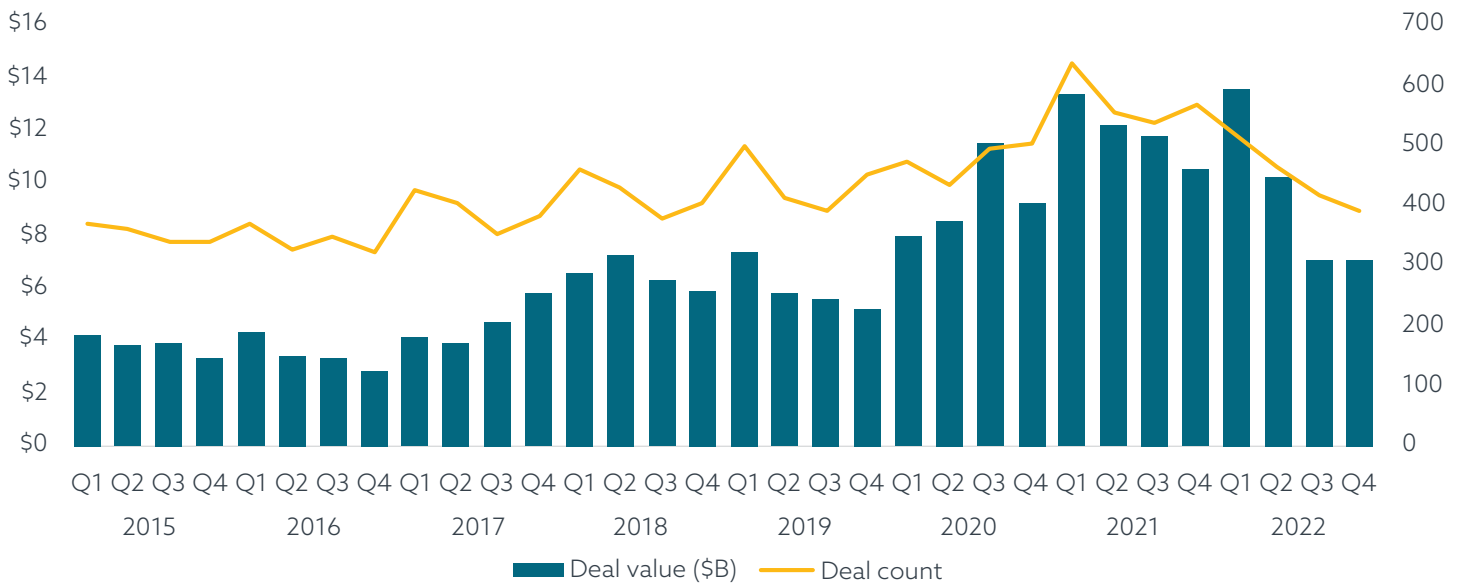
Median life sciences VC deal value (\$M) by series



Source: PitchBook | Geography: US

Market Analysis

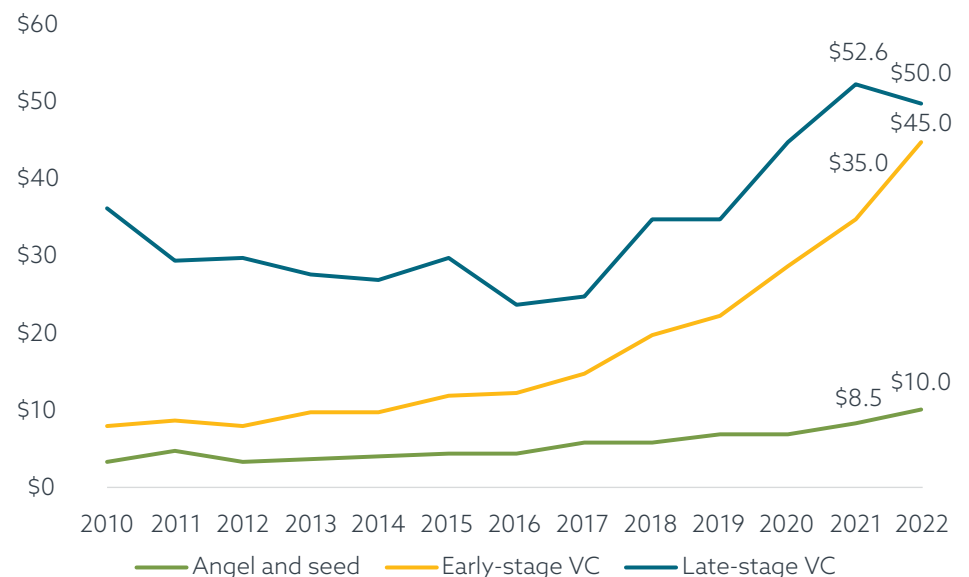
Life sciences VC deal activity by quarter



