Pharmaceutical Society of Australia

Environmental sustainability

June 2022

Summary

1. **There is a climate emergency and it is affecting the health of the nation.**
2. **The healthcare sector must work towards net-zero carbon and reduce global warming to limit the negative health impacts of climate change.**
3. **Pharmacists have a professional obligation to create environmentally sustainable practices and provide environmentally sustainable clinical care.**
4. **Air pollution has significant negative health implications and there must be action to limit it in all forms.**
5. **Medicine disposal services must be easily accessible to all members of the community and health care professionals.**

1. Climate emergency affecting the health of the nation

PSA recognises climate change as an urgent issue affecting the health of the nation, with its impacts already seen in many communities, and disproportionally in those populations of social and health disadvantage. As a health issue, pharmacists have a professional obligation to work towards limiting the negative health impacts caused by climate change.

The World Health Organization (WHO) has identified that "climate change is the defining health issue of the 21st century" and estimates that it will cause approximately 250,000 additional deaths each year between 2030 and 2050. These deaths may be due to extreme weather events, such as heatwaves, bushfires, storms and floods, which put individuals at additional risk of heatstroke, injury, burns and smoke inhalation. Changing weather patterns impact nutrition, food and water security, as well as patterns of disease due to higher average temperatures increasing the transmission of vector-borne diseases.[1-3]

Vulnerable populations are disproportionately likely to suffer from climate-related health harms. For example, older people are more susceptible to heatstroke, while rural and remote communities have higher exposure to extreme weather coupled with reduced access to health infrastructure.[1,3] PSA has previously identified these populations, in Australia, as being at increased risk of medicine-related

harms,[4] demonstrating that poorer health outcomes may be experienced by vulnerable populations as a result of climate change. As such, the intersection between health, climate and inequality can be seen.

2. Working towards net-zero carbon and reducing global warming

PSA agrees with expert opinion that limiting global warming to 1.5°C and the creation of a national plan to transition the healthcare sector to net-zero carbon are imperative to protect the health of all Australians.

To limit the risk of climate change, PSA urgently calls on all levels of government to develop and implement plans to reduce greenhouse gas emissions to levels that will limit global warming to the evidence-based crucial health threshold of 1.5°C.[5] Australian states and territories, as well as the Australian government have committed to a Net Zero target by 2050.

To achieve this target, PSA endorses the view of experts that a more ambitious national target of 75% reduction in greenhouse gas emissions below the 2005 levels is needed in all sectors by 2035 to achieve this goal.[6] This target must explicitly include a plan for the health sector, and also consider the health impacts (benefits and harms) of all climate policies.[7] The 2021 WHO health and climate change global survey report found 73 of 95 countries (77%) that responded had developed, or were developing, a Health National Adaption strategy to consider the health risks of climate change and to outline health adaption and resilience priorities.[7] Health care itself is contributing significantly to Australia's carbon footprint and thus to climate change.[8] While state and territory governments have, or are working on, plans to transition their public hospitals and health services, a nation-wide plan to decarbonise the entire healthcare sector and transition to climate-resilient health services is needed.

3. Environmentally sustainable practices and clinical care

PSA recognises the importance of creating environmentally sustainable practices across the network, including, where possible, influencing more sustainable supply chain and manufacturing processes. With climate change affecting health, PSA insists pharmacists have a professional obligation to provide appropriate clinical care that is environmentally sustainable, both locally and globally.

With health and wellbeing of patients being primary concerns of pharmacists,[9] practitioners have a professional obligation to work towards limiting the negative health impacts caused by climate change through direct action, leadership and patient support. This obligation covers aspects of practice from energy use, waste reduction, service design and choice of consumables and is an obligation which has been recognised.[8,10] Due to growing evidence supporting the negative effect of climate change has on health, many health organisations have declared a 'health emergency' and called for action in reducing emissions.[8,10]

Actions to reduce the environmental footprint of the healthcare sector are often actions that support good clinical care through ensuring quality use of medicines and reducing low value or wasteful health care.

