Ministry of Foreign Affairs

Enabling women's health innovation Transatlantic Collaboration between the Netherlands & Massachusetts

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ENABLING WOMEN'S HEALTH INNOVATION

TRANSATLANTIC COLLABORATION BETWEEN THE NETHERLANDS & MASSACHUSETTS

Netherlands Innovation Network in Boston

OCTOBER 2025

Executive Summary

In the past several years, women's health has received an unprecedented amount of attention from various levels of government[1] and within the life sciences and health industry in the United States.

Massachusetts is emerging as a global leader in women's health innovation, driven by strategic investments, robust life sciences infrastructure, and a commitment to addressing historic underinvestment in gender-specific healthcare. The Massachusetts Life Sciences Center (MLSC), through initiatives such as the Women's Health Initiative and the Women's Health Collaboration Program, has deployed over $19 million across 60 projects since 2019, targeting conditions that disproportionately affect women and promoting translational research.

In parallel, the Netherlands has cultivated a dynamic life sciences and health (LSH) ecosystem, recognized for its strengths in biotechnology, medtech, and clinical research. The Dutch approach emphasizes open collaboration, data-driven innovation, and patient-centered care, making it a natural partner for Massachusetts.

A formal Program of Cooperation (PoC) between Massachusetts and the Netherlands, signed in 2022, builds on a 2019 Memorandum of Understanding and aims to strengthen transatlantic collaboration in life sciences. This unique partnership includes joint research initiatives, exchange programs, and strategic events, with a shared goal of accelerating innovation and improving health outcomes. This partnership also provides an umbrella and framework for all LSH collaborations between these two ecosystems.

In September 2024, matchmaking events such as the Women's Health Innovation Mission, facilitated by the Netherlands Innovation Network in Boston and involving key partners such as MLSC, the Massachusetts e-Health Institute at Massachusetts Technology Collaborative, Bayer Co.Lab and more, have showcased promising startups and technologies from both regions. These gatherings foster curated connections among founders, academics, and investors, and highlight the potential for joint ventures in areas like cancer prediction and AI-enabled diagnostics.

Key opportunities for Dutch collaboration in Massachusetts include:

- Joint R&D projects focused on under-researched women's health conditions.
- Academic-industry partnerships leveraging Massachusetts' translational research capacity and Dutch expertise in LSH topics with women's health applications.
- Participation in accelerator and incubator programs, which support collaborative innovation and infrastructure development.
- Exchange programs and fellowships to facilitate talent mobility and knowledge sharing.

Based on key learnings from this report, which includes an analysis of current trends within women's health innovation, interviews with key ecosystem stakeholders, and by aligning strategic priorities and leveraging complementary strengths, Massachusetts and the Netherlands can co-create scalable solutions that advance women's health globally.

[1] This has changed in recently due to a change in strategic priority at the federal level. This change is referenced in the policy scope section on page 8.

This report outlines actionable pathways to deepen collaboration and drive equitable health outcomes through innovation by mapping opportunities for Massachusetts-Dutch collaboration and providing an overview of key players and programs in Massachusetts.

About the Netherlands Innovation Network in Boston

The Netherlands Innovation Network (NIN) is the science and technology arm of the Dutch diplomatic network. This global network has offices in key innovation ecosystems around the world with three offices in the United States (Washington DC, San Francisco and Boston). NIN stimulates international cooperation between companies, research institutes and public authorities in the fields of innovation, technology and science on behalf of the Dutch Ministry of Economic Affairs.

The network's activities support the implementation of the Dutch government's international knowledge and innovation agenda by addressing national and global challenges. Through international cooperation and our global network of offices, NIN works to further develop key technologies listed in the National Technology Strategy (NTS).

In addition to stimulating international cooperation, NIN brings insights back to the Netherlands with the aim of strengthening partnerships across sectors, organizations and to guide Dutch innovators in industry, academia and policy. With this report, NIN wishes to address the following opportunities for collaboration:

- Research and academia
- Startups, scaleups and spinouts

If you are interested in getting in touch with the Netherlands Innovation Network in Boston, please email your inquiry to nin@nost-boston.org or follow us on LinkedIn.

Acknowledgements

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Introduction: Contextualizing Women's Health Innovation

The focus on women's health has accelerated significantly in the past several years, beyond a focus on reproductive health and contraception. Our modern understanding of women's health as a discipline date back to the 1960s, when the women's rights movement gave rise to the women's health movement and first drew attention to gendered inequities in healthcare and research (i.e. National Institutes of Health, Office of Research on Women's Health). Today, women's health innovation revolves around technology and R&D in healthtech, biopharma, diagnostics/tools and medical devices that address underserved care needs for women (Silicon Valley Bank – a Division of First Citizens Bank).

However, the history of women's health has been one of neglect around the globe. In the United States, it was not until 1993 where the inclusion of women in clinical research adopted the National Institute of Health's inclusion policy into federal law (National Institutes of Health – Office of Research and Women's Health). This inclusion policy, titled the 'Women and Minorities as Subjects in Clinical Research,' was included in as a section in the NIH Revitalization Act of 1993 (Public Law 103-43) and included various requirements for NIH-funded research and clinical trials, such as:

- Ensuring that women and minorities are includes in all clinical research.
- In trials including women and minorities, the trial should be designed and carried out so that it is possible to analyze whether the variables being studied affect women and minorities differently than other participants.
- Cost is not an acceptable reason for exclusion of women and minorities.
- NIH initiates programs and support or outreach efforts to recruit and retain women and minorities and their subpopulations as volunteers in clinical studies.

