



The ACT Preventive Health Action Plan 2023-25

Asthma Australia Submission, July 2023

ABOUT ASTHMA AUSTRALIA

Asthma Australia is a for-purpose, consumer organisation that has been improving the lives of people with asthma since 1962. Asthma affects one in nine Australians or 2.7 million people. Asthma is an inflammatory condition of the airways, restricting airflow and can be fatal. There is no cure, but most people with asthma can experience good control.

Our purpose is to help people breathe better so they can live freely. We deliver evidence-based prevention and health strategies to more than half a million people each year. Asthma Australia has an ambitious goal to halve avoidable hospital presentations for asthma by 2030, with an initial focus on reducing preventable hospitalisations in children aged 5-9.

ASTHMA IN THE ACT

As a chronic condition, asthma places a significant burden on the daily lives of people with asthma and their families, as well as the Australian Capital Territory's (ACT) health care system and resources:

- One in eight (12.1%) people have asthma in the ACT, above the national average of one in nine people (11%).¹
- In 2022, asthma was the 8th leading contributor to the overall burden of disease in Australia, having risen from 10th place in 2003.²
- Asthma is the leading cause of burden of disease for people aged 5–14 years.
- Children are much more likely than adults to be hospitalised for asthma, with over 17,000 children with asthma hospitalised in 2022.³
- In 2020, asthma caused 8 deaths in the ACT.⁴



RESPONSE TO PREVENTIVE HEALTH ACTION PLAN 23-25

Asthma Australia is pleased to have the opportunity to provide feedback on the ACT Preventive Health Action Plan 2023-25 (the Plan). The Plan seeks to reduce the prevalence of chronic disease within the ACT through implementing the Healthy Canberra: ACT Preventive Health Plan 2020 – 2025 and building on the previous action plan (2020-22). We strongly welcome the ACT Government's recognition of the importance of addressing the prevalence of chronic disease and the need for a whole-of-government approach to do so.

As the Plan acknowledges, nearly half of people in the ACT live with chronic conditions. This includes **one in eight (12.1%) people with asthma in the ACT**, which is above the national average of one in nine people (11%).⁵ **Asthma is the leading cause of burden of disease for people aged 5–14 years.**⁶ People with asthma experience poorer health outcomes and quality of life.⁷ They may live for a long period of time with its associated disability, and experience reduced participation in employment, education, care responsibilities, sports and social events. Further, asthma mortality⁸ and hospitalisations in Australia are high by international standards.⁹ Approximately 400 people die each year in Australia due to asthma,¹⁰ and there were 351 deaths due to asthma in 2021.¹¹ In 2021-22, there were 25,480 hospitalisations for asthma, of which 90% were considered potentially preventable.¹² 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 disease amounted to a cost of \$24.7 billion.¹³

In our response, we provide comments in relation to the Plan more broadly as well as feedback and recommendations in relation to the Plan's priority areas.

GENERAL COMMENTS

The Plan has incorporated many new actions that could improve the health outcomes and quality of life of people with asthma, as we highlight below in response to the priority areas. However, there is a lack of detail in the Plan and many of the actions lack information about what, when, how and by and with whom they will be implemented. For example, it is not clear how consumers and other stakeholders within the community, like Asthma Australia, will be involved in developing and implementing the actions. We therefore look forward to learning more about the actions and encourage all Government departments responsible for delivering them **to work with consumers and community stakeholders in their development and implementation.**

We particularly welcome the Plan's acknowledgement of the disproportionate impact that climate change is having and will have on the health of people with chronic conditions. **Asthma is heavily influenced by environmental conditions and can be both caused and exacerbated by exposure to environmental triggers. It is therefore deeply linked with climate change.** However, the Plan does not seek to assess or quantify the impact of climate change on chronic conditions, or to determine any specific ways to counter it. To this end, we set out a number of actions within our response that should be included in the Plan.



