Priorities for Research on Women's Health in Europe

A Position Paper on Women's Health Research by the University of Bergen









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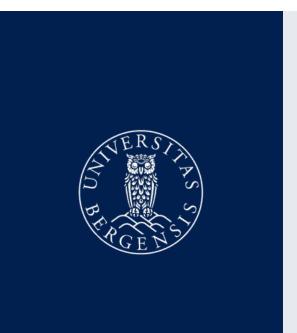
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THE UNIVERSITY OF BERGEN

The University of Bergen (UiB) is a leading research institution in Norway, known for its strong international collaboration and interdisciplinary research. UiB is committed to addressing global challenges in health. With a robust presence in EU-funded projects, UiB actively contributes to advancing scientific knowledge and innovation across Europe. Our expertise in areas such as gender equality in health positions UiB as a key partner for European research initiatives. We are eager to strengthen our collaboration with the EU to drive impactful, research-based solutions.



DRIV

Based at the University of Bergen, DRIV is a leading collaborative research center focused on advancing women's health and eliminating gender-based inequalities in healthcare. DRIV drives international breakthroughs and promotes equity in women's healthcare. The center's mission is to ensure that all aspects of women's health receive the same attention, understanding, and priority as other areas of healthcare. As a meeting point for researchers, policymakers, and healthcare professionals, DRIV fosters cross-disciplinary collaboration to address women-specific diseases, under-researched areas of women's health, and sex differences in common diseases and conditions.

Driv is organized into four scientific divisions: Biomedicine, Translational Medicine, Clinical Medicine, and Public Health, with contributions from over 120 scientists across five partner institutions.

RECOMMENDATIONS

Research on women's health should have sufficient funding opportunities in the Horizon Europe work programmes 2026-27 and be prioritized in the next Framework Programme for Research and Innovation (FP10) to support EU's commitments to competitiveness and prosperity across its member states. Research on women's health supports the progress of the work towards a gender-equal Europe and the <u>EU Gender Equality Strategy for post- 2025</u>, and the <u>EU actions to increase women's participation in the labour marked</u>.

OVERARCHING RECOMMENDATIONS

- Explicitly include women's health research in the Horizon Europe work programmes 2026-27 and in FP10
- Integrate women's health research into all the relevant existing European Partnerships under Horizon Europe.
- Establish a dedicated Partnership on women's health R&I in FP10 to ensure long-term commitment to advancing women's health research.
- Encourage cross-disciplinary collaboration in calls for proposals to address women's complex health needs
- Ensure robust female representation in clinical trials to capture sex-specific data.
- Minimize gender bias in health data and ensure fair and accurate insights into women's health.
- Foster international R&I arenas to tackle global challenges in women's health, supporting Horizon Europe's Global Health EDCTP3 Partnership.

SPECIFIC RECOMMENDATIONS

- Workforce and Health: Examine how health issues affect women's workforce participation.
- Improving Diagnostics, Treatment and Prevention for Women: Investigate how diagnosis of severe diseases affecting women can be advanced.
- **Disease Impact on Women**: Study sex differences in underlying disease mechanisms, risk factors, prevalence and outcomes for better prevention and treatment.
- Improving Maternal Health: Examine factors improving outcomes from pregnancy and birth.
- Underserved Women's Diseases and Life-Course Health: Focus on diseases that disproportionally affect women, and women's health across life stages, emphasizing early intervention.
- **Sex-Specific Health Innovations**: Promote healthcare solutions tailored to women's unique needs by enhancing innovation in digital health and AI.
- **Global Collaboration**: Foster international research partnerships to tackle global challenges related to women's health.

WOMEN'S HEALTH IN EUROPE:

A Foundation for Sustainable, Competitive and Democratic societies in the EU

Health is a central factor in human well-being, and good health and access to healthcare services are key conditions for taking part in the workforce, participating in societal arenas, and in general, for living flourishing lives. Providing equitable access to quality healthcare is a key aim for European democratic, inclusive societies. However, women's health, although it concerns more than half of Europe's population, has been afforded less attention than is needed. By prioritizing women's health, we lay the foundation for a more inclusive, productive, and prosperous Europe. Women's health research is a necessary part of the work towards the EU's aim of developing competitive, sustainable societies, realizing the values of freedom, democracy, and social fairness.

