The impact of symptoms attributed to menopause by Australian women

A report from the *2023 National Women's Health Survey* conducted by Jean Hailes for Women's Health with funding from the Australian Government Department of Health and Aged Care.

Co authored by the Australasian Menopause Society, Women's Health Research Program (Monash University) and Jean Hailes for Women's Health.

Australasian Menopause Society
Empowering menopausal women

Monash University

Jean Hailes for Women's Health

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Executive summary

A random sample of Australian women aged 18 plus were asked about their experience with bothersome symptoms they attributed to menopause, including the life impacts of these symptoms, whether they had discussed these bothersome symptoms with a doctor and, if they had not, why not. The term 'women' is used in this report because 99.2% of the National Women's Health Survey respondents identified as women.

The findings of the National Women's Health Survey in respect to women's experiences of symptoms they attribute to menopause are broadly consistent with published studies. One notable exception was the very low proportion of women identifying or reporting sleep disturbance to be associated with menopause-type symptoms.

The severity of symptoms that Australian women attribute to menopause in this report are similar to those previously published in scientific literature. However, the proportion of Australian women missing days of work, or taking leave or an extended break from work, is lower than some estimates being used to model and address the impact of menopause in the workplace.

We reiterate that each woman's experience of menopause is unique and there are both protective and harmful factors that influence a woman's experience of symptoms. A substantial minority of women need therapeutic interventions to alleviate menopausal symptoms, and the same proportion need no support at all, but all women need a clinical assessment at midlife to assess and manage their risk of chronic disease.

Six recommendations are suggested by the authors:

Recommendation 1: A better understanding, by the general public, about the verified symptoms of perimenopause and menopause, as well as evidence-based options for treatment of symptoms, is needed. Public education should be developed to help build resilience and understanding around the menopausal transition, with menopause framed as an opportunity for women to take stock of their health and implement strategies for healthy ageing.

Recommendation 2: Fewer than half the women under 44 years who reported bothersome symptoms attributed to menopause had discussed these symptoms with a doctor. Women going through premature or early menopause are at increased risk of chronic disease, and it is imperative that they are diagnosed and offered treatment. Community awareness and GP education about premature and early menopause is critical to ensure that these women reduce their risk of chronic disease.

Recommendation 3: GPs are the gateway to evidence-based assessment and treatment of menopausal symptoms and healthy ageing for postmenopausal women. GPs must be able to provide responsive menopause management as women become more knowledgeable and proactive about menopause. GPs also need to be educated about the need to assess all women at midlife for increased postmenopausal risks, such as chronic disease and bone loss.

Recommendation 4: That perimenopause and menopause are now being discussed publicly is very much welcomed by the Australasian Menopause Society, the Women's Health Research Program at Monash University and Jean Hailes for Women's Health, all of which have been working on menopause-related issues for at least three decades. However, we caution all parties to avoid 'catastrophising' menopause in the framing of public discussions, and particularly in the advertising of goods and services, as it could have the unintended consequences of eroding women's resilience and stigmatising women as they approach midlife.

Recommendation 5: Further studies – recruited by random sampling and stratifying data by verified menopause symptoms – across different sectors and levels of management are needed to differentiate the true impact of perimenopause and menopause from other causes of midlife stressors on women in the workplace. Such studies could also inform frameworks for testing (and identifying any unintended consequences of) workplace interventions.

Recommendation 6: Greater action is urgently needed to work with priority populations, particularly diverse Aboriginal and Torres Strait Islander communities, to understand their knowledge and information needs and co-design culturally intelligent health promotion approaches to better manage menopause symptoms and seek care when required.

Acknowledgements

The 2023 National Women's Health Survey was funded by the Australian Government Department of Health and Aged Care under the *Women's Health – Jean Hailes Program* grant.

The following individuals are acknowledged and thanked for their advice in developing the 2023 National Women's Health Survey:

- Professor Susan Davis (Monash University)
- Professor Sarah Durkin and Dr Eve Mitsopoulos (Centre for Behavioural Research in Cancer, Cancer Council Victoria)
- Professor Jane Fisher and Dr Karin Hammarberg (School of Public Health and Preventive Medicine, Monash University)
- Ms Tiali Goodchild and Ms Laura Richards (Health Equity Branch, Australian Government Department of Health and Aged Care)
- Dr Deb Loxton (Centre for Women's Health Research, The University of Newcastle)
- Professor Gita Mishra (School of Public Health, University of Queensland)
- Ms Tina Petroulias (Social Research Centre, Australian National University)
- Professor Jane Ussher, A/Prof Mike Armour and Ms Danielle Howe (Translational Health Research Institute, Western Sydney University)
- Ms Louise Browne, Dr Elizabeth Farrell AO, Ms Caroline Livanos, Ms Janet Michelmore AO and Dr Sarah White (Jean Hailes for Women's Health)

The following individuals are thanked for their authorship and review of this report:

- Professor Susan Davis, Women's Health Research Program (Monash University)
- Ms Vicki Doherty, Australasian Menopause Society
- Dr Karen Magraith, Australasian Menopause Society
- Dr Sarah L. White, Jean Hailes for Women's Health

Introduction

Menopause is usually a natural event in life – the end of menstruation, or, more accurately, the final cessation of ovarian function – experienced by every woman.[1] The average age for menopause in Australia has been reported as 51 years.[2] The term 'menopause' is often used loosely to describe the period over which menopausal symptoms are experienced, both before and after the menopause, as a result of fluctuating and reduced sex hormone levels.

Over the last several years, there has been a significant increase in media coverage and public discussion of the effects of menopause symptoms on Australian women, and particularly the impact of menopause on women in the workforce. This increased attention is very much welcomed by the Australasian Menopause Society, Women's Health Research Program and Jean Hailes for Women's Health, all of which have been working for several decades to destigmatise menopause, and improve public discussion, consumer and clinician education and clinical care for peri- and postmenopausal health.

Some of the media coverage and public discussion, however, is not based on strong evidence. One example is the shocking statistic of 'nearly 900,000' or 'nearly one million' women quitting their jobs in the UK, widely quoted in mainstream media publications.[3] However, a critical analysis of that statistic[4] revealed it came from a poorly designed survey that included a variety of reasons (including pregnancy) for why women left the work force, and then wrongly claimed the entire leave burden was due to menopause alone.

Other studies of the impact of menopause have used convenience sampling to recruit survey respondents. Convenience sampling is prone to bias, and the results do not represent the population at large. For example, women who are bothered by menopause symptoms are more likely to subscribe to Facebook support groups or email news lists from organisations providing menopause information. These women are more likely to both see and complete surveys seeking information on the impact of menopause symptoms, and their views are thus over-represented in many survey reports. The experiences of women who are not bothered by menopause symptoms are likely to be under-represented in surveys. Although useful in addressing some research questions, results based on convenience sampling cannot be generalised to understand how menopause is perceived by women across the population, including its impact on daily life.

Monitoring the quality of publicly reported studies is critical, as an increasing number of commercial organisations and health advocates are moving into a global menopause market that, by some estimates, will be worth more than USD 24.4 billion by 2030.[5] Unfortunately, there are powerful commercial incentives to create a 'menopause problem' in the minds of Australian women and Australian employers that can be 'fixed' by the purchase of goods and services. The commercial

[1] Davis et al. Menopause – Biology, consequences, supportive care, and therapeutic options. Cell (2023) Published:September 06, 2023DOI:https://doi.org/10.1016/j.cell.2023.08.016
[2] Davis et al. Menopause. *Nat Rev Dis Primers* **1**, 15054 (2015). https://doi.org/10.1038/nrdp.2015.54.
[3] Is it true 900,000 women left work because of menopause? Magnificent Midlife. Available at: https://magnificentmidlife.com/blog/is-it-true-900000-women-left-work-because-of-menopause/ Last accessed: 22/08/2023.
[4] Ibid.
[5] Grand View Research, Inc. Menopause Market Worth $24.4 Billion by 2030 at CAGR of 5.29%: Grand View Research, Inc.' Available at: https://www.bloomberg.com/press-releases/2022-11-03/menopause-market-worth-24-4-billion-by-2030-at-cagr-of-5-29-grand-view-research-inc. Last accessed 07/09/2023.

determinants of health and wellbeing in relation to menopause is a growing area of concern in Australia.[6]

The impact of symptoms attributed to menopause by Australian women is drawn from the findings of a survey that used random sampling for recruitment and thus provides information that can be generalised to the Australian population. The survey collected women's self-reported experiences of bothersome menopause-type symptoms in the last five years, and provides information based on their beliefs (general knowledge) about menopause symptoms, the impact of those symptoms on daily activities and their propensity to seek medical care for bothersome menopause symptoms.

This report – coauthored by the Australasian Menopause Society (AMS), the Women's Health Research Program at Monash University and Jean Hailes for Women's Health – is one of a series from the 2023 National Women's Health Survey, a representative survey of Australian women aged 18 and over. The Australian Government Department of Health and Aged Care has funded Jean Hailes for Women's Health to conduct the annual National Women's Health Survey since 2017.

[6] Davis and Magraith. Advancing menopause care in Australia: barriers and opportunities. Med J Aust 2023; 218 (1)

Methodology

Jean Hailes for Women's Health commissioned the Social Research Centre (SRC) to conduct the 2023 National Women's Health Survey using random recruitment of people who were assigned female at birth, are resident in Australia and who reported being over the age of 18. Because 99.2% of the respondents identified as women, the term 'women' is used throughout the report. The responses were weighted to ensure the data are representative of the population of adult Australian women. For survey methodology, see the 2023 National Women's Health Survey Technical Report.

Three age groups were compared: 18-44 years (broadly representative of 'reproductive age'), 45-64 years (broadly representative of 'midlife') and 65 years and over (broadly representative of 'older women').

The data from two other key subgroups were analysed and compared. The potential impact of socioeconomic status was explored using relative socioeconomic disadvantage (SEIFA Quintiles 1-2) and relative socioeconomic advantage (SEIFA Quintiles 3-5)[7]. The data were also analysed to compare the experiences for women who reported speaking a language other than English at home compared to those who reported speaking only English at home.

The questions informing this report on the effect of symptoms that Australian women attribute to menopause on work and care-seeking, plus state and territory results, are included with full data tables in Appendix I.

About the data

Several points should be kept in mind when considering the data presented in this report:

- Data reported on has been weighted. Refer to the 2023 National Women's Health Survey Technical Report for approach and for the weighted and unweighted sample demographics.
- Unless indicated, responses of 'don't know' or 'prefer not to say' were excluded from the tables.
- In some tables and figures, the totals shown or mentioned in the accompanying text may differ slightly from the apparent sum of their component elements. This is due to the effects of rounding.
- While the survey included a representative sample of Australian women, including women who speak a language other than English at home, it was not designed to capture the specific experiences of women from culturally or linguistically different backgrounds. Differences between women who do and do not speak a language other than English at home must be tested or verified in specific communities of interest.
- Statistical tests were conducted to establish whether differences between the responses of subgroups of survey participants were genuine rather than due to random variation. Significance has been reported when the difference was significant at the 0.001 level. Where differences do exist, they have been specified in text where appropriate, and displayed in the tables. In the report charts and tables (Appendix I), comparison symbols (A, B, C etc.) have been used to represent significance.

[7] Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the five-yearly Census. (https://www.abs.gov.au/websitedbs/censushome.nsf/home/seifa)

Results

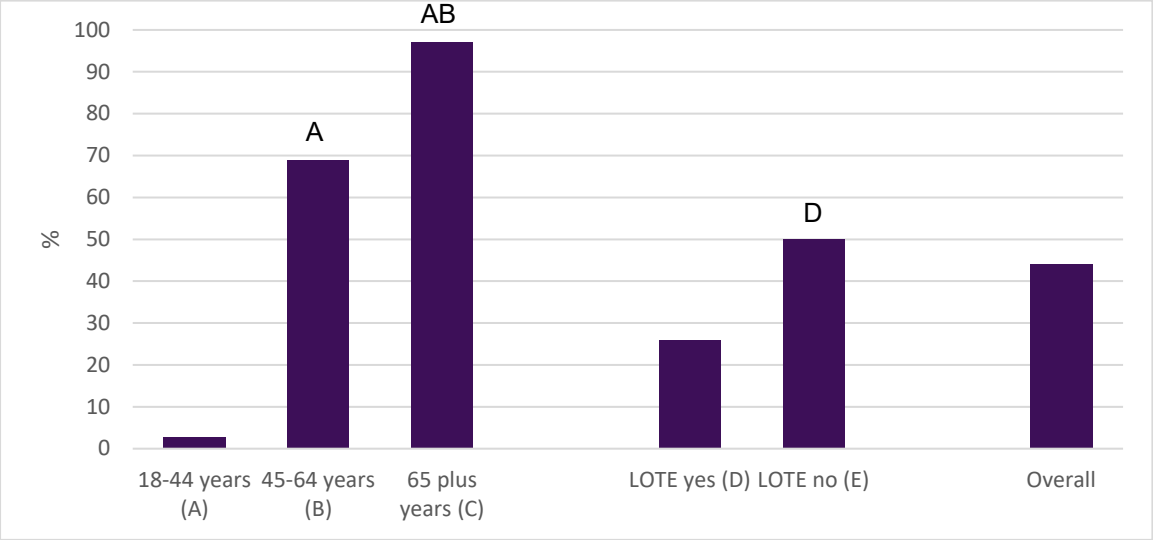
The term ‘women’ is used in this report because 99.2% of the National Women’s Health Survey respondents identified as women and are aged over 18 years.

