



# Asthma Australia Submission to NSW Department of Planning, Industry and Environment

## Draft NSW Clean Air Strategy

May 2021

### 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 one in nine 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.



## Executive Summary

*“These wood-fire heaters don’t have a place in a city where people live in close proximity, just a cluster of homes with one can have a large impact on a lot of people in the neighbouring areas. I used to live in Kenthurst and every winter people in the area would be affected and complain about the smoke to the local council.”*

Sydney resident

Asthma Australia welcomes the opportunity to submit to the New South Wales (NSW) Department of Planning, Industry and Environment on the Draft NSW Clean Air Strategy (Draft Strategy). Improving air quality in NSW is essential for people with asthma, who are the metaphorical ‘canaries in the coalmine’ when it comes to air pollution. People with asthma are among the first people to be affected by air pollution in the population, experiencing respiratory symptoms and asthma flareups which can lead to hospitalisation and even death. Exposure to environmental hazards is both a risk factor for the development of asthma and a trigger for asthma symptoms in people who have asthma.<sup>1</sup>

While public attention has been drawn to high spikes in air pollution such as those seen during bushfire and hazard reduction burn events, there is no safe level of air pollution.<sup>2</sup> This means health harms can occur at low levels of air pollution and underscores the need to address all sources of air pollution adequately in the final version of the NSW Clean Air Strategy.

Addressing air pollution requires a whole-of-government approach given the range of sources of pollution and the range of areas impacted. These include human health, the environment, education, employment, the economy and social participation. Asthma Australia welcomes the NSW Government’s commitment to introducing a Clean Air Strategy and acknowledges the potential of the strategy to deliver the much-needed action to reduce air pollution.

However, despite acknowledging woodfire heater pollution as the largest contributor to fine particulate matter (PM2.5) in Sydney and many regional centres, the Draft Strategy fails to provide meaningful action to address this issue. The Draft Strategy also recognises PM2.5 is the pollutant with the greatest health impact across NSW and states reducing exposure to it will have the greatest benefit for public health. Woodfire heaters must be meaningfully addressed if the NSW Clean Air Strategy is to succeed in reducing the health impacts of air pollution. In order to achieve this end, the NSW Government must establish a subsidy scheme to support households to replace woodfire heaters with cleaner heating alternatives, similar to schemes in the Australian Capital Territory (ACT) and Victoria.

In this submission, Asthma Australia calls for a number of changes to be made to the Draft Strategy. We present findings from a representative survey of over 25,000 people, the majority of whom understand woodfire heaters have negative health impacts and are looking to governments to act to phase them out.<sup>3</sup> We also propose actions for the NSW Clean Air Strategy to reduce the health impacts of hazard reduction burning and improve compliance with and enforcement of air pollution regulation. Further, in this submission we provide a number of recommendations to support people with asthma and others vulnerable to air pollution to minimise the impacts on their personal health, including supporting an AirSmart public education campaign and prioritising improved air quality monitoring as a standalone area in the NSW Clean Air Strategy. Finally, Asthma Australia recommends the NSW Clean Air Strategy recognise that air pollution impacts are amplified by the social determinants of health and address health inequities which limit the ability of vulnerable people to protect themselves.



## Asthma in NSW

Asthma is a chronic respiratory condition affecting 10.7% of people in NSW, or more than 829,100 people.<sup>4</sup> Indigenous Australians in NSW are twice as likely to have asthma compared with non-Indigenous Australians.<sup>5</sup> In NSW, the Local Health Districts with the highest asthma prevalence among children are Murrumbidgee (20.5%), Nepean Blue Mountains (18.2%) and Hunter New England (16.4%). The highest asthma prevalence among adults is in Southern NSW (21.1%), Western NSW (19.3%) and Nepean Blue Mountains (18.9%).<sup>6</sup>