The 1990's was marked by a series of events that increased the inclusion of women in healthcare. This included the establishment of the Office of Research on Women's Health at the NIH, the introduction of the Women's Health Initiative[2] by Dr. Bernadine Healy (the first female director of the NIH), a reversal of the Food and Drug Administration's (FDA) 1977 guidance that excluded women of reproductive potential from participating in early phase clinical research, and the establishment of the Office of Women's Health at the FDA, which is charged with promoting the inclusion of women in clinical trials and the advancement of women's healthcare.

The decade of the 1990's proved to be quite instrumental in paving the way for better understanding of women's bodies. However, progress towards gender equity in healthcare has been slow. According to a 2022 Harvard Medical School study, despite representing 51% of the U.S. population, women accounted for approximately 40% of participants in clinical trials for conditions that disproportionately affect women – cancer, cardiovascular disease and psychiatric disorders.

What is Women's Health?

[2] The Women's Health Initiative was an observational study of 150,000+ that examined the effects of hormone therapy, diet and supplements on breast and colorectal cancer, fractures and heart disease.

It is impossible to delve into a topic as vast as women's health without providing a working definition. In general, women's health is a broad category that includes health issues that are unique to women, such as menstruation and pregnancy, as well as conditions that affect both men and women, but that may affect women different, such as heart disease and diabetes (Eunice Kennedy Shriver National Institute of Child Health and Human Development). In their report, *'Closing the Women's Health Gap: A $1Trillion Opportunity to Improve Lives and Economies,'* the McKinsey Health Institute defines women's health as "the biological conditions and general health conditions that often affect women uniquely, differently or disproportionately" (2024). They go on to specify that "women's health is often simplified to include only sexual and reproductive health (SRH), which meaningfully under-represents women's health burden." This is the definition that is most applicable to this report.

This report utilizes the term 'women's health' to encompass health conditions specific to female biology, even beyond gynecological and reproductive health (for example, individuals that are assigned female at birth are still prone to disease or conditions unique to women, due to their biology). Using this term prioritizes an understanding of patients, which helps to improve the efficacy of treatment.

What is our approach to Women's Health?

The aforementioned 2024 Women's Health report, published by McKinsey Health Institute, highlights a $1 trillion gap in global economic potential due to underinvestment and inequities in women's health, that could be close by improving research, care and access for women worldwide.

In addition to providing equitable care globally, innovation in women's health can serve as an economic catalyst via breakthroughs in diagnostics, personalized treatments and digital health solutions that can not only decrease the number of years women spend in poor health but also enable greater workforce participation and productivity. Essentially, every dollar invested in research and technology for women's health yields a multiplier effect: healthier populations, stronger economies, and accelerated global growth.

As women's health is an important, yet under-represented area for innovation, facing disproportionately low R&D funding relative to its burden, a collaborative and interdisciplinary effort is needed to advance women's health innovation at every part of the innovation pipeline – from R&D and clinical trials all the way through to diagnosis and treatment to funding and beyond. This perspective has been reiterated in both the United States and in the Netherlands by key stakeholders.

Innovation plays a transformative role in the life sciences and health industry, as well as in women's health. Innovative research and solutions can address existing gaps, improve health outcomes and enhance overall quality of care. The innovation ecosystem in Massachusetts, including the Boston-Cambridge life sciences and health hub (particularly around Seaport and Kendall Square), is well-known and renowned worldwide for innovation in life sciences and health due to the close proximity and five critical components that enable success of innovation-driven enterprises (IDEs): entrepreneurs, risk capital, corporate, government, and university (MIT five stakeholders in an Innovation Ecosystem, 2019). The presence and proximity, as well as Boston and Cambridge's entrepreneurial spirit, lend to and impact various aspects of women's health through research or startups, including diagnostics and early detection, treatment and therapeutics, medical devices and interventions and personalized medicine.

Throughout this report, the term “women’s health innovation” is utilized. This term refers to the development and implementation of new technologies and research approaches that specifically address the unique health needs of women. It can encompass a broad spectrum of solutions - from diagnostics and therapeutics to prediction and preventative care. In alignment with the Dutch National Technology Strategy, the utilization of the term “women’s health innovation” in this report also refers to the ten priority technologies with use cases developed, adapted or implemented for health conditions that disproportionately affect women.

The following priority technologies that intersect with women’s health include:

Artificial Intelligence & Data Science: For predictive diagnostics, personalized care, and health equity analytics.

Biomolecular & Cell Technologies: For fertility treatments, hormone therapies, and autoimmune disease research.

Imaging Technologies: For early detection of breast and gynecological cancers.

Photonics: For non-invasive diagnostics and monitoring, and point-of-care and wearable technologies.

Process Technologies & Intensification: For advanced drug delivery systems tailored to female physiology.

By focusing on the intersection of these technologies with women’s health innovation, the Netherlands can contribute to transformative healthcare solutions that are inclusive, data-driven, and globally scalable.

