



Asthma Australia New South Wales Pre-Budget Submission 2025-26

October 2024

Budget Proposals

The Asthma Australia submission focuses on the following funding proposals for consideration in the 2025-26 New South Wales (NSW) State Budget:

Proposal	Investment
1. Contribute funding to a national AirSmart public education campaign to reduce the health impacts of air pollution	The NSW Government contribute: Option 1: \$3,436,880 (metro and regional) and option 2: \$1,638,480 (regional NSW exclusively) for one year to fund the NSW component of Asthma Australia’s national AirSmart public education campaign to reduce the impacts of poor air quality.
2. Increasing access to local air quality information.	Fund a low-cost air quality sensor pilot program as the first step towards ensuring NSW communities have access to air quality information. Costs to be determined in consultation with agencies responsible for air quality monitoring.
3. Supporting the healthcare professional workforce in NSW	The NSW Government fund Asthma Australia \$610,000 over three years to design, develop and distribute education content and resources and enhance engagement with the NSW healthcare professional workforce.
4. Support holistic approaches to improving the conditions of new and existing housing. Policies and programs should consider the housing features needed to reduce asthma risk and support broader health and well-being	Provide financial support for low-income households to replace inefficient methods of household heating and cooking to address indoor and outdoor air quality. Investing in HEPA air purifiers for people on low incomes with asthma or other conditions. The average cost of an air purifier with a HEPA filter is \$500. As an estimate, annual funding of \$50,000 would provide approximately 100 air purifiers per year.

About Asthma Australia

Asthma is a respiratory condition that affects 2.8 million people in Australia¹, with children being the most impacted. Asthma is responsible for at least one Australian death every day, making it a serious health concern. 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.

Asthma in New South Wales

Impact on the health system and the community

Asthma is a chronic respiratory condition affecting 10.6% of the population in NSW, or more than 829,000 people.² Asthma prevalence is higher in regional NSW (12.4%) compared with the Greater Sydney Region (9.2%).³

Asthma places a significant burden on the NSW hospital system. There were 13,729 hospital admissions for asthma in NSW in 2016–17.⁴ An uncomplicated hospital admission costs approximately \$2,591 (approximately 1.5 hospital days) and a complicated admission costs \$5,393 (approximately three hospital days).⁵

In 2018-19 there were 22,971 asthma-like illness presentations to 84 emergency departments in NSW.⁶ Each Emergency Department presentation for asthma costs \$443 on average,⁷ and repeated asthma-related presentation to Emergency Department increased the risk of hospitalisation.⁸ For 2021-22 there were 77,150 emergency department presentations for asthma recorded across Australia, of which 40% were admitted to hospital and less than 1% were triaged as non-urgent.⁹

Asthma prevalence in Australia is increasing. In 2023, asthma was the 8th leading contributor to the overall burden of disease in Australia, having risen from 9th place in 2018 and 10th place in 2011. Asthma is the leading cause of total burden of disease in children aged 1–9 years.¹⁰ Asthma can both be caused and exacerbated by conditions related to the warming climate, which means asthma outcomes will worsen as climate change impacts increase.

NSW Budget Priority Areas

Work is required in asthma prevention to reduce morbidity and mortality, support improved quality of life and reduce demand on the health care system. This has become even more important with the impacts of climate change that are increasing the risks for people living with asthma and placing others at even greater risk of developing asthma. This is particularly important for children and young people who experience a high burden of asthma.

The importance of respiratory health has been highlighted through various issues across NSW including the COVID-19 pandemic, the 2019–20 bushfire smoke crisis and 2021 floods. Addressing air pollution is a strategic priority for Asthma Australia, as even low levels of air pollution are associated with asthma exacerbations and hospitalisations. People should be empowered and provided with information to make informed choices about their health when it comes to air quality. This is so they engage in their daily

activities understanding and knowing what the air quality conditions are, no matter where in Australia they live. Asthma Australia's AirSmart public education campaign and proposal on air quality monitoring focus on empowering the community to access information about air quality to understand how it impacts their health, while also recognising we must improve the availability of air quality information.

