

Coming of Age: Women's Health Maturing in the Digital Era

Reflections on the Digital Revolution in
Menopause, Sexual, and Reproductive Health



Health 
Advances™

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Throughout this publication, we will use the terms “female” and “women” to describe patients in the same manner in which they are referred in clinical literature and other published text. However, we encourage the reader to consider the specific treatment needs of transgender and gender-diverse individuals.

Introduction

In many ways, 2022 was a milestone year for Women's Digital Health. While digital health venture funding overall faced strong headwinds this past year, funding for women's health startups represented a larger percentage of the pie than ever before – 13.26%.¹ Women's Digital Health (often referred to as “FemTech” – though we disfavor the word, for many reasons including marginalizing and diminishing the value of the space) features digital health solutions designed to support women's health. Spurred in part by rapid uptake of telehealth and digital solutions during COVID-19, these products have gained considerable traction and are expected to reach a valuation of \$100 billion by 2030.² Such success was also achieved in the face of women's health privacy concerns and legal questions following the landmark Dobbs ruling from the U.S. Supreme Court, which stripped women of the federal protection to abortion rights.

Women's health includes both female-specific conditions impacting reproductive organs as well as diseases which disproportionately affect women, such as migraines and osteoporosis. Despite the fact that women make up approximately half of the global population and account for 70-80% of consumer purchasing decisions,³ the healthcare industry has historically neglected women's health. Undiagnosed conditions with vague symptoms and inadequate treatment, such as endometriosis, uterine fibroids, PCOS, osteoporosis, and pelvic floor disorders, continue to present barriers to effective treatment. Until recently, women have been significantly under-represented in clinical trial populations, which has had dangerous implications given sex-based dosing and metabolism differences.^{4 5}

¹ <https://techcrunch.com/2023/01/24/despite-2022s-headwinds-womens-health-startups-did-better-than-ever-before/>

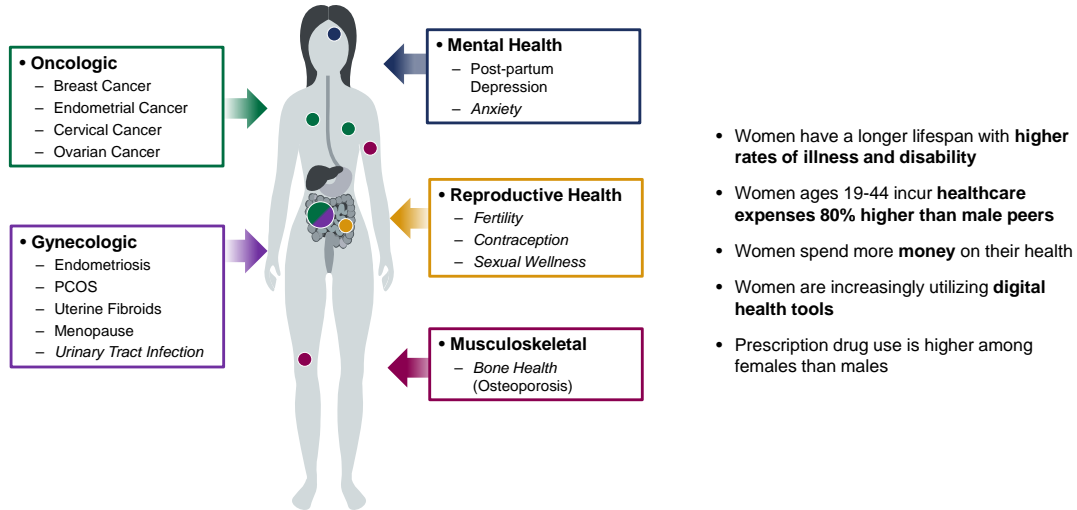
² <https://www.globenewswire.com/en/news-release/2022/08/19/2501714/0/en/Femtech-Market-Size-to-Worth-Around-USD-103-Billion-by-2030.html>

³ <https://www.forbes.com/sites/forbescontentmarketing/2019/05/13/20-facts-and-figures-to-know-when-marketing-to-women/?sh=7c6277411297>

⁴ <https://pharmanewsintel.com/news/women-are-underrepresented-in-clinical-trials-leading-to-health-inequity#:~:text=The%20starkest%20lack%20of%20portrayal,demographic%2C%20which%20many%20trials%20lack>

⁵ <https://www.sciencedirect.com/science/article/pii/S1551714422000441?via%3Dihub>

Women's Health: A Differentiated and Attractive Market

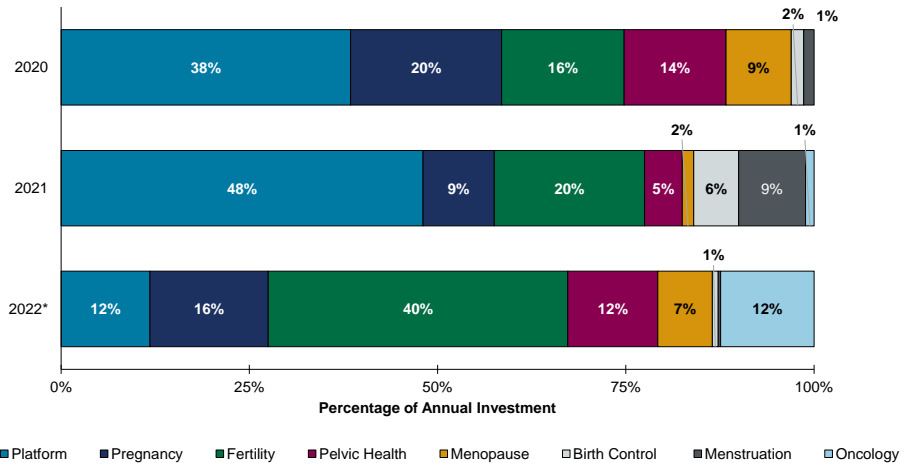


Note: Italicized conditions impact both men and women.
Source: Health Advances interviews and analysis, US DOL, Second Opinion 2021.

Despite a decrease from a record \$1.3 billion invested in 2021⁶ due to overall market factors, women's health continued to impress with a significant increase from 2018-20 funding and shift in focus areas. While pregnancy and fertility continue to account for most of the Women's Digital Health funding, formerly neglected areas, such as menopause and pelvic floor health, have also received increased attention. Innovations like [Evernow's](#) virtual menopause clinic, [Vira Health's](#) personalized digital therapeutics for menopause, and [Alloy Health's](#) hormone therapy digital pharmacy services all flourished as a result of venture capital's "menopause gold rush"⁷ this year. As the market grows, we expect to see previously stigmatized topics, such as sexually transmitted infections and pelvic floor disorders, account for a larger percentage of annual funding.

Women's Digital Health Investment by Application

Includes the US and EU



* 2022 data is through 9/30/22.
Source: Health Advances interviews and analysis, SVB.

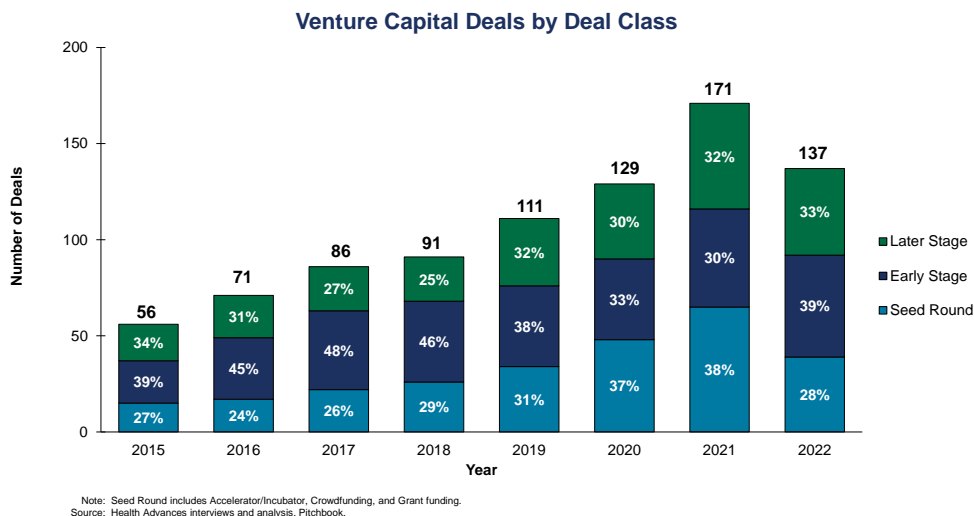
What was once considered a "niche" market is now the fifth largest digital health segment.⁸ As the market matures, the number of later-stage venture capital deals has steadily increased from 2015 to 2021. Of the 137 deals reported by Pitchbook in 2022, 45 were classified as later stage. Women's Digital Health is not a fad, nor a bubble, and

⁶ <https://www.fiercehealthcare.com/digital-health/women-s-digital-health-rakes-1-3b-2021-buoyed-by-investor-interest-more-integrated>

⁷ <https://www.nytimes.com/2022/12/20/style/menopause-womens-health-goop.html>

⁸ https://techcrunch.com/2023/01/24/despite-2022s-headwinds-womens-health-startups-did-better-than-ever-before/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2x1LmNvbS8&guce_referrer_sig=AQAAAAwGtJv-Sq_oAlW_yitnUKBQdLJzM54zrLK147i_nqwJGPPUgnvfwV2vMFpNVnkDo8v3uV1cWfDtKVmyY096cCd4aKZue9QvkhfHyADtp6Mmt0NuuWidZaL2ttlDEknlnTHu4z3YkXKDzSLJKoup8P7GEa5dkH_YH_z53QymCpOj

investors are taking notice. Maturing companies will need the support of the industry in everything from regulation and legislation, to market access.



As new companies continue to launch, understanding the “lay of the land” through market segmentation becomes important. The reality, however, is that there is currently no singular industry-supported segmentation. Rock Health, in the figure below, breaks out segments such as “Fertility Support” and “Sexual and Reproductive Health,” yet fails to carve out pelvic health as its own area.⁹ Similarly, Rock Health categorizes companies like Maven into “Pregnancy, Postpartum and Parenthood Support,” while others, like Pitchbook and SVB have called this category “Platform.” This theme is repeated over and over – “Reproductive Health” or “Contraception,” “Fertility Support” or “Benefits Provider”? Developing a unifying categorization will benefit both the companies and the investors as both attempt to better understand the competitive landscape.



The growth of women’s health is undeniable, yet many have feared that the industry is still considered a niche investment space primarily championed by female investors. Even success stories, like Maven, recount relying on female investors to convince their male counterparts of the sector’s value. COVID-19 has led to a rise in funding, but it is still disproportionately low given the size of the female population. In 2021, only 4% of funding of behavioral health companies went to firms offering specific solutions for women with anxiety, depression, or postpartum

⁹ <https://rockhealth.com/insights/building-comprehensive-women-digital-health-eight-sectors-serving-women-needs/>

mental health conditions.¹⁰ In an era of personalized health, many wonder why we are excluding half of the global population.¹¹

Ultimately, however, we believe that the tides are turning. In 2022, women's health continued to thrive in adverse market conditions and proved itself as a major player in the digital health space. We look forward to following as the sector continues to expand and attract an even broader group of investors.

As one of the first consulting companies to enter the digital health space, Health Advances has developed extensive knowledge of the complexities of the women's health tech industry. We deeply understand the unique business models and stakeholders engaged by digital solutions. We are a passionate team that is well-equipped to analyze new market opportunities and develop strategies for growth within the women's health industry. Through our dedicated women's health endeavors, Health Advances aims to help drive forward solutions that have the capacity to help close the gender health gap and improve the lives of women.

Our goal is to bring awareness to these important issues and help bring life improving solutions to the market through the power of data insights and decades of experience supporting commercial strategy. We look forward to following continued innovation across previously neglected areas, such as menopause and cancer care, as well as a shift to a more holistic approach to women's health.

As we reflect on 2022, we have compiled our #WomensHealthWednesday LinkedIn posts which demonstrate the real-time evolution of this rapidly growing space. We hope that you find reading them insightful.

