



Asthma Australia Pre-Budget Submission 2023–24

December 2022



ABOUT ASTHMA AUSTRALIA

Asthma Australia is a for-purpose, consumer organisation which has been improving the lives of people with asthma since 1962.

Asthma is an inflammatory condition of the airways, which restricts airflow and can be fatal. There is no cure, but most people with asthma can experience good control of their condition.

Asthma affects 1 in 9 Australians, or 2.7 million people. It has various degrees of severity (mild to severe) and affects people of all ages, from childhood to adulthood. Asthma can appear at all ages and stages of life.

Asthma Australia's 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. To ensure people can access effective treatments and best practice healthcare for their asthma, we work directly with people with asthma, their family and friends, health professionals, researchers, schools and governments. This way, we can ensure people with asthma are supported with education and access to high-quality information and care where they live, work and play in all stages of life.



Budget Proposals

The Asthma Australia submission focuses on the following funding proposals for consideration in the 2023-24 Budget:

Proposal	Investment
1: A national rollout of the AirSmart public education campaign to reduce the health impacts of air pollution	\$10.24m over two years
2: Increasing access to local air quality information. Fund a low-cost air quality sensor pilot program as the first step towards ensuring all Australian communities have access to air quality information.	Costs to be determined in consultation with states and territories as a part of the National Clean Air Agreement based on population size and the most appropriate technology for each jurisdiction.
3: Investment in cost effective measures that improve the air quality in the homes of people living with asthma on low incomes Providing financial support to people on low incomes with asthma to purchase air purifiers with a HEPA (high-efficiency particulate absorbing) filter.	\$500,000 per year The average cost of an air purifier with a HEPA filter is \$500. Annual funding of \$500,000 would provide approximately 1000 air purifiers per year.
4. Addressing indoor and outdoor air quality by supporting people with asthma on low incomes to install cleaner and more efficient forms of heating, cooling and cooking in their homes.	Approximately \$100m over 4 years – financial support of \$2500 per household towards the cost of upgrades and replacements. This would assist 40,000 households. The Powering Australia initiative should be expanded to include financial assistance to replace and install electric appliances and include owners of rental properties to encourage them make these replacements. An amount comparable to other Powering Australia initiatives.
5. Investment in research in respiratory health through the development of a Medical Research Future Fund Respiratory Health Mission.	\$500,000 in 2023-24 for the start-up and establishment phase.



Introduction

Asthma Australia wants people to live in communities where we are supported to live healthy lives and can breathe clean air. Asthma Australia welcomes the opportunity to detail funding priorities for the 2023–24 Budget that will benefit the 1 in 9 Australians who have asthma and people who are at risk of developing asthma. In addition to these individuals, asthma affects carers for people with asthma, the families, communities, schools and workplaces of people with asthma, our healthcare system and the broader economy.

Asthma Australia supports increased investment in preventive health and primary health care to reduce the prevalence and impact of chronic disease and reduce the burden on the health system and broader community.

To further reduce this burden and improve the lives of people living with asthma, we are proposing funding measures to implement a national AirSmart campaign, invest in low-cost technology that can improve the air quality of the homes people with asthma live in, invest in asthma research and commit to address climate impacts on health.

Asthma in Australia

Asthma is one of the most common chronic conditions in Australia, with high prevalence rates by international comparison. Around 2.7 million Australians have asthma.¹ Asthma affects people of all ages.

Asthma is the 9th leading contributor to the overall burden of disease in Australia,² having risen from 10th place in 2003 to 9th place in 2018³, and is the leading cause of burden of disease for people aged 5–14 years.⁴ 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. People with asthma experience poorer health outcomes and quality of life.⁵ People with asthma may live for a long period of time with its associated disability, and experience reduced participation in paid employment, education, care responsibilities, sports and social events.

Approximately 400 people die each year in Australia due to asthma⁶ and there were 351 deaths due to asthma in 2021.⁷ Asthma mortality⁸ and hospitalisations⁹ in Australia are high by international standards. Hospitalisations due to asthma are costly: on average, each emergency department presentation for asthma costs \$443, an uncomplicated hospital admission costs \$2,591 (approximately 1.5 hospital days) and a complicated admission costs \$5,393 (approximately three hospital days).¹⁰ A 2015 report on the Hidden Cost of Asthma found that asthma cost the healthcare system \$1.2 billion, there was a cost of \$1.1 billion in lost productivity, and the burden of disease amounted to a cost of \$24.7 billion.¹¹

Asthma and the 2023–24 Budget

Asthma Australia thanks the Government for the ongoing commitment to addressing the burden of disease due to asthma by continuing funding for the Asthma Management Program. This funding will enable Asthma Australia to continue the work of improving the lives of people with asthma in Australia.