Using asthma care as an example, this may include[11–13]:

- optimising asthma control by reducing excessive use of short-term reliever inhalers or de-prescribing of inhalers that are no longer required
- confirming a diagnosis of asthma so that patients are not using medication unnecessarily or inappropriately
- where clinically appropriate, considering the use of inhalers that contribute less to the carbon footprint (e.g. dry powder inhalers rather than pressurised metered dose inhalers).

Pharmacists in leadership roles have an additional responsibility to oversee a transition to more environmentally sustainable practice, including, choosing environmentally sustainable providers for goods and services they oversee, incorporating sustainability into accreditation requirements and, where possible, influencing more sustainable supply chain and manufacturing processes.

PSA will:

- work towards reducing its own carbon footprint as an organisation
- as the peak body for pharmacists, provide guidance, advocacy, education and practice support tools for pharmacists to facilitate grassroots reductions in carbon emissions and practice changes aimed at preventing global warming
- support measures of pharmaceutical and healthcare industries to reduce pollution and improve waste management
- advocate for reductions in emissions and waste in the environment from health, social and built infrastructure to reduce climate change and its impact on individuals and communities.

To reduce the impact of health care on climate change, pharmacists have a professional obligation to provide appropriate clinical care that is environmentally sustainable both locally and globally. Proactively responding and preparing for a changing climate will alter many aspects of professional practice. PSA will guide pharmacists in implementing measures that can contribute to improving environmental sustainability.

4. Limiting air pollution

PSA calls for drastic action to limit all forms of air pollution to reduce the health risks it poses from respiratory, cardiovascular and other diseases.

Burning fossil fuels contributes to air pollution and is responsible for an estimated 8.7 million premature deaths each year.[14] The increased intensity and regularity of bushfires from changing weather patterns

leads to more bushfire smoke,[3] with Australia seeing one of the largest global increases in fire risk.[10] Air pollution takes many forms, including industrial pollution (e.g. photochemical smog), bushfire smoke, wood-fireplace smoke, vehicle exhaust fumes, allergens, carbon monoxide and household pollution (e.g. cleaning solvents).

The harmful effects of air pollution on health include lung cancer, stroke, allergy, chronic obstructive pulmonary disease, asthma and heart disease, among others. There is an urgent need to address air pollution for its devastating effects on the environment (including climate change) and the direct threat it poses to human and planetary health.

PSA calls for strong and effective action to limit all forms of air pollution to reduce the risks they pose to health, including measures which reduce particulate contamination, carbon dioxide emissions, pollen or irritants in household products.

5. Access to medicine disposal services

PSA believes that patients, carers, health professionals and the community must have access to safe and responsible medicine disposal services, such as through community pharmacies.

Medicines contribute significantly to the total carbon footprint of health care due to their manufacture, as well as transport and supply chain requirements.[8] Pharmacists can make a significant contribution to limiting climate change globally, through appropriate local action such as ensuring medicines are used only where appropriate, to optimal effect, and reviewed regularly.

Medicines can also have negative environmental impacts on water quality, health of wildlife and soil contamination when they are disposed of incorrectly in landfill, sewerage systems or litter.[15]

The safe collection and appropriate disposal of expired or unwanted medicines is an important public health role for pharmacists. Increasing use of pharmaceuticals and the development of new formulations have led to an increase in pharmaceutical waste production, with responsible disposal a fundamental part of safe and quality use of medicine policy and practice. As medicines experts, pharmacists are well placed to identify, mitigate and manage the environmentally responsible use and disposal of medicines.

While over 700,000kg of expired or unwanted medicines are safely destroyed each year through the national Return Unwanted Medicines (RUM) program,[16] only a fraction of all unwanted medicines is collected. Patients, health professionals, carers and the community must be able to access, and be made aware to use, safe, responsible medicine disposal services, such as the RUM program in community pharmacies.

