

# Empowering Progress: Advancing Women's Health Through Data and Policy



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# About me



- Assistant Professor, University of Minnesota, School of Nursing
- Director, Center for Nursing Informatics
- Graduate Faculty, Earl E. Bakken Center for Spirituality & Healing
- Currently completing 2-year Research Mentorship Program through the Menopause Society
  - Examining use of data to assess menopause from electronic health record data, whole-person health and mind-body approaches to menopause.

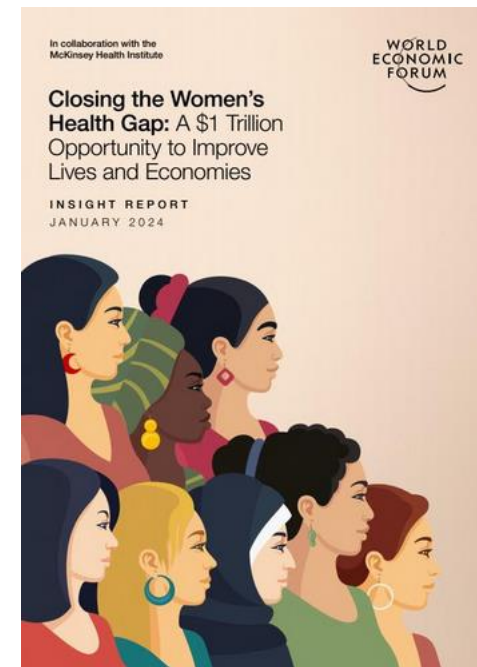
# Objectives



- Analyze data trends in women's health, with a focus on menopause, to identify gaps and opportunities for improvement.
- Describe current research focused to improve menopause data management.
- Discuss current health policies that better address the unique needs of adult women.

# Women's Health Data Gap

- Menopause is a universal experience for 51% of the world's population.<sup>1</sup>
- Women drive the global economy and are vital part of global workforce.<sup>1</sup>
- By 2030, an estimated 1.2 billion women worldwide will be in the menopausal or postmenopausal phase, with 47 million more entering menopause each year.<sup>2,3</sup>
- Focusing on menopause specifically data and policy—a pivotal yet underserved milestone in women's health—we can tackle significant unmet needs and alleviates health burdens.<sup>1,4</sup>



# Why menopause and why now?

- Women's Health Initiative (WHI) (2002) results misinterpreted leaving a significant gap in menopause knowledge and women without effective relief.
- New understanding and growing awareness long-term health effects of menopause.
  - Cardiovascular system
  - Brain health
  - Muscle/joints – musculoskeletal syndrome menopause
  - Bone health/osteoporosis
  - Metabolic health – loss lean muscle (e.g. sarcopenia)