The Dutch Women’s Health Landscape

The Netherlands has long been a leader in life sciences and health, with a vibrant innovation ecosystem comprised of critical elements of success for healthcare innovators. In the past several years, women’s health has also become a strategic priority for the Netherlands, with then caretaker health minister, Pia Dijkstra, announcing the availability of funding for research that improves the treatment of health problems specific to women. While the specific amount was not specified, it is estimated to be several million euros per year (Dutch News, March 2024). Additionally, the push for a national women’s health plan was demonstrated through a symposium for Organon’s 100th anniversary on International Women’s Day in 2023. Organon, a global pharmaceutical company that specializes in the following core therapeutic fields: reproductive medicine, contraception psychiatry, hormone replacement therapy (HRT) and anesthesia – and its production site in Oss, in North Brabant, has a significant focus on women’s health. During this symposium, Dutch leaders and innovators in women’s health agreed that advocacy to adopt a national strategy for women’s health should capitalize on the global momentum of increasing awareness and attention for women’s health issues – and that a cross-sectoral approach should be utilized (Toward a National Women’s Health Plan in the Netherlands, Organon, 2023).

In 2024, Hologic Benelux also recently kicked off a Dutch Women Health Forum in Hoofddorp, bringing together a diverse range of experts in healthcare, business, government and business, including former Minister of Health, Welfare and Sport, Conny Helder. This Forum put a spotlight on the intersections of

gender, economic impact and innovation in women's health (From Data to Action: Collaborating to Create a Healthier Future for Dutch Women, Hologic, 2024). In addition, the Netherlands Foreign Investment Agency (NFIA) compiled a detailed Women's Health Proposition. Titled *'Driving innovations in women's health: Introducing the Netherlands*.' The proposition details the women's health ecosystem in the Netherlands by region and makes the case for the Netherlands as a valuable partner in women's health innovation and advancement. In addition to these recent developments, the Netherlands Organization for Health Research and Development (ZonMw) funds research projects focused on women's health, including studies on reproductive health, breast cancer and cardiovascular disease. Their research projects aim to improve the overall understanding and development of innovative solutions for women's health issues. Established in 2000 as an agency dedicated to supporting health research and development, ZonMw has been funding its early years, though it has been particularly active in women's health over the past decade.

This recent mobilization in the Netherlands has demonstrated the appetite of the nation to become a global leader in women's health innovations and, more importantly, address women's health conditions and issues for a more equitable and healthy future for all. The Netherlands can also harness lessons learned in women's health by learning from the research advancements and innovation in the United States, especially within the Massachusetts innovation ecosystem. The Netherlands would benefit from exploring collaborative opportunities with American stakeholders as a global leader in women's health innovation, and a valued partner in life sciences and health.

To request a copy of *'Driving innovations in women's health'* proposition, please contact nin@nost-boston.org to connect with NFIA.

Policy Scope: Federal Initiatives and Programs

Disclaimer: As of 2025, the federal policy environment surrounding women's health innovation in the United States is undergoing significant shifts under the current Trump administration. Recent federal budget proposals have included substantial reductions to the Department of Health and Human Services (HHS), resulting in the downsizing or termination of several key programs related to maternal and reproductive health. Additionally, executive actions have rolled back protections and funding for reproductive health services, and reports indicate that federal agencies have been discouraged from supporting research proposals that explicitly reference "women," "trans," or "diversity." However, these developments create opportunities for researchers and innovators to explore international collaboration in the women's health space. Additionally, the Trump administration prioritized critical and emerging technologies that align with national security and economic competitiveness goals, including Artificial Intelligence and Quantum Technologies, which have overlap with Dutch NTS priority technologies and potential women's health applications.

Historically, the United States government has been a proactive leader of innovation in women's health, as demonstrated by recent mobilization in funding for women's health concerns and conditions. Two levels of governance support this mobilization. At the federal level, there is national strategy, as well as national priorities and federal sources of funding. At the state level, strategies vary from state to state and depend on economic and social determinants, including political support. It should be noted that women's health, with respect to gynecological and reproductive health, can be highly politicized in the years since the Supreme Court struck down Roe v. Wade, a landmark decision in which the Court ruled that the Constitution of the United States generally protected the right to have an abortion. Roe v. Wade was overturned in June 2022. The Netherlands Innovation Network recognizes that some states recognize abortion as an essential component of women's healthcare. However, as the scope of this report pertains to women's health innovation, there will be no further analysis on this topic.

While both levels of governance play an important role in nurturing innovation in women's health, state governments generally tend to take direction from federal initiatives and policy.

Federal mobilization for women's health began with the launch of the White House Initiative on Women's Health Research in November 2023. The mission of this Initiative, which was spearheaded by Former First Lady Jill Biden and the White House Gender Policy Council, was to galvanize the Federal government and the private and philanthropic sectors to spur innovation, unleash transformative investment to close research gaps, and improve women's health. This initiative was comprehensive across many executive departments and agencies in the federal government, such as the U.S. Departments of Health and Human Services, Defense, and Veterans Affairs, and White House offices, such as the Office of Management and Budget and the Office of Science and Technology Policy (White House Briefing Room, November 2023).