Australian women who reported they had reached menopause

Nearly all (97%) Australian women aged 65 years and over (‘older women’) reported they had reached menopause, while just over two-thirds (69%) of women aged 45 to 64 years (‘midlife women’) reported they had reached menopause. Approximately 3% of women aged 18-44 years (‘women of reproductive age’) reported they had reached menopause (Figure 1).

Women who speak a language other than English at home were significantly less likely to report they had reached menopause compared to women who speak only English at home (Figure 1). However, the cohorts were not age-matched and the group speaking a language other than English at home had an average age of 39.5 years, compared to an average age of 49.9 years in those who speak only English at home. There was no significant difference in the reporting of reaching menopause between women with relative socioeconomic disadvantage compared with women with relative socioeconomic advantage (data not shown).

Figure 1. Proportion of survey respondents who reported they had reached menopause, by age group and language spoken at home



A letter above a bar in the graph indicates a significant difference ($p < 0.001$) within the sub-group of age group (A-C) or language other than English spoken at home (D or E). Some bar totals in the chart do not add to 100% because of rounding effects.

Overall, most (69%) survey respondents who reported they had reached menopause did so between 45 to 55 years of age. A small percentage (4.4%) of survey respondents reported they experienced premature ovarian insufficiency (‘premature menopause’). A very small percentage of women reported reaching menopause after the age of 65 years, which is not biologically feasible (Table 1a).

There were no significant differences between reported age of menopause between survey respondents who speak a language other than English at home and those who speak only English at home (data not shown). Early menopause (between 40 to 44 years of age), however, was more likely to be reported by survey respondents with socioeconomic disadvantage (15%) compared to women with socioeconomic advantage (7.1%) (Table 1b).

Table 1. Self-reported age of menopause by survey respondents who reported they had reached menopause, by a) age group and b) socioeconomic status

	18 to 30 (Premature ovarian insufficiency; %)	31 to 39 (Premature ovarian insufficiency; %)	40 to 44 (Early menopause; %)	45 to 55 ('Typical' menopause; %)	56 to 64 (Late menopause; %)	65 plus (Late menopause; %)
a) Age group						
18-44 years (A)	6.1 [B]	16	9.8	0.0	0.0	0.0
45-64 years (B)	0.3	2.3	9.9	77 [AC]	7.1	0.0
65+ years (C)	0.8	4.5	10	64 [A]	16 [B]	0.6
b) Socioeconomic status						
Disadvantage (D)	0.5	4.9	15 [E]	64	8.1	0.3
Advantage (E)	0.6	3.0	7.1	72	13	0.3
Overall	**0.7**	**3.7**	**10**	**69**	**11**	**0.3**

A superscript letter indicates a significant difference ($p < 0.001$) between the sub-groups of age (A-C) and socioeconomic status (D and E). Some rows in the table do not add to 100% because of rounding effects and because responses of 'don't know' (3%) or 'prefer not to say' (3%) have been excluded.

Overall, 20% of the survey respondents who reported they had reached menopause reported they did so due to surgery or treatment, and 78% reported they had reached menopause naturally (Table 2). There were no significant differences in reports of reaching menopause naturally or due to surgery or treatment between any of the subgroups studied. One percent of survey respondents reported they 'did not know' if they had reached menopause naturally or as a result of surgery, and 1% reported they reached menopause in 'another way' but did not specify what that was (data not shown).

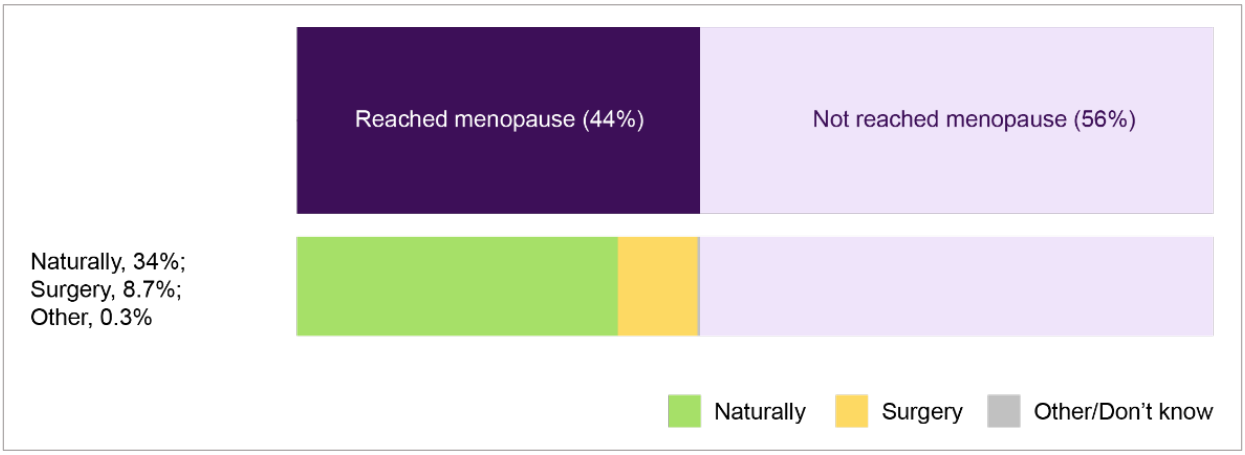
Extrapolating these responses to the population demonstrates that, overall, 8.7% (i.e. 20% of the 44% who reported they had reached menopause) of Australian women can be expected to have reached menopause due to surgery or treatment. An additional 34% (i.e. 78% of the 44% who reported they had reached menopause) of Australian women can be expected to have reached menopause naturally. The remaining 56% of Australian women will not have yet reached menopause (Figure 2).

Table 2. Proportion of survey respondents who reported they had reached menopause either naturally or due to surgery or treatment, by age group

	Reached menopause naturally (%)	Reached menopause due to surgery or treatment (%)
Age group		
18-44 years	51	23
45-64 years	81	17
65+ years	76	23
Overall	**78**	**20**

The Overall figures in Table 2 do not add to 100% because responses of 'prefer not to say' (1%) and 'other - not specified' (1%) have been excluded from the table.

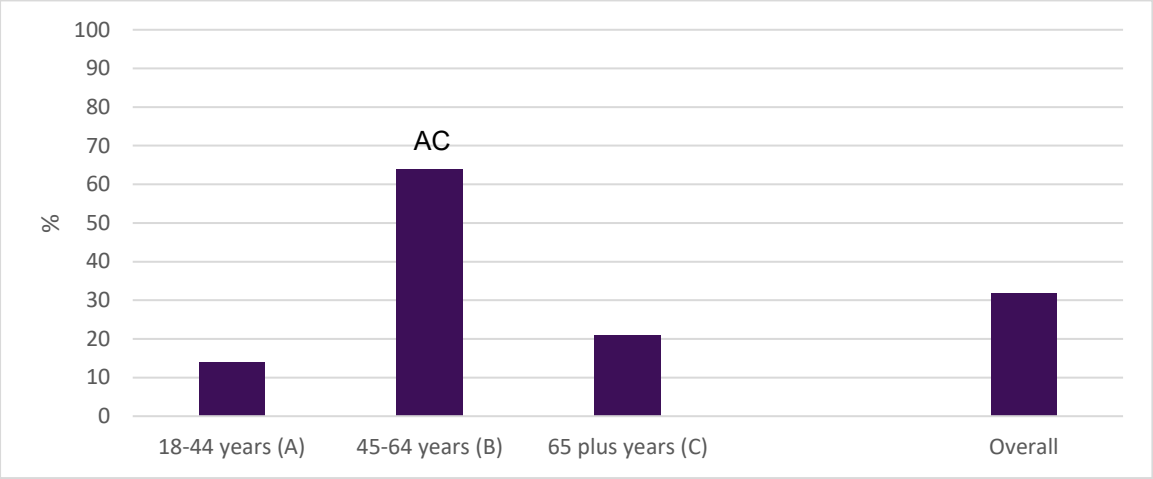
Figure 2. Proportions of Australian women who reported they had reached menopause either naturally or due to surgery or treatment



Experience of bothersome symptoms in the last five years attributed to menopause

The proportion of Australian women who reported they were bothered, in the last five years, by symptoms they attributed to menopause – described as 'for example, hot flushes, night sweats or difficulty concentrating' – was significantly higher among midlife women (64%) than both older women (21%) and women of reproductive age (14%) (Figure 3). There were no significant differences according to socioeconomic status, language spoken at home or state or territory of residence (data not shown).

Figure 3. Proportion of survey respondents who reported they had been bothered by symptoms in the last five years that they attributed to menopause, by age group



A letter above a bar in the graph indicates a significant difference ($p < 0.001$) within the sub-group of age group (A-C). Bar totals in the chart do not add to 100% because of rounding effects.

Most women in the reproductive age (72%) and midlife (69%) groups who report they had reached menopause were bothered by symptoms, in the last five years, that they attributed to menopause. In contrast, only approximately one in five older women (22%), most of whom had reached menopause, reported they had been bothered by symptoms, in the last five years, that they attributed to menopause (Table 3a).

About half the women at midlife (54%) who had not yet reached menopause reported they had experienced bothersome symptoms, in the last five years, that they attributed to menopause. Most women in reproductive age (87%) or older women (92%) who reported they had not reached menopause, however, reported not experiencing symptoms, in the last five years, that they attributed to menopause (Table 3b). We note the number of women in the older group who reported that they had not reached menopause, which is not biologically feasible, is very small (n=2).

Table 3. Proportion of survey respondents who reported they had a) reached menopause and been bothered by symptoms in the last five years that they attributed to menopause or not, or b) had not reached menopause and been bothered by symptoms in the last five years that they attributed to menopause or not

	a) Reached menopause		b) Not reached menopause	
	Bothered by symptoms	Not bothered by symptoms	Bothered by symptoms	Not bothered by symptoms
18-44 years	72	28	13	87
45-64 years	69	31	54	46
65+ years	22	78	8	92

Impact of bothersome symptoms in the last five years, attributed to menopause, on daily activities, exercise, and work or study

Overall, 37% of all survey respondents bothered by symptoms in the last five years, that they attributed to menopause (whether they had reached menopause or not), reported these symptoms made it 'hard to do daily activities', with 31% finding it hard to work or study, 22% missing exercise, and 12% missing days of work or study (Table 4). There were no significant differences according to socioeconomic status, language spoken at home or state or territory of residence (data not shown).

Table 4. Proportion of survey respondents who reported bothersome symptoms they attributed to menopause in the last five years impacted on daily life, work or study and exercise

	Found it hard to do daily activities (%)	Found it hard to work or study (%)	Missed exercise (%)	Missed days of work or study (%)	None of the above (%)
18-44 years (A)	34	40 [C]	25	24 [C]	42
45-64 years (B)	41 [C]	33 [C]	24 [C]	11 [C]	43
65+ years (C)	23	5.6	8.7	1.0	71 [AB]
Overall	**37**	**31**	**22**	**12**	**47**

A superscript letter indicates a significant difference ($p < 0.001$) between the sub-group of age (A-C). The rows in Table 4 do not equal 100% because survey respondents could choose multiple answers.

Extrapolating these figures from survey respondents experiencing symptoms, in the last five years, that they attributed to menopause to the Australian population of women overall shows that bothersome symptoms attributed to menopause made it hard for approximately 5% of women of reproductive age to do daily activities, and 3% missed days of work or study. Approximately one in ten women of reproductive age (9%) overall reported the symptoms they attributed to menopause had a negative impact on daily activities, work, study, sleep or exercise (Figure 4a).

