# Health impacts of exposure to poor levels of air quality resulting from bushfires and drought

NSW Parliament Portfolio Committee No. 2 - Health

**NCOSS Submission** 

# **About NCOSS**

The NSW Council of Social Service (NCOSS) works with and for people experiencing poverty and disadvantage to see positive change in our communities.

When rates of poverty and inequality are low, everyone in NSW benefits. With 80 years of knowledge and experience informing our vision, NCOSS is uniquely placed to bring together civil society to work with government and business to ensure communities in NSW are strong for everyone.

As the peak body for health and community services in NSW we support the sector to deliver innovative services that grow and develop as needs and circumstances evolve.

Published March 2020.

© NSW Council of Social Service (NCOSS)

This publication is copyright. Non-profit groups have permission to reproduce part of this book as long as the original meaning is retained and proper credit is given to the NSW Council of Social Service. All other persons and organisations wanting to reproduce material from this book should obtain permission from the publishers.

NCOSS can be found at:

3/52-58 William St, WOOLLOOMOOLOO NSW 2011

phone: (02) 9211 2599 email: <a href="mailto:info@ncoss.org.au">info@ncoss.org.au</a> website: <a href="mailto:www.ncoss.org.au">www.ncoss.org.au</a> facebook: <a href="mailto:on.fb.me/ncoss">on.fb.me/ncoss</a>

twitter: @ ncoss

### Introduction

NCOSS welcomes the opportunity to contribute to the inquiry into health impacts of exposure to poor levels of air quality resulting from bushfires and drought. This inquiry comes after the worst bushfire season for NSW on record, during which at least 5.3 million hectares (6.7% of the state) has been burnt as of 28 January 2020.<sup>1</sup> It is likely to be years before we understand the full impact of the 2019-20 bushfires and ongoing drought on the community, environment and economy.

NCOSS is the peak body for community services supporting people experiencing poverty and inequality. People living with poverty are generally more vulnerable to natural disasters and often experience the impacts first and hardest. They have limited resources and more financial strain, reduced options, less power and fewer social connections to cope, adapt or recover. They are most likely to live in higher risk climate-affected areas.<sup>2,3</sup>

Response and recovery plans for disaster events often risk overlooking those whose needs and vulnerabilities were pre-existing the event. This submission therefore responds to the inquiry's Terms of Reference regarding the impact on the health and wellbeing of particular at-risk groups, and highlights the heightened need to provide for these groups during disaster events. This includes people who were already living with limited resources and unable to seek shelter from hazardous air quality and other environmental conditions due to the 2019-20 bushfires.

NCOSS also stresses that at the core of this issue is the climate crisis. Since the 1950s, climate change has led to longer, more intense fire seasons and an increase in the average number of elevated fire weather days.<sup>4</sup> If the current trajectory of climate change continues, communities will increasingly face a heightened risk of disaster events like the 2019-20 bushfires.<sup>5,6</sup>

Any response to the health impacts of bushfire smoke must acknowledge and address the climate-related drivers. NCOSS continues to strongly advocate for renewable and clean energy solutions to reduce emissions and mitigate the wide-ranging impacts of climate change. We refer the Committee to our <u>joint statement</u> with the state, territory and national Councils of Social Service on the need for a strong climate response (Attachment A).

## Summary of recommendations

- 1. Enhance the resilience and capacity of the health system to respond to disaster events, with specific focus on the needs of vulnerable, at-risk groups.
- 2. Explore the need for 'specialist' evacuation centres to support people with complex needs, and review policy and protocol for all centres, including appropriateness of venue and conditions around admittance to ensure no one seeking assistance is turned away.
- 3. Resource the community services sector to cope with increased demand during and following disaster events, and develop disaster resilience and response strategies for future events. This should include ensuring services on the ground are able to provide assertive outreach support and basic environmental protection supplies, such as face masks.

- 4. Boost investment in social and community housing across the state and in fire-affected areas.
- 5. Review minimum housing standards with respect to managing external environmental conditions including hazardous air quality.