Asthma was responsible for 160 deaths in NSW in 2019.<sup>7</sup> Indigenous Australians in NSW experience higher asthma mortality rates than non-Indigenous Australians (2.2 times higher between 2014-2018).<sup>8</sup>

Asthma places a significant burden on NSW hospitals. There were 11,290 hospital admissions for asthma in NSW in 2018/19.<sup>9</sup> In 2016/17, 28,682 people in NSW attended an emergency department for their asthma.<sup>10</sup>

### **The personal impact of air pollution in NSW:**

*"I have severe eosinophilic asthma and the woodfire smoke is just another unavoidable irritant that causes me flareups. I grew up in Armidale, NSW which is a synonymously cold place, it's in a valley on top of a mountain and the smoke from woodfires sits there in winter creating a haze over the city and causing a lot of grief for asthmatics and those with respiratory issues.*

*"I was hospitalised many times due to my Asthma when I lived in Armidale, but I thought once I moved to Sydney that things would be better. I moved several years ago into a unit block that is next to an old heritage house. I live on the second floor that looks out to their roof and during winter the smoke from their wood-fire is unbearable.*

*"We have blocked out the air vents in our unit and rarely open the windows during wintertime, but the smoke is still unavoidable and unnecessary. Sydney is a high-density city where heating is only required for a small portion of the year, yet we still allow people to burn wood fires, it's absurd."*  
Sydney resident



## Summary of recommendations

RECOMMENDATION 1: The NSW Clean Air Strategy should include actions to phase out woodfire heaters in NSW, including:

- (a) Introducing a woodfire heater replacement scheme to subsidise the cost to households of replacing woodfire heaters with efficient reverse cycle air conditioners.
- (b) Prohibiting installation of woodfire heaters in new homes.
- (c) Requiring woodfire heaters to be removed when a home is sold.

RECOMMENDATION 2: The NSW Clean Air Strategy should include actions to minimise smoke emissions from remaining woodfire heaters while efforts are underway to phase them out, including:

- (a) Working with local governments to enforce environmental regulations by investigating reports of excessive woodfire heater smoke, educating individuals around reducing emissions and issuing infringement notices when needed.
- (b) Implementing an education program to minimise the health impacts of woodfire heater emissions in areas where they are problematic.

RECOMMENDATION 3: The proposed action in the NSW Clean Air Strategy to reduce the impacts of hazard reduction burn smoke should be strengthened to specify:

- (a) A review of hazard reduction practices with a focus on increasing non-burning options such as mechanical fuel load reduction, particularly around settled areas;
- (b) The inclusion of health organisations and a consumer representative in hazard reduction burn planning so health impacts are fully considered;
- (c) Provision of health messages to the community ahead of planned burns with as much notice as possible; and
- (d) Staggering hazard reduction burns where possible in order to minimise the likelihood of prolonged periods of poor air quality.

RECOMMENDATION 4: The NSW Clean Air Strategy should include air quality monitoring and public information as a standalone priority area.

RECOMMENDATION 5: The proposed actions in the NSW Clean Air Strategy to improve air quality monitoring in NSW should be strengthened by:

- (a) Recognising the need for local air quality monitoring in areas with problematic woodfire heater smoke;
- (b) Committing to installing permanent air quality monitoring stations in all communities near major industrial pollution sources; and
- (c) Committing to increasing the number of portable air quality stations that can be deployed during air pollution events.

RECOMMENDATION 6: The NSW Clean Air Strategy should recognise the importance of compliance with and enforcement of air pollution laws and regulations and the need to adequately resource the NSW Environment Protection Authority.

RECOMMENDATION 7: The NSW Clean Air Strategy should recognise the need to fund the development and implementation of an AirSmart public education campaign to reduce the health impacts of air pollution by empowering people to minimise their exposure, including:

- (a) Year-round information to improve environmental health literacy;
- (b) Targeted information for people with asthma and other pre-existing health conditions on actions to take to prepare for such events; and
- (c) Increased messaging during air pollution crisis events such as bushfires.