As climate change progresses and extreme weather events increasingly drive people to seek refuge in their homes, housing conditions and the absence or removal of internal health triggers become ever more important. With the harms of gas energy becoming increasingly well known, it is important that people are guided away from replacing gas heaters with wood heaters, which risks increasing pollution and damaging health. Homes utilising efficient and cleaner forms of energy can help improve both indoor and outdoor air quality and contribute to climate change mitigation. Electrification provides higher energy efficiency and reduced consumer costs than either gas or wood.¹¹

Ensuring we are addressing asthma risk factors and giving people the tools to make lasting changes to live healthy lives is vital. It is particularly important to ensure people with asthma on low incomes receive the support they need to live in healthy home environments. Australia supports holistic approaches to improving the conditions of new and existing housing. Policies and programs should consider the housing features needed to reduce asthma risk and support broader health and wellbeing, be climate-resilient, and energy-efficient.

Asthma Australia's priority areas for the 2025-26 NSW Budget will support people living with asthma, their carers and health professionals. Addressing these priority areas will contribute to the systemic changes needed to ensure people with asthma can live healthy lives. The 2025-26 Budget proposals we have identified work to deliver savings for the health system, by addressing ways in which we can improve asthma management and the environment in which people live. This means people living with asthma in NSW can avoid unnecessary hospital visits, stay healthy and lead active and productive lives.

Asthma Australia acknowledges the ongoing funding support from the NSW Government for Asthma Australia. Asthma Australia has a proven track record of delivering services in the community and we look forward to being an ongoing part of health service delivery for people with asthma in NSW.

Proposal 1: Contribute funding to a national AirSmart public education campaign to reduce the health impacts of air pollution

Asthma Australia would like to acknowledge the NSW Government for providing funding for the pilot of AirSmart, and in recognising the importance of this initiative.

There is a gap in Australian public health messaging around the impacts of air pollution which disproportionately affect the health and wellbeing of people with asthma. Asthma Australia has taken the lead on developing and piloting a public education campaign and air quality app called 'AirSmart'.

AirSmart fills the need for community education and guidance around air quality which was revealed by the 2019–2020 bushfire smoke crisis. This need was recognised by the Royal Commission into National Natural Disaster Arrangements and the Final Report of the NSW Bushfire Inquiry following the 2019–20 bushfires. The need for access to air quality information and guidance will only increase as climate change continues to increase the frequency and severity of events causing poor air quality.

AirSmart was developed with the guidance of a panel of environmental and public health experts, including from the University of Sydney and the NSW Department of Planning and Environment. AirSmart was piloted in communities across southern NSW, ACT, and regional Victoria over a six-week period in July and August 2022. The pilot was evaluated and showed strong indications that Australians want access to local, responsive air quality information and tools. Engagement in the campaign, as shown by over 16,000 app downloads and 23,000 website views in just six weeks, suggests that air quality is an important issue for many Australians.

AirSmart includes an air quality public health campaign which raises awareness about air quality and promotes the AirSmart app as a source of air quality information:

- **The public health campaign** aims to raise community awareness about poor air quality, and how to interpret health advice, so people can protect themselves against exposure to air pollution and the associated health impacts. This evidence-based educational initiative is an Australian-first, using a mix of traditional and digital media channels to reach the full community. The creative process behind the AirSmart campaign included consumer research and was guided by environmental, public health and social marketing experts. The campaign includes 15 and 30 second television commercials, a radio commercial, social and digital assets, a website, billboards, and an app.
- **The AirSmart app** is a consumer tool for accessing local, real-time air quality information and related health advice. Asthma Australia used human-centred design principles to design the AirSmart app. The AirSmart app provides consumers with localised 'real-time' air quality, and strategies to avoid or minimise poor air quality exposure. The app also provides personalised notifications and health advice at specific air quality levels to provide consumers with specific daily advice about the most effective protection.

Asthma Australia is providing two proposed options for funding. Option 1 is to roll-out across all of NSW including a 10-week advertising campaign in November and December, peak bushfire season; and option 2 is to roll-out in regional NSW exclusively in bushfire prone areas also including a 10-week advertising campaign in November and December.

INVESTMENT REQUESTED: The NSW Government contribute: Option 1 \$3,436,880 (Metro and regional) and option 2 \$1,638,480 (regional NSW exclusively) for one year to fund the New South Wales component of Asthma Australia's national AirSmart public education campaign to reduce the impacts of poor air quality.