### Impact on people experiencing poverty

During the 2019-20 bushfires, communities across NSW were subject to consecutive days of smoke haze up to 11 times the base 'hazardous' air pollution level – a situation deemed a 'public health emergency' by a coalition of 28 health and medical groups.<sup>7</sup>

People living with poverty and disadvantage were particularly at risk, given they experience poorer health outcomes and a higher prevalence of pre-existing respiratory conditions.<sup>8,9</sup> We refer the Committee to a new map from NCOSS and NATSEM,<sup>10</sup> showing that the 2019-20 bushfires affected some of the highest poverty SA2 regions in NSW, including (poverty rate shown):

- Batemans Bay 19.5%
- Kempsey 19.2%
- Grafton 18.2%
- Port Macquarie 15.6%

- Lithgow 15.3%
- Eurobodalla Hinterland 15.2%
- Bega-Eden Hinterland 15.2%

Disaster events force people to make hard financial choices that can have long-term effects, such as forgoing spending on health care in place of other expenses. In many cases, health care is often not available or accessible during times of crisis. The 2019-20 bushfires and future events therefore have significant implications for the future impact on and planning needs of the health system and services sector.

NCOSS has heard stories from members on the ground of clients who struggled to access health care and evacuation support during the 2019-20 bushfires, despite there being a clear need and pre-existing health conditions:

"We saw issues in homeless individuals who were struggling to breathe with the smoke in the air...One in particular struggles with asthma and the evacuation centre refused to allow her to stay with them even though she presented to them and stated she was struggling with breathing in the smoke no matter how much medication she takes...she asked if she could just take a break in the evacuation centre and they turned her away stating she was homeless due to other reasons than the fire so she did not qualify to stay. This put her on the street with a breathing condition as even the hospital stated they had no beds...

...We also have a lot of people in this area who are elderly, the hospital staff stated they were full with elderly who were struggling to breathe and people were being sent to Canberra. Our little area was definitely not prepared." – Mission Australia specialist homelessness service, Cooma

**Recommendation 1:** Enhance the resilience and capacity of the health system to respond to disaster events, with specific focus on the needs of vulnerable, at-risk groups.

The above account also raises alarming questions around the 'eligibility' of people seeking assistance from evacuation centres. It is unclear whether it is standard protocol for evacuation centres to turn people away if they do not meet certain criteria. If someone is seeking shelter from the bushfires and/or smoke, it should not matter what their personal or financial situation is or whether their state of homelessness was pre-existing, or due to, the bushfires.

There is also the question of how well-equipped evacuation centres are to manage other environmental conditions brought on by the bushfires. NCOSS members in fire-affected areas describe evacuation centres established in open-air facilities such as showgrounds, where there was no respite from the smoke. By contrast, other evacuation centres were established in more appropriate indoor venues with air-conditioning, such as local RSL clubs.

Members also told NCOSS that many evacuation centres were challenging environments for people with disability and/or mental health issues. It is unsurprising that under the conditions these centres were crowded, chaotic and unequipped to provide specialist support for people with specific and complex needs. Some disability support services were forced to consider setting up separate evacuation centres for their clients, but this was not possible at the time because of communication systems and other requirements.

**Recommendation 2:** Explore the need for 'specialist' evacuation centres to support people with complex needs, and review policy and protocol for all centres, including appropriateness of venue and conditions around admittance to ensure no one seeking assistance is turned away.

US research has shown that poverty rates increase in areas hit by severe disasters.<sup>12</sup> When we consider the high rates of poverty already existing in NSW communities recently affected by the bushfires,<sup>13</sup> it is likely that future bushfires and drought will continue to exacerbate the factors contributing to poverty.

Community services on the ground are already experiencing a surge in demand for support and struggling to meet this within existing resources. Accounts from members, such as those provided in the Bega case study further on in this submission, demonstrate the challenges services face in trying to provide their clients with basic supplies and assistance. During evacuation periods, complications arose such as staff and residents being trapped in group homes for extended periods, with no communication or opportunity to leave because of inaccessible roads. Not only do services now need to manage increased demand, they also need to start thinking about getting expert guidance to review their evacuation plans and specific needs of their clients in the event of another disaster.

The community services sector is already dealing with no growth funding and inadequate indexation to cover wage increases and other costs, which in real terms means reduced funding.<sup>14</sup> Disaster relief funding therefore needs to include an immediate boost to these services. A 2017 World Bank report stated that in 11 countries, every \$1 spent on post-disaster relief was found to add \$4 to the national economy.<sup>15</sup>

**Recommendation 3:** Resource the community services sector to cope with increased demand during and following disaster events, and develop disaster resilience and response strategies for future events. This should include ensuring frontline services are able to provide assertive outreach support and basic environmental protection supplies, such as face masks.