# What is menopause?

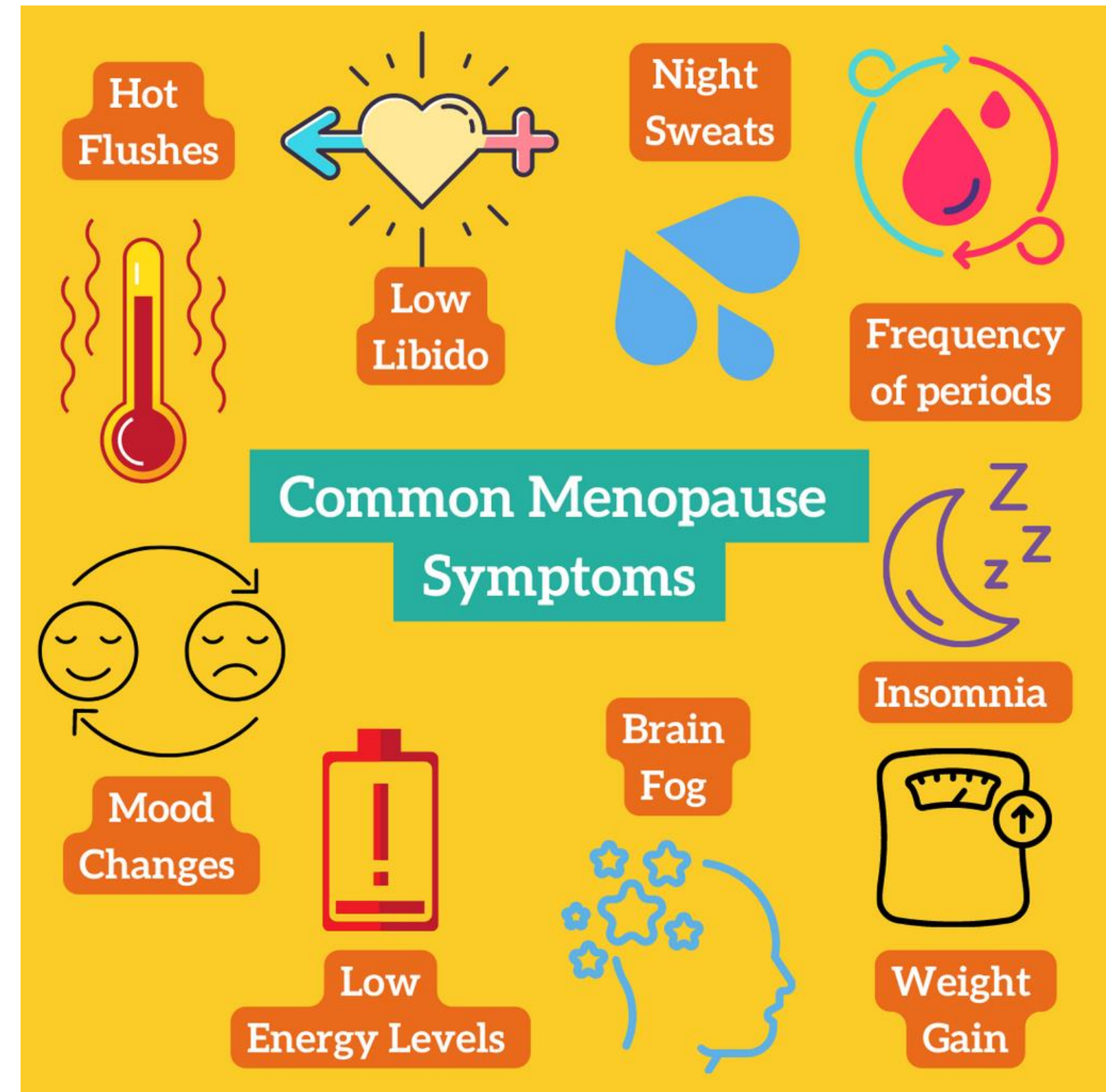
- Perimenopause/Menopause Transition – irregular menstrual cycle with or without symptoms
  - *8-10 years before menopause begins mid-40s.*
- Menopause permanent cessation menses due to loss of ovarian function (or surgical) and characterized by **12 consecutive months** of amenorrhea.
  - *Average age menopause 51.2*
  - *Additionally menopause can be defined as secondary to surgical or medical intervention*



# Menopause symptoms

## Menopause symptoms are common:

- Occur even before menstrual cycle length varies
- **75%** of women experience vasomotor symptoms
- **80%** of women reporting that menopause disrupts daily life
- **One-third** experience depression
- Racial and ethnic differences
- Hormone therapy prescribing rates are low (4-6% of women)