We also welcome the Plan's stated equitable approach to preventing the development of chronic conditions. A whole-of-government approach is needed to address equity issues relating to chronic conditions such as the social determinants of health, which intersect with multiple policy areas. However, **much greater detail is needed to understand how the Plan will reduce inequity**. Further, as the Plan states, both universal and targeted approaches to public health prevention can work complementarily. However, it seems from the framing of their objectives that the majority of the actions within the Plan are universal, which are likely to compound existing inequalities since they are commonly developed to meet the needs of the general population and thereby often exclude priority populations. To ensure that the Plan does not widen existing health inequalities, universal measures must either be specifically designed to meet the needs of priority populations, or be adapted to meet their needs in separate measures that are rolled out in tandem.

PRIORITY AREA 1: SUPPORTING CHILDREN AND FAMILIES

FAMILIES ARE SUPPORTED TO OPTIMISE THE HEALTHY DEVELOPMENT OF THEIR CHILDREN IN THE FIRST 1000 DAYS

Asthma Australia strongly supports the Plan's objective to optimise the healthy development of children in the first 1,000 days. Asthma is one of the most common reasons that children visit doctors, go to the hospital or miss days at school and around one in 10 children have asthma in Australia.¹⁴ While the exact reason behind the development of asthma is unknown,¹⁵ researchers have found that it can run in families,¹⁶ as well be linked to many other factors relating to:

- **Maternal exposures** during pregnancy (e.g., smoking,¹⁷ a high maternal pregestational body mass index and traffic-related air pollution during pregnancy¹⁸),
- **Birth** (e.g., premature births, low birth weights and caesareans¹⁹),
- **Reduced exposure to diversity of beneficial, environmental and human micro-organisms due to modern day living** (e.g., cleanliness, chemical exposure, antibiotics use, nutrition and reduced biodiversity²⁰),
- **Environmental exposure to air pollution** (e.g., bushfires, mould and second-hand cigarette smoke^{21,22}),
- **Adverse childhood experiences resulting in toxic stress in the first 1,000 days changing the body's stress response**,²³
- **Lower socio-economic background**,²⁴ and
- **Homelessness**.²⁵

In addition, children's lungs are not fully developed until they are three years old and infants have much smaller airways, meaning any swelling of the lining and/or tightening of the airways, or increased amounts of mucus, can make breathing extremely difficult. Hence, Asthma Australia strongly supports the design and delivery of earlier and better supports for children and families during the first 1,000 day period in relation to their healthy development. The first 1,000 days covers the period of development from their conception until children are 2 years old, and hence must **include services and interventions targeting people during their pregnancy or those who are trying to conceive**.



We recommend that this action should specifically include **improving: parents' and carers' health literacy in relation to asthma, awareness of factors affecting asthma development and triggering asthma symptoms, and skills in relation to managing asthma and administering asthma first aid.** Respondents to the Capital Health Network's Needs Assessment Survey 2021-2024 found that asthma education is a service gap in the ACT.²⁶ Asthma is a complex condition and its management and the many medicines that support its control mean that families require significant education and support to ensure medication adherence, correct inhaler technique, appropriate risk reduction, understanding of asthma triggers and management of asthma alongside other conditions.²⁷

The knowledge and skillset of the maternal and child health workforce and primary health workforce are integral to improving the knowledge and skills of parents and carers of children with asthma. However, there is evidence of health professional non-adherence to the Australian Asthma Guidelines in relation to asthma.²⁸ For example, written Asthma Action Plans (AAPs) are one of the most effective interventions for achieving good asthma control, yet too few people with asthma have them.²⁹ **Nationally, 53.7% of children with asthma aged 0-14 years old have a written AAP, while 44% of the 17,000 children hospitalised for asthma in 2017/8 did not have a written AAP.**^{30,31} Australian data also shows that less than 20% of patients are being dispensed enough of inhaled corticosteroids alone or via combination preventer inhalers to be taking their treatment in accordance with guidelines.³² This means a significant proportion of children and adults with asthma are not getting therapeutic benefit from their medicine and instead risk symptom escalation and/or may inappropriately rely on reliever medicine, the use of oral corticosteroids and/or emergency healthcare services to manage their asthma all to the detriment of their quality of life.³³

As part of this action, ACT Health should deliver education, training and support for healthcare professionals to ensure that they are providing parents and carers with consistent, best practice asthma care and information in the community. Education, training and support should include:³⁴

- Detecting and diagnosing asthma and other acute and chronic respiratory conditions in a timely and appropriate manner,
- Identifying triggers for the child at home, at school and in the community,
- Supporting child and carer self-management practices,
- Managing asthma alongside comorbid conditions,
- Enhancing asthma health literacy and evidence-based shared decision making,
- Appropriate prescribing of preventer medicine,
- Delivering asthma action plans combined with patient education in self-monitoring, review of medicines and assessment of severity,
- Annually reviewing asthma patients, and
- Developing management strategies in school and childcare services.