## Impact on people experiencing homelessness and renters

People experiencing or at risk of homelessness have a higher risk of exposure to environmental conditions detrimental to their health, <sup>16</sup> and therefore need heightened support during disaster events. According to the latest ABS Census data, in 2016 there were over 37,000 people experiencing homelessness in NSW, including more than 2,500 people 'sleeping rough' - an over 30% increase from 2011 figures. <sup>17</sup> These numbers are likely to have been much higher during the 2019-20 bushfires.

The 2019-20 bushfires posed a particular challenge for specialist homelessness services and their clients. Many services providing assertive outreach support during the bushfires were unable to obtain face masks for their clients for days, if at all. Clients housed in temporary accommodation were in older properties that could not keep the smoke out. Motels and hotels were fully occupied by volunteers and emergency personnel, meaning clients seeking temporary accommodation through Link2Home had even less options than usual. It is likely that the number of people being forced to 'sleep rough' in hazardous air quality conditions – including those who would ordinarily be housed in temporary accommodation – rose during this time.

"During [the bushfires], motels and hotels were full of volunteers and fire crew which made assisting individuals who needed to get off the streets, especially during the smoky weeks, unable to obtain accommodation even through Link2Home." - Mission Australia specialist homelessness service, Cooma

The impact on mental health is also an important issue to consider. A significant proportion of rough sleepers have been reported to already live with a mental health issue (47%) or diagnosis (39%),<sup>18</sup> which would only be exacerbated by the highly stressful nature of coping with a disaster event and harmful environmental conditions.<sup>19</sup>

It should be a top priority to provide people with stable housing, particularly in the aftermath of a disaster. With over 50,000 people still on the social housing waiting list,<sup>20</sup> there is an overwhelming need to invest in more housing.

**Recommendation 4:** Boost investment in social and community housing across the state and in fire-affected areas.

The 2019-20 bushfires showed there is also a significant need to ensure that rental properties provide adequate shelter from hazardous air quality. NCOSS research reveals that between 40-50% of private renters in five recently fire-affected communities are living in poverty,<sup>21</sup> many of whom are unlikely to be in modern properties with well-sealed windows and doors and/or air-conditioning.

Residential tenancies legislation in NSW now requires rental properties to be 'fit for habitation' by meeting seven minimum standards, one of which is that the property has 'adequate ventilation'. The 2019-20 bushfires have shown that there is now an increasing need to ensure housing can provide adequate shelter to its occupants from airborne pollutants as bushfire seasons become more extreme.

**Recommendation 5:** Review minimum housing standards with respect to managing external environmental conditions including hazardous air quality.

### Case study: the impact in Bega

Across the Bega Valley region, well over 400 homes were lost during this bushfire season. The region includes Cobargo, a town largely burnt through on New Year's Eve. Three people lost their lives. Then on 1 February 2020, strong winds and high temperatures pushed the 177,000-hectare Border fire north towards Bega Valley while three separate blazes burning south-west of the region merged into one.

Just over 15% (around 1,200 people) of the entire Bega-Eden Hinterland population live in poverty, at a rate higher than both Sydney and the whole of NSW. Almost one third (31%) of these are private renters.<sup>22</sup>

The impact on the ground for people already experiencing or at risk of homelessness and specialist homelessness services has been significant and unprecedented. Below are firsthand accounts provided to NCOSS by Mission Australia specialist homelessness services in the Bega Valley region, outlining impacts to their clients' health, wellbeing and safety:

---

"I think what we saw during the fires in the Bega Valley was that nobody could escape from the bushfire smoke...People who were in the evacuation centres were given face masks but again nothing could assist with the smoke...I don't think it mattered if you were a vulnerable person who is sleeping rough or a person who has a house – the smoke and ash was just too much. It's something that has never been seen before."

---

"Several of my clients have indicated an increase in respiratory concerns due to smoke from the recent fires. A number of these clients are over 60 years of age and had pre-existing conditions. Over the New Year period, the Bega Valley was exposed to a full week without sunlight and heavy smoke. Other areas directly or almost impacted by fires suffered severe smoke exposure.

These clients were ill equipped to cope with smoke conditions i.e. poor ventilation where they were staying and no transport meaning having to walk and be exposed to the elements."

---

"As all my clients are transitional clients they are all housed, so primarily the effects of the fires were more around their already diminished mental health. The fires heightened their existing mental health challenges as everyone was in crisis mode...

...the properties are obviously older homes which meant the smoke seeped into the property easily, making it very difficult for clients' breathing. The added barrier on this is that most of my clients do not own a car or hold a valid licence. This means they had no access to obtain masks or to even flee to a supportive safe

place like the evacuation centre – they were isolated in their homes and if they had to vacate they were not able to as the public transport here is terrible...

