WOMEN'S HEALTH
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HER-BC

Health and Economics Research on Midlife Women in British Columbia / Report

Partner:

BC WOMEN'S HEALTH FOUNDATION

Sponsored by:

PACIFIC BLUE CROSS

We would like to acknowledge the 2,133 HER-BC study participants who devoted their time and energy contributing to this landmark study. We express our gratitude to the students and volunteers who supported this project: Rebecca Friesen, Gloria Klein, Laura Ryan, Vaishali Sharma, and Shiming Wu.

We would also like to gratefully acknowledge Sabina Dobrer, P. Stat., the WHRI's senior statistician who led all aspects of database management and statistical analyses.

Landing page: https://whri.org/her-bc

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About the Women's Health Research Institute

The Women's Health Research Institute (WHRI) is an affiliate program of the Provincial Health Services Authority (PHSA) and a University of British Columbia, Faculty of Medicine Research Centre. The WHRI's mandate is to act as the research arm of BC Women's Hospital + Health Centre, the face of women's health research for the PHSA, and support research activities designed to improve the health and health care of women and their families throughout British Columbia and globally.

The Women's Health Research Institute would like to acknowledge that we are uninvited guests on the unceded ancestral territories of the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and sel̓íl̓witulh (Tsleil-Waututh) Nations. As a provincial research institute committed to improving the health outcomes of people assigned female at birth and/or women (cis and trans), including those across the 2S LGBTQIA+ spectrum, we recognize our responsibility in the collective effort towards establishing culturally safe health care systems and services that address health inequities among Indigenous peoples, especially Indigenous women, girls, and 2Spirit peoples.

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Foreword

At Pacific Blue Cross, we are committed to improving health and well-being for all British Columbians by reducing inequities and increasing access to opportunities and conditions conducive to health for all. We are proud to advance health equity by supporting women at every stage of life. This commitment drives our partnership with the Women's Health Research Institute and the BC Women's Health Foundation on the HER-BC study – to better understand the impact of menopause on work and caregiving, influences on daily living and quality of life, and how we can improve access to care. We believe this report will shed light on the real experiences of midlife women in our province, challenge the stigma around menopause, and shape health plans that empower women to thrive. Together, we can ensure all women have access to the highest quality health care, when and how they need it.

Sarah Hoffman
President and CEO
Pacific Blue Cross

At BC Women's Health Foundation (BCWHF), we are committed to championing a future where all women in British Columbia have access to the highest standard of health care at every stage of life – including menopause. This vision drives our ongoing collaboration with the Women's Health Research Institute (WHRI), and we are grateful to partner with Pacific Blue Cross to advance the science and understanding of women's menopause experiences in BC. Our joint efforts, including the HER-BC report on midlife and menopause, are crucial steps toward addressing this significant health concern. With menopause impacting over 50% of our population, this research is vital to raising awareness and driving solutions that provide better care and resources.

Cally Wesson
President + CEO
BC Women's Health Foundation

The Women's Health Research Institute's mission to create new knowledge and solutions that inform and transform the health and healthcare of women and their families is one we are committed to across the lifespan. The aligned values we have with Pacific Blue Cross and BCWHF of prioritizing menopause and midlife women's health research is one we appreciate deeply. Investing in research, igniting collaboration, and communicating new knowledge, can allow us to take action to improve the health of women in BC and beyond.

Dr. Lori Brotto
Executive Director
Women's Health Research Institute



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01

Executive summary

Background and introduction

Overview

In British Columbia (BC), women make up just over half the population. While we often talk about menstruation and pregnancy as common life stages of people assigned female at birth, menopause has largely been ignored. The three stages of menopause (or the menopause transition) are: perimenopause (hormonal changes that can begin up to 10 years before the final menstrual period); menopause (defined as the date of the final menstrual period, marking the end of reproductive years); and post-menopause (the years beyond menopause).

Common symptoms of menopause include: changes in menstruation (i.e., irregular and heavy periods); vasomotor symptoms (i.e., hot flashes; night sweats); sleep disturbances; pelvic floor disorders; sexual health changes; mood changes; changes in cognition and memory; genitourinary changes (e.g., vaginal dryness/itching; incontinence; and recurrent urinary tract infections).

Many of these symptoms have negative impacts on quality of life and work, yet stigma and lack of knowledge around menopause keeps people from talking about their symptoms and seeking help, leaving them feeling unacknowledged and unsupported. Additionally, when considered as a part of aging, menopause symptoms can be conflated with symptoms of other health conditions.

There are more than 875,000 women in midlife (40 to 65 years of age) in BC[8], who are in the age range for menopause. Long-term consequences of menopause can include an increased risk of osteoporosis[9] and heart disease[10]. Despite this, there is a general lack of awareness and relatively little research devoted to understanding menopause and supporting healthy aging in women[i].

The effects of menopause can be profound, and connect to physical, mental, and social challenges. The Women's Health Research Institute, BC Women's Health Foundation, and Pacific Blue Cross partnered to study the impacts of menopause to seek solutions to overcome these challenges.

This 2024 milestone study, called **Health and Economics Research on Midlife Women in British Columbia (HER-BC)**, engaged a wide geographic, demographic, and psychographic cross-section of 2,133 participants across BC to share their menopause-related health experiences, impacts on work and caregiving, as well as quality of life and psychological impacts of menopause.



of participants experience a moderate to severe symptom of menopause

[i] We use the term "woman" throughout. However, participants were people assigned female at birth, including trans, nonbinary and gender diverse people, and cisgender women.



of participants reported living with at least one diagnosed co-existing health condition, including **hypertension**, **autoimmune disorders**, **mental health concerns** and more

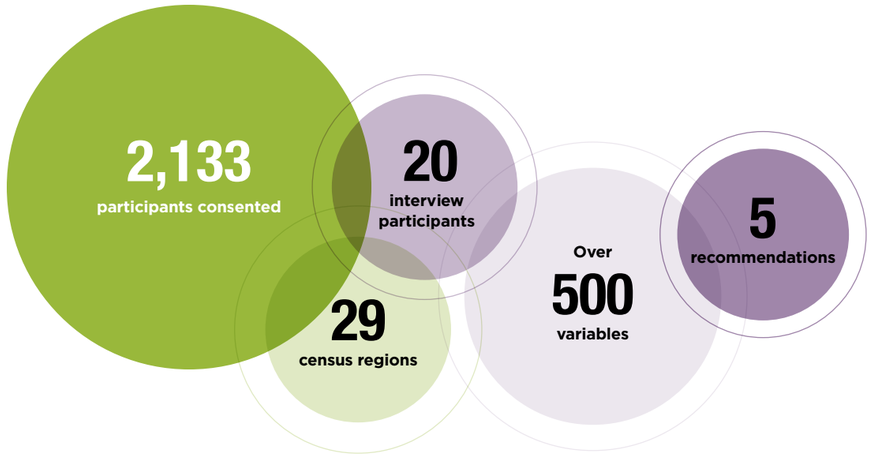
Key findings

The study findings confirmed many of the long-held beliefs and ongoing obstacles that are experienced during menopause.

- Interview participants reported a general lack of awareness and understanding about this stage of life and what to expect, as well as how to manage their symptoms. They expressed feeling unprepared, disoriented by unexpected symptoms, and unsupported by healthcare and workplaces. This was associated with declining mental, physical, and social health.
- Participants reported co-occurring health conditions during their menopause transition: mental health concernss (**41.2%**); hypertension (**18.5%**); autoimmune disorders (**14.0%**); and fibromyalgia (**11.9%**), to name a few.
- Overall, **91.9%** of participants experienced at least one moderate to severe symptom of menopause.
- Participants who reported more severe menopause symptoms also had higher symptoms of depression, anxiety, and loneliness. Conversely, participants with lower symptom severity had higher quality of life scores.
- Symptoms of menopause influenced how well people could be at work:
    - A third (**32%**) indicated that the presence of menopause symptoms affected their job in some way.
    - A quarter (**24.8%**) reported missing days of work in the last 12 months due to menopause symptoms.
    - **17.2%** had to cut back work hours during the last six months due to menopause symptoms.
    - Almost one in 10 (**9.4%**) reported having to turn down a job promotion or career advancement in the last half year due to menopause symptoms.
- A total of **27.6%** of participants reported using prescription medications to treat menopause symptoms. Of those, over half (**14.9%** of the total study sample) used two treatments, the vast majority being an estrogen/progesterone combination.
    - Although participants understood the benefits of Menopause Hormone Therapy (MHT) in treating their symptoms, access to MHT was reported as being limited due to reluctance of family doctors to discuss or prescribe.
- To manage menopause symptoms, **43.5%** of respondents accessed at least one extended healthcare provider in the last year, most commonly massage therapists, naturopaths, mental health professionals, physiotherapists, and acupuncturists.

- Approximately **13.2%** of participants exclusively utilized extended health services to treat menopause symptoms rather than visit a primary care provider.
    - A significant proportion of those who had private health insurance sought out extended health services to address menopause symptoms.
    - A greater proportion indicated symptom improvement after utilizing these services than those who did not have a private health plan.

Our numbers



Conclusions

Across the province of BC, people are calling for greater support in response to menopause-related experiences. HER-BC participants identified areas for growth within the healthcare system and workplaces. Based on the findings, we offer five recommendations focused on education, healthcare collaboration, flexibility, responsibility, and addressing knowledge gaps.



02 Glossary

Let's talk menopause – language matters

Terminology is critical when discussing menopause. The terms listed below are often confused or used incorrectly, which can lead to mistakes in how we try to improve menopause-related issues. As with any experiences that are increasingly talked about and addressed at large, the language used to describe them tends to expand to be more specific. As such, the terms, and definitions below are subject to change as new information emerges.

First, let's address gender. While most of the participants in this study identified as cisgender women (where their birth assigned sex – female – matched their sense of who they were – women), some participants identified as 2Spirit, trans, nonbinary, genderqueer, and one identified as a man. Menopause is impacted by both sex (as female) as well as gender (i.e., being a woman). To better address gender equity, the acknowledgement of the distinction between sex and gender, and using inclusive language is critical. By doing so, we mitigate the chances that we are conflating sex and gender, and we reduce the risk of excluding anybody who may experience menopause and the menopause transition due to their biology. This includes cisgender women, people assigned female at birth, and intersex peoples.[1]

Sex and gender

Who are people Assigned Female At Birth?

Those classified as Assigned Female At Birth (AFAB) were given this designation based on their external sex organs (e.g., vagina, vulva). Of note, a person's birth assigned sex (as female) does not necessarily tell you about their self-identified gender, and a birth assigned female might identify as cisgender, transgender, nonbinary, or anywhere along the gender spectrum.

Who are cisgender women?

Those whose assigned sex at birth (i.e., female) matches their gender identity as being a woman.

Menopause

What is perimenopause?[2]

Also referred to as "menopause transition," perimenopause is characterized by hormonal changes that can begin years before the final menstrual period. This phase may last for up to 10 years and may be accompanied by symptoms. Perimenopause typically begins when menstrual cycles vary by seven days or more between cycles and ends with their last period. Identifying perimenopause can be more difficult in those who do not have regular menstrual periods (e.g., those who have had a hysterectomy or those who may been using hormonal contraceptives).

What is menopause?

Menopause is defined as the date of the final menstrual period, confirmed once the menstrual period has stopped for 12 consecutive months, due to permanent cessation of production of reproductive hormones from the ovaries. Menopause can occur spontaneously (i.e., naturally) or be induced (i.e., iatrogenic). Menopause marks the end of a woman's reproductive years.

- **What is iatrogenic menopause?** The onset of menopause by the removal of one or both ovaries, or due to ovarian damage (e.g., from chemotherapy or radiation).
- **What is spontaneous menopause?** The onset of menopause by the reduction of ovarian function and hormone production that happens naturally. The average age of spontaneous menopause for North American women is 51 years.

What is post-menopause?

The remainder of a person's life after the final menstrual period.

What are common changes during perimenopause?[3]

Symptoms that indicate hormonal fluctuation include changes in menstruation (see: perimenopause), vasomotor symptoms (i.e., hot flashes, night sweats), sleep disturbances, pelvic floor disorders, sexual health changes, mood changes, changes in cognition and memory, heavy bleeding, genitourinary changes, and others. The extent to which a person experiences symptoms will vary from one individual to the next depending on biological and social factors.

- **What are vasomotor symptoms?** The dysregulation of body temperature that occurs with changes in hormones. Commonly referred to as "hot flashes" and "night sweats", these are the symptoms that signal to people about their menopause transition and prompts them to seek medical support.
- **What are genitourinary symptoms?** May include vaginal dryness, discharge, genital itching, burning and/or urgency with urination, frequent urination, and recurrent urinary tract infections.

