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Lux Capital's Deena Shakir Bullish On Women's Health: 'Fundamentally A Massive Market Opportunity'

On Shakir's radar are innovations in AI-powered IVF, robotic cryo-storage solutions, menopause care, home cancer screening and hormone tracking, among other emerging technologies.

by [Marion Webb](#)

Medtech Insight talked with Lux Capital's general partner Deena Shakir about her investments in women's health, untapped opportunities and barriers, gender equality in investment, and her outlook for investment in women's health.

Women make 80% of health care spending decisions in the US, and investors are beginning to wake up to the growing opportunity in digital and device innovations to support women's health throughout life's journey.

Deena Shakir, general partner at Lux Capital, a multi-stage venture capital fund that does investments from pre-seed to pre-initial public offering, knows that opportunity well.

Medtech Insight sat down with Shakir at the Digital Healthcare Innovation Summit West, held on 1 February in San Diego, to talk about her portfolio companies, rising trends in women's health, and unaddressed challenges in the space.

"I actually don't like the word femtech," Shakir said. "I think there's no perfect nomenclature in this field, but to me that connotes like pink, and, you know, a side-initiative, versus really what it is, which is investing in the core of not only half the population, but 80% of where health care dollars are spent."

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DEENA SHAKIR, LUX CAPITAL GENERAL PARTNER *Source: Lux Capital*

Shakir prefers the term “women’s health” or “women’s family health.”

Lux Capital currently has \$4bn in assets under management. It raised \$675m for its seventh early-stage fund and \$800m for its first opportunity fund, doubling down on “winners” in their growth-stage portfolio companies and making new net growth investments, she said.

Shakir’s current investments in the health tech space include the first maternal and family health company Maven Clinic; Gameto, a biotech company focused on diseases affecting the female reproductive system; home testing company Everly Health, whose Natalist brand offers “fertility and pregnancy essentials with a net-zero plastic footprint that are thoughtfully

designed and easy to use”; primary care provider with tech-enabled services Carbon Health; and infertility tech company Alife Health.

Q Medtech Insight: During these challenging economic times, where do you see the biggest investment opportunities in women’s health?

A Deena Shakir: We’ve deployed nearly \$100m, I think the last count was \$95m in women’s and family health out of our fund, representing billions of dollars right now of value. But it wasn’t a thing really, it was barely a term, let alone a trend just several years ago. Despite the macro headwinds, I think that women’s health seems to be a bright spot. And not to toot the horn of one of my own companies, but Maven Clinic just had a \$90 million series E in this economy, which was an upround. I think that says a lot about how investors are thinking about the space and the future of the industry.

Q What are some of the barriers to investments in women’s health, also considering gender equality, looking at founders and investors in the space?

A Shakir: I think those two things are very related. There was recent data that PitchBook released with their All In Report, and TechCrunch reported on it as well, which is

showing that we are actually seeing a decreased percentage of companies being founded by all-women founding teams. The latest number was 1.9%, which is just horrendous. If you look at previous reports, if you take into account co-founders – a mixed team of women and male co-founders – it's 17.2%.

But that's still quite low. And if you look at the number of women who are investing and writing checks, that number is also still extremely low. I think the simple answer to why this hasn't happened enough, it's frankly because of the nature of who's building and who's investing in companies. And I think that is starting to change. It shouldn't be the case, because at the end of the day, this is not about diversity and inclusion. It's not about anything charitable or philanthropic. It is fundamentally a massive market opportunity and an opportunity to create real value in this world, as well as a real impact on humanity that has been largely ignored and underrepresented.

Q What factors contribute to women's health needs and opportunities having been neglected?

A Shakir: A lot of it has to do with who has been writing the check. If you talk to Kate Ryder, the CEO of Maven, about her early fundraising days, she'll tell you she met with majority male investors who would say things to her like, 'Let me ask my wife or my daughter about this.' It was stigmatized. Especially if you start looking at menstrual care or menopause, topics that people just did not want to talk about it. The other piece is digital health broadly did not have any comps up until recently. It was the intersection of general gender bias, the paucity of investors and builders in the space, and then the broader challenges that digital health faced up until recently.

Q Which areas in women's health remain underfunded in your view?

A Shakir: I think it's across the board, but I can talk about the areas that are interesting to me. I'll start with fertility, because that's where a lot of people start. A few years ago, when we led the seed round of Alife Health, which in my opinion is a leading company in AI in the fertility space, there was still a lot of talk among investors that

the total addressable market for fertility is small, which was an incredibly myopic way of thinking about it.

The way they were calculating that was based on the number of families that were actually getting IVF. That's not the way you calculate the addressable market. One in eight families experience infertility. There is a waiting list and even for those who get access to care, there is such a limited supply of fertility providers in the US unlike in countries such as Norway, Japan, Israel and Spain where there is more access to IVF care and more subsidizing. And if you look at other trends, you're seeing LGBTQ+ couples who need access to fertility care as well. Now, I think it's catching on where a lot of people are very interested in this space, because it's also a very long analog in terms of the technology behind it.

The invention of IVF was such an incredible breakthrough, but it was 40 years ago. And if you look at the industry, the software that clinics use – it's often not software, it's literally clipboards and notebooks – and the same technology that 'is used to store cow embryos.' There is a lot of opportunity, and because of the supply and demand issue, I was really focused on finding opportunities to make IVF ultimately more equitable, more accessible, more cost-effective, which means working on the productivity side.

Q What about evolution on the tech side?