In February 2024, the newly launched Advanced Research Projects Agency for Health (ARPA-H) announced the launch of the Sprint for Women's Health. The ARPA-H Sprint for Women's Health, announced by Former First Lady Jill Biden during a visit to Cambridge, committed $100M to accelerate women's health research. This funding is the first major deliverable from the White House Initiative on Women's Health Research, demonstrated the federal government's commitment and quick deployment

of resources. Additionally, announcing the Sprint in Massachusetts underscores the key role that the state plays in both women's health innovation and life sciences and health innovation more generally. In the months since the announcement, ARPA-H has solicited proposals from 45 out of 50 states, the District of Columbia and 34 countries, across six topics of interest: Women's Health at Home; Prioritizing Ovarian Health Through Mid-Life To Prevent Disease; ARTEMIS – Advancing Research Through Enhanced Models for Investigating the Influence of Sex Differences on Health Outcomes; Advancing Women's Brain Health Via Lymphatic Targeting; Objective and Quantitative Measurement of Chronic Pain in Women; and Wildcard: Revolutionary Breakthroughs in Women's Health (ARPA-H Sprint for Women's Health). Submissions are now closed for this inaugural cycle, with funding awards announced in Fall 2024.

In March 2024, during Women's History Month, former President Joe Biden signed a sweeping executive order promoting women's health. In his own words, this executive order marks the launch of the "first-ever White House initiative of women's health research to pioneer the next generation of scientific research and discovery of women's health" (ABC News, March 2024). In his vision for transforming women's health research and improving women's lives across America, President Biden called Congress to invest $12B in new funding for women's health research. According to the White House, this investment would fund the creation of a new fund at NIH to advance interdisciplinary research on women's health; launch a nationwide network of centers of excellence for women's health; and bring together private and philanthropic funding to further women's health research.

In addition to these recent developments, federal initiatives in women's health innovation and research include:

NIH Women's Health Research Agenda: NIH has a strategic plan that includes a comprehensive agenda for women's health research, focusing on areas like reproductive health, cardiovascular disease, and cancer.

Office of Research on Women's Health (ORWH): As aforementioned, ORWH is part of the NIH and promotes research on women's health issues and ensures that women's health concerns are considered in all NIH-funded research.

Women's Health Initiative: Also, part of the NIH, this is an initiative that focuses on understanding the most common causes of death, disability, and frailty among older women.

Centers for Disease Control and Prevention (CDC) Women's Health Program: The CDC conducts and supports research on women's health issues such as maternal health, cancer, and chronic diseases.

FDA Office of Women's Health: Established by Congressional mandate in 1994, the mission of this office is to provide leadership and policy direction for the Agency regarding issues of women's health and coordinate efforts to establish and advance a women's health agenda for the Agency; promote the inclusion of women in clinical trials and the implementation of guidelines concerning the representation of women in clinical trials and the completion of sex/gender analysis; and identify and monitor the progress of crosscutting and multidisciplinary women's health initiatives including changing needs, areas that require study, and new challenges to the health of women as they relate to FDA's mission – amongst other mission statements.

Cancer Moonshot Initiative: Although not exclusively focused on women, this initiative aims to accelerate cancer research and can benefit women's health by improving understanding and treatment

of cancers like breast and ovarian cancer. The Cancer Moonshot Initiative is another priority of former First Lady Jill Biden and demonstrates the cross-cutting strategic priorities of the federal government in its broad mission to address pressing health challenges through innovation (namely, cutting-edge research and technology).

Bill and Melinda Gates Foundation: In 2023, the Bill and Melinda Gates Foundation, along with the NIH and other co-collaborators, such as Camber Collective and Innovation Equity Forum (IEF), developed a strategic blueprint to identify and prioritize 50 high-impact opportunities for advancing global women's health research and development. It highlights areas where innovation can significantly reduce morbidity and mortality among women, especially in low- and middle-income countries. The map emphasizes underfunded conditions such as uterine fibroids, PCOS, maternal health, and sexually transmitted infections, and calls for increased investment in diagnostics, therapeutics, and preventive tools. It also promotes sex- and gender-intentional data practices, inclusion in clinical trials, and the expansion of innovation hubs to accelerate equitable health outcomes for women worldwide.

Overall, the federal government's approach to women's health involves a combination of policy development, research funding and advocacy efforts that are not explored in the scope of this report. By coordinating across various agencies and programs, the federal government aims to address the health disparities and diverse health needs of women, as well as improve the health of all Americans.

Massachusetts: A Hub for Women's Health Innovation

Massachusetts is a global leader in life sciences and health, with its strong ecosystem and government support mechanisms. This presents fertile ground for women's health innovation and international collaborations. Following the federal announcements of the ARPA-H Sprint for Women's Health and former President Biden's sweeping executive order, in April 2024, Governor Maura Healey announced $2.8M in new grants through the Women's Health Project (Executive Office of Economic Development Press Release, April 2024). The grants are supported by the Massachusetts Life Sciences Center and the First Look Awards, administered by the Mary Horrigan Connors Center for Women's Health & Gender Biology.

In addition to these grants, in November 2024, Governor Healey signed into law the Mass Leads Act: An Act Relative to Strengthening Massachusetts' Economic Leadership, a $1B, 10-year reauthorization of the instrumental Life Sciences Initiative, originally signed into law by former Governor Deval Patrick in 2008. This Initiative is largely credited for the growth of the life sciences and health industry in Massachusetts. The reauthorization of the Life Sciences Initiative was proposed in Governor Healey's Mass Leads Act. According to Lieutenant Governor Kim Driscoll, "The Mass Leads Act doubles down on our leadership opportunities in areas like women's health to advance not only our life sciences sector, but also our health care system and broader economy" (Executive Office of Economic Development Press Release, April 2024). With health equity prioritized by this new initiative, women's health outcomes are expected to improve.