A higher proportion of midlife women than reproductive-age and older women were affected by bothersome symptoms, in the last five years, that they attributed to menopause, with one in four midlife women (26%) finding it hard to do daily activities, 21% finding it hard to work or study, and 15% missing exercise. Fewer than one in ten (7%) Australian midlife women missed days of work or study due to bothersome symptoms, in the last five years, that they attributed to menopause. Just over one in three (36%) midlife women who experienced bothersome symptoms they attributed to menopause reported the symptoms had a negative impact on daily activities, work, study or exercise (Figure 4b).

Five per cent of older women with bothersome symptoms, in the last five years, that they attributed to menopause found these symptoms made it hard to do daily activities, and 2% missed exercise (Figure 4c). While there was no effect on missing days of work or study, this is potentially because very small numbers of women aged 65 years and over are in the workforce or are studying.

Overall, 3.8% of all Australian women who experienced bothersome symptoms they attributed to menopause missed days of work or study due to these symptoms, while 15% reported these symptoms did not make it hard to do daily activities, work or study or cause them to miss exercise or days of work or study (data not shown).

Figure 4a. The impact of symptoms attributed to menopause by Australian women aged 18-44 years on daily life, work, study or exercise

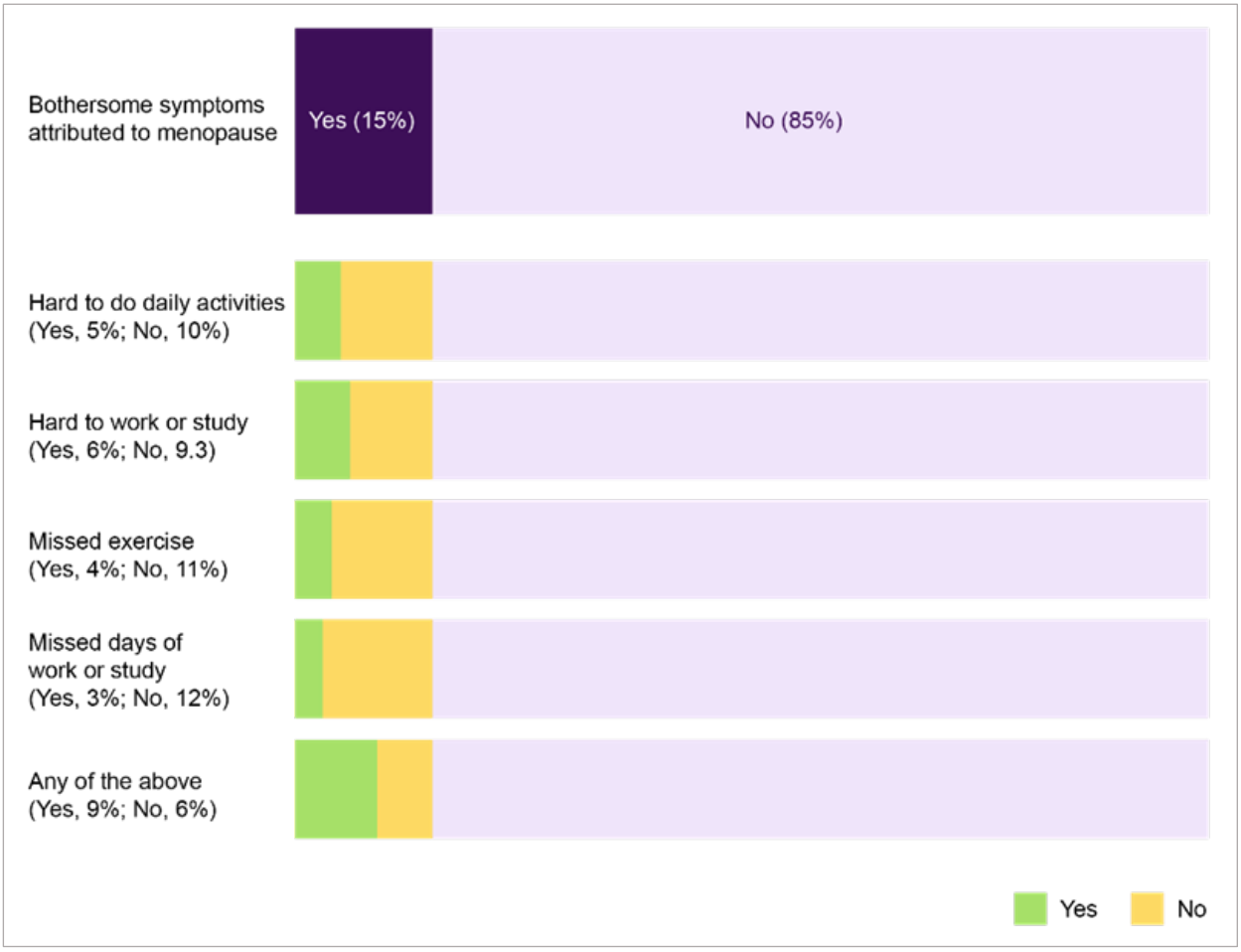


Figure 4b. The impact of symptoms attributed to menopause by Australian women aged 45-64 years on daily life, work, study or exercise

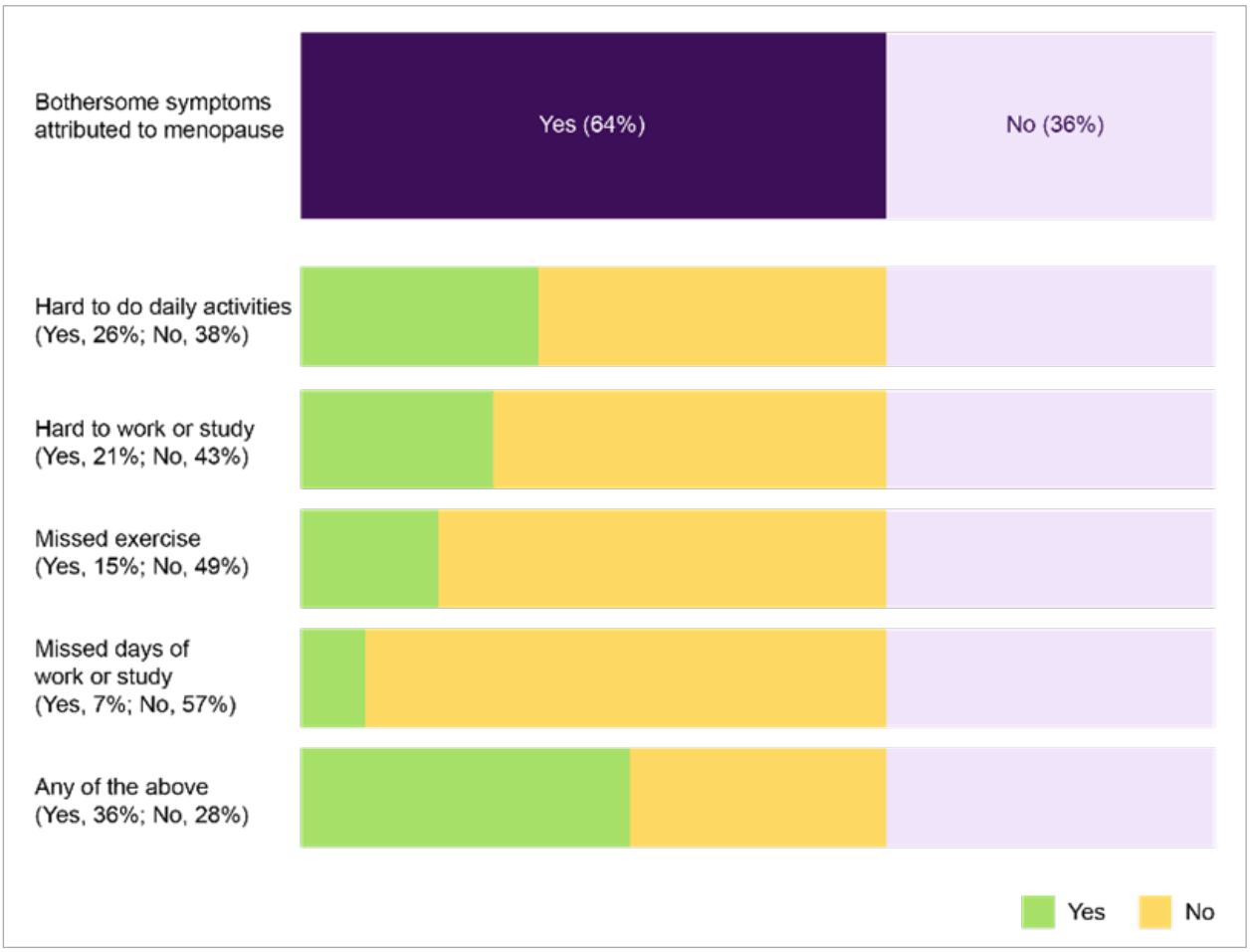
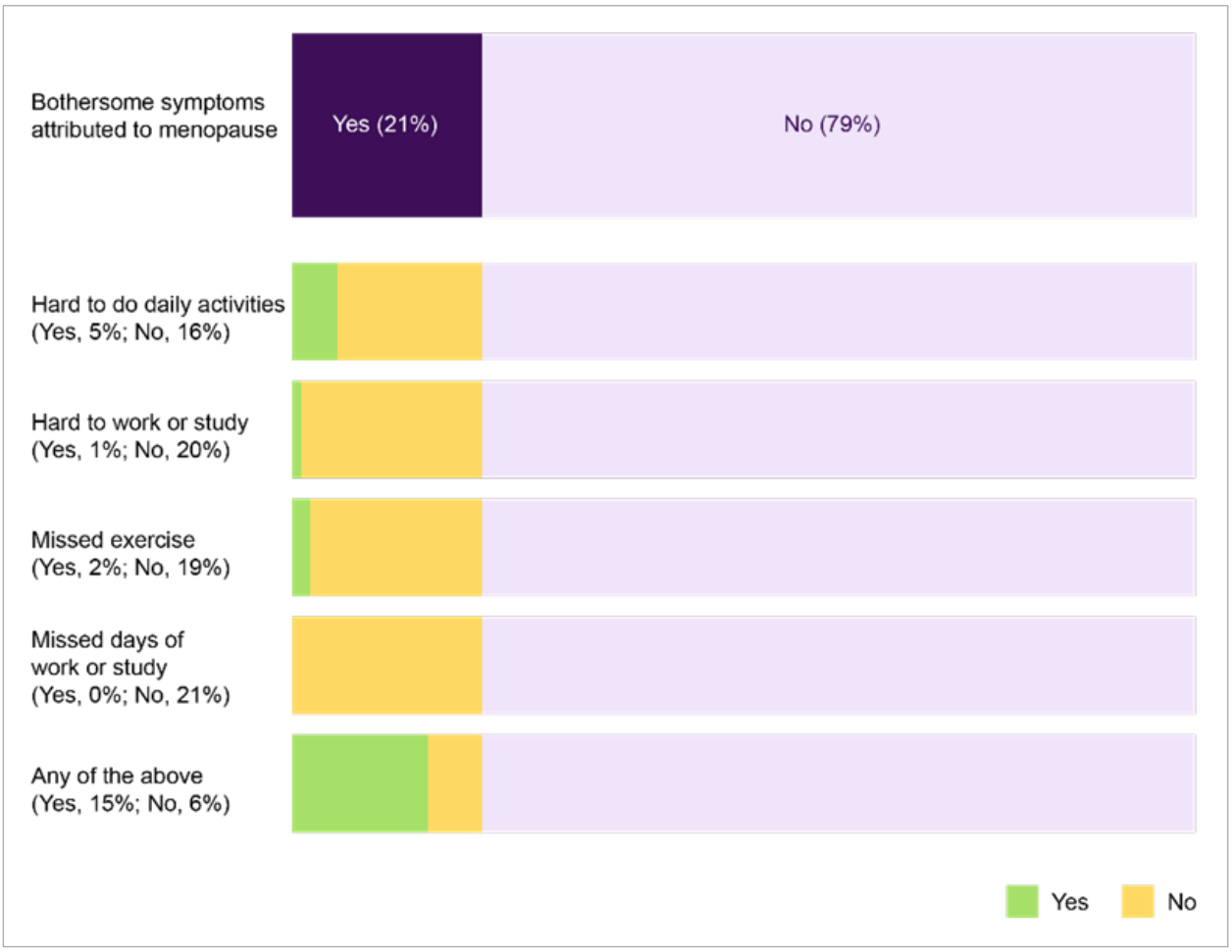
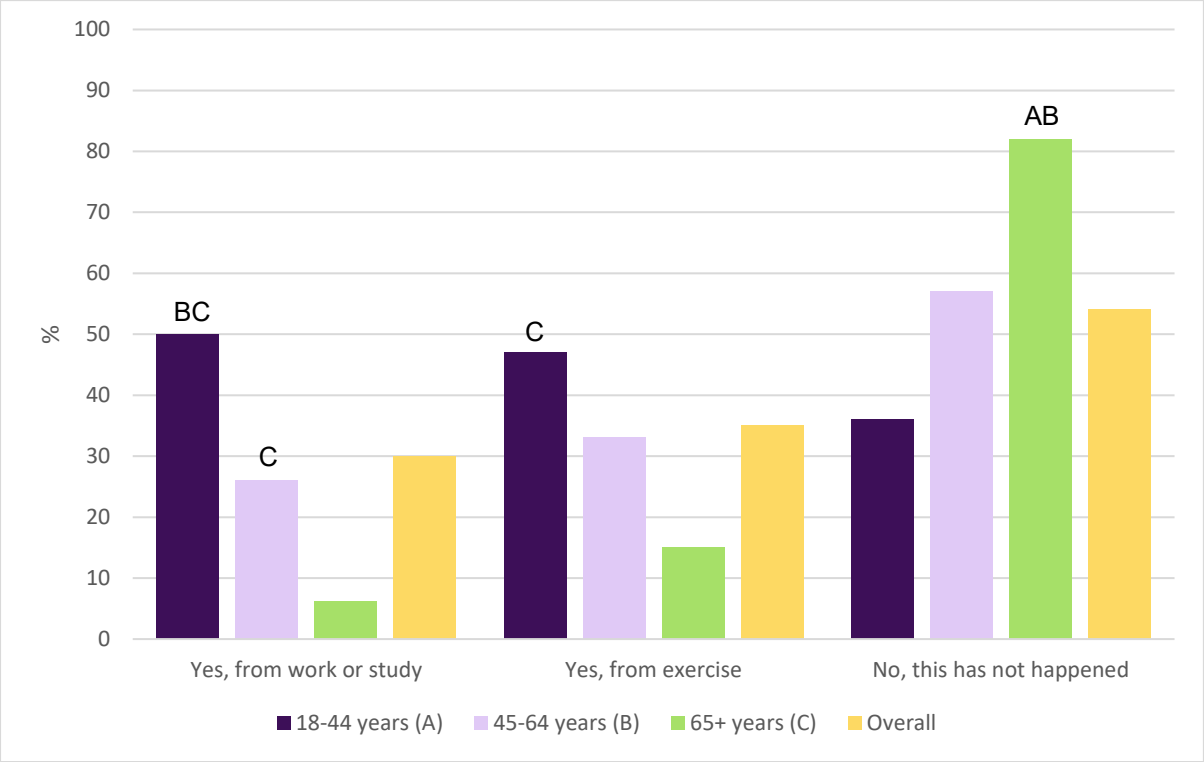


