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VCOSS Submission to the Inquiry into Health Impacts of Air Pollution in Victoria

The Victorian Council of Social Service (VCOSS) is the peak body for the community services sector in Victoria. We advocate for a fair and equitable society by supporting the social service industry and representing the interests of Victorians facing disadvantage.

VCOSS welcomes the opportunity to provide input to the Environment and Planning Committee's Inquiry into Health Impacts of Air Pollution in Victoria.

Air pollution is harming Victorians' health and wellbeing and urgent action is required to protect the people most exposed and most susceptible. Communities must be alerted about hazardous air quality and be equipped to reduce their exposure.

Air pollution does not affect us equally

Air pollution kills around 4,880 people in Australia every year.ⁱ It impairs lung function, damages the cardiovascular system, and exacerbates asthma. Areas with poor air quality also have higher rates of diabetes, dementia, and mental illness.

The people most susceptible to health problems from air pollution are young children, older people, pregnant women, and people with heart or lung disease.ⁱⁱ The people most exposed include people working outdoors and people sleeping rough, without a home to shelter in.ⁱⁱⁱ

People experiencing financial disadvantage are more vulnerable to air pollution because they are more likely to live in poor quality housing and have less ability to modify their environments, for example by draught proofing their homes or installing expensive high-efficiency particulate absorbing (HEPA) filter systems.^{iv} Low-income households are also priced out of leafy suburbs where there is less traffic pollution and higher air quality.^v

The location of industrial pollution is also inequitable. Low- to middle-income suburbs host 90 per cent of the facilities listed in the National Pollutant Inventory.^{vi} In Victoria, industrial emissions are highest in the Latrobe Valley with AGL's Loy Yang power station the primary contributor.^{vii} An ExxonMobil oil refinery produces most of the industrial emissions in Altona, which has the highest industrial pollution in Melbourne.^{viii}

Smoke is an emergency in itself

Bushfires and industrial fires pollute the air with hazardous particles that harm local communities with little warning. Air quality plummets at short notice and communities are often advised to stay indoors and limit outdoor exercise.

In Victoria, smoke from the 2019-20 Black Summer bushfires was responsible for 120 deaths and around 1,300 hospital admissions for cardiovascular illness, respiratory disease, and asthma.^{ix} Smoke irritation can also result in burning eyes, shortness of breath, and headaches.^x

The West Footscray industrial fire sent a plume of toxic smoke over neighbouring suburbs in August 2018 after dangerous chemicals caught alight in a warehouse in Tottenham.^{xi} Community members reported symptoms including nausea, repeated blood noses, and sore chests.^{xii}

The Hazelwood Mine Fire burnt for 45 days in 2014 and exposed community members to smoke, ash, and carbon monoxide.^{xiii} Local residents reported breathlessness, stinging eyes, and lethargy and felt anxious about the future health implications.^{xiv}

“Community members would say ‘I’ve never had asthma but now I do’ or ‘I’m having trouble breathing’ or ‘I feel dizzy and my head is fuzzy’.”

Morwell community organisation^{xv}

Provide targeted and appropriate communication

Recommendation

Ensure communication with communities is clear, timely and accessible.

Broaden the use of the Emergency Alert system.

The Inspector-General for Emergency Management (IGEM) reviewed the response to the West Footscray industrial fire and found that official communications did not address the community’s concern about their health and safety.^{xvi} For example, residents were told not to worry about the smoke yet schools were closed and emergency personnel wore HAZMAT gear.^{xvii}

This mirrors the experience of communities impacted by the Hazelwood Mine Fire. Residents were frightened by the thick smoke but a lack of information exacerbated their anxiety.^{xviii} People wanted to understand the long-term implications for their health but were told the impact would only be minor and fleeting, leading to significant distrust within the community.^{xix}

Communication during bushfires and industrial fires must address community concern by clearly outlining the potential health impacts of smoke and explaining how residents can minimise their exposure. Messages should be tailored to different at-risk cohorts to ensure that health advice is practical and meets specific needs.

Information must be easy to understand, translated into all necessary languages, and communicated through multiple channels. Apps and opt-in services are useful but need to be complemented by targeted communications for broad coverage, particularly so people with low digital literacy do not miss out.