<u>Ursula von der Leyen</u> highlights workforce productivity, research, and innovation as key ambitions. <u>The European Commission's Competitiveness Compass</u> notes health-related barriers among factors limiting women's work access. Boosting women's participation and advancing research on their health and work capacity present a significant, underutilized opportunity to advance on competitiveness goals.

While initiatives like <u>The European Commission Gender Equality Strategy for 2024–2029</u> recognize women's unique health challenges, the broader economic impact of women's health remains underexplored. Many common diseases manifest differently in women, and current approaches often overlook sex-specific needs, contributing to persistent health disparities across EU countries. Building a stronger knowledge base to address these disparities can promote a healthier workforce, support caregiving, and enhance societal well-being. We welcome **the European Commission's Roadmap on Women's Rights** and its focus on women's health as an issue. In the follow-up of the roadmap we encourage a broader understanding of women's health issues beyond gender-specific health risks and sexual and reproductive health, in line with the recommendations of this paper.

<u>The European Commission's guidelines for 2024–2029</u> emphasize health innovation for economic growth, but gendered health issues are often neglected in competitiveness strategies. Prioritizing women's health research in the EU Commission's 2024–2029 strategy is essential for equity and economic growth. <u>Closing gender health gaps improves lives and economy</u>, lowers healthcare costs, boosts women's workforce participation, advances gender equality, fostering a healthier and more inclusive society.

We recommend prioritizing research on women's health in Horizon Europe 2026-2027 and in future research and innovation programs to align with the EU's goals of competitiveness, innovation, and economic security. Drawing on key points from the EU Competitiveness strategy in the <u>Draghi report</u>, this paper outlines key research priorities on women's health that support sustainable competitiveness, gender equality, and social welfare in Europe.

STRENGHTENING WOMEN'S HEALTH THROUGH RESEARCH

Research on women's health is crucial to address conditions that are frequently underdiagnosed, undertreated, and overlooked, despite their substantial impact on quality of life, workforce participation, and healthcare systems. Current prevention models often fail to consider women's health conditions, leading to delayed diagnoses, suboptimal treatment, and increased disability. The insufficient understanding of sex-based differences in disease progression, clinical presentations, and pharmacokinetics highlights the need for targeted research.

Women's health goes beyond reproduction. 3 Key areas for research:

- 1. Women-specific diseases
- 2. Diseases disproportionally affecting women
- 3. Diseases that present and progress differently in women

1. WOMEN-SPECIFIC DISEASES

Women-specific diseases have far-reaching implications for women's health, workforce participation, and overall quality of life. Examples include menstrual disorders, pregnancy complications, uterine fibroids, endometriosis, lipedema, and menopause. These conditions frequently lead to high rates of sickness absence, reduced work capacity, and, in severe cases, early exit from the workforce. Despite its profound impact, women-specific diseases remain underdiagnosed, underserved in healthcare systems, and underfunded in research.

Menopause, which affects nearly all women to some degree, can lead to symptoms disrupting daily functioning. "Undone science" such as endometriosis [1] and polycystic ovary syndrome (PCOS), can cause chronic pain, infertility, and hormonal imbalances, often being undetected for years. Lipedema, a poorly understood and "missed disease," results in progressive disability and significant pain, yet receives minimal attention in research and clinical practice. These conditions are not only painful and disabling but represents an increased risk of cardiovascular diseases among women including heart attacks and heart failure. Research is needed to unmask the underlying mechanisms that predispose these conditions with cardiovascular diseases. Furthermore, research can contribute to close the gender gap, expedite diagnosis, and improve treatment outcomes, and to prevent long-term health issues and workforce exclusion caused by women-specific diseases.

[1] N. Hudson: The missed disease? Endometriosis as an example of 'undone science' Reprod Biomed Soc Online. 2021 Aug 13;14:20–27

2. DISEASES DISPROPORTIONALLY AFFECTING WOMEN

Several diseases disproportionately affect women more than men. Autoimmune diseases such as lupus, rheumatoid arthritis, and multiple sclerosis are far more common in women, causing chronic pain, fatigue, and disability that often lead to workforce exclusion. Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS), a debilitating condition marked by extreme fatigue and reduced functional capacity, also affects women disproportionately, a prevalence ratio of 4:1 in women compared to men, and remains poorly understood and under-researched [2].

