

hertility<sup>®</sup>

# The ReProductive Report



Pioneering Change  
in Women's Health

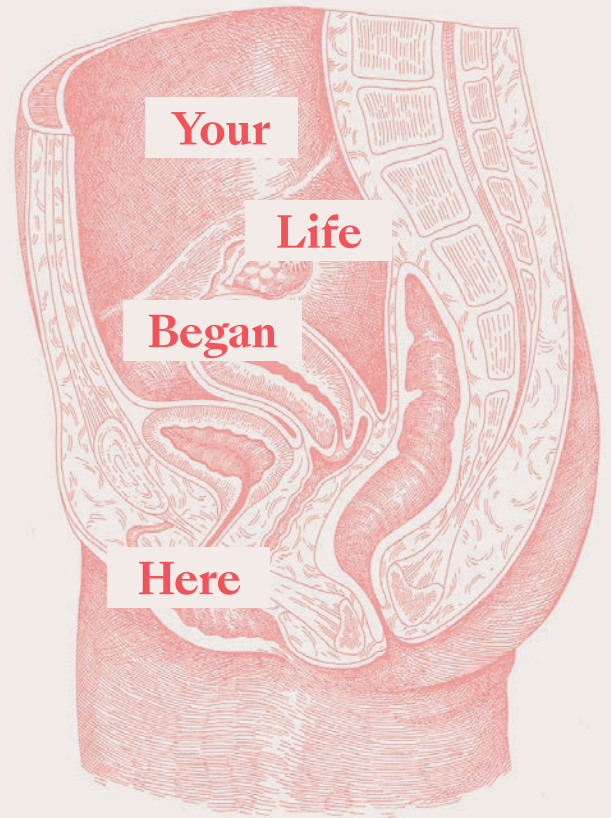
# About Hertility

Hertility is a women's health company built by women, for women. We're shaping the future of reproductive healthcare by pioneering unique diagnostic testing that provides data-driven and advanced insights into reproductive health, fertility decline and the onset of menopause. We provide expert advice, education and access to care - all from the comfort of your home.

Our research trials are a step towards fixing the currently flawed system. 31% of women will suffer from a reproductive health issue at some point <sup>(1)</sup> and through our research, we aim to reduce the time to diagnosis through advanced at-home testing and specialist gynaecological care.

We tailor pathways to the individual's reproductive goals, whether it be to explore their ovarian health and fertility options or overall hormonal health, such as confirming a PCOS diagnosis. Currently, we can diagnose 18 of the most common gynae pathologies which may lead to reduced fertility and signpost gynae cancers.

Ultimately, our aim is to change attitudes around reproductive health, both for individuals and in the workplace, and to encourage women to be proactive by tracking their reproductive health. We're calling this the ReProductive Revolution!



## “Be ReProductive”/ “ReProductive”

*,ri:prə'dʌktɪv*  
adjective

1. Getting productive with your reproductive health by testing your hormones with Hertility.
2. Equipping yourself with the knowledge you deserve about your body, to make informed decisions when it matters, not when it's too late.

# Foreword



from Dr Helen O'Neill,  
CEO and Founder of Hertility

Why do we know more about outer space than our inner spaces? Why is more funding dedicated to getting to Mars than in furthering our understanding of menstruation? Why are there more than double the search results for space travel than there are research findings into women's health? As a species, we've prioritised mapping the galaxies over the gynae health of half the planet which might explain why when the engineers (intelligent enough to understand space travel) sent the first woman to space for one week, they sent her with 100 tampons. For ONE week. Enough is enough. It's time for change.

## “Why do we know more about outer space than our inner spaces?”

The fact remains that in 2023, we still live in a world that is largely body illiterate. And worse, one where not understanding your own body is not only accepted but deemed as normal. But why do we accept such ignorance? If you stop to think about it, learning to read and write are exceptional undertakings. We translate shapes into meaning and dedicate years to learning new words and broadening our vocabulary. And once we've cracked our own language, some of us might even turn to mastering multiple other languages. Being illiterate is seen as the ultimate denial of education or the definition of ignorance, yet when it comes to body literacy, women today have no choice but to remain illiterate.

But what if we were given the knowledge, education and tools to be able to read our bodies? What if we could become fertility fluent or translate our symptoms into meaning or read our bodies' signals of disease and treat the cause? In short, what if we became body literate?

**“The fact remains that in 2023, we still live in a world that is largely body illiterate.”**

But most of us just accept the void of information that should simply have been taught at school. And unfortunately, even those who want to be body literate are stymied by systemic flaws in the medical system. It's hard to imagine that in a world that enables us to look up the answer to almost any question in the palm of our hands, we have no answers to one of life's biggest questions: “can I have a baby?” As scientists (and women) working in women's health, this question was more than a professional one, it was a personal one. It was a question we couldn't believe would be so hard to answer and a problem we wanted to solve. That's why we built Hertility; to give every woman answers about her body, and help her along the way, where needed. Because guesswork shouldn't lead to heartache and we have been told “I just wish I knew” far too many times. Enough with the unanswered questions. Enough with putting your health in someone else's hands. Why can't you take a test to find out where you're at now? Well actually, you can. That's where we come in.

**It's hard to imagine that in a world that enables us to look up the answer to almost any question in the palm of our hands, we have no answers to one of life's biggest questions- "can I have a baby?"**



But Hertility is so much more than just a test, we're here to give women answers and streamline them to the care they need. We founded Hertility to answer the questions we always asked ourselves, but did not have answers to. To answer the questions and conversations that constantly came up between friends, sisters and peers which always led to more questions. We had dedicated our careers and spent our Masters and PhDs to finding answers scientifically, but what we actually found out was that, more often than not, the data we needed to answer those questions just didn't exist. So, we made sure that our scientific expertise was incorporated into Hertility in the form of research so that we could plug the gender data gap and ultimately bridge the gender care gap that exists in the current healthcare system. We're on a mission to fill in the missing information. To arm women with the knowledge and unload them of the burden and stamina required to advocate for themselves and fight for treatment. To provide the help and care your mother and her mother were never given and could never give you. We're here for the struggling mothers, the would-be mothers, and the trying to be mothers. Hertility is the Mother of all change that is needed to the current healthcare system.