ASTHMA AUSTRALIA EDUCATION FOR HEALTHCARE PROFESSIONALS

Asthma Australia has partnered with Reed Medical Education to **create a free accredited learning module (ALM) for GPs and other health professionals on asthma management** available via Think GP.³⁵ Based on the Australian Asthma Guidelines, the ALM is divided into six modules covering asthma basics, partnering with patients, adjusting treatment and encouraging adherence, preventative care to stop asthma flares, **paediatric asthma** and severe asthma. Real world tips, patient case studies and downloadable resources are included throughout the ALM, as well as information on ways to tailor treatment for Aboriginal and Torres Strait Islander people and for culturally and linguistically diverse populations. To date, over 8,000 healthcare professionals across Australia have enrolled in these modules and their feedback demonstrates high satisfaction with content, increased knowledge, confidence and planned behaviour change.

Recommendation

Recommendation 1: That this objective includes an action to improve parents' and carers' health literacy in relation to asthma, awareness of factors affecting its development and triggering its symptoms, and skills in relation to managing asthma and administering asthma first aid.

Recommendation 2: That this objective includes an action to deliver education, training and support for healthcare professionals to ensure that they are providing parents and carers with consistent, best practice asthma care and information in the community.

Recommendation 3. That this objective includes an action to promote Asthma Australia's free accredited learning module on asthma management to all healthcare professionals supporting families in the first 1,000 days of a child's life.

PRIORITY AREA 2: ENABLING ACTIVE LIVING

Keeping active is important for people with asthma as it supports overall health and quality of life. Regular physical activity is recommended as part of asthma management by the Australian asthma guidelines.³⁶ People with asthma who experience exercise-induced bronchoconstriction are also advised to exercise as it can be managed effectively using inhaled medication. Therefore, we strongly support the Plan's actions to enable active living through increasing participation in sport and active recreation. However, an important part to being able to remain active is having a healthy environment in which to be active.

Air pollution can detrimentally affect both outdoor and indoor environments and significantly reduce people's ability to engage with physical activity, particularly people with asthma and other respiratory conditions. As noted in the Office of the Commissioner for Sustainability and the Environment 2023 report investigating wood heater policy in the ACT (the Report, discussed in more detail below in the section about wood heaters), all levels of air pollution are associated with adverse health effects and can contribute to the development and worsening of many common chronic diseases.³⁷ **In the ACT, two important drivers of air pollution need to be considered and targeted by the Plan to enable and sustain active living: climate change and wood heaters.**



CLIMATE CHANGE AND AIR POLLUTION

Many effects of climate change involve unhealthy air, including prolonged bushfire smoke, thunderstorm asthma events, increased ground level ozone and airborne infectious diseases. During the 2019/20 bushfire season, for example, such was the scale of air pollution that the air quality in Canberra's hospitals – including the neonatal intensive care unit, the emergency ward and the respiratory and sleep disorders, were found to be unhealthy for everyone.³⁸ A patient with asthma was reportedly advised to go home due to the poor indoor air quality in the hospital.³⁹

In addition to extreme weather events, global warming is causing pollen seasons to start earlier and to last longer while increased levels of carbon dioxide in the air stimulate plants to increase the production and release of pollen.⁴⁰ Canberrans have the highest rates of allergic rhinitis (hay fever) in Australia, affecting almost 1 in 3 residents.^{41,42} Hay fever is an allergic reaction to allergens, like pollen, breathed in through the nose. This causes an immune response in the lining of the nose where the nasal passages become red, swollen and sensitive. Some people may experience hay fever at certain times of the year, for example spring or summer, and other people experience these symptoms all year round. Hay fever is closely linked to asthma: it is the most common type of allergy that overlaps with asthma and at least 75% of people with asthma also have it.⁴³ While hay fever has a myriad of symptoms, which can be severe and disrupt quality of life, uncontrolled hay fever can trigger asthma symptoms and reduce asthma control.