Source: PitchBook | Geography: US

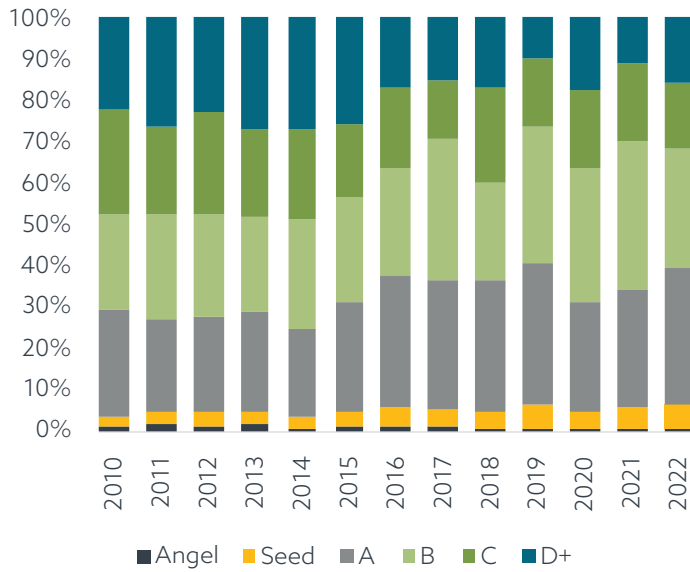
Life sciences venture deal activity plateaued between Q3 and Q4, a relatively positive result given the volatility throughout 2022. Investors faced a mix of macroeconomic obstacles, which shocked the market beginning in Q1 and dealt additional blows throughout the remainder of the year. The effects were especially pronounced for venture investors as they felt the comedown from a record-breaking year in 2021, and many generalist investors retreated to asset classes perceived as less risky. Peak inflation is now slowing, and firms still have significant capital reserves to deploy, creating opportunities for companies seeking funding. Despite a downturn in 2022, life sciences investment levels and dealmaking have remained above levels seen before the COVID-19 pandemic.