Table 1: NSW Government requested contribution to AirSmart – Metro and regional NSW

Item	Cost
10-week media campaign commencing Nov/Dec	\$3,300,000
Project management	\$63,100
App maintenance and updates	\$43,780
Evaluation	\$30,000
TOTAL	\$3,436,880

Cost for year 2 - \$3,608,700

Table 2: NSW Government requested contribution to AirSmart – Focused on regional NSW

Item	Cost
10-week media campaign commencing Nov/Dec	\$1,518,000
Project management	\$56,700
App maintenance and updates	\$43,780
Evaluation	\$20,000
TOTAL	\$1,638,480

Cost for year 2 - \$1,720,400

Proposal 2: Increasing access to local air quality information

A key finding from the Federal Government's 2021 State of the Environment report was that better information could reduce the impact of poor air quality.¹² The report recognised that communities need real-time, local air quality information during periods of poor air quality.

However, many communities around Australia do not have access to local air quality information because there are not enough air quality monitoring stations. Regional and rural populations commonly lack local air quality monitoring facilities, which can be particularly problematic during bushfires if people in these communities are disproportionately affected by smoke from nearby fires. However, even in metropolitan areas, air quality monitoring stations span many suburbs, meaning localised peaks of air pollution are neither detected nor reported on.

Air quality monitoring stations provide highly accurate information, however, they require suitable locations and can be expensive to establish and run. In contrast, low-cost air quality sensors provide air quality data at a good level of accuracy. Additionally, there is more flexibility in placement as the sensors can be affixed to premises such as schools or council buildings. Some sensors require a data connection while others have built in communications.

The need for access to air quality information and guidance will only increase as climate change continues to increase the frequency and severity of events causing poor air quality. With the declaration of an El Niño in September 2023 and the identified increase in risk for bushfires and longer bushfire seasons, the likelihood of conditions that will impact people's health, particularly from bush fire smoke is certain. Investing in measures give people access to reliable information, will not only assist but save lives.

Responsibility for air quality is shared by the federal and state and territory governments, with states and territories having prime responsibility for monitoring and managing air quality. All governments are required to help maintain and improve air quality and deliver on actions through the National Clean Air Agreement, which includes as one of four strategic approaches:

Better knowledge, education and awareness are essential requirements to inform policy decisions and to help empower communities and individuals to better deal with air pollution. Knowledge, improved through information sharing and research, is critical to plug existing data gaps, identify future trends and help focus efforts in managing air quality, and explore innovative measures to address air pollution. The Agreement's initial work plan also includes a two-year plan for reforms to improve the National Pollutant Inventory.¹³

The National Clean Air Agreement work plan for 2021-23 includes projects on nationally consistent public air quality information and health advice. This project has a framework agreed by jurisdictions and providing guidance on low-cost sensors measuring air pollution to the public led by NSW and SA.¹⁴

The NSW Government should fund a low-cost air quality sensor pilot program as an important step towards ensuring communities in NSW have access to air quality information. The proposed pilot program would enable agencies responsible for air quality monitoring and reporting to trial low-cost sensors. It would also increase understanding of how these sensors can be integrated into the existing monitoring networks and how information can be shared with the public. Investing in this type of technology, which is low cost but has a significant impact, is an investment that will deliver a return for the NSW Budget.

Investing in increasing access to local air quality information would act on the recommendations of the State of the Environment Report, as well as progressing the National Clean Air Agreement work plan. It is also consistent with the NSW Government's commitment to addressing air quality and its impacts outlined in the

NSW Clean Air Strategy: This information is critical to ensure that people vulnerable to the health impact of air pollution exposure are able to protect themselves and their families.

INVESTMENT REQUESTED: Fund a low-cost air quality sensor pilot program as the first step towards ensuring NSW communities have access to air quality information. Costs to be determined in consultation with agencies responsible for air quality monitoring.

Proposal 3: Supporting the Healthcare Professional Workforce in New South Wales

The funding received by Asthma Australia from the NSW Government has enabled Asthma Australia to deliver a diverse range of programs and activities to improve the health and wellbeing of people with asthma in NSW including telephone and digital education and support services, improving access to evidence-based information for healthcare professionals, and leading policy responses to current and emerging issues affecting people in NSW.