Glossary

What is Menopause Hormone Therapy (previously known as Hormone Replacement Therapy)

Menopause hormone therapy (MHT) is the first-line recommended treatment for vasomotor symptoms, bone loss prevention, and management of moderate to severe genitourinary symptoms.[4] MHT includes estrogens and progestins as well as other hormones such as selective estrogen receptor modulators (SERMs), selective tissue estrogenic activity regulators (STEARs), vaginal dehydroepiandrosterone (DHEA), and occasionally testosterone. For individuals who do not wish to use, or have contraindications to MHT, there are evidence-based non-hormone treatments for vasomotor symptoms, osteoporosis prevention and treatment, and genitourinary health.

Healthcare definitions

The **Medical Services Plan**[5] (or MSP) is public health insurance provided by the provincial government to eligible residents of British Columbia. It pays for medically required services such as physicians and surgeons, and dental or oral surgery performed in hospital.

Fair Pharmacare[6] is coverage for prescription drugs, dispensing fees and some medical devices and supplies, provided by the provincial government to eligible residents of BC based on income.

Primary care[7] is defined by the BC provincial government as "the first point of contact between a person and the BC's healthcare system and is focused on promoting healthy lifestyles choices, managing chronic conditions, and diagnosing and treating illness and injury." It generally includes physicians, nurses, nurse practitioners and specialists, and services covered under the MSP.

Extended health services are fee-for-service health care that are not covered under the MSP. These services include those in the allied health, including massage therapy, chiropractic, naturopathy, and mental health services. A portion of their service can be covered with private health insurance coverage.

Private Health Insurance provides financial coverage for services that are not covered by the MSP and can be purchased individually or be provided by an employer.



03

Background

Our local context

Everyone assigned female at birth – half of BC's population – will reach menopause (if they live long enough), whether this occurs naturally, or due to the surgical removal of the ovaries, radiation, or chemotherapy (i.e., iatrogenic). There are currently >875,000 midlife women in BC between the ages of 40-65,[8] within the typical age range encompassing perimenopause through post-menopause. Previous research has shown that menopause can increase the risk of, or co-occur with, age-related health conditions such as osteoporosis[9] and heart disease[10]. In fact, menopause is the most important risk factor for bone loss in midlife women[9]. Despite the abundance of people who will reach menopause in their lifetime, and the potentially long-term health consequences, there continues to be a paucity of research devoted to understanding the menopause transition and how to support healthy aging.

People's experiences with menopause transitions are greatly influenced by historically informed attitudes and beliefs. Women have traditionally been made to feel deficient for aging, that they should endure the transition with psychological fortitude. Menopause is perceived as a negative life transition; an illness accompanied by a failing body and mind[11]. The stigma associated with menopause inhibits people experiencing the transition from openly discussing it and its associated symptoms[12]. This is significant given the impacts that symptoms of menopause have on people's daily lives, and the barriers that exist to accessing care and treatment.

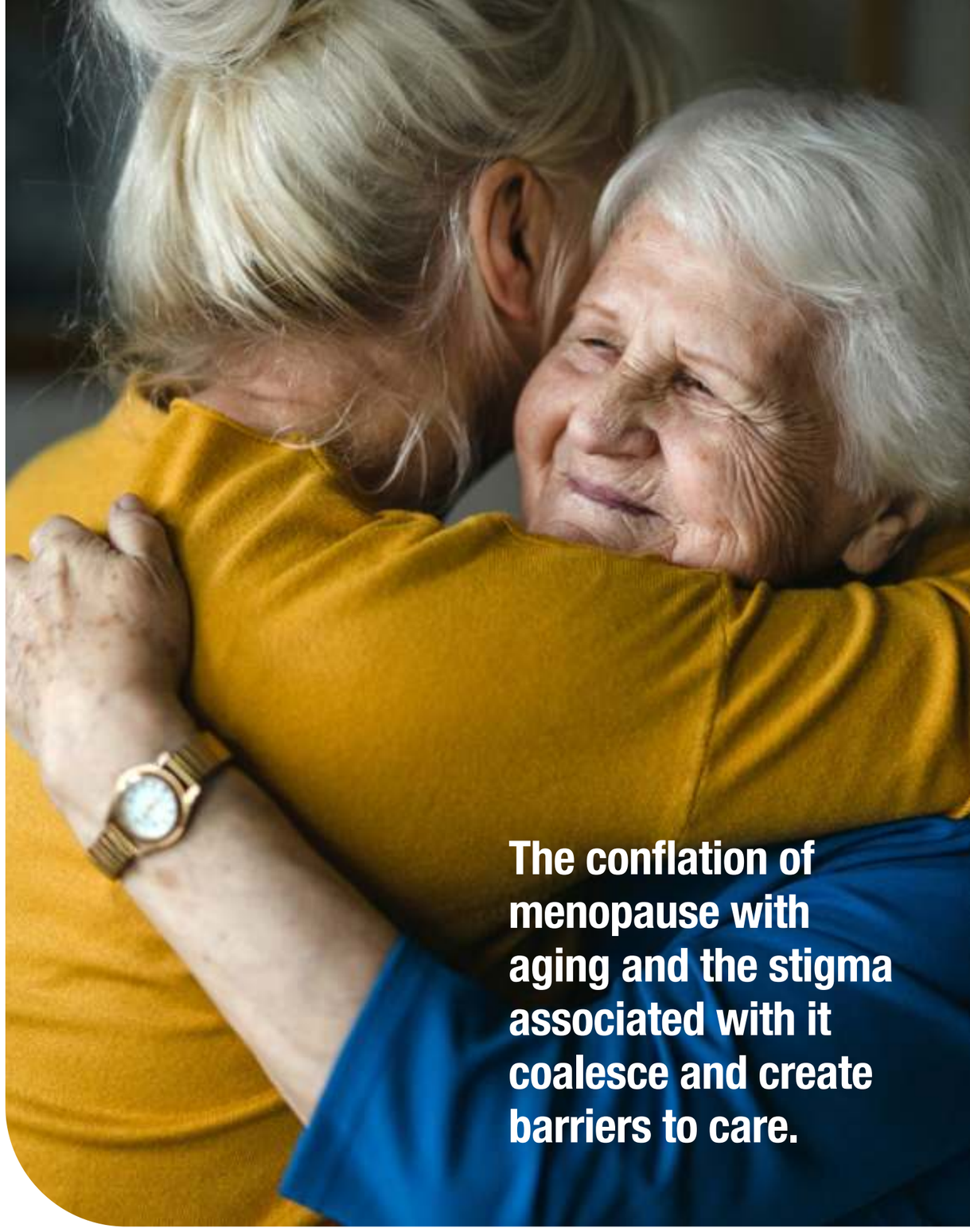
The conflation of menopause with aging and the stigma associated with it coalesce and create barriers to care. People experiencing symptoms of menopause may avoid care due to (1) believing that their symptoms are merely signs of aging[13]; (2) feeling ashamed to ask for support[14]; (3) perceiving that their symptoms are not severe enough to address with their care provider[15]; and (4) feeling rushed in healthcare encounters[15]. Demographic determinants including language and cost can intensify barriers as well[15]. When people do access care, care providers may not broach the subject[12], be unhelpful, or dismiss or diminish their experiences[16]. These experiences negatively impact people's menopause transitions, with long-term effects to their aging and quality of life.

Studies have found that vasomotor, sleep disturbances, weight gain, joint stiffness, bladder issues and body image had the greatest impact on a quality of life[17]. Many of these symptoms have also been associated with negative impacts to work (e.g., fatigue, cognitive difficulties, and vasomotor symptoms)[18]. Just as stigma keeps people from talking about their experiences with care providers, shame stops people from talking about it at work, leaving them feeling unacknowledged and unsupported[18]. Reduced capacity or inability to work can have long-term effects on quality of life.

Women make up 48% of the paid work force in British Columbia[19], and contribute approximately 43% of all hours worked in the province in any given week. Midlife women between the ages of 40-65 make up 46.3% of all women workers. In BC, figures from 2018 suggest that the poor health of women (e.g., mental health, migraines, back pain) costs the economy approximately $2.6 billion annually, which includes lost income due to working part-time because of illness ($480 million), being absent from work due to illness ($307 million), and missed days at work due to illness ($1.8 billion). In Canada, a recent report found that untreated symptoms of menopause are associated with $3.5 billion to the economy, and $237 million in lost productivity. As many as 10% of women in Canada leave the workforce entirely due to unmanaged menopause symptoms[21].

Topics connected to women's health are ripe with mis- and disinformation, and menopause is no exception. People assigned female at birth spend over one-third of their lives in post-menopause. Bridging knowledge gaps, generating awareness, and eliminating stigma are critical to supporting healthy aging in BC. HER-BC engaged people across the province in explorations of their experiences of midlife to better understand how to inform gaps, address stigma, and raise awareness such that people know what to expect from menopause transitions, and how to feel well throughout.

> "Because it's like hitting a brick wall and not coming out the same person at the other side. And nobody prepares you for it quite the way it happens."
>
> age 52, post-menopause



The conflation of menopause with aging and the stigma associated with it coalesce and create barriers to care.



04 Methods

What did we do?

The Women's Health Research Institute (WHRI) wanted to address BC's menopause knowledge gap and was able to do so with support from Pacific Blue Cross and the BC Women's Health Foundation, who funded the first provincial study of menopause. Dr. Lori Brotto, Professor at the University of British Columbia and Executive Director of the WHRI, mobilized a team of researchers, clinicians, and people with lived experience of menopause to conduct the Health and Economics Research on Midlife Women in British Columbia (HER-BC) study (Research Ethics Board Number: **H23-02732**). The HER-BC study aimed to understand the 1) health concerns of midlife women in BC, 2) quality of life and psychological impacts of menopause, 3) impact of menopause on work and caregiving, and 4) barriers and enablers to accessing health care services and the health system.

The study adopted a mixed-methods approach to understand participant experiences of the menopause transition and health conditions after menopause via a comprehensive online survey and individual in-depth interviews. Study recruitment took place from November 10, 2023 to April 7, 2024 and was open to anyone who resided in BC who was between the ages of 39-60, and was assigned female at birth, including trans men, gender diverse people, and cisgender women.

Survey

A total of 2,133 individuals provided consent, of whom 275 were excluded due to ineligibility, leaving a final sample size of 1,858 and a total of 1,567 (84.3%) complete responses. Study recruitment was promoted via social media, the REACH BC platform, word of mouth through community organizations, and via existing research cohorts including the BC Women's Hospital + Health Centre's, Centre for Pelvic Pain and Endometriosis, and the Complex Chronic Diseases Program.

The survey was administered using the Research Electronic Data Capture (REDCap) system, a secure web application for building and managing online surveys and databases. The survey captured over 500 variables across six key areas. Participants were asked to provide general demographic information (e.g., age, gender, race, employment, income, etc.), current health conditions, presence and severity of menopause symptoms, mental health and quality of life ratings, as well as information on health care utilization, caregiving activities, and participation in paid labour. The survey took approximately 25-30 minutes to complete.

For statistical analyses, categorical variables were summarized using the number and percentage of participants belonging to each category. Continuous variables were summarized using means and standard deviation. Comparisons between

main strata groups were performed using Pearson's Chi-square tests and Fisher exact tests for small cells (<5) for categorical variables, and Mann–Whitney U tests (2 categories) and Kruskal–Wallis for (3+ categories) for continuous variables. Kendall's τ-b (Kendall rank correlation coefficient) was used to evaluate relationships between scales. As differing numbers of participants completed survey modules, participant totals for Tables and Figures varied.

Measures

The following measures were used in the HER-BC study.

The **Menopause Rating Scale (MRS)** was used to assess the severity of symptoms experienced. Participants were asked to rate a list of symptoms such as hot flashes or heart discomfort on a scale from "none" to "extremely severe." Total scores were categorized as none/mild=0-11; moderate=12-22; severe=23-33; extremely severe=34-44.

The **Menopause Specific Quality of Life Scale (MENQOL)** was used to assess the extent to which symptoms are bothersome for participants in four domains: vasomotor (e.g., hot flashes and night sweats), physical (e.g., feeling tired, frequent urination), psychosocial (e.g., feelings of anxiety, nervousness, poor memory), and sexual (e.g., avoiding intimacy, changes to sexual desire). Scores within each of these domains were averaged and ranged from 1=not bothered at all, to 8=extremely bothered.

Loneliness was assessed using the **DeJong Gierveld Loneliness Scale** that is comprised of 11 items in which respondents were asked to rate statements such as "I miss having a really close friend" on a 5-point Likert Scale from "none of the time" to "all of the time." Total scores were classified as 0-2=not lonely, 3-8=moderate, 9-10=severe, and 11=severely lonely.

The **Generalized Anxiety Disorder-7 (GAD-7)** is a 7-item scale used to measure levels of anxiety. Statements such as "feeling nervous, anxious or on edge" were rated on a 4-point scale from "not at all" to "nearly every day." Total scores of 0-4 indicated minimal anxiety, 5-9=mild, 10-14=moderate, and 15-21 = severe anxiety.