...I also found some of my clients can't afford Wi-Fi or credit to keep up to date with fire movements and advice from local councils and fire fighters when needed, as the news outlets only focused on the main towns and didn't advise on the surrounding areas. A lot of clients were unaware of how much danger they were actually in."

---

"During the bushfire crisis people were evacuated to Bega and Merimbula. I was evacuated to Bega. There were NO masks available anywhere and I was unable to provide any to my clients for some days. Several of my clients suffer from emphysema so the impact on them was enormous.

One [client] was at the Kalaru Caravan Park (which was evacuated), he was struggling so hard to breathe that his daughter booked him a REX flight to Melbourne. He had to pay for this and the return flight out of his pension and put his dog in kennels. On his return he found (despite my advocacy) that he was unable to claim the \$1,000 [Disaster Relief Payment] offered by the Commonwealth Government as he had not actually lost his house (as he didn't have one). So, his impact was severe financially and he doubts he will ever recover from that.

Another lived in Wyndham where the bushfire came very close to the property where he had a caravan. Again, he could not breathe, there were no masks for him when he was evacuated to Merimbula and his health is still impacted.

[For those] clients who were living 'indoors' – not one had an air conditioner, all homes in our area have been affected by smoke and ash so there has been the additional impact of the clean up on all clients.

The worst impact of course is that there is now less housing than ever. The rents have gone ridiculously high as insurance companies are putting their insured clients in rentals."

We would welcome the opportunity to discuss the issues raised in this submission. For further information please do not hesitate to contact Director of Policy & Research Anna Bacik on (02) 8960 7916 or via email at anna@ncoss.org.au.

### References

<sup>1</sup> NSW Department of Planning, Industry and Environment 2020, *Understanding the impact of the 2019-20 bushfires*, NSW Department of Planning, Industry and Environment, viewed 5 March 2020, <a href="https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/fire/park-recovery-and-rehabilitation/recovering-from-2019-20-fires/understanding-the-impact-of-the-2019-20-fires>