Figure 4c. The impact of symptoms attributed to menopause by Australian women aged 65 years and over on daily life, work, study or exercise



Just under one-third (30%) of all survey respondents bothered by symptoms, in the last five years, that they attributed to menopause reported taking an extended break from or stopping work or study, and just over one-third (35%) reported taking an extended break from or stopping exercise due to these symptoms. Women of reproductive age were significantly more likely to take an extended break from work or study than midlife women, and midlife women were significantly more likely to take an extended break from work or study compared to older women. Women of reproductive age were significantly more likely to take an extended break from exercise because of bothersome symptoms, in the last five years, that they attributed to menopause than older women (Figure 5). There were no significant differences according to socioeconomic status, language spoken at home or state or territory of residence (data not shown).

Figure 5. Proportion of survey respondents who had experienced bothersome symptoms in the last five years that they attributed to menopause who reported taking an extended break or stopping work, study or exercise due to these symptoms, by age group



A letter above a bar in the graph indicates a significant difference ($p < 0.001$) within the sub-group of age group (A-C). Bar totals in the chart do not add to 100% because respondents could choose multiple responses.

Extrapolating survey responses to the population, these findings equate to 7% of women of reproductive age taking an extended break from work, study or exercise because of symptoms, in the last five years, that they attributed to menopause (Figure 6a).

A higher proportion of midlife women (21%) compared to reproductive-age and older women took an extended break from or stopped exercise because of symptoms they attributed to menopause. Across all midlife women, 17% with bothersome symptoms, in the last five years, that they attributed to menopause took an extended break from or stopped work or study. Another 47% in this group had bothersome symptoms but did not take an extended break from or stop work or study, and 36% did not have bothersome symptoms, in the last five years, that they attributed to menopause (Figure 6b).

The proportion of older women taking an extended break from work, study or exercise was negligible (data not shown).

Figure 6a. The impact of symptoms attributed to menopause by Australian women aged 18-44 years on extended leave or breaks from work, study or exercise

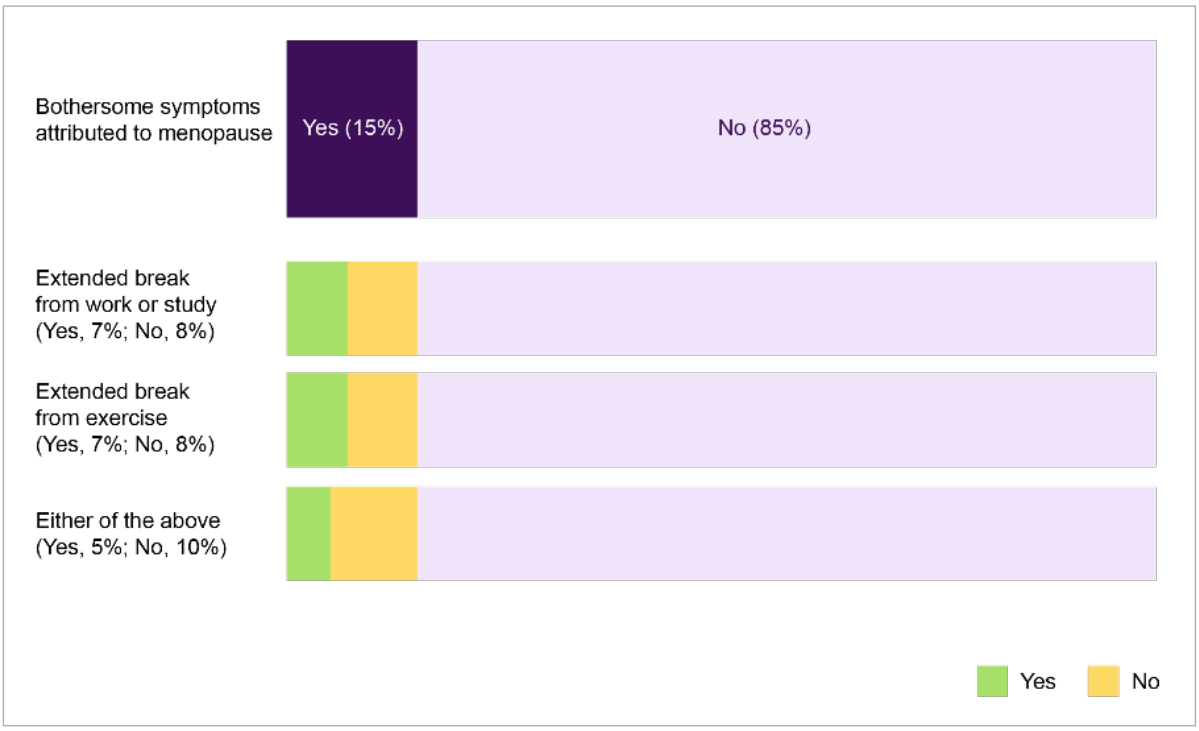


Figure 6b. The impact of symptoms attributed to menopause by Australian women aged 45-64 years on extended leave or breaks from work, study or exercise

Other impacts of bothersome symptoms attributed to menopause on mental and emotional wellbeing

Many (55%) of the survey respondents who had experienced bothersome symptoms, in the last five years, that they attributed to menopause reported these symptoms had a negative impact on their mental and emotional wellbeing. Significantly more survey respondents in the 45 to 64 age range (58%) reported these symptoms impacted their mental and emotional wellbeing compared to survey respondents aged 65 years and over (35%). Survey respondents in the reproductive and midlife age ranges were more likely than older women to report bothersome symptoms, in the last five years, that they attributed to menopause had an impact on their relationships with friends and family. There were no significant differences between age groups with respect to bothersome symptoms, in the last five years, that they attributed to menopause impacting survey respondents' relationships with their partners (Table 5). There were no significant differences according to socioeconomic status, language spoken at home or state or territory of residence (data not shown).

Table 5. Proportion of survey respondents who had experienced bothersome symptoms in the last five years that they attributed to menopause and that had negatively impacted their relationships and mental health, by age group

	Your relationship with your partner		Your relationships with friends and family		Your mental and emotional wellbeing	
	(% women affected by symptoms they attribute to menopause)					
	Yes	**No**	**Yes**	**No**	**Yes**	**No**
18-44 years (A)	40	37	32 [C]	60	58	37
45-64 years (B)	30	45	21 [C]	75	58 [C]	40
65+ years (C)	25	56	5.4	87 [A]	35	62 [AB]
Overall	**32**	**45**	**21**	**74**	**55**	**43**

A superscript letter indicates a significant difference ($p < 0.001$) between the age sub-groups (A-C). Responses of 'not applicable' (which varied between groups) have been excluded from the table.

Extrapolating survey responses to the population shows a small proportion of reproductive age women had relationships with partners (6%) and with friends and family (5%) affected by bothersome symptoms attributed to menopause. Bothersome symptoms, in the last five years, that they attributed to menopause affected 8% of this age group's mental and emotional wellbeing compared to 5% with symptoms but no impact on mental and emotional wellbeing and 85% with no bothersome symptoms attributed to menopause (Figure 7a).

More women in midlife reported an impact from bothersome symptoms attributed to menopause in the last five years compared to their younger and older counterparts. Approximately one in five (19%) reported these symptoms affected their relationship with their partner and 13% reported these symptoms affected their relationships with friends and family. Nearly two in five (37%) reported these symptoms affected their mental and emotional wellbeing, compared to 26% who reported these symptoms did not affect their mental and emotional wellbeing and 36% who reported they had no bothersome symptoms, in the last five years, that they attributed to menopause (Figure 7b).

A small proportion of older women had relationships with partners (5%) and with friends and family (1%) affected by bothersome symptoms attributed to menopause. Symptoms attributed to menopause affected 8% of this age group's mental and emotional wellbeing compared to 13% with symptoms but no impact on mental and emotional wellbeing and 79% with no bothersome symptoms attributed to menopause (Figure 7c).

