



Australian College of Nursing

Nursing Leadership in Emissions Reduction

GUIDING PRINCIPLES



“As health professionals, we must do all we can to aid the transition to a sustainable, fairer, resilient, and healthier world. Alongside acting to reduce the harm from the environmental crisis, we should proactively contribute to global prevention of further damage and action on the root causes of the crisis. We must hold global leaders to account and continue to educate others about the health risks of the crisis. We must join in the work to achieve environmentally sustainable health systems before 2040, recognising that this will mean changing clinical practice.”

(Atwoli, Baqui, Benfield, Bosurgi, Godlee, Hancocks, Horton, Laybourn-Langton, Monteiro, Norman, Patrick, Praities, Olde Rikkert, Rubin, Sahni, Smith, Talley, Turale & Vázquez 2021)

This was a joint statement published simultaneously in hundreds of journals.

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FOREWORD

We know that climate change is the biggest threat to human health and that it will continue to have devastating ramifications on all of us if we don't take action now. We also know the impacts will not be shared equally – with those already the most vulnerable hit hardest. At my core, I am a humanitarian with a strong sense of social justice and equity. I have a strong belief in the nursing profession's power to lead social reform, and climate action is no different. Nurses are vital in driving emissions reduction across the health care sector. The Australian College of Nursing (ACN) supports all nurses to advocate for and promote sustainable practices within their workplaces and communities.

Nursing leadership is key to the health and aged care industries' ability to reduce emissions safely and effectively. ACN is committed to driving this agenda to support all nurses to champion much-needed changes to the ways we live and work.

As the largest health and care workforce, nurses are at the forefront of providing care to communities and people affected by climate change.

Delivering sustainable health care requires us to use resources wisely to meet the health needs of future generations and preserve the environment.

The global health care sector is a significant contributor to climate and health emergencies. Let us do our part to fix this. We will reduce pressure on the health care system and our nursing workforce and ensure a safer, more equitable, and more sustainable future for those who come after us.



**Adjunct Professor
Kylie Ward FACN
ACN CEO**

Climate change is real, it is happening, and it poses the biggest threat to our health and health care systems. We must act now if we are to avoid or mitigate the worst impacts.

Protecting our climate is the best thing we can do to protect ourselves and our loved ones.

ACN – and particularly the Emissions Reduction Policy Chapter – is committed to ensuring nurses have every opportunity to identify ways they can best enact change and most effectively respond to emissions reduction and climate change health emergencies.

Just as nurses advocate for the health and wellbeing of their patients, they also have an ethical obligation to protect those under their care, their peers, and the broader community from the disastrous impacts of climate change.

These guiding principles provide nurses at all levels with the resources they need to meet the challenges current and future generations will face. Nurses should feel empowered to use these principles in their workplaces, homes, and communities to foster sustainable and equitable practices.

We all have a responsibility to do our part. Let us get started.



**Dr Frances Peart FACN
Emissions Reduction Policy
Chapter Chair**



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GUIDING PRINCIPLES

Overview

WHO ARE THE GUIDING PRINCIPLES FOR?

The Australian College of Nursing (ACN) is committed to supporting the nursing profession to identify and appropriately respond to emissions reduction and climate action health emergencies. Nurses have an ethical imperative to lead the development of equitable climate change and emissions reduction solutions with their patients, peers, community, and policymakers (International Council of Nurses 2018; Australian College of Nursing 2020).

These guiding principles provide nurses with the resources to act now on emissions reduction to meet the climate challenges we and future generations will face. Nurses can use these principles to help build resilient communities while protecting the ecosystems that sustain our living environment.

WHY DO NURSES NEED GUIDING PRINCIPLES ON EMISSIONS REDUCTIONS?

- Climate change is real (Australian Academy of Science 2021; Masson-Delmotte 2021). The earth has warmed 1.1 degrees Celsius since industrialisation (Masson-Delmotte 2021).
- Climate change is the most significant modern health crisis facing the nursing profession (International Council of Nurses 2018). It is a 'code red for humanity' (Masson-Delmotte 2021) and nurses respond to emergencies.
- Climate change has considerable health impacts (Pachauri & Meyer 2018; Watts, Adger & Agnolucci 2018; International Council of Nurses 2018; World Health Organisation 2017).
- The predicted death rate globally from climate change is expected to be up to 250,000 deaths per annum between 2030 and 2050 (World Health Organisation 2017).
- A stable climate is the most fundamental determinant of future human health (Maibach, et al. 2021).
- Without decisive action to reduce emissions in the next five years, the health impacts of climate change will only get worse (Zhang et al 2020; Masson-Delmotte 2021).

