

Environmental Health and Greening Neonatal Care

Introduction

The World Health Organization defines an environmentally sustainable health system as one that would "improve, maintain or restore health, while minimizing negative impacts on the environment and leveraging opportunities to restore and improve it, to the benefit of the health and well-being of current and future generations" (WHO, 2017). Therefore, minimising healthcare waste not only benefits the environment but also reinforces the vital connection between environmental and human health and well-being. Enhancing environmental practices will therefore yield significant advantages for human health.

Currently, the healthcare sector contributes significantly to Australia's carbon footprint (Malik, 2018). Healthcare services can generate high levels of carbon emissions, with research within and outside of Australia indicating that up to 60% of a health services total carbon footprint is related to the embodied carbon within goods and services used every day. While hospitals contribute the largest share of carbon emissions, the design of medical infrastructure, procurement, pharmaceutical production and other practices also contribute to this footprint.

ACNN position

As the professional body for neonatal nurses in Australia, ACNN recognises that achieving environmental sustainability through reducing carbon emissions, waste, and managing resources more efficiently will deliver better outcomes for the environment and contribute to greening neonatal care.

ACNN commitment

As a member-based organisation ACNN commits to:

- Working towards reducing the environmental and carbon footprint of our National Conference and secondary events.
- Educating members regarding impact on infants and their families of climate change.
- Endorsing and encouraging eco-friendly and impact reducing practices and processes.
- Establishing an enduring climate change engagement capability, including a willingness to collaborate with other key organisations or professional bodies to minimise environmental impact of neonatal care.
- Raising professional awareness of the health impacts of climate change by featuring sustainability and climate action at each National Conference.
- Advocating for national climate change and health strategies in Australia that include professional and community education, meaningful mitigation and adaptation targets and research funding.
- Reducing the carbon footprint of ACNN to improve sustainability of activities.
- Undertaking purposeful conference and event practices in consideration of the UN's 2030 Agenda for Sustainable Development around the 5Ps: people, prosperity, planet, partnership, and peace; as well as the social, economic, and environmental consequences
 - Predominantly sourcing invited speakers from within the State/city of the conference destination to reduce the environmental impact of travel.
 - Minimising the carbon and environmental footprint at ACNN events by sourcing recycled products and selecting venues that have a carbon action plan.
 - Raising awareness with medical supply and equipment exhibitors at our events on our position for reducing medical waste.
 - Advocating for the use of sustainable products and printed materials on sustainable forestry products
 - Consideration of conference catering to include at least one plant-based selection to reduce catering carbon footprint.

ACNN calls on members and the broader community of healthcare practitioners to:

- Educate themselves and colleagues regarding the importance of environmentally sustainable practices and processes within workplaces and valuing the natural environment.
- Understand the synergistic relationship between greening neonatal services and healthcare outcomes.
- Lead on environmental sustainability by drawing the topic into focus at all levels, including environmental impact to become a component of decision-making processes.
- Actively participate in environmentally sustainable practices in all neonatal care areas and encourage behavioural change.
- Use a continuous improvement model to work towards environmental sustainability and greening neonatal care in the following areas:
 - Waste (e.g., single-use vs disposable items)
 - Energy (e.g., optimise, energy-efficient lighting and ambient temperature)
 - Procurement (e.g., analyse goods and services for environmental impact, including packaging and transport)
 - Models of Care (e.g., unnecessary interventions, number of diagnostic tests, duplications, and other inefficiencies, improving use of technology)
 - Preventative health care (e.g., improved maternal health and smoking reduction to reduce the burden on neonatal care services)

ACNN calls on manufacturers and suppliers of neonatal products to:

- Commit to, and engage in, activities to reduce the environmental burden of healthcare.
- Develop product/service life-cycle roadmaps from the raw material to the finished product.
- Source sustainably produced supply chain materials from socially and environmentally responsible vendors.
- Engage with healthcare providers to effectively meet sustainability expectations of waste-reduction, reduced energy consumption and resource usage.
- Reduce medical, packaging and printing waste at ACNN events.
- Use eco-friendly products including the use of sustainable forestry for printed materials for distribution and display materials on exhibit tables.

Initial Steps

Each neonatal care environment is different and thus ACNN suggests using the approach below (based on the principles of the Victorian Environment Protection Authority) for initiating and maintaining improvement, one area at a time:

- Measure and analyse existing practices, conducting waste audits.
- Set objectives and measurable targets.
- Investigate and develop recycling streams.
- Avoid inefficiencies, single-use items where possible.
- Reduce waste, use of toxic or environmentally harmful materials.
- Switch to products or services that are 'greener'.
- Sequester recycling, and development of recycling processes.
- Assess work processes, barriers and achievements.
- Offset necessary carbon emissions to achieve net-zero.

Guiding resources and documents

Climate Change is a Health Crisis - IPCC Report 2022 <u>https://www.ipcc.ch/report/ar6/wg2/</u>

Global Green and Healthy Hospitals <u>https://greenhospitals.org/</u>

Global Roadmap for Health Care Decarbonization <u>https://healthcareclimateaction.org/roadmap</u> Victoria Government <u>https://www.health.vic.gov.au/planning-infrastructure/carbon-emissions-in-healthcare-facilities</u>

References

Bentahar, O., Benzidia, S., & Bourlakis, M. (2023). A green supply chain taxonomy in healthcare: Critical factors for a proactive approach. The International Journal of Logistics Management, 34(1).

Malik, A., et al. (2018). *The carbon footprint of Australian health care*. The Lancet Planetary Health, 2(1), 27-35.

Thomas, A., Ma, S., Ur Rehman, A., & Usmani, Y. S. (2022, December 22). *Green Operation Strategies in Healthcare for Enhanced Quality of Life*. Healthcare, 11(1), 37.

World Health Organization Regional Office for Europe. (2017). *Environmentally sustainable health systems: A strategic document* [Internet]. Copenhagen: WHO Europe. Retrieved from https://iris.who.int/bitstream/handle/10665/340375/WHO-EURO-2017-2241-41996-57723-eng.pdf?sequence=3