The **Patient Health Questionnaire-9 (PHQ-9)** was used to measure depression and asked participants to rate statements such as "little interest or pleasure in doing things" on a 4-point scale from "not at all" to "nearly every day." Total scores of 0-4 indicated no or mild presence of depressive symptoms, 5-9=mild, 10-14=moderate, 15-19=moderately severe, and 20-27=severe.

The **Utian Quality of Life (UQoL) Scale** contains 23 items and was used to assess overall well-being and quality of life (QoL) of participants, with a particular focus on domains impacted by menopause symptoms, including occupational QoL, health QoL, emotional QoL and sexual QoL. Participants were asked to rate statements such as "I am content with my romantic life" on a scale from "not true of me" to "very true of me." Total scores of 0-23=low QoL, 24-69=moderate QoL, 70-92=moderately high QoL, and 93-115=very high QoL.

Methods

Interviews

A subset of participants of the online survey were invited to participate in individual semi-structured interviews. Of the 2,133 survey respondents, 1,041 consented to being contacted for an interview, of whom 20 were selected. A purposive sampling approach was used to select interview participants, which means that we sought individuals with varying socio-economic statuses, education levels, races, and those who were living in areas of varying population density.

Interview participants were asked to describe their experiences with menopause broadly to situate themselves within their menopause status (i.e., peri or post) and answer subsequent questions about health care and information seeking and impacts to work (see Appendix B for Interview Guide).

Interviews were conducted via Zoom, recorded, and later transcribed verbatim for analysis. Member checking was undertaken so that participants could review their transcripts and ensure that they were adequately represented. Transcripts were coded inductively by three team members to establish intercoder consensus. This ensured that the interpretation of data was confirmed by more than one coder. The trustworthiness of interpretations was further strengthened by memo-writing – keeping an audit trail of coder sense making – as well as the triangulation of information (survey results, interview accounts, coder memos).



05

Results

What we found

Participant demographics

Respondents of the HER-BC study reported an average age of 49.4 years with 80.9% who identified as white, 88.7% identified as heterosexual, and 74.9% as legally married or common law. In addition, a total of 61 participants (3.3%) identified as Indigenous, and 49 (2.7%) identified as multi-race Indigenous.

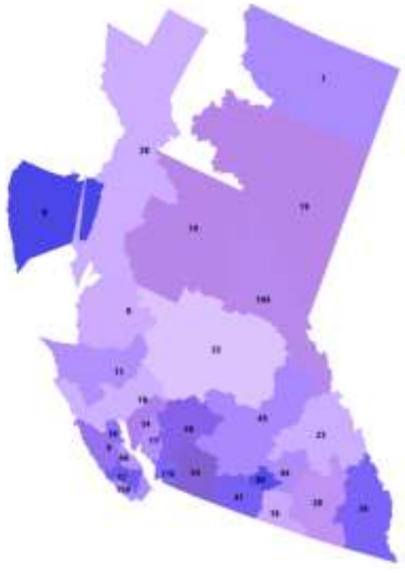
The majority of the sample identified as cisgender women (n=1,821), 23 identified as trans, non-binary, genderqueer, or otherwise gender diverse. Additionally, 14 identified as 2Spirit, 1 as a man, and the remainder did not disclose (n=3).

Study participants were generally highly educated, with 57.2% reported having a university level bachelor's degree or higher. Eighty-three percent of participants were employed, and amongst those who reported a yearly salary, the mean annual personal income was $97,281.

With regards to general consumption patterns, 6.2% of respondents reported use of tobacco or vape products, 60.5% consumed alcohol, and 17.6% used cannabis. When comparing consumption patterns to the national average[22], Statistics Canada found that 13.6% of adults 25 years and older used tobacco in the last 30 days, and 64.4% consumed alcohol. The national rate of cannabis use for non-medical purposes was 23% for those 25 years and older[23].

Representation from all of census regions of BC was achieved (Figure 1) with 41.1% residing in the Metro Vancouver area.

Figure 1. Survey participant representation by census region



Menopause status

For the purpose of this study, participants who reported still having a period were categorized as being in perimenopause. Participants were considered to be in post-menopause if they reported not experiencing a menstrual period for 12 consecutive months or longer (Table 1). For those in post-menopause, 481 (28.2%) experienced natural menopause and 372 (21.8%) experienced iatrogenic or medically induced menopause (i.e., due to surgery, chemotherapy, or radiation).

Table 1. Participant menopause status (N=1,705)

Menopause status	Number	%
Post-menopausal	**853**	**50.0**
Natural menopause (those without a period in the last 12 months)	**481**	**28.2**
Iatrogenic menopause (as a result of chemical or surgical causes)	**372**	**21.8**
Perimenopausal	**852**	**50.0**

Menopause status was foundational to how survey and interview participants characterized their symptoms, their severity, and how they managed them. Among interview participants, their perceptions were often influenced by reflections on where their journey began and where they were at the time of interviews.

Symptoms of menopause

As many as 80% of women who navigate the menopause transition will experience symptoms which can include vasomotor (hot flashes), sleep disturbances, cognitive challenges, mood changes, joint stiffness, bladder issues, and physical changes to the body (e.g., weight gain)[17]. Our participants described some of the symptoms they experienced:

> "But the biggest thing is in the mornings, and maybe in about 50 min or so, it'll probably start. Um, I just get so hot if I move around, I just – I'm dripping with sweat. And it's every morning. Doesn't really matter. The more I move, the worse it is. Which is great, because right around that time is when I'm heading to work."
>
> age 40, post-menopause

> "Definitely waking up, drenched in sweat all down my legs, which I had never had before. Uh, sleeping issues, incontinence, which I guess could be a result of having two children. But I, after reading through symptoms of perimenopause, I do feel like the incontinence, could be a part of perimenopause – symptoms that I just never had had before."
>
> age 43, post-menopause



Even though half the population will experience the menopause transition, there is a general lack of awareness about this life stage. A consequence is that people didn't know what to expect, what their symptoms were, or how to manage:

> "[...] it's been confusing. It was a very confusing time for me, mentally, physically. Wasn't sure what was going on with my body. Um, so yeah, I had a really difficult time through it all."
>
> age 57, post-menopause

Participants expressed feeling **unprepared and disoriented** by unexpected symptoms

Interview participant descriptions of symptoms and changes were often accompanied by accounts of impacts to their daily life. Some characterized the changes as unexpected, others as confronting, and most as burdensome.

The health burdens of midlife women

The menopause transition does not occur in a vacuum. Interview participants described concurrent conditions that were often conflated with perimenopause. A multitude of pre-existing health conditions were reported by survey respondents (Table 2).



Table 2. Self-reported diagnosed health conditions (N=1,706)

Have you ever been diagnosed with the following	Number	Yes (%)
Mental illness or mental health condition	**703**	**41.2**
Fibroids	**400**	**23.4**
Endometriosis	**345**	**20.2**
High blood pressure / Hypertension	**315**	**18.5**
Managed well	**245**	**14.4**
Not managed well	**70**	**4.1**
Autoimmune disorder (e.g., rheumatoid arthritis)	**238**	**14.0**
Fibromyalgia	**203**	**11.9**
Chronic fatigue syndrome	**190**	**11.1**
Polycystic ovarian syndrome (PCOS)	**151**	**8.9**
Diabetes	**111**	**6.5**
Managed well	**78**	**4.6**
Not managed well	**33**	**1.9**
Cancer	**21**	**1.2**
Heart disease	**13**	**0.8**

A significant proportion of respondents reported a mental health condition. This aligned with recent Canadian statistics that approximately one in five Canadians are affected by a mental health condition in any given year[24], and approximately 38% of the population have been diagnosed with a mood disorder[25].

The proportion of women who reported having endometriosis (20.2%) is higher than the national average of 10%, and may have been influenced by our recruitment from existing research cohorts including patients seen at the Centre for Pelvic Pain and Endometriosis at BC Women's Hospital + Health Centre.

The rate of heart disease among our participants may be under-reported considering that heart disease and stroke are the leading cause of premature death among women in Canada[26], and risk factors include high blood pressure, other gynecological conditions such as PCOS, hysterectomy, and menopause[10,26]. The low rate reported by our sample may be a reflection that up to 89% of women are unaware of their risk factors[26].

In addition to the above conditions, 18.8% of respondents reported living with a long-term disability such as vision, hearing, or mobility issues. When asked about management of their pre-existing health conditions, 67.3% took prescription medications, and 21.4% regularly took supplements or vitamins.



The number of hours spent caregiving was significantly associated with severity of menopause symptoms.

Due to concurrent health conditions, many participants expressed uncertainty of whether the symptoms they were experiencing were symptoms of menopause or something else. As one participant explained, this conflation also resulted in confusion about management and treatment:

> "So, I also have interstitial cystitis which I do kind of get flares during my period, and so I am seeing kind of shifts in terms of my pain on that side as well. I think because it, as a condition [...] – there's only so much that is known, even for treatment, that layering that on top of menopause or perimenopause is difficult to kind of know what's what, and what will even help."
>
> age 41, perimenopause

Life circumstances were also identified as disorienting. Interview participants described how life stressors (e.g., work and caregiving) can obscure symptoms and deter them from tending to their well-being. As this participant reflected:

> "And I mean, it's a perfect storm time of life, too. I mean, I don't have kids, but you know [...] my colleagues who have kids who are teenagers, [...] 20 somethings, and [...] they're going through all the rigamarole with that, and a lot of us have been, you know, helping parents, and I think there was 4 of us that our dads or moms died like within a 2 month span of each other, and it was all [...], with dementia and stuff, and [...] you're working with that. So, it's the perfect storm of the time of your life."
>
> age 53, post-menopause

Over half (52.9%) of survey respondents reported having caregiving responsibilities during the past year, defined as "the activity or profession of regularly looking after a child or sick, elderly, or disabled person." On average, respondents spent 24.7 hours per week on caregiving activities, with a large proportion providing care to an older family member or relative (19.7%) or children (24.1%). In addition, 36.3% of the overall sample indicated that they cared for someone with a long-term health condition, while 37.7% indicated it was for someone who had problems related to aging.

For some participants their everyday responsibilities distracted from symptoms. For others, daily life events intensified symptom severity.

Severity of symptoms of menopause

The degree to which a person experiences symptoms of menopause varies greatly. Some experience symptoms severely, while others experience them mildly, or not at all. Sometimes, people do not acknowledge the existence of symptoms until they are exposed to information about them. One participant described how being exposed to information about menopause made them aware that they were experiencing symptoms:

> "And so that's where I am today [...] now realizing actually I did have symptoms that I didn't recognize and just sort of powered through. And had before that in the [media program] I literally had never had a conversation about it with any healthcare provider at all. [...] it just never came up, and no one had ever asked."
>
> age 58, post-menopause

On the other hand, moderate to severe symptoms could be experienced as disruptive, and some participants spoke of being unprepared or being caught off guard:

> "Because it's like hitting a brick wall and not coming out the same person at the other side. And nobody prepares you for it quite the way it happens."
>
> age 52, post-menopause



of respondents reported having caregiving responsibilities

Feeling prepared was identified as a significant determinant of well-being during the menopause transition, including how well people could manage their symptoms. Interview participants related unpreparedness with severity.

Among survey respondents, the Menopause Specific Quality of Life (MENQOL) questionnaire assessed the extent to which symptoms of menopause were bothersome to participants. Table 3 shows that overall, the study sample reported close to moderate levels of bothersome symptoms among the four domains: vasomotor, psychosocial, physical, and sexual.

Table 3. Average domain scores for the Menopause Specific Quality of Life Scale (MENQOL)

MENQOL Domains	Mean	SD
Vasomotor	**3.30**	**2.02**
Psychosocial	**3.93**	**1.73**
Physical	**3.90**	**1.49**
Sexual	**3.72**	**2.27**

Note: MENQOL classification: not experienced=1 to extremely bothered=8
The data above represents mean scores and standard deviation (SD)

When looking at the individual symptoms of the MENQOL, feeling tired or worn out and difficulty sleeping had the highest proportion of respondents who indicated moderately to severely bothersome symptoms (73.5% and 64.4%, respectively).

When looking at scores from the Menopause Rating Scale (MRS), a large proportion of participants not only experienced menopause symptoms, but also reported a moderate to severe level (Figure 2). Overall, 91.9% of participants experienced at least one symptom at a moderate to severe level. This included feelings of anxiety and depression, bladder issues, vasomotor symptoms, joint aches and pains, and sleep problems. Heart discomfort (such as an unusual awareness of heartbeat, heart racing/skipping, or tightness) had the lowest proportion of women who experienced moderate to severe levels (23.4%), while sleep problems had the highest number of respondents (67.6%) who rated it as moderate to severe.