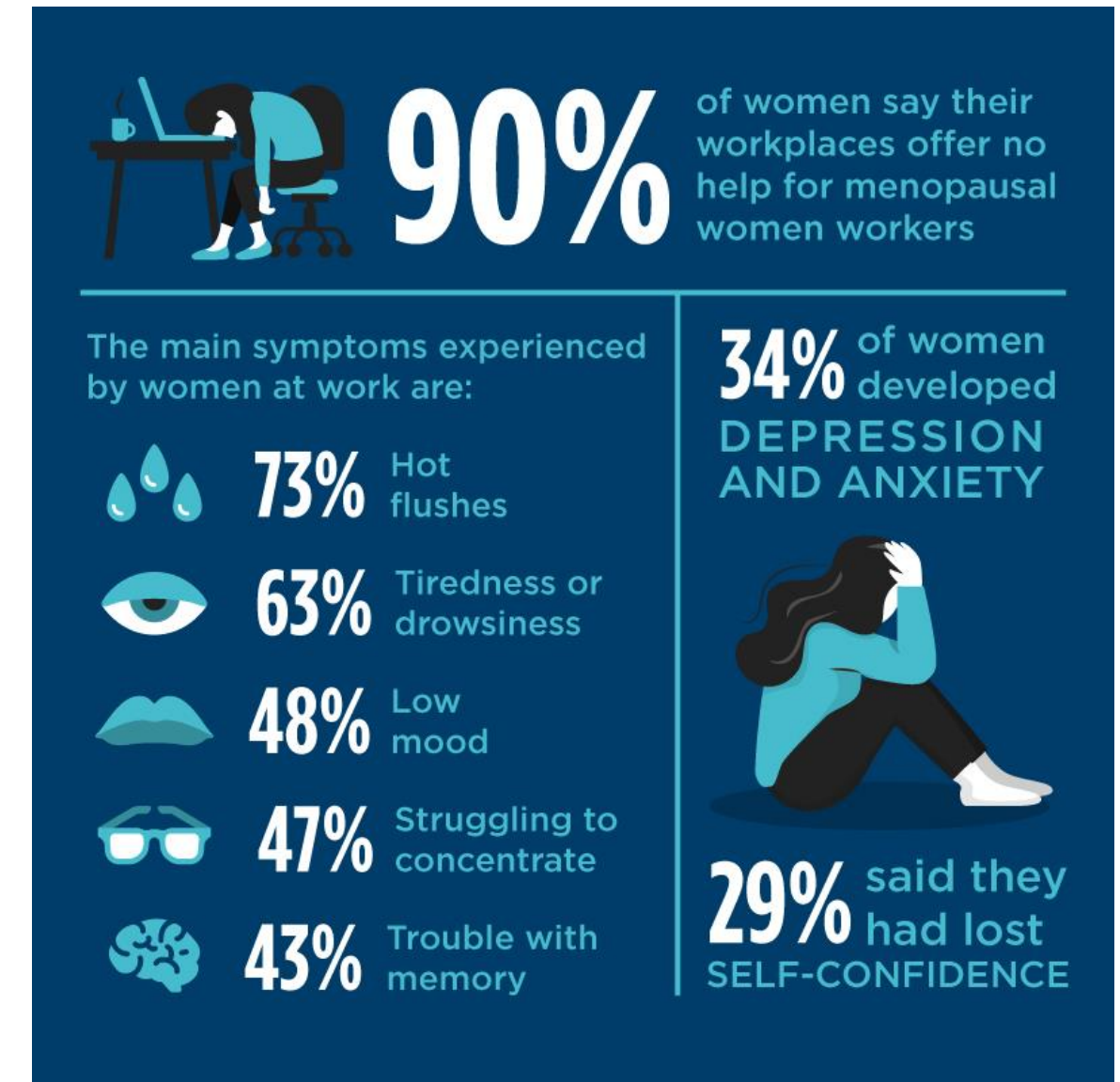
# Women's Health Data Gap: Economic Impact

4.7 million registered nurses (RNs) nationwide - **average age of working nurse is 47!!!**

- 1 in 5 women leave their jobs due to menopause-related symptoms.
- **Shift work** has potential to disrupt circadian rhythms, altering sleep/wake and estrogen/progesterone patterns.
  - Linked with irregular menses
  - *Nightshift work linked to earlier onset menopause*

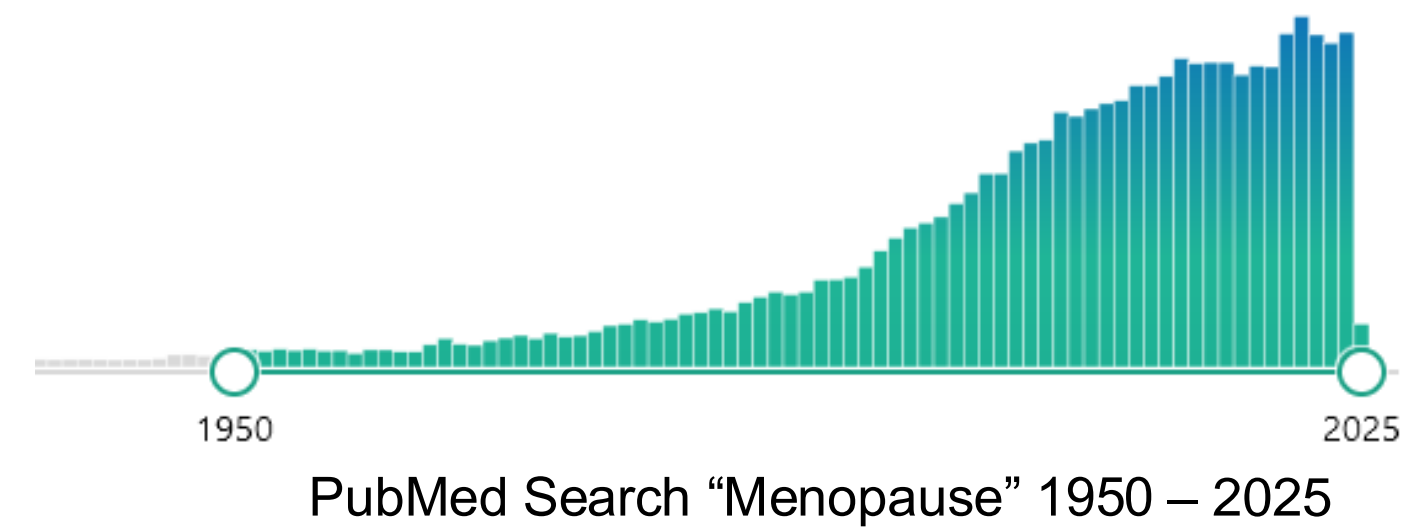
Cost associated with lost work productivity associated with menopause symptoms in U.S. ~ **\$1.8 billion annually**