- <sup>3</sup> Islam, SN & Winkel, J 2017, *Climate Change and Social Inequality*, DESA Working Paper No.152, Department of Economic & Social Affairs, United Nations, viewed 3 February 2020, <a href="https://www.un.org/esa/desa/papers/2017/wp152\_2017.pdf">https://www.un.org/esa/desa/papers/2017/wp152\_2017.pdf</a>
- <sup>4</sup> CSIRO 2020, The 2019-20 bushfires: a CSIRO explainer, CSIRO, viewed 5 March 2020,
- <a href="https://www.csiro.au/en/Research/Environment/Extreme-Events/Bushfire/preparing-for-climate-change/2019-20-bushfires-explainer">https://www.csiro.au/en/Research/Environment/Extreme-Events/Bushfire/preparing-for-climate-change/2019-20-bushfires-explainer</a>
- <sup>5</sup> van Oldenborgh, GJ et al 2020, *Attribution of the Australian bushfire risk to anthropogenic climate change*, World Weather Attribution, viewed 5 March 2020, <a href="https://www.worldweatherattribution.org/bushfires-in-australia-2019-2020/">https://www.worldweatherattribution.org/bushfires-in-australia-2019-2020/</a>
- <sup>6</sup> Dowdy, AJ, Pepler, A, Ye, H et al 2019, 'Future changes in extreme weather and pyroconvection risk factors for Australian wildfires', *Scientific Reports*, vol.9, no.10073, viewed 5 March 2020, <a href="https://doi.org/10.1038/s41598-019-46362-x">https://doi.org/10.1038/s41598-019-46362-x</a>
- <sup>7</sup> Climate and Health Alliance 2019, *Joint Statement: Air Pollution in NSW is a Public Health Emergency*, Climate and Health Alliance, viewed 5 March 2020, <a href="https://www.caha.org.au/air-pollution">https://www.caha.org.au/air-pollution</a>>
- <sup>8</sup> Lee, YS, Oh, JY, Min, KH, Lee, SY, Kang, KH & Shim JJ 2019, 'The association between living below the relative poverty line and the prevalence of chronic obstructive pulmonary disease', *Journal of Thoracic Disease*, vol.11, no.2, pp.427-437, viewed 5 March 2020, <a href="http://jtd.amegroups.com/article/view/26713/html">http://jtd.amegroups.com/article/view/26713/html</a>
- <sup>9</sup> Ramsay, SE, Whincup,PH, Lennon, LT 2011, 'Longitudinal associations of socioeconomic position in childhood and adulthood with decline in lung function over 20 years: results from a population-based cohort of British men', *Thorax*, vol.66, pp.1058–1064 <sup>10</sup> <a href="https://canberra.maps.arcgis.com/apps/view/index.html?appid=c0c4a2bb05b24ac4905e4db4ff349507">https://canberra.maps.arcgis.com/apps/view/index.html?appid=c0c4a2bb05b24ac4905e4db4ff349507>
- <sup>11</sup> Bangalore, M, Hallegatte, S, Rozenberg, J & Vogt-Schilb, A 2017, *Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters*, World Bank Group, Washington DC, viewed 3 March 2020,
- <a href="https://openknowledge.worldbank.org/handle/10986/25335">https://openknowledge.worldbank.org/handle/10986/25335</a>
- <sup>12</sup> Boustan, LP, Kahn, M, Rhode, PW & Yanguas, ML 2019, *The Effect of Natural Disasters on Economic Activity in US Counties: A Century of Data*, National Bureau of Economic Research, Cambridge, viewed 3 March 2020, <a href="https://www.nber.org/papers/w23410">https://www.nber.org/papers/w23410</a>
- <sup>13</sup> NSW Council of Social Service 2020, Mapping Economic Disadvantage in Fire Affected Communities, NSW Council of Social Service, Sydney.
- <sup>14</sup> NSW Council of Social Service 2020, 'New survey shows New South Wales community services and workers at risk from funding uncertainty', *NSW Council of Social Service*, Media Release, 27 February, <a href="https://www.ncoss.org.au/news-and-events/media-releases/new-survey-shows-new-south-wales-community-services-and-workers-at">https://www.ncoss.org.au/news-and-events/media-releases/new-survey-shows-new-south-wales-community-services-and-workers-at</a>
- <sup>15</sup> Bangalore, M, Hallegatte, S, Rozenberg, J & Vogt-Schilb, A 2017, *Unbreakable: Building the Resilience of the Poor in the Face of Natural Disasters*, World Bank Group, Washington DC, viewed 3 March 2020, <a href="https://openknowledge.worldbank.org/handle/10986/25335">https://openknowledge.worldbank.org/handle/10986/25335</a>>
- <sup>16</sup> Ramin, Brodie, & Svoboda T 2009, 'Health of the homeless and climate change', *Journal of urban health: bulletin of the New York Academy of Medicine*, vol.86, no.4, pp.654-64, DOI:10.1007/s11524-009-9354-7
- <sup>17</sup> 'Sleeping rough' can mean living on the streets, sleeping in parks, squatting, staying in cars or railway carriages or living in improvised dwellings. See Australian Institute of Health and Welfare 2018, *Sleeping rough: a profile of Specialist Homelessness Services clients*, Cat. no. HOU 297, AIHW, Canberra.
- <sup>18</sup> Australian Institute of Health and Welfare 2018, *Sleeping rough: a profile of Specialist Homelessness Services clients*, Cat. no. HOU 297, AIHW, Canberra.
- <sup>19</sup> World Health Organization 2017, *Mental health in emergencies*, Factsheet, World Health Organization, viewed 28 April 2019, <a href="https://www.who.int/news-room/fact-sheets/detail/mental-health-in-emergencies">https://www.who.int/news-room/fact-sheets/detail/mental-health-in-emergencies>
- <sup>20</sup> NSW Department of Communities & Justice 2019, *Applicants on the NSW Housing Register as at 30 June 2019*, NSW Department of Communities & Justice, viewed 9 March 2020, <a href="https://www.facs.nsw.gov.au/housing/help/applying-assistance/expected-waiting-times">https://www.facs.nsw.gov.au/housing/help/applying-assistance/expected-waiting-times</a>
- <sup>21</sup> See page 13 of NSW Council of Social Service 2020, Mapping Economic Disadvantage in Fire Affected Communities, NSW Council of Social Service, Sydney.
- <sup>22</sup> NSW Council of Social Service 2020, *Mapping Economic Disadvantage*, NSW Council of Social Service, viewed 4 March 2020, <a href="https://maps.ncoss.org.au/">https://maps.ncoss.org.au/</a>

<sup>&</sup>lt;sup>2</sup> Councils of Social Service Network 2019, COSS Climate Statement, Australian Council of Social Service, 12 December, viewed 3 February 2020 <a href="https://www.acoss.org.au/coss-climate-statement/">https://www.acoss.org.au/coss-climate-statement/</a>