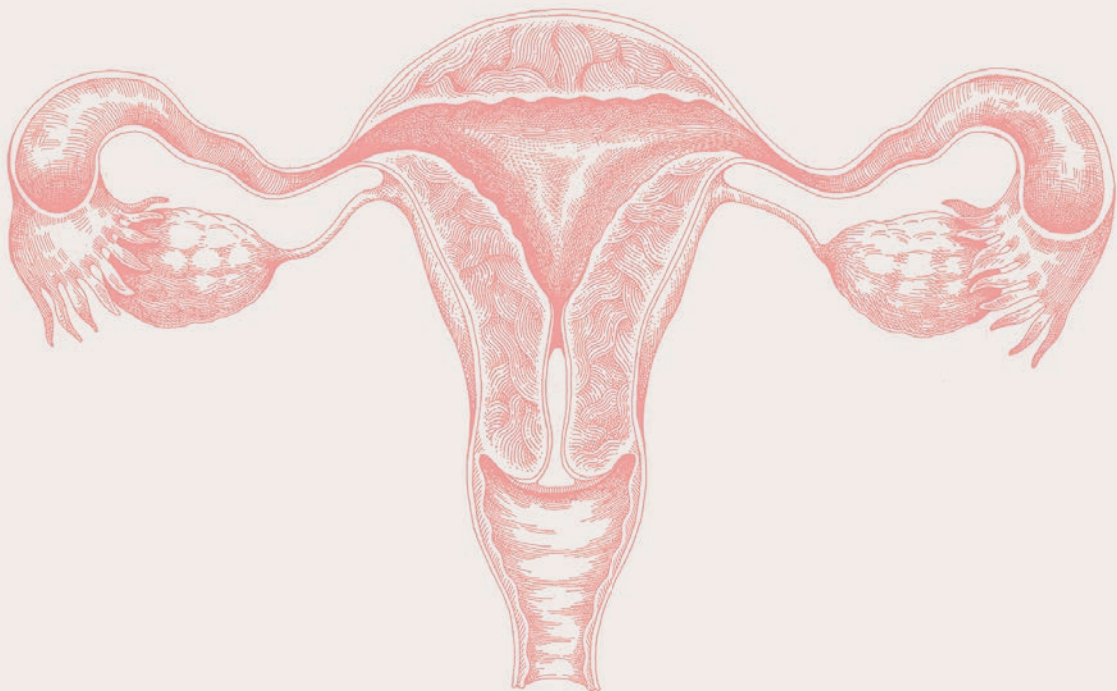
**We are the Mother of all movements.**

But we're not trying to retrofit the needs of women into a healthcare system that wasn't built with them in mind. We're starting from the ground up and are dedicated to building an alternative clinical experience that works for Every Body. We're here to listen. To really listen to the needs of women today. Instead of expecting a woman (or young girl) to open up about her periods in a 10 minute doctor's appointment, we've built our proprietary online health assessment to remove any potential judgement or embarrassment and allow women to open up about exactly what's going on. Secondly, we're here to make unbiased sense of what women tell us. Doctors are incredible but they're also human. That's why we've combined the human touch with calculator-like accuracy by putting the health of women in the hands of our algorithm, coded by millions of variables to accurately and precisely screen for 18 reproductive health conditions that may impact female wellbeing or fertility, all in days as opposed to years. Finally, we're here to reinvent the future of women's health.

**“We're here for the struggling mothers, the would-be mothers, the trying to be mothers. This is the mother of all change that is needed.**

**This is the mother of all movements.”**

This ReProductive Report is the first of its kind. It's the first time that healthcare for women is being put in the hands of the women themselves and is patient-led rather than having it dictated for them. It's the first time that women have been given the opportunity to tell us exactly what's going on so that something can be done better to serve them. We can't wait to continue to listen, learn and build the future of women's health, together.



# hertility<sup>®</sup> in 2022

# 213,713

people better educated  
about their bodies

61.9%

found out  
that they had  
a hormone  
imbalance

# 122,665

people took steps to  
understand their body

43.9%

received  
results  
indicative of a  
diagnosis

Our test is ISO-accredited, CQC-approved  
and fully compliant with regulatory bodies



# About the report

This is the first ever report on reproductive health published by Hertility and the largest of its kind. Amongst the data dearth that exists in women's health, this year 122,665 women turned to us to help them get answers about their reproductive health - something that has not only improved the lives of those people themselves, but that has enabled us to conduct invaluable and much needed research into what is still currently (unbelievably and inexcusably) unknown about women's bodies in 2022.

The majority of the data that does exist on women's health is not good enough. The sample sizes are small and not representative of the real-lives of modern women today and does not take differences (such as ethnicity) into account, which we know can have huge implications for the increased likelihood of getting certain reproductive health conditions. That's why we're so excited to have collected such a substantial amount of real-world data on women living, breathing and reproducing today.

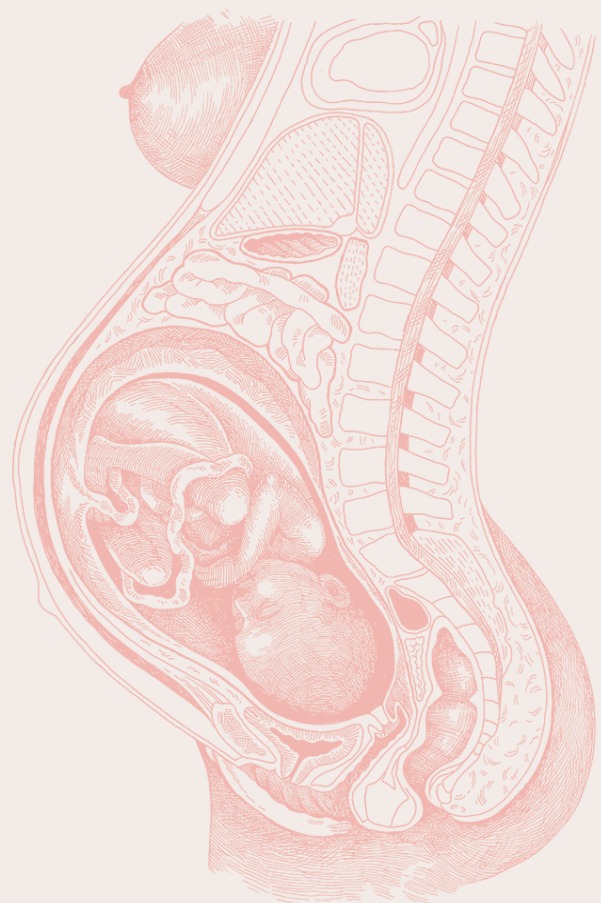
We strongly believe that the female body should not be a medical mystery. We believe every woman deserves answers about her body and her health so that she can make informed decisions, when it matters the most.

# 122,665

people trusted Hertility to get answers on their reproductive health in 2022

**"The majority of the data that does exist on women's health is not good enough. The sample sizes are small and not representative of the real-lives of modern women today."**

The aim of this report is to open up the conversation about reproductive health, tackle the spread of misinformation and arm as many people as possible (both with ovaries and those without) with the most up-to-date, data-backed and expert-reviewed information on reproductive health.



# Methodology

The first step of the Hertility journey is to complete our online health assessment. This powerful set of questions, built using specialist guidelines and decades of clinical experience, collects relevant information on the user's goals, symptoms, medical history, lifestyle & periods in the most extensive whole body online health assessment. The next step is to take a blood test which measures a personalised panel of hormones biomarkers used to screen for common reproductive health and thyroid conditions.

This report is based on the anonymised data from 141,535 people who have taken this first step into understanding their bodies with Hertility from the online health assessment, blood test or both, on which our team of world-leading (female) data scientists and (female) scientific researchers have then conducted multiple data analysis and published scientific papers that we outline in this report.