These guiding principles help nurses at all levels to:

- ✓ **EDUCATE**
Gain the confidence to communicate health issues, emissions reduction, and climate action with patients, communities, the profession, and the media.
- ✓ **ADVOCATE**
Join other health professionals to advocate for urgent policy, research, and government action.
- ✓ **ACT**
Take personal and professional action to reduce emissions in everyday life and practice.

PRINCIPLE 1

Nurses champion climate action

Nurses are a trusted voice and have an ethical imperative to be climate action advocates.

PRINCIPLE 2

Nurses lead sustainable practices in health care

As the largest group of health workers, nurses are in control of high waste episodes of care and are primed to implement sustainable practices in health care.

PRINCIPLE 3

Nurses lead global interdisciplinary collaboration

Climate change is a global problem that requires nursing leadership in collaboration with other health professionals.

PRINCIPLE 4

Nurses contribute to climate-informed policy and research

Climate action should be on every nursing research and policy agenda.

WHAT YOU NEED TO KNOW

Emissions reductions, climate change, and health

Climate change is the change observed in weather patterns, temperature, ocean levels, land surfaces, and ice sheets over a defined time period (Australian Academy of Science 2021). Climate change is caused by increased greenhouse gases (GHGs) in the atmosphere due to human activity (United Nations 1992; Masson-Delmotte 2021). Human-induced GHG emissions are by-products of industries such as mining, energy, transport, agriculture, and forestry (Australian Academy of Science 2021).

Climate change inaction has irreversible impacts on human health and welfare (Watts, Adger & Agnolucci 2018). Health effects arising from climate change include:

- increased temperature-related health incidents
- natural disasters occurring at unprecedented frequencies
- poorer water quality
- increased air pollution
- arable land changes with decreased biodiversity leading to food insecurity (Pachauri and Meyer 2018; International Council of Nurses 2018; World Health Organisation 2017).

Climate change health issues intersect with social issues such as age, gender, health status, socioeconomic status, social capital, public health infrastructure, mobility, and security (Pachauri & Meyer 2018).

Combined, these climate and social determinants of health lead to poorer health and wellbeing across the population. Nurses will continue to see an increase in:

- unemployment, human habitat destruction, and mass migration
- morbidity, mortality, and demands on health services as the frequency of floods, storms, bushfires, and heatwaves increase
- the burden of food, water, and vector-borne infectious diseases
- food and water insecurity and related malnutrition
- occupational health risks and heatstroke presentations for outside workers
- the burden of mental health conditions and demand on services
- psychological distress from severe weather events
- the burden of aeroallergen and air pollution, longer pollen seasons, high emission industries, and bushfires

- cardiorespiratory diseases (Pachauri & Meyer 2018; International Council of Nurses 2018; World Health Organisation 2017).

Gender and climate change

Gender and climate change are inextricably linked. Climate change disproportionately impacts women as entrenched gender inequities are reinforced. These disparities affect the ability of individuals, families, communities and nations to adapt to a changing ecosystem. The gendered effects of climate change are already experienced by Indigenous women, culturally, and linguistically diverse women, women with a disability, and older women and are only likely to worsen. Climate change is a human rights issue, a gendered issue, and a social justice issue.

Women must be central in any efforts to adapt to and mitigate the effects of climate change. They are decision-makers, educators, carers, experts, stakeholders, and equal partners in developing long-term solutions to address climate change.

At the 25th United Nations Climate Change Conference in 2021, delegates recognised that including gendered dimensions of climate change when developing policy is essential and produced the Gender Action Plan to guide decision-makers (UNFCCC Conference of the Parties 2020). Climate change action and solutions provide an opportunity to create a sustainable future where systemic gendered inequities are addressed.

Climate justice: Justice that links development and rights in addressing climate change, safeguarding the rights of people and other sentient beings, and sharing the burdens and benefits of climate change and its impacts equitably and fairly (Zhang, Barratt, et al 2021).

Circular economy: A circular economy is an industrial system that is restorative or regenerative by intention and design. It replaces the end-of-life concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse and return to the biosphere, and aims for the elimination of waste through the superior design of materials, products, systems, and business models (Zhang, Barratt, et al 2021).

PRINCIPLE 1:

Nurses champion climate action

WHAT YOU NEED TO KNOW

An urgent reduction in GHG emissions is needed to reduce climate change and limit its associated health impacts. This requires international cooperation, and nurses can be influential and trusted bearers of the moral story of climate change (Butterfield, Leffers & Vasquez 2021). Nurses have a strong legacy of protecting human dignity and can leverage this trust to draw attention to this emerging health crisis (Leffers & Butterfield 2018; Butterfield, Leffers & Vasquez 2021).