RECOMMENDATION 8: The NSW Clean Air Strategy should recognise the need to provide targeted information about the adverse health impacts of poor air quality for people who are at greater risk, including people with asthma, people from culturally and linguistically diverse backgrounds, people with low literacy or reading skills and people who lack access to digital tools.

RECOMMENDATION 9: The NSW Clean Air Strategy should recognise the inequitable impacts of air pollution in NSW and propose actions that address the social determinants of health, including additional investment in infrastructure such as quality affordable housing and public transport.

RECOMMENDATION 10: The NSW Clean Air Strategy should recommend the provision of support to vulnerable people to make their homes resilient to air pollution, for example, support to seal homes and contribute to the costs of air purifiers and air conditioners. *(Refer to Recommendation 13 which addresses air purifiers.)*

RECOMMENDATION 11: The NSW Clean Air Strategy should propose an action to develop frameworks that will enable local schools, workplaces, sports associations and public buildings to respond to air pollution events, including support for upgrades to reduce indoor air pollution and guidelines for responding to air pollution

RECOMMENDATION 12: The NSW Clean Air Strategy should propose the establishment of a feasibility study into options to protect people from air pollution, including an assessment of whether to establish a clean air shelter program which would designate public buildings that meet clean air criteria.

RECOMMENDATION 13: The NSW Clean Air Strategy should recognise the need to provide financial support to people of low socio-economic status with asthma towards the costs associated with using air purifiers with a HEPA filter. *(Refer to Recommendation 10 which addresses making homes resilient to air pollution.)*



## Reducing pollution from woodfire heaters

*"I don't know why [woodfire heaters] haven't been totally banned in residential areas in major cities and large towns, my mother lives in Tamworth and when I was there in July, the smoke from the wood-fire heaters was so bad, luckily I don't have asthma but it still made me unwell with a headache and sore throat."*

Newcastle resident

The Draft Strategy recognises fine particulate matter, or PM2.5, as the pollutant with the greatest impact on health across NSW and that reducing exposure to it will have the greatest benefit for public health. It states, "wood smoke from home wood heaters is the major contributor to fine particle pollution and air pollution impacts on community health in Sydney and many NSW regional centres." The Draft Strategy cites research estimating woodfire heater emissions contributed to 100 deaths in the Greater Metropolitan Region of Sydney in 2010-11.

Asthma Australia welcomes the recognition of woodfire heaters as a priority area for action in the Draft Strategy. However, we are disappointed that the Draft Strategy proposes just three actions to reduce woodfire heater smoke impacts. We note that, in contrast, the other 4 priority areas each have between 9 and 14 actions. In addition, we consider that the proposed woodfire heater actions are weak insofar as they do not propose material action, but propose guidance for councils, reviewing planning instruments and researching health impacts. These actions will not meaningfully reduce the substantial health impacts detailed in the Draft Strategy. The Clean Air Strategy must include strong actions to phase out woodfire heaters and research shows such actions have strong public support.

A representative survey of over 25,000 people commissioned by Asthma Australia found most people support the introduction of regulations to reduce the impact of woodfire heaters.<sup>11</sup> More than three-quarters of the general population (77%) agree woodfire heaters should not be allowed in urban or built-up areas and over half agree they should be phased out (55%) or banned (54%). Support for regulation is even higher among people with asthma with 84% supporting regulation of woodfire heaters in urban or built-up areas, 71% supporting a scheme to phase them out and 65% agreeing they should be banned. Support for regulatory methods is much stronger than support for community education to ensure people know how to correctly use and reduce smoke from their woodfires, with only 37% of the general population and 50% of people with asthma agreeing with community education.