Figure 2. Participant severity ratings on the Menopause Rating Scale (MRS)



Interview participants often related the changes and symptoms they experienced with how bothersome they were (i.e., how much they impacted their daily lives). Sleep disturbances, vasomotor symptoms, as well as changes in mood and their sex lives were often related to level of bother during interviews. It was most often described as not feeling like themselves:

> "I'm just not myself. I don't like who I am. I don't like who I've become."
>
> age 55, post-menopause

> "You know, it'd be nice to sort of feel like you're kind of flowing with everything. But instead, it feels a little bit like, you know, there's something to be battled all the time, or chat – or remedied, or fixed or to, in order to feel a little bit more like how you use to feel. So I think it takes up a lot of brain space. Um, and I would love for it not to take up so much space."
>
> age 53, perimenopause

One participant emphatically stated:

> "EVERYTHING changed."
>
> age 50, perimenopause

Another characterized menopause as

> "it's very dissociative. Let's say that."
>
> age 52, post-menopause

Feeling different than before was a constant theme throughout interviews. However, as participants differed, so did the things that changed and how severe the symptoms felt.

Symptoms of menopause amongst differing groups

MRS and MENQOL scores were stratified to determine whether there were differences in the severity and bothersome ratings of symptoms between respondents of different races, income brackets, size of geographic location, health insurance coverage, level of education, employment, and whether they were in peri- or post-menopause (Table 4). Results showed no differences between white and non-white groups in both the MRS and MENQOL scores. There were also no differences in symptom severity and bothersome levels among those who had health insurance coverage, and access to a regular care provider.

Significant differences in average severity and bothersome scores were found related to geographic location, income, education level, employment, and those who were in peri- or post-menopause.

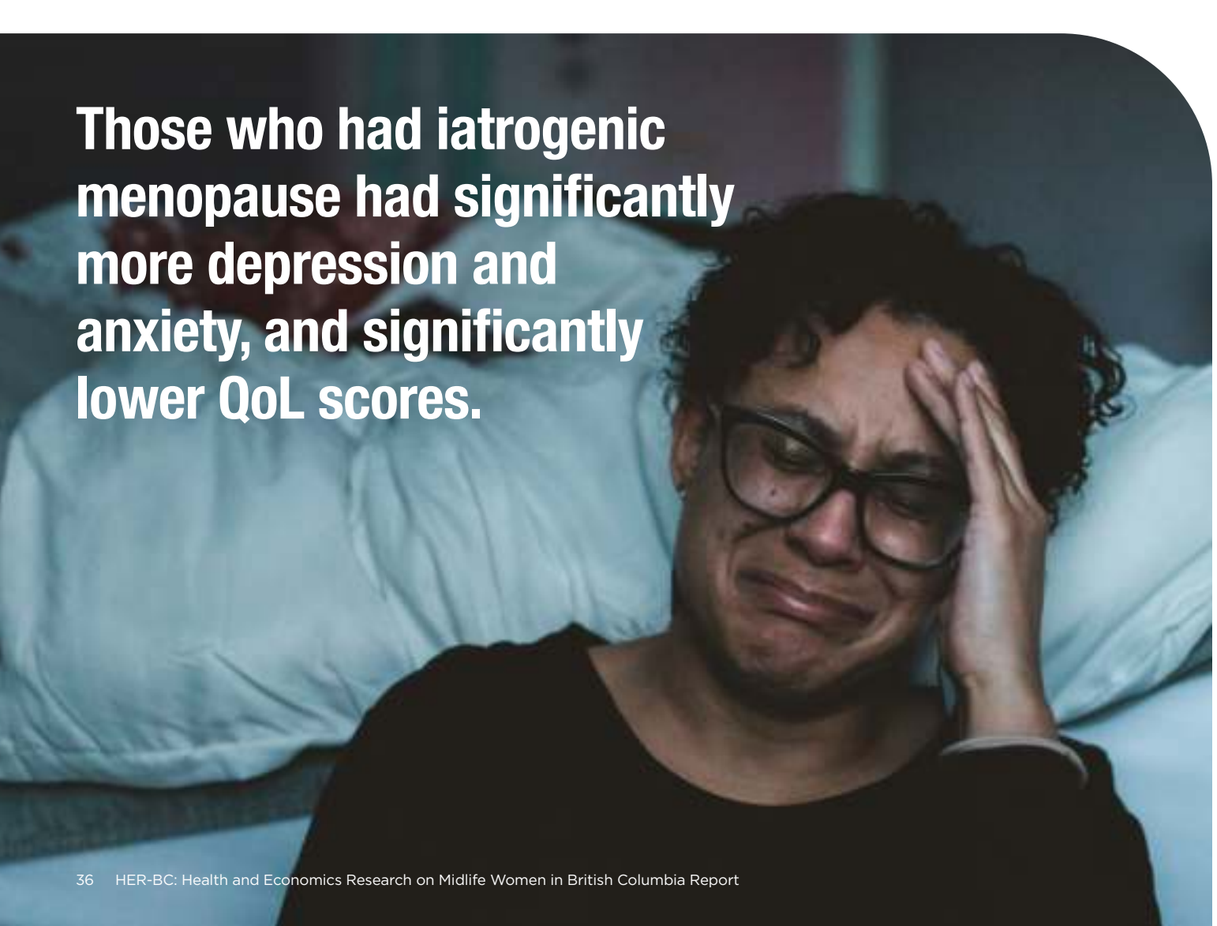
Table 4. Differences in scores for the Menopause Rating Scale (MRS) and the Menopause Specific Quality of Life Scale (MENQOL)

Domain	MRS and MENQOL scores
Race	No differences were found between those who were white vs. non-white.
Health insurance coverage	No differences were found between those who had private health insurance vs. those who did not.
Access to care provider	No differences were found between those who had access to a regular care provider vs. those who did not.
Geographic location	Those who lived in centres of <30,000 people had significantly higher MRS and MENQOL vasomotor, physical, and sexual domain scores than those who lived in centres >100,000.
Income	Those who reported a household income of <$50,000 per year had significantly higher MRS and MENQOL physical and sexual domain scores than those who reported a household income of >$150,000 per year.
Level of education	Those who had less than a bachelors education reported significantly higher scores in MRS and all four MENQOL domains than those who had at least a bachelors level education.
Employment	Those who currently worked reported significantly higher MRS and MENQOL psychosocial and physical domain scores than those who did not currently work.
Menopause status	Those who were in menopause due to iatrogenic reasons reported higher MRS scores and MENQOL domain scores than those who were in perimenopause. Those who were in menopause due to iatrogenic reasons reported higher MENQOL vasomotor domain scores than those who experienced natural menopause. Those who experienced natural menopause reported higher rates of MENQOL vasomotor and sexual domain scores than those who were in perimenopause.

How severely and bothersome symptoms of menopause were felt impacted people's mental health significantly. Some interview participants described it as struggling. As this participant living in a low-density area stated:

> "I mean, I'm struggling. I'm struggling to find resources. I'm struggling to find a doctor. [...] I think this is what's causing me grief. Can't get anyone to take me seriously."
>
> age 55, post-menopause

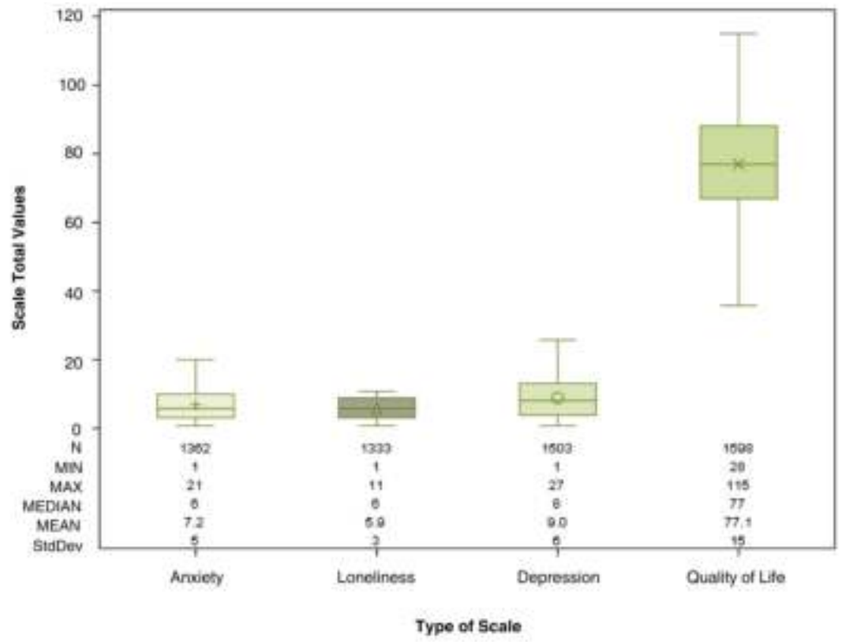
In addition to mental health impacts of menopause symptoms being highlighted by interviews, quantitative assessments of mental health were also explored in the survey.



Impact of symptoms of menopause on mental health and quality of life

When examining the mental health of participants using the standardized measures, their overall generalized anxiety was mild, their loneliness scores were in the moderate range, their overall symptoms of depression were mild, and they reported overall moderately high quality of life (Figure 3).

Figure 3. Participant scores for psychological measures



Note: The box length represents where 50% of the datapoints lie. The whiskers (lines) represent the minimum and maximum of the sample distribution

GAD-7 classification: minimal=0-4; mild=5-9; moderate=10-14; severe; 15-21

Loneliness classification: not lonely= 0-2; moderate=3-8; severe=9-10; very severe lonely=11

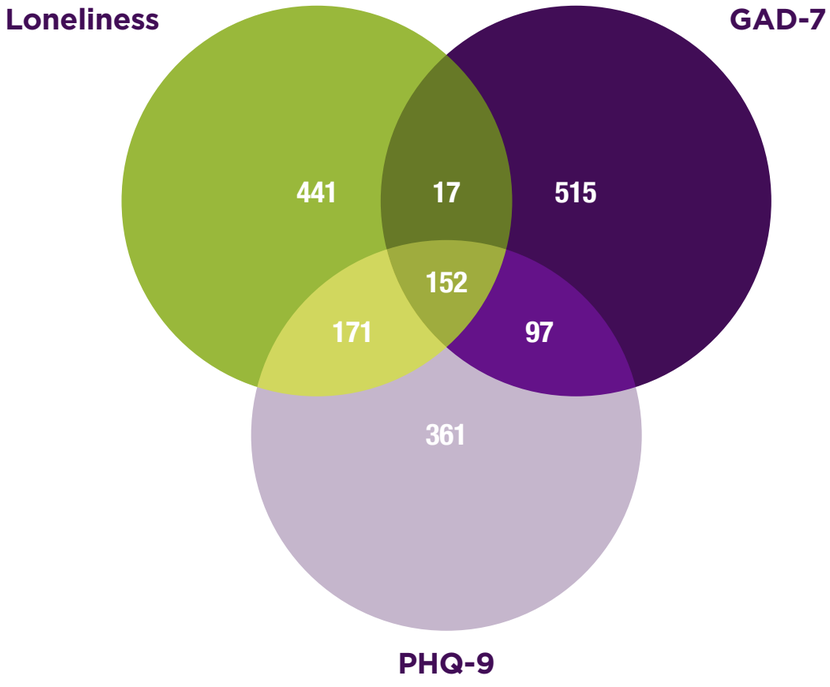
PHQ classification: none/minimal=0-4; mild=5-9; moderate=10-14; moderately severe=15-19; severe=20-27

Utian QoL classification: low=0-23; moderate=24-69; moderate high=70-92; very high=93-115

Results

However, out of 1,594 participants who completed the PHQ-9, GAD-7, and loneliness scales, 49% scored "severe" in at least one these measures. The following Venn diagram (Figure 4) shows the number of respondents who scored "severe" in each measure, as well as the degree of overlap between the three domains. One hundred fifty-two participants (9.5%) were rated as "severe" on all three measures.

