

Scrutinising Femtech

An objective appraisal:

The future of women's health research (part one)

A ThoughtSpark Series: 2024



Table of Contents

Seeking truth on women's health research	2
A balanced view of research distribution	3
The femtech phenomenon	6
Maintaining accountability in female care	8
Increasing research momentum	10



Seeking truth on women's health research

An overwhelming number of studies and commentators describe serious neglect of women's health in research funding. This long-standing neglect is therefore widely accepted as fact. However, with this field, as with any other, such received wisdom must first be tested and validated before the debate moves on to practical actions and recommendations.

In some countries, particularly those with high levels of gender inequality and traditionally strong patriarchal societies, women have generally healthier lifestyle habits across their lives than men. Stereotypical ideas of masculine behaviour that include smoking, alcohol and substance abuse, as well as holding the position of main earner of the family, all contribute to poorer health.¹ Nevertheless, over half of the G20 countries studied in a 2020 analysis had healthier men than women.² In the UK, for instance, female life expectancy is higher, but on average women spend less of their life in good health compared to men.³

If we are to make progress in the field of women's health research, it is critical to regularly question assumptions, and any statements that appear to be true but are not always substantiated. Without this critical appraisal on a regular basis, there is a risk of undermining discussions on women's health research, especially as awareness and commercial activity grow. It can only be favourable to healthcare research to make conclusions on women's health on the basis of comprehensive research from reputable sources.

In the first part of a series of reports, ThoughtSpark begins by testing the extent of neglect in women's health, and how we assess research distribution across male-dominant and female-dominant conditions. The report also stresses the importance of objectively appraising women's health solutions, so that women are empowered, rather than further exploited.

Inequalities in life expectancy are wider for men, but women spend longer in ill health.⁴