As climate change progresses, it will limit the physical activity levels of all Canberrans. To this end, action needs to be taken **to address both outdoor air quality through better monitoring** and advising people when to stay home or inside, and when it is safe to be outside, and indoor air quality through **developing indoor air quality standards and reducing indoor asthma triggers** (see more in relation to indoor asthma triggers in our response to Priority Area 5).

WOOD HEATERS AND AIR POLLUTION

During Canberra's winter months, smoke from household wood heaters is a significant source of Canberra's air pollution.⁴⁴ Wood heater use is higher in cooler jurisdictions, with 15% of people in the ACT reportedly using a wood heater according to Asthma Australia's 2022 Homes, Health and Asthma survey (a representative survey of 5,041 people in Australia) compared to 13% nationally.⁴⁵ **The Office of the Commissioner for Sustainability and the Environment 2023 Report on wood heater policy in the ACT states that wood heaters have the greatest impact on the ACT's air quality.**⁴⁶

Wood heaters are not an efficient or clean form of heating with the smoke they produce containing harmful pollutants including fine particulate matter (PM_{2.5}) and known carcinogens. There is no 'safe' level of air pollution and health impacts can occur even at low levels of pollution, well below air pollution standards.⁴⁷ Wood heater smoke is a serious risk factor for asthma, both in terms of developing asthma and triggering symptoms in people who already have asthma.⁴⁸ It is also a risk factor for other respiratory illnesses, cancer, cardiovascular disease, dementia, stroke, premature birth, complex developmental conditions such as autism and attention deficit in children, and premature death.⁴⁹ These health impacts result in substantial economic costs, which have been estimated annually in excess of \$3,800 per wood heater.⁵⁰

Air pollution complaints to the ACT's Environment Protection Agency predominantly involved smoke (wood heaters and controlled burns) in 2017-2019, accounting for 403 air pollution complaints (55



per cent of the total).⁵¹ In 2020, Asthma Australia commissioned a representative survey of 25,039 people, which found that people exposed to wood heater smoke are largely unable to protect themselves against its impacts.⁵² Further, the survey found the majority of people support regulation to reduce the impact of wood heaters, with stronger support among people with asthma.

Despite acknowledgement of the scale of health impacts caused by wood heaters in the ACT in policy documents such as the ACT Bushfire Smoke and Air Quality Strategy 2021–25,⁵³ there has been no commensurate action taken by the ACT Government. The 2001 Tasmanian wood heater buyback scheme and supporting strategies to reduce the prevalence of wood heaters and their emissions in Launceston proved effective. It reduced the prevalence of wood heaters from two-thirds of households to less than a third in 2004, significantly decreased the annual coarse particulate matter (PM₁₀) pollution and decreased winter air pollution levels, the latter resulting in associated reductions in cardiovascular and respiratory mortality for males.⁵⁴ However, as noted in the Office of the Commissioner for Sustainability and the Environment 2023 Report, the ACT's Wood Heater Replacement Program has not been effective and needs reform, with only 36 heaters removed from Canberra homes in 2020-21 and only 179 in total since 2015-2016.⁵⁵ It is not known how many more wood heaters have been newly installed during that period.⁵⁶

Given the significant contribution of wood heaters to air pollution in the ACT and the known effect of reducing wood heaters on cutting harmful emissions,⁵⁷ **all recommendations of the Office of the Commissioner for Sustainability and the Environment 2023 Report should be implemented under the Plan, including phasing out wood heaters in residential areas.** Implementing these recommendations are an **integral part to keeping Canberrans active** and would also help enact the right to a healthy environment, which is to be progressed in legislation this year as an addition to the ACT's Human Rights Act 2004.

MONITORING AIR QUALITY

The UN has deemed air pollution as 'the most important environmental health risk of our time', with it being responsible for 1 in 9 deaths globally.⁵⁸ For people with asthma, air pollution is a notable concern since certain air pollutants can trigger asthma symptoms and exacerbations and increase the risk of developing asthma. This means people with asthma are more frequently confined to their homes during extreme weather events to avoid exposure to triggers (even though their home environment may not be healthy as evidenced in our 2022 survey: [Homes, Health and Asthma in Australia](#)).