## Expert Contributors:



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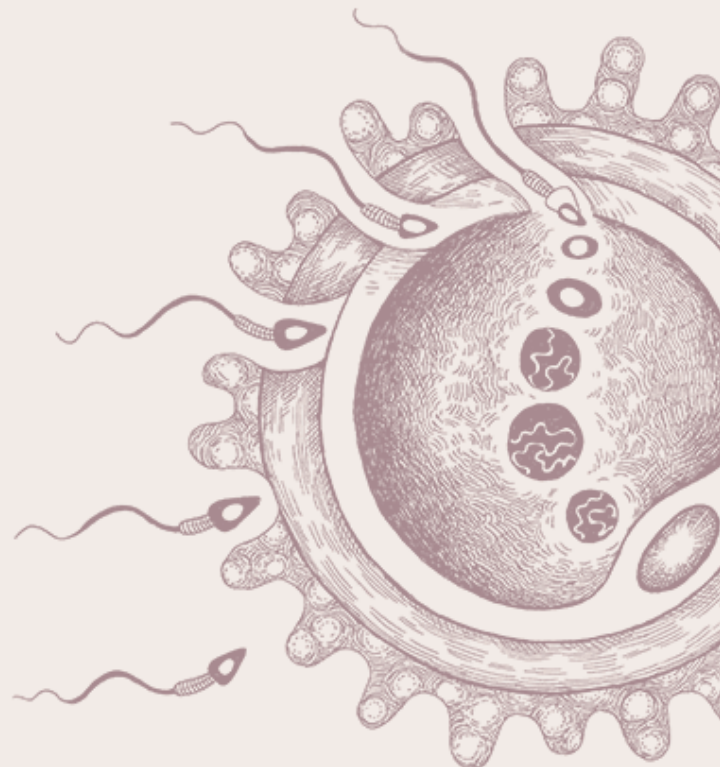
## The ReProductive Revelations:

#1 - We need new data on women's reproductive health (Page 9)

#2 - Mothers-to-be need to be supported with robust preconception lifestyle advice (Page 15)

#3 - Women trying to conceive need to get to specialist care sooner (Page 19)

#4 - Women are not all treated the same when it comes to their reproductive health (Page 22)







We need **new**  
data on women's  
reproductive  
health.

**“We’re setting a new standard of scientific rigour and education in female health. To date, accurate data that reflects women of today just hasn’t existed.**

**The current healthcare system is being driven by out of date data that has led to the systemic infringement of women’s health needs, we are here to change that.”**

**Dr Helen O’Neill, BSc (hons), MSc, PhD  
Lecturer in Reproductive and Molecular  
Genetics and CEO and Founder of Hertility**

**68.9%**

**Of Hertility users do not  
have a 28 day cycle**

We looked at the general trends in our data and compared it to existing research. Our research revealed new insights into reproductive health statistics, some that have been overlooked until now and others going against existing research and accepted truths.

#### **Not all cycles are 28 days**

Recent data has shown that the majority of women have a menstrual cycle that lasts between 25 and 30 days<sup>(2)</sup>, however the popular belief is still that most cycles last 28 days. We found this only to be the case in 31.1% of our users.\* Why does this matter? This means that the majority of couples timing sex with a 28 day cycle in mind, are at risk of miscalculating their fertile window and potentially missing ovulation altogether. This can lead to an increased time to getting pregnant with the emotional burden and anxiety that comes with it.

#### **Many reproductive health conditions are still undiagnosed**

According to existing published data on the UK population:

31% of women in the UK have experienced a severe reproductive health symptom in the last 12 months.<sup>(1)</sup>

1 in 10 women have PCOS.<sup>(3)</sup>

1 in 10 women have endometriosis.<sup>(4)</sup>

Around 2 in 3 women will develop fibroids at least once in their life - but the majority of these go undiagnosed.<sup>(5)</sup>

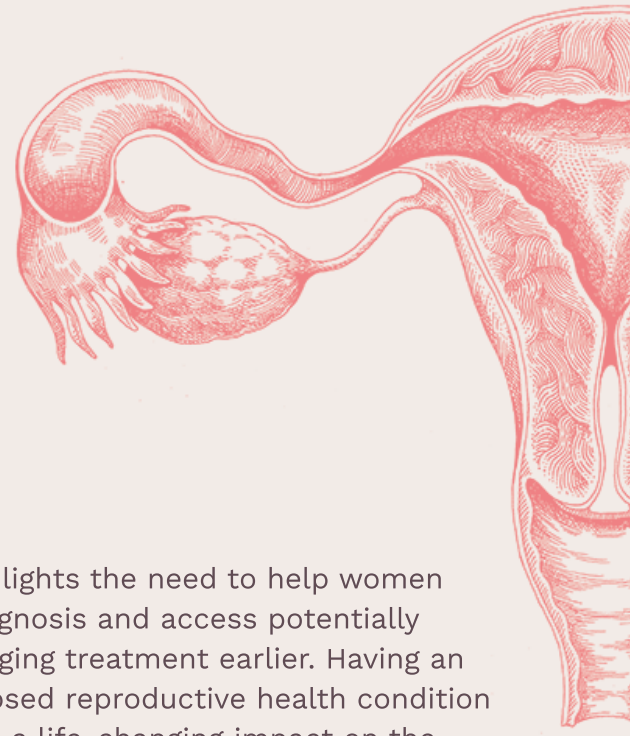
POI affects 1 in 100 women under 40 and 1 in 1000 women under 30.<sup>(6,7)</sup>



# 12.1%

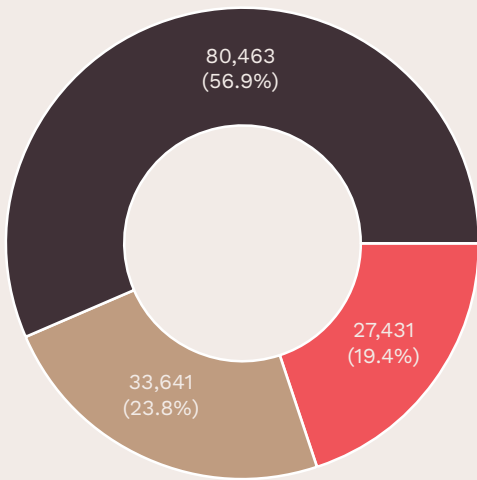
## of Hertility users reported previous diagnosis of Polycystic Ovary Syndrome (PCOS)

When looking at our data, we found that 19.4% of our users had already been diagnosed with one or more of the conditions mentioned above, with the most prevalent previous diagnosis being PCOS, reported by 12.1% of our users (see figure 1). The numbers for the remaining conditions do not reflect the data available on the UK population, however this may be due to the average age of our users being younger than the populations used to create the above statistics, meaning it is likely that many have not yet gone through the lengthy process prior to receiving a diagnosis.



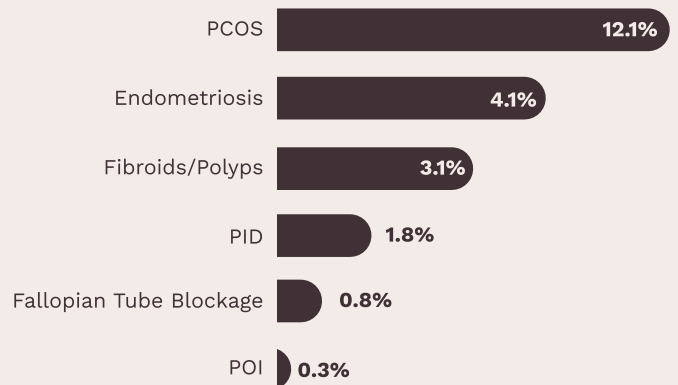
This highlights the need to help women get a diagnosis and access potentially life changing treatment earlier. Having an undiagnosed reproductive health condition can have a life-changing impact on the personal and professional lives of those involved and so by increasing the number of accurate diagnoses as early as possible, we can increase the quality of life of women around the world.