This strong support for phasing out woodfire heaters reflects widespread understanding in the community that woodfire heaters are harmful to health. In Asthma Australia's survey,<sup>12</sup> 75% of the general population agree woodfire heaters can cause health impacts for certain people, and 55% recognise woodfire heaters cause health problems for the general population. Unsurprisingly, people with asthma are twice as likely to report experiencing respiratory symptoms when exposed to woodfire heater smoke compared to the general population. This is compounded by the fact most people do not feel they are able to reduce their exposure to smoke: only 28% of the general population and 18% of people with asthma said they are able to protect themselves from woodfire heater smoke when present.<sup>13</sup>

In addition to the consumer research showing strong public support for a scheme to phase out woodfire heaters, Asthma Australia notes a Policy Impact Assessment prepared for Victoria's Environment Protection Authority found accelerating replacement of existing woodfire heaters was by far the most effective intervention to avoid particulate matter emissions. The 2017 assessment



calculated the health costs of woodfire heater emissions and the benefits of various regulatory interventions to reduce emissions.<sup>14</sup> It quantified the total health costs of woodfire heater emissions at more than \$8 billion over 10 years,<sup>15</sup> and found accelerating replacement would have the greatest net benefit of the interventions assessed, estimated at over \$462 million.

Asthma Australia also notes the Victorian Government recently announced a funding measure which will subsidise the cost of replacing woodfire heaters, along with old gas and electric heaters, with energy efficient alternatives. This measure is targeted to low-income households and is part of a household energy efficiency package.<sup>16</sup>

In the ACT, the Actsmart Wood Heater Replacement Program offers financial incentives to remove and dispose of woodfire heaters with the aim of improving Canberra's air quality.<sup>17</sup> Rebates range from \$250 to remove or decommission a woodfire heater to \$1250 to remove a woodfire heater and install a ducted reverse cycle air conditioning system.

The NSW Clean Air Strategy should include as a proposed action the introduction of a woodfire heater replacement subsidy scheme, similar to the schemes in Victoria and ACT. This is an essential measure to support households to transition away from harmful woodfire heaters.

Further actions should be proposed for areas where woodfire heater smoke is problematic such as prohibiting installation of new woodfire heaters and requiring woodfire heaters to be replaced when a home is sold.

Finally, the proposed action in the Draft Strategy regarding empowering local governments to better manage smoke from woodfire heaters needs to be strengthened to specify that local governments should be supported to enforce environmental regulations. Even in a strengthened form, this action can only be viewed as a transitional step while efforts are underway to phase out woodfire heaters.

**RECOMMENDATION 1: The NSW Clean Air Strategy should include actions to phase out woodfire heaters in NSW, including:**

- (a) Introducing a woodfire heater replacement scheme to subsidise the cost to households of replacing woodfire heaters with efficient reverse cycle air conditioners.**
- (b) Prohibiting installation of woodfire heaters in new homes.**
- (c) Requiring woodfire heaters to be removed when a home is sold.**

**RECOMMENDATION 2: The NSW Clean Air Strategy should include actions to minimise smoke emissions from remaining woodfire heaters while efforts are underway to phase them out, including:**

- (a) Working with local governments to enforce environmental regulations by investigating reports of excessive woodfire heater smoke, educating individuals around reducing emissions and issuing infringement notices when needed.**
- (b) Implementing an education program to minimise the health impacts of woodfire heater emissions in areas where they are problematic.**



## Reducing the impacts of hazard reduction burn and bushfire smoke

Asthma Australia welcomes the recognition of the health impacts caused by smoke from hazard reduction burns and bushfires in the first priority area of the Draft Strategy. However, the proposed actions need to be strengthened. Asthma Australia provides a number of recommendations later in this submission which would reduce the health impacts of bushfire smoke, including improving air quality monitoring reporting, the need for an AirSmart public education campaign, and measures to support individuals and communities to minimise the health impacts. In this section, we focus on hazard reduction burn smoke impacts and air quality monitoring and information.