Nurse advocacy is at the core of driving systemic, structural, and policy change (Leffers & Butterfield 2018; Chiu 2021; Cook, Demorest & Schenk 2019). Nurses are primed to lead communities in addressing climate change as the most critical current and future social determinant of health (International Council of Nurses 2018). As

the largest group of health professionals, nurses must critically examine nursing practice and contribute to emissions reduction and climate adaptive practice and health care (International Council of Nurses 2018; Schenk 2019).

To successfully communicate the effects of climate change, nurses require education on climate action and emissions reduction strategies to combat misinformation. Climate-related health emergencies and responses must be embedded in the nursing curriculum and everyday practice (Schenk 2019).

WHAT YOU NEED TO DO

BEHAVIOUR	EXAMPLES
EDUCATE	<ul style="list-style-type: none"> Educate the nursing profession, patients, and community on climate action, emissions reductions strategies, and the effects of climate change on health. Embed climate change education in the nursing curriculum. Seek information from trusted sources.
ADVOCATE	<ul style="list-style-type: none"> Raise the profession's voice to advocate for net-zero carbon emissions by 2040. Speak with health care administrators, health ministers, local government, state and federal MPs about climate change and health. Prioritise emissions reduction as a critical focus of adjacent sectors and society.
ACT	<ul style="list-style-type: none"> Make individual changes to reduce emissions to minimise the global carbon footprint. Ensure climate change is on your workplace's agenda. Empower individuals and communities to make healthy lifestyle choices and reduce GHG emissions. Build local community climate change resilience through vulnerability assessments, incorporating uncertainty in resilience planning, including poor and socially excluded groups into decision-making, scaling successful adaption interventions, and monitoring and evaluation.

Urban heat island effect or UHI is the increased temperature associated with a built environment, such as a city or town, with respect to near rural areas. However, efforts such as using cool materials, green roofs, vertical gardens, urban greenery, and water-based technologies can significantly alleviate the UHI effect, cool the ambient air, and create thermally balanced cities (Yenneti, et al 2020).

PRINCIPLE 2:

Nurses lead sustainable practices in health care

WHAT YOU NEED TO KNOW

Nurses must lead sustainable practices in the health care sector to provide a high-quality, clean and safe physical environment as part of a larger long-term sustainable ecosystem. The health care sector globally contributes up to eight percent of carbon emissions, and domestically health care contributes seven percent of Australia's total carbon footprint (Chung & Meltzer 2009; Sustainable Development Unit 2016; Malik, et al 2018). Patient care generates considerable waste in addition to significant energy and water consumption, transportation emissions, and the use of chemicals (Hoban, Haddock & Woollcock 2021).

Nurses are directly in control of high waste episodes of care and should lead sustainable practices through environmental stewardship (Schenk 2019). In partnership with health services, nurses must promote and prioritise the importance of climate change through policy development and advocate for green infrastructure. Nursing services should aim to reduce travel, transportation, energy consumption and use recyclable and reusable alternatives where possible. Through successful implementation of these strategies, nurses can build environmental stewardship, capability, and capacity in their workplace.

WHAT YOU NEED TO DO

BEHAVIOUR	EXAMPLES
EDUCATE	<ul style="list-style-type: none">• Identify and learn from current local and international emissions reduction strategies in health care facilities.• Identify and promote organisations and alliances that support emissions reduction in health care.• Educate nurses and other health professionals on strategies to reduce their carbon footprint.
ADVOCATE	<ul style="list-style-type: none">• Speak with health service leaders about emissions reduction.• Lobby your health service to join the Global Green and Healthy Hospitals.• Advocate for policies that promote the reduction of health care waste and ensure correct waste management and energy reduction.• Advocate for green energy solutions in health care facilities.• Prioritise emissions reduction as a requirement for health sector practice.
ACT	<ul style="list-style-type: none">• Develop resilience plans to counteract service disruptions in environmental disasters/volatile climates.• Innovate and improve recycling and reusing strategies.• Reduce hospital energy consumption.• Promote the use of renewable energy in health care facilities.• Minimise transport use.• Implement strong organisational governance to make emissions reduction a core responsibility.• Develop a statement of priorities that reflects emissions reduction across your health care organisation.