Hertility population breakdown of previous diagnosis: (fig.1)



- No previous diagnosis
- No previous diagnosis, but something is up
- Previous diagnosis

Most common pre-existing conditions reported:



# 81.0%

of our users experience one or more symptoms

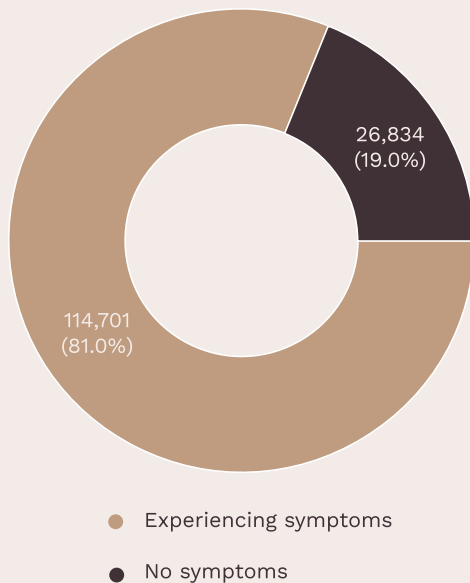
### The need for data around symptoms in the absence of disease

The existing data on symptoms is only available in the context of diagnosed gynaecological conditions, but there is no data available in the absence of disease. Even without a confirmed diagnosis, symptoms can be debilitating and severely affect quality of life. In the absence of this data, we've collected it and the findings are shocking.

More than 80% of the women that reach out to us experience one or more symptoms that are indicators of a reproductive or thyroid health condition. We saw this % across all users who took the health assessment, even those who didn't approach us due to experiencing symptoms. Fatigue leads the way, followed by irritability, acne and feeling cold often.

### Hertility population breakdown of symptoms experienced:

(fig.2)



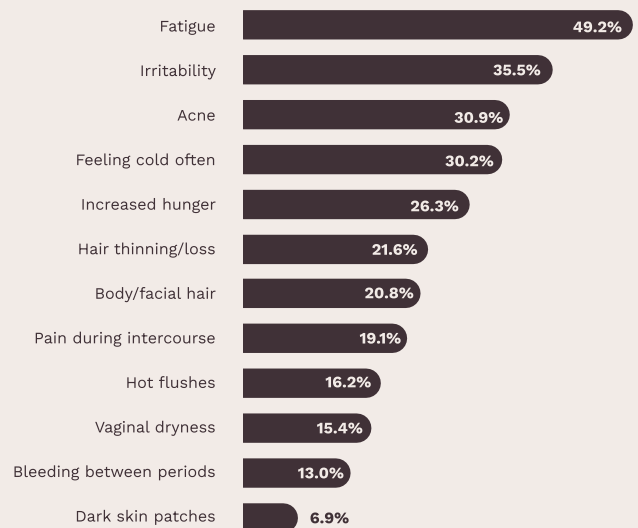
# 1 in 5 women

experience pain during intercourse

### Male pleasure is given priority over female pain

Approximately one in five women experience pain during intercourse yet there is very limited research on it and therefore modern medicine has not caught up with developing clinical guidance for assessment or management for it, nor is it something that is regularly brought up during sexual health education as a symptom which is commonly experienced during sexual intercourse. This is in stark contrast to erectile dysfunction (ED), a condition which researchers have conducted five times as many studies into as premenstrual syndrome (PMS), despite only around 19 per cent of men suffering from ED and 90 percent of women experiencing symptoms of PMS.<sup>(8)</sup>

### Most common symptoms reported:



**49.2%**  
of our users reported  
fatigue as a symptom



**30.7 years**  
old is the average age of our  
users trying to conceive

**Being tired is normalised for the modern woman but it shouldn't be ignored**

The most reported symptom that our users experienced was fatigue, being severe enough to be reported as a symptom by 49.2% of our users. As a society, being tired is often dismissed and this can be especially true for women where the burden of balancing life, work, children and careers is expected, and even praised as 'having it all.' As is the case with pain, fatigue or tiredness is a symptom often disregarded by both ourselves and healthcare professionals, especially in the absence of any other symptoms. Fatigue can not only be debilitating but it can be a sign of hormone imbalance such as an under active thyroid or associated with reproductive health conditions such as hypogonadotropic hypogonadism and premature ovarian insufficiency.

**We're trying to have babies later in life**

The average age of Hertility users trying to conceive is 30.7 years. Whilst this is in line with the ONS data on the average age of mothers in England and Wales, it is more than 2 years older than women in the year 2000<sup>(9)</sup> with 1 in 25 babies now being born to the over-40s, a four-fold increase in 30 years.<sup>(10)</sup>

The key difference is that whilst the average age of becoming mothers appears to be similar, women are actually leaving it until later in life to start trying to conceive. In fact, this year ONS published data reporting that half of women (50%) born in 1990 (the most recent cohort to reach age 30 years) remained childless by their 30th birthday; this is the first time this has happened since records began.<sup>(11)</sup>



### **A need for proactive fertility tracking**

Greater access to contraception, globalisation and increased women in the workforce filling more senior positions, may all influence when women are choosing to have children and explain this delay but the reality is that we cannot beat our biology. The ovary is one of the fastest ageing organs in our body and over time, as we age, we know that it becomes increasingly difficult to conceive without interventions (IUI or IVF). Not only this but being pregnant at an older age is associated with an increased risk of complications during pregnancy, labour and delivery, increasing the risks to both the health of the mother and the baby. Whilst we're not necessarily advocating that women should forgo travelling and careers to have children earlier in life, we believe that a more proactive approach to reproductive health and fertility is needed for women to be able to plan their lives and their careers and look back on their lives without regret.

**"We believe that a more proactive approach to reproductive health and fertility is needed for women to be able to plan their lives and their careers and look back on their lives without regret."**



Mothers-to-be  
need to be  
**supported**  
with robust  
preconception  
lifestyle advice.

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ReProductive Revelation #2

**“Knowledge is power. It’s not about shaming or blaming, it’s about arming people with ovaries with the most up to date, evidence-based information about their bodies. Until now, the preconception stage has been forgotten but we’re here to fill this gap and support women at every stage.”**

**Emily Moreton, Bsc Msc ANutr RN  
Hertility’s Fertility Nurse  
and Clinical Practitioner**

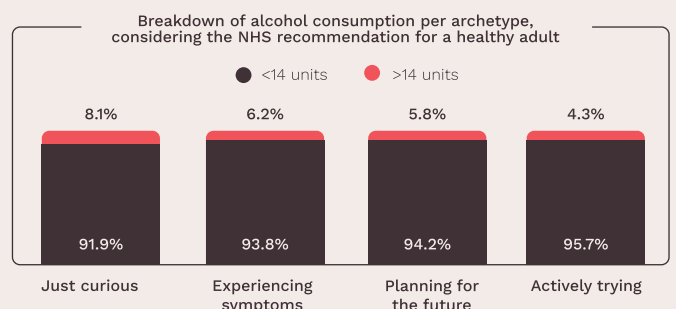
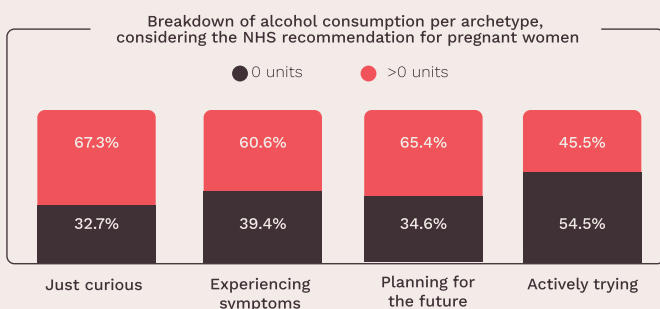
Whilst there is a lot of advice on lifestyle once a woman falls pregnant, there is a void of data and research in the period leading up to conception (also known as the preconception period). This is not only important as it affects the probability of falling pregnant in the first place (and could therefore result in a longer time taken to conceive) but the health of the mother before conception has been shown to affect the lifetime health of her unborn baby.<sup>(12)</sup>

Without robust advice, women are left to make their own decisions, often turning to online forums with no evidence to back it up, therefore inadvertently fuelling the misinformation. So, we looked at our data and here’s what we found.