As the leading cause of disease burden in children and the 8th leading cause of disease burden in adults nationally, we need to continue to find new ways to support the 829,000 people with asthma in NSW.¹⁵

Asthma Australia has invested in understanding the impact of our work to demonstrate the value of our services. From a sample size of 1698 consumers using our services:

- 84% reported they had and adhered to their preventer medication, compared to 48% of the general population of adults with asthma.
- 72% reported they had seen their healthcare professional for a planned asthma review in the last 12 months compared to 60% of the general population of adults with asthma.
- 65% reported they had a flare up requiring medical intervention in the last 12 months compared to 53% of the general population of adults with asthma

Despite best practice guidelines recommending that all people with asthma have a written Asthma Action Plan, only around 34% of people with asthma do.¹⁶ People with asthma rate their health more poorly than the general population, yet when managed well, people with asthma can lead a full and active life. At least 80% of hospitalisations due to asthma are preventable.¹⁷ There is clearly much work to be done in supporting people with asthma to better manage their health.

Improved asthma management reduces preventable hospital admissions, reduces the cost burden to the health care system, reduces absenteeism and lost productivity, and improves quality of life enabling people to achieve their full potential as contributing citizens. We know health care professionals are key to improving the health outcomes of people with asthma through the provision of up-to-date evidence-based information and support.

Engage, enable and inspire the healthcare professional workforce

Asthma Australia's vision is that all people with asthma receive high-quality, personalised care that is tailored to their asthma profile, individual attributes, personal circumstances and community setting. Delivery of best-practice healthcare requires multiple components, and fundamental to this are the knowledge, skills and behaviours of the healthcare professionals. We recognise the complexity of the role of a healthcare professional within the time- and resource-challenged environment, and that simply pushing more information, guidelines, and demands is not an effective way to drive behaviour change.

Strategically, Asthma Australia has asked itself, "how might we support the delivery of best-practice, person-centred care for people with asthma?". Our response has informed the development of a strategy to transform asthma care through a multi-year, collaborative human-centred design approach. Leveraging our understanding of the needs of people with asthma and engaging with healthcare professionals to co-design with them meaningful solutions to enable best practice and inspire the behaviour change needed.

Asthma Australia is a content partner with ThinkGP, the online medical education platform of Reed Medical Education, and proudly sponsors free, evidence-based, up-to-date and accessible learning for healthcare professionals, the [Asthma in Australia series](#). Our content is reported to be amongst the most popular on the platform, as well as the most long-standing.

- Since launch in April 2020 there have been more than 12,000 enrolments in the different educational activities, with 27% of these from NSW.

- Participation includes General Practitioners (GPs) (~50%), GP Registrars, Medical Students, Nurse Practitioners, Practice Nurses, and Community Pharmacists as well as allied health professionals such as Exercise Physiologists.
- Enrolment has continued to grow steadily over time and completion rates remain well over 60%.
- Consistently over 90% of participants rate attainment of specific learning outcomes, and more than 75% commit to an intention to change practice as a result of the activity.
- The 2024 edition has been released with updated content, a fresh look and new accreditation, but NSW participation is trailing with only 16% of completions coming from NSW healthcare professionals.

The National Asthma Council of Australia leads the development of the Australian Asthma Handbook (AAH), consulting with a range of experts to provide guidance to prescribers on best-practice management strategies. An update is currently under consultation, and we understand that a new edition of the AAH will be published in early 2025. We have taken feedback from many prescribers that the AAH can be challenging to navigate in clinical practice, we hear from the lived experience of people with asthma that they are not provided advice which is consistent with the guidelines, and prescription data supports this. Asthma Australia’s role is not to generate guidelines, but it is our role to support the delivery of best-practice, person-centred care for people with asthma.

Asthma Australia is seeking support to comprehensively update the education and resources that we provide for free to healthcare professionals, in light of the anticipated changes to the AAH. This is to ensure we continue to provide healthcare professionals in NSW, including GPs, nurses and pharmacists, with current, evidence-based and relevant information to support the knowledge and skills required to care for people with asthma.

This program of work will include a major review of the course content on ThinkGP across all of the asthma modules, accompanied by some user-experience improvements and future-proofing for other changes. Cross-promotion of these updates will be held at the Sydney GPCE (General Practice Conference & Exhibition), providing GPs with independent clinical education) to focus especially on driving the uptake of the new content by NSW-based healthcare professionals.

