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Women Health and Femtech

Israel's Life Science Industry

IATI Report 2019

Rising Sectors

 *Connecting Israel's Tech Ecosystem*

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Women Health and Femtech¹

Introduction

Women are more than 50% of the global population, and the economic burden for women's diseases is currently more than \$500 billion². Women health is often sidelined as a niche market; however, things are changing, where women are not only playing an increasingly influential role across the healthcare continuum, but also have higher purchasing power. Women are increasingly playing an active role in their care delivery and are also primary caregivers, especially for the elderly and children. 90% of primary healthcare decision maker for the family are women, and 80% household healthcare

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<https://www.forbes.com/sites/reenitadas/2018/04/12/womens-healthcare-comes-out-of-the-shadows-femtech-shows-the-way-to-billion-dollar-opportunities/#7b23603e6159>

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spending is done by women. According to Frost & Sullivan³, working age female spend 29% higher percentage on healthcare compare to males in the same groups and they are 75% likelier to use digital tools to track their health. However, women have been highly under-represented in clinical trials for chronic conditions. For example, only 35% of the participants in clinical trials around cardiovascular disorders are women; only 25% of the trials report gender-specific results. This matters because there are fundamental differences in the way women metabolize drugs compared to men. There are several chronic diseases which are more prevalent in women and that need to be managed differently for women and men, such as osteoporosis, arthritis and hypertension. In the era of personalized medicine, gender-specific healthcare solutions is needed. The prevalence of certain diseases is far greater in women than men, like Alzheimer, autoimmune disorders and mental health challenges such as anxiety and depression.

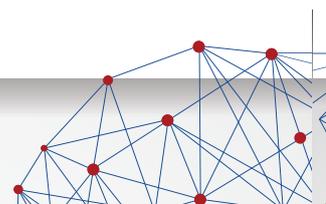
The global women health market is composed mainly of the following sub-sectors:

- Menstruation Care
- Pregnancy and Nursing Care
- Fertility Solutions and Reproductive Health
- General Healthcare
- Cancer Care (breast, cervical, ovarian and the rare vaginal and vulvar cancer)
- Menopausal and Post-Menopausal syndrome
- Pelvic Diseases, Endometriosis
- Sexual Health
- Hypothyroidism
- Osteoporosis
- Contraceptive
- Non- Communicable Diseases and other disease indications.

The global women health therapeutics market size is expected to reach \$210.9 billion by 2025, according to a new report by Grand View Research, Inc.⁴. It is anticipated to expand at a CAGR of 8.8% over the forecast period.

<https://www2.frost.com/news/frost-commentary/frost-sullivan-celebrates-international-womens-day-exploring-femtech-/market-potential-50-billion-2025> 3

<https://www.grandviewresearch.com/press-release/global-womens-health-therapeutics-market> 4



Femtech

Femtech (female technology) is the use of digital health applications such as wearable AI, mobile apps, diagnostic tools and monitoring software to manage women health - from rapid diagnostics to remote monitoring and beyond - such as fertility, reproduction, pregnancy, and maternal health which includes menstruation, mental health, sexuality, cancer screenings and chronic illness.

Femtech direct-to-consumer services, are making things such as fertility testing and birth control more accessible, and have brought the discussion on women health to the center stage. It is no coincidence that the Femtech sector is primarily managed by female CEOs and innovators. Femtech have benefitted from a favorable regulatory landscape in the past few years - Natural Cycles mobile application received FDA approval in August 2018 to be marketed as a contraceptive and Annovera designed by Population Council received FDA approval as the first vaginal ring contraceptive that can be used for an entire year. In July 2018, the FDA approved AbbVie's endometriosis pain-reducing drug - the first of its kind in over 10 years.