### Strengthening the proposed actions to address hazard reduction burn smoke impacts

Smoke pollution from hazard reduction burns can be extremely dangerous for people with asthma and can lead to life-threatening symptoms. Research into the impact of hazard reduction burning in the greater Sydney region in May 2019 estimated the resulting 5-day period of hazardous air quality in Sydney led to 14 premature deaths of people with respiratory and cardiovascular disease.<sup>18</sup> An Asthma Australia survey of 550 people from areas affected by the sustained hazardous air quality found four out of five respondents reported experiencing difficulty breathing. Almost one in five reported experiencing an asthma emergency. There were also financial and productivity impacts, with 21% reporting being sick for longer than a week, 28% taking sick leave or work from home and 22% experiencing unexpected financial costs due to extra medication or equipment needs.<sup>19</sup>

The Royal Commission into National Natural Disaster Arrangements recognised exposure to low level particulate matter over multiple days can be as harmful as a substantial but short-term increase in particulate matter. It noted the need to balance the health impacts of hazard reduction burn smoke with the risks of fuel loads when planning burns.<sup>20</sup>

The NSW Bushfire Inquiry has called for “a much better understanding of cost-benefit and effectiveness of different hazard reduction techniques, including the public health costs associated with smoke from prescribed burning”.<sup>21</sup> It found that non-burning approaches to fuel reduction are particularly important around communities and recommended consideration of biofuel generating opportunities to dispose of cleared green waste.

Asthma Australia welcomes the proposed actions in the first priority area of the Draft Strategy and the recognition of the need for improved monitoring, reporting and health messaging. However, better informing the community about air pollution levels will not reduce the pollution caused by hazard reduction burns. The Draft Strategy should therefore propose stronger actions to reduce the pollution caused by hazard reduction efforts, specifying consideration of alternatives to burning, ensuring health organisations and a consumer representative in planning for hazard reduction burns, giving the community more advance notice of planned burns and staggering burns where possible.

**RECOMMENDATION 3: The proposed action in the NSW Clean Air Strategy to reduce the impacts of hazard reduction burn smoke should be strengthened to specify:**

- (a) A review of hazard reduction practices with a focus on increasing non-burning options such as mechanical fuel load reduction, particularly around settled areas;**
- (b) The inclusion of health organisations and a consumer representative in hazard reduction burn planning so health impacts are fully considered;**
- (c) Provision of health messages to the community ahead of planned burns with as much notice as possible; and**
- (d) Staggering hazard reduction burns where possible in order to minimise the likelihood of prolonged periods of poor air quality.**





## Measuring and reporting on air quality

The Draft Strategy includes a number of actions to improve air quality monitoring, reporting, forecasting and public information under the first priority area, “Better preparedness for pollution events”. Asthma Australia suggests the NSW Clean Air Strategy dedicate a standalone priority area for air quality monitoring and public information. These actions are relevant to all sources of air pollution, not just the air pollution events focused on in this section of the Draft Strategy (bushfires and hazard reduction burns).

Asthma Australia welcomes the proposed actions which would expand the coverage of the NSW air quality monitoring network. In particular, we support the recognition of the need for localised air quality information. We recommend this proposed action specify the need for local air quality monitoring in areas with problematic woodfire heater smoke, in addition to roadside monitoring. Asthma Australia also recommends the Draft Strategy commit to ensuring all communities near major industrial pollution sources have permanent air quality monitoring stations.

The NSW Clean Air Strategy should commit to increasing the number of portable air quality monitoring stations that can be deployed during extended air pollution events to areas without permanent air quality monitoring stations. This is particularly important in regional and rural communities.

Finally, Asthma Australia recognises the need for strong compliance and enforcement to incentivise government and polluters to minimise pollution which place the health of Australians at risk. The NSW Clean Air Strategy should commit to adequate resourcing to ensure compliance with, and enforcement of, air pollution laws and regulations.