¹⁰ <https://rockhealth.com/insights/building-comprehensive-women-digital-health-eight-sectors-serving-women-needs/>

¹¹ <https://invivo.pharmaintelligence.informa.com/1V124612/Femtech-Presents-Enticing-Market-Opportunity>

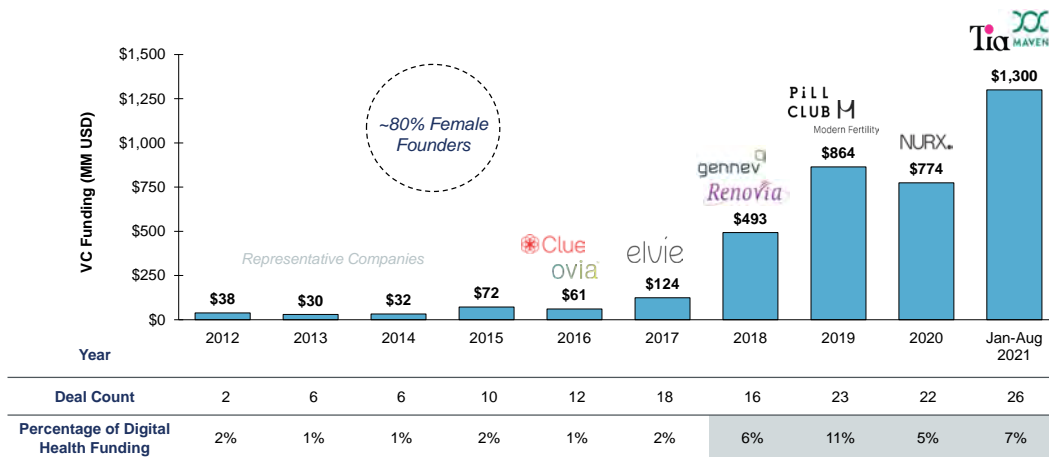
Women's Health at Home: Reflections on a Rapidly Growing Space

POSTED FEBRUARY 15, 2022

By Masha Dumanis

After decades lagging behind in funding, and as a result, innovation, women's health is finally having a moment. The intersection of women's health, digital health, medical devices and diagnostic tools, sometimes referred to as FemTech (though we are not fans of this particular terminology), brought in over \$1B in VC funding for the first time in 2021, according to [Rock Health](#). Spurred, in many ways, by the urgency of COVID and the recognition of many women's health issues and access to care, especially prenatal care, investors have finally noticed, with deal counts at an all-time high. [Maven Clinic](#) was the first Digital Women's Health company to achieve unicorn status in 2021. In their 2021 annual report, non-profit organization [FemTech Focus](#), estimates the market size will be over \$1T by 2027, including many chronic conditions impacting women. With women representing 51% of the population and the overwhelming majority of household healthcare decisions, this revolution in care can't come soon enough.

US Women's Digital Health Venture Funding



Source: Health Advances interviews and analysis, Rock Health, Crunchbase, company websites.

This past weekend we had the pleasure of attending the Women's Health at Home Panel as part of HBS' 19th Annual Healthcare Conference. The panel was moderated by Maneesha Giya, Managing Partner and Founder at FemHealth. Panelists included:

- Rachel Blank – Founder and CEO, [Allara](#)
- Gina Nebesar – Chief Product Officer, [Ovia](#)
- Jannine Versi – Co-Founder and COO at [Elektra](#)
- Lyndsey Harper, MD, FACOG – Founder and CEO, [ROSY](#)

Each of the panelists introduced their companies, each of which tackle a different challenge in the women's health world. [Allara](#) is a specialty care digital health platform targeting chronic conditions such as polycystic ovarian syndrome (PCOS) and endometriosis. [Ovia](#) is a leading platform for fertility, prenatal, maternal health and parental wellbeing – it is covered by over 2,000 employers and health plans. [Elektra](#) focuses on patients navigating the menopause transition. Finally, [ROSY](#) is a platform to address issues of sexual wellness and dysfunction helping patients who suffer with issues such as pain and arousal. The platform, like many of its peers, is grounded in evidenced based education, and also offers CBT (cognitive behavioral therapy) based self-help.

Many of the women founders reflected on how personal the founding journey was – recognizing a need in the healthcare space that was not being met, either for them as patients, or for their own patients. "Women were underserved, ignored, and not receiving adequate care – especially for many of these invisible or taboo conditions."

IMPACT OF COVID

In many ways, the pandemic provided a silver lining for the world of digital tools and women's health. As the world locked down, in-person childcare shut down, and women took on a disproportionate share of household activities, dependent care, in addition to work – “this load became very visible...and employers started listening.” Employers were forced to innovate or identify solutions to ease this burden, even as women left the workforce in droves. Employee retention became a key focus and solutions that addressed family planning, fertility planning, and prenatal care became benefits employers could offer to differentiate themselves.

The rapid uptake of telehealth has also supported many of these women's health businesses. Clinicians, patients, and most importantly, payers have found comfort with, and value in, virtual visits. All the founders agreed that the pandemic helped spur innovation and funding forward. The impact has been profound: “We have moved forward at least a decade in a few short months due to the pandemic.”

As a result, the way women expect to receive care is shifting with the help of these tools.

EPISODIC CARE IS GOING AWAY

Each of these businesses interacts with their users differently, but they all agree that the model of “episodic care delivery is over.” Patients are eager to integrate care more fully into their lives, they are highly engaged with many of these platforms – some coming to the platforms up to 10x a day. We live in a digital world, and especially younger users “want answers now, people don't want to just see their doctor 1-2x a year.” Similarly, ROSY decided to be a “virtual first” platform because clinicians did not always have time to tackle these “underground” issues in a brick-and-mortar setting.

HURDLES REMAIN

While the investment dollars, recognition of need, and enthusiasm are palpable, the panelists reflected on the very real challenges facing the industry, including lack of a seamless regulatory path and lagging reimbursement coverage. One of the panelists noted that the regulatory landscape remains fragmented, “you have to go state by state,” which is onerous and time consuming.

Like most industries, and digital health in particular, women's health is challenged by evolving business models and reimbursement hurdles, particularly at the health plan level vs the employer level. Many of the companies in the women's digital health space have opted to start with either a DTC model, or to target employers. That said, most are still looking towards payer reimbursement as the holy grail. “The biggest thing is that insurance reimbursement is not set up for collaborative care models,” one of the panelists emphasized. “Adoption from larger healthcare systems of businesses like ours remain the biggest gaps.”

Founders recognize that it will take more than well designed apps to attract payer dollars. “You have to show with data that these interventions demonstrate outcomes – unless you invest in the research this won't get adopted,” the panelists emphasized. Ovia is collaborating with the likes of [Harvard Medical School](#) and [March of Dimes](#) to do third party claims analysis and demonstrate outcomes on pre-term births and other metrics. “Insurers need to see these holistic, longitudinal programs.”

END TO END SOLUTIONS WILL TAKE TIME

The panelists emphasized that the industry was still very much in its infancy (if you'll pardon my pun): “We are pioneering a space”. As a result, the solutions for each condition are still quite fragmented. While the digital space is seeing rapid consolidation after an explosion of innovation, FemTech will likely be on the tail end of this consolidation given its later entry into the space. “We are like where mental health was 10 years ago.”

We are eager to follow the rapid evolution of this space as new products, services, and business models emerge, and as key stakeholders begin to recognize the need to support these tools. “Women's health is healthcare.”

Post-Dobbs Privacy Concerns in Women’s Digital Health

POSTED JULY 13, 2022

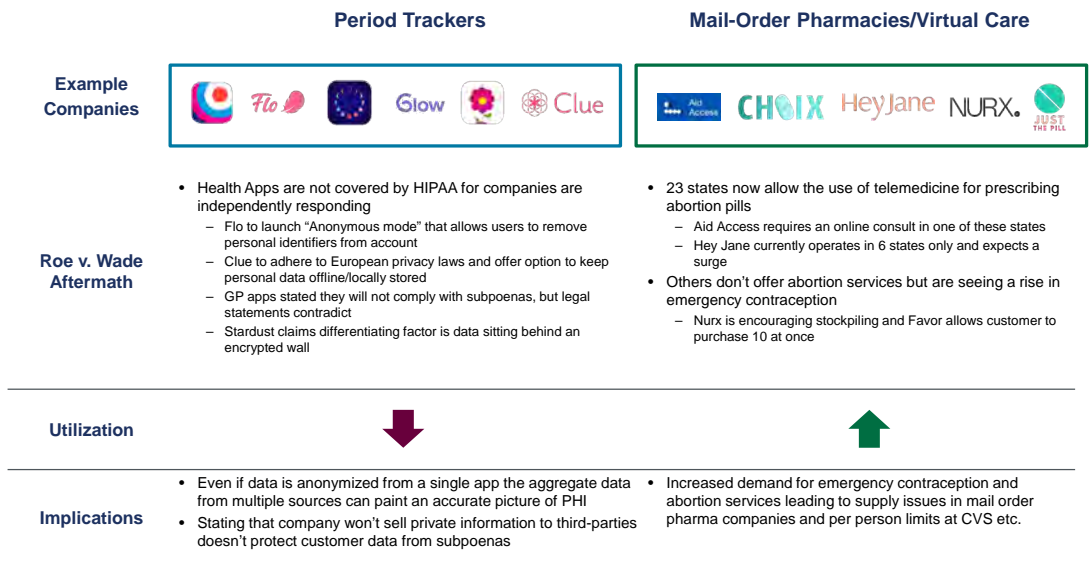
By Masha Dumanis, Shweta Gohil, and Elizabeth Allen

Welcome to our first #WomensHealthWednesday where we will share insights, news, and hot topics on the burgeoning women’s digital health space (and sometimes traditional MedTech too).

The #Dobbs ruling has an impact on the utilization of health tech apps due to #privacy concerns. Everyday consumers are struggling with which period tracker to trust and how to interpret often convoluted privacy statements. While companies, such as [Flo Health Inc.](#) and [Clue](#) are implementing independent solutions such as anonymous mode, there is still unease due to lack of regulation.

Ironically, privacy concerns may also slow down innovation and uptake of currently emerging health tech/digital therapeutics in the women’s health space due to implications of #RWE. RWE has gone from a coveted standard to supporting health tech use to a risk to patients in states where abortion is outlawed. [“Legal and privacy experts have identified the types of surveillance and data that could be used as evidence of having an abortion or providing one, such as GPS data, purchasing history, social media activity, phone call records, prescriptions, online drug purchases, and personal health information. These are the very definition of real-world data”](#) and could potentially put both providers and patients at-risk (still evolving).

The implications of the Dobbs ruling are far reaching and bring to light the important issue of privacy in an otherwise loosely regulated yet highly sensitive space-women’s health. How do we protect privacy while still fostering #innovation and growth in the space? We know demand for mail order birth control and emergency contraception from companies such as [Nurx](#), [Choix](#), [Hey Jane](#), and others will skyrocket – but privacy and access questions remain there too.



Source: Health Advances interviews and analysis, company websites.

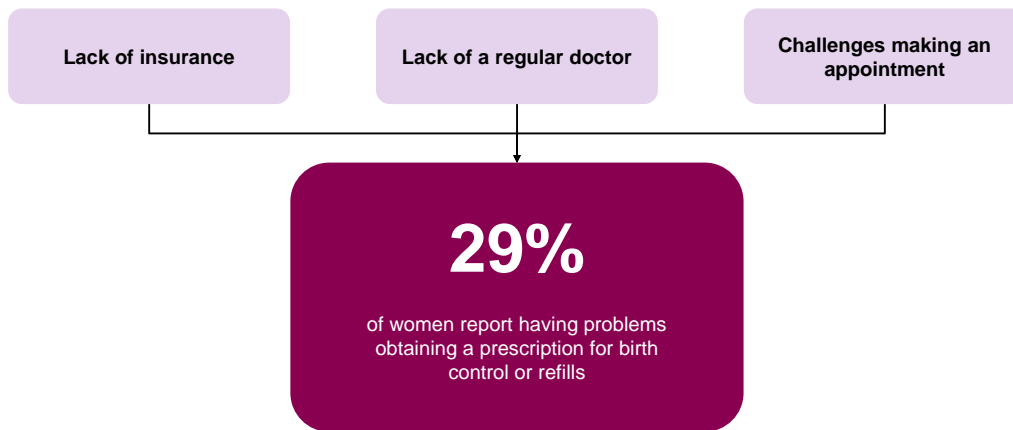
The Future of Over-the-Counter Birth Control

POSTED JULY 20, 2022

By Masha Dumanis and Shweta Gohil

On today's #WomensHealthWednesday we continue to discuss the post-Roe landscape and access. Should the US have #OTC birth control?