The 2021 State of the Environment Report found that **better information could reduce the impact of poor air quality**,⁵⁹ concluding that:

- Harmful pollutants are only assessed by Australian jurisdictions at 211 fixed air quality monitoring stations across Australia, leaving sensitive populations living in other areas with an **absence of information and unable to protect their health**. The report notes that new networks of low-cost sensors are helping to fill in gaps between monitoring stations.
- Communities need **real-time, local air quality information during periods of poor air quality**.

The Office of the Commissioner for Sustainability and the Environment 2023 Report on wood heater policy in the ACT noted that the territory's air quality monitoring network has only two National Environment Protection (Ambient Air Quality) Measure (AAQ NEPM) compliant monitoring stations at Monash and Florey.⁶⁰ This means that levels of air pollutants cannot be identified for many areas



of the ACT and that it is impossible to say whether or not some locations in the ACT experience levels of air pollution that exceed national standards.⁶¹ The 2019 ACT State of the Environment Report recommended that the ACT Government increase the number of AAQ NEPM compliance monitoring stations (Recommendation 21).⁶² However, whilst noting the benefits of additional monitoring capacity, the ACT Government has yet to act.⁶³

We recommend adding a specific action to support the success of Priority Area 2 to improve air quality monitoring so that Canberrans can be aware of and adapt to incidences of poor air quality in all aspects of their life, including keeping active. This will require initially improving ACT's air quality monitoring by both increasing the number of air quality monitoring stations and incorporating low-cost air quality sensors.

NATIONAL INDOOR AIR QUALITY STANDARDS

There are currently no standards for indoor air quality, which is of concern for people who need to seek refuge inside their homes, schools or workplaces during extreme weather climate change events. It is also a concern for patients and staff in health services during these events, and for those hoping to remain active and social inside at local clubs, gyms, and other public buildings. We note that the Bushfire Smoke and Air Quality Strategy 2021-2025 has an action of identifying and supporting smoke refuges, including by supporting clubs to become heat and smoke refuges for local communities. However, while efforts to ensure appropriate air filtration systems are installed in clubs is a positive step, the presence of alcohol and pokies renders clubs an inappropriate environment for families. In addition, people cannot shelter in clubs for long periods of time and hence their homes need to be safe places (see more on the issue of healthy homes in our response to Priority Area 5).

Having indoor air standards can help assess whether buildings are appropriately adapted to filter and keep out air pollution to provide healthy indoor environments. As well as supporting people with asthma and other respiratory diseases to remain active, this will also help the many Canberrans who have allergic rhinitis to remain active during peak pollen season.¹ **Asthma Australia recommends that ACT Health works towards the development, implementation and monitoring of indoor air quality standards that cover the air quality of public and community buildings, work and education environments and homes to enable people to remain active during episodes of poor outdoor air quality.**

Recommendations

Recommendation 4: That this priority area includes actions to phase out wood heaters in the ACT's residential areas by:

- Prohibiting the installation of wood heaters in homes in residential areas,
- Requiring wood heaters to be removed on sale of homes in residential areas,
- Redesigning the ACT's Wood Heater Replacement Program so that it effectively reduces wood heater prevalence by supporting people, particularly low-income households, to cover the costs of replacing wood heaters with efficient, electric heating, and

¹ The ACT has the highest rate of hay fever in the country.



- Educating households about the health impacts of using wood heaters.

Recommendation 5: That this priority area encompasses measures to improve the ACT's air quality monitoring capabilities.

Recommendation 6: That ACT Health works across departments and Australian jurisdictions in the development, implementation and monitoring of indoor air standards for all public and community buildings, work and education environments, and homes.