It is also important to note that in 2023, Massachusetts was selected by ARPA-H to host its Investor Catalyst Hub as part of its Nationwide Health Innovation Network. The state's selection to host the Investor Catalyst Hub demonstrates the federal government's recognition of Massachusetts as a leading model for health care delivery and life sciences innovation that can support the federal agency in its pursuit of moonshot projects to transform health care solutions for residents across the country.

In addition to these recent developments, key state stakeholders in women's health innovation and research include:

Massachusetts Life Sciences Center (MLSC): Established in 2006, MLSC is an independent quasi-governmental organization that has played a significant role in the development of the life sciences and health ecosystem in the Commonwealth since the 2008 Life Sciences Initiative. MLSC is also a signatory of the Program of Cooperation in Life Sciences and Health between Massachusetts and the Netherlands and is an important collaborator in the sector. MLSC launched its Women's Health Initiative in 2020 to combat the severe lack of organized capital and incentives around a coordinated women's health approach (Executive Office of Economic Development Press Release, April 2024). Since 2020, MLSC has deployed $19M+ across 60 projects and 15 companies. Projects funded are aiming to foster advancements in translation research.

Massachusetts eHealth Institute (MeHI) at MassTech: MeHI is the designated state agency for promoting health IT innovation, technology and competitiveness to improve the safety, quality and efficiency of health care across the state (Mission – MeHIv). In September 2023, MeHI launched a Digital Health Challenge focused on bolstering support for women's health innovation. The program wrapped up in May 2024, with three Massachusetts-based startups, Hemorai, Mae, and SimpliFed, being awarded

$50,000 each to develop and test their innovative solutions with key partners in the Massachusetts ecosystem. Key areas of focus include post-partum pregnancy and access to mental health services.

The Importance of Industry

In alignment with state-driven initiatives that de-risk research & development, the life sciences and health industry plays a critical role in advancing women's health innovation through the research and development of new technologies and therapeutics. Several notable organizations in women's health across the innovation ecosystem (hospitals, academic institutions, incubators, corporates and startups) include the following:

Mary Horrigan Connors Center for Women's Health & Gender Biology: Based at Brigham and Women's Hospital, the mission of the Connors Center is to ignite change in women's health by catalyzing research, bolstering knowledge and transforming training for the next generation of leaders in medicine. The Connors Center notes that "the extent to which diseases, drugs, devices, and other therapeutic innovations may impact women and men differently is still unknown for the vast majority of medical conditions. The Connors Center strives to change this paradigm" (Mary Horrigan Connors Center for Women's Health & Gender Biology). The Connors Center also administers the First Look Awards that provides $250,000 in grant funding as part of MLSC's Women's Health Innovation Program and supports early-stage research that advances the understanding of diseases and conditions that disproportionately affect women.

Boston University: Boston University is advancing women's health through interdisciplinary research on reproductive health, maternal outcomes, and chronic disease prevention. The Women's Health Unit at the School of Medicine leads population-based studies on menopause, cardiovascular risk, and pregnancy outcomes, while the School of Public Health's Women, Gender & Health concentration investigates global disparities in access to reproductive and maternal care.

Tufts University: Tufts University integrates biomedical science, nutrition, and engineering to address critical women's health challenges. Researchers at the Jean Mayer USDA Human Nutrition Research Center on Aging study nutrition and bone health in postmenopausal women, while the Department of Biomedical Engineering develops novel biomaterials and medical devices for pelvic floor and reproductive tissue repair.

Harvard University: Harvard University and its affiliated hospitals lead global research in women's health and gender-based medicine. Complementing the work at the Connors Center for Women's Health & Gender Biology, the Harvard GenderSci Lab examines how gender, sex, and social context influence biomedical research and health outcomes, promoting more equitable scientific practices.

Massachusetts Institute of Technology: MIT brings cutting-edge engineering and data science approaches to women's health innovation. The Koch Institute for Integrative Cancer Research is pioneering organ-on-a-chip models to study ovarian and breast cancer, while the Jameel Clinic for Machine Learning in Health develops AI-based tools for early detection of breast cancer and pregnancy complications. These efforts bridge computational modeling and clinical application to advance personalized care for women.

Bayer Co.Lab: Located in Kendall Square, Bayer Co.Lab connects early-stage biotech and healthtech startups with Bayer's global research infrastructure. The Co.Lab supports ventures developing novel contraceptive technologies, hormone-free reproductive therapies, and menopause-related health innovations, offering access to R&D expertise and collaborative pathways into Bayer's international Women's Health portfolio.

MassBio: Founded in 1985, the Massachusetts Biotechnology Council, or MassBio, is a leading trade association that represents and supports the biotechnology and life sciences industry in Massachusetts. They serve as a key hub and resource for the biotechnology sector in Massachusetts through advocacy, networking and collaboration and providing education and resources. MassBio is also a signatory of the Program of Cooperation in Life Sciences and Health between Massachusetts and the Netherlands and is an important collaborator in the sector. MassBio has organized two Women's Health Symposiums, one in November 2023 and the second in July 2024. According to a thought leadership piece, authored by Kendalle Burlin O'Connell, CEO and President of MassBio, makes the case that Massachusetts in uniquely positioned to play an outsized role in addressing women's health. Due to the presence of 1000+ biotech companies in Massachusetts, with 18 of the largest biotech companies having a presence here and the industry operating 6000 clinical trials across 100+ hospitals, Massachusetts has the resources to become a leader in women's health through public-private partnerships to increase R&D spending in key therapeutic areas (November 2023). Another thought leadership piece, published by MassBio in September 2025, advocates for expanding the definition of women's health beyond reproductive care to include autoimmune, cardiovascular, and neurodegenerative conditions.