Currently the only option women in the US have for over-the-counter birth control is after the fact, emergency contraception ("the morning after pill"). On the other hand, OTC birth control pills are accessible in 100+ countries around the world. With any luck, Opill might change this. [HRA Pharma](#) just applied to the #FDA to be the first OTC available birth control pill. This application for approval was coincidentally submitted at the wake of the Dobb's ruling, but emphasizes, yet again, the importance of contraception access. According to an [NPR article](#), "Nearly 30% of women of childbearing age report a problem obtaining a birth control prescription or refills, according to survey research published in 2016. The reasons include lack of insurance, not having a regular doctor or challenges making an appointment." If access is already restricted on the other end in terms of abortion services due to the recent ruling, then we should make every effort to increase access to preventative measures. Many other countries have demonstrated the OTC method for birth control is safe and that it works. What has been holding the US back?



Source: Health Advances interviews and analysis, Grinday 2016 J Womens Health.

If this approval goes through, it opens the door to massive change in the BC industry and will also have implications for the digital pharmacy industry currently providing birth control. It will change the landscape around coverage as well and potentially will give insurers an avenue to deny coverage for the OTC products (as we have seen with branded proton pump inhibitors or novel antihistamines), so access must include considerations on out-of-pocket cost.

#contraception #digitalpharmacy #birthcontrol #coverage #womenshealth

The Launch of Caraway: An Integrated Women's Health Company

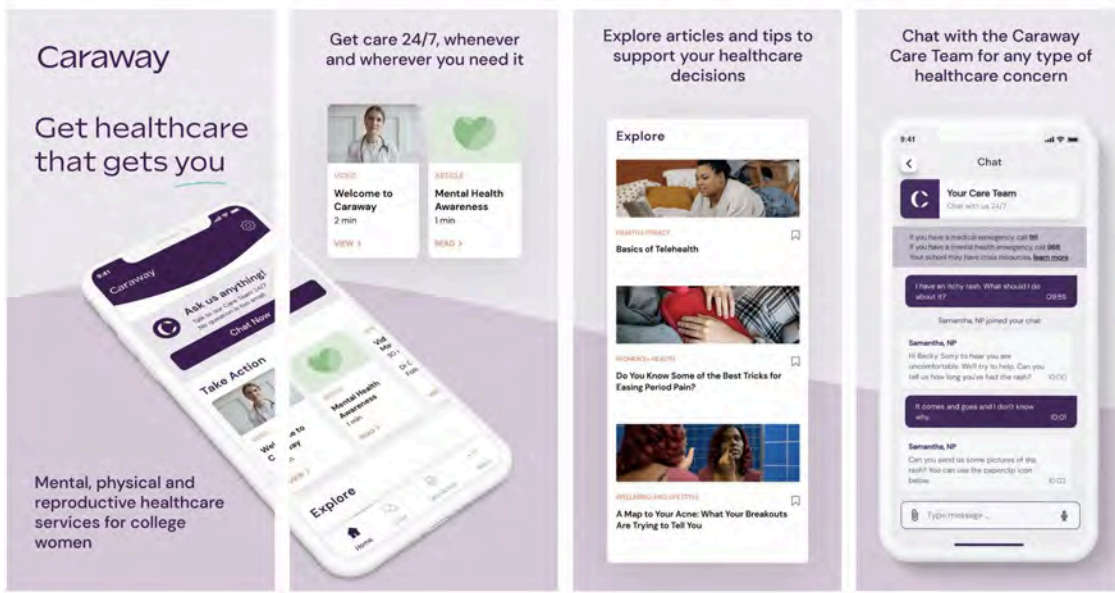
POSTED JULY 27, 2022

By Masha Dumanis

Today on #WomensHealthWednesday – The Launch of a New Integrated Women's Health Company [Caraway](#) geared towards caring for #GenZ on college campuses – where gaps in care often begin.

Coming out of #stealth yesterday, Caraway was developed and seed funded as a partnership between founders @Lori Evans Bernstein and Joshua Tauber and Women's Health VC heavy hitters [7wireVentures](#) (@Lee Shapiro and Alyssa Jaffee) and [OMERS Ventures](#) (@Michael Yang and Christina Farr).

The premise is that young women will be provided wrap-around on-demand care including mental, reproductive, and physical health from a holistic perspective – available 24/7 virtually with #telemedicine, clinician chat platforms, self-guided care, access to “at-home” test kits, and connection to in person care through referrals. For young women who often don't know where to turn to, or face stigma for routine care, this model can provide valuable safety nets.



Source: Caraway.

The model of on demand and 24/7 access to care is becoming increasingly attractive and popular – on Monday, Summer Health, a company focused on pediatric care, came out of stealth, funded by [Lux Capital](#) (@Deena Shakir) and [Sequoia Capital](#) (Alfred Lin).

For those frustrated with the traditional payer-provider model of care with long wait times and declining physician reimbursement, these models provide a refreshing antidote. Yet for now, the reality is they will likely run in parallel to traditional insurance coverage, with most consumers weary of, or unable to shed traditional coverage.

The question remains – how much can the average patient and consumer shoulder in terms of out-of-pocket cost?

#digitalhealth #womenshealth #vc #mentalhealth #reproductivehealth #virtualcare

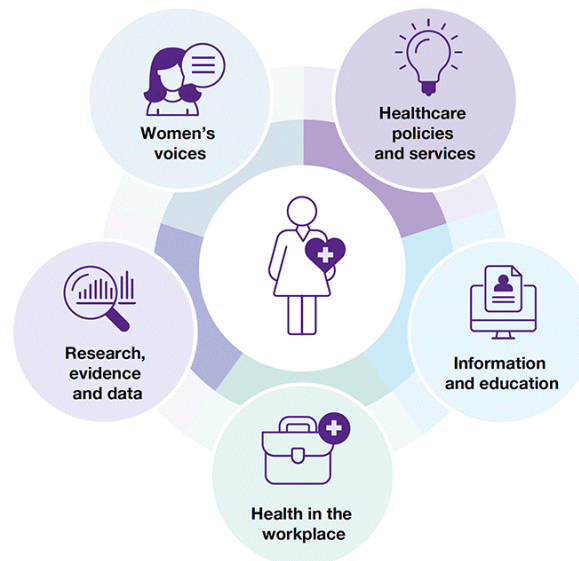
Digital Health and The UK's 10-Year Women's Health Strategy

POSTED AUGUST 3, 2022

By Masha Dumanis and Shaheen Madraswala

Today on #WomensHealthWednesday – the UK government's 10-year strategy to boost women's health outcomes. Will #digitalhealth companies benefit?

The [recently released UK women's health strategy](#) promises to reconfigure the healthcare system while challenging the male-as-default approach across the spectrum from clinical research to care delivery. It builds on a public survey (~100,000 responses) to identify women's experiences navigating the healthcare system. It also details concrete action plans for achieving its twin objective of improving women's health outcomes and elevating women's voices.



Source: The UK Department of Health & Social Care.

Digital innovations will undoubtedly have a crucial role in driving towards this agenda. In fact, the #NHS commits to working with NICE and MHRA to accelerate access to clinically proven, safe, and cost-effective technologies. Start-ups like Astinno, [Syrona Health](#), [The Lowdown](#), and [OvuSense](#) to name just a few that are addressing challenges in key focus areas like #menstruation #fertility #contraception are likely to benefit from increased collaboration with the NHS and allied agencies.

Government-level commitments go a long way in creating market access opportunities for entrepreneurs by streamlining the process for launching and scaling innovations. Such commitments can also stimulate additional private sector investment. [Goddess Gaia Ventures](#) (@Priya Oberoi) for example promptly responded by raising a £100 Million fund to invest in women's health start-ups across the country.

Women's health is just as underserved in the U.S. with less than 10% of digital health investments flowing in this direction. Can public-private collaborations help tip the scales? Would the US benefit from a Women's Health Strategy?

Let us know what you think.

#digitalhealth #womenshealth #healthequity #nhs #fda #medicare #medicaid

Funding Menopause-Focused Digital Health

POSTED AUGUST 10, 2022

By Masha Dumanis, Rebecca Koppel, and Olivia Brody-Bizar

You didn't think I forgot, did you? Its #WomensHealthWednesday and we are talking about "Funding Menopause-Focused Digital Health."

33MM patients experience menopause every year in the US, but only 1 out of 20 receives enough support managing symptoms.



78% experience sleep disturbance
75% experience hot flashes
61% experience vaginal atrophy
Over 50% experience other serious symptoms

+\$1,336

per person in unnecessary healthcare services every year

+\$770

per person in indirect economic loss due to missed work

Source: Health Advances interviews and analysis, company websites, Yale Medicine, Whiteley 2013 J Women's Health.

It's an oft-cited fact that women's+ digital health deals constitute only 10% (or less!) of funding in the overall digital health landscape. While there's already disparities in the overall funding flowing to these companies, many areas of women's+ health are further overlooked. According to a [2021 Rock Health report](#), there were 27 different companies addressing pregnancy, postpartum, and parenthood support. By contrast, only six companies were developing solutions for perimenopause and menopause at that time.

Historically, #menopause has received a disproportionate lack of attention considering the large population it affects. While it is experienced by approximately 33MM people in the US each year, physician training in menopause-related care is infrequent and symptoms are often dismissed. Tech-enabled solutions have the potential to make care increasingly accessible and can provide relief to a large patient group.

The tides may be turning as more menopause-focused tech solutions raise funds. Between 2019 and 2021, the perimenopause and menopause digital health sector had already doubled to \$80MM. Despite this year's lower activity levels in digital health, innovative tech-enabled solutions for menopause continue to receive investor attention. Just last week, [Lisa Health](#) received \$2.5MM in seed funding to launch their app "Midday," which uses AI and integration with #wearables to detect, track, and treat symptoms related to menopause. Another company, [Gennev](#), has received over \$5MM in seed funding; its platform connects users with trained HCPs and develops a personalized wellness plan.

These tech-enabled solutions provide direct support to patients who often receive inadequate care, and their recent funding rounds raise long-awaited awareness and validation. How else can digital health support people experiencing menopause, and what other areas of women's+ digital health deserve greater investor attention?

#digitalhealth #VC #womenshealth

Digital Tools for Breastfeeding Support

POSTED AUGUST 17, 2022

By Masha Dumanis and Shweta Gohil

On today's #WomensHealthWednesday - Digital Tools for Breastfeeding Support

While #breastfeeding rates are increasing in the US with ~85% of infants ever being breastfed, still only a ~25% are being exclusively breastfed at 6 months. Globally only 40% of infants are exclusively breastfed at 6 months. Breast feeding is often a difficult and traumatic journey for mothers and a ripe opportunity for disruption by digital health innovations. However, a singular one-size fits all approach, without #RWE, simply won't work.

One innovative technology that has been recently creating a buzz is [LatchAid](#), a UK-based breast feeding and early parent support application that uses 3-D interactive avatars, AI chatbot, and support groups to provide a personalized experience for mothers. LatchAid recently published [results](#) of their RWE trials with the NHS showing amongst the 271 UK-based survey respondents using the app, 49% were exclusively breastfeeding at 6-8 weeks, compared to a national average of 24%. RWE is crucial in this space because breast feeding difficulties are unique for each mother and the digital app solution may not be appropriate for the plethora of reasons for having trouble breast feeding. Not only do we need more RWE to demonstrate the usability of apps in target breast-feeding populations, but we need to acknowledge the need for a multimodal approach, an army to support the mothers and families.

Other approaches to combine with a LatchAid type app include virtual lactation consultants such as [Ruth Health \(YC S21\)](#) / [Nest Collaborative](#) and med-tech tech-enabled breast pump such as [Elvie](#).

Let's continue this conversation of easing the burden for women struggling with breast feeding by offering a comprehensive suite of digital health solutions that tackle the unmet need from multiple angles with strong RWE generation.