PRIORITY AREA 3: INCREASING HEALTHY EATING

Asthma Australia supports the actions under Priority Area 3. People with asthma are advised to eat healthily as part of their asthma management. Alongside many other chronic conditions, living with obesity is significantly associated with the development of asthma, worsening asthma symptoms and poor asthma control.⁶⁴

PRIORITY AREA 4: REDUCING RISKY BEHAVIOURS

Asthma Australia welcomes the actions under this priority area. We particularly welcome the actions on smoking, including the action to reduce rates of smoking among higher risk population groups, which should include pregnant women. People living in the lowest socioeconomic areas have the highest prevalence of asthma at 13% compared to 10% for those living in the highest socioeconomic area.⁶⁵ For First Australians, the prevalence of asthma is around 1.6 times as high as the prevalence for non-Indigenous Australians.⁶⁶ In the ACT, asthma is one of the most common self-reported chronic health problems among Indigenous populations,⁶⁷ and the 2021–24 ACT PHN Needs Assessment notes that: '[t]he gaps between Indigenous and non-Indigenous populations in the ACT in terms of asthma, mental and behavioural conditions were most significant.'⁶⁸

We also strongly welcome the actions relating to reducing e-cigarette use amongst children and young people, and to reduce the availability of e-cigarettes through legislative approaches. The increasing use of e-cigarettes has created a new public health crisis and current public health and tobacco control measures are failing to protect children and non-smokers from being exposed to toxic chemicals. The use of e-cigarettes is known to have short term, detrimental health impacts; including addiction; intentional and unintentional poisoning; acute nicotine toxicity, including seizures; burns and injuries; **respiratory and cardiovascular diseases, lung injury; indoor air pollution;** environmental waste and fires; dual use with cigarette smoking; and **increased smoking uptake in non-smokers.**⁶⁹

As noted in our joint submission to the Queensland Health and Environment Inquiry into Vaping,⁷⁰ young people are becoming the next generation to become dependent on nicotine, with most vaping products widely available containing various amounts of this addictive substance. Many young people who vape do not know they are vaping nicotine and are unaware they are becoming addicted. Such is the scale of illicit vaping amongst children and young people that schools are



struggling to cope and have issued repeated calls for more support. Vaping use is persistent amongst students and becoming a detrimental social norm amongst younger generations. This is despite best efforts from schools to discourage vaping, using methods like installing vape detectors and locking bathrooms, to suspending those who repeatedly vape. Schools and school staff are not equipped to address this issue alone, and all levels of government must work together to safeguard our children and young people while there is still time to reverse this worsening public health crisis.

We welcome the recent review undertaken by the Therapeutic Goods Association (TGA) regarding nicotine vaping products and the announcements by the Federal Government to address the use of illicit vaping through banning the importation of all vapes and making them only available at pharmacies. However, these measures will not solve the high prevalence of vaping occurring in the community alone without further legislative action taken by state and territory governments to support and enforce these changes. To this end, **we urge the ACT Government to make it an offence to supply e-cigarette products (regardless of whether they contain nicotine) outside of the existing TGA prescription medical access model.** This ban on retail sale should be accompanied by robust monitoring and enforcement in combination with ongoing community education and support for those wanting to quit smoking e-cigarettes.

Recommendation

Recommendation 7: That the action to review ACT legislation to ensure current arrangements are contributing to minimising the harm caused by e-cigarettes includes making it an offence to supply nicotine and non-nicotine e-cigarette products, accompanied by a model of robust monitoring and enforcement.

PRIORITY AREA 5: PROMOTING HEALTHY AGEING

DELIVER HEALTHY HOMES FOR ALL AGES

Asthma Australia strongly welcome the Plan's action to 'deliver healthy homes for all ages by developing and implementing programs to improve the thermal comfort of homes and reduce energy hardship for low income or otherwise vulnerable households, including support for people with specific chronic conditions'. **We also are pleased to see a reduction of the instances of asthma and other respiratory illnesses caused by cold, damp, mould and gas appliances noted as short-term outcomes for achieving this action.** We would be keen to understand how ACT Health will measure these outcomes, and what data is available to support this measure and whether it can be shared with Asthma Australia.

Housing is a key social determinant of health, and particularly important for asthma as housing conditions can influence an individual's asthma control and risk of developing asthma. With climate change increasing the presence of asthma triggers and occurrence of extreme weather events, the health of our homes is becoming more important. Canberrans will increasingly seek refuge in their homes from climate-driven events, yet conditions within homes can quickly become unhealthy from



bushfire smoke entering poorly sealed homes, extreme heat, or mould. These impacts are exacerbated by the absence of good housing design, construction and maintenance.