Figure 7a. The impact of symptoms attributed to menopause by Australian women aged 18-44 years on relationships and mental health

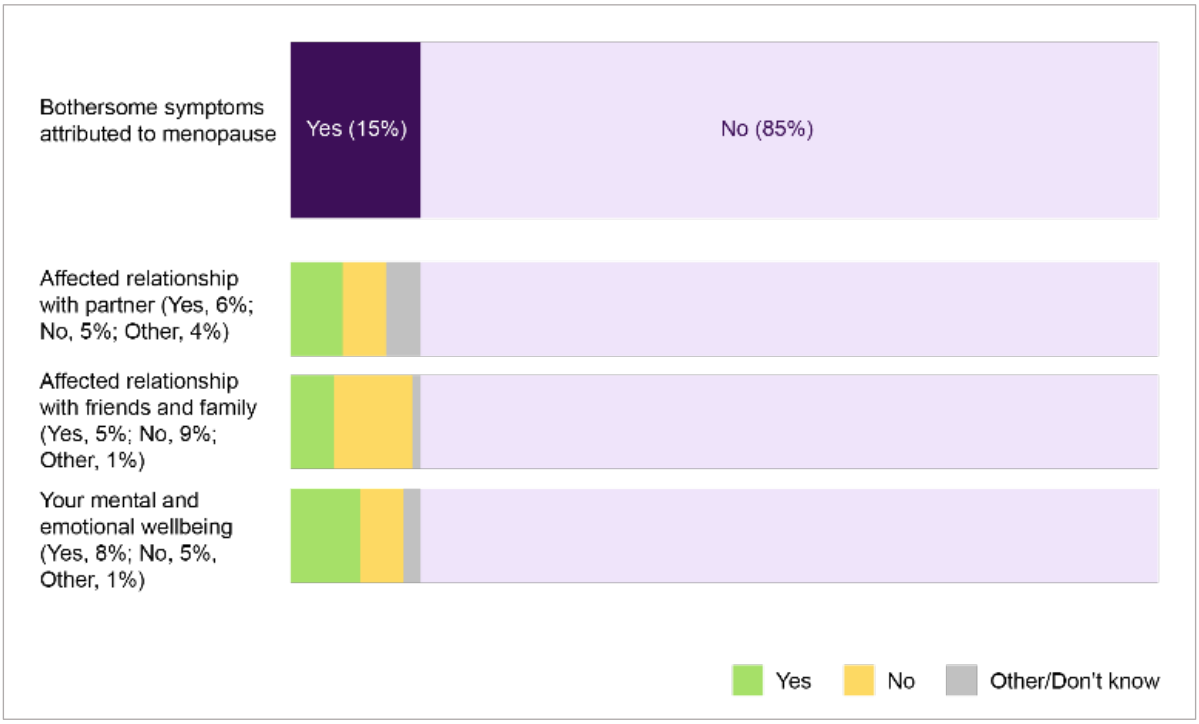


Figure 7b. The impact of symptoms attributed to menopause by Australian women aged 45-64 years on relationships and mental health

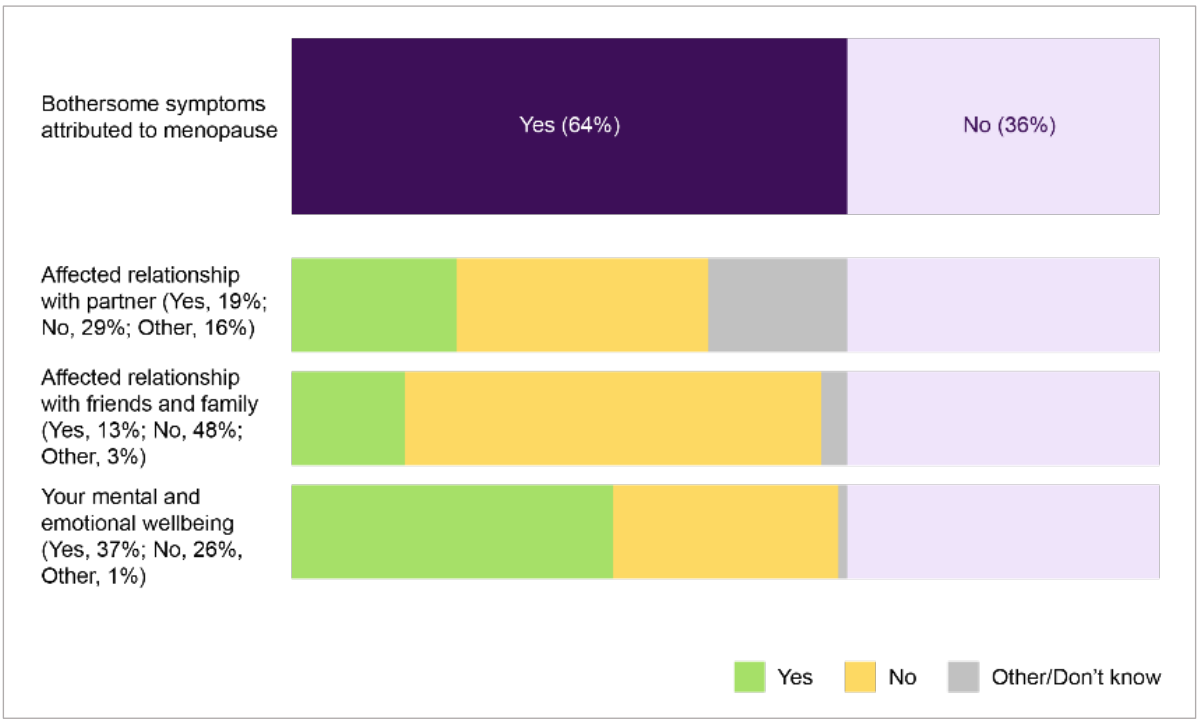
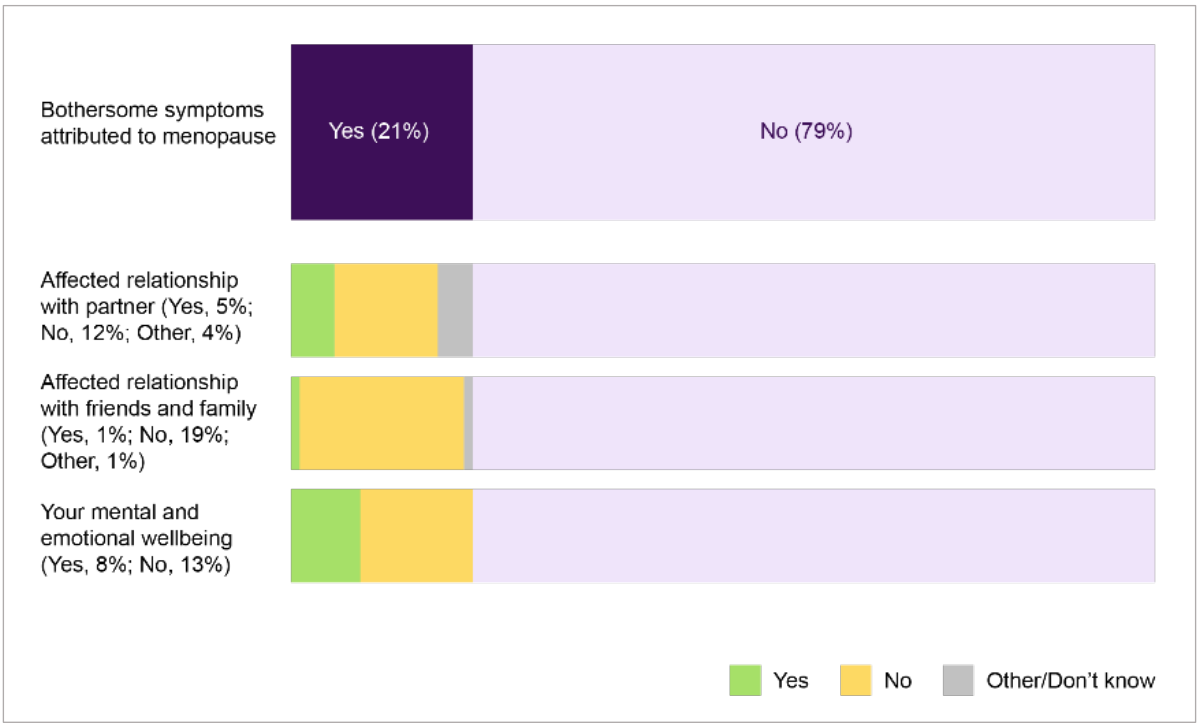


Figure 7c. The impact of symptoms attributed to menopause by Australian women aged 65 years and over on relationships and mental health



Propensity to discuss bothersome symptoms attributed to menopause with a doctor

A relatively high proportion of survey respondents bothered by symptoms, in the last five years, that they attributed to menopause had discussed these with a doctor (61%), with no significant differences between age groups (Table 6). There were no significant differences in women bothered by symptoms, in the last five years, that they attributed to menopause who had chosen to see or not see a doctor about these symptoms between sub-groups of socioeconomic status, language spoken at home or state or territory of residence (data not shown).

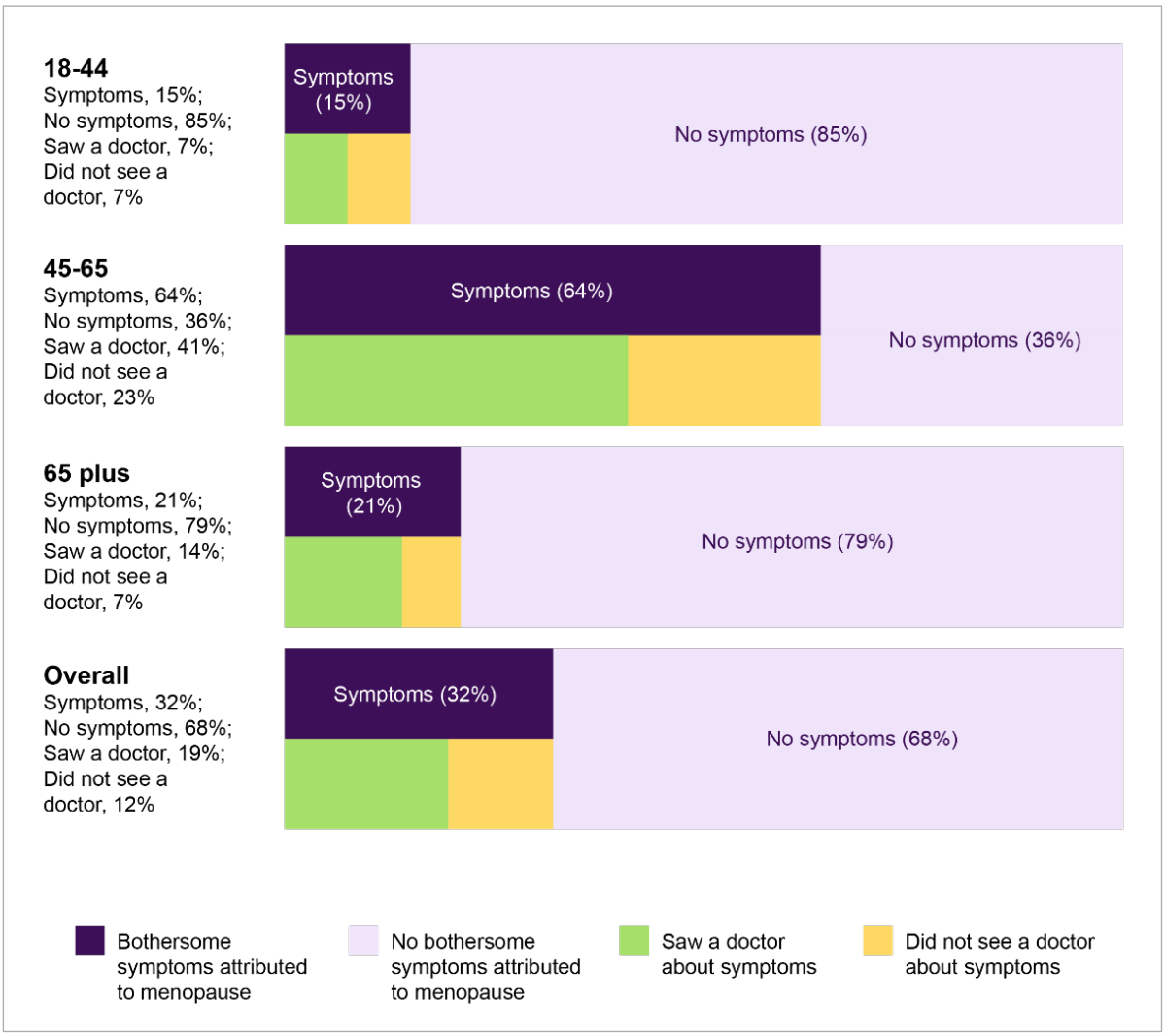
Table 6. The proportion of survey respondents who experienced bothersome symptoms in the last five years that they attributed to menopause who had discussed these symptoms with a doctor, by age group

	Proportion of women with bothersome symptoms attributed to menopause	
	Saw a doctor (%)	Did not see a doctor (%)
18-44 years	48	52
45-64 years	64	36
65+ years	65	35
Overall	**61**	**39**

Extrapolating survey responses to the population showed 7% of reproductive-age women, two in five (41%) midlife women and 14% of older women saw a doctor about bothersome symptoms attributed to menopause (Figure 8).

Overall, 19% of Australian women with bothersome symptoms, in the last five years, that they attributed to menopause saw a doctor about the symptoms, and 12% of Australian women with bothersome symptoms that they attributed to menopause did not see a doctor about these symptoms, while 68% did not have symptoms (Figure 8).

Figure 8. The proportion of Australian women experiencing bothersome symptoms they attributed to menopause who had discussed these symptoms with a doctor



Of the survey respondents who did not discuss bothersome symptoms they attributed to menopause with a doctor, a relatively high proportion (64%) reported they did not think the symptoms were bad enough to do so. A significantly higher proportion of older women than midlife women or women of reproductive age were likely to report they had the information they needed and thus did not see a doctor about their symptoms (Table 7).