The education update will be accompanied by an update to key resources available for healthcare professionals on our website, and the development and implementation of a communications plan. Activities might include a launch webinar, updates to resources such as the Asthma Action Plan, Asthma Consult Checklist, and Guide to the AAH, provision of these updates on our website and communication through both owned media channels (website, email newsletter and social media), and paid channels such as the medical media (e.g., Australian Doctor Group, Medical Republic). We will activate specific activities targeted at NSW healthcare professionals through Primary Health Network collaboration, geo-targeting of owned media communication and NSW-based conferences and events. This investment will mean we can engage 3,000 healthcare professionals in NSW about best-practice, person-centred asthma management over a period of three years.

INVESTMENT REQUESTED: The NSW Government fund Asthma Australia \$610,000 over three years to design, develop and distribute education content and resources and enhance engagement with the NSW health care professional workforce.

Table 3: Request for program funding

Program	Funding request
Supporting the Healthcare Professional workforce, per annum	\$203,330
TOTAL over three years	\$610,000

Proposal 4: Support holistic approaches to improving the conditions of new and existing housing. Policies and programs should consider the housing features needed to reduce asthma risk and support broader health and well-being

Housing is a key social determinant of health. More than 90% of our time is spent indoors, mostly inside homes.¹⁸ Homes should provide residents with safe and secure spaces that support their health and wellbeing by providing shelter, sufficient space, healthy indoor air quality, thermal comfort and affordable, efficient and healthy energy sources.

Certain housing conditions can increase the risk of developing asthma and, in people with the condition, trigger symptoms and exacerbations. For example, hot and cold temperatures can trigger asthma, while indoor airborne hazards such as gas cooktop emissions and mould can contribute to the development of asthma and trigger symptoms. Housing conditions associated with asthma can also cause other health problems. For example, cold homes contribute to increased sickness and death from cardiovascular illnesses in winter. This means a healthy home environment is not only important for asthma prevention and management, but also supports broader health and wellbeing.

The quality of housing is also increasing in importance as climate change causes hazards that require people to shelter in their homes. Currently, conditions within homes across the nation can too often become unhealthy from bushfire smoke entering leaky homes, extreme heat or mould caused by heavy rainfall and flooding. Policies to improve housing conditions should consider the needs of those people who are highly vulnerable to climate change impacts, including people with asthma.

A holistic approach to a healthy home Asthma Australia supports holistic approaches to improving the conditions of new and existing housing.¹⁹ Policies and programs should consider the housing features needed to reduce asthma risk and support broader health and wellbeing, including the following features:

1. Adequate and appropriate ventilation to disperse indoor and outdoor air pollution, prevent indoor airborne hazards such as mould, support thermal comfort, and reduce energy costs.
2. Sealing gaps to minimise infiltration of outdoor air pollution, support thermal comfort, and reduce energy costs, without compromising indoor air quality.
3. Appropriate insulation to support thermal comfort without compromising air quality and reduce energy costs.
4. Appropriate internal and external window shading to support thermal comfort and reduce energy costs.
5. Adequate and appropriate cooling and heating, such as fans and reverse cycle air conditioning, to support thermal comfort.
6. High efficiency particulate absorbing (HEPA) air filters to improve indoor air quality.
7. Electrification to reduce indoor air pollution and greenhouse gas emissions.
8. Access to renewable energy sources to reduce energy costs and greenhouse gas emissions.

These considerations should be integrated with established healthy housing principles and inform both standards for new homes and programs to retrofit existing homes. Undertaking improvements across the housing supply is likely to support a range of health outcomes associated with housing conditions, in addition to asthma. These considerations are particularly important in climate change housing adaptation, which must ensure homes provide a healthy living environment and avoid adverse consequences. Housing

adaptation must also be locally responsive, responding to relevant climate change risks and prioritising the needs of local communities.

Two defined actions towards addressing healthy homes are:

- Introducing financial support for low-income households to replace inefficient and polluting methods of household heating and cooking with efficient, electric alternatives would address health impacts associated with poor indoor and outdoor air quality, assist low-income households to address cost of living pressures and reduce greenhouse gas emissions. This is particularly important for people who are unable to make these changes due to cost or not owning their home. Action should also be taken to encourage owners of rental properties to make these replacements.
- Investing in HEPA air purifiers for people on low incomes with asthma, or other conditions that make them vulnerable to air pollution exposure, would increase access to an effective measure to improve indoor air quality and ensure homes provide a safe environment when outdoor air quality is reduced, for example, during bushfires.