The Emergency Alert System can also be utilised to improve communication about smoke.^{xx} Although it is currently restricted to situations with a clear threat to life, alerts could provide an initial warning for all significant incidents and direct recipients to accurate sources of information. This was Recommendation 4 of the IGEM's review of the West Footscray industrial fire.

“The Inspector-General for Emergency Management recommends that Emergency Management Victoria coordinate a review of the use of the Emergency Alert system in circumstances beyond the immediate threat to life. The review should consider how the system could be used to inform the impacted community of the emerging event and how to source information without compromising its effectiveness in life-threatening situations.”

Inspector-General for Emergency Management^{xxi}

Provide safe shelter for people to escape smoke

Recommendation

Build on the Big Housing Build.

Create a network of climate-adapted community facilities.

Common health advice for communities affected by smoke is to shelter indoors with windows and doors closed.^{xxii} People sleeping rough do not have this option, however, further highlighting the importance of addressing homelessness in Victoria. The Big Housing Build is a historic investment in social housing but needs to be extended so enough housing is built to ensure a safe home for all.

People also resort to sheltering from smoke in libraries and shopping centres but opening hours can be limited and they might be asked to leave by security. Infrastructure Victoria's Draft 30-year Infrastructure Strategy addresses this issue by recommending the construction of public shelters built for a broader purpose.^{xxiii}

“Create climate-adapted facilities for rural communities: In the next five years, fund local governments to plan and help deliver a network of designated, accessible climate-adapted community facilities, to manage the health impacts of extreme heat and bushfire smoke.”

Infrastructure Victoria^{xxiv}

The network could begin in regional Victoria and expand to Melbourne. These safe facilities also need to be accessible and responsive to community need. For example, during the Black Summer bushfires, some evacuation centres were not accessible for people with disability or were chaotic, crowded, and challenging environments for people with mental illness. Some people sought shelter from the smoke but were turned away because they had not been made homeless by the bushfire itself.

Distribute facemasks

Recommendation

Resource the community sector to provide protective facemasks to vulnerable households.

P2 and N95 facemasks protect people from smoke by filtering out fine air pollutants.^{xxv} During the 2019-20 Black Summer bushfires, however, many community organisations were unable to source protective gear for vulnerable clients.^{xxvi}

Community organisations should be provided with facemasks during emergencies to distribute to community members at risk. For example, Morwell Neighbourhood House was a designated collection point for P2 facemasks during the Hazelwood Mine Fire.^{xxvii}

It should be noted that facemasks are only effective if they are fitted correctly and can make it harder to breathe due to the tight seal.^{xxviii} Communication campaigns should include information about choosing a suitable facemask and wearing it correctly. Other types of protection should also be investigated so suitable alternatives can be provided if a facemask cannot be fitted properly, particularly for children, culturally diverse people, and people with facial hair.

Air pollution is a daily hazard

Poor air quality is the norm for several communities in Victoria. There are 12 air pollution hot spots in Australia and four are located in Victoria: the Latrobe Valley in Gippsland, and Yarraville and Brooklyn in western Melbourne.^{xxix}

Coal-fired power stations are the primary source of air pollution in the Latrobe Valley.^{xxx} Yallourn and Loy Yang A are the second and third highest emitters of fine particulates in Australia. These energy generators also produce high levels of sulphur dioxide and mercury.

Concern about air quality has grown in the Latrobe Valley since the Hazelwood Mine Fire, however, with community members seeking more information about the impact of pollution on their health. Consultation by the Latrobe Health Advocate uncovered strong opposition to industrial developments that worsen local pollution.^{xxxi}

“Community members say ‘we don’t want to be a sacrifice community anymore’. The narrative has changed. New industries have to be health-neutral because it’s no longer about jobs at all costs.”

Morwell community organisation^{xxxii}

Meanwhile transport and industrial emissions are responsible for the poor air quality in western Melbourne.^{xxxiii} The area is a hub of factories and warehouses and serves as a thoroughfare for commuters and diesel trucks between the CBD, the Port of Melbourne, and surrounding suburbs.

Communities in the inner western suburbs of Melbourne experience higher rates of pollution-related health problems including heart disease, asthma, and lung cancer.^{xxxiv} For example, 20 per cent of students at Wembley Primary School are asthmatic, which is twice the national average.

“The burden of air pollution isn’t shared equally. Breathable air isn’t a privilege, it’s a right.”