The key area where further work is required is in asthma prevention to reduce morbidity and mortality, support improved quality of life and reduce demand on Australia's 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. The 2023–24



Budget presents an opportunity for the Australian Government to invest in these preventative based initiatives in respiratory health.

The importance of respiratory health was highlighted during the COVID-19 pandemic and the 2019–20 bushfires smoke crisis. These events have been particularly difficult for people with asthma and their carers, with many turning to Asthma Australia for support. We experienced significant increases in media reach, calls and website traffic from people with a range of concerns including minimising the impacts of bushfire smoke exposure, fears of increased susceptibility to COVID-19 and challenges accessing medical care during the pandemic. Asthma Australia has also developed a fact sheet on how mould impacts asthma and how people can prevent and clean mould and has shared information through communications and social media. This was in response to increasing awareness of this being a problem for people with asthma. It shows that people are looking for expert information to empower and enable them to take measures to control their asthma and prevent situations where it may be worsened.

Asthma Australia’s 2023-24 Pre-budget Submission places an emphasis on air quality with the increasing recognition of the impacts air quality in all settings has on the health of people with asthma and due to environmental and climate change impacts. We are seeking investment in AirSmart, a public education campaign that aims to provide the information, tools and strategies people need to minimise or avoid exposure to unhealthy air, and investment in measures which improve community access to local air quality information and financial support for people with asthma on low incomes to improve the air quality in their homes.

We also want to work towards further implementing models of health care that focus on adaption to climate change and prevention to address the impacts of asthma in the community. This can be achieved by investing in technology that improves the air quality in and liveability of people’s homes, while also addressing the impacts of climate change. We are seeking a commitment to a respiratory health research mission funded by the Medical Research Future Fund.



Proposal 1: A national rollout of the AirSmart public education campaign to reduce the health impacts of air pollution

There is a gap in Australian public health messaging around the health impacts of air pollution which disproportionately affects the health and wellbeing of people with asthma (2.7 million Australians). 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, among other inquiries, following the 2019–20 bushfires. The need for access to air quality information and guidance will only grow as climate change continues to increase the frequency and severity of events causing poor air quality. One of the key findings of the State of the Environment Report for 2021 was that better information can reduce the impact of poor air quality. It stated that communities needed real-time local information during periods of poor air quality.¹²

AirSmart was piloted in communities across southern NSW, ACT, and regional Victoria over a six-week period in July and August 2022. AirSmart includes an air quality public health campaign which promotes the download of the AirSmart app:

- **The public health campaign** aimed to raise community awareness about poor air quality, and how to interpret health advice so Australians can be protected from exposure and 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 is founded in a consumer research approach and has been guided by environmental and public health experts. The campaign includes a 15 and 30 second television commercial, a radio commercial, other social and digital assets, a microsite, billboards, as well as the AirSmart app.
- **The AirSmart app** is a consumer tool for accessing local real-time air quality information and related health advice. Asthma Australia has 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 arm consumers with specific daily advice about the most effective protection.

Findings from the interim evaluation of the AirSmart pilot revealed there were over 16,000 downloads of the AirSmart app and 22,000 website sessions across the 6-week pilot period. Further, people living in the pilot areas who saw the public education campaign had a significantly higher rate of downloading the app (88% of app downloads were in the pilot areas). This indicates strong demand for better air quality information and tools and shows that the AirSmart creative campaign resonated with the Australian public and engaged them in information about air quality.

Asthma Australia is seeking funding contributions from all governments – state, territory and federal – towards a national AirSmart campaign.



INVESTMENT REQUESTED: \$10.24m over two years*Total national AirSmart costing*

Item	2023–24	2024–25
Media placement	\$5,000,000	\$5,000,000
App development and maintenance	\$50,000	\$30,000
Evaluation and consumer research	\$30,000	\$30,000
Project management costs	\$50,000	\$50,000
TOTAL	\$5,130,000	\$5,110,000



Proposal 2: Increasing access to local air quality information

A key finding from the 2021 State of the Environment report was that better information could reduce the impact of poor air quality.¹³ 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.