**RECOMMENDATION 4: The NSW Clean Air Strategy should include air quality monitoring and public information as a standalone priority area.**

**RECOMMENDATION 5: The proposed actions in the NSW Clean Air Strategy to improve air quality monitoring in NSW should be strengthened by:**

- (a) Recognising the need for local air quality monitoring in areas with problematic woodfire heater smoke;
- (b) Committing to installing permanent air quality monitoring stations in all communities near major industrial pollution sources; and
- (c) Committing to increasing the number of portable air quality stations that can be deployed during air pollution events.

**RECOMMENDATION 6: The NSW Clean Air Strategy should recognise the importance of compliance with and enforcement of air pollution laws and regulations and the need to adequately resource the NSW Environment Protection Authority.**

## Funding an AirSmart public education campaign

While it is critical to act immediately to reduce sources of air pollution, the results of this action will take time to come into effect. It is therefore equally critical to provide immediate support to people in NSW to minimise the current impacts of air pollution on their health.



Asthma Australia surveyed 12,000 people during the 2019-20 bushfires. The results indicated that despite the majority of respondents with asthma taking actions to protect themselves against the bushfire smoke, such as staying inside with windows and doors closed, many still experienced adverse health impacts. The survey results made clear the need for a public education campaign around the health impacts of air pollution, which has also been recommended by both the Royal Commission into National Natural Disaster Arrangements<sup>22</sup> and the NSW Bushfire Inquiry.<sup>23</sup>

An AirSmart public education campaign, similar to the SunSmart campaign, could provide information to local communities about air pollution and the associated health impacts. It should include information for the general public as well as targeted information for people with asthma and other vulnerabilities to air pollution. It is also important that any health information or advice is provided in culturally appropriate ways to people from Culturally and Linguistically Diverse (CALD) backgrounds and people with lower environmental health literacy. Presenting health information about air pollution in ways that meet the needs of the local community, including in multiple languages and formats, is vital to ensure all people receive the information they need to keep healthy and well.

Further, the provision of health information about air pollution should not be left to times of crisis. Instead, information about air quality should be provided year-round, with a focus on improving environmental health literacy so the community is able to interpret health advice when it is provided in times of crisis. During times of crisis, such as bushfire smoke events, there is a need to increase health advice and ensure the messaging is targeted to vulnerable groups.

**RECOMMENDATION 7: The NSW Clean Air Strategy should recognise the need to fund the development and implementation of an AirSmart public education campaign to reduce the health impacts of air pollution by empowering people to minimise their exposure, including:**

- (a) Year-round information to improve environmental health literacy;**
- (b) Targeted information for people with asthma and other pre-existing health conditions on actions to take to prepare for such events; and**
- (c) Increased messaging during air pollution crisis events such as bushfires.**

**RECOMMENDATION 8: The NSW Clean Air Strategy should recognise the need to provide targeted information about the adverse health impacts of poor air quality for people who are at greater risk, including people with asthma, people from culturally and linguistically diverse backgrounds, people with low literacy or reading skills and people who lack access to digital tools.**

## Reducing pollution from industry and transport

Asthma Australia refers to and supports Environmental Justice Australia's People's Clean Air Action Plan for NSW which details actionable recommendations to reduce air pollution caused by coal-fired power stations, coal mining and vehicles and transport (as well as woodfire heaters).<sup>24</sup>



## Empowering people to minimise the health impacts of air pollution

The main focus of the NSW Clean Air Strategy should be on actions to reduce air pollution levels. However, the effects of these actions will not be immediate. As outlined above, people with asthma and others vulnerable to air pollution are already suffering from health impacts of air pollution. The NSW Clean Air Strategy should guide a whole-of-government approach to air pollution which includes actions to support individuals and institutions to respond to air pollution and minimise the impacts. A health-in-all-policies approach to air pollution would recognise that the social determinants of health amplify the impacts of air pollution and address health inequities which limit the ability of vulnerable people to protect themselves.