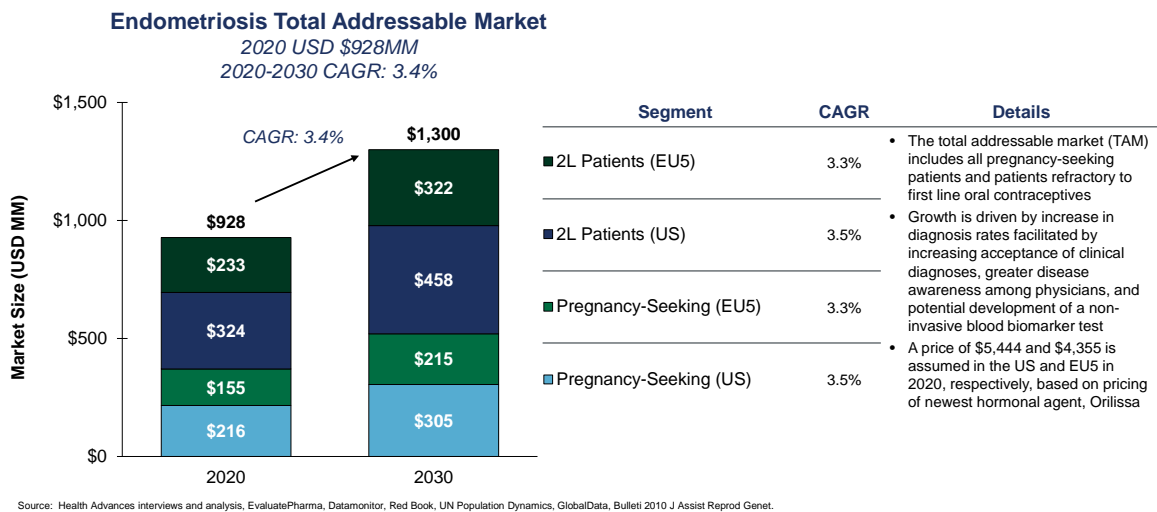
The Toll of Endometriosis and Advances in Diagnosis in Treatment

POSTED AUGUST 24, 2022

By Masha Dumanis and Shaheen Madraswala

On this week's #WomensHealthWednesday we want to talk about the toll of #endometriosis and advances in diagnosis and treatment.

Endometriosis impacts 10% of women of reproductive age but only about 4% receive a diagnosis. As such, biopharma companies will need to invest in diagnosis to expand treatment access. Women face several hurdles in seeking appropriate care for this complex condition apart from the limitations of the current treatment options. These include, misdiagnosis, lack of awareness among both women and care providers, lack of clinically validated screening tools and worse of all the stigma around menstrual issues (check out [how Scotland decided to chip away at this globally prevalent problem](#)).



This week we're celebrating a small step in the right direction, with the [FDA approval of #MYFEMBREE](#) for Endometriosis pain management. The product will be co-launched in the U.S. by [Myovant Sciences](#) – focused on developing women's health therapies – and [Pfizer](#).

While endometriosis is incurable through non-invasive methods, the MYFEMBREE approval at least gives women more options to manage their condition. MYFEMBREE joins a handful of other therapies marketed by [ObsEva SA](#), [Merck & Co](#) and [AbbVie](#) also broadly aimed at symptom relief.

A few digital women's health companies are tackling the issue of underdiagnosis, which today is based on symptoms but required laparoscopic surgery for definitive diagnosis. [DotLab](#) has a non-invasive, saliva-based test to detect disease specific biomarkers. [NextGen Jane, Inc.](#) is developing another home-based test in the form of a "smart tampon". Apps like [Phendo](#) which enable women to track their symptoms are also betting on data to overcome the challenges of diagnosing this condition.

While most of these technologies are in nascent stages, we're keeping our eyes on potential Biopharma-Diagnostic partnerships to drive treatment up-take!

Digital Contraception

POSTED SEPTEMBER 7, 2022

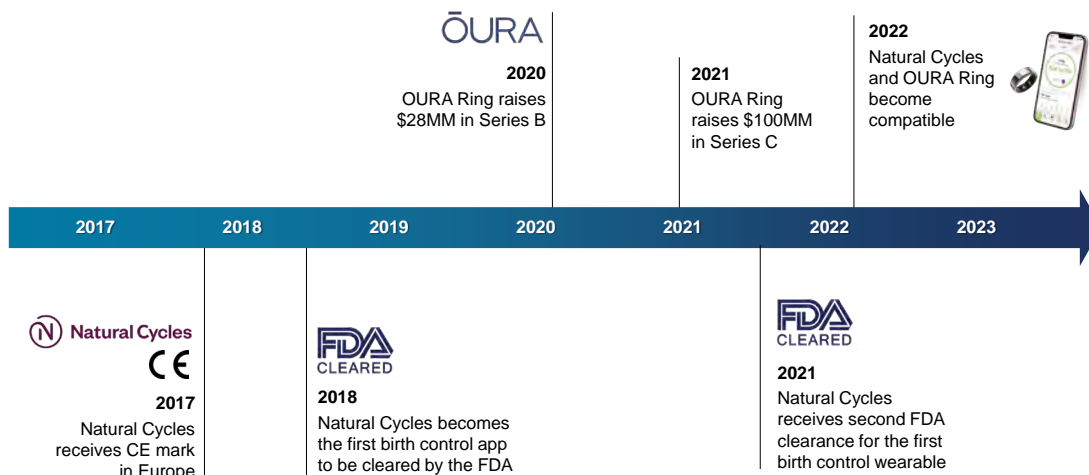
By Masha Dumanis, Rebecca Koppel, and Olivia Brody-Bizar

We would like to spend today's #WomensHealthWednesday discussing the topic of #digitalcontraception.

65% of US women between ages 15-49 rely on some form of contraception, and following the #Dobb's ruling, demand for birth control in the US has surged. Digital health innovators are uniquely positioned to meet this need through improved access: [two birth control apps have already received #FDA approval for use without a prescription](#).

[Natural Cycles](#) was the first to enter this space and is currently available. The app, approved in 2018, requires daily temperature measurements via a sensor device (such as an [OURA Ring](#), which can automatically track temperature and sync with the app). A few years after, [Clue by Biowink](#) introduced Clue Birth Control, branding it as the first “fully digital” contraceptive that only requires the start date of a user’s period. Using this regularly submitted single data point, their algorithm predicts when a user would be more likely to get pregnant. Near the end of 2021, Clue raised ~\$16M in funding to support the anticipated launch of this app in the US. Both apps use a subscription model, with Natural Cycles costing around \$90 annually.

Digital Contraception Milestones: OURA Ring and Natural Cycles



Source: Health Advances interviews and analysis, company websites, Crunchbase.

There are some shortcomings that remain with digital contraception. For example, both apps require regular data input that can decrease efficacy, and not everyone will be eligible. Clue makes clear that it can only be used by people with regular cycles, possibly eliminating up to 30% of people with irregular periods. These apps tap into the same technology that much of the #fertility products are utilizing and as we discussed in our first #WomensHealthWednesday post – cycle tracking apps expose women to privacy concerns in a post-Roe world.

On the flip side, digital contraceptives can offer more rigorous data analysis and greater efficacy – in clinical trials, Natural Cycles and Clue Birth Control respectively demonstrated 93% and 92% efficacy in typical use, which accounts for user error. These outcomes are comparable to the birth control pill, which is ~91% effective with typical use.

Overall, a digital app could greatly improve contraception accessibility, particularly in a post-Roe landscape where contraception access may be limited. Regardless, wide-spread use may grow slowly due to the current OOP costs – is there a future where #payers will cover these birth control methods?

#digitalhealth #contraception #sexualhealth #womenshealth

Caring for Older Women with Digital Health

POSTED SEPTEMBER 14, 2022

By Masha Dumanis and Allina Chang

The topic for today's #WomensHealthWednesday is aging.

In the US, #aging is generally stigmatized which leads to disparities in care that then contribute to poorer health outcomes. Failing to adequately address these inequities not only harms the individual, but also costs the economy via higher unemployment rates and a loss in wages and salaries. A [recent webinar hosted by the HLTH Foundation](#) discussed Caring for Older Women in an Aging Population. Women live longer than men and thus make up a larger proportion of the aging population. The health needs of older women go unaddressed far too often and we know that it actually takes years longer for a woman to be diagnosed compared to men. In addition, women disproportionately assume caregiver roles and routinely pay for related costs out-of-pocket, despite only making 84% of a man's average salary.

Digital health technologies have an opportunity to close the equity gap between older adults and the younger population, but many existing products are not designed for older adults. There's a misconception that older adults aren't digital users, when in reality, over 80% of adults 55-65 years of age own a smartphone according to a 2019 [Rock Health report](#). However, only about 30% of these adults have used a healthcare app, compared to almost 60% of those less than 55 years old. This discrepancy reflects a need for companies to design and market their solutions more effectively for older adults.

Possible solutions to lessen the equity gap include working on interventions that overcome barriers such as communication challenges in a healthcare setting for older adults. There also needs to be more data collection happening in order to effectively create solutions that identify older women who might be at risk of specific health outcomes.

Lessons Learned for Digital Women's Health: Rock Health Summit 2022

POSTED SEPTEMBER 23, 2022

By Shweta Gohil

With a clinical practice and public health background I am passionate about improving population health, specifically women's health, through digital innovations. I am pursuing this passion as part of the digital health practice within Health Advances. The [Rock Health Summit](#) piqued my interest because of discussions led by women's health focused VCs and experts.



This year's prominent themes from the summit included diverse, equitable, and person-centered healthcare. While the conference didn't solely focus on women's health there were many applicable takeaways for those interested in this space. Digital health is not a silver bullet, but instead the belief that the right tech, in the right hands of underserved communities can make a large impact.

A digital women's health investment pitch is twice as hard, if not more, than a traditional pitch:

Women's health companies are playing on an imbalanced field while seeking funding. The pitch is often more difficult, funding takes longer to secure, and there is overall more diligence involved because the solutions are targeting issues that few are paying attention to or are familiar with. To add salt to the wound, women led companies are 3x more likely to be bootstrapping.

Women's health companies need to reframe the unmet need and scale components of the pitch. Instead of a traditional TAM approach, women must frame conversations from the lens that women make 80% of the clinical and social determinants of health decisions. When it comes to defining scale, instead of a narrow focus of increasing the absolute number of patients scaled, think of an entire community (e.g., going through menopause) as the customer.

Lived experience is a powerful story telling tool that can aid women's health companies in securing funding but is still lacking acceptance. While lived experience doesn't necessarily equate to evidence in today's pitches, it should. Lived experience allows for recognition of a problem through direct immersion in the community/issue that is underserved. It just makes sense for a woman to speak about women's health issues. However, VCs are not accustomed to hearing this personal story as evidence and therefore have trouble understanding the value and buying power of certain communities that exist outside of the traditional healthcare model.

VCs cannot back all women's health initiatives, thus early-stage women's health companies should partner with disease organizations, academic institutions, community pharmacies, and large corporations to support evidence generation. For example, Walgreens pharmacy is ideal for real world evidence generation because 51% of the stores are in vulnerable areas where the underserved population resides. Individual women employees can also get creative and approach large employers to consider innovative digital health solutions as part of employer sponsored benefits. If adopted, this provides a plethora of data to analyze and potentially demonstrate effectiveness.

An economic downturn might be a blessing in disguise for digital women's health:

- Funding is still available for digital women's health solutions. However, funders have higher expectations, and the allocation of that funding has gotten more stringent. There is hope that even in this recession, companies can increase the measly ~2% of overall VC funding allotted to women's health.
- Women's health companies must operate effectively to drive the most outside facing value which in turn is going to set apart the cream of the crop. Recessions drive focus as companies are forced to choose doing a few things well and cutting out excess.
- The goal is not to invest in a company that is merely chasing revenue during a downturn but one that has chosen to take a strategic approach with tenable outcomes and long-term growth in mind. In other words, focus should be on velocity- driving with a google maps rather than speed- just pumping on the gas pedal without direction.