INVESTMENT REQUESTED:

- **Provide financial support for low-income households to replace inefficient methods of household heating and cooking to address indoor and outdoor air quality.**
- **Investing in HEPA air purifiers for people on low incomes with asthma or other conditions. The average cost of an air purifier with a HEPA filter is \$500. As an estimate, annual funding of \$50,000 would provide approximately 100 air purifiers per year.**

¹ Australian Bureau of Statistics (2023) National Health Survey: Information on health behaviours, conditions prevalence, and risk factors in Australia, Reference period 2022, [National Health Survey, 2022 | Australian Bureau of Statistics \(abs.gov.au\)](https://www.abs.gov.au/national-health-survey-2022) (Accessed 4 January 2024)

² ABS, 2018. *National Health Survey: First Results 2017-18*, ABS Cat no. 4364.0.55.001.

³ Public Health Information Development Unit (PHIDU), 2019. *Asthma Atlas of Australia*.

⁴ Ibid

⁵ Independent Hospital Pricing Authority, 2013-14. *National Hospital Cost Data Collection Australian Public Hospitals Cost Report 2013-14 Round 18*, available online: https://www.ihpa.gov.au/sites/default/files/publications/nhcdc-round18.pdf?acsf_files_redirect.

⁶ HealthStats NSW, NSW Government, http://www.drinkingwaterdb.nsw.gov.au/Indicator/res_asted/res_asted (Accessed 3 January 2023)

⁷ Independent Hospital Pricing Authority, 2013-14.

⁸ Giangio, S. et al., 2020. 'Emergency department visit count: a practical tool to predict asthma hospitalisation in children', *Journal of Asthma*, vol 57(10).

⁹ Australian Government, Australian Institute of Health and Welfare, Emergency department care 2021-22: Australian hospital statistics

¹⁰ AIHW (2023) *Australian Burden of Disease Study 2023*. Canberra: AIHW. [Australian Burden of Disease Study 2023, Summary - Australian Institute of Health and Welfare \(aihw.gov.au\)](https://www.aihw.gov.au/australian-burden-of-disease-study-2023-summary) (Accessed 9 January 2024)

¹¹ Wood, T., Reeve, A., and Suckling, E. (2023). Getting off gas: why, how, and who should pay? Grattan Institute.

¹² Australia State of the Environment 2021,

https://soe.dcceew.gov.au/?_gl=1*1s98wwwo*_ga*NjY1NjU1NDYyLjE2Njc4Njg4MjQ.*_ga_1M2TBC9WWS*MTY2Nzg2ODEyMy4xLjEuMTY2Nzg2ODk1OC4wLjAuMA..&_ga=2.122277762.820626621.1667868124-665655462.1667868124 (Accessed 8 November 2022)

¹³ Australian Government (2015). *National Clean Air Agreement: Towards a clean air future for all Australians*. Commonwealth of Australia.

¹⁴ Ibid

¹⁵ ABS, 2018. *National Health Survey: First Results 2017-18*, ABS Cat no. 4364.0.55.001.

¹⁶ Australian Institute of Health and Welfare. Asthma [Internet]. Canberra: Australian Institute of Health and Welfare, 2023 [cited 2023 Aug. 17]. Available from: <https://www.aihw.gov.au/reports/chronic-respiratory-conditions/asthma-1>

¹⁷ Australian Institute of Health and Welfare 2019. Potentially preventable hospitalisations in Australia by age groups and small geographic areas, 2017–18. 14 Nov 2019 update. Cat. no. HPF 36. Canberra: AIHW.

¹⁸ Institute of Medicine. 2011. *Climate Change, the Indoor Environment, and Health*.

<https://nap.nationalacademies.org/catalog/13115/climate-change-the-indoor-environment-and-health>

¹⁹ Asthma Australia, Housing and Asthma Policy Position Statement, June 2024. [Asthma-Australia-Housing-and-Asthma-Policy-Position-Statement-June-2024.pdf](#)