### Addressing the social determinants of health

Asthma Australia suggests the NSW Clean Air Strategy recognise and respond to the inequitable impacts of air pollution in NSW. The social determinants of health include socioeconomic position, housing, early life, work and transportation and they interact to raise or lower a person's health and wellbeing.<sup>25</sup> These factors, along with health inequities, can amplify the health impacts of air pollution. People in low socio-economic areas are more likely to be exposed to air pollution and less likely to have the means to protect themselves, for example by purchasing and running air purifiers. The burden of disease is also far greater for certain population groups, including those experiencing socio-economic disadvantage.<sup>26</sup>

A major issue for people with asthma and others vulnerable to air pollution is the quality of their housing. Homes can be leaky, meaning pollutants such as PM2.5 can enter the home even when windows and doors are closed. People living in social housing, private rental housing and temporary housing have limited ability to improve their housing, for by example sealing doors and windows or installing air conditioning. In response to Asthma Australia's Bushfire Smoke Impact Survey during the 2019-20 bushfires, respondents spoke about the impact of smoke inside their homes, for example:<sup>27</sup>

*"Cannot afford air conditioning and am having problems buying an air purifier. Sealing an old 60s/70s flat difficult."*

*"Our rental is poorly sealed and the air conditioner is old."*

*"Still noticed my son's asthma deteriorate even by staying home in aircon because houses are not hermetically sealed."*

*"When smoke is intense on a day of high temperatures we are literally hunkered down in an incredibly hot stuffy house with no ability to use the evaporative cooling system. Even with windows shut, extra block out curtains and pieces of cardboard on windows to try and keep heat and smoke out it still is 29-30 degrees inside and doesn't cool down overnight so it's extremely uncomfortable."*

The NSW Clean Air Strategy should recognise the need to allocate government resources in ways that promote equity. This should include investing in improving existing social housing, providing infrastructure such as quality high affordable housing and public transport, and dedicating resources for preventive health programs to vulnerable communities.



**RECOMMENDATION 9: The NSW Clean Air Strategy should recognise the inequitable impacts of air pollution in NSW and propose actions that address the social determinants of health, including additional investment in infrastructure such as quality affordable housing and public transport.**

**RECOMMENDATION 10: The NSW Clean Air Strategy should recommend the provision of support to vulnerable people to make their homes resilient to air pollution, for example, support to seal homes and contribute to the costs of air purifiers and air conditioners. (Refer to Recommendation 13 which addresses air purifiers.)**

### Support for institutions to respond to air pollution events

Asthma Australia’s Bushfire Smoke Impact Survey found that during the 2019-20 bushfires, indoor air pollution was an issue in workplaces, schools and public buildings, with respondents stating:

*“Improved air filtering and positive pressure air conditioning in some public locations such as libraries and pools, so there is somewhere with better air quality and they don't close when the air gets bad.”*

*“Even working inside a shopping centre gave no relief as the smoke could still be smelt inside. It has been near impossible to avoid.”*

*“Our school has not been responsive to the public health warnings and carried on with outdoor sport activities on days of hazardous air quality. My son has missed three days of school in order to avoid sports days etc.”*

*“As a schoolteacher, smoke entered my classroom from door being open and closed all day. No air con or air purifiers. Not good.”*

*“I've also had to cancel shifts on days when air quality would make it impossible for me to do my job, which has meant reduced income.”*

In response to the sustained air pollution caused by the 2019-20 bushfires, some agencies in other jurisdictions released guidelines to help institutions respond. For example, the ACT Education Directorate released a policy on ‘Managing Air Quality in Schools’. The policy included a risk assessment framework and an ‘Air Quality Impact and Response Guide for Schools’, with actions that could be taken (for example, remaining indoors, limiting physical activity and the cancellation of excursions).<sup>28</sup> Safe Work Australia provided information on ‘Bushfires and air pollution’ stating “workplaces must have measures in place to protect worker health and safety and manage risks”.<sup>29</sup>

The NSW Clean Air Strategy should propose an action to develop frameworks that will enable local schools, workplaces, sports associations and public buildings to respond to air pollution events, including support for upgrades to reduce indoor air pollution and guidelines for responding to air pollution. Timely institutional responses will ensure children, outdoor workers, recreational sportspeople and other members of the community are safe during periods of air pollution.