Medical costs – indirect and direct ~ **\$26 billion annually**





# Menopause Research



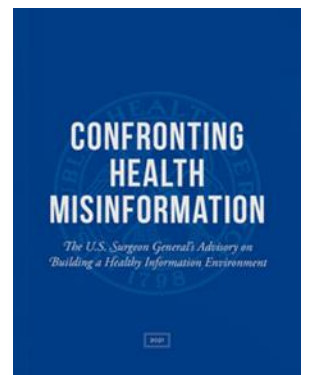
- Lacking.
  - 2000 – 2025 Search term “Menopause” full-text articles = 6,547
  - 2000 – 2025 Search term “Diabetes” full-text articles = 78,531
- Significant gap in women’s health research – e.g. menopause and other conditions specific to female
- Women spend an average **9 years** in poor health – yet most research only focuses on disease with high mortality
  - Over looking conditions leading to disability (e.g. mental health, menopause)

# Root Causes of Gaps



- **Science:** Defaulted to male body – hinders understanding sex-based biological differences resulting in fewer and less effective treatments.
- **Data:** Health data gaps diminish and skew dataset *i.e.*, menopause, endometriosis, PCOS, and others
- **Care delivery:** Women more likely to face barriers in care, diagnostic delay, or suboptimal treatment

# Misinformation Gap



*Healthcare providers are a primary source of information, (66%) of the women surveyed said social media is also seen as a valuable resource.*

- 39% of women say that social media is a valuable resource for finding information and seeking peer support for health issues
- 23% report following health advice they heard or saw on social media
- 24% women under age 50 say that health influencers are just as reliable as healthcare providers
- Notably, 68% of women say they have encountered confusing information on social media



# Current Research Agenda

## Executive Order on Advancing Women's Health Research and Innovation

 BRIEFING ROOM  PRESIDENTIAL ACTIONS

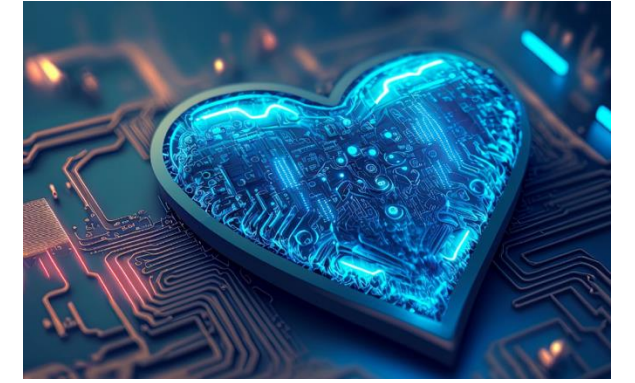
- Biden's Executive Order Women's Health Research and Innovation (March, 2024)<sup>5</sup>
  - *Section 5. Galvanizing Research On Women's Midlife Health;*
    - *paragraph iii: consider developing new common data elements and survey tools to expand the ethical and equitable collection of data on issues related to women's midlife health*
- Informatics and data science approach to bridge the gap in women's health data

# Menopause Data



- Examine current menopause symptom surveys/check lists
- Mapped symptoms to Omaha System – standardized terminology
  - *Why is this important – enable encoded structured data with the EHR*
- Found 77 menopause signs/symptoms
  - *Missing whole-person perspective – environmental factors*

# Menopause Documentation



- Rapid review of the literature: how is “menopause” documented in the EHR?
- Preliminary results
  - *Mainly used ICD-9 and ICD-10 codes to identify menopause from EHR*
- Overlap with symptoms – cardiovascular (e.g. heart palpitations not linked with menopause)
- Discrepancies in patient disclosure and provider documentation of symptoms if discussed.