MassMEDIC: The Massachusetts Medical Device Industry Council, is the largest regional medtech association in the US, representing over 300 member companies. Through initiatives like its Women in Medtech Forum and strategic partnership with the Women's Health Innovation Summit, MassMEDIC actively promotes innovation, thought leadership, and equity in women's health by elevating medical device solutions for maternal, gynecologic, and cardiovascular care.

MassChallenge (HealthTech): Based in Boston, MassChallenge is a global startup accelerator program that supports early-stage entrepreneurs and helps scale their business. Known for their focus on providing equity-free support, MassChallenge has a broad focus on healthtech, including those focusing on women's health innovations.

Massachusetts Innovation Network: Massachusetts Innovation Network is a nonprofit organization that supports and accelerates innovation for startups across a variety of industries. While not exclusively focused on women's health, it has recognized and supported startups in women's health through its Eddies Innovation Awards, mentoring programs, and strategic partnerships. Its ecosystem connects founders with resources, investors, and manufacturers, helping scale solutions that address critical gaps in women's health, such as diagnostics, therapeutics, and digital care platforms.

Venture Capital Firms: There has been a growing trend in venture capital to invest in women's health, driven by increasing recognition of the unique health needs of women and the potential for impactful innovations in this area (SVB). Venture capital in Massachusetts plays a significant role in advancing women's health through investment in innovative startups and technologies. Firms like **Portfolia, Atlas Venture**, **Third Rock Ventures**, and **Longwood Fund**, along with dedicated funds and initiatives, contribute to the growth and development of solutions that address key women's health issues. According to SVB, there's been a shift towards biopharma solutions, reflecting a growing interest of

investors in therapeutics and precision medicine. Additionally, there is strong early-stage dominance in the funding space, with Seed and Series A deals making up 70% of women's health investments – mirroring broader healthcare trends.

Women's Health Innovation Summit: organized by Kisaco Research, a global event management and research company based in London, the Women's Health Innovation Summit convenes stakeholders across the women's health ecosystem – including startups, investors, healthcare providers, pharma, and regulators – to accelerate innovation and tackle persistent disparities in care. They host Summits around the world, with one held annually in Boston, featuring pitch showcases, expert panels, and strategic networking opportunities.

US-NL Collaboration Driving Women's Health Innovation

In September 2024, the Netherlands Enterprise Agency (RVO) and the Netherlands Innovation Network in Boston facilitated a Women's Health Innovation Mission to explore collaboration opportunities, develop new ideas and expand networks to drive women's health innovation forward. As a result of this mission, NIN Boston launched a call for joint US-NL white papers to foster further cooperation on key enabling technologies for advancing women's health. Two white papers were selected and published in December 2024, addressing current challenges and economic impact and are presented as case studies for US-NL collaboration in women's health. To request a copy of either white paper, email nin@nost-boston.org.

GYNECOLOGICAL HEALTH INNOVATION

Key Partners: The Dutch Cervical Health Alliance (DCHA) partnered with U.S. based organizations. Members include **Predica Diagnostics**, CC Diagnostics, Vicinivax, SHE Health Clinics and **Nine Diagnostics**

Background: Traditional screening methods for gynecological cancers face limitations in accuracy and accessibility.

Objective: To advance prevention, early detection, and treatment of gynecological cancers through international collaboration and innovative technologies.

Approach: Self-sampling technologies, molecular diagnostics, metabolomics platforms, and therapeutic vaccines

Takeaway: Combining advanced diagnostics, self-sampling, and therapeutic vaccines can significantly reduce disease burden, improve accessibility, and lower healthcare costs. globally.

ORGAN-ON-CHIP & AUTOMATION FOR WOMEN'S HEALTH

Key Partners: Collaboration between **Chiron** and **Advanced Life Solutions** combines expertise in OoC platforms and automation.

Background: Traditional drug development relies on 2D cell cultures and animal models, which often fail to predict human responses, especially for women's health. This leads to gaps in treatment for conditions like osteoarthritis and gynecological diseases.

Objective: Develop advanced OoC platforms integrated with automation to create scalable, precise, and gender-specific models for disease research and drug testing.

Approach: OoC technology and automation integration with a women's health focus to simulate hormonal cycles and female-specific physiology to study conditions like osteoarthritis and gynecological cancers.

Takeaway: Automated OoC systems represent a transformative approach to women's health research, allowing for personalized therapies and more inclusive drug development.