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.¹⁴

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.¹⁵

The Commonwealth Government should fund a low-cost air quality sensor pilot program as an important step towards ensuring all Australian communities have access to air quality information. The proposed pilot program would enable state and territory environment 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 increasing access to local air quality information would act on the recommendations of the Royal Commission into Natural Disaster Arrangements and the State of the Environment Report, as well as progressing the National Clean Air Agreement work plan. 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 all Australian communities have access to air quality information. Costs to be determined in consultation with states and territories as a part of the National Clean Air Agreement based on population size and the most appropriate technology for each jurisdiction.



Proposal 3: Investment in cost effective measures to improve the air quality in the homes of people living with asthma on low incomes

Climate change is causing adverse asthma outcomes through declining air quality caused by the burning of fossil fuels, increased ground level ozone and events such as bushfires and thunderstorm asthma. Reducing the adverse health impacts of air pollution should be a priority issue for climate change adaptation strategies.

Air pollution is second only to tobacco as a cause of death from non-communicable diseases globally, and the United Nations recognises air pollution as one of 5 risk factors for non-communicable diseases, alongside unhealthy diet, tobacco use, harmful use of alcohol and physical inactivity.¹⁶ Exposure to environmental hazards (such as poor air quality, bushfires and thunderstorms) is both a risk factor for the development of asthma and a trigger for asthma symptoms in people who have asthma.¹⁷

Addressing the social determinants of health, including housing, plays an important part in promoting health and reducing asthma risk. A person's lived environment can worsen their asthma through harbouring a range of indoor triggers and/or not being well sealed or ventilated to protect against outside risks. A person with asthma living in a home that is poorly sealed will be more vulnerable to the respiratory impact of bushfire smoke or thunderstorm asthma. A person with asthma will also be more vulnerable in a home affected by damp or mould. Other housing issues that disproportionately affect people with asthma include thermal factors.

The effects of poor housing may be particularly acute for people who rent their home or live in government housing as they may have limited means or agency to make necessary improvements to their homes. It is therefore important that resources are mobilised and allocated in ways that promote equity including distribution of resources to people in most need.

Health advice during periods of air pollution includes staying inside with doors and windows closed, however, air pollution can enter buildings. While air purifiers with HEPA filters can be highly effective in reducing indoor air pollution,¹⁸ the cost can be prohibitive for many. Providing financial support 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 are safe during air pollution events.

INVESTMENT REQUESTED: The average cost of an air purifier with a HEPA filter is \$500. Annual funding of \$500,000 would provide approximately 1000 air purifiers per year.



Proposal 4: Addressing indoor and outdoor air quality by supporting people with asthma on low incomes to install cleaner and more efficient forms for heating, cooling and cooking in their homes

The 2022-23 Federal Budget had a significant focus on climate change and moving to cleaner technologies to provide power to the community. It included supporting access to solar and clean technologies for households that wouldn't normally be able to access rooftop solar, including rentals and social housing. Funding through the Powering Australia initiative includes establishing a Community Solar Banks program for the deployment of community-scale solar and clean energy technologies (\$102.2m over 4 years); and deploying community batteries (\$224.3m over 4 years for 400 community batteries) to lower bills, cut emissions and reduce pressure on the electricity grid by allowing households to store and use excess power they produce.¹⁹

A key part of reducing emissions and the significant issue of indoor air quality and people's health, is addressing the means by which people heat and cool their home and the methods they use to cook. The effects of these issues may be particularly acute for people who rent or live in social housing as they may have limited means or agency to make necessary improvements to their homes.²⁰

The home environment is particularly important for people with asthma and allergies, who are sensitive to substances we all breathe. These substances are referred to as 'triggers' because they can trigger asthma or allergy symptoms. A number of triggers can be found in Australian homes, some of which can also increase the risk of a person who doesn't have asthma developing the condition. Indoor air pollution from heating with gas or woodfire heaters and cooking with gas cooktops produces a range of pollutants and can worsen indoor air quality. Exposure to these pollutants can trigger asthma flare-ups and contribute to the development of asthma.²¹

Asthma Australia recently undertook a nationally representative survey to look at homes, health and asthma in Australia, which was completed by 5,041 people. The survey asked participants about heating their homes. The preferred heating methods were reverse cycle air and central, which are the most efficient options and provide cooling in the warmer months. However, nearly half (43%) of respondents reported they do not currently have their preferred form of heating at home. One in five respondents (22%) rely on portable electric space heaters (22%), 13% used wood heaters, 8% use flued gas heater and 7% use unflued gas heaters. Of those who don't have their preferred source of heating, the most common barrier to switching was the cost of replacing their heating system (43%), followed by not being able to make the changes they would like to due to not owning the property (32%).