Figure 4. The number of participants and degree of overlap of those who scored severe in loneliness, anxiety (GAD-7), and depression (PHQ-9)

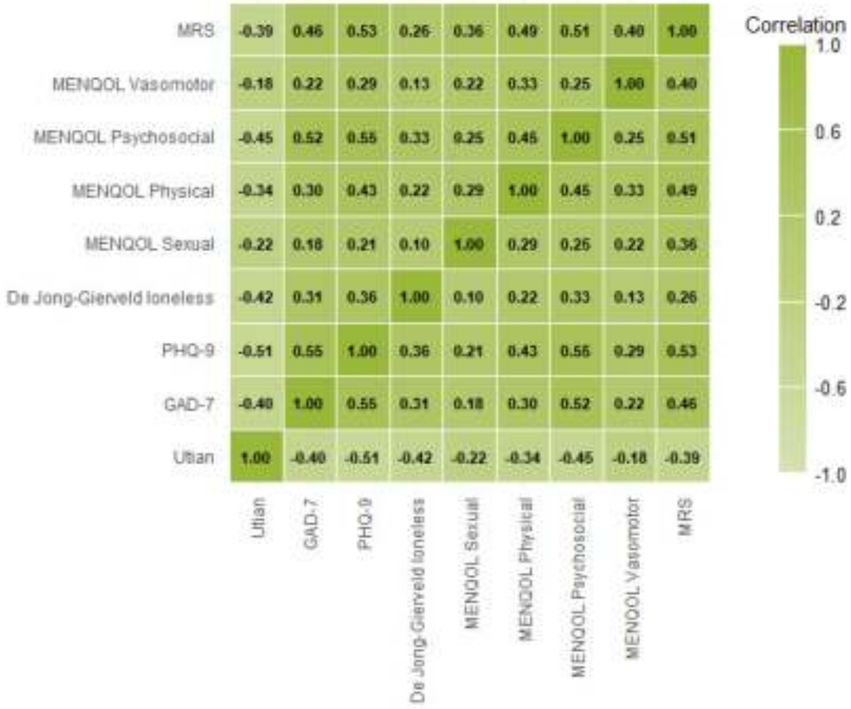


When looking at severity of menopause symptoms and their impact to participants' well-being, interview participants provided insight into just how disruptive symptoms could be:

> "You have it in your head, but it's physically, your body's not working anymore. It's not the body you recognize. It's not doing – you have all these aches and pains you've never had. You don't know what it is. I found out after my iron deficiency, just recently I had severe vitamin D deficiency. Never had that in my life. I've always been outdoors all the time. So yeah it – the changes for some of us are more drastic than others. And for some of us, too, it's in a really short time period. It just happens almost overnight. So, there's a lot of trying to adjust and accustom. And then there's the anxiety and depression that comes with it. Is it hormonal? Is it something more serious? Brain chemistry? [pause] You - You get to the point, you're so confused as to well, "What is this and what do I do about it?""
>
> age 52, post-menopause

The following correlation matrix illustrates the relationship between intensity of menopause symptoms and psychological measures (Figure 5). Noticeably, severity of menopause symptoms (MRS), and MENQOL physical and psychological domains were significantly and moderately correlated with depression and anxiety, and significantly but mildly correlated with loneliness. In other words, participants who indicated higher degree of severity in symptoms of menopause also had higher reports of depression, anxiety and loneliness. In addition, severity of symptoms was moderately negatively correlated with quality of life, meaning that participants who scored lower in symptom severity had higher ratings of quality of life.

Figure 5. Correlation matrix of MRS total scores and MENQOL domain scores with depression (PHQ-9), anxiety (GAD-7), loneliness, and Quality of Life (Utian)

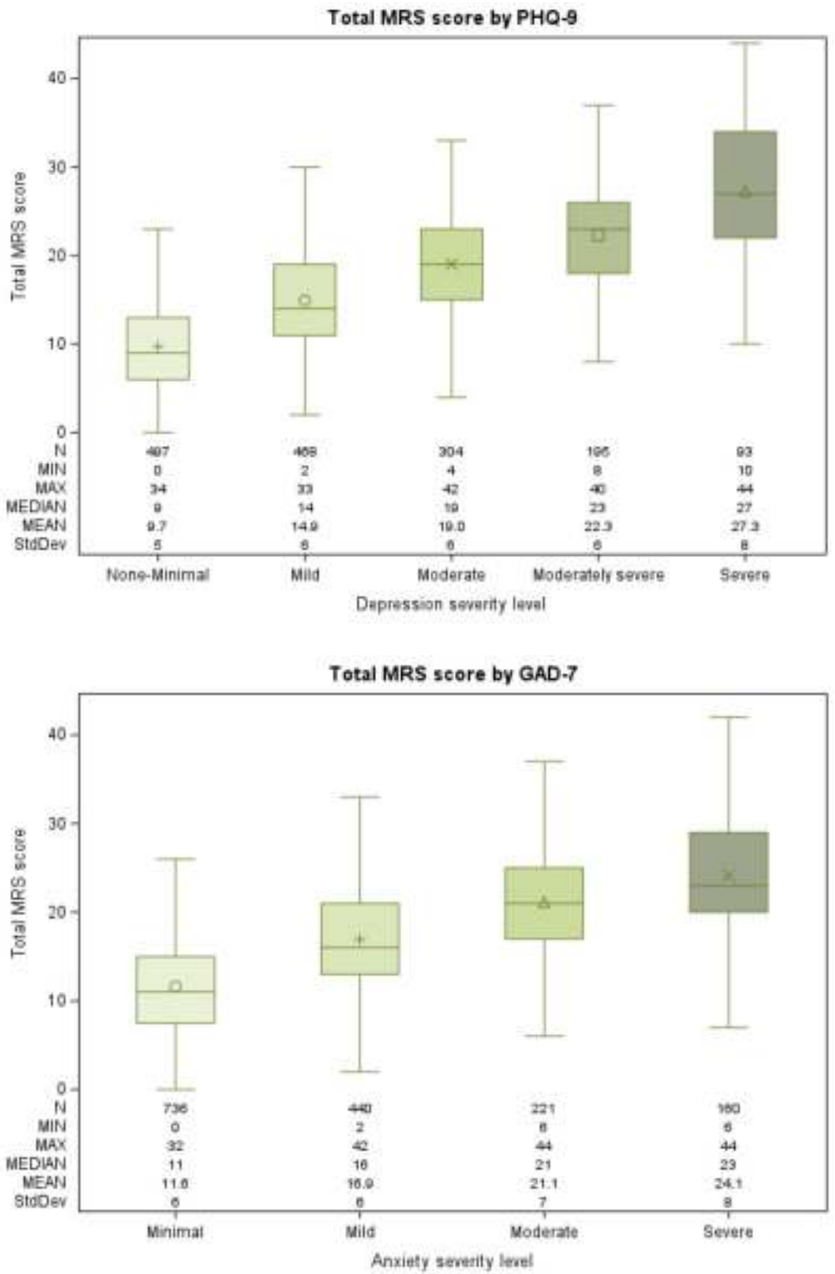


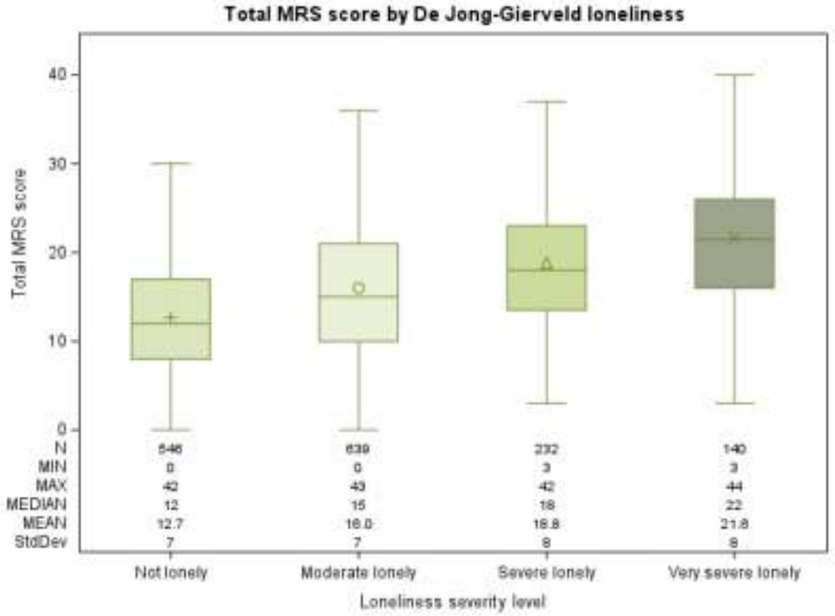
Note: A correlation of 0.3 or less=small; 0.5=moderate; 0.8 or higher=large

As reflected in the correlation matrix above, and Figure 6, a higher level of menopause symptoms was associated with higher depression, anxiety, and loneliness scores.



Figure 6. MRS severity scores and PHQ-9, GAD-7 and loneliness ratings





Note: The box length represents where 50% of the datapoints lie. The whiskers (lines) represent the minimum and maximum of the sample distribution

MRS total score classification: none/mild=0-11; moderate=12-22; severe=23-33; extremely severe=34-44

PHQ-9 classification: none/minimal=0-4; mild=5-9; moderate=10-14; moderately severe=15-19; severe=20-27

GAD-7 classification: minimal=0-4; mild=5-9; moderate=10-14; severe; 15-21

Loneliness classification: not lonely= 0-2; moderate=3-8; severe=9-10; very severe lonely=11

Interview participants articulated how symptoms impacted their sense of selves, and how they no longer felt like themselves:

> "I'm no longer the same person. So, it's not that I don't feel like myself. I am no longer myself."
>
> age 50, perimenopause

In addition, the burden of managing symptoms could disrupt people's social and support networks. How much energy, patience, and capacity they had to tend to their relationships varied and most participants described some sort of shift. For example, this participant described withdrawing from her friends:

> "[...] just finding the energy to keep up with a text conversation, [...] – like going with the flow if you're actually going to meet somewhere. So it's like actually showing up. It's like, yeah. And then it's hard to, obviously to, when you start cancelling on people, you eventually, you just kind of drift apart. So, there are not many people left in the social circle."
>
> age 50, perimenopause

While the mention of isolation and loneliness was not explicit, these quotes illustrated how symptom burden could impede capacity and ability to engage and maintain social connection. Most interview participants described how these dynamics transferred to workplace relationships. They reported on how their energy, patience, and capacity influenced how they functioned at work.

Impacts on work

The presence of menopause symptoms can greatly impact people's ability to participate in activities of daily living, which includes the paid work force. Work force participation is an important domain associated with access to extended health benefits, long-term financial security, and quality of life and self-esteem. A significant proportion of survey respondents (32.0%) indicated that the presence of menopause symptoms affected their job in some way. Interview participants described changes to how they were at work, and how well they could perform:

> "And I'm just tired of not feeling good. [Pause] It's impacting my success at work."
>
> age 55, post-menopause

> "I lost my career because of all of everything that played into, like all of the symptoms."
>
> age 57, post-menopause

A quarter of survey respondents (24.8%) reported missing days of work in the last 12 months due to menopause symptoms. This was higher than the 20.5% of participants who had reported missing work in the last three months due to acute (non-infectious) conditions. Further, 17.2% had to cut back on hours in the last six months, and almost one in 10 women (9.4%) reported having to turn down a job promotion or career advancement in the last half year due to menopause symptoms.

Of those who reported that menopause symptoms impacted their work in some way, they had significantly higher symptom severity ratings than those who reported no impact on work (Table 5). The magnitude of the difference between those who had their jobs impacted by menopause symptoms versus those who didn't was moderate.

Table 5. Average Menopause Rating Scale (MRS) scores for participants who indicated that their work was impacted by menopause symptoms or not (N=1,660)

Impact on work	Yes	No	Total
Missed work in the last 12 months	**19.6 (7.6)**	**14.0 (7.4)**	**15.4 (7.8)**
Job been affected by menopause in the last six months	**19.2 (7.6)**	**13.6 (7.2)**	**15.4 (7.8)**
Cut back on hours worked in the last six months	**20.2 (7.8)**	**14.4 (7.4)**	**15.4 (7.8)**
Been laid off or fired from work in the last six months	**25.8 (9.6)**	**15.4 (7.8)**	**15.6 (7.8)**
Quit, retire, or changed jobs in the last six months*	**22.4 (9.0)**	**15.2 (7.6)**	**15.6 (7.8)**
Turned down a job promotion or career advancement in the last six months	**21.8 (8.8)**	**14.8 (7.4)**	**15.6 (7.8)**

Note: MRS total score classification: none/mild=0-11; moderate=12-22; severe=23-33; extremely severe=34-44

In all comparisons, those who reported an impact of menopause on work had significantly higher MRS scores, p<0.0001

The data above represents mean scores (+/- standard deviation)