Mental health disorders, including depression, anxiety, and stress-related conditions, are also more prevalent among women and remain a major cause of disability and reduced quality of life. Additionally, women experience higher rates of migraines and chronic pain syndromes, conditions that are often poorly understood and underdiagnosed. Alzheimer's disease (AD) and Alzheimer's-related dementias (ADRD) disproportionately affect women, who make up two-thirds of all AD patients worldwide.

3. DISEASES THAT PRESENT AND PROGRESS DIFFERENTLY IN WOMEN

Research on women's health is essential to address conditions that are common in both sexes, but progress differently in women than men. Severe diseases are being underdiagnosed, undertreated, and often overlooked, despite their significant impact on quality of life, workforce participation, life expectancy and healthcare systems.

Certain diseases, such as cancer and cardiovascular disease, present and progress differently in women than in men, leading to suboptimal prevention, delayed diagnosis, and less effective treatment. Cardiovascular disease is the leading cause of early death among European women and a major contributor to disability and reduced quality of life, and early exit from the work force. The need for improvement for cardiovascular health in the EU was recently acknowledged by the Ministers of Health [3]. For instance, spontaneous coronary artery dissection (SCAD) is responsible for one-third of acute heart attacks in women under 50, yet it remains underdiagnosed due to a lack of awareness. Similarly, heart failure with preserved ejection fraction (HFpEF) is more common in women, but prognostic treatment options are insufficient. Sex differences in atrial fibrillation further highlight disparities in disease manifestation, diagnosis, and management.

Despite its prevalence, woman-specific risk factors, such as obesity, autoimmune diseases, with a 2-5 times higher prevalence compared to men, and inflammatory conditions, are often overlooked in current prevention models like <u>SCORE2</u> in the EU. Current prevention models for cardiovascular disease often fail to account for woman-specific factors resulting in delayed diagnoses, suboptimal treatment, and increased disability. The lack of understanding of sex-based differences in disease progression, clinical presentation, and pharmacokinetics highlights the need for targeted research to benefit the EU socioeconomically.

^[2] Jason, L. A., & Richman, J. A. (1999). Chronic fatigue syndrome: A review of epidemiology and diagnostic criteria. Journal of Chronic Fatigue Syndrome, 5(4), 57-80

^[3] European Society of Cardiology (ESC) Newsletter, 6. Dec. 2024

SOCIETAL AND ECONOMIC BENEFITS OF IMPROVED WOMEN'S HEALTH

Promoting Preventive Care and Public Health Awareness

Women, as primary caregivers, play a vital role in fostering household and community health. Investing in research on effective preventive care strategies can lead to substantial improvements in public health outcomes. Prioritizing women's health research will strengthen public health initiatives, reduce the incidence of preventable diseases, and lower long-term healthcare costs.

Reducing the Burden of Chronic Diseases in Women

Targeted research into chronic diseases affecting women can significantly enhance their quality of life and reduce <u>economic burden on society related to chronic diseases</u>. Research can enable early detection and treatment which reduce healthcare burdens and prevent long-term disability, allowing more women to remain in or re-enter the workforce, thus reducing gender disparities and enhancing productivity. Early management of chronic conditions can lower long-term medical costs, benefiting public health systems.

Improving Maternal Health and Supporting Families

Research on maternal health, including pregnancy, postpartum care, and long-term well-being, improves outcomes for women and their children. Strong maternal healthcare reduces childbirth complications, help women recover and return to work sooner, and mitigate long-term health issues. Healthy mothers are essential for healthy families and society.

Addressing the Aging Female Population

<u>Women on average live longer than men</u>, resulting in women making up a larger proportion of the aging population. As the EU faces demographic shifts, understanding the specific health needs of the aging female population is crucial for managing care costs. Women often sustain an important role to maintain the work force even after retiring, by supporting younger family members by taking care of children. By addressing issues like osteoporosis, dementia and cognitive decline, and cardiovascular health, the EU can develop targeted strategies to support healthy aging, sustain the work force, and reduce the economic burden of age-related diseases, enhancing the sustainability of healthcare and welfare systems.