Post Dobbs ruling has increased the urgency for ethical digital innovations to address glaring disparities in maternal/reproductive and broader women's health:

- The Dobbs ruling further marginalizes and criminalizes the most economically and racially vulnerable women in the country leading to a call for action. The political climate has caused women's health investors to recognize the terrible US maternal health stats (55th in the world which is even behind rates of countries where women are publicly stoned) resulting in an all-time high investment of ~\$2B, but that doesn't even begin to scratch the surface. For example, the ruling has had a negative impact on states that were maternity care deserts to begin with, but now have providers moving out in droves, further worsening the supply/access to critical care.
- The private sector should be leveraged in this space by empowering women through inclusive workplace policies/ providing coverage that supports reproductive healthcare. While many employers and health plans are still figuring out what to provide that is more expansive than travel reimbursement, Medicaid must jump on board to provide to the most marginalized. The impact of the ruling is much broader than abortion and extends to many aspects of prenatal and women's health, as should the solutions.
- Companies need to understand the history of reproductive oppression in this country and maintain an ethical obligation to the patient. There is an ongoing emphasis and greater scrutiny for privacy and security as many of the digital health solutions do not have to abide by HIPAA.

While the digital women's health innovation path has many hurdles, the future looks relatively bright, and I wouldn't be surprised if we witnessed a boom of companies over the next few years. These companies have a unique opportunity to rethink their approach to requesting funding so that it works in their favor, especially as more VCs ([Lux Capital](#), [Rhia](#), [SteelSky Ventures](#)) zoom in on and understand the space. At the same time the current economic downturn forces the many early-stage women's health companies (field is relatively nascent) to slow down and focus on what is important- strategic revenue generation that supports their mission and future scalability. Lastly, the political climate is unearthing and worsening many women's health issues, so people are paying attention. There is a current opportunity to make a real difference in women's health, and I look forward to following along.

Fertility Benefits and Digital Health

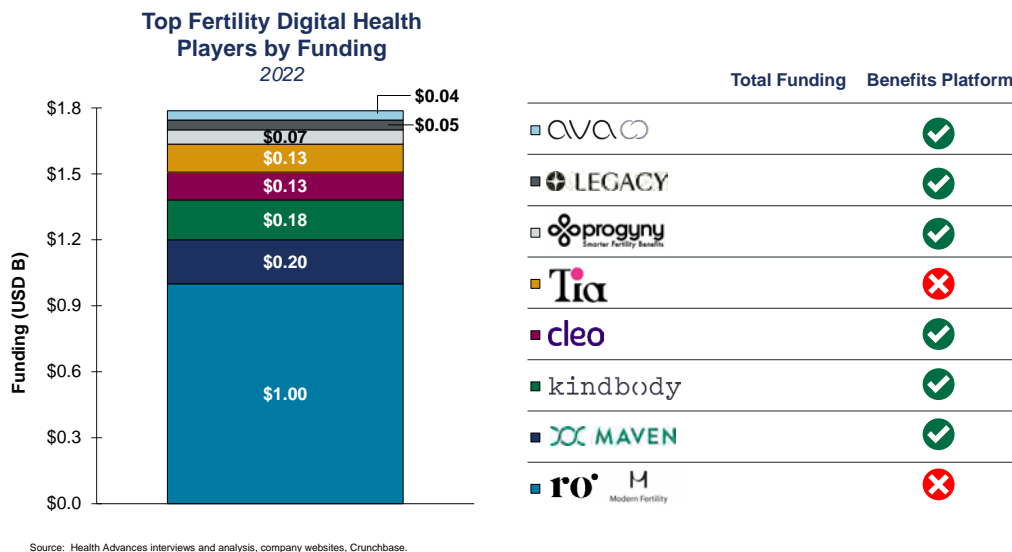
POSTED OCTOBER 19, 2022

By Masha Dumanis and Allina Chang

On this #WomensHealthWednesday let's talk about #fertility benefits and digital health.

The fertility industry has grown tremendously over the last decade, especially as more and more employers have begun to incorporate fertility benefits into their benefits packages. In 2014, tech giants [Apple](#) and [Facebook](#) were considered trailblazers for covering #eggfreezing under non-medical conditions. Just 6 years later in 2020, more than 42% of large employers covered in vitro fertilization (#ivf), according to benefits consultant [Mercer's National Survey](#). This shift reflects the understanding that fertility support is not just a nice-to-have, but a necessity that impacts many individuals, including single or same-sex parents. It can also lead to higher employee productivity by taking away some of the stress related to family planning. . This shift reflects the understanding that fertility support is not just a nice-to-have, but a necessity that impacts many individuals, including single or same-sex parents. It can also lead to higher employee productivity by taking away some of the stress related to family planning.

In 2021, [Rock Health](#) reported that fertility support was the second most funded women health sector at \$345 million, an increase of 35% from 2020 (\$254 million), and more than double from 2019 (\$133 million). However, [FertilityIQ](#) reports that the average cost of IVF is over \$20,000, a significant financial barrier for many. Leading fertility benefit companies such as [Progyny](#), [Carrot Fertility](#), and [Kindbody](#) are addressing this by partnering with employers and bypassing insurers to make fertility services more accessible. Just last week on September 27, [Walmart announced that they partnered with Kindbody to expand their fertility benefits](#). Employees and their dependents now have access to several family-planning services, including Kindbody clinics and IVF labs across the country.



There remains a significant opportunity, especially in areas that lack fertility centers and physicians, but the fast growth in recent years is promising for what's to come.

The Role of Employer Health Benefits in Contraception and Abortion Rights

POSTED OCTOBER 26, 2022

By Masha Dumanis, Rebecca Koppel, and Olivia Brody-Bizar

For this week’s #WomensHealthWednesday, we want to take another look at the digital health implications of a post-Roe world. While we’ve discussed increasing digital health privacy concerns with the #Dobbs decision, and we discussed #fertility related employer #benefits last week, it’s time to examine the evolving role of #employers and health benefits when it comes to #contraception and #abortion rights.

@[Arielle Dreher](#) and @[Oriana Gonzalez](#) at [Axios](#) recently wrote an [article](#) explaining how, particularly in the last few years, employers have come to recognize digital health fertility solutions as a competitive edge that can improve retention and recruit future workers in a tightening labor market. [Amazon](#) has offered fertility benefits as early as 2019, but since the overturn of Roe, other large companies (such as [Walmart](#), [The Walt Disney Company](#), and [Wells Fargo](#)) are expanding their fertility benefits to fund expenses related to out-of-state travel for abortions.

Newer startups, such as [Choix](#), are seizing this opportunity to bolster employee benefits. Founded in 2020, Choix is a telemedicine provider of #reproductive healthcare, including birth control, emergency contraception, and medical abortion. After completing its seed funding round in June 2022, Choix now aims to launch a targeted arm of its company, Choix Travel, that will connect users to abortion or other reproductive services they can’t get in their state. Choix Travel will launch as a #B2B service, providing companies with an additional resource to support employees’ reproductive needs and overcome state-specific bans.

However, as more companies take a stance on this issue, important legal, political, and philosophical questions remain. Will the role of employers in aiding abortion travel ultimately only heighten political motivations to further restrict abortion rights across state borders? Or could initiatives to prevent employers from empowering cross-state travel for abortion backfire and establish an incrementalistic approach to reinstating Roe? We are eager to hear your thoughts on this topic – please comment below!

Women’s Health Benefits from Large Employers

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Source: Health Advances interviews and analysis, company websites.

The Role of Cofertility in Increasing Access to Egg Freezing

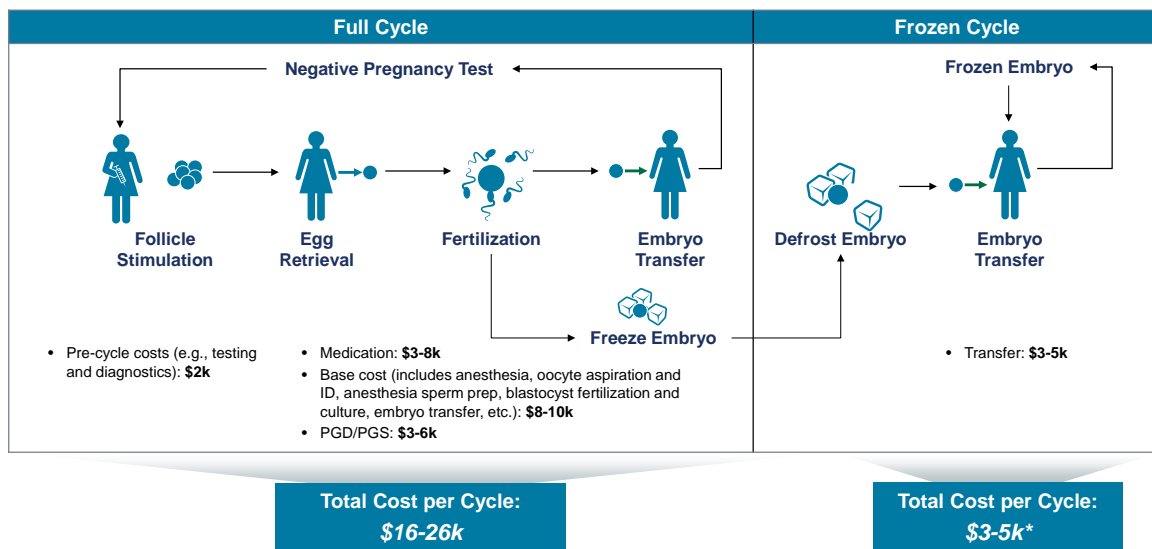
POSTED NOVEMBER 2, 2022

By Masha Dumanis, Olivia Brody-Bizar, Rebecca Koppel, and Shay Pezzulo

On this week's #WomensHealthWednesday, we are excited to discuss the amazing work [Cofertility](#) is doing to increase access to #eggfreezing.

Egg freezing is inaccessible to most women, due primarily to its financial burden. While the exact price of egg freezing is highly variable (depending on factors like egg storage fees, medication, blood work, number of freezing cycles, etc.), the cost can be as much as \$8,000 for one cycle. Most women will complete multiple egg freezing cycles and, after retrieval, will expect to pay around \$1,200 every year for storage, until they want to get pregnant. When it's time to thaw frozen embryos, this procedure can cost another \$5,000, which is expected to be paid at the time of the thawing.

Patients needing IVF after egg freezing can expect to pay another \$8,000-\$12,000, sometimes even more if they have multiple cycles. Altogether, at the low end of costs, these procedures can exceed \$20,000.



Note: Does not take into account the added cost of donor eggs, donor sperm, surrogacy, or embryo freezing. On average, patients undergo 3 cycles. Source: Health Advances interviews and analysis, IVF Cost Calculator, Forbes, Business Insider.

Insurers play a minimal role in easing this burden. Only 19 states currently require that insurers cover #infertility costs. Even in those states, most insurers still only cover a portion of the procedure or cover costs when patients have reached their out-of-pocket maximum.

Our hearts literally leaped when [@Halle Tecco, MPH, MBA](#) announced the launch of Cofertility with a raise of \$5MM in seed funding to aid its efforts in combatting these financial barriers to #fertility. Namely, it allows women who donate half of their eggs to receive up to 10 years of free storage, eliminating the annual estimated \$1,200 storage cost from the equation. In return, those donated eggs are provided to a family who is struggling to conceive, and costs for the initial screening and retrieval are covered by the intended parents receiving the donor eggs. While there is still work to be done to increase access to fertility, we are heartened to see such a brilliant solution gain traction. We are rooting for its continued success and will be on the lookout for news on Cofertility's growth.

Addressing Post-Dobbs Privacy Fears

POSTED NOVEMBER 9, 2022

By Masha Dumanis and Aashni Parikh

In 2017, [a woman's online search history was used in a criminal case to show her intention to obtain an abortion](#). In 2019, former Missouri state health director, Dr. Randall Williams, [obtained data tracking the menstrual periods of women](#) in Planned Parenthood. In 2022, [a data broker was selling abortion-related location data for \\$160](#).

For this week's #WomensHealthWednesday, we will dig deeper into our earlier post regarding fears around data privacy in a post-Dobbs world and companies that are implementing efforts for a change.

Data privacy is of utmost importance in healthcare and especially in women's digital health. However, there is [growing fear amongst women](#) about this information reaching the wrong hands, and rightfully so. The current #dataprivacy laws don't address health data created outside a clinical context, leaving a gap in health data protection. In fact, most #womenshealth privacy policies allow for data to be disclosed to law enforcement institutions, which has caused a decrease in the consumption of women's digital health apps, especially post the overturning of #RoevWade.