Median life sciences pre-money valuations (\$M) by stage



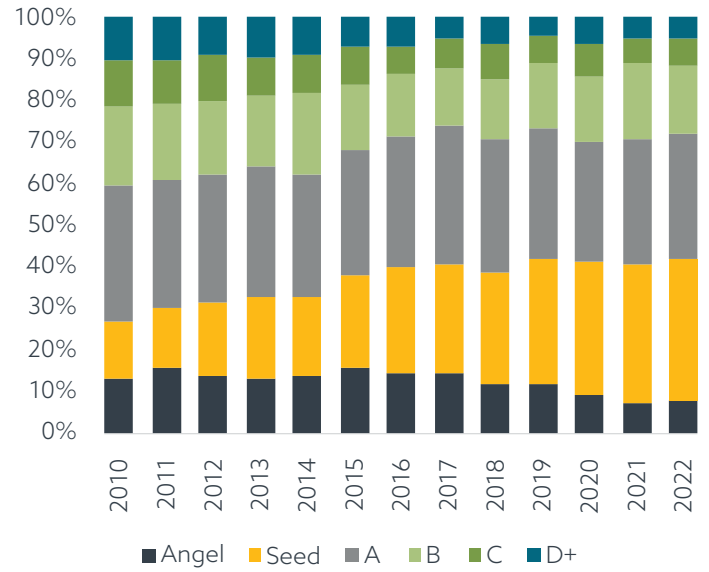
Source: PitchBook | Geography: US

Share of life sciences VC deal value by series



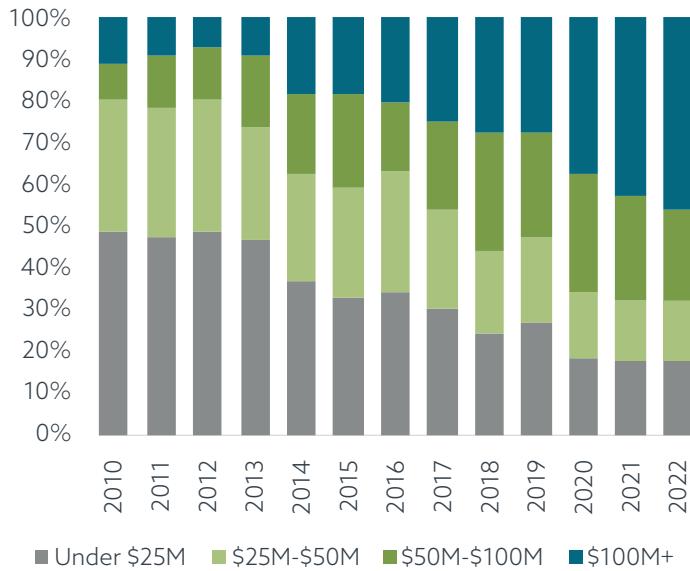
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Share of life sciences VC deal count by series



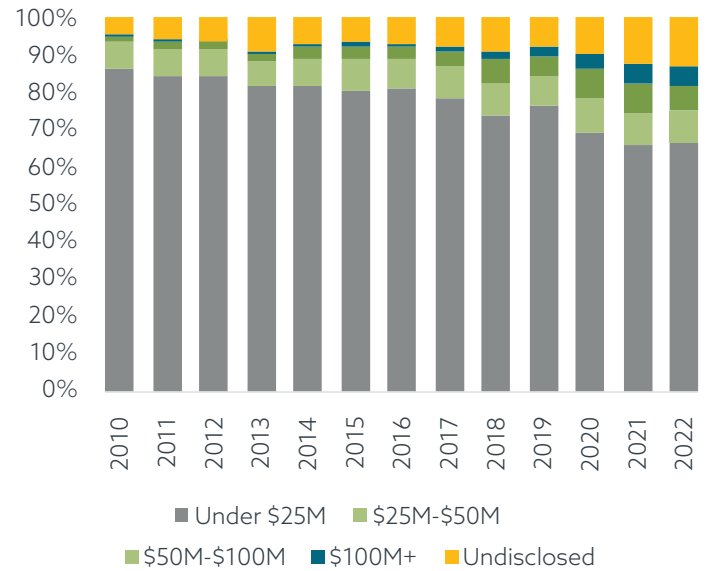
Source: PitchBook | Geography: US

Share of life sciences VC deal value by size bucket



Source: PitchBook | Geography: US

Share of life sciences VC deal count by size bucket



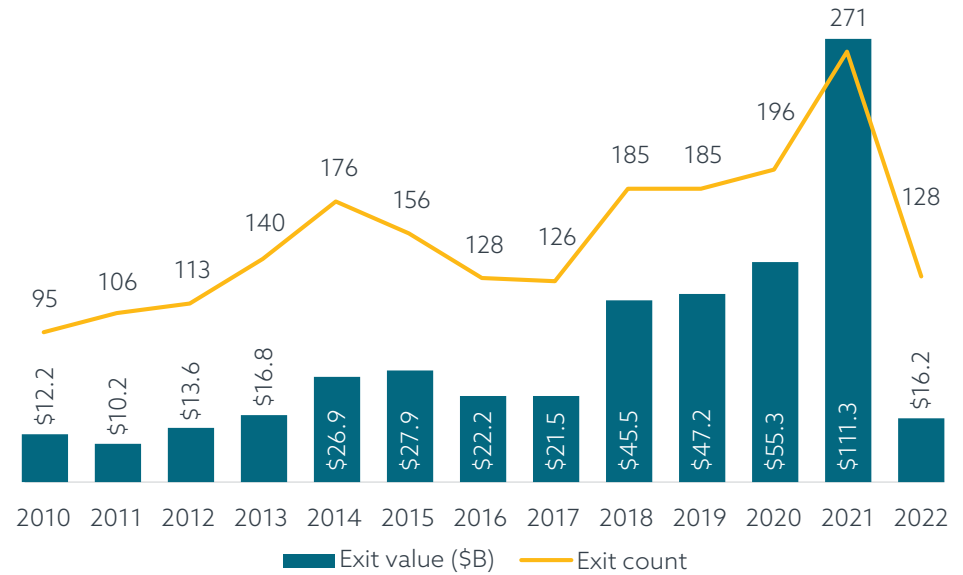
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Market Analysis