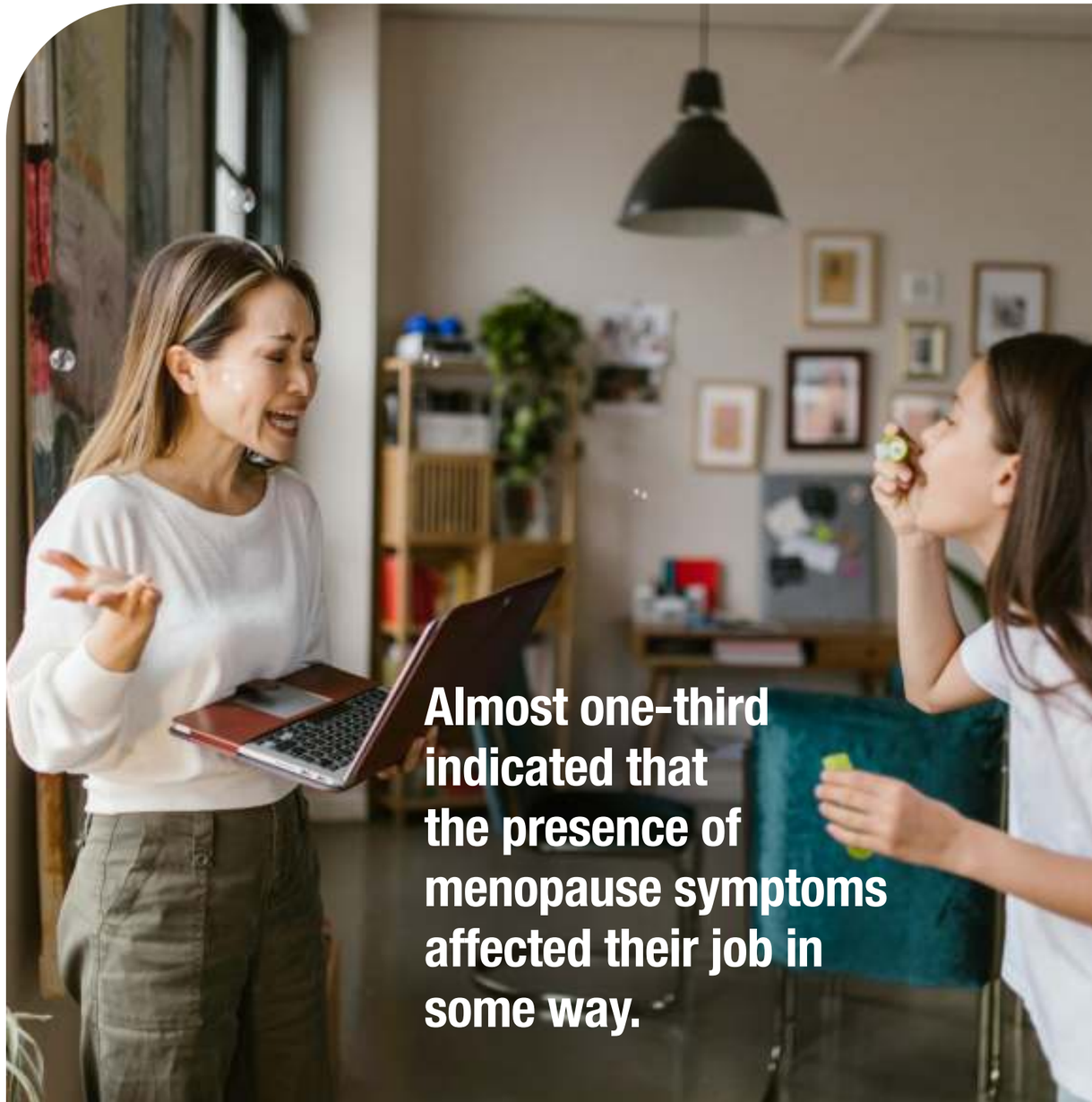
Results

Because participants who were currently employed had access to private health insurance, the HER-BC study also examined whether impacts to work due to symptoms of menopause were lessened by health insurance coverage and the access it provided to extended care (Table 6). Analyses did find that participants who had private health insurance (both provided by an employer and individually purchased) were statistically significantly less likely to report cutting back on work hours, being laid off or fired, needing to quit, retire or change jobs, or turning down job promotions in the last six months due to menopause symptoms. However, the effect sizes between the groups were small due to the sample size and results need to be interpreted with caution.

Table 6. Number of participants (and %) who reported impacts to work due to menopause symptoms based on private health insurance coverage

Impact on work	No insurance	Employer provided	Individually purchased	Total
Cut back on hours worked in the last six months	**65 (21.5)**	**190 (15.5)**	**22 (27.8)**	**277 (17.3)**
Been laid off or fired from work in the last six months	**9 (3.0)**	**6 (0.5)**	**2 (2.5)**	**17 (1.1)**
Quit, retire, or changed jobs in the last six months	**30 (9.9)**	**52 (4.3)**	**5 (6.3)**	**87 (5.4)**
Turn down a job promotion or career advancement in the last six months	**40 (13.2)**	**100 (8.2)**	**8 (10.1)**	**148 (9.2)**

Note: Pairwise comparisons were not calculated due to low sample size
Data are presented as count (%)



Fatigue, mood, and brain fog were often associated with a declining sense of worth in workplaces. As this participant described:

> "But the big one was the not being able to concentrate. Um, the brain fog was huge because I felt so unsure of myself [...], and then the whole fear of making a mistake. And that's when I knew it's like, you know what, I'm taking way too long. I'm not confident in my practice. For the safety of myself, for the safety of my patients, I need to step away from this [...] Because I was taking so much extra time, double checking and triple checking medications and going back, and you know, rechecking things [...] I felt that I was just not doing enough for my patients."
>
> age 57, post-menopause

Some participants identified ways in which their workplaces had supported them with flexibility and accommodation. Trust was considered core to feeling supported as it softened feelings of burden or inconvenience.

> "You need trust. You need to feel safe. You need to feel supported. But also, that it's normal and it's not weird. I don't know. Maybe that's too much."
>
> age 52, post-menopause

Without accommodations and supports, participants often described feeling like they had to manage their peri and post-menopause symptoms and impacts to work themselves. Sick days, and extended benefits were identified as insufficient.

> "[...] there's such a huge benefit to days off work that are protected and encouraged to be used. I think that's something that would really improve, I think the lives for not just women [...]"
>
> age 48, perimenopause

Most shared ways they wished their workplaces would minimize the burden of having to work through the changes and symptoms that accompanied perimenopause. This included days off, health care benefits, prescription coverage, and general accommodations, such as a place to sit for fatigue, or a heating pad for cramps.

Ultimately, participant accounts were underscored by desires to feel validated and supported in their experiences. Interview participants made clear the relationship between being able to work and well-being:

> "Uh, I was not able to work. I was not able to sleep. I was bleeding heavy. Iron-deficient. Felt like crap. Mental health tanked, like the whole shebang. So, and it's been a constant struggle since then, um, to get back into something that resembles a more normal life."
>
> age 50, perimenopause

Participants identified a reciprocal relationship between workplaces and access to well-being: workplaces could facilitate their well-being and access to health care services, and access to health services could facilitate their ability and capacity to be well at work.

Access to health services for midlife women

The understanding that menopause symptoms have a profound impact on a person's mental well-being, quality of life, and ability to work necessitates an understanding of how access to health care services can play a role in addressing symptoms. In our study, 90.2% of participants indicated that they had a regular health care provider (e.g., family doctor). For those who did not have access to a regular provider (Table 7), 4.6% of the total study sample received their primary care from a walk-in clinic, while 1.4% utilized virtual and remote services.

Table 7. Where respondents accessed primary care when they indicated they did not have regular health care provider (N=1,688)

Non-regular health provider*	Number	%
Walk in clinic	78	4.6%
Virtual clinic/Telus health	24	1.4%
Doctor's office	21	1.2%
Hospital emergency room	19	1.1%
Community health centre	9	0.5%
Other	6	0.4%
Specialist	5	0.3%
Naturopath	4	0.2%
Hospital outpatient	3	0.2%

Note: Categories are not mutually exclusive

We examined services covered by the provincial government's Medical Services Plan (MSP) and found that family doctors were the most frequently accessed health care provider to treat menopause symptoms, followed by a specialist, and then a nurse practitioner. Each were accessed approximately twice a year (Table 8).

Table 8. Access to health services for menopause symptoms covered under MSP (N=1,688)

Access to fully covered MSP health provider	Yes Number (%)	# of times accessed
Family doctor	730 (43.2%)	2.24
Specialist	253 (15.0%)	2.04
Nurse practitioner	58 (3.4%)	1.96

Although family doctors were the most frequently accessed care provider for menopause symptoms, the survey results only portrayed the frequency counts, and so we examined the interview responses to further understand participant experiences.

Many interview participants spoke about common frustrations with their physician interactions, including not enough time to properly discuss health concerns, the reluctance of family doctors to even talk about peri and post-menopause, perceived gatekeeping that required family doctors to refer patients to other specialists, and the need for physician validation of symptoms and experiences so as not to feel diminished or dismissed. Overall, family doctors were identified as key determinants to people's well-being throughout peri-to-post-menopause. As such, most participants expressed the desire for care providers to be more proactive about talking about the menopause transition.

> "I would, you know, not that I would need it, but I wouldn't even mind someone giving me a pamphlet, saying, "Here's menopause. This is what you can expect" before I actually experience those symptoms. So that, you know, it's coming and this is what you might expect. And looking at it more positively rather than just a laundry list of symptoms that are irritating. I would have really appreciated having a little bit. And then also just having that sense that someone understands what you're about to go through. I think that would have been helpful."
>
> age 53, perimenopause

When looking at extended health services to manage menopause symptoms, 43.5% of respondents accessed at least one extended health care provider in the last year. The five most commonly accessed providers were massage therapists, naturopaths, mental health professionals, physiotherapists, and acupuncturists (Table 9).

Table 9. Participant access to extended health services for menopause symptoms (N=1,688)

Access to extended health services	Accessed (%)	Covered by insurance (%)	Average # of visits
Massage therapist	329 (19.5%)	271 (82.4%)	10.3
Naturopath	233 (13.8%)	146 (62.7%)	3.6
Mental health professional	202 (12.0%)	137 (67.8%)	8.1
Physiotherapist	173 (10.3%)	140 (80.9%)	8.1
Acupuncturist	134 (7.9%)	93 (69.4%)	5.8
Chiropractor	118 (7.0%)	86 (72.9%)	7.8
Pharmacist	103 (6.1%)	48 (46.6%)	3.2
Other	59 (3.5%)	19 (32.2%)	3.8
Dietician	36 (2.1%)	20 (55.6%)	2.9

Note: Percentage of health insurance coverage calculated for those who visited care provider, not overall sample.

Many interview participants identified complementary care providers they accessed thanks to their health insurance coverage, and spoke of the importance of holistic care:

> "I think one thing, and this is just sort of, in general, but I think that having a really holistic care team [pause] um you know, for women's health in general is so positive, and despite it not really occurring naturally, I've sort of built that myself, and I know that, you know, having a physiotherapist, having a massage therapist, having my naturopath and having my counsellor, all of that kind of weave together with my medical health care and that's been really key for me and I think that's, that is a good model moving forward and I hope that there is more of that kind of, yeah, holistic look at healthcare."
>
> age 58, post-menopause

Interestingly, 13.2% of participants exclusively utilized extended health services rather than visit a family doctor, specialist, or nurse practitioner for their menopause symptoms (Table 10). Among those who did not visit a primary care provider, the three most commonly accessed extended services were massage therapists (48.9%), naturopaths (28.7%) and physiotherapists (22.9%). Of those who exclusively accessed extended health services for their menopause symptoms, 138 (61.9%) visited only one type of extended care provider, while 85 (38.1%) accessed multiple extended care services.

Table 10. Most frequently accessed extended health service for those who did not visit family doctor, specialist, or nurse practitioner for menopause symptoms

Practitioners accessed	#
Total	**223 (13.2%)**
Massage therapist	**109**
Naturopath	**64**
Physiotherapist	**51**
Mental health professional	**46**
Acupuncturist	**37**
Chiropractor	**36**
Dietician	**10**
Pharmacist	**5**
Other specialists	**7**
Number of extended services accessed	
1	**138**
2	**48**
3	**23**
4+	**14**

Many participants identified naturopaths as trusted care professionals, with one even considering hers her primary care provider.

> "So, the naturopath, I have to say has been fantastic. I would consider them my first, my primary care provider now [...]"
>
> age 58, post-menopause

Among the reasons for preferring the care they received from naturopaths was the time spent together in appointments. While their interactions with family physicians and other clinicians (specialists, gynecologists, etc.) felt rushed, participants appreciated how naturopath appointments facilitated explorations of conditions and their management. Those with access to naturopaths described how they were amenable to involving a family doctor to assist in cutting down on costs associated with testing and prescriptions. Unfortunately, the cost of naturopathic services is prohibitive to many.

> "And- and I guess some of the healthcare things is, I wish the naturopath doesn't cost as much, so that if there are things that they could use to- to help, that I'd be able to access it without financial barriers. Because right now only the very rich can really be continuously seeking naturopathic treatments. Um yeah, so I wish a lot of these treatments that would help us holistically wouldn't be so out of reach financially. Yeah, that would be ideal. Yeah."
>
> age 39, perimenopause

Of those who saw naturopaths, most described only being able to see a naturopath two to three times due to how expensive it was. As a result, many participants stated that they would consult with a naturopath to learn of tests and treatments for their symptoms, and then see their family doctor to have them ordered or prescribed. The issue of scope of practice and the need for different health care providers to work in tandem or collaboratively was also a common theme:

> "Well, I think it doesn't make sense to me why naturopaths can order tests but not have them covered in BC. I mean some provinces they can't even order them. So, you know, grateful that they can actually order. But to me, what doesn't make sense to why that would be the case. If it's a test that a GP would order under MSP already, why would naturopath not also be able to do them?"
>
> age 58, post-menopause

The need to access multiple care providers in order to treat symptoms of menopause was a common concern among interview participants. Many spoke of the desire for specialized menopause services that address all midlife women's health concerns in one space, and how helpful that would be:

> "There's more of a team, collaborative effort that is not so siloed for access to care, that would really support everybody's health, I think much better. And not just people going through menopause, but [...] definitely women going through menopause, I think. I think, would benefit greatly from having that team type of approach. I think that would be something that would make a really significant difference to how women felt supported."
>
> age 48, perimenopause

Participants identified complementary care providers, including massage therapists, naturopaths, and mental health care providers, as the ones who initiated conversations with them about menopause and introduced the topic of menopause hormone therapy. This was associated with trust and preferences to go to these care providers.