Western Melbourne council^{xxxv}

Reduce exposure to air pollution

Recommendation

Upgrade childcare centres, schools, aged care facilities, and medical centres and keep them away from air pollution hot spots.

Increase green space and tree cover in communities with lower average incomes and higher rates of air pollution.

Young children are susceptible to the health impacts of air pollution. But an analysis of 278 childcare centres in Melbourne found that nearly a quarter were within 150 metres of a major road.^{xxxvi} This includes a centre located on an intersection used by 4,650 trucks a day and a centre situated 15 metres from an eight-lane highway.

Air pollution is not considered when building new childcare centres but stringent planning guidelines are needed to keep them away from major roads and industrial sites. Schools, aged care facilities, and medical centres should also be included.

Existing facilities near air pollution hot spots are not lost causes, however, and should be upgraded to limit exposure to the poor air quality outside. This includes adequate sealing, efficient air-conditioning, and air purifiers with a HEPA filter.^{xxxvii}

Green space is another way to reduce communities’ exposure to air pollution. Trees absorb carbon dioxide and other pollutants and can act as a barrier when planted near major roads and industrial sites.^{xxxviii}

For example, ‘Yarraville On the Nose’ is a community group reducing air pollution in West Yarraville by planting trees.^{xxxix} The initiative began with \$50,000 from the Environmental Protection Agency’s (EPA’s) ‘Inspiring Environmental Solutions’ program and receives ongoing funding through penalties paid by companies found guilty of pollution.

Monitor the problem

Recommendation

Increase the number of air quality monitoring sites across Victoria.

Monitor air pollution at childcare centres, schools, aged care facilities, and medical centres.

The EPA’s public AirWatch website displays the hourly air quality at 26 standard monitoring sites across Victoria.^{xl} This includes seven sites in the Latrobe Valley and three sites in western Melbourne. The Victoria Auditor-General Office deemed this insufficient, however, as did the Victorian Government’s Inner West Air Quality Community Reference Group.^{xli}

“We recommend that the Environment Protection Authority expand its air monitoring network by ... designing and implementing an air monitoring program that better aligns coverage with air pollution risks that Victorian communities are exposed to.”

Victoria Auditor-General Office^{xlii}

The number of monitoring sites must be increased across Victoria, particularly in communities near major roads, industrial sites, and freight corridors. Air quality should also be monitored at childcare centres, schools, aged care facilities, and medical centres near pollution hot spots.

Raise awareness of air pollution

Recommendation

Alert communities about poor air quality and how to reduce their exposure.

Fund community health organisations and Aboriginal Community Controlled Organisations to improve awareness of air pollution and provide targeted advice.

Communities need to be notified about periods of high air pollution so they can limit their exposure and plan accordingly. Alert systems can be utilised to warn people about hazardous air quality and to provide advice about keeping safe. Residents can also be encouraged to check tools that display accessible and easy-to-understand information about local air pollution.

For example, the Latrobe Valley Information Network (LVIN) monitors air pollution and local weather conditions via 45 sensors.^{xliii} The data is displayed on a website that allows users to easily check local air quality but a phone app also issues alerts when pollution is high.

Community health organisations and Aboriginal health services need to be funded to raise awareness about air pollution so residents know how to protect their health when air quality is poor. This includes advice such as checking air quality every morning, rescheduling outdoor exercise, and choosing a suitable facemask.

This submission was prepared by Ben Latham and authorised by VCOSS CEO Emma King.

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A fully accessible version is available online at vcoss.org.au/policy.

ⁱ Inner West Air Quality Community Reference Group, *Air Pollution in Melbourne's Inner West: Taking direct action to reduce our community's exposure*, March 2020.

ⁱⁱ Senate Community Affairs References Committee, *Impacts on health of air quality in Australia*, August 2013.

ⁱⁱⁱ S Vardoulakis et al, *Bushfire smoke: urgent need for a national health protection strategy*, Medical Journal of Australia, February 2020.

^{iv} *ibid.*

^v United Nations Environment Programme, *Air pollution hurts the poorest most*, 9 May 2019:

www.unep.org/news-and-stories/story/air-pollution-hurts-poorest-most

^{vi} Australian Conservation Foundation, *The dirty truth: Australia's most polluted postcodes*, November 2018.