The most common type of cooking was gas (48%) followed by electric (41%). Only 7% had an induction cooktop or a combination cooktop.²²

Introducing financial support for low-income households to replace inefficient methods of household heating and cooking 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. As noted, this is particularly important for people in situations where they are unable to make these changes due to cost or not owning their home. These factors have been recognised in the Government's funding for community batteries and solar. The Powering Australia initiative should be expanded to include financial assistance to replace and install cleaner forms of heating, cooling in people's homes and include owners of rental properties to encourage them to make these replacements.



INVESTMENT REQUESTED: Approximately \$100m over 4 years – financial support of \$2500 per household towards the cost of upgrades and replacements. This would assist 40,000 households.

The Powering Australia initiative should be expanded to include financial assistance to replace inefficient heating and cooking with electric appliances and include owners of rental properties to encourage them make these replacements. An amount comparable to other Powering Australia initiatives.



Priority 5: Investment in research in respiratory health through the development of a Medical Research Future Fund Respiratory Health Mission

The Medical Research Future Fund (MRFF) was created in 2015 by the Australian Government to transform health and medical research and innovation to improve lives, build the economy and contribute to health system sustainability. Funding is provided for innovative medical research based on a comprehensive list of principles including funding specific health issue initiatives which are assessed on scientific rigour, where there is both burden and unmet research need.

Lung disease is a significant health issue for Australians: seven million Australians live with a lung disease. While 9% of total disease burden between 2008 and 2017 was attributable to lung diseases and lung cancer,²³ only 2% of total Australian institutional research funds were awarded to research into these same diseases.²⁴ Increased investment in lung and respiratory research is urgently needed to address the substantial and preventable burden on individuals, their families, the healthcare system, and the broader economy.

Respiratory health has been a particular challenge in Australia during both the 2019–2020 summer bushfires and the COVID-19 pandemic. Considering the relative burden of respiratory illness in Australia compared to funding mobilised to address it, it is time that a respiratory health mission was formed in the MRFF 10-year plan to dedicate meaningful funding to this increasingly important area of health.

Investment in discoveries in medical research and innovations, optimising health service delivery, and holistic health support for individuals, their families and their communities can be achieved through a Respiratory Health Mission. This will result in world class collaborations from across sector and industry to develop solutions to the real, critical, and evolving challenges faced by people with respiratory illness.

As a member of the Lung Health Alliance, Asthma Australia, in collaboration with Lung Foundation Australia, Thoracic Society of Australia New Zealand, Cystic Fibrosis Australia and the National Asthma Council Australia, have developed a clear and comprehensive proposal for an MRFF Respiratory Health Mission (the Mission).

The vision of the Lung Health Alliance's proposed Mission is to prevent lung disease and discover a cure for all Australians with lung disease. The goal of the Mission would be to reduce the avoidable burden of respiratory disease in Australia: reduce deaths; reduce hospital presentations; increase quality of life and reduce the disease burden; and reduce the onset of respiratory disease.

Asthma Australia recently completed an exercise to define the research priorities for asthma according to people who rely on the research for their day-to-day needs. This project is called the National Asthma Research Agenda (NARA). NARA, alongside other similar work from the Lung Health Alliance partners, will form a strong foundation for the objective setting and strategic planning of the proposed Respiratory Health Mission in its effort to address the preventable burden and unmet research needs, which are the core of the MRFF.

This proposal is to establish the necessary building blocks of a 10-year Respiratory Health Mission. The initial investment would cover the:

- Establishment of governance structures
- Appointment of the project implementation team to execute this 'start-up' phase and establish the base for the remainder of the Mission
- Coordination of the local and international consultation processes to validate and establish the pillars and phases of the Mission; and



- Establishment of the platforms, databases, tools and resources necessary for the effective collaboration of stakeholders' engagement in the Mission.

The start-up phase of the Respiratory Health Mission will be followed by the development and delivery of the 10-year program of work. We estimate that this would involve an investment of \$200m investment. This takes into account comparable funding applied to other areas of research and that this would apply over a decade to all areas of lung health research. All funds would sit within the MRRF.

INVESTMENT REQUESTED: \$500,000 in 2023-24 for the start-up phase to establish a Medical Research Future Fund Respiratory Health Mission.



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