

Nurses, climate change and health

Climate change presents the single biggest threat to global development and one of the greatest challenges of our time. Climate change refers to a change in the state of the climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over a comparable period.¹ Climate change is unequivocal: the atmosphere and ocean have warmed, the quantity of snow and ice has diminished and the sea level has risen.²

The effects of climate change have profound implications for human health and wellbeing. The adverse effects will arise from an impact on our most fundamental determinants of health: food, water, air and a safe environment that enables protection from extreme weather events. Health is already affected and the impacts are expected to increase as climate variability and change continue. The World Health Organisation (WHO) predicts that between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year from malnutrition, malaria, diarrhoea and heat stress.³

The healthcare sector makes both positive and negative contributions to climate change. Climate change is an important issue for the nursing profession as nurses are committed to protecting health and wellbeing and to promoting social justice, all of which are seriously threatened by climate change. Nurses and other healthcare providers can make a powerful contribution to both mitigate climate change and to support people and communities to adapt to its impacts.

Climate change is a direct result of the rise in global concentrations of greenhouse gases (GHGs) in the atmosphere. These human-induced GHG emissions arise out of use of natural resources, particularly in the energy, transport, industry, agriculture, forestry and land use sectors.⁴ To mitigate climate change, a reduction in GHG concentrations is required and only through international cooperation and commitment to mitigation strategies will this be achieved.⁴

The relationship between health and climate change is complex. The mechanisms through which health is affected is both direct: heat-related incidents and extreme weather events (floods, drought, storms) and indirect: water quality, air pollution, land use change, and ecological changes. These mechanisms interact with social dynamics to produce negative health outcomes. Social factors include age and gender, health status, socioeconomic status, social capital, public health infrastructure and mobility and conflict status. The resulting impact on health includes mental illness, increased food- and water-borne infections; increased vector-borne diseases; respiratory and cardiovascular diseases, and undernutrition.^{5,6}

All regions and populations will be affected but those that are already vulnerable and/or carrying a heavy burden of climate-related diseases will be disproportionately impacted.^{5,6,7} This vulnerability will be further challenged by lowered resilience, less access to resources and decreased capacity to adapt and respond to the threats of climate change.⁶ The susceptibility of countries to the

adverse effects of climate change depends on factors such as population density, economic and infrastructure development, food availability, income level and distributions, local environmental conditions, and the quality and availability of primary healthcare. At the population level, groups that are already considered disadvantaged and vulnerable – children, older people, and women (70% of the 1.3 billion people living in poverty) - are considered at most risk to the adverse public health challenges associated with climate change.⁷

The health sector itself contributes to climate change through its consumption of energy and resources and generation of waste. Healthcare facilities in developed countries such as the United Kingdom and the U.S. have been estimated to contribute to 3-8% of the climate change footprint.^{8,9}

The health community must scale-up its contribution to addressing climate change. Nurses and the health professional community must be leaders in tackling the health impacts of climate change. Immediate action to build climate resilient health systems is necessary. This includes, but is not limited to, developing climate-informed health programmes, increasing emergency preparedness, building the health and climate capacity of the health workforce, health and climate research, and intersectoral policy and governance responses. Furthermore, adaptation to the effects of climate change will require wider efforts to improve and sustain the social and environmental determinants of health.¹⁰

Improving core public health infrastructure services (clean water, sanitation), ensuring essential health care (vaccination and child health services), and improving disaster preparedness and response capacities will have the most effective impact on reducing risks in the near term.⁵ These strategies also have the potential to directly reduce risks to health, enhance community resilience, alleviate poverty, and address global inequities.⁶

Nursing has an immense capacity to help lead governments, communities, and the health sector in managing the public health challenges generated by climate change and plays an important role in adaptation and mitigation strategies.

Demand for more well educated and trained nurses is likely to occur as the incidence and prevalence of non-communicable disease is rising across the globe. When coupled with the trend towards ageing populations, climate change is likely to further increase the demand for nurses capable of caring for increasing populations of people with progressing and debilitating NCDs. The need for nurses to deliver integrated models of care – across promotion, prevention and management and control of lifestyle factors to prevent or delay progressing morbidity from NCDs in adults will be significant.

Climate change is predicted to result in further health inequities for already vulnerable populations. Accordingly, the professions' role as patient advocates, facilitators of access to basic care or treatment and/or overseers of basic standards of care and treatment for vulnerable groups will become more visible during times of disaster or crises resulting from climate change. The latter will result in nursing's existing collaborations and partnerships with humanitarian organisations also

becoming even more important as the challenges and adverse health impact from both the civil crisis, coupled with displacement will be complex and long-term.

ICN Position & Recommendations

As the global voice of nursing, the International Council of Nurses (ICN):

- Strongly believes that nurses have a shared responsibility to sustain and protect the natural environment from depletion, pollution, degradation and destruction.
- Recognises that building climate change resilience cannot occur without addressing the key determinants of health through sustainable development.⁶
- Recognizes the opportunity to take advantage of the massive potential to implement policies that mitigate climate change and reduce the risks it has on health but that also have co-benefits to health.^{5,7}
- Encourages countries to scale-up financing for climate resilient health systems, with donor countries ensuring that low- and middle-income countries are supported to strengthen their health systems and to reduce the environmental impact of healthcare.⁶
- Encourages countries and governments to reduce the risks they are expected to face from climate change by making choices in how they advance technology, industry, and make investments in infrastructure and public policies that reduce greenhouse gas emissions and are less damaging to the environment. This includes:
 - Well-designed urban transport systems to reduce use of motorized vehicles and promote active transport thereby reducing GHG emission and urban air pollution and supporting physical activity and mental health.
 - Housing with efficient insulation to cut energy consumption and associated GHG emissions, reduce diseases and deaths from both cold and heat, and in poor countries, reduce the need for burning of biomass fuels and the impacts of indoor air pollution.
 - Policies and support for individual choices that moderate consumption of animal products to reduce the associated significant GHG emissions and non-communicable disease burden.
- Calls on governments to invest in climate change and public health research, monitoring, and surveillance to improve understanding of the health co-benefits of climate mitigation and the health implications of adaptation measures at the community and national levels.^{5,6}

ICN encourages national nurses' associations (NNAs), in collaboration with their respective governments, to:

- Engage in national and multisectoral measures to mitigate the impact of climate change on



the population with a focus on groups particularly vulnerable to disease and injury, including socially isolated city dwellers, the elderly, the poor, those living in areas of malaria and dengue and those without access to primary health care.

- Be involved in developing national action plans and policies for mitigation, adaptation, and resilience strategies as well as contribute to environmental health and justice policy-making, as nurses are on the front lines of any climate-related disaster.
- Lobby for nurses' involvement in environmental health committees and policies that focus on the safety and protection of health workers and the management and regulation of the health care environment.
- Raise awareness of the health implications of climate change and how to assess and address climate change risks to health by developing policy documents on the subject.
- Educate patients and the public about the impact of climate change on health and mitigation strategies.
- Integrate climate change-related knowledge and skills into nursing curricula as well as continuing learning experiences for practicing nurses.
- Collaborate with other health profession organisations, intergovernmental organisations, environmental and health organisations and other civil society groups when developing health-adaptation policies and programmes.

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