**People are drinking more than NHS guidelines during the preconception period**

For pregnant women, or those planning a pregnancy, the NHS say the safest approach is to drink no alcohol at all to keep risks to the foetus to a minimum. This is because there is a chance that you may not know that you are pregnant until a few weeks into the pregnancy.<sup>(13)</sup>

What we found was that not only are 45.5% of women actively trying to conceive drinking alcohol, but almost 5% of those TTC are drinking more than the NHS guidelines for a healthy adult (14 units per week) regardless of whether they are trying to conceive or not (see figure 3).



(fig.3)



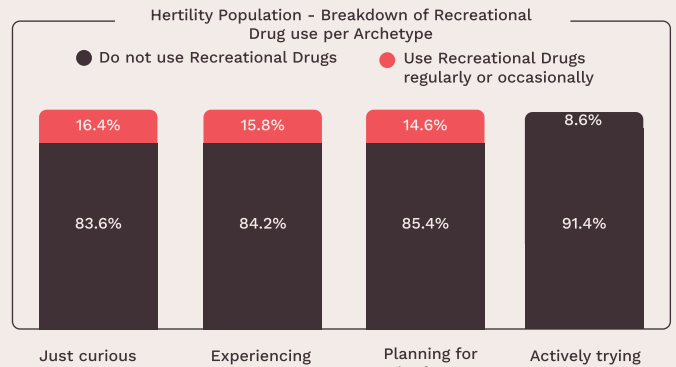
## People are still taking recreational drugs when actively trying to conceive

Using illegal drugs like cannabis, cocaine, ecstasy, ketamine and amphetamines can contribute to fertility problems and a higher risk of pregnancy complications.<sup>(14)</sup> In fact, research has shown that women who smoke cannabis may have a high prevalence of ovulatory infertility.<sup>(15)</sup>

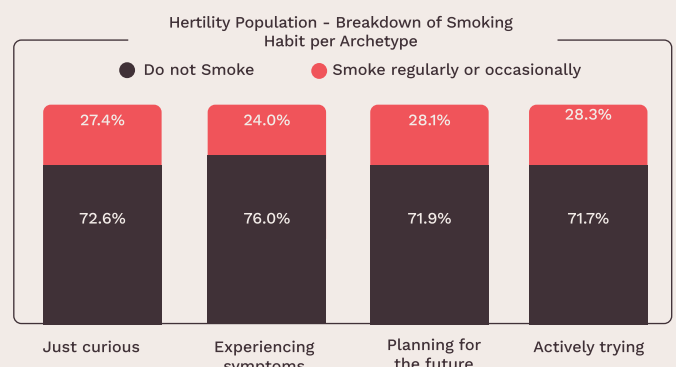
We found that the percentage of women who use recreational drugs that are actively trying to conceive is 8.6% (see figure 4). Whilst this is lower than observed for those not actively trying to conceive, it is still a substantial number given the recommended guidance to abstain from using recreational drugs whilst trying for a baby.<sup>(16)</sup> It's also worth noticing that the percentage of women who use recreational drugs that are planning for future babies is closer to that of women that are just curious about their reproductive health than that of those actively trying to conceive, which reinforces the fact that changes in behaviour might be happening too late in a women's fertility journey.

**8.6%**  
of women trying to conceive are using recreational drugs

**28.3%**  
of women trying to conceive either smoke regularly or occasionally



(fig.4)



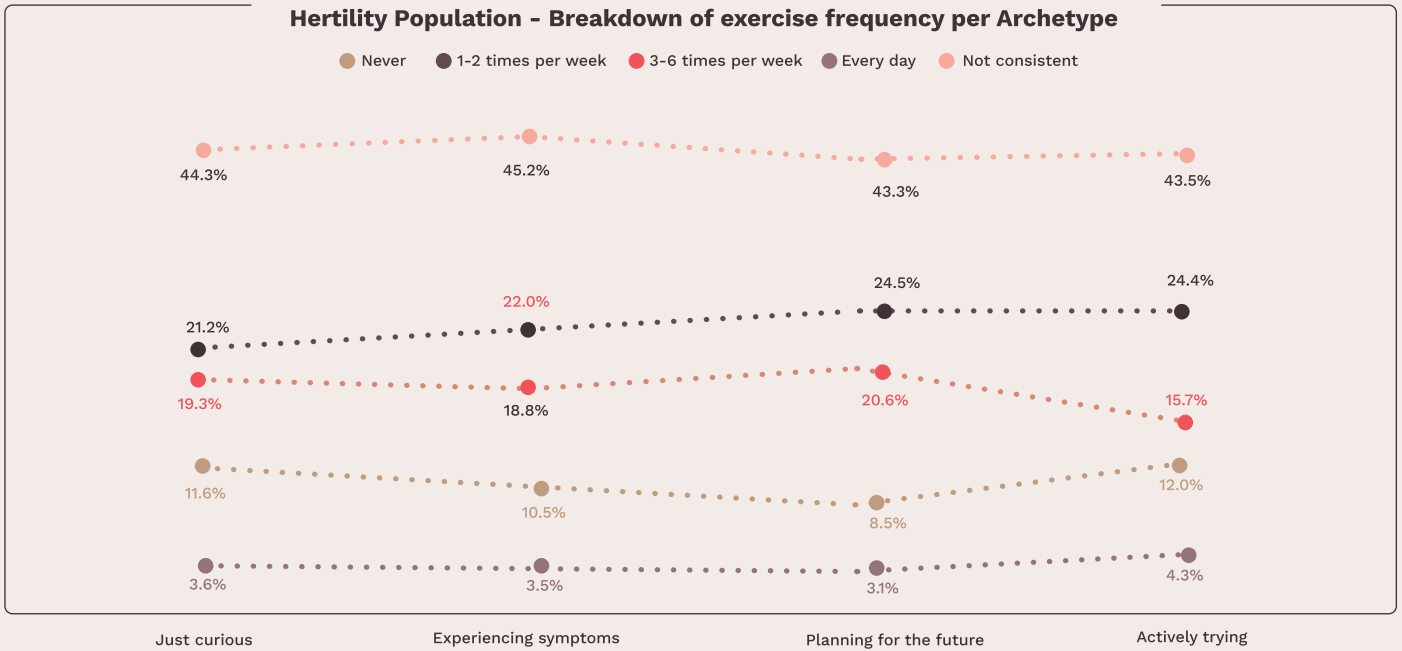
(fig.5)

## People don't seem to decrease their smoking habits during the preconception period

Smoking habits are a difficult pattern to break. When we analysed the smoking habits of women who approached Hertility, we found that the percentage of women who smoke regularly or occasionally does not decrease when they are planning for future babies or even when they are actively trying. In fact, the lowest percentage of smokers belongs to those experiencing symptoms.

In addition to the negative effects that smoking is able to have on our overall health, smoking is damaging to egg and sperm health as well as the size of the ovarian reserve. During the perinatal (pregnancy) period smoking also appears to increase the likelihood of the offspring being overweight during childhood.<sup>(17)</sup>

(fig.6)



### Most women trying to conceive do not exercise regularly

Exercise habits clearly reflect the unpredictability of our frantic lifestyle, with over 43% of the women from each archetype analysed reporting they don't exercise consistently (see figure 6). The percentage of women who don't exercise at all is also considerable for all archetypes.