^{vii} *ibid.*

^{viii} *ibid.*

^{ix} N Borchers Arriagada et al, *Unprecedented smoke-related health burden associated with the 2019-20 bushfires in eastern Australia*, Medical Journal of Australia, September 2020.

^x cohealth, *Staying safe from bushfire smoke*, accessed 7 April 2021:

www.cohealth.org.au/news/staying-safe-from-bushfire-smoke

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- ^{xi} Inspector-General for Emergency Management, *Report into the West Footscray Industrial Fire*, August 2020.
- ^{xii} J Kerr, *Weeks on from Footscray inferno, illness continues to haunt Melbourne's west*, ABC News, 21 September 2018: www.abc.net.au/news/2018-09-19/west-footscray-inferno-epa-response/10263864
- ^{xiii} Victorian Council of Social Service, *Hazelwood Mine Fire Inquiry*, May 2014.
- ^{xiv} S Whyte, *'They go into bat for me': Morwell Neighbourhood House, the Hazelwood Mine Fire and Recovery*, Centre of Research for Resilient Communities, Federation University, February 2017.
- ^{xv} Consultation with a community organisation based in Morwell.
- ^{xvi} IGEM, *West Footscray Industrial Fire*.
- ^{xvii} *ibid.*
- ^{xviii} VCOSS, *Hazelwood Mine Fire*.
- ^{xix} *ibid.*
- ^{xx} IGEM, *West Footscray Industrial Fire*.
- ^{xxi} *ibid.*, p14.
- ^{xxii} S Vardoulakis et al, *Bushfire smoke*.
- ^{xxiii} Infrastructure Victoria, *Victoria's Draft 30-Year Infrastructure Strategy*, December 2020.
- ^{xxiv} IV, *Draft Infrastructure Strategy*, p24.
- ^{xxv} cohealth, *Staying safe from bushfire smoke*.
- ^{xxvi} Victorian Council of Social Service, *VCOSS submission to the Royal Commission into National Natural Disaster Arrangements*, May 2020.
- ^{xxvii} S Whyte, *Morwell Neighbourhood House*.
- ^{xxviii} cohealth, *Staying safe from bushfire smoke*.
- ^{xxix} Environmental Justice Australia, *How to learn more about air pollution where you live*, accessed 7 April 2021: www.envirojustice.org.au/our-work/community/air-pollution/hows-your-air
- ^{xxx} M Slater, *Latest data shows Latrobe Valley coal-fired power stations are some of Australia's worst polluters*, Latrobe Valley Express, 9 April 2020: www.latrobevalleyexpress.com.au/story/6718343/valleys-stations-high-on-pollution-rankings
- ^{xxxi} Latrobe Health Advocate, *Sharing the voice of Latrobe Communities: October to December 2019*, January 2020.
- ^{xxxii} Consultation with a community organisation based in Morwell.
- ^{xxxiii} IWAQCRG, *Air Pollution in Melbourne's Inner West*.
- ^{xxxiv} *ibid.*
- ^{xxxv} Consultation with a local council in western Melbourne.
- ^{xxxvi} C Walter, *Traffic pollution near childcare centres in Melbourne*, Australian and New Zealand Journal of Public Health, July 2019.
- ^{xxxvii} S Vardoulakis et al, *Bushfire smoke*.
- ^{xxxviii} E Stewart, *New city parks are a breath of fresh air*, The Age, 3 February 2019: www.theage.com.au/national/victoria/new-city-parks-are-a-breath-of-fresh-air-20190201-p50v3i.html
- ^{xxxix} IWAQCRG, *Air Pollution in Melbourne's Inner West*.
- ^{xl} Environmental Protection Authority Victoria, *About EPA AirWatch*, accessed 7 April 2021: www.epa.vic.gov.au/for-community/monitoring-your-environment/about-epa-airwatch
- ^{xli} Victorian Auditor-General's Office, *Improving Victoria's Air Quality*, March 2018. IWAQCRG, *Air Pollution in Melbourne's Inner West*.
- ^{xlii} VAGO, *Improving Victoria's Air Quality*, p15.
- ^{xliii} Department of Infrastructure, Transport, Regional Development and Communications, *The Latrobe Valley Information Network (LVIN)*, accessed 7 April 2021: www.infrastructure.gov.au/cities/smart-cities/collaboration-platform/Latrobe-Valley-Sensor-Network.aspx