A drop in engagement with women's health digital tools could be very problematic for the women's health landscape. For instance, it poses a high risk of health inequity due to the lack of data diversity. More specifically, there may be a significant loss of data from African American and Hispanic women, [who constitute a large proportion of abortion seekers](#). This could have long-term impacts on the effectiveness of women's health research across races. Moreover, for women who rely on these apps for healthcare access, a distrust in the digital platform could hinder their usage, and negatively affect women's health outcomes.

"In this scenario, *we really don't have any data in readable form* that we can submit to anyone."

bellabeat

"Some of the places people visit — including medical facilities like counseling centers, domestic violence shelters, abortion clinics, fertility centers, addiction treatment facilities, weight loss clinics, cosmetic surgery clinics, and others — can be particularly personal... if our systems identify that someone has visited one of these places, *we will delete these entries from Location History soon after they visit.*"

Google

Against this rather discouraging backdrop, there is hope through companies that are working to address the issue. For example, [Bellabeat](#), a company whose digital products track overall women's health and wellness, rolled-out a private key encryption feature to increase data security. "In this scenario, we really don't have any data in readable form that we can submit to anyone," [Urška Sršen, Bellabeat co-founder said](#). Additionally, big tech companies like [Google](#) announced that they will delete location history data for people who visit abortion clinics.

Raising awareness about and increasing such efforts across the women's digital health landscape could help women's digital health continue flourishing the way it has the past couple years.

Let's Talk About Vaginismus and Digital Health

POSTED NOVEMBER 15, 2022

By Shweta Gohil

Vaginismus is [defined](#) as involuntary tensing and tightening of the muscles around the vagina upon penetration (either sexual or otherwise) that causes pain ranging from mild discomfort to excruciating levels.

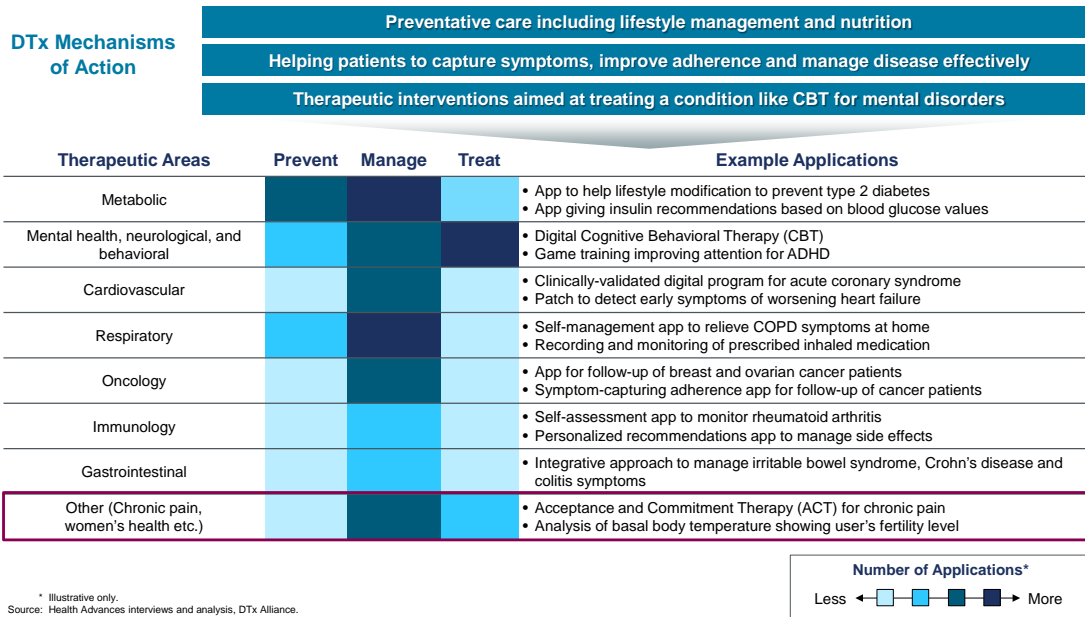
Women silently bear the pain because of the stigma and lack of education about this condition. Anything related to sex, or the vagina, is still very hush-hush, inflicting a substantial injustice for those suffering. When women mention symptoms of the condition, they are met with a stonewall of comments like 'Just try and relax!' or 'Have a glass of wine!' even 'It's all in your head!'. Unfortunately, this is a reliably common situation because vaginismus is still highly stigmatized and underdiagnosed. It seems to be a societal taboo to discuss despite the high unmet need for innovative treatment. In fact, the number of women that suffer from vaginismus is still unknown and grossly underestimated ([estimated to be ~5-20% of women](#) due to the unwillingness to share with health care providers (HCPs)).

There isn't a pinpointed cause of vaginismus but factors that can contribute include anxiety, prior surgery, and fear or negative emotions about sex. The fear and shame around sharing the symptoms with HCPs are exacerbated by initial mismanagement of the disorder and pain associated with physical exams. For those who are brave enough to advocate for themselves, and physicians who accurately recognize and diagnose the condition, there are treatment options. The [current treatment paradigm](#) includes pelvic floor therapy (with or without dilators), sex therapy, and cognitive behavioral therapy.

However, even for those diagnosed with vaginismus, there are many barriers to successful treatment with the first being a financial burden. A significant percentage of in-person pelvic floor physical therapy is not covered by insurance. Commonly there is a high percentage of patients with a substantial cost-sharing burden, with some patients with high deductibles paying ~\$75-\$150 per visit until the deductible is met. In other words, pelvic floor therapy is often very expensive. The second major hurdle is convenience, which is intertwined with emotional distress. It's not always feasible to take time out of a workday to drive to an appointment, face an often emotionally draining session, drive back home, and restart work. Those that can find a pelvic floor specialist that they feel psychologically and physically safe with often have to book in-person appointments well in advance and build their schedule around it. The current paradigm is just not convenient.

There are better options across multiple product categories in digital health. One digital health company that is making waves in this space is [Origin](#) – a company with a mission to make pelvic floor therapy part of the standard of care for every woman in the US. Origin provides a safe space that is tailored to women with pelvic floor issues founded by two women who personally experienced the benefits of pelvic floor physical therapy. Additionally, they offer a completely virtual care option (from diagnosis through end of treatment) that addresses the convenience factor. Digital Therapeutics (DTx) is another promising area of solutions for vaginismus and more broadly, women's health. They are in their infancy here in the US but have gained traction in Europe, specifically Germany.

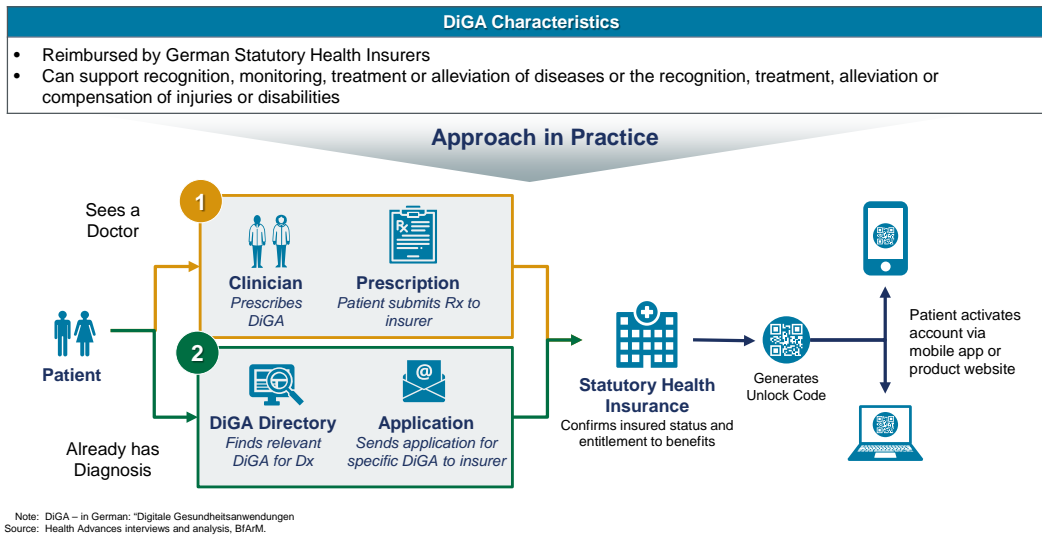
DTX LANDSCAPE



One interesting company in Germany is [HelloBetter – Vaginismus](#), which was included in the DiGA directory in February 2022 as an online psychological program to improve vaginal penetration during intercourse. This completely virtual program is a 12-week course that helps the women understand what is causing pain, female pleasure and arousal, and how to effectively perform vaginal training using dilators from the comfort of home. The effectiveness was established in a 2017 pilot [RCT clinical trial](#) showing that compared to the control group, vaginal penetration during sexual intercourse was possible again in significantly more participants in the intervention group (intervention group: 49%, control group: 21%). Another RCT was conducted in 2021 on individuals who had not had sexual intercourse with their partner in over six months, 31% of participants reported that they were able to engage in penetrative sex again after using the program. In both studies, the effect remained stable at the 6-month post-intervention mark. HelloBetter – Vaginismus is fully covered by insurance (599 Euros) and available whenever the woman decides is most convenient for her solving both cost and convenience hurdles. In Germany the DTx is classified as risk class I CE mark with minimal side effects.

It's not a surprise that this DTx is well positioned in Germany because of the country's regulatory structure (DiGA). There are currently [~3 women's health-focused Dtx](#) in the DiGA directory out of ~38, one of which is HelloBetter – Vaginismus. While <10% of companies being for women's health doesn't seem like much, it is a relatively phenomenal situation compared to most countries.

DIGA OVERVIEW



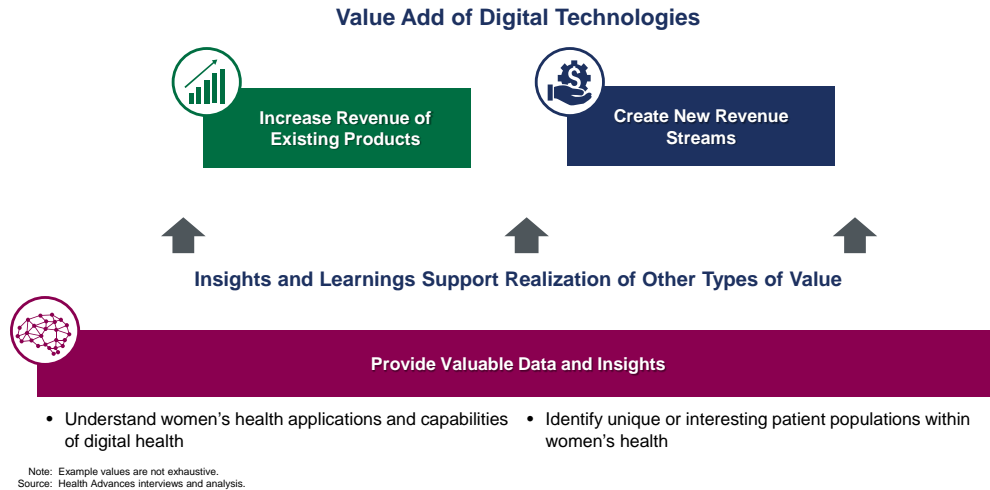
While Germany is well positioned to continue fostering women’s health innovations, the US is not. HelloBetter – Vaginismus then expanded the product to the US in July 2022 as [Hello Gina](#), a DTC version (not FDA-authorized PDT that physicians prescribe as a form of treatment). Hello Gina is priced at \$289 out-of-pocket and is not currently covered by any insurances. Insurance coverage is likely to take some time, but in the interim, if Hello Gina does a good job with DTC it is conceivable they could be successful with out-of-pocket customers. Vaginismus doesn’t ‘cost’ the healthcare system anything (minimal cost associated with women seeking care with multiple specialties) and therefore health insurance plans may be faced with a negative cost/benefit ratio to covering these digital health treatments.

Expanding coverage for digital health solutions in women’s health and refocusing the conversation on the patient may take some time, however, there are near-term opportunities to facilitate progress.