Total deal value in 2022 reached \$38.0 billion, the second-highest annual total on record. Total deal count represents a decline of 21.8% from 2021, and a drop of 6.1% from 2020, but remains above pre-pandemic levels. Median deal sizes rose for seed and Series A deals but declined modestly for all other stages. While investment in early-stage companies carries additional risk, it allows firms to put capital to use in companies that will not look to exit in the current difficult market. Median pre-money valuations also continued to climb for newer companies in 2022, growing 17.8% for angel and seed deals and 28.6% for early-stage companies. Late-stage companies experienced a 5.0% decline. Valuations were a major concern as the 2022 downturn emerged, led by declines in public markets. These reverberated through the private markets, resulting in markdowns and budget cuts as companies sought to delay capital raising in the current environment. Early-stage deals accounted for more than half of total deal value in 2022 at 53.7%, up from 49.0% in 2021, and representing their largest share since 2017. Late-stage companies bore the brunt of the market downturn.

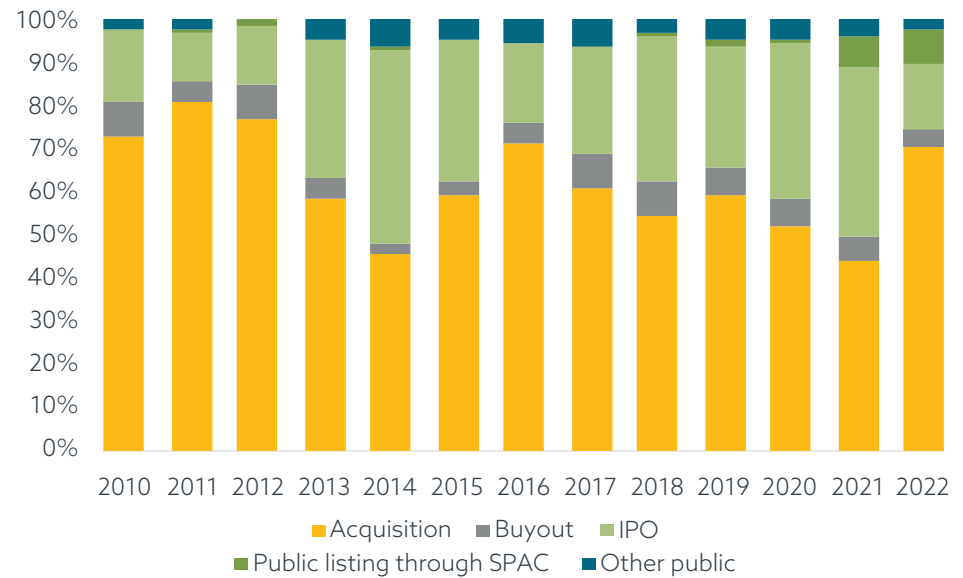
The impacts of broader volatility were far more pronounced in exit activity compared to deal activity. Exit value totaled \$16.2 billion in 2022, representing the slowest year since 2012 and being vastly overshadowed by 2021's total of \$111.3 billion. IPOs and SPAC listings remained compressed, while acquisitions increased in popularity, representing 70.3% of exit count compared to 44.3% in 2021. Increased dealmaking in the early stages will have a lagging effect on exit flow in the coming years.