Over-exercising is an example of a situation of stress where our body has not evolved much since we were running away from predators. This can cause our brain to go into fight or flight mode, which essentially means all other 'non-essential' processes like ovulation are shut down, affecting fertility by causing temporary loss of periods (known as functional hypothalamic amenorrhea). We also know that leading a sedentary lifestyle can also have a negative impact on your fertility and overall health, however this effect appears to be more noteworthy in people who are also obese. <sup>(18)</sup>

# 55.5%

## Of women trying to conceive do not exercise consistently or at all



ReProductive Revelation #3

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Women trying to  
conceive need to  
get to specialist  
care **sooner.**

## Couples struggling with infertility are not accessing state-funded fertility treatment

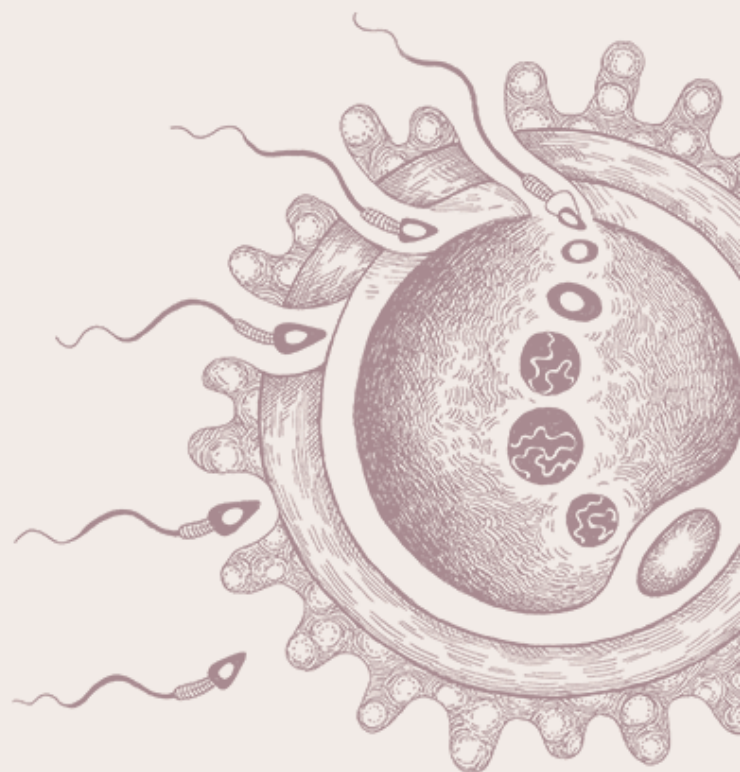
1 in 7 heterosexual couples will require treatment for infertility <sup>(19)</sup> yet data from the Human Fertilisation and Embryology Authority (the UK's fertility treatment regulator)<sup>(20)</sup> showed that only 32% of IVF cycles were NHS-funded in England in 2019 vs. 62%, 39% and 34% in Scotland, Wales and The North of Ireland respectively.

The British Pregnancy Advisory Service (BPAS) found that 80% of Clinical Commissioning Groups (CCGs), replaced by Integrated Care Boards (ICBs) in July 2022, funded fewer than the 3 cycles recommended by NICE with 64% only funding one cycle of IVF per individual/couple and only 21% funding the full 3 cycles with the number of funded cycles only set to decrease over time due to lack of funding.<sup>(21;20)</sup>

## Fertility inequality exists for same-sex female couples and single women

In England, rules for funding are subject to the postcode lottery. At the time of the BPAS report, over three quarters of CCGs required a minimum of three artificial insemination (AI) cycles to be self-funded to “prove infertility”, and 27% of CCGs required up to 12 cycles of AI prior to qualifying for NHS funding.<sup>(22)</sup> This means female same-sex couples could be spending up to £20,000 before accessing NHS-funded care, depending on location.

Single women also face difficulties accessing fertility treatment on the NHS. Despite 52% of CCGs stating they extend IVF services to single women, the other 48% of CCGs either specifically did not extend IVF provision to single women, only fund exceptional circumstances or make no reference to single women.<sup>(22)</sup>



**“When it comes to fertility, time is precious and not to be wasted. The current healthcare system makes women spend a year trying to conceive before accessing state funded fertility services, that’s far too long in our books.”**

**Dr Jennifer Barcroft, MBChB BMedSci MRCOG  
Fertility Obstetrician, Gynaecologist  
and Fertility Specialist**

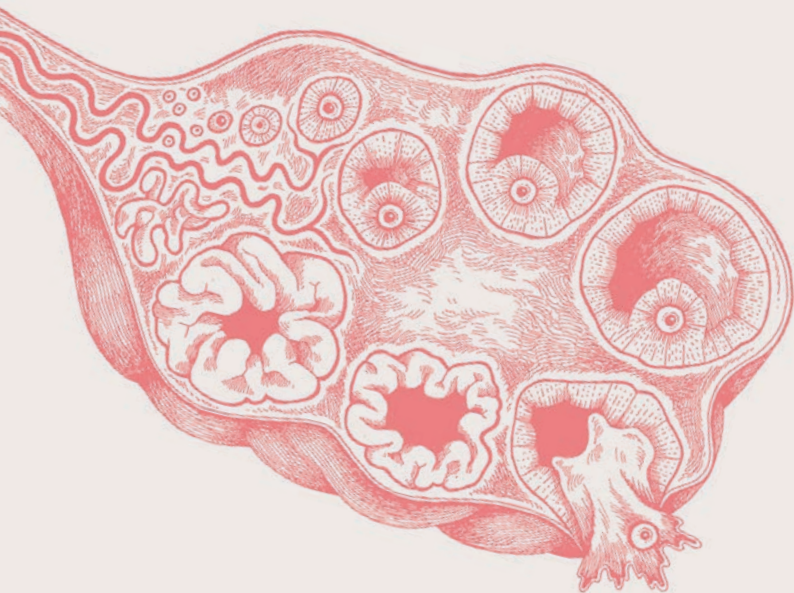
### The eligibility criteria for NHS-funded IVF is not fit for purpose

We looked at the data for our England-based Hertility users who came to us for help on their pathway to parenthood to understand how many would be eligible for NHS-funded IVF and whether the current eligibility criteria was fit for purpose.

Of the 26% of Hertility users who stated they were actively trying to conceive, 67.6% did not fit the criteria for NHS-funded IVF treatment with 65.9% of these women having been trying to conceive for less than 12 months. This means that they would have had to wait to learn they are ineligible for funding, despite already not meeting the required criteria.

**“The NHS funding criteria is not fit for purpose.”**

**Brid Ní Dhonnabháin , BSc (hons), MSc  
Senior Scientific Research  
Associate at Hertility**



**32%**

of IVF cycles were NHS funded in England in 2019

**52%**

of Clinical Commissioning Groups extend funded IVF to single women

**67.6%**

of Hertility users trying to conceive were not eligible for NHS-funded IVF treatment

Women  
are **not** all  
treated the  
same when it  
comes to **their**  
reproductive  
health.