A small proportion of women (8.6%) reported they would be too embarrassed or ashamed to ask a doctor about these symptoms (Table 7).

Table 7. Proportion of survey respondents who identified with key reasons they did not discuss bothersome symptoms they attributed to menopause with a doctor, by age group

	I didn't think the symptoms were bad enough (%)	I already had the information needed (%)	I didn't think anything could be done (%)	I was too embarrassed or ashamed to ask (%)
18-44 years (A)	65	16	26	13
45-64 years (B)	64	22	24	7.7
65+ years (C)	56	56 [AB]	18	2.7
Overall	**64**	**25**	**24**	**8.6**

A superscript letter indicates a significant difference ($p < 0.001$) between the age sub-groups (A-C). Responses of 'Other' (6%) have been excluded from the tables. Respondents could select more than one response.

There were no significant differences between women from sub-groups of socioeconomic status and language spoken at home with respect to why they did not discuss bothersome symptoms they attributed to menopause with a doctor (data not shown). However, women residing in the Northern Territory were much more likely to report they were too embarrassed or ashamed to ask about menopause-type symptoms than those from other states or territories (Figure 9).

Table 8. Proportion of survey respondents living in different jurisdictions in Australia who identified with key reasons they did not discuss bothersome symptoms (in the last five years) they attributed to menopause with a doctor, by state or territory of residence

	I didn't think the symptoms were bad enough (%)	I already had the information needed (%)	I didn't think anything could be done (%)	I was too embarrassed or ashamed to ask (%)
State/Territory				
NSW (A)	65	23	28	15
VIC (B)	61	30	22	4.5
QLD (C)	67	22	23	12
SA (D)	59	19	30	0.0
WA (E)	60	25	17	0.9
TAS (F)	70	19	24	6.8
NT (G)	56	35	16	17 [D]
ACT (H)	65	27	22	2.0

A superscript letter indicates a significant difference ($p < 0.001$) between the jurisdiction sub-groups (A-H).

Discussion

This is the first survey of a randomly selected, representative sample of Australian women to assess how symptoms that women attribute to menopause impact their daily activities, including work, and whether symptoms prompt them to seek care.

The term ‘attribute' is used because this survey is based on self-reporting and, as such, relies on survey respondents’ unprompted knowledge of menopause. This includes knowing: a) whether and when they reached menopause, b) whether they reached menopause naturally or due to surgery or treatment, and c) the symptoms of menopause.

For those uncertain of the timing of their menopause, the point 12 months after cessation of menstruation was provided to women as signifying menopause. However, there are many reasons why bleeding ceases (e.g. hysterectomy or hormonal contraception) and bleeding is often purposefully induced by menopausal hormone therapy (MHT). Accurate determination of the menopause status of the survey respondents would have required more detailed questioning or a medical assessment of menopausal status.

Menopause

The proportion of women who reported they had reached menopause in each sub-group, and the age at which they reported menopause was reached, is consistent with previous studies and current dogma. For example, the 45-64 years age range had the highest proportion of survey respondents reporting they had reached menopause, and the average age of menopause in Australia is 51 years of age[8]. Additionally, survey respondents from areas of relative socioeconomic disadvantage were significantly more likely to have reached menopause at an earlier age compared to survey respondents with socioeconomic advantage, which has been shown previously in multiple studies.[9]

Impact of symptoms that Australian women attribute to menopause

This survey cannot be used to quantify the real impact of menopause on women’s lives. This is because the survey assumed the survey respondents had accurate knowledge of the symptoms of menopause, and a recent literature review has shown that knowledge of perimenopause and menopause varies significantly across and within countries, including Australia.[10]

Additionally, respondents with conditions that might cause menopause-type symptoms were not excluded from the analyses. For example, hot flushes often occur for reasons that have nothing to do with menopause[11] – during pregnancy and postpartum, one third of women have hot flushes, and flushes may result from medications or thyroid conditions.

This survey does, however, enable us to assess the attitudes and behaviours of Australian women in response to symptoms they attribute to menopause based on their current general knowledge.

In consumer surveys (recruited by convenience sampling), conducted independently by the Australasian Menopause Society and Jean Hailes for Women’s Health, Australian women have

[8] Davis SR, Lambrinoudaki I, Lumsden M, Mishra GD, Pal L, Rees M, Santoro N, Simoncini T. Menopause. Nat Rev Dis Primers. 2015 Apr 23;1:15004.
[9] Gold EB. The timing of the age at which natural menopause occurs. Obstet Gynecol Clin North Am. 2011 Sep;38(3):425-40.
[10] O’Reilly K et al. An exploration of women’s knowledge and experience of perimenopause and menopause: an integrative literature review. Journal of Clinical Nursing (2022) 32:4528-4540.
[11] Davis et al. Menopause – Biology, consequences, supportive care, and therapeutic options. Cell (2023) 5:S0092-8674

reported a wide range of symptoms they believe to be caused by menopause. Multiple convenience sampling surveys have shown the top five symptoms reported by consumers are hot flushes, night sweats, 'brain fog', insomnia/disturbed sleep and weight gain. However, not all of these symptoms have been verified, in rigorous studies, to be caused by menopause. Hot flushes and night sweats are generally recognised by women as menopause symptoms and are well-established to be caused by the fluctuation and decrease in oestrogen. Many women cite 'brain fog' (problems with thinking, reasoning, or remembering) as a menopause symptom,[12] but the extent to which cognitive changes are caused by menopause or are associated with other factors commonly reported during midlife[13] is not clear. Similarly for insomnia or disturbed sleep, consumers report sleep disturbances as being caused by menopause, but – leaving aside disturbed sleep as a sequela of night sweats – the contribution of changing hormone levels versus the contribution of midlife stressors, poor sleep hygiene and so forth are difficult to tease apart.[14] Weight gain, although widely believed to be caused by menopause, is predominantly environmental, whereas an increase in abdominal fat is a consequence of menopause.[15]

Although accurate knowledge of symptoms is likely to be less than perfect, the proportion of survey respondents reporting they were bothered by 'menopause-type' symptoms 'such as hot flushes, night sweats or difficulty concentrating', in the last five years, was not inconsistent with what would be expected. Experience of symptoms the respondents attributed to menopause was significantly greater among midlife women than older women and women of reproductive age. Two in three midlife women reported experiencing bothersome menopause-type symptoms in the last five years, compared to one in five older women and one in seven women of reproductive age.

There were 115 verbatim 'Other' responses to the question, 'Have these menopause-type symptoms impacted you in any of the following ways?'; 67 of those responses referenced difficulty sleeping, which is clinically well established as a symptom of menopause.[16]

We used the question, 'Did these menopause-type symptoms make it hard to do daily activities?' as a measure for whether symptoms attributed to menopause had a substantial impact on women's lives. Overall, one in 20 women of reproductive age and older women had symptoms they attributed to menopause that had a substantial impact on their lives. A higher proportion of women of reproductive age (one in ten) and older women (one in six) had symptoms they attributed to menopause that did not have a substantial impact on their daily lives.

Symptoms attributed to menopause substantially affect the daily lives of a significant minority of midlife women. Overall, one in four midlife women experienced symptoms they attributed to menopause and that had a substantial impact on their daily lives. By extension, a higher proportion (nearly two in five) midlife women experienced symptoms they attributed to menopause that did not have a substantial impact.

[12] Maki and Jaff. Brain fog in menopause: a health-care professional's guide for decision-making and counselling on cognition. Climacteric. (2022) 25(6):570-8.
[13] Sullivan Mitchell E and Fugate Woods N. Midlife Women's Attributions about Perceived Memory Changes: Observations from the Seattle Midlife Women's Health Study. Journal of Women's Health & Gender-Based Medicine. (2001) 351-362.
[14] Verdonk P, Bendien E, Appelman Y. Menopause and work: A narrative literature review about menopause, work and health. Work. 2022;72(2):483-496.
[15] Davis et al. Menopause – Biology, consequences, supportive care, and therapeutic options. Cell (2023) 5:S0092-8674
[16] Ameratunga D, Goldin J, Hickey M. Sleep disturbance in menopause. Intern Med J. 2012 Jul;42(7):742-7.

Impact of symptoms attributed to menopause on work or study

In 2022, Verdonk, Bendien and Appelman published a narrative literature review on menopause, work and health. In short, the authors concluded that menopause can play a role in diminished work ability, but the evidence is inconclusive.[17] The tendency to attribute non-specific symptoms to menopause and the difficulty for women (and health professionals) to distinguish between job stressors at midlife and menopause symptoms were two of the issues leading to the inconclusive evidence.

Very few older women reported that symptoms they attribute to menopause made it hard to work or study, according to the National Women's Health Survey. This is likely to be due to a relatively low workforce and study participation rate by women over 65 years and that menopause-type symptoms decrease in severity over time. It is also possible that older women have learned to manage menopause-type symptoms.

In contrast, midlife and reproductive-age groups – the age range (18 to 64 years) predominantly in the workforce or studying – had higher rates of leave. Although we did not ask specifically about leaving the workforce completely, we think it likely that someone who has left the workforce because of symptoms they attributed to menopause will report this as taking an extended break or leave.

Fewer than one in ten midlife women in Australia missed days of work or study because of symptoms they attributed to menopause in the last five years. However, a higher proportion (17%) of midlife women in Australia reported they have taken leave or an extended break from work (as opposed to 'missing some days') because of bothersome symptoms they attributed to menopause. By extension, 47% of midlife women experienced bothersome symptoms they attributed to menopause but remained at work (and 36% of midlife women in Australia did not have bothersome symptoms they attributed to menopause).

Fewer than one in 20 women of reproductive age missed days of work or study due to symptoms they attributed to menopause, but a higher proportion (still fewer than one in ten) reported they took leave or an extended break from work or study. As a reminder, menopause-type symptoms, such as hot flushes, are not uncommon in premenopausal women, often occurring post-partum and during menstruation.[18]

These figures are not insignificant for workforces in which women are over-represented, e.g. nursing or teaching, with respect to loss of productivity. The key is that many symptoms of menopause can be managed effectively if appropriate symptom management or treatment is sought and provided.

That there were no differences in the impact of symptoms attributed to menopause according to socioeconomic status in the National Women's Health Survey was interesting. Several published studies have found the type of job role potentially influences the impact of menopause, with women in higher-level roles (with more work stress) having more difficulty with menopause symptoms.[19] We had hypothesised that women in the knowledge sector, who are more likely to be relatively socioeconomically advantaged, might report more impact in the workplace due to symptoms that affect cognitive function, e.g. 'brain fog'. We had also hypothesised that women working in labour roles, who are more likely to be relatively socioeconomically disadvantaged, might have less flexibility

[17] Verdonk P., Bendien, E., and Appelman, Y. Menopause and work: A narrative literature review about menopause, work and health. Work (2022) 72(2):483-96
[18] Davis et al. Menopause – Biology, consequences, supportive care, and therapeutic options. Cell (2023) 5:S0092-8674
[19] Verdonk P., Bendien, E., and Appelman, Y. Menopause and work: A narrative literature review about menopause, work and health. Work (2022) 72(2):483-96

in the workplace and thus have higher rates of leave. However, the results suggest neither hypothesis is correct.

In October 2022, the Australian Institute of Superannuation Trustees (AIST) estimated that menopause costs women more than $17 billion in lost earnings and superannuation, based on an estimate of 25% of menopausal women experiencing 'debilitating symptoms leading to long-term absences from work or forcing them into early retirement'.[20] This figure is likely to be an over-estimate, given the National Women's Health Survey has shown that 17% of Australian midlife women (18.6% in the 45-54 age range referenced by AIST) have a long-term absence from work.

This is not to say – at all – that menopause does not create economic inequality for women who are badly affected by symptoms they attribute to menopause. There have been only two rigorous Australian studies evaluating the relationship between perimenopause (moderate to severe vasomotor symptoms) and work ability, neither of which assessed workplace absences. In the first study, Australian women employed in three hospitals were surveyed about whether and how their work performance was affected by problems associated with menopause.[21] Two-thirds of women reported that menopause did 'not at all' affect their work performance, but 6% reported that menopause 'very much' and a further 6% reported that menopause 'somewhat' affected their work performance. In the second study, the authors demonstrated self-reported moderate to severe vasomotor symptoms were associated with moderate to poor self-reported work ability, but that most women reported good work ability. Work ability was also significantly and independently associated with other variables, including obesity, partnership status, housing and financial security.[22] We cannot focus action on menopause alone when it is clear that it is not menopause alone that is responsible for women leaving the workforce and experiencing economic inequality. We must consider all factors that play into stressors at midlife to be able to fully support women through the menopause transition.