Israel Women Health and Femtech Companies

Based on IATI database, public information, IVC-Online Database, and Start-Up Nation Finder, there are about 200 Israeli companies in the various sub-sectors of women health and Femtech. The major sub-sectors are Pregnancy and Nursing Care with 21 companies, Fertility and Reproduction with 19 companies, Pelvic Problems with 10 companies, Women's Cancer with 35 companies, Women Infectious Diseases with 7 companies, Menopause and Menstruation with 7 companies and the rest are for general diseases like Diabetes, Osteoporosis, Genetics and others.

Several Israeli Femtech companies are leaders in their respective fields, demonstrating Israel's excellence in digital health technologies. This is particularly relevant for conditions like breast cancer or cervical cancer, which women are unable to diagnose quickly, often due to lack of effective enforced screening programs. EVA Colpo by MobileODT, is a portable, internet-connected colposcope that combines high quality, medical-grade image and video capture using smart devices for cervical cancer screening. Its scalable solution has the potential to increase access to care. VRHealth, helps clinicians manage patient care via specialized virtual reality solutions and data analytics, conducted a clinical study where the use of a VR coaching environment was found to reduce hot flashes and night sweats in women suffering from breast cancer. Illumigyn's Gynoscope uses machine vision technology to allow gynecologists and GPs to visualize signs of early-stage cervical cancer using different illumination and light wavelengths. Other sub-sectors of excellence in Israel Femtech companies is remote monitoring of pregnancies with companies like Nuvo, HeraMed and Fertility with companies like AIVF, Ovucon and others.

Investments in Women Health and Femtech

In recent years, pharmaceutical companies have further expanded and invested R&D resources into women's health initiatives. Global companies understood the huge potential in the Israeli biotech and expanded its scientific and technical expertise through acquisition of Biotechnological Israeli companies. One such example is Ferring that as a world leader in reproductive medicine and woman health saw the potential in the local arena and invested in Bio-technology General (Israel) Ltd. (BTG). This enabled to use a local end-to-end company with the expertise to mature candidate compounds from early research through development and up to GMP commercial production at one site.

The foresight to strategically invest specifically in reproductive medicine together with finding the way to personalize woman treatments⁵ is one of the key goals of providing solutions for additional unmet women's health needs of many companies.

However, women health is still a relatively young industry and the majority of investments being made in women health are early-stage (seed and Series A). Of all the funding for R&D for healthcare products and services in the world, only 4% is invested in women health. According to CBinsights⁶, globally investments in 2018 has bypassed \$500 million in funding (compared to \$350 million in 2013), and seen about double the number of deals since 2013 (Figure 15). In Israel, out of more than \$6 billion invested in the Life Sciences sector in the last five years, approximately \$314 million, or 6%, were invested in this subsector (Figure 16).

Rekovel's is a recombinant human follicle stimulating hormone (rFSH) used in assisted reproduction therapy designed to use an individualized dose to result in a safer treatment with potentially fewer IVF cycles
[/https://www.cbinsights.com/research/report/womens-health-technology-transforming](https://www.cbinsights.com/research/report/womens-health-technology-transforming)

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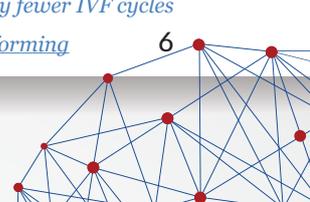


Figure 15 - Global Funding in Women Health (2016)

2016 sees peak funding in women's health, marked by 2 mega-deals
 From 2013 – 2018 as of 10/4/18