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Supporting evidence / reference

1. Horsburgh N, Armstrong F, Mulvenna V. Framework for a national strategy on climate, health and well-being for Australia. Melbourne: Climate and Health Alliance 2017. At: https://d3n8a8pro7vhmx.cloudfront.net/caha/pages/40/attachments/original/1498008324/CAHA_Framework_for_a_National_Strategy_on_Climate_Health_and_Well-being_v05_SCREEN_%28Full_Report%29.pdf?1498008324
2. World Health Organization. Climate change and health. 30 Oct 2021. www.who.int/news-room/fact-sheets/detail/climate-change-and-health
3. Doctors for the Environment Australia. How climate change affects your health: the facts. Carlton: DEA; 2021. At: www.dea.org.au/wp-content/uploads/2021/08/How-Climate-Change-Affects-Your-Health-August-2021.pdf
4. Pharmaceutical Society of Australia. Medicine safety: aged care. Canberra: PSA; 2020. At: www.psa.org.au/wp-content/uploads/2020/02/Medicine-Safety-Aged-Care-WEB-RES1.pdf
5. Intergovernmental Panel on Climate Change. Climate change 2021: the physical science basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press; 2021. At: www.ipcc.ch/report/sixth-assessment-report-working-group-i/
6. Climate and Health Alliance. Healthy, regenerative and just: framework for a national strategy on climate, health and well-being for Australia. Melbourne: CAHA; 2021. At: https://d3n8a8pro7vhmx.cloudfront.net/caha/pages/1947/attachments/original/1639623234/caha-framework-2.0-FA.pdf?1639623234
7. World Health Organization. 2021 WHO health and climate change global survey report. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO. At: www.who.int/publications/i/item/9789240038509
8. Malik A, Lenzen M, McAlister S, et al. The carbon footprint of Australian health care. Lancet Planet Health 2018;2:e27–35. At: www.thelancet.com/action/showPdf?pii=S2542-5196(17)30180-8
9. Pharmaceutical Society of Australia. Code of ethics for pharmacists. Canberra: PSA; 2017. At: https://my.psa.org.au/s/article/Code-of-Ethics-for-Pharmacists
10. Beggs PJ, Zhang Y. The 2020 special report of the MJA–Lancet Countdown on health and climate change: lessons learnt from Australia's "Black Summer" (summary). Med J Aust 2020;213(11):490–492.e1.
11. Aaron SD, Vandemheen KL, FitzGerald JM, et al. Reevaluation of diagnosis in adults with physician-diagnosed asthma. JAMA 2017;317(3):269–79. At: https://jamanetwork.com/journals/jama/fullarticle/2598265
12. Jeswani HK, Azapagic A. Life cycle environmental impacts of inhalers. J Clean Prod. 2019;237:117733. At: www.research.manchester.ac.uk/portal/files/141949663/Environmental_impacts_of_inhalers.pdf
13. Woodcock A, Janson C, Rees J, et al. Effects of switching from a metered dose inhaler to a dry powder inhaler on climate emissions and asthma control: post-hoc analysis. Thorax 2022;218088. At: https://thorax.bmj.com/content/thoraxjnl/early/2022/01/12/thoraxjnl-2021-218088.full.pdf
14. Salas RN, Hayhoe, K. Climate action for health and hope. BMJ 2021;374:n2100. At: www.bmj.com/content/bmj/374/bmj.n2100.full.pdf
15. International Pharmaceutical Federation (FIP). Green pharmacy practice: taking responsibility for the environmental impact of medicines. The Hague: FIP; 2015. At: www.fip.org/www/streamfile.php?filename=fip/publications/2015-12-Green-Pharmacy-Practice.pdf
16. Return Unwanted Medicines. Pharmacists. At: https://returnmed.com.au/pharmacists/

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