# Future Research



- Evidence-based clinical guideline using standardized terminology
  - Generate common data elements=better data for AI data-driven solutions
- Pilot study midlife women with chronic pain, perceptions of chronic pain program to tailor to midlife women's health needs living with pain.
- Open to ideas and partnership!

# Health Policy



- Nursing intervention at the **society level!**
- Legislation addressing women's health, specifically menopause  
Legislative Tracker: <https://swhr.org/policy/legislation-tracker/>  
Society Women's Health Research - <https://swhr.org/>
- Biden's Executive Order Women's Health Research and Innovation  
- [14120 – thus far not been rescinded \(2/4/2025\)](#)



# Women's Health Policy

## Advancing Menopause and Mid-Life Women's Health Act of 2024



## H.R. 8223/S. 4246 — Advancing Menopause Care and Mid-Life Women's Health Act 2024

**Summary:** To improve menopause care and mid-life women's health by authorizing \$275 million over five years for federal research on menopause, health care workforce training, awareness and education efforts, and public health promotion and prevention.

Introduced: May 4, 2024

Sponsor: Rep. Lisa Blunt Rochester (D-DE), Sen. Patty Murray (D-WA)

# Women's Health Policy



## The Menopause Research and Equity Act of 2023

### H.R.6749 – Menopause Research and Equity Act of 2023

**Summary of bill:** This bill would require the Director of the National Institutes of Health to evaluate the results and status of completed and ongoing research related to menopause, perimenopause, or mid-life women's health and to conduct and support additional research.

Introduced: 12/13/2023

Sponsors: Sponsor: Rep. Yvette D. Clarke (D-NY-9)

# Conclusion



Advocate – now more than ever!

“Quiet nurses rarely get anything done”

— Ernest Grant (AAN Health Policy Conference, 2024)

What research would you like to see in women’s health?

# Menopause Work Place Resources

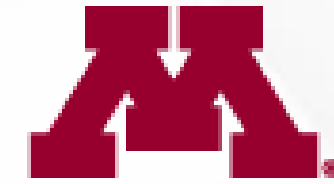
Society Women's Health Research – [Menopause Workplace Resources Guide for Women](#)

Menopause Society – [Making Menopause Work](#)

European Menopause and Andropause Society – [Global consensus recommendations on menopause in the workplace: A European Menopause and Andropause Society \(EMAS\) position statement](#) – Rees et al., (2021)  
<https://doi.org/10.1016/j.maturitas.2021.06.006>

# THANK YOU

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1. World Economic Forum. Closing the Women's Health Gap: A \$1 Trillion Opportunity to Improve Lives and Economies.; 2024.
2. Aninye IO, Laitner MH, Chinnappan S. Menopause preparedness: perspectives for patient, provider, and policymaker consideration. *Menopause*. 2021;28(10):1186-1191. doi:10.1097/GME.0000000000001819
3. Fang Y, Liu F, Zhang X, et al. Mapping global prevalence of menopausal symptoms among middle-aged women: a systematic review and meta-analysis. *BMC Public Health*. 2024;24(1):1767. doi:10.1186/s12889-024-19280-5
4. Bill and Melinda Gates Foundation. Women's Health Innovation Opportunity Map 2023: High-Return Opportunities to Advance Global Women's Health R&D. National Institute of Health; 2023. Accessed March 1, 2024. [https://orwh.od.nih.gov/sites/orwh/files/docs/womens-health-rnd-opportunity-map\\_2023\\_508.pdf](https://orwh.od.nih.gov/sites/orwh/files/docs/womens-health-rnd-opportunity-map_2023_508.pdf)
5. Biden JJ. *Executive Order on Advancing Women's Health Research and Innovation*. <https://www.whitehouse.gov/briefing-room/presidential-actions/2024/03/18/executive-order-on-advancing-womens-health-research-and-innovation/>

## Web Resources:

Menopause Society: <https://menopause.org/>

Society Women's Health Research: <https://swhr.org/>