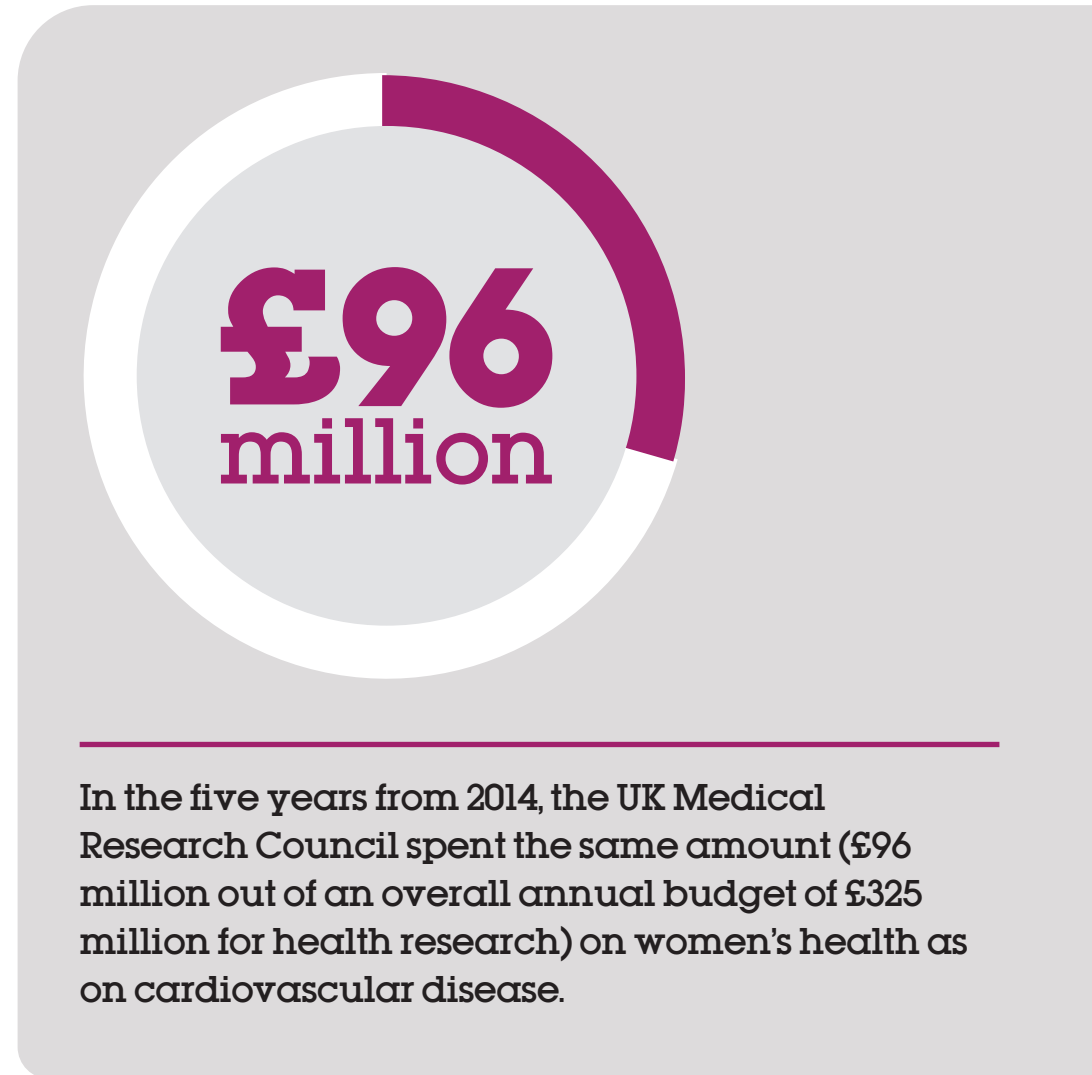


A balanced view of research distribution

What does it mean to say women's health is under-researched? One measure is the number of research papers or the amount of funding dedicated to women's health, compared to research into male-specific conditions. For instance, in the five years from 2014, the UK Medical Research Council spent the same amount (£96 million out of an overall annual budget of £325 million for health research) on women's health as on cardiovascular disease. The former included research on "...preterm birth and perinatal health, and long-term studies such as the Million Women Study, which investigates the effects of diet, smoking and other factors on disorders including cancer and heart disease."⁵

However, assessing the number of research papers or the amount of funding for specific conditions does not take into account the incidence and impact of each disease. This may obscure the true level of attention across research areas. There needs to be a proportional measure. Additionally, it is not sufficient to assess research on conditions that solely affect women, since some conditions disproportionately affect women, or may induce different symptoms. A holistic evaluation must therefore consider multiple factors to accurately represent research distribution.

The pandemic illustrated this range in experience of the same medical conditions. In 2021, The Lancet commented that, "Vulnerability to and mortality from acute COVID-19 infection is higher in men, whereas, Long COVID disproportionately affects women... From a biological perspective, we propose the asymmetry in risk and outcomes between sexes, and an





overlap of symptoms of Long COVID with those of perimenopause and menopause point towards sex hormone differences as targets for further investigation.”⁶ The study further notes that, “Sex-specific risk and ultimately outcomes are multifactorial – a function of the complex interplay between biology, behaviour, and the wider determinants of health.”⁷

Analysis from different sets of data can allow us to create a more accurate picture of research balance. Drawing from the work of US applied mathematician Arthur Mirin, *Nature* assessed healthcare research through the lens of ‘disease burden’, a measure of how much death and disability it causes.⁸ The study found that, “Of the conditions that are dominant in one sex, those that create the highest burden, such as depression and headaches, tend to affect women more”. The study then assessed NIH funding allocation, concluding, “when ranked by funding amount, diseases that affect mainly women drop down. They are underfunded compared with the burden.”

Assessing healthcare research according to disease burden – in addition to other important factors such as urgency of need – provides an important reference point in funding allocation, which then helps to improve research impact and benefit. If research attention is more proportional to burden, it can improve the quality and length of life for a larger number of people – not just one group. This can only be beneficial for society as a whole.

