

## Asthma Australia New South Wales Election Priorities 2023

## **EXECUTIVE SUMMARY**

To support people living with asthma, their carers and health professionals, Asthma Australia has identified four priority areas for the 2023 New South Wales (NSW) Election. These priority areas focus on reducing the risk factors for asthma symptoms and exacerbations. Many of these risk factors also contribute to the development of asthma in people who do not have the condition. Addressing these priorities will contribute to the systemic changes needed to ensure people in NSW, including those with asthma, can breathe better and live freely.

The priorities outlined below will reduce the burden of asthma in NSW.

#### 1. Contribute funding to a national AirSmart public education campaign

AirSmart aims to educate and empower people by providing the information, tools and strategies needed to minimise or avoid exposure to unhealthy air. By doing so, AirSmart reduces the negative impacts of unhealthy air on people's health, wellbeing and participation in society. A pilot AirSmart campaign in July and August 2022 that included southern NSW in the pilot sites demonstrated strong results.

# 2. Supporting people with asthma on low incomes to install cleaner and more efficient forms of heating, cooling and cooking in their homes

Improving the appliances people in NSW use to heat their homes and cook their food will contribute to reducing greenhouse gas emissions and improve air quality. Indoor air pollution from heating with gas or wood 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.<sup>1</sup> 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.<sup>2</sup> Pollution from wood heaters can worsen indoor air quality and is a leading source of outdoor air pollution.<sup>3</sup>

# **3.** Investing in HEPA air purifiers to improve the air quality in the homes of people with asthma on low incomes

Health advice during periods of air pollution includes staying inside with doors and windows closed, however, air pollution can enter buildings. This was a significant issue for people across NSW during the 2019-20 bushfire smoke crisis. While HEPA (high-efficiency particulate absorbing) air purifiers can be highly effective in reducing indoor air pollution<sup>4</sup> the cost can prevent people on low incomes from purchasing air purifiers for their homes. Supporting people on low incomes with asthma with the cost of purchasing air purifiers would be an effective measure to improve indoor air quality during air pollution events and increase equity.



### **ABOUT ASTHMA AUSTRALIA**

Asthma Australia is a for-purpose, consumer organisation which has been improving the lives of people with asthma since 1962. Asthma affects one in nine Australians or 2.7 million people.<sup>5</sup> 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.

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 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.<sup>6</sup> Asthma prevalence is higher in regional NSW (12.4%) compared with the Greater Sydney Region (9.2%). Areas with the highest asthma prevalence in NSW include Lithgow-Mudgee (15.2%), Kempsey-Nambucca (13.7%) and Lachlan Valley (13.7%).<sup>7</sup>

Asthma places a significant burden on the NSW hospital system. There were 13,729 hospital admissions for asthma in NSW in 2016–17. <sup>8</sup> An uncomplicated hospital admission costs approximately \$2,591 (approximately 1.5 hospital days) and a complicated admission costs \$5,393 (approximately three hospital days).<sup>9</sup>

In 2018-19 there were 22,971 asthma-like illness presentations to 84 emergency departments in NSW.<sup>10</sup> Each Emergency Department presentation for asthma costs \$443 on average,<sup>11</sup> and repeated asthma-related presentation to Emergency Department increased the risk of hospitalisation.<sup>12</sup> Forty per cent of adults and 62% of children re-present to emergency departments within one year of initial presentation.<sup>13</sup> 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.<sup>14</sup>

Asthma caused 133 deaths in NSW in 2021.<sup>15</sup>

In 2022 Asthma was the 8<sup>th</sup> leading contributor to the overall burden of disease in Australia, having risen from 10<sup>th</sup> place in 2003 to 9<sup>th</sup> place in 2018. Asthma is the leading cause of burden of disease for people aged 5–14 years, which has remained unchanged since 2018.<sup>16</sup>

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.<sup>17</sup> People with asthma may live for a long period of time with the disability associated with the condition, and experience reduced participation in paid employment, education, care responsibilities, sports and social events.