Life sciences VC exit activity



Source: PitchBook | Geography: US

Share of life sciences VC exit count by type



Source: PitchBook | Geography: US

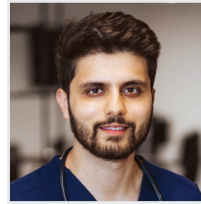
Roundtable

Participants



Rob Cohen
CEO, Bamboo Health

A leader in Real-Time Care Intelligence™, Bamboo Health delivers actionable insights on a patient's physical, behavioral and social health – empowering healthcare professionals to provide the right care at the times it matters most.



Yusuf Sherwani
Co-Founder and CEO, Quit Genius

Developer of a behavioral therapy platform designed to empower people to overcome addictions. The company's platform uses cognitive behavioral therapy (CBT) to directly deal with the psychological part of people's addiction helping them to understand what triggers their addiction and access support which is delivered through animated videos, interactive exercises, and audio sessions, enabling users to overcome addictions at their own place using a personalized coach as help.



Zem Joaquin
Founder and CEO, Near Future

Founder of the Near Future Summit, a visionary event that seeks to scale solutions to the world's most pressing problems, driven by leading founders, investors, inventors, and influencers.



Kelly Roman
Co-Founder and CEO, Fisher Wallace Laboratories

Fisher Wallace produces a wearable neurostimulation device that is cleared by the FDA to treat depression, anxiety, and insomnia, and is currently under review by FDA for pre-market approval to treat Major Depressive Disorder in adults. In clinical trials, the majority of patients experienced rapid relief without experiencing side effects when using the device at home for 20 minutes once or twice a day.



Thora Johnson
Partner and Co-Chair of Life Sciences Group, Orrick



Neel Lilani
Global Head of Tech Clients, Orrick

INTRODUCTION

Millions of people a year are affected by mental illness. According to the National Alliance on Mental Illness, more than 20% of adults experience some form of mental illness. The World Health Organization estimates that 46% of Americans will meet the criteria for a diagnosable mental health condition sometime in their life, and half of those people will develop conditions by the age of 14. We saw venture capital funding for behavioral health startups skyrocket during the pandemic. The crisis exposed the need for these services and people became more willing than ever to meet their providers online. In 2021 alone, about \$7 billion of capital was invested in US-based mental and behavioral health companies. The number may have dipped a little bit in 2022 but it's still an exciting time for the industry. There's also the added layer for the tech and venture ecosystem itself, which is more subject to burnout.

Neel Lilani: Welcome, everyone and thank you for contributing to this deeply important conversation. To kick things off: Has there been a spike in people affected by mental health issues or are people just more willing to speak about them?

Rob Cohen: I think it's both. There's no question that the pandemic has exacerbated the problem. But if there's also more attention on the problem, such as famous athletes coming out and speaking about their mental health issues, people will be more willing to talk about it themselves. Where the venture money goes, the attention goes. All that funding has increased the talk around it within the business and investment community.

Kelly Roman: I'd like to hear what Yusuf has to say about the rise in substance use during the pandemic. I'm sure it's been rapid. And then the social aspects of loneliness and the

pressures of lockdown. That's not just people reporting more. There's an increase in the conditions that cause it.

Yusuf Sherwani: In 2022, we saw substance use reach its all-time high. The CDC, which has started to call it the addiction epidemic, found it hasn't yet peaked, and continues to sort of rise. If you look at some of the stats, more people died from an overdose in San Francisco, for instance, than from COVID itself. I think it was a perfect storm of fear, stress, and isolation that accelerated substance use over the course of the pandemic. It's been a challenge. But the silver lining in all of this is that we're witnessing the biggest shift in care delivery. A shift that solves a lot of the challenges that we face from a behavioral health standpoint: access, quality, and equity. Virtual care has transformed from convenience to requirement. And virtual care has proven stickier in behavioral health conditions than it has in other areas, because it helps to overcome the stigma, the access challenges, and the cost challenges.

Zem Joaquin: There's eco-anxiety as well, but it's now amplified as we spend more and more time online reading about it. Being home and being on a Zoom all day, parents having kids at home adds to parental stress. Kids had no interactions with one another when schools went online. I noticed, even just within my own home, a lot of additional stress.