...when ranked by funding amount, diseases that affect mainly women drop down. They are underfunded compared with the burden.⁹





Whilst no longer the 'niche' market it once was, some argue that the continued distinction between femtech and other healthtech segments may actually be doing the field a disservice – having an othering effect that prevents women's health companies from being placed on an equal footing with their peers in the wider industry. While there are hopes that increased recognition of the equal value of women's health will one day make the label redundant, for the moment, the term femtech continues to provide visibility for this underserved segment and allow its growth to be measured.

Notably, the COVID-19 pandemic did not slow the growth of femtech. In fact, it buoyed it, as women sought digital options for their reproductive and gynaecological health needs. Global VC investment even crossed the \$1 billion mark for the first time in 2021, according to PitchBook data.¹⁶ New areas of women's health are also emerging as markets of interest, notably menopause, where projections of 1.1 billion postmenopausal women worldwide by 2025¹⁷ have led to an upsurge in products and services designed to treat and monitor its symptoms, and an estimated market of \$24.4 billion by 2030.¹⁸

Femtech was first coined in 2016 by entrepreneur Ida Tin and defined by Femtech Focus in 2020 as “solutions to conditions that solely disproportionately or differently affect females, women and girls”,¹⁹ widening the scope to include conditions such as heart disease and autoimmune diseases.

Maintaining accountability in female care

Though increased activity can only be a good thing for this historically under-researched, underfunded, and often overlooked sector, it is essential that companies are held to the highest standards if genuine improvements are to be achieved.

There are important ethical implications to the feminist empowerment discourse often adopted by femtech companies. There is a risk that women may be further exploited due to a lack of knowledge and understanding, particularly where the laudable championing of self-knowledge, empowerment and social justice may be at odds with the financial motives of for-profit companies.

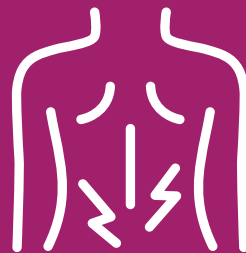
The quality and reliability of the medical information provided by some femtech products has also come into question. Period tracker apps, for example, have come under increasing scrutiny with regard to the medical accuracy of their fertility predictions. One such app has come under fire from health experts and advertising authorities alike for describing itself as “highly accurate” given the significant difference between effectiveness in ‘perfect use’ and ‘typical use’.²⁰

Growing momentum in the women's health space is a source of excitement for companies, investors and patients alike, but it is imperative that its fundamental values are not left behind as progress accelerates.



Privacy is a further area of concern. Users share vast amounts of personal data, including deeply intimate health data, with femtech companies via their apps and devices. In the USA and other countries around the world, these companies are under-regulated or unregulated in terms of privacy and data security matters, meaning that there is a very real risk of exposure to data breaches. In the post-Roe world, there are also fears that period tracking apps could be used to prosecute people seeking abortions.²¹

Stakeholders must ensure that they continue to act ethically in this rapidly evolving industry, focusing on genuine women's health outcome improvements that really move the dial.



In many settings, financialisation is changing how women's health care is delivered, marketed, and financed for patients. Clinicians, researchers, and policy makers need to scrutinise the emerging women's health industry and to engage with it with care, ethics, and vigilance.¹²

Increasing research momentum

In a world where investors and consumers are constantly moving on to the 'next big thing', women's health must capitalise on and maintain the current level of interest in the field if the progress we have made in recent years is to be consolidated.

It is clear that further research is needed, not only into conditions specific to women but also into how women experience conditions common to both sexes and differences in how they react to treatments. The underrepresentation of women in clinical studies, as in a 2015 study of a drug touted as the 'female Viagra' which included 25 participants, 23 of them male,²³ must become a thing of the past.

This research can then help raise awareness, counter biases, and guide policies such as the UK government's Women's Health Strategy for England²⁴ that aim to right the wrongs of the past and truly address the

health needs of half of the world's population.