Globally in 2018 296,000 people over the age of 65 prematurely died in heat related circumstances placing significant pressure on health infrastructure and health professionals (Watts, Amann, et al 2021).

PRINCIPLE 3:

Nurses lead global interdisciplinary collaboration

WHAT YOU NEED TO KNOW

Global interdisciplinary and inter-sector collaboration is vital for successful emissions reduction. Complex health crises require complex health responses (Climate and Health Alliance 2021; World Health Organisation 2017; International Council of Nurses 2018). International demand for well-trained and experienced nurses will increase as the climate-related disease and non-communicable disease burden increases (International Council of Nurses 2018). When coupled with the ageing population, nurses become vital in managing the health effects of climate change.

Amplifying nursing wisdom in the global climate discourse is paramount to a successful international response (Schenk 2019). Early gains in health care emissions reduction have been achieved through nurse-led sustainable practices. Accelerating nurses into leadership roles is linked to accelerated emissions reduction changes. This is exemplified through the *Global*

Consortium on Climate and Health Education and the Climate and Health Alliance (Schenk 2019; Butterfield, Leffers & Vasquez 2021; Leffers & Butterfield 2018).

Australian nurses must foster international collaboration and work with humanitarian agencies to provide an interdisciplinary response to the domestic and international climate health crisis. Australia’s nurses must advocate for our vulnerable island neighbours in the Pacific region, as developing nations and populations such as young children, older people, women, people in poverty, people with comorbidities, and Indigenous peoples are predicted to be disproportionately impacted by climate change (Pachauri & Meyer 2018). Meanwhile, domestically, the nursing profession should enhance relationships with vulnerable communities and First Nations Peoples to incorporate climate-protective Indigenous practices and ancestral knowledge (Butterfield, Leffers & Vasquez 2021).

WHAT YOU NEED TO DO

BEHAVIOUR	EXAMPLES
EDUCATE	<ul style="list-style-type: none"> Upskill nurses to become responsive and knowledgeable on climate change, non-communicable diseases, and disaster response. Embed climate-informed non-communicable disease nursing practice and disaster practice in the nursing school curriculum. Embed climate change in the onboarding process at health services, particularly for nursing staff.
ADVOCATE	<ul style="list-style-type: none"> Push for better core public health infrastructure. Ensure essential health care such as vaccinations, children’s health, and aged care services are appropriately funded and staffed. Improve disaster preparedness and response capacities. Collaborate and partner with humanitarian and disaster organisations. Advocate for health care organisations to consider environmental consequences and reflect these when shaping and developing organisational policies.
ACT	<ul style="list-style-type: none"> Deliver integrated models of care – primary care, health promotion, and prevention to support health care delivery in out of hospital settings. Develop climate-informed health programs for emerging infectious and communicable diseases. Speak with disaster and humanitarian non-government organisations for opportunities to collaborate. Engage with adjacent sectors to support strategies that reduce GHGs, such as urban redesign, enhanced public transportation, and modifying indoor technologies (e.g., cooktops) to reduce emissions. Develop and foster inter-organisational partnerships with leading climate action organisations.

PRINCIPLE 4:

Nurses contribute to climate-informed policy and research

WHAT YOU NEED TO KNOW

Nurses have a vital role in promoting climate-informed nursing policy and research. Quality research is imperative to inform international collaboration, reduce intransigence and drive policy (Butterfield, Leffers & Vasquez 2021; Chiu 2021). This requires climate change to be on every nursing research agenda (Walker, et al 2020). Nurses have extensive experience in health informatics, scholarship, and research, reaching beyond professional boundaries to contribute to the multifaceted inter-industry approach to emissions reduction.

Nurses have a pivotal role in leading data-driven improvements in emissions reduction and minimising the

burden of climate-related disease. Comprehensive and standardised data collection systems are necessary to identify climate-related costs and outcomes to influence the health system to reduce carbon footprint, engage staff, ensure organisational accountability, and track improvement (Butterfield, Leffers & Vasquez 2021). Multiple partnerships will also need to be established between climate and nurse researchers, health services, and other sectors such as urban design, energy, water, transport, and agriculture to develop secure data-driven emissions reductions solutions (Butterfield, Leffers & Vasquez 2021).