Neel: Not all headlines in the tech-enabled mental health ecosystem have been positive. Some companies have been accused of sacrificing patient well-being in pursuit of growth. How are you as leaders in this industry balancing patient health with the needs to grow and to develop the kind of metrics that maybe some of your investors are expecting of you?

Kelly: The beautiful thing about wearables and digital behavioral health is that there's not a whole list of side effects. So, I think it starts with: what's the risk profile of the product you're scaling?

Yusuf: Whenever there's a big paradigm shift, particularly with virtual care and telemedicine, there are inevitably going to be some bad actors. But it's not representative of the whole space. There are so many more companies doing incredible work, utilizing a lot of the same technologies, but doing so in a more responsible way. We have this core value, which is a commitment to our mission: to help 100 million people overcome and conquer their substance use disorders. If you start with that value, it becomes the decision-making framework.

Rob: From a pure business context, it boils down to a short vs. long term viewpoint. Taking shortcuts on patient care or on outcomes may help you in the short run but it's going to catch up to you. You're not going to have a sustainable business.

Zem: A lot of the companies that I've worked with in this space have grown slowly, wisely, and methodically. If you're going to prescribe something, you must follow a cautionary principle. What I always recommend to start-ups is, do no harm first.

Neel: The regulatory climate is critically impactful to your businesses - particularly around patient privacy regimes that vary across geographies. Thora Johnson has deep expertise in this arena and can lead this portion of the conversation.

Thora: It's a challenging patchwork scenario. There's HIPAA, which governs health information in the hands of health plans and most providers, and Part 2, which protects

the confidentiality of substance use disorder (SUD) treatment records if the provider receives federal funding.

For health tech companies not subject to HIPAA, you have the FTC principles and its health breach notification law. And if that's not enough, you've got all the state laws that are focused on the confidentiality of the patient-provider relationship. Then we have state consumer privacy laws in five jurisdictions that address health information that's not otherwise regulated.

And then we have a slew of proposed state health privacy laws that are very much focused on consumer and consumer apps. So, I'm interested in how you all are viewing it, especially when you're just starting to scale. How do you keep all those risks and changing laws in mind?

Kelly: There are great law firms to counsel on these complexities. But philosophically, I want to be super transparent with the patient when it comes to data sharing. We've all seen those notifications on our devices that ask us to share our usage to help them improve future products. In our case, I can incentivize sharing data by authentically telling the patient this is for a higher good. If you share this data with us, we may be able to reduce suicide rates.

Rob: We have a lot of lawyers. We invest very heavily in security and in the design and monitoring of our solutions. We've got 95% of all control substance dispensations (billions) in our database, so we have a lot of risk there. We take it very seriously that we protect all that as much as humanly possible. We protect patient preference in their privacy and then we invest very heavily in security to ensure we don't have any issues with the data we hold.

Thora: The AI piece is also fascinating. When does AI become medical advice, in and of itself? And when does the AI become subject to

FDA regulation? I think we're going to see a whole smattering of new laws governing AI, on the state and federal levels. The National Institute of Standards and Technology (NIST) is coming out with a framework to govern the use of AI.

Neel: How are these services paid for? There is a whole subset of the population that is insured but there's a whole other subset that is not insured and therefore paying out-of-pocket. How do you build your business to address both of those markets while maintaining a revenue model that's sustainable as a for-profit entity?

Yusuf: The biggest challenge has been that fewer than 10% of people with a substance use disorder today have access to evidence-based care. That's obviously a problem, especially when you consider how much we spend on substance use care, which is somewhere in the region of \$45 billion - \$50 billion per year.

If you solve purely for access without changing the care delivery model, you have a half-trillion dollar SUD industry which doesn't sound particularly productive or good for society. But if you don't, you still have significant medical expenditure, because this is a chronic condition where you're kicking the can further down the road. It's a conundrum, and the answer to it really comes down to changing the care delivery model. What we've tried to do is rethink what substance use disorder care would look like if it was reinvented today, in the 21st century, using evidence-based principles, but offered in a much more cost-effective way. And that is where we pan out to this virtual care modality that uses a combination of medications and cognitive behavioral therapy: all things we know work well, so it's not reinventing the wheel.