It is important to stress that great care must be taken when framing the need for workplace support for perimenopausal and menopausal women. Ensuring workplaces provide flexibility, and that managers and employers are educated about menopause, is likely to be important for retention.[23] However, we need to avoid 'catastrophising' or 'specialling' menopause to push employers into making their workplaces more flexible. There are several reasons for this caution. First, we must avoid the unintended consequences of eroding women's own resilience through menopause which could worsen their experience of this inevitable transition.[24,25] This is critical to supporting women, because their own health and stress levels contribute to the perceived severity of menopause symptoms[26] and the extent to which menopause interferes with work performance.[27] Secondly, careful and conscious framing of the need for support during menopause must avoid (further) stigmatising women in the workforce, as gendered ageism is a recognised barrier to recruitment, career advancement and pay

[20] Menopause estimated to cost women more than $17 billion. Media release. Australian Institute for Superannuation Trustees. Available at: www.aist.asn.au/Media-and-News/News/2022/Media-Release-Menopause-estimated-to-cost-women-mo. Last accessed 01/09/2023
[21] Hickey, M et al. No sweat: managing menopausal symptoms at work. J Psychosomatic Obstet & Gynae (2017) 38(3):202–209.
[22] Gartoulla P., et al. Menopausal vasomotor symptoms are associated with poor self-assessed work ability. Maturitas (2016) 87:33-9
[23] Fenton A, and Panay N. Menopause and the workplace. Climacteric (2014) 17:317-8.
[24] Süss H, Ehlert U. Psychological resilience during the perimenopause. Maturitas. 2020 Jan;131:48-56.
[25] Süss H, et al. Psychosocial factors promoting resilience during the menopausal transition. Arch Womens Ment Health. (2021) 24(2):231-241.
[26] Ayers B, Forshaw M, Hunter MS. The impact of attitudes towards the menopause on women's symptom experience: a systematic review. Maturitas. 2010 Jan;65(1):28-36.
[27] Woods NF and Mitchell ES. Symptom interference with work and relationships during the menopausal transition and early postmenopause: observations from the Seattle Midlife Women's Health Study. Menopause. 2011 Jun;18(6):654-61.

equality.[28] Finally, and very importantly, women need flexibility for more than just menopause. Another report from the 2023 National Women's Health Survey, *Pelvic Pain in Australian Women 2023*, showed that a higher proportion of women aged 18-64 years in Australia were affected by pelvic pain,[29] that is, found it hard to do daily activities and took extended leave or stopped work or study, than were affected by menopause (as shown in this report). We must advocate workplace flexibility is available for all women for whatever purpose it is needed: menopause, pelvic pain, fertility treatment, endometriosis, cancer treatment, etc.

Impact of symptoms attributed to menopause on exercise, relationships and emotional health

The impact of symptoms attributed to menopause on exercise was asked specifically as a proxy indicator for women choosing to forego discretionary activities, with work and daily duties considered to be non-discretionary. Approximately one in four survey respondents in the reproductive years and midlife groups reported missing exercise, with nearly half the women of reproductive age and one-third the women in midlife reporting they had taken an extended break from exercise. With exercise particularly important for managing menopausal symptoms and postmenopausal health (e.g. postmenopausal bone loss and increased cardiovascular risk), encouragement to exercise should be included in GP advice and consumer information about menopause.

A higher proportion of women in their reproductive and midlife years reported symptoms they attributed to menopause negatively impacted their relationships with friends and family and impaired their mental and emotional wellbeing. There is evidence that women's own perceived health and stress levels also contribute to interference with relationships at menopause.[30] With these groups likely to be in the workforce or managing caring responsibilities (children and, possibly, elderly parents) it is possible that stressors outside menopause are exacerbating the impact of menopause-type symptoms. Mental and emotional wellbeing are areas of great concern in women who are recruited to surveys by convenience sampling or who attend clinics (another form of self-selection). A significant minority – two in five – of Australian women in midlife experienced symptoms, in the last five years, that negatively affected their mental and emotional wellbeing. Once again, it will be critical to understand the contribution of all stressors individually – recognising that each woman will experience menopause symptoms and stressors – to be able to understand how to best support women through midlife.

The proportion of older women with symptoms they attributed to menopause impacting their relationships with partners was very small, and with friends and family was negligible. Fewer than one in 10 older women had symptoms they attributed to menopause reducing their mental and emotional wellbeing. These findings are encouraging, as they demonstrate that the impact of symptoms attributed to menopause during midlife all but disappear after the menopause transition.

There were no significant differences between any age group reporting that symptoms they attributed to menopause impacted their relationship with their partners. This is surprising, given that genitourinary symptoms, such as vaginal dryness, during perimenopause and postmenopause can cause pain with sexual activity. It is quite possible that many women do not know about the link

[28] McConatha JT et al. The Gendered Face of Ageism in the Workplace. Advances in Social Sciences Research Journal (2023) 10(1):528-536
[29] "Jean Hailes for Women's Health. 2023 National Women's Health Survey: Pelvic Pain in Australian Women. Available at: https://www.jeanhailes.org.au/research/womens-health-survey/pelvic-pain-in-australian-women.
[30] Woods NF and Mitchell ES. Symptom interference with work and relationships during the menopausal transition and early postmenopause: observations from the Seattle Midlife Women's Health Study. Menopause. 2011 Jun;18(6):654-61.

between genitourinary symptoms and perimenopause or menopause, and thus are not attributing any relationship difficulties to menopause.

Propensity of women to see a doctor about symptoms they attribute to menopause

Approximately two-thirds of midlife women and older women who experienced bothersome symptoms they attributed to menopause saw a doctor about these symptoms. However, this means one-third of midlife and older women with bothersome symptoms they attributed to menopause did not see a doctor to confirm perimenopause and rule out any other conditions that might be causing bothersome symptoms. It is also important that women understand that the menopausal transition, and postmenopause, can have 'silent symptoms' such as bone loss and increased cardiovascular risk – knowledge that is not imparted if women do not see a GP during perimenopause (assuming GPs are not, as they should be, proactively raising perimenopause with women as they approach midlife).

Only half the women of reproductive age who experienced bothersome symptoms they attributed to menopause saw a doctor, despite menopause-type symptoms likely to have been unexpected within this age range. Women under 44 years with menopause-type symptoms should be seen by a doctor to make an accurate diagnosis of primary ovarian insufficiency (POI) or early menopause and, at least in the case of POI, to assess causes and consequences, provide support, assess risks for future health, and provide treatment. That half the women under 44 years experiencing symptoms they attribute to menopause are not seeing a doctor about these symptoms is alarming.

Most survey respondents who did not see a doctor, did not do so because they didn't think the symptoms were 'bad enough'. Taking this at face value, we assume that the bothersome symptoms were just that: 'bothersome' and manageable with simple lifestyle changes. However, the authors note that many women believe they should just 'put up with' health issues. A better understanding of perimenopause and menopause – and the symptom management and treatment options available – might help reduce the number of women who are just 'enduring' bothersome symptoms.

One in four survey respondents in the 18-64 age range didn't think anything could be done about their menopause-type symptoms, and fewer than one in five reported they already had the information needed.

A significantly higher proportion of older women than those in the other age groups reported they didn't go to the doctor because they already had the information they needed. It is likely that women in this postmenopausal cohort had already seen a doctor about bothersome symptoms, if they felt they needed to do so. Older women were less likely to report they didn't see a doctor because they didn't think anything could be done for bothersome symptoms.

Taken together, these findings suggest the need to do more to educate women before they enter perimenopause, so that they understand that most symptoms are manageable, and where they can go for credible information and treatment. Normalising discussions about menopause might also help reduce the small proportion of women who are too embarrassed or ashamed to ask their doctor about bothersome menopause-type symptoms.

There were few differences between states and territories in the findings from this survey of Australian women's beliefs and behaviours related to 'bothersome' menopause symptoms. However, the level of embarrassment and shame preventing women in the Northern Territory from discussing bothersome menopause-type symptoms with their doctor stood out as a clear difference between jurisdictions. It is

possible that this is related to the Northern Territory having the highest proportion of Indigenous people among its population.[31] Menopause being 'women's business' within Indigenous culture, and thus private, has been reported previously.[32,33] It is feasible, therefore, that a higher proportion of women with cultural concerns might explain why more women in the Northern Territory feel ashamed or embarrassed to discuss symptoms ('women's business') with a doctor. Although a small number of survey respondents were Aboriginal or Torres Strait Islander women, there were not enough to gather statistically significant data for an Indigenous versus non-Indigenous sub-group. It is also possible that, being a low-density population, perceived privacy is an issue for women in the Northern Territory.

[31] Profile of Indigenous Australians. Australian Institute of Health and Welfare. Available at: www.aihw.gov.au/reports/australias-health/profile-of-indigenous-australians. Last accessed 25/08/2023
[32] Davis SE, Knight S, White V, Claridge C, Davis B, Bell R. Climacteric symptoms among Indigenous Australian women and a model for the use of culturally relevant art in health promotion. *Menopause (New York, NY)* 2003;10(4):345–351.
[33] Jurgenson, J.R., Jones, E.K., Haynes, E. *et al.* Exploring Australian Aboriginal Women's experiences of menopause: a descriptive study. *BMC Women's Health* (2014) 14, 47.

Recommendations

Understanding what symptoms are truly associated with perimenopause and menopause, and what are associated with other midlife stressors or medical conditions, is fundamental to ensuring women get the care and support they need to enjoy good health and wellbeing. Women who believe all challenges in midlife are due to perimenopause render themselves unable to address the root causes of their challenges.

Recommendation 1: A better understanding, by the general public, about the verified symptoms of perimenopause and menopause, as well as evidence-based options for treatment of symptoms is needed. Public education should be developed to help build resilience and understanding around the menopausal transition, with menopause framed as an opportunity for women to take stock of their health and implement strategies for healthy ageing.

The propensity of women to see a GP about symptoms they attributed to menopause raises concerns that opportunities to reduce chronic disease and increase healthy ageing are being lost. Both the community and GPs need more education about the importance of reassessing health at and after the menopausal transition.

Recommendation 2: Fewer than half the women under 44 years who reported bothersome symptoms attributed to menopause had discussed these symptoms with a doctor. Women going through premature or early menopause are at increased risk of chronic disease, and it is imperative that they are diagnosed and offered treatment. Community awareness and GP education about premature and early menopause is critical to ensure that these women reduce their risk of chronic disease.

Recommendation 3: GPs are the gateway to evidence-based assessment and treatment of menopausal symptoms and healthy ageing for postmenopausal women. GPs must be able to provide responsive menopause management as women become more knowledgeable and proactive about menopause. GPs also need to be educated about the need to assess all women at midlife for increased postmenopausal risks, such as chronic disease and bone loss.

A woman's individual resilience is related to her self-reported wellbeing during the perimenopausal period. Psychosocial variables that contribute to resilience during perimenopause include optimism, emotional stability, emotion regulation, self-compassion, and self-esteem. Women who score higher on tests for these psychosocial variables have a higher life satisfaction, lower perceived stress, lower psychological distress and better general psychological health (including lower depressive symptoms) during perimenopause, and report milder menopausal complaints.

Recommendation 4: That perimenopause and menopause are now being discussed publicly is very much welcomed by the Australasian Menopause Society, the Women's Health Research Program at Monash University and Jean Hailes for Women's Health, all of which have been working on menopause-related issues for at least three decades. However, we caution all parties to avoid 'catastrophising' menopause in the framing of public discussions and particularly in the advertising of goods and services, as it could have the unintended consequences of eroding women's resilience and stigmatising women as they approach midlife.

Accurately assessing the proportion of Australian women unable to participate fully in the workforce or leaving the workforce early because of the menopause transition is important for: a) measuring the success (or otherwise) of interventions to help women in the workplace, and b) informing policy development to reduce gender inequities in the workplace.

Recommendation 5: Further studies – recruited by random sampling and stratifying data by verified menopause symptoms – across different sectors and levels of management are needed to differentiate the true impact of perimenopause and menopause on women in the workplace from other causes of midlife stressors. Such studies could also inform frameworks for testing (and identifying any unintended consequences of) workplace interventions.