#### The home environment

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. Indoor air pollution from heating with gas or wood heaters and using gas cooktops produces a range of pollutants and can worsen indoor air quality, and exposure to mould and dampness can lead to a range of health problems. Exposure to these triggers can cause asthma flare-ups and contribute to the development of asthma.<sup>18</sup>



A nationally representative survey of 5,041 people by Asthma Australia in 2022 found that homes are not healthy places for all Australians, particularly for people with asthma or allergies. One quarter of Australians (24%) are not happy or are unsure about the air quality inside their homes. Among people with asthma and allergies, three in ten reported that their symptoms are worse after spending time in the home.<sup>19</sup>

NSW has experienced a range of worsening climatic conditions in recent years from bushfires, significant rainfall and floods. Changing weather patterns due to climate change have reinforced the importance of housing in providing protection from cold, heat and other extreme weather events.<sup>20</sup> Governments across Australia in regions that have experienced torrential rain and floods, have recognised the impact of this on people's homes including the increased risk of mould in homes. No amount of mould is considered safe for health<sup>21</sup> and people with asthma, allergies and other breathing conditions are more at risk from contact with mould.<sup>22</sup>

#### Wood heaters

Wood heater smoke is the largest source of winter air pollution in Greater Metropolitan Sydney and regional towns such as Armidale,<sup>23</sup> despite the small number of homes relying on wood heaters in the cooler months. The 2022 Asthma Australia housing survey found that 13.5% of those surveyed from NSW said they used wood heaters regularly during cooler months, which compared to 12.5% nationally.<sup>24</sup>

Wood heater smoke contains harmful pollutants including fine particulate matter and known carcinogens. There is no 'safe' level of air pollution and health impacts can occur even at low levels of pollution.<sup>25</sup> Wood heater smoke is a trigger for asthma symptoms<sup>26</sup> and a risk factor for other respiratory illnesses, certain cancers, cardiovascular disease, premature birth and premature death.<sup>27</sup> These health impacts result in substantial economic costs, which have been estimated at \$3,800 per wood heater.<sup>28</sup>

A 2013 inventory of air emissions for the Greater Metropolitan Region (GMR) in NSW showed that humanmade sources of fine particulate matter accounted for the majority of total estimated annual emissions in Sydney, Newcastle and Wollongong. Domestic and commercial sources, which include wood heaters, made up 55.5% of human-made fine particulate matter emissions in Sydney. Domestic wood heaters were the largest human source of fine particulate matter in Sydney and Newcastle, and the second largest source across the total GMR area.<sup>29</sup>

### **NSW ELECTION PRIORITY AREAS**

The importance of respiratory health has been highlighted during the COVID-19 pandemic and the 2019–20 bushfire smoke crisis. These events have been particularly difficult for people in NSW with asthma and their carers, with many turning to Asthma Australia for support. 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.

A focus of the NSW election priorities is on addressing air pollution given the significant impacts poor air quality has on exacerbating and developing asthma. Air pollution is second only to tobacco use as a cause of death from non-communicable diseases globally, and the United Nations recognises air pollution as one of five risk factors for noncommunicable diseases, alongside unhealthy diet, tobacco use, harmful use of alcohol and physical inactivity.<sup>30</sup> 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.<sup>31</sup>



Asthma Australia has identified four priority areas for the 2023 New South Wales Election that 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 priorities are also consistent with the NSW Government's commitment to addressing air quality and its impacts outlined in the *NSW Clean Air Strategy*:

- building knowledge and communicating information transparently and effectively to support actions that protect air quality and public health
- developing innovative policy, and regulatory and economic tools to accelerate the reduction of air emissions, including the adoption of cleaner technologies and improved operating practices
- effective implementation, enforcement and evaluation to ensure the benefits of clean air policies and programs are fully realised.<sup>32</sup>

#### Asthma Australia's three priority areas are:

- 1. Contribute to the national AirSmart public education campaign to reduce the health impacts of air pollution.
- 2. Supporting people with asthma on low incomes to install cleaner and more efficient forms of heating, cooling and cooking in their homes.
- 3. Investing in HEPA air purifiers to improve the air quality in the homes of people with asthma on low incomes.



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

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 (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 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.

COMMITMENT REQUESTED: The New South Wales Government contribute \$3,276,800 over two years to fund the New South Wales component of Asthma Australia's national AirSmart public education campaign to reduce the impacts of poor air quality.