Neel: How would you describe investor sentiment for the tech-enabled mental health sector?

Zem: They are passionate. To name just a few: Builders Vision, Obvious Ventures, Polaris Partners, .406 Ventures, Overwater Ventures, Haven Ventures and Short List Capital. They're actively looking for mental health solutions. Builders Vision is very focused on maximizing joy, and that includes investing in things like mental health solutions. Short List is a collective of women investing in female founders. But they also invest outside of that, specifically around what Obvious likes to call world positive solutions. The list of investors is long and continues to grow. I was surprised by how many investors in Near Future's ecosystem have asked about companies addressing mental health care. Bottom line returns, this space is also performing well. Look at all the recently minted unicorns: BetterUp, Lyra Health, Calm, Ginger, Modern Health, Genoa Healthcare, Talkspace, etc.

Neel: What are your thoughts on pathways to exit for mental health startups? How are you thinking about this as you grow your businesses?

Rob: Where we are right now is trying to continue to grow the company and fulfill the mission that we have, and we still have some work to do to really maximize that. An event will come - for us, that event could include some sort of public transaction. There are a lot of different paths. But I'm less focused on the path right now and more focused on continuing to build a business and grow, especially with the markets as uncertain as they are right now. Why focus on that uncertainty? Why not focus on building our business and coming out really, really strong?

Kelly: The way I look at a potential exit down the road is that once we establish this prescription brand that's Class 3 and FDA-approved, we have an opportunity to create a truly prescription strength wellness brand extension. We will have established this prescription device, and then

have a wellness version that is the same device, but doesn't have to make the same Rx claims. Then I see a Big Tech being like, "all right, you've done the regulated work that we weren't going to do, and now we can benefit from the fruits of that." I'm also like Rob: I just focus on the job I'm doing, and I don't think too much about an exit. But it'll be interesting to see what other kinds of companies may be interested in partnering with us, and then potentially acquiring us.

Yusuf: It's a great question. We don't spend a lot of time thinking about exit opportunities just yet. I think there is a lot of value still to be built before we do that. It was remarked earlier that IPOs and digital health really took off over the last couple of years. We're in the midst of a market slump right now, but we'll see where these things equalize. I think there are great independent businesses to be built in the space, and I'd like to see more of them and ensure that we become one of them, because we've seen this happen over the last decade in the enterprise space more largely.

There's a whole bunch of things that I'm super, super excited about. AI is super right now, and I think the applications in healthcare are enormous. We have data on over 100,000 patients, and you can even go as granular as what is said in counseling sessions. You can improve and provide a feedback loop to your therapists and counselors, or your physicians and nurses providing care. Data in interoperability is another interesting area. I think it's going to be a whole slew of technologies and interesting things happening in terms of how we can make this a more competitive, dynamic and leveled-up playing field, and ensure some of the reimbursement structures are exposed, so newer startups actually know what the angle is to get into some of these organizations.

Neel: What are you most excited about right now in in how companies are leveraging technology?

Zem: I'm interested in how we can leverage technology to solve really big problems, like all different types of addiction and eating disorders. I also think there's going to be lots of tech-enabled ways for teens to help one another internationally. I think a lot of them are going to be offline, but there's going to be that combination of online and offline as well as real-time and delayed time. I think it'll be fascinating.

Rob: I'm fascinated with ChatGPT. For any of us who haven't picked an element of patient interaction in our services, thinking about scale and thinking about delivering care at a much lower cost, the power of those sorts of things is incredible. There are risks that come along with it, and then you have to make sure you have the right safety in place, but that's the kind of thing that I think about a lot.

Kelly: There's been a lot of talk of AI ultimately eating and destroying us. I think it has the potential to heal us and really take digital care to the next level. There's obviously an incredible shortage of therapists – it takes weeks to get an appointment and most of them don't take insurance. So that's a thing that I'm excited about. Of course, I think that there is a place for prescription wearables at the table that hasn't been realized yet. I'm working hard to make a seat for Fisher Wallace and prescription wearables in general. I'm excited about where that's going.

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