The National Women's Health Survey was not designed to comprehensively explore the experiences of people from priority populations, including: women from multicultural communities; women with disability; lesbian, bisexual or queer women; people assigned or presumed female at birth, and; Aboriginal and Torres Strait Islander women. Only two peer-reviewed studies of Aboriginal women's experiences of menopause were found in a desktop literature review. One exploratory qualitative study, conducted nearly a decade ago with one community, showed that women feared menopause symptoms, or were uncertain about their origin, and that the women believed there was little information available to them.[34] A cross-sectional survey conducted two decades ago to assess menopause symptoms and test the development of a health promotion approach using Aboriginal language and art demonstrated that these fears and the provision of information can be overcome using a culturally intelligent approach.[35]

Recommendation 6: Greater action is urgently needed to work with priority populations, particularly diverse Aboriginal and Torres Strait Islander communities, to understand their knowledge and information needs and co-design culturally intelligent health promotion approaches to better manage menopause symptoms and seek care when required.

[34] Jurgenson, J.R., Jones, E.K., Haynes, E. *et al.* Exploring Australian Aboriginal Women's experiences of menopause: a descriptive study. *BMC Women's Health* (2014) 14, 47.

[35] Davis SE, Knight S, White V, Claridge C, Davis B, Bell R. Climacteric symptoms among Indigenous Australian women and a model for the use of culturally relevant art in health promotion. *Menopause (New York, NY)* 2003;10(4):345–351.

Appendix I: Full data tables and relevant survey questions

Note that the abbreviation 'SEIFA' represents 'Socio-Economic Indexes for Areas' and 'LOTE' represents 'Language other than English spoken at home'.

Table 1. Proportion of women self-reporting they have reached menopause (%)

Q: Menopause is when your final period happens, often between 45 to 55 years of age. You know you've reached menopause when you haven't had a period for 12 months. Have you reached menopause? (n=3570)

	Yes	No
Age group		
18-44 years (A)	2.7	97.0 BC
45-64 years (B)	68.7 A	30.5 C
65+ years (C)	97.4 AB	2.3
State/Territory		
NSW (A)	41.2	58.4 F
VIC (B)	39.5	59.8 F
QLD (C)	49.0	50.8
SA (D)	46.9	53.1
WA (E)	45.1	54.4
TAS (F)	59.0 A	40.3
NT (G)	53.1	46.4
ACT (H)	44.1	55.9 F
SEIFA		
1-2 (A)	45.7	54.2
3-5 (B)	42.7	56.8
LOTE		
Yes (A)	25.6	73.8 B
No (B)	49.6 A	50.0
Total	**43.7**	**55.9**

Table 2. Age when menopause was reached (%)

Q: What age were you when you reached menopause (that is, you didn't have a period for 12 months)? (BASE: have reached menopause, n=2002)

	18 to 30 (Premature menopause)	31 to 39 (Premature menopause)	40 to 44 (Early menopause)	45 to 55 (Average age for menopause)	56 to 64 (Late menopause)	65 plus
Age group						
18-44 years (A)	6.1 B	16.1	9.8	0.0	0.0	0.0
45-64 years (B)	0.3	2.3	9.9	77.3 AC	7.1	0.0
65+ years (C)	0.8	4.5	10.4	63.8 A	15.8 B	0.6
State/Territory						
NSW (A)	0.4	3.2	7.4	67.5	14.8	0.3
VIC (B)	0.7	3.1	8.6	69.8	9.1	0.1
QLD (C)	0.9	4.3	14.2	69.0	6.9	0.2
SA (D)	1.5	4.7	6.5	67.1	16.8	1.6 B
WA (E)	0.6	4.4	15.7	68.4	7.4	0.0
TAS (F)	1.0	3.5	9.8	69.5	14.1	0.0
NT (G)	0.8	3.7	6.2	80.2	6.4	0.0
ACT (H)	0.9	3.0	7.2	70.9	15.0	0.4
SEIFA						
1-2 (A)	0.5	4.9	15.4 B	63.5	8.1	0.3
3-5 (B)	0.6	3.0	7.1	71.6	12.6	0.3
LOTE						
Yes (A)	0.6	5.4	8.0	66.3	7.7	0.0
No (B)	0.7	3.4	10.4	69.1	11.5	0.3
Total	**0.7**	**3.7**	**10.1**	**68.7**	**10.9**	**0.3**

Table 3. Proportion of women who reached menopause naturally (%)

Q: Did you reach menopause naturally or was it due to surgery or treatment such as chemotherapy? (BASE: have reached menopause, n=2002)

	Reached menopause naturally	Reached menopause due to surgery or treatment
Age group		
18-44 years (A)	51.2	22.8
45-64 years (B)	81.2	17.1
65+ years (C)	75.6	23.3
State/Territory		
NSW (A)	77.7	20.2
VIC (B)	80.7	16.2
QLD (C)	71.9	25.2
SA (D)	80.6	19.0
WA (E)	79.0	20.5
TAS (F)	80.5	19.2
NT (G)	79.7	19.4
ACT (H)	87.3	10.4
SEIFA		
1-2 (A)	72.6	24.1
3-5 (B)	80.7	18.0
LOTE		
Yes (A)	79.6	15.6
No (B)	77.4	20.9
Total	**77.7**	**20.1**

Table 4. Proportion bothered by menopause-type symptoms (%)

Q: In the last five years, have you been bothered by menopause-type symptoms, such as hot flushes, night sweats or difficulty concentrating? (n=3570)

	Yes	No
Age group		
18-44 years (A)	14.3	85.1 B
45-64 years (B)	64.2 AC	35.8
65+ years (C)	21.4	78.4 B
State/Territory		
NSW (A)	29.0	71.0
VIC (B)	31.6	67.3
QLD (C)	33.2	66.6
SA (D)	31.8	67.9
WA (E)	35.0	65.0
TAS (F)	39.5	60.0
NT (G)	33.1	66.9
ACT (H)	31.1	68.9
SEIFA		
1-2 (A)	31.9	68.1
3-5 (B)	31.6	67.9
LOTE		
Yes (A)	25.8	73.3
No (B)	33.6	66.3
Total	**31.7**	**68.0**

Table 5. Impact of menopause-type symptoms (%)

Q: Have these menopause-type symptoms impacted you in any of the following ways? (BASE: bothered by menopause-type symptoms, n=1221)

	Found it hard to do daily activities	Found it hard to work or study	Missed exercise	Missed days of work or study	None of the above
Age group					
18-44 years (A)	33.9	40.2 C	24.7	23.8 C	42.4
45-64 years (B)	40.6 C	33.1 C	23.5 C	10.9 C	42.9
65+ years (C)	22.7	5.6	8.7	1.0	71.2 AB
State/Territory					
NSW (A)	40.5	36.0	27.0	13.6	38.6
VIC (B)	29.9	28.1	20.8	13.6	51.2
QLD (C)	37.4	30.1	18.0	10.3	50.6
SA (D)	36.9	28.6	17.8	11.4	51.0
WA (E)	39.5	22.8	18.5	10.2	52.2
TAS (F)	32.9	30.7	22.3	9.2	45.0
NT (G)	45.3	35.9	21.5	5.1	34.2
ACT (H)	40.1	40.6	24.1	16.8	39.7
SEIFA					
1-2 (A)	42.4	29.8	23.2	17.1	44.3
3-5 (B)	33.6	31.3	20.9	9.6	48.1
LOTE					
Yes (A)	38.7	36.5	22.3	20.4	36.5
No (B)	36.0	29.2	21.5	10.2	49.6
Total	**36.5**	**30.6**	**21.6**	**12.2**	**47.0**

Table 6. Taking leave / extended break due to menopause (%)

Q: Have you needed to take an extended break or stop work, study or exercise as a result of these menopause-type symptoms?
(BASE: impacted by menopause-type symptoms, n=649)

	Yes, from work or study	Yes, from exercise	No, this has not happened
Age group			
18-44 years (A)	49.8 BC	46.5 C	35.7
45-64 years (B)	25.7 C	33.1	57.1
65+ years (C)	6.2	15.1	82.2 AB
State/Territory			
NSW (A)	27.9	39.8	52.2
VIC (B)	38.5	26.8	53.8
QLD (C)	28.3	36.8	51.0
SA (D)	23.3	36.2	54.7
WA (E)	26.7	36.3	61.1
TAS (F)	19.5	25.0	63.5
NT (G)	19.6	21.5	66.6
ACT (H)	29.8	35.9	58.2
SEIFA			
1-2 (A)	34.0	39.0	46.2
3-5 (B)	27.3	32.3	58.7
LOTE			
Yes (A)	42.4	46.6	41.9
No (B)	25.8	31.1	57.8
Total	**29.8**	**34.8**	**54.0**

Table 7. Impact of menopause-type symptoms on relationships and mental health (%)

Q: And have your menopause-type symptoms negatively impacted… (BASE: bothered by menopause-type symptoms, n=1221)

	Your relationship with your partner		Your relationships with friends and family		Your mental and emotional wellbeing	
	Yes	No	Yes	No	Yes	No
Age group						
18-44 years (A)	40.4	37.1	31.5 C	59.5	58.1	37.1
45-64 years (B)	30.0	45.1	20.6 C	75.4	58.1 C	40.0
65+ years (C)	24.9	55.9	5.4	86.9 A	34.6	62.1 AB
State/Territory						
NSW (A)	34.2	40.1	23.7	71.9	62.9	35.7
VIC (B)	33.5	45.2	18.9	76.0	53.2	46.2
QLD (C)	24.2	49.1	15.4	76.1	48.4	44.9
SA (D)	25.4	49.3	17.3	76.1	44.3	50.4
WA (E)	37.1	43.3	30.3	62.7	55.4	42.4
TAS (F)	36.0	47.3	19.6	77.9	58.1	41.1
NT (G)	41.2	47.3	18.3	75.3	49.5	47.6
ACT (H)	32.1	52.3	15.9	81.5	59.8	40.2
SEIFA						
1-2 (A)	31.6	42.1	24.1	69.0	51.7	46.0
3-5 (B)	31.9	46.0	19.0	75.7	56.9	40.2
LOTE						
Yes (A)	36.3	39.9	34.0	59.1	55.5	41.3
No (B)	30.5	46.1	17.3	77.1	54.7	42.8
Total	**31.7**	**44.8**	**20.7**	**73.5**	**54.9**	**42.5**

Table 8. Proportion discussing menopause-type symptoms with a doctor (%)

Q: Have you discussed these menopause-type symptoms with a doctor? (BASE: bothered by menopause-type symptoms, n=1221)

	Yes	No
Age group		
18-44 years (A)	48.3	51.7
45-64 years (B)	63.9	36.0
65+ years (C)	64.7	35.3
State/Territory		
NSW (A)	61.8	38.2
VIC (B)	58.7	41.3
QLD (C)	57.1	42.6
SA (D)	59.1	40.3
WA (E)	70.6	29.4
TAS (F)	54.3	45.7
NT (G)	66.7	31.8
ACT (H)	67.9	32.1
SEIFA		
1-2 (A)	59.8	40.1
3-5 (B)	61.7	38.1
LOTE		
Yes (A)	60.5	39.5
No (B)	60.9	39.0
Total	**60.8**	**39.1**

Table 9. Main reasons for not discussing menopause-type symptoms with a doctor (%)

Q: Why did you decide not to discuss these menopause-type symptoms with your doctor? (BASE: did not discuss symptoms with doctor, n=472)

	I didn't think the symptoms were bad enough	I already had the information needed	I didn't think anything could be done	I was too embarrassed or ashamed to ask
Age group				
18-44 years (A)	65.4	16.1	26.3	13.1
45-64 years (B)	64.6	22.0	24.2	7.7
65+ years (C)	56.2	55.5 AB	17.7	2.7
State/Territory				
NSW (A)	65.2	23.3	27.6	14.9
VIC (B)	60.9	30.3	21.9	4.5
QLD (C)	67.3	21.8	22.9	11.5
SA (D)	59.2	18.9	29.5	0.0
WA (E)	60.1	25.1	17.3	0.9
TAS (F)	70.3	18.5	23.8	6.8
NT (G)	55.6	35.2	16.1	16.7 D
ACT (H)	65.2	26.3	21.8	2.0
SEIFA				
1-2 (A)	62.2	29.1	24.3	8.9
3-5 (B)	64.7	22.5	23.4	8.5
LOTE				
Yes (A)	56.6	30.1	28.4	11.8
No (B)	65.5	23.3	22.8	7.7
Total	**63.7**	**24.7**	**23.9**	**8.6**

Jean Hailes gratefully acknowledges the support of the Australian Government.

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