**“Recognising diversity in science is not just a tick box. Having data that’s up to date, inclusive and representative of today’s population is the only way to drive scientific discovery forwards and create lasting, real-life impact that truly improves the health and wellbeing of everybody.”**

**Ruby Relton, BSc (Hons), MSc**  
**Senior Scientific Research Associate**  
**at Hertility**

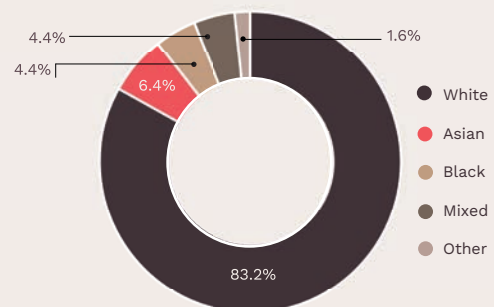
At Hertility, we’re proud to have ethnicity data in line with UK population estimates, which is already a big step forwards. But we’re always aiming to further diversify our dataset wherever possible. Why? Because we know that women of different ages, backgrounds and ethnicities will be prone to certain conditions and may react differently to certain medications. What women need is data that is personalised and relevant to them, not generalised to women everywhere. For this report, we looked into ethnicity and the impact of a lack of diverse data on access to fertility care.

**Access and outcomes of fertility treatment differs by ethnicity**

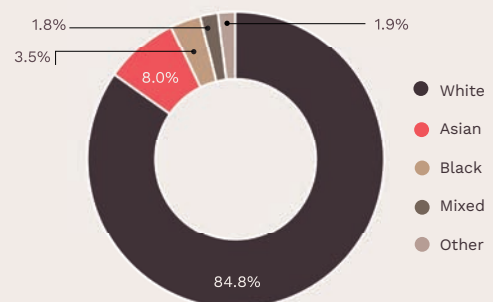
In 2021, the HFEA released a report concluding that not only did Black patients in the UK start fertility treatment on average 2 years later than the overall average (36.4 vs 34.6 years), but they also experienced the lowest live birth rates (23% vs 30%).<sup>(24)</sup> We analysed our own Hertility data to assess when women who self-identified as Black accessed our at-home service in relation to their fertility journey.

**Our Hertility user base compared to the England & Wales population estimates, 2019.<sup>(23)</sup>**  
*(fig.7)*

**Hertility Population:**



**England & Wales Population:**



## **Inequality exists when it comes to Black women and their reproductive healthcare**

We found the majority of both Black and White women approached Hertility after fewer than 6 months trying to conceive. The percentage of White women approaching Hertility consistently decreases with an increase in time spent trying to conceive. However, this trend of a constant decrease was not seen in Black women using Hertility.

# 14.9%

**of Black women had been TTC for 5 years or more when starting their Hertility journey, compared to just**

# 9.0%

**of White women**

### **Put simply, White women seek help sooner than Black women.**

The percentage of Black women that approached Hertility 6 months into their fertility journey (29.4%) was lower than that of White women (32.8%), however the percentage of Black women who had been trying to conceive for 5 years or more (14.9%) was higher than White women who had been trying for the same amount of time (9.0%). In addition to this, these women were, on average, four years older than White women approaching Hertility and two years older than the average woman approaching Hertility.

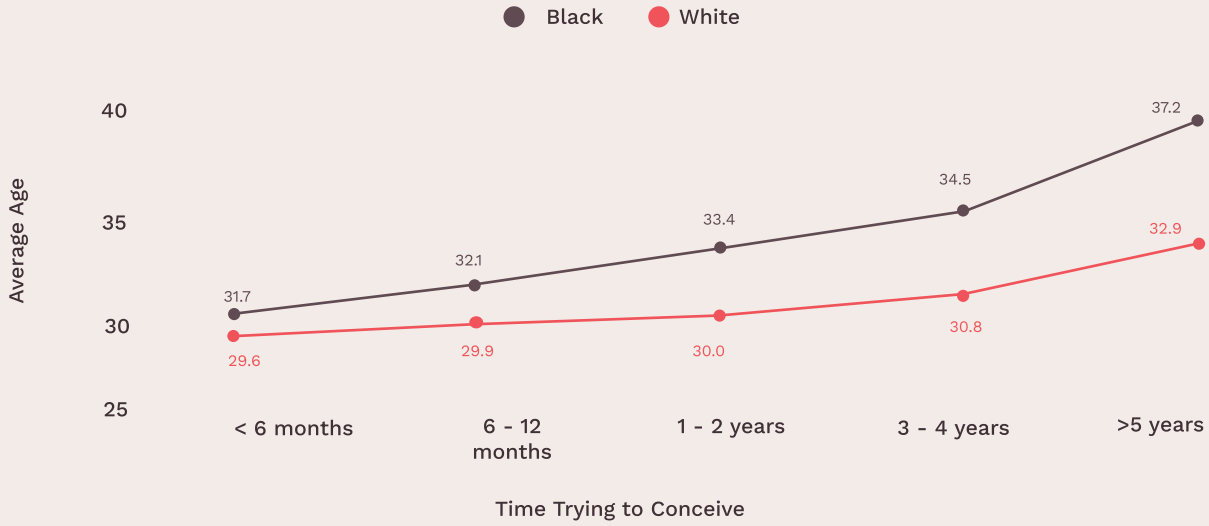
It is known that age is one of the main causes of female infertility and a significant deciding factor of fertility treatment success. Therefore, later access to fertility investigations and care may be one of the contributing factors to the lower success rates we are seeing for Black patients accessing fertility care in the United Kingdom. Reasons why we are seeing this disparity in inequitable access to fertility care, could be a combination of social, cultural and financial factors. Systemic racism and previous negative experiences with healthcare professionals are also likely to prevent Black and brown women seeking fertility treatment and care earlier on in their journey.

### **Research is just part of the puzzle**

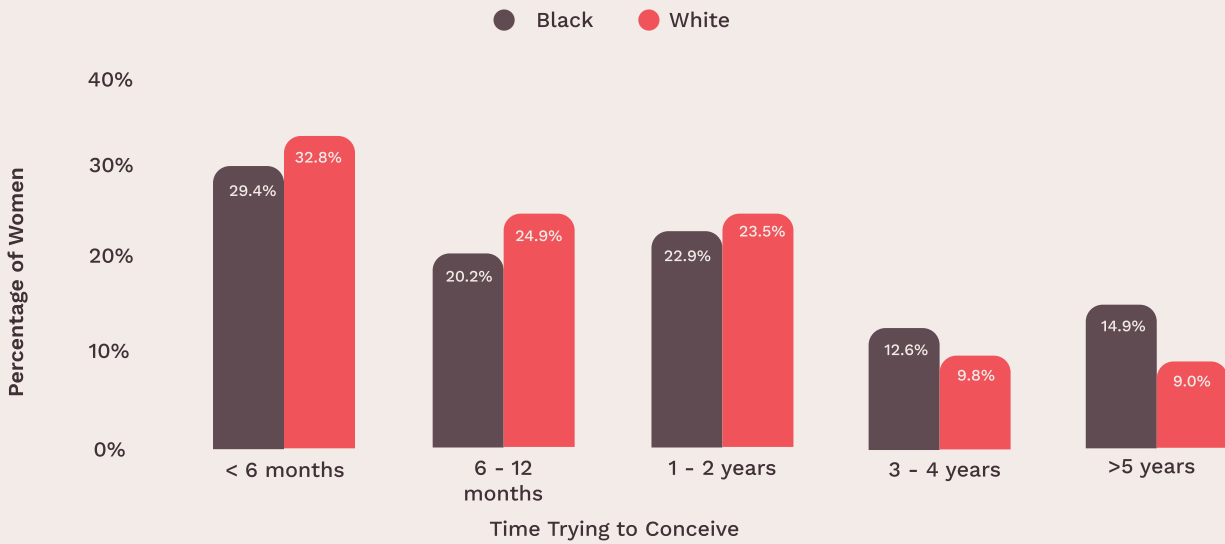
We are committed to engaging with community leaders, subject matter experts and people to be able to create real, measurable change and address inequalities. One of the ways we are doing this is by developing a report, cross-examining the data on the prevalence, experiences and outcomes of reproductive health(care) for Black women in the UK. Our goal with this is not only to empower Black women with an inclusive, reliable source of truth but also to take the onus off them to be the 'educators'. It is up to each member of our community to educate ourselves so that we can be cognizant of the trials and tribulations Black women face throughout their reproductive life and beyond, and we believe this shift begins with this report.