Every stakeholder involved in healthcare research can contribute to maintaining and increasing research momentum. Funding organisations, clinical research bodies and pharmaceutical companies can transparently set targets for dedicated research and implement mandatory reporting. Governmental organisations can also appraise the balance of research at regular intervals and hold industry accountable.

Clearly, there are commercial considerations in funding decisions. But given that there is a vast commercial opportunity in women's health, investors should be reassured on this front. In our next reports, we will investigate this opportunity, why private equity organisations are not yet taking full advantage of the potential in femtech, and how to overcome obstacles to gender-balanced research in healthcare.



The underrepresentation of women in clinical studies, as in a 2015 study of a drug touted as the 'female Viagra' which included 25 participants, 23 of them male must become a thing of the past.

“

The BBC presenter Naga Munchetty has revealed the excruciating pain caused by a little-known womb condition in the hope of raising awareness of adenomyosis.

Adenomyosis is a condition in which the womb lining grows deep within the muscular wall of the womb...it can cause severe symptoms, including extremely heavy and painful periods, bleeding, pain during and after sex or when going to the toilet.

Munchetty said she had been told by doctors that she was “just unlucky”, and had to adapt her life to accommodate the pain and heavy bleeding, including setting alarms throughout the night to replace her tampon.

Jo Hanley, an adviser at Endometriosis UK, said the lack of specific guidelines for the diagnosis and management of adenomyosis made it difficult for clinicians to identify and treat it. “The lack of awareness, guidelines and research available for healthcare practitioners will filter down to the general public,” Hanley added.²⁵

”

Source: *The Guardian*



About the author

Sarah Nurgat

Client Services Director

Client Services Director at **ThoughtSpark**, Sarah has extensive experience working with life science businesses, gained over a decade working in public relations and marketing. Sarah works closely with clients to strengthen their visibility in national and international media. A linguist with a background in French translation, she understands the subtleties of working with global markets.