One such solution is capitalizing on synergies and the momentum of biopharma in women’s health. Large pharma interest and investment in women’s health DTx is necessary to support the innovation within the US. There are many definitions of involvement including licensing, acquisition, co-development, and co-commercializing depending on the product at hand. Large pharma is well positioned to provide support, partnerships, and brand names that could be critical to pushing both stigmatized disorders such as vaginismus and the larger women’s health space towards parity with other health conditions. DTx are a great option, and well differentiated from current treatments (at least in vaginismus) and the unmet need exists in many areas of women’s health – from aging to cardiovascular health to vaginismus. Furthermore, large pharma may benefit from increasing revenue from existing products, development of new revenue streams, and uncovering valuable insights into the women’s health population. Women’s health is a largely untapped market that will likely benefit from DTx solutions and not require a heavy lift for large pharma.

As an aside, while not a large pharma organization, [Organon](#), a women’s health pharmaceutical company, is also well situated within the ecosystem to be a viable partner to DTx solutions.

THE VALUE OF DIGITAL TECHNOLOGIES



One currently open and relevant question – will employers step up in women’s health and facilitate widespread adoption of companies such as Hello Gina? Post Dobb’s [ruling employers are working with digital health companies \(B2B\)](#) to figure out how to offer their employees abortion care services, and other women’s health care. The main question here is what is the incentive for employers to reduce vaginismus? Perhaps it’s an opportune time to urge employers to step up within niche indications while employees and the general population is demanding improved access to whole women’s healthcare.

Overall, the success of DTx (Hello Gina) will depend on several factors including the reimbursement landscape for DTx and open conversations/awareness about such stigmatized conditions. We think there are key stakeholders including large pharma companies and/or individual employers whose involvement could accelerate the path to reimbursement, adoption and create access to care for millions of women. Let’s leverage the current buzz in women’s health to develop solutions that will improve health outcomes.

SVB Report Recap: Trends in Women's Health

POSTED NOVEMBER 23, 2022

By Masha Dumanis and Olivia Brody-Bizar

In this week's #WomensHealthWednesday, we want to return to an exciting [SVB report](#) released at the beginning of November. It provided a holistic recap on the state of health tech during Q1-Q3 of 2022, with special attention dedicated to trends in Women's Health. (We were hoping to discuss this report even sooner, but we had too many exciting topics already planned 😊)



While SVB reports that overall deals in health tech during Q3 '22 dropped 67% from its peak in Q2 '21, Women's Health shockingly did not experience the same magnitude of decline. Rather despite a broader market downturn, SVB says that Women's Health "has never seen more momentum than now." (Those who attended [HLTH 2022](#) last week likely found the same to be true.) Even more encouragingly, SVB highlights that interest in early-stage companies has dominated this year's deal landscape, with #Seed / #SeriesA investments in the first three quarters of 2022 already ~10% above that in all of 2021.

There are still consistent trends in terms of where within the landscape money continues to flow. In particular, #fertility and #pregnancy solutions continue to attract the largest amount of attention, both in terms of deal size and number. SVB hints that this may shift in the future, with platform solutions that take a #holistic approach to providing care and oncology as likely high growth areas. On past #WHW's, we have already hedged our own bets on the growth in #menopause solutions.

As conference season has returned in full force, we were excited to hear the dedication and attention paid to Women's Health at this year's HLTH mirrored the SVB report. Perhaps together, the conference and the SVB report, are harbingers of continued activity to come in the quickly approaching new year. We, for one, are excited to see this space get the recognition it so greatly needs and deserves.

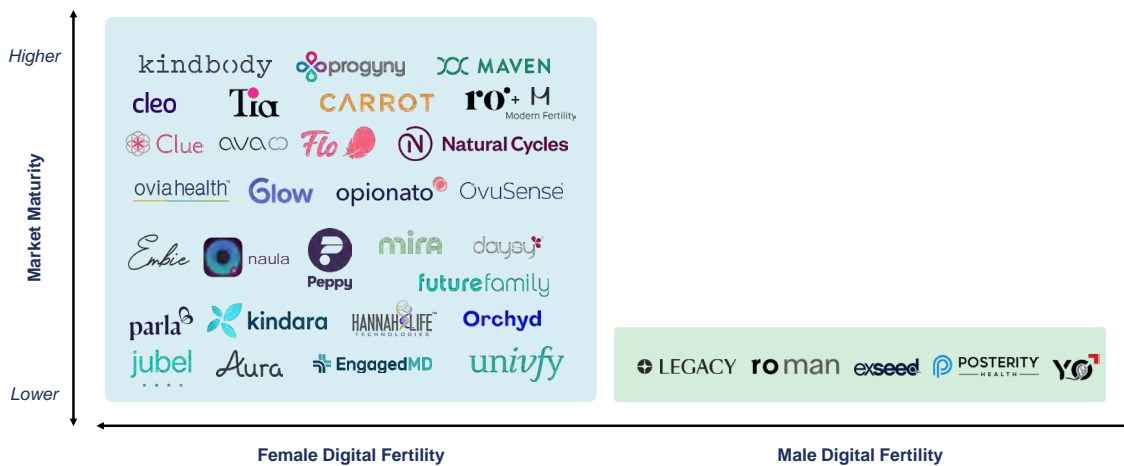
The Role of Male Infertility in Women's Health

POSTED NOVEMBER 30, 2022

By Masha Dumanis and Shay Pezzulo

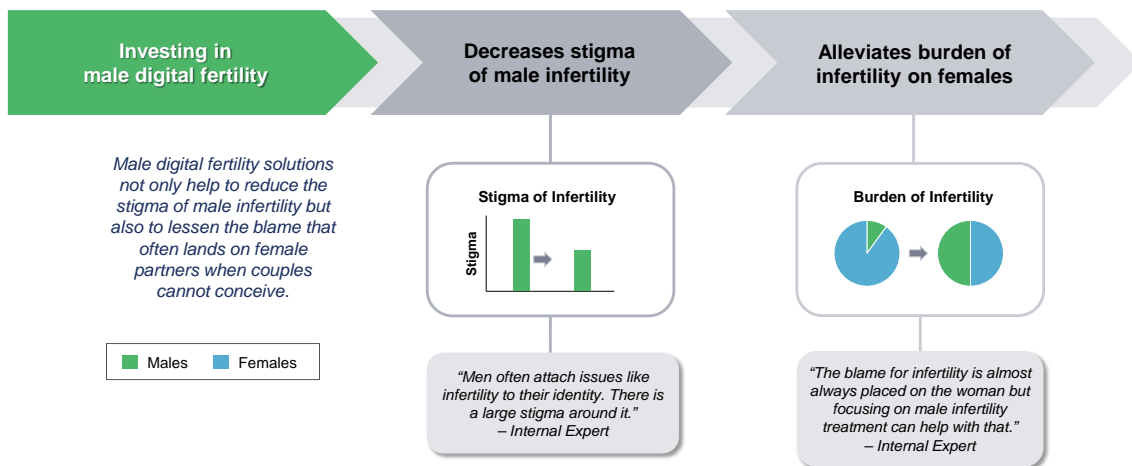
If roughly half of all infertility cases are caused by the #male factor, why are almost all #fertility discussions focused on #women? In this week's #WomensHealthWednesday, we will discuss the stigma of male #infertility and the implications it has for women.

According to reproductive urologist and leading expert on male infertility Dr. Paul Turek, infertility is an intensely shameful experience for men due to societal expectations of male sexual performance. The nature of such a stigma causes men to avoid discussing concerns about or seeking treatment for infertility when the male factor of fertility is already often overlooked. As a result, fertility is predominantly regarded as a "women's issue."



Source: Health Advances interviews and analysis.

The discrepancy in focus on male and female infertility is evident in the fertility treatment landscape, particularly in the digital space. With digital health unicorns like [Ro](#) and [Maven Clinic](#) at the forefront, the digital fertility space has seen impressive activity in recent years. There are over a hundred fertility products on market and in development, ranging from at-home testing and digital fertility prediction to telemedicine. Almost all these solutions, however, are either primarily or exclusively targeted towards female patients.



Note: Graphs are illustrative. Source: Health Advances interviews and analysis.

Male-targeted digital fertility companies like [Legacy](#) and [Posterity Health](#), however, are working on addressing these issues by ensuring men have sufficient educational resources about fertility and access to affordable care.

Earlier this year, Posterity Health launched [Project AIM](#), which stands for “Access to Care, Inclusion of the Male Partner,” a national initiative to promote sex-based equity in fertility. By encouraging men to be proactive, male digital fertility solutions not only reduce the stigma of male infertility but also lessen the burden of fertility on females. In some ways, therefore, the way in which we address #menshealth can have significant implications for #womenshealth.

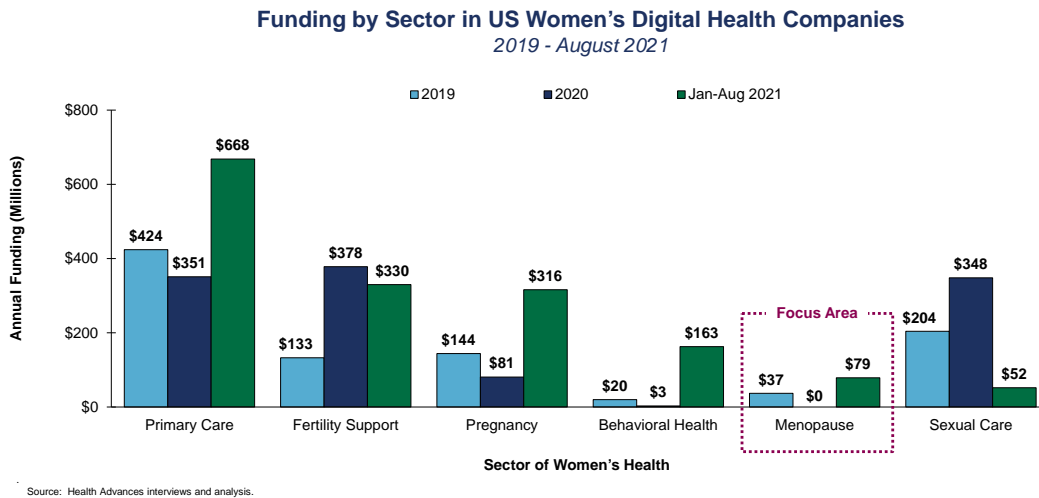
Focus on Menopause Startups

POSTED DECEMBER 7, 2022

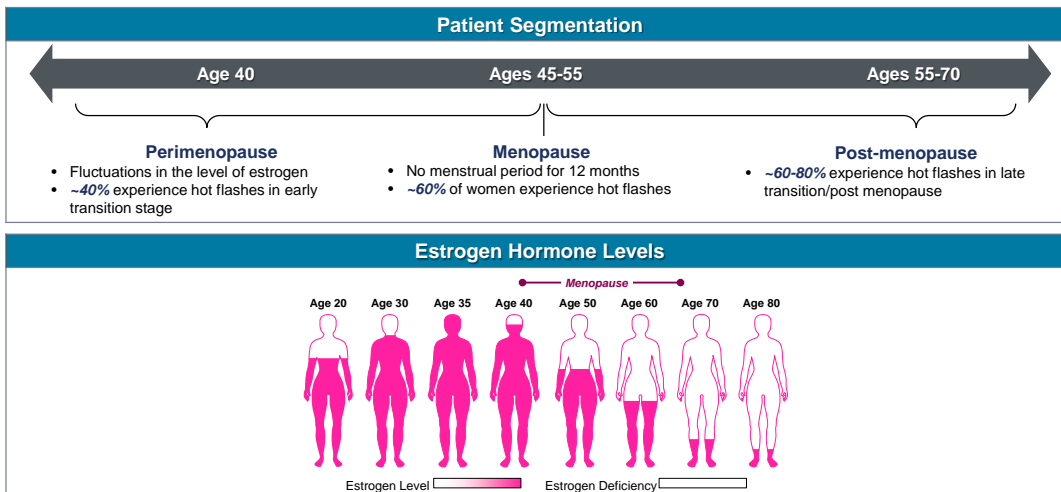
By Masha Dumanis and Sydney Upah

We have written about menopause on #WomensHealthWednesday before, but when we saw the news today about [MATTER 51 Lab's inaugural cohort of startups composing itself of 11 menopause related start-ups](#), we couldn't help but highlight this fantastic news.

We know this area has been under-represented, even within the world of women's digital health investments, but a promising sign is that this area is finally seeing more focus (see below with data from [Rock Health](#)).