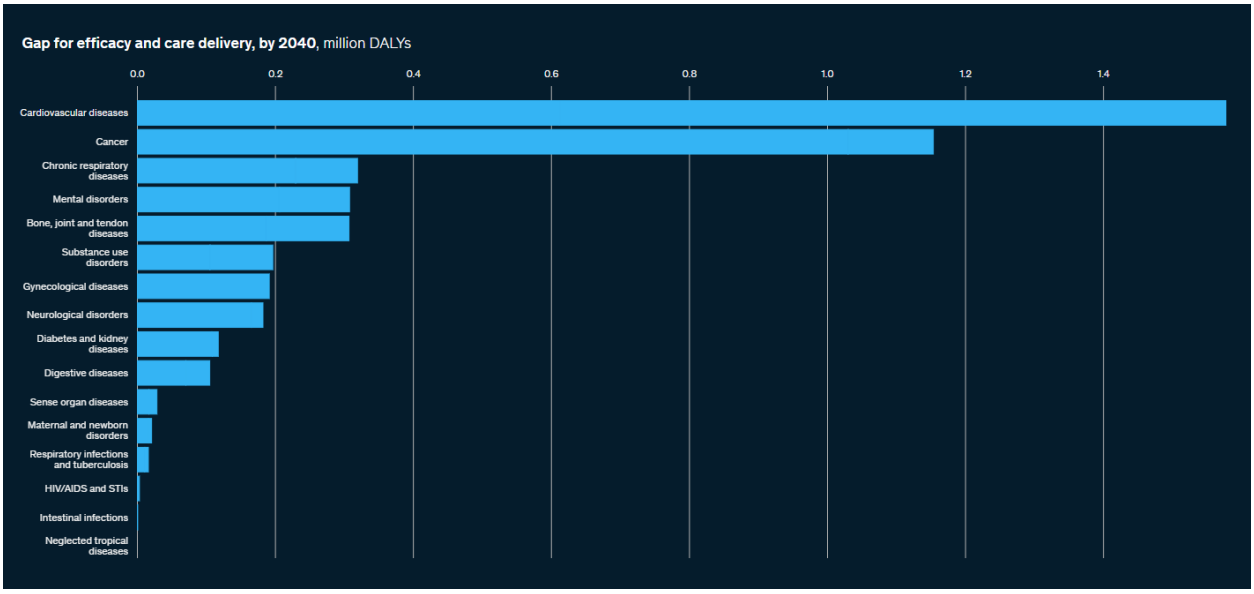
Opportunities for Dutch Innovators – Thematic Analysis and Next Steps

This report has shown the breadth and strength of Massachusetts' initiatives and programs working to promote gender equity in healthcare through innovation and highlighted US-NL collaborations in this ecosystem. The development of this report, as well as various women's health programming and initiatives, has led the Netherlands Innovation Network to a better understanding of various women's health networks, opportunities and resources in the United States and Massachusetts, specifically. This data, in turn, will aid the network in continuing to identify further opportunities for Dutch innovators and add to the strategic priorities of the Dutch-Massachusetts priorities in life sciences and health.

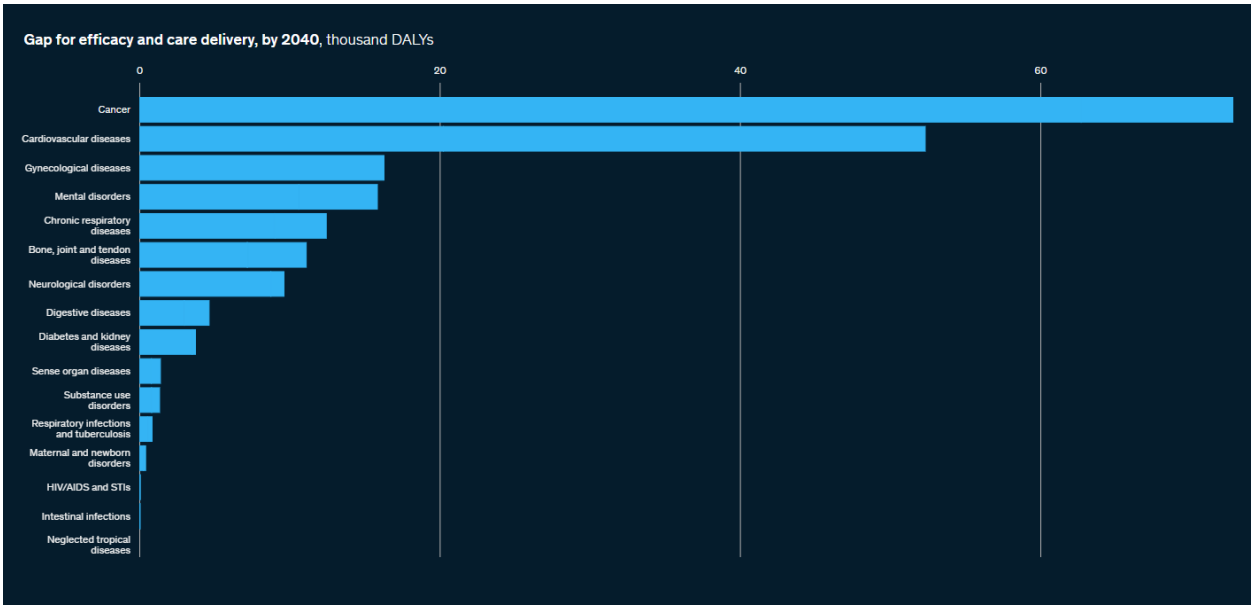
Through an extensive literature review, key exchanges with women's health experts in Massachusetts and women's health innovation programming facilitated through the September 2024 Women's Health Innovation Mission and white paper funding round, we have been able to define key topics of collaboration between the United States and the Netherlands by cross-referencing strategic opportunities with the Dutch NTS.