The NSW Clean Air Strategy should also propose a feasibility study into options to protect people from air pollution, including the establishment of clean air shelters. Public buildings which meet clean air criteria, such as being well sealed and having air conditioning, could be designated as clean air shelters for people to use during air pollution events. This would benefit people who find



themselves away from home when air pollution levels rise, local residents whose homes have poor air quality and homeless people. Clean air shelters could also be used during thunderstorm asthma events and could minimise the risk of hospitalisations and deaths from thunderstorm asthma.

**RECOMMENDATION 11: The NSW Clean Air Strategy should propose an action to develop frameworks that will enable local schools, workplaces, sports associations and public buildings to respond to air pollution events, including support for upgrades to reduce indoor air pollution and guidelines for responding to air pollution**

**RECOMMENDATION 12: The NSW Clean Air Strategy should propose the establishment of a feasibility study into options to protect people from air pollution, including an assessment of whether to establish a clean air shelter program which would designate public buildings that meet clean air criteria.**

### Targeted financial support towards the cost of purchasing and running air purifiers

Air purifiers with HEPA filters can be highly effective in minimising exposure to bushfire smoke when used as recommended by the manufacturer in a well-sealed room.<sup>30</sup> Air conditioning can also be necessary during air pollution events that occur in hot weather which require vulnerable people to shelter inside for hours or days at a time. However, it is expensive to purchase and run air purifiers and air conditioners. Some members of the community require financial assistance to implement these measures and ensure their homes are safe during air pollution events.

The NSW Clean Air Strategy should propose a scheme to assist people of low socio-economic status with asthma with the costs of purchasing and running air purifiers.

**RECOMMENDATION 13: The NSW Clean Air Strategy should recognise the need to provide financial support to people of low socio-economic status with asthma towards the costs associated with using air purifiers with a HEPA filter. (Refer to Recommendation 10 which addresses making homes resilient to air pollution.)**



## References

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- <sup>2</sup> Zosky, G. et al (2021) Centre for Air pollution, energy and health Research-CAR Position paper: There is no 'safe' level of air pollution, available online: [https://8a9fccf2-785f-43a0-af75-f07582c6bf73.filesusr.com/ugd/d8be6e\\_52cdc24df1e24a9497a967faf6e633f4.pdf](https://8a9fccf2-785f-43a0-af75-f07582c6bf73.filesusr.com/ugd/d8be6e_52cdc24df1e24a9497a967faf6e633f4.pdf).
- <sup>3</sup> Asthma Australia (2021) Woodfire Heaters and Health Survey Key Findings Report (n=25,039), available online: <https://asthma.org.au/about-us/media/public-would-support-a-phase-out-of-woodfire-heaters/>.
- <sup>4</sup> Australian Bureau of Statistics (ABS) (2018) National Health Survey: First Results 2017-18, ABS Cat no. 4364.0.55.001.
- <sup>5</sup> NSW Health (2016) NSW Adult Population Health Survey, 2016.
- <sup>6</sup> NSW Population Health Survey (SAPHaRI) (2019) Centre for Epidemiology and Evidence, NSW Ministry of Health.
- <sup>7</sup> ABS (2020) Causes of Death, Australia, 2019.
- <sup>8</sup> Australian Institute of Health and Welfare (AIHW) (2019) [www.aihw.gov.au/reports/chronic-respiratory-conditions/](http://www.aihw.gov.au/reports/chronic-respiratory-conditions/).
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- <sup>11</sup> Asthma Australia (2021) Woodfire Heaters and Health Survey Key Findings Report (n=25,039), available online: <https://asthma.org.au/about-us/media/public-would-support-a-phase-out-of-woodfire-heaters/>.
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