A Shakir: There's still a lot of room for growth. You see companies like TMRW Life Sciences, which is focused specifically on robotic cryo-storage [and cryo-management of eggs and embryos], and companies like Alife and others that are trying to introduce AI, so that it's not just the human eye that's looking at embryo selection optimization, but actually introducing computer vision to make that more efficacious. There are also companies that are taking on more physical hardware approaches in terms of robotics insemination.

Maternal health is another area and, for many reasons, has not been a

huge area of investment. Even within women's health it was seen as an episodic journey and transactional where the dollars went into the delivery in the hospital room. All of these things are incorrect, because for so many people, the maternal health journey is an introduction into the family health journey. I was specifically focused on investing in companies that can show ROI. And I don't mean ROI just in terms of dollars, but actual clinical impact. Maven was actually able to show that virtual prenatal care can contribute meaningfully to reduction of C-section admissions and in the fertility space, because they offer fertility counseling and fertility awareness, that they had a 25% success rate without even going into IVF. There's a lot of things you can do before you have to go into that incredibly difficult journey of IVF. So that was a big one. I also saw a really big opportunity between maternal health and pediatrics.

Pediatrics itself was another area where there hasn't been a lot of investment, but in that journey between delivering a baby and having a baby is this period where you're breastfeeding, and this lactation journey sort of fell between the cracks. That was another area that I thought was really interesting and an area where there is a lot of desperation, frankly, and where there is a lot of opportunity to improve the experience for new moms. [These are all areas that I'd like to explore], but especially applied to value-based care, because in the US, nearly half the babies are born under Medicaid. A lot of the solutions early on were built around first consumers, then employers, and then payers. And now when there is payer adoption, we're looking towards value-based care, and particularly for meeting the needs for those families under Medicaid.

Q You mentioned menopause digital tech as well...

A Shakir: I'm really excited to see that there have been a lot more companies coming up addressing menopause. Some of them, like a lot of these other companies, start off direct-to-consumer and they build a really beautiful

experience and brand and user trust and adoption, but to really penetrate the market you need go where patients are going, which is often with their payers, in many cases with employers. Maven was the leading player for all women's health across the board. They do pre-fertility financing through menopause. I've been urging them to work on menopause for a long time. And when they finally did it, it was because their employers wanted it, which is a big shift. It's not maternal health, not everyone will have a baby, but menopause will happen to every woman, and there has been a big unmet need.

Q Departing from digital health, what are some medtech solutions that you're excited about?

A Shakir: There was an announcement [31 January] in a company that a friend of mine [Kara Egan] started, Teal Health – which we're not investors in, but I think very highly of her – which is an at-home cervical cancer screening test. I think there is more interest in home devices. At CES, there was a big announcement about a toilet that can track urine and hormone levels. CGM [continuous glucose monitoring] people have been talking about that as one of the biggest drivers of change, but obviously there is a bit of an oligarchy in terms of who actually produces them. I'm also really interested by what's happening with the Apple Watch and a lot of these wearables. [Apple Inc.](#) already made some big changes beyond tracking your steps, around glucometer and heart health, and I expect hormonal health will be a big part of that move.

Q Do you foresee that 'wearables' will be a growing space in women's health?

A Shakir: I'm a little skeptical around adoption of wearables in general beyond consumer devices. We're talking about the Apple Watch, which does so many things. But right now it's a small but dedicated user base that are wearing the Whoop band and the Oura ring and so on. I don't yet have conviction that that is going to move into mass penetration until the cost factor can get down.

Q During your fireside chat with Bamboo Health CEO Jay Desai, he talked about founders' stress of hitting ambitious revenue targets and the importance of putting "realistic numbers out there." What is your perspective on that?

A Shakir: Obviously as venture investors, we like to invest in moonshots. At the same time, especially when it comes to health care, there is clearly something dangerous about growth at all costs. We've seen that with some of the news stories that have come up lately, you now, certain companies that did not have patients' best interest in mind. That has always been top of mind for me. We're not just building some software solution that doesn't touch people. This is literally not just touching people, it's human lives. It's really essential that we are always shooting for what is ultimately improving human health. More broadly speaking, in this environment, everybody is more focused on how can we actually have an eye toward profitability? How can we reduce burn – we're not just going to be pouring in endless amounts of money because there is not an endless amount of available capital – and we need to be thinking about more sustainable growth, and I think that's a healthy conversation to be having.

Q SVB's senior managing director, healthtech and digital health, Jon Swope, said during his presentation earlier, he expects late-stage investment in healthtech to continue to slow. What is your perspective on that?

A Shakir: It's hard, because the types of investors just last year or the year before that would have been doing those rounds are less prolific these days in terms of the crossover types [the number of larger cross-over pre-IPO deals declined significantly in 2022, per SVB]. The bigger issue is, the closer you get to what would be a public exit, the more you are comped against those multiples [noting SVB's chart of multiple compressions], and if your valuation was done last year, or the year before, at the height of exuberance, it's very difficult for that to be justified today, even if your growth has been extraordinary.

A lot of investors are not yet at the point where they want to be offering these really intensely structured rounds or down rounds, so I think there is a lot of hesitation at

the moment. But at some point, that's going to have to change, if it's not changing already. But it's definitely a great time to be doing seed and series A, because that's where most investors who do have dry powder are trying to put their capital to work. You don't have the legacy of a high valuation that you have to compare against.

[Editor's note: This conversation was lightly edited for length and clarity.]