Country-level data published as part of McKinsey's 2023 *'Closing the Women's Health Gap'* report indicates areas of overlap of gaps in disease burden associated with the women's health gap and its impact at a condition-specific level. Assessing the women's health gap at this level of granularity enables governments, industry stakeholders and others to make strategic decisions to reposition women's health strategy as a means of over economic policy as well as to identify high-leverage opportunities in areas of shared challenges.

In the United States:



In the Netherlands:



According to McKinsey's analysis, the leading condition-specific areas contributing to the women's health gap include:

- United States: cardiovascular diseases, cancer, chronic respiratory diseases, mental disorders, and bone, joint, and tendon diseases.
- Netherlands: cancer, cardiovascular diseases, gynecological diseases, mental disorders, and chronic respiratory diseases.

These overlapping priorities highlight cardiovascular diseases, cancer, chronic respiratory diseases, and mental disorders as high-potential areas for international collaboration and joint innovation between the two countries, particularly when aligned with the Dutch NTS focus on AI and data science, biomolecular and cell technologies, imaging technologies, photonics, and process technology.

Additionally, the concentration of academic medical centers, research hospitals, biotech startups, and investors in the Massachusetts ecosystem provides a strong foundation for alignment with the Dutch NTS and several additional opportunities for collaboration emerge, visualized in the following matrix:

Dutch National Technology Strategy Technology	Women's Health Innovation Area	(Condition-Specific) Collaboration Opportunity

Artificial Intelligence & Data Science	Diagnostics, predictive modeling, digital therapeutics	Cardiovascular diseases, mental disorders
Biomolecular & Cell Technologies	Cancer biomarker discovery, regenerative medicine (including organ-on-a-chip/organoids)	Cancer, chronic respiratory diseases
Imaging Technologies	Clinical imaging, neuroimaging, cardiovascular imaging	Cardiovascular diseases, cancer, mental diseases
Photonics	Medical devices/wearables, sensor technology, diagnostics devices	Chronic respiratory diseases, cardiovascular diseases
Process Technology	Therapeutic production	Cancer, cardiovascular diseases

Massachusetts: A Strategic Partner for the Netherlands

Engaging in strategic collaboration at the state level provides a practical and effective pathway for fostering innovation partnerships, particularly in the current US political context. States such as Massachusetts have established robust ecosystems that support research, entrepreneurship, and international cooperation, often maintaining continuity and focus even when federal priorities shift. By working directly at the state-level, Dutch innovators can access targeted programs, specialized expertise, and vibrant innovation clusters, creating opportunities that are mutually beneficial and resilient to broader policy fluctuations. This approach emphasizes shared goals, local strengths, and sustainable engagement, ensuring collaborations are both productive and enduring.

Massachusetts' unique concentration of academic medical centers, biotech startups, and digital health innovators positions it as an ideal partner for the Netherlands in advancing women's health innovation. By connecting Dutch innovation and technological expertise (that often stays clusters within academia) with Massachusetts' translational and commercialization capacity, Dutch innovators in women's health can leverage shared challenges in both ecosystems to drive breakthroughs in women-specific diagnostics, therapeutics, and health technologies – all while reinforcing the economic and societal value of closing the women's health gap.

Based on the analysis of the literature review, this report issues the following three recommendations to Dutch innovators looking to identify and activate strategic collaboration opportunities in Massachusetts:

Partner with Massachusetts-based Institutions Eligible for MLSC Funding

With many resources allocated to academic and industry partners by the Massachusetts state government through agencies like MLSC, collaborating with partners based here to jointly apply for grants through programs that support translational research, data-driven innovation and infrastructure development. Additionally, by proposing joint R&D projects or pilot programs, Dutch innovators can offer complementary strengths in precision diagnostics, hormone tracking, and therapeutic delivery systems, especially in areas like menopause, autoimmune disease, and maternal health.

Engage in Strategic Events for Matchmaking

Participating in innovation missions organized by the Netherlands Innovation Network in other areas of life sciences and health that are relevant to your area of research or startup industry can be a helpful way to leverage Dutch expertise in AI, biomolecular technologies, imaging technologies photonics and process technologies and expand your network within the ecosystem through curated matchmaking. While not exclusively focused on women's health, innovation missions have focused on emerging technologies in medtech, regenerative medicine and more and offer linkages through broader programming. Additionally, participate in conferences and summits like the Women's Health Innovation Summit as these convening platforms offer direct access to thought leaders, investors, startups and researchers in this ecosystem.

Explore Residency or Soft-Landing Programs

Consider joining incubator or accelerator programs such as Massachusetts Innovation Network's Global Eddies Program, which support international startups entering the US market. Programs such as this provide mentorship, regulatory guidance and investor access, helping Dutch innovators navigate commercialization, regulation and help scale their solutions to the US healthcare infrastructure.

As women's health innovation continues to evolve, strategic collaboration (i.e. through bilateral partnership programs) remains a crucial mechanism for fostering innovation, research & development and international collaboration that is mutually beneficial. Dutch innovators will benefit immensely by engaging with the local ecosystem, not only through grants and other forms of financial support but also through invaluable networking, matchmaking and knowledge-sharing opportunities that arise.

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