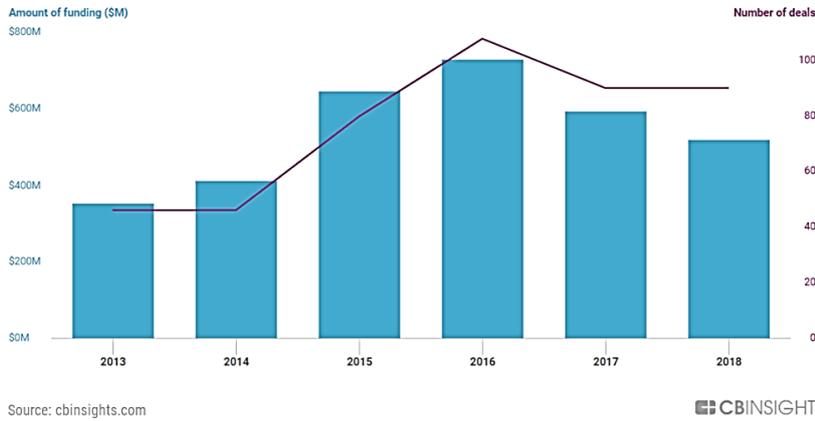
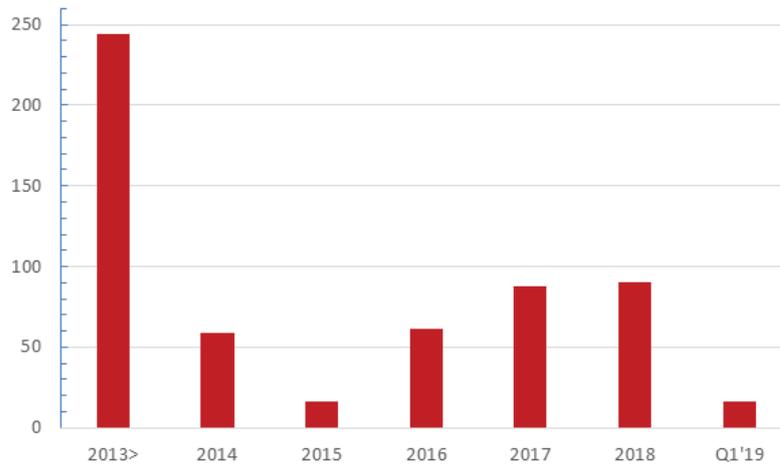
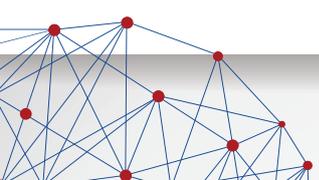


Figure 16 - Israel Funding in Women Health - \$ millions¹



Source: Tel Aviv Venture Partners, based on public information, IVC-Online Database and Start-Up Nation Finder

In 2018, excluding an investment of \$150 million in Insightec that was related to women health applications



According to a 2018 report by Frost & Sullivan¹, Femtech technologies have received more than \$1 billion in funding between 2015 and 2018, and the industry is poised to become a \$50 billion market by 2025. Investor funding in Femtech in 2018 was more than US \$400 million, compared to US \$100 million in 2013, CAGR of almost 32%.

Recently we also started seeing major healthcare VC firms invest in the sector, including New Enterprise Associates, Y Combinator, SOSV and OrbiMed Advisors. Few relative new funds are dedicated to invest only in this sector like Portfolia, Astarte Ventures, eXXclaim and more. In Israel currently there are no dedicated funds for the sector.

Femtech is set to be the next big disruptor in the global healthcare market by improving access to care for women in remote and rural areas, empowering women to manage their own health using digital technology more cost effectively and changing the landscape of reproductive health, pregnancy, and nursing care. Developers of applications in Femtech must also be aware of data privacy laws and how user health data can be used without their knowledge and against their will by third-party agencies and insurance companies.

Many Israeli organizations are promoting women health, among them are the National Council for Women health at the Ministry of Health, Keren Bria, Nashim LeGufan, Osheya, Lada'at - Choose Well, Open Door, Yahel Center, Mom2Mom and many more.

Women health is still a relatively young industry and Femtech is still a growing space. There is an ominous need to have differentiated care delivery for women owing to diverse physiology and their role in society. It is imperative that solutions are designed specifically for women to improve overall healthcare outcomes. Israel with its excellence in life sciences and digital health technologies can be a real leader in that space.

[/https://www.frost.com/frost-perspectives/femtechtme-digital-revolution-womens-health-market](https://www.frost.com/frost-perspectives/femtechtme-digital-revolution-womens-health-market)

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