**Hertility Population - Average age of women actively trying to conceive per ethnicity and time trying to conceive**



**Hertility Population - Percentage of women actively trying to conceive per ethnicity and time trying to conceive**



# Conclusion.

We know that there are inequalities in the healthcare system and our data shows the impact this has on the reproductive health and fertility of marginalised groups. Our goal is to conduct science-backed research to shift people's perceptions, change guidelines and make a measurable difference to as many people's lives as possible.

Until now, when it came to women's health, the data just didn't exist. So women (and clinicians) alike were left in the dark and had no choice but to make uninformed decisions about their bodies. But we're here to change that. To give every woman clarity into what's going on in her body and streamlining her to the care she needs. This single, great mission underpins everything we do at Hertility. Where the data doesn't exist, we collect it. Where analysis hasn't happened, we find answers. Where solutions aren't available, we build them. And every single person in our Hertility-team community is playing their part too. With every test taken, we're one step closer to bridging the gender data and care gap and with every bit of revenue, we're funding essential research into female health and reinventing the future of healthcare for women.

**“With every test taken, we're one step closer to bridging the gender care gap and with every bit of revenue, we're funding essential research into women's health.”**

**Dr Helen O'Neill**  
CEO and Founder of Hertility

**"I have endured the indifference, misdiagnoses, and unending expense of the current system. The knowledge gap and lack of evidence-based research forced me to self-educate, self-fund and be my own advocate. So, I'm so excited about the pioneering work Hertility is doing."**

**Claire**  
Hertility Community Member



# Hertility's Reproductive Research Roundup 2022

Alongside what we're doing at Hertility, 2022 has brought many scientific breakthroughs that are filling in gaps in our knowledge on women's bodies. Here is our 2022 Reproductive Research Roundup, brought to you by Hertility's Head of Scientific Product Research, Dr Tharni Vasavan BSc (hons), MSc, PhD:



A study on premenopausal Canadian women who then had their ovaries and Fallopian tubes removed found that they had a shorter life expectancy than those who had their ovaries intact, highlighting careful consideration for this type of surgery and a dire need for improvement in the lifelong management of surgical menopause.<sup>(25)</sup>

New drugs for cervical and endometrial (or uterine) cancer, of which there are 3,200<sup>(26)</sup> and 9,700 UK cases each year<sup>(27)</sup> proved to significantly increase life expectancy compared to the current standard treatment of chemotherapy.<sup>(28;29)</sup> Through the investigation of cells, another group of researchers were also able to discover a new pathway that could act as a potential drug target for triple-negative breast cancer, which is more aggressive and difficult to treat compared to other breast cancers.<sup>(30)</sup>

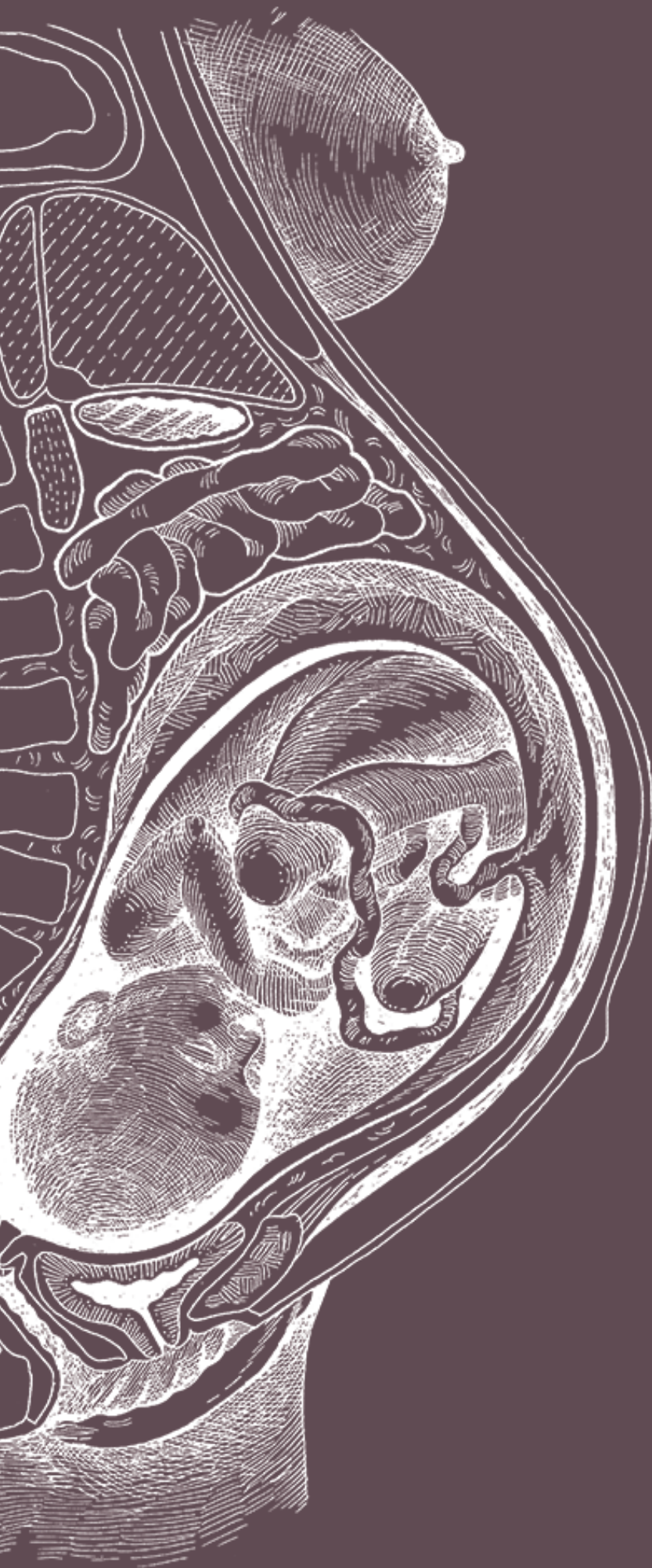
New research also found that metastatic breast cancer spreads faster during sleep, which may also impact how breast cancer is managed and treated in the future.<sup>(31)</sup>

Novel associations between reproductive and other aspects of health were also found this year, with one large global study demonstrating that recurrent miscarriages and stillbirth may be a risk factor for stroke and other experiments on mice reporting a link between the female reproductive hormone FSH and the incidence of Alzheimer's disease. Both conditions disproportionately affect women more than men and this evidence provides potential reasons for why this may be.<sup>(32;33)</sup>

Research into the potential causes of uterine cancer and fibroids demonstrated that the chemicals used in hair relaxing treatments were linked to a higher risk of both conditions, adding a piece of the puzzle to why Black women (who are more likely to use straightening treatments) have a higher incidence of fibroids and tend to have more severe forms of uterine cancer compared to White women.<sup>(34;35)</sup>

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