Item	2023-24	2024-25
Media placement	\$1,600,000	\$1,600,000
App development and maintenance	\$16,000	\$9,600
Evaluation and consumer research	\$9,600	\$9,600
Project management costs	\$16,000	\$16,000
TOTAL	\$1,641,600	\$1,635,200

Table 1: NSW Government requested contribution to AirSmart



# PRIORITY 2: Supporting people with asthma on low incomes to install cleaner and more efficient forms of heating, cooling and cooking in their homes

Improving the appliances people in NSW use to heat their homes and cook their food will improve air quality and people's health, as well as reducing greenhouse gas emissions. Cooking with gas cooktops produces a variety of air pollutants, including fine particulate matter, nitrogen dioxide, carbon monoxide, and formaldehyde. Similarly, gas heaters produce a variety of air pollutants, and unflued gas heaters are particularly dangerous because these pollutants remain inside the home rather than being vented outside. Wood heaters also produce a range of pollutants, including fine particulate matter, which can worsen indoor air quality, as well as contributing significantly to outdoor air pollution. Exposure to the pollutants produced by gas cooktops and gas and wood heaters can trigger asthma flare-ups and contribute to the development of asthma. Cooking with gas is estimated to be responsible for up to 12% of the childhood asthma burden in Australia.<sup>33</sup> People who rent or live in social housing have limited means or agency to make necessary improvements to their homes.<sup>34</sup>

In 2022, Asthma Australia undertook a nationally representative survey to look at homes, health and asthma in Australia, which was completed by 5,041 people.<sup>35</sup> The survey asked participants about their current practices and preferences for heating their homes and cooking. The most common type of cooking was gas (48%) followed by electric (41%). Only 7% had an induction cooktop or a combination cooktop. While the preferred type of cooktop was gas, regardless of their cooktop preference, most people's preference is based on cooking preferences, ease of cleaning and affordability. Only 15% of respondents cited their cooktop preference was due to health reasons and 14% noted environmental reasons.

The preferred types of heating were reverse cycle air conditioning and central heating, which are the most efficient options and provide the additional benefit of cooling the air 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%) regularly use portable electric space heaters, 13% regularly use wood heaters, 8% regularly use flued gas heaters and 7% regularly use unflued gas heaters. For people who don't have their preferred source of heating, the most common barrier to switching is cost (43%), followed by not owning the home (32%).

The *NSW Clean Air Strategy* includes a specific focus on wood heaters in relation to healthier households. In addition to contributing to indoor air pollution, wood heaters are a leading source of outdoor air pollution. In 2020, Asthma Australia conducted a representative survey of 25,039 people which found that people exposed to wood heater smoke are largely unable to protect themselves against exposure to its impacts. Further, the majority of people support regulations to reduce the impact of wood heaters, with stronger support among people with asthma.<sup>36</sup>

Introducing financial support for low-income households to replace inefficient and polluting 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. The scheme should include owners of rental properties to encourage them to make these replacements.

COMMITMENT REQUESTED: The NSW Government introduce a financial support program for low-income households to replace inefficient methods of household heating and cooking to address indoor and outdoor air quality.



# PRIORITY 3: Investing in HEPA air purifiers to improve the air quality in the homes of people with asthma on low incomes

Climate change is increasing the risk of 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.

Health advice during periods of air pollution includes staying inside with doors and windows closed, however, air pollution can enter buildings. This was a significant issue for people across NSW during the 2019-20 bushfire smoke crisis.

Air purifiers with HEPA filters can be highly effective in reducing indoor air pollution.<sup>37</sup> However, the cost can be prohibitive for many people. The 2022 Asthma Australia survey to looking at homes, health and asthma in Australia found that only 6 out of 10 Australians were confident to make changes to improve the air quality inside their home. Common barriers to taking action included purchasing or using equipment being too expensive and many survey respondents noted the additional pressures of living on low incomes and the cost-of-living crisis.

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 are safe during air pollution events.

COMMITMENT REQUESTED: The NSW Government invest in assisting people with asthma on low incomes to purchase HEPA air purifiers to improve indoor air quality.



## REFERENCES

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