Menopause Hormone Therapy

Previously referred to as Hormone Replacement Therapy

A total of 27.6% of participants reported using prescription medications to treat menopause symptoms. Over half (or 14.9% of the total study sample) used two treatments, the vast majority being an estrogen-progesterone combination. Of the people who accessed prescription treatment for menopause symptoms, 12.0% of the total study sample reported using one treatment only, the most common being estrogen only. Table 11 provides a summary of what types of prescription medications participants utilized to address their symptoms.

Table 11. Type of prescription medication used to address menopause symptoms (N=1,680)

Type of treatment	Number	%
Accessed treatment	**463**	**27.6%**
One treatment only	**201**	**12.0%**
Estrogen	**98**	**5.8%**
Pills	**21**	**1.3%**
Transdermal	**35**	**2.1%**
Vaginal	**51**	**3.0%**
Progesterone	**67**	**4.0%**
Pills	**42**	**2.5%**
Transdermal	**10**	**0.6%**
Vaginal	**19**	**1.1%**
Testosterone	**3**	**1.8%**
Other treatment	**33**	**2.0%**
Two treatments	**251**	**14.9%**
Estrogen and Progesterone	**246**	**14.6%**
Three treatments	**11**	**0.7%**

Note: categories are not mutually exclusive, total can be more than 100%
Percentages are calculated out of the total N=1,680

Many participants that we interviewed spoke of the benefits of menopause hormone therapy (MHT) as part of their experience with the menopause transition.

> "Um, so that's one thing that changed as soon as I went on progesterone I'm like, oh, this is how people sleep! This is how people feel! Well, look how much better I am now that I actually sleep all night [smiling]. Um. What else did I notice? I was getting hot flashes, but they weren't intolerable, and they didn't often happen in the day, and you know, so I would wake up, maybe once or twice a night, maybe two to three times a week, like it really was negligible. Um, I thought. But again they disappeared pretty much right after I started on the estrogen."
>
> age 58, post-menopause



reported using menopause hormone therapy

Interview participants expressed the need for more people to know the benefits of MHT, especially in preventing long-term health consequences:

> "So, the research says, if you start hormone therapy within five years of menopause you have a better chance of preventing that happening that you lose the most bone in the first five years. Between like, that's like one flag I carry. You don't want osteoperosis. You can do something about it. Why don't you do something about that? Do you know, if you're the right person for therapy. So, I think it's, it's about framing it from a preventative perspective."
>
> age 58, post-menopause

However, in some cases, inaccessibility of MHT was lamented. Some participants sensed a reluctance among family doctors in discussing or prescribing MHT, which may be a result of misinformation due to outdated research:

> "I'd like to try hormones. But I can't get near anyone who talks about that sort of possibility."
>
> age 55, post-menopause

Misinformation was often associated with primary healthcare provider hesitance to bring up menopause and discuss MHT options with people. Many participants expressed desires for the primary care providers to be more proactive about midlife health promotion and considered talking about menopause a significant determinant of healthy aging.

Private health insurance **facilitated access** to extended health services to address menopause symptoms.

Facilitators and barriers to access to health

Because access to health is acknowledged to be dependent on many factors, the HER-BC study specifically examined things that could facilitate or hinder a participant's ability to treat symptoms of menopause, including accessibility to physicians, health insurance coverage, financial costs, and the size of the community in which they lived. The following quote from a participant living in a low-density area and without a family physician, highlighted the importance of having a regular healthcare provider, and how accessing care was intricately connected to their mental health:

> "So I'm 55. I'm worried about my colon. I'm worried about my breast health. I'm worried about my mental health. I am well enough educated to know at my age that there's a whole battery of tests that I should have done. And I can't gain access to them. Uh, because I also know that the system is incredibly broken and getting on the phone at 8 in the morning and waiting on hold for 20 mins to be told that all the appointments are full, "Do you want to be put on a waitlist" is just a nightmare. And it's stress-inducing."
>
> age 55, post-menopause

The HER-BC study addressed health insurance coverage by asking whether respondents had MSP coverage (97.8% said yes), were registered for Fair Pharmacare (41.5%), or were enrolled in private health insurance (80.4%). While the majority (75.5%) accessed private health insurance through their employer, 4.9% purchased it privately, and 17.9% had no access at all (Table 12). The most commonly covered services with private health insurance were dental (98%), prescription medication (97.7%), eye care (94.7%) and mental health professionals (86.2%).

Table 12. Participant access to private health insurance (N=1,680)

Access to extended benefits	Number	%
No	**302**	**17.9**
Yes, provided by employer	**1275**	**75.5**
Yes, individually purchased	**82**	**4.9**
Not sure	**21**	**1.2**

Note: Eight participants (0.5%) indicated "prefer not to answer"

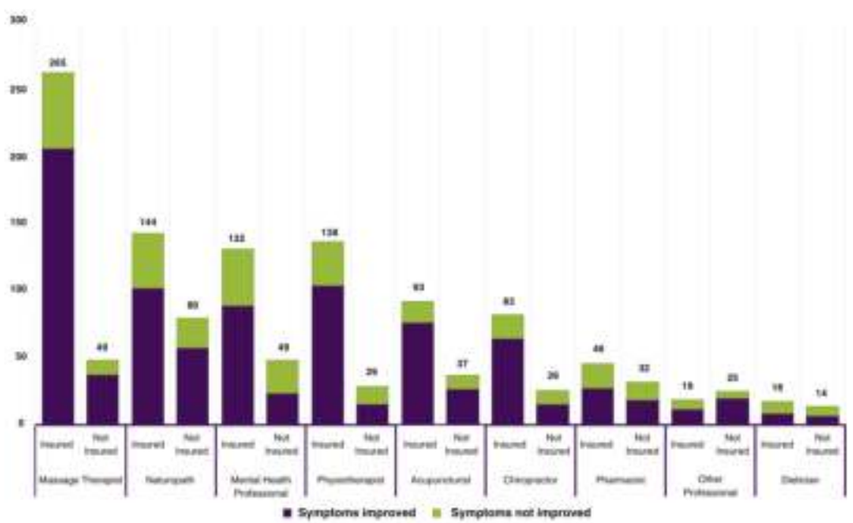
When examining whether participants visited health services to a greater degree based on health insurance coverage, we found no differences in whether a participant visited a primary care provider (family doctor, specialist, or nurse) for their menopause symptoms as a function of whether they had health benefits coverage or not. However, we did find that those who had private health insurance (both provided by employer and individually purchased) were significantly more likely to have accessed at least one extended health care provider to treat their menopause symptoms compared to those who did not have private health insurance.





Figure 7 shows that a significant proportion of women visited extended health services when they had private health insurance coverage versus those who did not.

Figure 7. Visits to extended health services and proportion whose symptoms improved for those who had health insurance versus those who do not



Additionally, three-quarters of participants who accessed extended health services reported improvement to their symptoms.

Despite private health insurance enabling access to extended health services, there are still substantial out-of-pocket costs to address symptoms of menopause (Table 13). On average, participants spent the most for other specialist services (e.g., kinesiologist, osteopath, reflexology), mental health professionals, and naturopaths over the last year.

Table 13. Out-of-pocket spending on extended health services for menopause symptoms

	Mean dollars spent in past year	Standard deviation
Other professional	**1056.0**	**1148.4**
Mental health professional	**937.3**	**1626.8**
Naturopath	**680.2**	**762.3**
Dietician	**651.1**	**624.2**
Acupuncturist	**444.4**	**551.3**
Pharmacist	**404.1**	**742.8**
Massage therapist	**402.7**	**642.1**
Physiotherapist	**362.4**	**591.8**
Chiropractor	**336.9**	**373.5**

When comparing health care costs for those who had private health insurance (whether provided by an employer or individually purchased) versus those who did not, private health insurance lessened the amount of money spent on extended health care services (results were statistically significant, p <0.001) (Table 14).

Table 14. Average out-of-pocket costs on extended health services over the past 12 months

	No insurance	Insurance provided by employer	Insurance purchased	Total
Total out of pocket money spent for extended health services	**$1,304.8 (1,992.2)**	**$812.2 (1,135.6)**	**$866.2 (816.4)**	**$895.4 (1,310)**

Note: The data above is represented by mean (+/- standard deviation).

However, even with private health insurance, participants spoke about the need for more coverage because costs for these services were quite high and care was needed over the long-term:

On average, participants spent

$895

on extended health services over a one-year period

> "Like. It's a $110 for a 45 min massage. What, what is that gonna get me like? You know, acupuncture is $80 for one treatment. It's, "Great. I have $500."
>
> age 50, perimenopause

> "Because I only get $500 towards naturopathy every year, and and you know, $500 for physio as well. I mean, that's gone in 2 visits [pause] and medication we're paying out-of-pocket 50% for prescriptions."
>
> age 58, post-menopause

The cost associated with MHT and its scarcity in BC were also top concerns. As one participant explained:

> "[…] the estrogen that I'm on is a patch, and it is not in an extended health drug program. They, they identify level of reimbursement based on whether a medication is on what's called the national drug formulary or not. So, if it is on the drug formulary my, my plan covers 80% of the prescription, and if it's not, it only covers 50%. And all of the medications I'm on are not in the drug formulary. But that is a barrier in terms of access from a financial perspective. The other piece is that right now there's a shortage, I think, nationally, maybe globally, for that estrogen patch. […] And so, I mean, we, we talk about access in terms of healthcare providers, but also access in terms of […] recognizing the value of medications that are specifically designed for women that certainly needs to be out there and advocated for."
>
> age 58, post-menopause

The HER-BC study examined participants' geographic location and whether this impacted their ability to access services to treat their symptoms of menopause. We reported previously that those who lived in smaller geographic locations (<30,000 people) had significantly higher MRS and MENQOL vasomotor, physical, and sexual domain scores than those who lived in larger locations of 100,000+. Among the general sample, 4.4% indicated that they were required to travel a long distance for care. On average, the distance travelled for care, one-way, was approximately 282.5 km, with an average travel time of 217.2 minutes (over 3 hours).

When examining those who lived in populations less than 30,000 people, 30-99,999 people, and over 100,000 people, the study did not find any differences in access to health services for those who lived in these different population groups, with the exception of specialist services. Those living in larger density areas were significantly more likely to have a specialist provider.

This is important to note because many of our interview participants had very positive experiences with specialized services, and gained a lot of knowledge and support about their midlife health concerns through these clinics:

> "Yeah, I can't say enough good things about Dr. X and the whole team at the [health care centre]. Everything that I had to do there, I had a couple of surgeries with them, and I went through their pain management seminar and everything. And they were just absolutely amazing. And they took such great care of me. Yeah, I can't say enough good things about them." And "I mean, they provided me with a lot of information, too."
>
> age 40, post-menopause

Without extended health insurance, participants spent, on average,

$1,300

over a one-year period

> "I, thankfully, I was, I did go through the Complex Chronic Diseases Program through BC Women's Hospital for my chronic fatigue, like my ME chronic fatigue. And through them, they have several, like, courses sort of, where you speak with naturopaths, acupuncturists, things like that. They give you all the options, and then they talk – they give you so much information, and they can let – and then you make the decision on your own whether you want to try it [...] So they are still a resource for me to fall back on, even though I'm not part of the program."
>
> age 57, post-menopause

Equitable access to these services, and all care options for that matter, need to be considered for midlife women throughout the province. This was especially relevant when considering mental well-being and how those from differing geographic locations scored in loneliness, depression, anxiety, and quality of life (Table 15). On average, the participant sample scored moderate in loneliness, mild in depression and anxiety, and moderately high in quality of life. However, those in mid-size localities (with population 30,000-99,999) had a higher severity of anxiety and depression, and a lower score on quality of life than those who lived in the smallest and largest localities.