Social Inclusion

Prioritizing women's health in research and development supports the EU's commitment to gender equality and social cohesion. Addressing sex-specific health disparities is necessary to ensure that economic and social policies benefit all citizens, fostering inclusivity. Research is needed to investigate the link between poverty and increased sick-leave rates among women [4], as well as how alleviating poverty could improve productivity. It is important to examine how lower education levels and musculoskeletal disorders among women lead to early exit from the workforce.

Fostering Gender-Inclusive Policy Development

Research on women's health will provide knowledge needed to promote more inclusive welfare systems. Insights into women's mental health, workplace stress, and caregiving can inform policies that promote work-life balance and reduce gender pay gaps. Equitable healthcare policies that meet women's needs foster social cohesion, trust in public institutions, and overall stability.

Enhancing Innovation in Women's Health Technology

Investing in women's health research can drive innovation in femtech, addressing issues like menstrual health, fertility, and menopause. Research on gynecological and reproductive health drives innovations in biotech, medical devices, and AI, and can contribute to positioning the EU as a leader in health technology, by promoting:

- **Personalized Medicine:** This research enables sex-specific treatments fostering innovation in pharmaceuticals and medical technologies.
- **Digital Health & AI**: Investing in research to develop AI tools and models that promote gender equality and digital health technologies that align with the EU's goals for innovation and digitalization in healthcare.

^[4] Elżbieta Antczak and Katarzyna M Miszczyńska. Causes of Sickness Absenteeism in Europe—Analysis from an Intercountry and Gender Perspective. Int J Environ Res Public Health. 2021 Nov 11;18(22):11823

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- Women's situation in the labour market European Commission



MORE ABOUT DRIV

Driv gathers and strengthens research on women's health through collaboration between Higher Education and Research Sector, primary healthcare services, and specialist healthcare services. Leveraging the expertise of its partners in biomedical, translational, clinical, and public health research, Driv addresses a wide range of women's health issues, including diseases that exclusively affect women, those that disproportionately impact women compared to men, and conditions that manifest differently in women. Driv's overarching goal is to eliminate gender-based disparities in healthcare by ensuring women's health is equally understood, prioritized, and treated as other health areas. The center is committed to ensuring no aspect of women's health is overlooked or undervalued, striving to achieve equitable healthcare outcomes for women through innovative and inclusive research.

Driv is involved in European collaborative research with international breakthroughs on studies of:

- 1. Diseases that affect women more often than men: Neurological disorders, dementia, endocrine disorders, hormonal diseases, rheumatic diseases and autoimmune diseases.
 - Norwegian Centre for Headache Research with task force for research on women's health: www.NorHead.org
 - Safe treatment of fertile women (epilepsy treatment and headache treatment: www.SCANAED.org
 - Technology used to recognize symptoms of dementia among people near the end of life; ERC-European Research Council (ERC): 101088414
 - · Ultradian rhythms and hormonal diseases: ULTRADIAN (H2020)
 - Pathophysiology and natural course of autoimmune adrenal failure in Europe: EURADRENAL (EC FP7)
 - New Clinical endpoints in primary Sjögren's Syndrome: an interventional trial based on stratifying patients: NECESSITY Project (H2020)
 - EBV-MS | University of Bergen
- 2. Diseases in which women get different variants than men: Cardiovascular diseases (CVD):
 - EU Cost Action Atheronet: https://atheronet.eu/
- 3. Diseases and health issues that only affect women: Obstetrics and gynecology, endometrial and cervical cancer.
 - ERA PerMed: ECLAI (Reference Number: ERAPERMED2021-076)
 - THCS: A multi-country, European implementation project to reduce adverse birth outcomes, improve maternal
 and child health and reduce non-communicable disease risk (B2B&Me+)
- 4. State-of-the-art scientific methods: Al and omics for systems biology, integrating large datasets to better understand the underlying disease mechanisms. Al algorithms identify biomarkers and drug targets by analyzing genomics, proteomics, and metabolomics data

A collaboration between:















