

Friday 15 March 2024

Community Affairs References Committee
PO Box 6100
Parliament House
Canberra ACT 2600

Dear Committee Members,

Re: Inquiry into issues relating to menopause and perimenopause

Asthma Australia welcomes the inquiry of the Community Affairs References Committee (the Committee) into issues relating to menopause and perimenopause. For too long, issues relating to women's health have been underfunded, poorly researched and not given the attention that they deserve. **We hope this inquiry is an opportunity to change this.** Improving the understanding of menopause and perimenopause is a critical issue for women's health, wellbeing, and participation but so too for transgender, intersex and non-binary people who may also experience perimenopause and menopause. Asthma Australia's submission is limited by the binary approach to sex in research on menopause and asthma. Despite these limitations, we ask the Committee to **take an inclusive approach** to this inquiry and consider and respond to **the needs of all people who experience perimenopause and menopause.**

Globally, women experience a greater burden of asthma compared to men. They are more likely to have asthma, experience severe asthma symptoms and die from asthma (1). Sex hormones have been found to be partly responsible for these inequities and help explain sex-related differences in asthma over the life course (1). This includes the impact and risk of asthma and its symptoms on women during perimenopause and menopause (1).

Asthma Australia's submission responds to the terms of reference that relate to physical health impacts and provides a brief overview of what is known about asthma and perimenopause and menopause. While data and research to date provide important insights into asthma, perimenopause and menopause, **we need more research** to fully understand and verify associations with a view to developing appropriate treatments and services to support people with, and at risk of developing, asthma who are experiencing perimenopause and menopause.

ASTHMA AND THE PREVALENCE OF ASTHMA ACROSS GENDER AND AGE

Asthma is a chronic condition with high prevalence and burden of disease in Australia; one in nine or 2.8 million people have asthma (2). In 2023, asthma was the 8th leading contributor to the overall burden of disease in Australia (after adjusting for age structure), having risen from 9th in 2018 and 2015, and 10th in 2011 and 2003 (3).

Between the ages of 0-14 years, asthma is more prevalent in boys with an estimated 10.1% of boys between these ages having asthma in 2022 and 6.2% of girls respectively (2). However, **following**

puberty, this changes with females being twice as likely to develop asthma as men (1). In 2022, 13.6% of all females 15 years and over had asthma in Australia compared with 9.2% of all males 15 years and over (2). In the **age groups more commonly associated with menopause**,ⁱ 14.3% of females aged 45-54 years had asthma in 2022 and 9.9% of males respectively (2). In 2020–21, 78% of people with asthma aged 45 and over, had at least one other chronic condition (4).

People with asthma experience poorer health outcomes and quality of life (4). They may live for a long period of time with disability associated with asthma, and experience reduced participation in employment, education, care responsibilities, sports and social events. Asthma is a unique and complex condition that affects each person differently both in terms of its development and its triggers.

Asthma has a significant impact on Australia's health care system. In 2021-22, there were 25,480 hospitalisations for asthma, of which 90% were considered potentially preventable (5). In 2022, there were 467 deaths due to asthma (299 females and 168 males) (6). A 2015 report, the Hidden Cost of Asthma, found asthma cost the healthcare system \$1.2 billion, lost productivity due to asthma cost \$1.1 billion, and the burden of asthma disease amounted to a cost of \$24.7 billion (7).

ASTHMA AND PERIMENOPAUSE AND MENOPAUSE

To date, research into asthma, perimenopause and menopause has identified many gaps, inconsistencies and confounders (e.g. comorbidities) have been poorly researched, or not investigated. Hence, research findings are complex or not fully understood. However, recent research developments have begun to provide a picture of how perimenopause and menopause may affect women's respiratory systems and asthma, including the role of sex hormones (1). Although further research is needed, research findings suggest the following **important insights**:

- There is a **significant decline of lung function** during perimenopause and post-menopause (8,9).
- Perimenopausal and postmenopausal women are **at higher risk of adult-onset asthma** or current asthma than non-menopausal women (10,11).
- Perimenopausal, menopausal and postmenopausal women have **increased risk of respiratory symptoms and/or asthma exacerbations** (10-13).
- There is an **association between the use of HRT and new-onset asthma, increased asthma incidence, prevalence and hospitalisations** (1,11,12). Evidence of increased incidence and prevalence have been found in some studies to be especially notable in non-overweight, non-obese and non-smoking women (1,12). However, a recent study reported a reduced risk of asthma onset and lower asthma incidence in women using HRT, suggesting **the link between HRT and the increased impact on asthma is not clear** (12,14)

ⁱ Some people experience perimenopause and menopause earlier but currently this age range is widely associated with their occurrence by the health sector (e.g. [Perimenopause | healthdirect](#)).

ASTHMA AND SEX HORMONES

In addition, there is robust evidence suggesting that asthma in women is affected by hormone fluctuation (1,12). Following puberty, females become more likely than males to **have asthma** (12,15). **Changes in asthma incidence, symptom severity and healthcare utilisation have been reported** during the menstrual cycle, when using birth control medication and **hormone replacement therapy** (HRT), and during pregnancy, **perimenopause and post menopause** (1,11,12).

In 2022, our counterparts in the UK, Asthma + Lung UK, developed a report that synthesised what is known about the impact of asthma on women and its causes (1). They found that:

- Sex differences in asthma may occur through many mechanisms, including through:
 - **The role of female hormone oestrogen in stimulating type 2 inflammation**, a type of allergic response that exacerbates asthma. Oestrogen appears to enhance allergic airway inflammation, while blocking oestrogen has been found to improve lung function.
 - **A collective role in female sex hormones in up-regulating inflammation.**
 - **The role of male androgen hormones (e.g. testosterone) in down-regulating type 2 inflammation.** Males have increased androgen receptor expressions that are beneficial in asthma, while the loss of androgen receptors is associated with increased risk of airway inflammation and bronchoconstriction.
 - **Sex-specific genetic differences in asthma risk.**
 - Women are more susceptible to develop late-onset asthma due to obesity.
- The effects of sex hormones on asthma symptoms and its progression are **complex** and are **poorly understood**. More research is needed.

In their report, the Asthma + Lung UK have identified areas for further research (1). Clearly, the relationship between asthma and sex hormones needs further investigation. To this end, broad collaboration would be an optimum approach to this work, as Asthma + Lung UK recommend.

RECOMMENDATION

The evidence available in relation to asthma, perimenopause and menopause has provided some important insights about this process and asthma outcomes. To build on these findings, **we recommend that the Australian Government funds dedicated research into the associations between menopause, perimenopause and asthma**. There are many areas in need of further investigation, including:

- The impact of perimenopause/menopause on asthma outcomes, management and treatment, including in relation to fluctuations in sex hormones,
- The impact of HRT on asthma outcomes, management and treatment,
- Asthma outcomes in different population groups experiencing perimenopause/menopause and the different support they need, and
- Confounding factors such as comorbidities.

Such research could result in **transformative changes to asthma care**. Changes could be as simple as an asthma review on reaching perimenopause/menopause and informed discussion of HRT use with each consumer. More tailored approaches to asthma diagnosis, management and treatment during this time of life could help improve outcomes in the health, wellbeing and participation of all people experiencing menopause and perimenopause.

Asthma Australia welcomes being contacted by the Committee for any further contributions to this important Inquiry.

Yours sincerely,



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CEO Asthma Australia

ABOUT ASTHMA AUSTRALIA

Asthma is a respiratory condition that affects 2.8 million Australians, with children being the most impacted. Asthma is responsible for at least one Australian death every day, making it a serious health concern. More than 30,000 people are hospitalised each year due to asthma, yet 80% of these hospitalisations are considered potentially avoidable.

Despite the prevalence of asthma, it is often misunderstood, causing fear and anxiety for those living with the condition. Asthma Australia has been the leading charity for people with asthma and their communities for over 60 years.

The challenges of climate change, unhealthy air, and health inequity make it more important than ever for people with asthma to have a voice. We search for new and progressive approaches to challenge the status quo. Our work is grounded in evidence and centred on the experiences of people affected by asthma. We believe by listening to those living with asthma, designing solutions with them, and influencing change, people with asthma can live freely, unrestricted by their asthma.

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