There are many features of a home that can influence health and wellbeing, including physical structures and their ability to provide shelter, security, privacy and space, access to fuel and electricity and protection from pollutants, hazards, mould, and pests. We know that poorly designed and maintained homes can present significant health risks as they can:

- **Harbour indoor triggers** - substances to which people with asthma and allergies are sensitive - such as mould, dust mites and pest infestations. For instance, pests are sources of allergens and can cause allergic reactions and trigger asthma while no amount of mould is considered safe for human health and exposure to it can lead to asthma flare-ups and other health issues.
- Be **poorly sealed** against outside pollutants such as smoke, dust and pollen; all common triggers for asthma flare-ups and potential contributors to its development.
- Be **inadequately ventilated** to remove accumulated air pollutants and harmful substances.
- Be fuelled by **harmful energy sources** such as gas cooktops and gas and woodfire heaters, which emit pollutants such as nitrogen dioxide and fine particulate matter that can trigger and cause asthma symptoms. Cooking with gas is estimated to be responsible for up to 12% of the childhood asthma burden in Australia.⁷¹

HOMES, HEALTH AND ASTHMA RESEARCH

In 2022, Asthma Australia undertook a nationally representative survey of 5,041 people to understand how healthy Australian homes are for people with asthma or allergies, and those at risk of developing asthma.⁷² In particular, we sought to uncover how common the following triggers are in Australian homes: mould, emissions from cooking, heating and pests, and to understand what actions people take, and whether they face any barriers, to reduce these triggers in their homes. We set out some of key research findings below (you can access the full report: [Homes, Health and Asthma in Australia](#)).

EXPOSURE TO TRIGGERS

Homes are not healthy places for all Australians, particularly people with asthma or allergies. Among respondents with asthma and allergies, **three in ten reported that their symptoms are worse after spending time in the home**. In addition, many people are exposed to asthma triggers in their home:

- **70% of respondents had pests** including spiders, ants, cockroaches, dust mites and mice in their home in the last 12 months.
- **50% of respondents had mould or dampness** in their home in the last 12 months.
- **48% of respondents use a gas cooktop and 7% of respondents use unflued gas heating**. Unflued gas heaters are particularly dangerous as pollutants remain inside the home rather than being vented outside.
- **13% of respondents use wood heaters**.

The following population groups who are **more vulnerable to the effects of triggers** and/or have greater likelihood of having asthma or developing it, were also more likely to report **greater exposure to triggers** in their homes than other respondents:



- **People with asthma and allergies** were 1.4 times more likely to report mould and dampness, 1.5 times more likely to report pests and 1.2 times more likely to report having unflued gas heating.
- **People with children** in their home were 1.7 times more likely to report dampness, 1.6 times more likely to report mould, 1.4 times more likely to report having pests and using gas cooktops. Asthma is the leading cause of burden of disease for people aged 5–14 years and children aged 0-14 years are much more likely than adults to be hospitalised for asthma, constituting 43% of the 25,000 hospitalisations for a primary diagnosis of asthma in Australia in 2020-21.³
- **People living in social housing** were 2 times more likely to report mould and dampness and 1.7 times more likely to report having pests in their home. The prevalence of asthma is 13% for people living in the lowest socioeconomic area compared with 10% for those living in the highest socioeconomic area.⁴ People from the lowest socioeconomic group have around 6 times the rate of fatal burden for asthma in Australia than people from the highest group.⁵
- **Aboriginal and Torres Strait Islander people** were 6.5 times more likely to report dampness, 2.3 times more likely to report mould, 2 times more likely to report pests and 1.5 times more likely to report unflued gas heating. The prevalence of asthma among Indigenous Australians was 1.6 times as high as non-Indigenous Australians in 2019.⁶

BARRIERS TO REDUCING TRIGGERS

Many of the research respondents reported the following barriers to reducing triggers within the home:

- **Lack of autonomy over property**

Half of respondents who **rent or live in social housing** reported they were unable to make changes to protect themselves from cooking emissions or take action against mould and pests **because they do not own their home**. People described frustration with their landlord's/provider's lack of action, and concern about requesting action in case they increased rent or evicted them in today's highly competitive housing market. Some of their comments include:

I live in a rental house during a rental crisis so I do not want to do anything that will make the real estate want to remove me from the property.