Table 15. Average psychological scores stratified by size of locality (N=1,541)

Total score	Size 1,000-29,999	Size 30,000-99,999	Size 100,000+	Total
Loneliness	**5.2 (3.8)**	**5 (3.8)**	**4.6 (3.6)**	**5 (3.8)**
Depression	**8.6 (6)**	**9 (6.2)**	**8 (6.2)**	**8.4 (6.2)**
Anxiety	**5.6 (5.2)**	**6.8 (5.6)**	**6 (5.6)**	**6 (5.4)**
Quality of Life	**77.6 (14.6)**	**74.8 (14.6)**	**78.2 (15)**	**77 (14.8)**

As one participant explained, living in a community with access to menopause information and resources, as well as social support, can make a huge difference in a person's experiences:

> "I have a close friend [...] found out she has ADHD, and just recently been clinically diagnosed and she joins like support chat groups online. So once again, we live in this remote community, and so she says, that's been like incredible for her to, to just like normalize what she's going through. I think that'd be helpful for menopause."
>
> age 47, perimenopause

Access to health information and care is hard to come by, and inequitable. That means that even those who are highly resourced struggle. The barriers identified herein indicate opportunities to address them. The general lack of awareness of menopause, including what symptoms one might expect during the transition, and their management can be addressed with increased awareness. The barriers experienced by primary care providers to talk about menopause and management options can be addressed with education and resources. The lack of accommodations at work for people to maintain their livelihoods can be addressed with policies and payment structure changes. The participants of HER-BC have generously contributed to the identification of what needs to be improved to support healthy aging, midlife, and menopause outcomes.



06 Conclusion

What we heard

Key findings

Menopause transitions affect every facet of people's lives – from their bodies and minds to their homes and workplaces, and their families and friends. The results reported here paint a complex, multi-dimensional picture of how people are managing symptoms of menopause throughout British Columbia.

During perimenopause, people experience shifts in their capacities to be as they once were. In interviews, participants identified how dominant perceptions of menopause impact awareness of what menopause is, what changes accompany it, and what can be done to manage it. They reported feeling unprepared and attributed this to how little menopause is talked about. Although there is currently a visible conversation about menopause that is occurring in social and public media, factors such as the stigma and silence surrounding women's bodily and reproductive health and aging continue to obscure knowledge of how to support well-being throughout. This sentiment carried into healthcare encounters, where our participants reported having the topic of menopause (and its treatment) dismissed, avoided, and misinterpreted. Indeed, misunderstanding of menopause translated into how severe and burdensome symptoms were, and translated into symptoms not being addressed through treatment.

Throughout survey and interview responses, the concurrence of healthcare conditions – exacerbated by life circumstances – often made it difficult to identify and tend to symptoms of menopause. Common symptoms of menopause reported by survey and interview participants included: vasomotor symptoms (e.g., hot flashes), cognitive difficulties, sleep disturbances, fatigue, irritability and anxiety, and genitourinary symptoms. Notably, many of these symptoms were associated with other comorbidities; for example, higher severity of menopause symptoms were positively correlated with higher rates of depression, anxiety, and loneliness, and negatively correlated with quality of life. The fastest growing disability in Canada is mental health-related disability[27] and women are more likely than men to bear the brunt of this. Our findings indicated that access to treatments for menopause symptoms was associated with better mental health symptoms and quality of life.

As per participant accounts, people are experiencing much stress and burden trying to navigate how they feel within systems that are unresponsive to their needs. The healthcare system is siloed and fragments people's experiences into specialties that do not adequately tend to the entirety of their symptoms. Workplaces lack inclusive policies that account for normal bodily transitions and menopause. It is clear that current benefits structures do not cover the care people are seeking most. Participants reported going to massage therapists, naturopaths, mental

health professionals, physiotherapists, and acupuncturists most. The cost of allied health providers exceeds what is offered in current benefits plans (even private health insurance). So, many pay out of pocket. Those who have private health insurance (whether provided through their employer or purchased individually) reported greater frequency of visits to extended health services, spent lower amounts for extended care, and had greater improvement of symptoms of menopause.

We found that menopause symptoms led to significant impacts to work including missed days, cutting back on hours, needing to change jobs, retire or quit, turning down job advancement, and even being fired. These impacts were increased in participants without health insurance. Interview participants identified managers as key to their experiences at work and accessing accommodations. Managers who were described as supportive often found ways around work structures and policies to sustain the person's employment.

Recommendations

Imagining a supportive menopause experience in BC requires thinking about health holistically and investing in long-term solutions. The HER-BC study has identified a wealth of opportunities to improve menopause health outcomes in BC. From the relationships established, to the knowledge generated, priorities for healthcare, workplaces, benefits, and research – even society at large – are detailed below.

1 Public health campaigns that raise awareness of menopause symptoms

Increased awareness of symptoms and treatments was identified as crucial. It could prevent avoidable negative health outcomes by equipping people with the knowledge of what is going on and that they can do something about their health concerns. Interview participants offered analogies to how we could raise the topic, such as when we talk about puberty and pregnancy. Discussions about other life stages, like puberty, are more common than menopause. This can support a greater understanding of what to expect during menopause, and where to seek support to feel prepared.

2 Multidisciplinary collaboration and education for health care providers

Care providers were identified by participants as key to managing menopause symptoms well. We would advocate for more healthcare provider education in menopause. Medical school curricula, and continuing medical education (e.g., Menopause Society Certification Practitioner training) could equip healthcare providers with evidence-based information that increases confidence and capacity among them to bring up menopause and address symptoms. Further, collaborative approaches to midlife and menopause health where inter-professional care (e.g., integrates allied health) addresses concerns related to concurrent menopause symptoms could improve access to, satisfaction with, and continuity of care.

3 Supportive work place

A supportive workplace with supportive structures could mitigate stress that is associated with menopause symptom severity and facilitate access to care. Policies concerning working hours, days off, and disability could acknowledge shifting capacities and support people's workplace wellness (and productivity) by allowing them the flexibility to work when they are most able and not face ramification for requiring flexibility.

4 Workplace accommodations and prevention of workplace discrimination

Workers in British Columbia are protected under the Accessible British Columbia Act (providing accommodations for individuals with disabilities) and the BC Human Rights Code (preventing discrimination under the categories identified in the code). When menopause symptoms impact the ability of a person to carry out their normal functions in the workplace, employers have a legal obligation to make reasonable adjustments to accommodate that disability. Additionally, employers are under a legal obligation to protect workers with a disability from discrimination. People experiencing menopause symptoms are also to be protected from discrimination on the basis of age and sex, as identified in the Human Rights Code. We recommend that the BC Human Rights Clinic take responsibility to ensure that employers and workers better understand these rights and responsibilities specifically in regard to menopause symptoms.

5 More research

There continues to be vast knowledge gaps in the domain of menopause, and we need research to answer questions about the biological and physiological mechanisms of menopause, as well as how intersections of gender, race, ethnicity, economic status, and disability influence symptoms of menopause, access to care, and outcomes. More research is critical to informing healthy aging strategies in BC.

Conclusion

This study revealed the experiences of midlife women in BC and produced data to guide new directions in research, healthcare, public education, and workplace and health insurance policies. Our goal is to build on this foundation of knowledge in the years to come to ensure that the current health inequities experienced by midlife women can be eliminated, and women can live to their full potential.



07

Appendix

Appendix A: References

1. Women's Health Research Institute. Beyond the binary: A report on the health of non-binary individuals. 2024.
2. Ambikairajah A, Walsh E, Cherbuin N. A review of menopause nomenclature. Reprod Health. 2022;19(1):29.
3. The Menopause Society. Menopause definitions. n.d.
4. North American Menopause Society. The 2022 hormone therapy position statement of the North American Menopause Society. Menopause. 2022;29(7):767–794.
5. Government of British Columbia. Medical services plan. 2022 Oct 7.
6. Government of British Columbia. Fair pharmacare plan. 2024 Oct 17.
7. Government of British Columbia. BC's primary care system. 2024 Jul 16.
8. Statistics Canada. Census profile, 2021 Census of population: British Columbia. 2022.
9. De Villiers TJ. Bone health and menopause: Osteoporosis prevention and treatment. Best Pract Res Clin Endocrinol Metab. 2024;38(1).
10. Anagnostis P, Lambrinoudaki I, Stevenson JC, Goulis DG. Menopause-associated risk of cardiovascular disease. Endocrine Connect. 2022;11(4).
11. Krajewski S. Advertising menopause: You have been framed. Continuum. 2018; 33(1): 137-148.
12. Jack G, Riach K, Bariola E. Temporality and gendered agency: Menopausal subjectives in women's work. Human Relations. 2018;72(1): 57-73.
13. Bailey SC, Andrews EN, Halton CC, Wolf MS. Evaluation of a discussion guide to promote patient understanding of menopause and informed treatment decision-making. J Women's Health. 2021;30(3):445-451.
14. Krychman M, Graham S, Bernick B, Mirkin S., Kingsberg SA. The women's EMPOWER survey: Women's knowledge and awareness of treatment options for vulvar and vaginal atrophy remains inadequate. J Sex Med. 2017;14(3):425-433.
15. Hvas L, Thorsen H, Sondergaard K. Discussing menopause in general practice. Maturitas. 2003. 46(2): 139-146.

16. Walter, CA. The psychosocial meaning of menopause: Women's experiences. Journal of Women & Aging. 2000;12(3-4):117-131. Doi:10.1300/j074v12n03_08

17. Nappi RE, Kroll R, Siddiqui E, Stoykova B, Rea C, Gemmen E, Schultz NM. Global cross-sectional survey of women with vasomotor symptoms associated with menopause: Prevalence and quality of life burden. Menopause. 2021;28(8):875-882. doi:10.1097/GME.0000000000001793

18. Beck V, Brewis J, Davies A. The remains of the taboo: Experiences, attitudes, and knowledge about menopause in the workplace. Climacteric. 2019;23(2): 158-164.

19. Statistics Canada. Labour force characteristics by province, monthly, seasonally adjusted. 2024.

20. Adshade M. Healthy Women Healthy Economy. Unpublished report. 2024.

21. Canadian Menopause Foundation. Menopause and work in Canada. 2023.

22. Statistics Canada. Canadian Tobacco and Nicotine Survey (CTNS): Summary of results for 2022. 2022.

23. Health Canada. Canadian cannabis survey 2023: Summary. Government of Canada. 2024.

24. Canadian Mental Health Association. Mental health facts in Canada. n.d.

25. Mental Health Research Canada. MHRC data hub: Mental health indicators of Canadians. n.d.

26. Heart and Stroke Foundation of Canada. Heart and Stroke Canada: Women's risk factors. n.d.

27. Statistics Canada. Canadian survey on disability, 2017-2022. Government of Canada. 2023.

Appendix

Appendix B: HER-BC Interview Guide

Getting to know the participant

1. Can you tell me a little about your menopause experience so far?

2. At what stage of the menopausal journey or transition are you (i.e., perimenopausal, regular periods, post-menopause, etc.)?

3. Many women often report "not feeling like themselves" during this phase of life. Can you tell me how that phrase resonates with you and your experiences?

- **a.** What kinds of changes have you witnessed within yourself (body, mind, etc.)? How about how you view yourself (i.e., appearance)?

Menopause education, information and awareness

4. How prepared/informed do/did you feel for potential health changes throughout mid life/menopause?

5. Where do you go/would you go to get information you trust on menopause before/after midlife health changes?

- a. Potential follow-up: Ask whether they talk about it with any care providers, including family doctors, therapists, specialists, etc.]

6. How do you talk about menopause with people in your life, such as with friends, family, or acquaintances?

- **a.** How have your relationships been impacted during your transitions through menopause and midlife, such as with family, friends, loved ones, coworkers etc.?

7. What makes talking about midlife/ menopause challenging or difficult? Why might you avoid talking about it with some people?

- **a.** What made you feel un/supported in talking about these experiences with them?
- **b.** In your opinion, what is needed for people to speak openly about menopause?

Health care services to address menopause, gaps and supports

"We would now like to explore your experience in accessing health services in midlife."

8. When thinking of your experiences with menopause, what health services have been the most helpful to you?

9. How did you bring up menopause with your primary care provider?

10. What barriers have you encountered trying to access health care services to address your menopause symptoms and midlife health concerns?

11. In your opinion, how can healthcare services be improved to better address your midlife health concerns?

Work, workplace supports, and work force participation

"We know that menopause can impact how people show up at work, and that workplaces may or may not acknowledge this. In your experience…"

12. How has the menopause transition impacted your experiences in the workplace?

13. Do you talk about menopause in the workplace?

- **a.** Who do you talk about it with? Your supervisors, managers, or colleagues?

14. In your opinion, what supports can workplaces provide to be successful at work through the midlife?

- **a.** Has your workplace made any changes to help out or support women with menopausal symptoms?
- **b.** What kinds of changes do you think your (or other) workplaces should make?
- **c.** What do you think is needed to support your well-being at work?

15. Potential follow-up: Reference changes being made in the UK with a national Menopause Ambassador, producing a government-led public health campaign, and changes to UK law prohibiting workplace discrimination based on menopause) – do our HER-BC participants believe that Canada should follow suit?

Appendix

Impacts of menopause to other domains

"We are coming to a close, before we wrap up…"

16. How else have the changes of menopause and midlife impacted your life in general?

17. Beyond healthcare, how else can your well-being and health be supported through this phase of life?

18. What steps are you taking now to promote health through the midlife?

19. Let's end on a hopeful note. Imagine an ideal world, where your experiences throughout menopause and midlife are well supported. What does that look and feel like?"