[MATTER](#), whose [51 Labs program](#) will be focused on addressing the gap in women's health innovation, announced that this year's focus will be menopause. We demonstrate in our deck below why that is sorely needed. The condition is estimated to impact 1 billion women – most of whom are still in their peak earning years, and for 60% it impacts work performance. Menopause leads to higher healthcare utilization and impacts everything from sexual health to metabolic disorders and mental health.



Source: Health Advances interviews and analysis, North American Menopause Society.



Patient Population

- Estimated **1.1 Billion women globally** will be post-menopausal by 2025
- Wide age range of onset with average age of 51, lasting 4-10 years
- Aging population
- Menopause-age women account for 25% of the US workforce
 - **60% of women believe symptoms impact work performance**, leading some to abandon careers



Investment Opportunity

- Anticipated market size of \$53B by 2027
- Expenses for prescriptions, doctor's visits, treatments, devices, and products, cost an average of \$20,000 per patient
- Women experiencing hot flashes and night sweats had **121% higher utilization of healthcare**



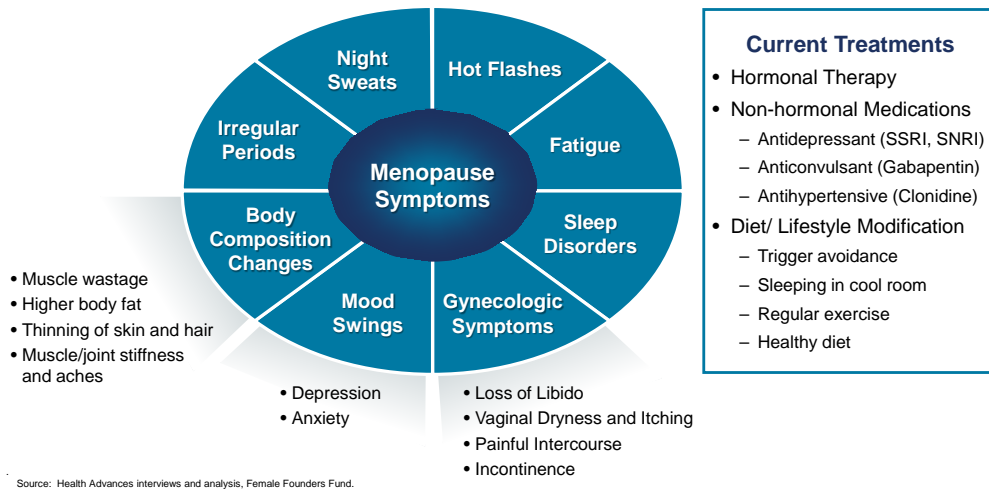
Barriers and Trends

- Menopause is complex, lacking a "one-size-fits-all" solution
- Shortage of medical specialists
- Reproductive healthcare comprises 95% of the femtech investment space with only **5% investment in menopause**
- Menopause will be a new driving force of the women's health industry

Note: Estimated market in 2027.
Source: Health Advances interviews and analysis, Female Founders Fund, Fem Tech Focus, Coyote Ventures, Fortune, Femtech Insider.

The amazing cohort of startups, which includes [Alloy](#), [Amira](#), [Libbie Health](#), [Liv Labs](#), [Madorra](#), [MyMenopauseRx](#), [Patient Orator](#), [Plenapausa](#), [Renalis Health](#), [Snippa](#), and [Thermaband](#) all address a plethora of the symptoms and issues arising from menopause.

Thermaband and Amira are two wearable technologies in this cohort using AI to target vasomotor symptoms, otherwise known as hot flashes.



This cohort will get coached by industry thought leaders including [@Pamela York](#), [@Delphine O'Rourke](#), and [@Jennifer Fried](#).

MATTER is made up of a community of investors, industry, and providers. [Astellas](#), [Walgreens](#), [Baycare](#), [Parkview](#), [University of Chicago Medicine](#), [Capita3](#), and [Portfolia FemTech Fund](#).

What an incredible initiative to elevate and educate the Women's Health products and solutions of tomorrow. We look forward to following their stories.

Personalization in Women's Health

POSTED DECEMBER 14, 2022

By Masha Dumanis

On this #WomensHealthWednesday I want to brainstorm some products and ideas in women's health, and also ask some of our Women's Health thoughts leaders what personalized technology they have seen that should be on our radar.

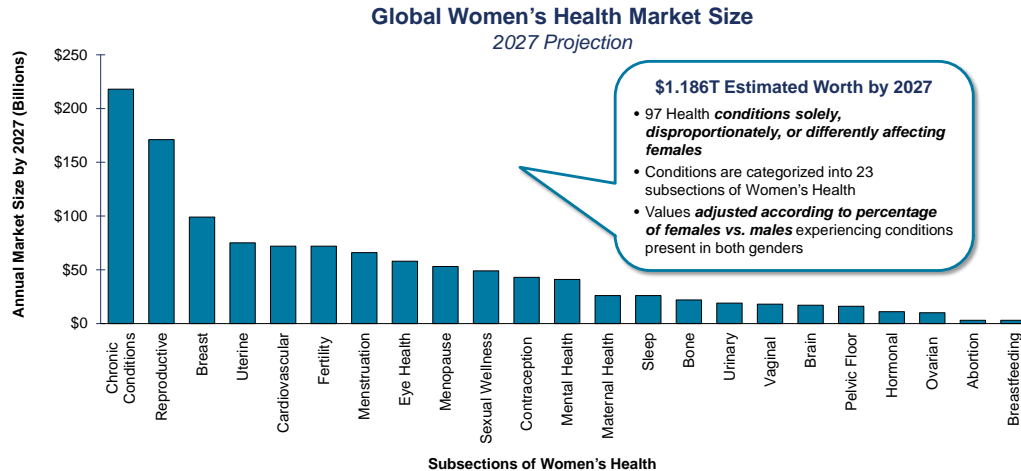
Here are some the products I have seen or that come to mind:

- Personalized vitamins and nutritional supplements (companies like [HUM](#), [Nurish](#) (Nature Made), [Care/Of](#))
- 3D printed pessaries for pelvic organ prolapse (among several companies I have seen, one is [Cosm](#))
- Personalized hormonal contraceptives (I have not seen a model that tests women's levels and suggests an Rx – have you? [Some researchers are exploring this](#)).
- Personalized behavioral care solutions (Digital or Medication) centered around hormonal mood fluctuations (potential partnership opportunities with period tracking apps)

I want to hear from Women's Health visionaries and thought leaders – what other opportunities in personalization do you see? Cool platforms and products?

[@Brittan Barreto](#) [@Jennifer Fried](#) [@Christina Farr](#) [@Maria V \(Steel Sky Ventures\)](#) [@Deena Shakir](#) [@Alyssa Jaffe](#)
[@Delphine O'Rourke](#) [@Kate Ryder](#)

Looking Towards 2023:



With all the excitement from 2022, it might seem like it would be hard to top, but 2023 is already shaping up to be an impactful year in Women's Digital Health. We believe that many central themes from 2022 will continue into this year. Here are our top predictions for 2023:

1. Navigating the post-Dobbs world will continue to shape access to reproductive healthcare.
 - Concerns about data privacy and the legality of treating patients will certainly remain.
 - The world of Women's Digital Health will capitalize on the momentum from 2022's regulatory rulings approving over-the-counter birth control pills¹² and the availability of prescription abortion pills at retail pharmacies.¹³
2. There will be increased investment in solutions that address menopause, pelvic health, and chronic conditions that disproportionately impact women.
3. Women's digital health investments will also rise outside of the United States.
 - Southeast Asia's Women's Digital Health industry has grown rapidly in recent years. In 2023, we expect that women's health awareness, research, and funding initiatives will help destigmatize the discussion around basic women's needs.
 - Germany will add to its list of reimbursed digital health applications (DiGA) for indications that disproportionately affect women, such as breast cancer, endometriosis, vaginismus, eating disorders, and migraines.
4. As the industry matures, there will be an increased emphasis on personalized care.
 - a. Moving into 2023, we expect Women's Digital Health will move beyond the one-size-fits-all approach of its nascency and will cater to a more diverse and inclusive patient population.
 - b. Furthermore, we also expect to see an increase in the use of data and technology to make individually optimized treatment decisions. For example, we expect to see a rise in the use of artificial intelligence to optimize embryo selection, medication dosing, and procedure timing for in vitro fertilization.
5. We predict 2023 will bring more women-focused mental and behavioral solutions (beyond just those related to postpartum depression).
 - a. As traditional medicine continues to lag in offering integrative care to women, we think Women's Digital Health will play a large role in connecting mental and physical healthcare with its more holistic offerings.
6. The role of biopharmaceutical companies and contract research organizations (CROs) in women's health will grow.

¹² <https://www.npr.org/sections/health-shots/2022/07/14/1111297318/over-the-counter-birth-control-pills>

¹³ <https://www.nytimes.com/cdn.ampproject.org/c/s/www.nytimes.com/2023/01/03/health/abortion-pill-cvs-walgreens-pharmacies.amp.html>

- As the world becomes increasingly cognizant of the gender imbalance in clinical trial populations, it will be up to these parties to respond appropriately by ensuring equitable trial recruitment.
7. The hybrid clinic model, comprised of both virtual and traditional brick-and-mortar care, will continue to gain traction, and help expand access to primary and specialty care for women.
 - a. The hybrid women's health company Tia has already partnered with Cedars-Sinai to open several clinics throughout California.¹⁴
 - b. Such development will serve to address criticisms raised about the usefulness of digital-only healthcare at this year's Annual J.P. Morgan Healthcare Conference.¹⁵
 8. Market access and coverage of Women's Digital Health products and services will come into focus as mature companies look to traditional payer partnerships and others look to forge employer deals.
 - a. We expect to see more partnerships between large employers and companies like Maven Clinic, Kindbody, and Progyny.

¹⁴ <https://www.fiercehealthcare.com/providers/tia-marks-largest-partnership-date-cedars-sinai-open-womens-health-clinics-la>

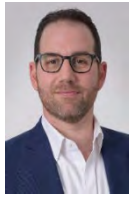
¹⁵ <https://www.statnews.com/2023/01/12/jpm-lesson-digital-front-doors-dead-ends/>

Meet Our Passionate and Talented Women's Digital Health Team



**Masha
Dumanis,**
Vice President

- Leader of Women's Digital Health Practice Area
- Member of Health Advances Digital Health and HIT and MedTech Leadership Groups
- Over 100 client engagements in opportunity assessment, new product commercialization, corporate strategy, cost-effectiveness evaluation, competitive assessment, business model assessment, due diligence, and growth strategy
- Extensive content area experience in connected devices, pain management, regenerative med, MedTech market access, Women's Digital Health, molecular diagnostics, and hospital products
- Adnexus, a BMS R&D Co., Protein Sciences Intern
- Harvard University, AB, Human Evolutionary Biology, cum laude



**Jeffrey
Abraham,**
Vice President

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- Akili Interactive, VP of Market Access and Trade, VP of Commercial
- The Medicines Company, Senior Director Value Development
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- Boston University, BS Health Sciences
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Continued on next page.



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**Shay
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- Harvard University, BA, Human Evolutionary Biology, magna cum laude with highest honors

For more information about Health Advance's Women's Health practice contact Masha Dumanis at mdumanis@healthadvances.com and follow [#WomensHealthWednesday](#) on LinkedIn for the latest insights!

About Health Advances

When you're on a fast track to commercialize your innovation, you need a focused partner from day one. A partner who understands the intricacies of your market and product, brings fluency with end stakeholders, quickly grasps evolving healthcare business models, and is dedicated to delivering greater value.

Our consultants' unique depth of experience spans the clinical and market intersections of biopharma, medtech, diagnostics, and digital health. From this strategic vantage point, we can identify the best opportunities and decisions for you to enter new markets as a leader and translate nuanced differences in scientific innovation into commercial advantage.

Our senior leaders stay with your project from conception through completion, while our highly-skilled teams of PhDs, MBAs, and experienced technologists bring a high degree of scientific rigor and business insights. Together, we work as an agile, adaptable extension of your team.

With a 30-year track record of successful engagements, Health Advances treats your growth strategy and challenges as our own.

And with one-call integration to 19,000 Parexel subject matter experts in 100 global offices, we're built to help you deliver healthcare's next big idea anywhere in the world.



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