I rent, and the property manager takes ages to get back to me. There is currently mould in all rooms as since rainy days have come, I've noticed all the windows leak. They have not replied to my email. It took them six months to address the fact I had no hot water so I'm not holding my breath.

I would like things done but [am] afraid the owner will put up the rent. The extraction fan in the bathroom has never worked and I have been here over 3 years. The owner knows about it.

Door frames and window frames in my property leak air, and this allows entry to insect pests, and there are holes in the floor which allows entry to mice and insects. I cannot afford to have these fixed and the manager of my property (government housing) refuses to fix them.

I am in a government property. I am not allowed to install things into the property and have to get approval. My requests have been declined because it is seen as not required/unnecessary, and I'm told I just have to clean more.

In addition, 13% of people living in social housing and 9% of renters said they were not happy with the air quality inside their home, compared to 4% of homeowners. Similarly, 16% of people living in



social housing and 17% of renters said they are not confident to make changes to improve the air quality inside their home, compared to 9% of homeowners.

- **Cost**

One quarter of respondents said it is too expensive to purchase or use equipment, like air purifiers, to help reduce triggers while cooking or to tackle mould and pests. Air purifiers with HEPA (high-efficiency particulate absorbing) filters can be highly effective in reducing indoor air pollution.⁷³ Additionally, among respondents who did not have their preferred heating or cooktop type, 47% said cost was a barrier to changing to their preferred type. This is despite the fact that gas and wood heating and gas cooktops are more expensive to run than electric appliances.

- **Lack of concern or knowledge**

38% of people stated that they were not concerned about taking action to address at least one of the triggers and 18% reported that they do not know what to do to protect themselves against at least one of the triggers. Lack of knowledge/concern highlights the need for a **public health approach to healthy housing**, including improved regulations for design, construction and maintenance and education about healthy homes to ensure everyone is protected from health risks within the home.

Certain population groups, who were also more likely to report having triggers in the home, were more likely to report barriers to taking action to reduce triggers. Again, they included people more vulnerable to the effects of triggers including people renting, living in social housing and from lower income households, Aboriginal and Torres Strait Islander people and people with asthma and allergies.

As the Plan acknowledges, Australian homes should be safe, healthy places, free from harmful substances or equipped to appropriately eliminate them but as evidenced in our research, too often homes are not healthy environments. Below, we provide our recommendations for the further development of the Plan's action on housing. Many of these actions will also future-proof homes against climate change and its compounding, detrimental effect on home health.

Recommendation

Recommendation 8: That this action includes the enhancement of design and construction standards to ensure *all* new homes are 'healthy homes' and resilient to the challenges of climate change. Improved standards should include:

- The electrification of all energy sources for cooking, cooling and heating, and
- Increased thermal efficiency, ventilation and air tightness to enable homes to respond to indoor and outdoor triggers and increase comfort in the home.

Recommendation 9: That this action includes the development of incentives for landlords to improve the health of private rental homes without disadvantaging current or future tenants. Incentives should help landlords to electrify their properties, address damp and mould issues, increase thermal efficiency and improve ventilation and air tightness.



Recommendation 10: That this action includes sustainable improvements to the health of the existing social housing stock. Improvements should include electrifying properties, addressing damp and mould issues, increase thermal efficiency and improving ventilation and air tightness.

Recommendation 11: That this action includes support for low-income households to improve home health by providing financial support to:

- Switch from gas and wood heating and gas cooking appliances to efficient, electric home heating, cooling and cooking, such as reverse cycle air conditioning and induction cooktops.
- Increase thermal efficiency, ventilation and air tightness to improve indoor air quality.
- Buy HEPA air purifiers to improve indoor air quality.

Recommendation 12: That this action include support for all households to switch from gas to electricity as soon as possible by:

- Prohibiting the installation of gas appliances in homes,
- Abolishing gas disconnection fees,
- Committing to no new gas connections by 2025, and
- Educating households about the health impacts of using gas in the home.



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