WHAT YOU NEED TO DO

BEHAVIOUR	EXAMPLES
EDUCATE	<ul style="list-style-type: none">• Raise awareness of the health implications of climate change.• Develop expertise on assessing and addressing climate action risks to health by developing policy documents on the subject.• Support ACN members and leaders to increase their climate literacy and environmental stewardship, advocacy, and action through specified education, training, research, and communication.• Adopt the International Council of Nurses Position Statement on <i>Nurses, climate, and health</i>.
ADVOCATE	<ul style="list-style-type: none">• Develop national action plans and policies for mitigation, adaptation, and resilience strategies.• Contribute to environmental health and justice policymaking.• Prioritise emissions reduction as central to the global development agenda.• Support inclusion of environmental considerations across health care policies.• Advocate for climate action representation at each health service.
ACT	<ul style="list-style-type: none">• Contribute to and support climate change research.• Quantify the carbon footprint of treatment modalities and episodes of care.• Develop a tool for measuring and evaluating every organisation's contribution to carbon emissions and opportunities for emissions reduction.• Participate in intersectoral policy and governance responses.• Engage in environmental health committees and policy reforms that focus on the safety and protection of health workers and the management and regulation of the health care environment.• Promote and implement the Climate and Health Alliance's <i>Framework for a national strategy on climate, health, and wellbeing for Australia</i>.

Key facts

- Climate change affects the social and environmental determinants of health – clean air, safe drinking water, sufficient food and secure shelter.
- Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, from malnutrition, malaria, diarrhoea and heat stress.
- The direct damage costs to health (excluding costs in health-determining sectors such as agriculture, water and sanitation), is estimated to be between \$2-4 billion USD per year by 2030.
- Areas with weak health infrastructure – mostly in developing countries – will be least able to cope without assistance to prepare and respond.
- Reducing emissions of greenhouse gases through better transport, food and energy-use choices can result in improved health, particularly through reduced air pollution.

(World Health Organization 2018)

CLOSING

The evidence is undeniable – climate change is the most significant modern health crisis facing the nursing profession. **The time to act is now.** Nurses are primed to take the lead on emissions reduction both within and beyond the profession. Nurses have an ethical imperative to lead the development of equitable climate change and energy efficiency solutions with their patients, peers, and policymakers. Nurses can have a significant impact both professionally and personally to reduce emissions and mitigate climate-related health effects.

Act now!

The nursing team at the renal dialysis unit of Bendigo Health services realised renal dialysis generated 2.2kg of landfill waste per treatment which equates to 330kg of waste from the unit per week. The multidisciplinary team collaboratively reviewed waste management practices and realised many recycling or reusing opportunities were being missed. Together the team implemented new waste streams (such as PVC/soft plastic recycling), moved away from single-use plastics, donated unused clinical items to adjacent industries, and conducted a sustainability training week. Working with consumers, the team also implemented home dialysis waste reduction by allowing patients to bring their recyclables into the centre for management. Through these measures, the team reduced clinical waste disposal costs and reduced their landfill waste by half. This equates to a landfill reduction of up to 8 tonnes per year from one renal dialysis centre alone!

Bendigo Health



Nurses acting now

FURTHER RESOURCES

Emissions reduction, climate change, and health are complex topics with rapidly evolving evidence and advice. For further information, see the following list of resources:

Intergovernmental Panel on Climate Change
www.ipcc.ch/

World Health Organisation
www.who.int/health-topics/climate-change#tab=tab_1

Lancet Countdown Tracking Progress on Health and Climate Change
www.lancetcountdown.org

Climate and Health Alliance in Australia
www.caha.org.au/join

The Lancet Health and Climate Change Report
www.thelancet.com/pb/assets/raw/Lancet/stories/series/health-and-climate-change.pdf

International College of Nursing
www.icn.ch/sites/default/files/inline-files/ICN%20PS%20Nurses%252c%20climate%20change%20and%20health%20FINAL%20.pdf

Nurses Draw Down
www.nursesdrawdown.org/

Australian Nursing & Midwifery Federation
www.anmf.org.au/pages/climate-change

Our Climate, Our Health
www.ourclimate-ourhealth.org.au

Health Care Without Harm
www.hcwh.org/hcwh-content-tags/australia

The Global Green and Healthy at
www.greenhospitals.net

CSIRO
www.csiro.au/

Extinction Rebellion
<https://rebellion.global/>

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ABOUT ACN

The Australian College of Nursing (ACN) is leading the way to enable nurses around the country to be empowered to achieve the health and wellbeing they deserve. Nurses dedicate their lives to caring for others and often neglect looking after themselves in the process. We support our members to be the best they can be by keeping them informed, connected and inspired.

- ACN advocates on behalf of the nursing profession
- The expertise of ACN's members helps to shape health care and aged care policies
- ACN nurtures the nurse leaders of today and tomorrow
- ACN is an accredited higher education provider for qualified nurses

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