Footnotes

1. See, for instance. Harvard Health Publishing. (2019). *Mars vs. Venus: The gender gap in health*. https://www.health.harvard.edu/newsletter_article/mars-vs-venus-the-gender-gap-in-health
2. News Medical. *UK has the largest gender health gap in G20, study reveals*. <https://www.news-medical.net/news/20200522/UK-has-the-largest-gender-health-gap-in-G20-study-reveals.aspx> See also: Manual. *The men's health gap*. <https://www.manual.co/mens-health-gap>
3. Nicole Winchester. (2021). *Women's health outcomes: Is there a gender gap?* <https://lordslibrary.parliament.uk/womens-health-outcomes-is-there-a-gender-gap/> See also: Toby Watt. (2022). *Quantifying health inequalities in England*. <https://www.health.org.uk/news-and-comment/charts-and-infographics/quantifying-health-inequalities>
4. Toby Watt. (2022). *Quantifying health inequalities in England*. <https://www.health.org.uk/news-and-comment/charts-and-infographics/quantifying-health-inequalities>
5. Kerri Smith. (2023). *Women's health research lacks funding – these charts show how*. <https://www.nature.com/immersive/d41586-023-01475-2/index.html>
6. Stuart Stewart. (2021). *Long COVID risk – a signal to address sex hormones and women's health*. Volume 11. 100242. [https://www.thelancet.com/journals/lanpe/article/PIIS2666-7762\(21\)00228-3/fulltext](https://www.thelancet.com/journals/lanpe/article/PIIS2666-7762(21)00228-3/fulltext)
7. ibid
8. Kerri Smith. (2023). *Women's health research lacks funding – these charts show how*. <https://www.nature.com/immersive/d41586-023-01475-2/index.html> See also: Arthur A. Mirin. (2021). *Gender Disparity in the Funding of Diseases by the U.S. National Institutes of Health*. Vol. 30, No. 7. <https://www.liebertpub.com/doi/10.1089/jwh.2020.8682>
9. Kerri Smith. (2023). *Women's health research lacks funding – these charts show how*. <https://www.nature.com/immersive/d41586-023-01475-2/index.html> See also: Arthur A. Mirin. (2021). *Gender Disparity in the Funding of Diseases by the U.S. National Institutes of Health*. Vol. 30, No. 7. <https://www.liebertpub.com/doi/10.1089/jwh.2020.8682>
10. The New York Times. *Health Researchers Will Get \$10.1 Million to Counter Gender Bias in Studies*. <https://www.nytimes.com/2014/09/23/health/23gender.html>
11. Liu KA, Mager NA. (2016). *Women's involvement in clinical trials: historical perspective and future implications*. *Pharm Pract* (Granada). 2016 Jan-Mar;14(1):708. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4800017/>
12. Institute of Medicine (US) Committee on Understanding the Biology of Sex and Gender Differences; Wizemann TM, Pardue ML, editors. *Exploring the Biological Contributions to Human Health: Does Sex Matter?* Washington (DC): National Academies Press (US); 2001. 1, Introduction. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK222294/>
13. White J, Tannenbaum C, Klinge I, Schiebinger L, Clayton J. *The Integration of Sex and Gender Considerations Into Biomedical Research: Lessons From International Funding Agencies*. *J Clin Endocrinol Metab*. 2021 Sep 27;106(10):3034–3048. doi: 10.1210/clinem/dgab434. PMID: 34137862; PMCID: PMC8475217.
14. Frost & Sullivan (2018). *Femtech—Time for a Digital Revolution in the Women's Health Market*. <https://www.frost.com/frost-perspectives/femtechttime-digital-revolution-womens-health-market/>
15. Susan Kelly. (2022). *Friday Q&A: FemTech Focus's Barreto discusses women's health innovations, funding challenges*. <https://www.medtechdive.com/news/FemTech-Focus-Barreto-women/635745/>
16. Priyamvada Mathur. (2021). *Flo raises millions as femtech frenzy continues*. <https://pitchbook.com/news/articles/femtech-startups-venture-capital-flo-women-female-funding>
17. Astellas. (2023). *Menopause has been ignored for too long: Our role to support people impacted every year*. <https://www.astellas.com/en/stories/world-menopause-day>
18. Grandview Research. (2022). *Menopause Market Size, Share & Trends Analysis Report By Treatment (Dietary Supplements, OTC Pharma Products), By Region (North America, Europe, APAC, Latin America, MEA), And Segment Forecasts, 2023 – 2030*. <https://www.grandviewresearch.com/industry-analysis/menopause-market>
19. Susan Kelly. (2022). *Friday Q&A: FemTech Focus's Barreto discusses women's health innovations, funding challenges*. <https://www.medtechdive.com/news/FemTech-Focus-Barreto-women/635745/>
20. ASA. (2018). *ASA Ruling on NaturalCycles Nordic AB Sweden t/a Natural Cycles*. <https://www.asa.org.uk/rulings/naturalcycles-nordic-ab-sweden-a17-393896.html>
21. Joseph Dov Bruch & Sarah S Richardson. (2023). *Women's health, Inc*. *Lancet* 2023 Apr 15;401. 1258–1259. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(23\)00736-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)00736-5/fulltext)
22. Joseph Dov Bruch & Sarah S Richardson. (2023). *Women's health, Inc*. *Lancet* 2023 Apr 15;401. 1258–1259. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(23\)00736-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)00736-5/fulltext)
23. Rick Harrison. (2016). *A Drug for Women, Tested on Men*. <https://medicine.yale.edu/news-article/a-drug-for-women-tested-on-men/>
24. Department of Health & Social Care. (2022). *Women's Health Strategy for England*. <https://www.gov.uk/government/publications/womens-health-strategy-for-england/womens-health-strategy-for-england#ministerial-foreword>
25. Rachel Hall. (2023). *Naga Munchetty tells of 'constant pain' from womb condition adenomyosis*. <https://www.theguardian.com/society/2023/may/22/naga-munchetty-pain-womb-condition-adenomyosis>

ThoughtSpark Ltd.

www.thoughtsparkagency.com

info@thoughtsparkagency.com