

# Rising to the climate challenge: integrating climate action in the undergraduate curriculum

The climate emergency is at a critical point. The planet is no longer in equilibrium and cannot compensate for carbon emissions.<sup>1</sup> The Intergovernmental Panel on Climate Change identified the emerging impacts of climate change as a 'code red for humanity'.<sup>2</sup> The health impacts of climate change are already being experienced by communities, and the impact is expected to widen and escalate over time, making planetary health an emerging and urgent trend within healthcare. Nurses urgently need to learn how to care for communities that are affected by climate change.<sup>3</sup> Healthcare, as one of the largest emitting sectors, must act to improve planetary health.

The need for nurses to consider planetary health in their practice is recognised in the position statements on climate change and sustainability issued by the International Council of Nurses,<sup>4</sup> and the Australian College of Nursing.<sup>5</sup> Evidence suggests that emerging nurses support the inclusion of planetary health in their training.<sup>6</sup> For nursing educators, this could begin by increasing literacy in environmental sustainability and planetary health. Higher education institutions are ideally positioned to contribute to a healthier future by incorporating planetary health education in their curricula. Integrating planetary health education in the preregistration nursing programs meets the Standard 3 requirement of the Registered Nurse Accreditation Standards, set by the Australian Nursing and Midwifery Accreditation Council (ANMAC), which requires nursing curricula to reflect contemporary practice and respond to emerging trends.<sup>7</sup>

Australian nurses are underprepared to practice in this changing context, as currently no Australian undergraduate nursing programs include planetary health (climate change science and sustainability) as a stand-alone subject, and its focus across the wider nursing curriculum is sparse. This means current undergraduate nursing students are not being prepared to work effectively and safely in an environment where increasing effects of climate change are readily felt and further in a sector which must reduce its own carbon emissions. In this article, we propose a way forward that will ensure the nursing curriculum continues to adhere to ANMAC's standards for an education that responds to and reflects contemporary needs. We argue that planetary health must be incorporated into nursing education as a stand-alone subject for nursing students' whilst being meaningfully linked to health literacy and current graduate capabilities.

The content of a stand-alone subject would introduce basic concepts of the Earth's climate science into nursing curricula, along with strategies to assess climate information, responsibly communicate about climate issues, and make informed decisions about mitigation and adaptation.<sup>8</sup> The content would also equip nursing students with skills to make decisions in the context of sustainable healthcare, perhaps by considering issues such as energy conservation, reducing clinical waste, and improving the recycling of healthcare products. Importantly, empowering nursing students and nurses with combined health-sustainability literacy would create change makers able to influence decisions in policy and practice and limit the impact of climate change on the health of those they care for.<sup>3</sup> Nurses who are literate in environmental sustainability can then act to empower persons receiving care to also make environmental conscious health and wellbeing decisions.

Introducing a stand-alone planetary health subject may be seen as a challenge in an already crowded undergraduate nursing curriculum. However, the inclusion of stand-alone subjects is not new and has been implemented in the Australian nursing curriculum over the last decade with ANMAC regulated Indigenous Health as a compulsory and core subject in 2012. This has seen an inclusion by some Schools of Nursing to have a public health-aligned response that develops nursing students' understanding of how the climate emergency is impacting First Nation communities. For example, the health impacts being felt throughout the Torres Straits include increased rates of disease such as dengue, Ross River virus, and tuberculosis.<sup>9</sup> Further in 2021, ANMAC regulated the inclusion of Cultural Safety as a compulsory and core subject. This has seen some Schools of Nursing respond by including self-reflective practice on one's own values, beliefs, and attitudes and how these may impact on differing cultures such as LGBTIQ+ people. This demonstrates that when an issue is a core tenet of holistic nursing practice and global welfare that nursing curriculum can lead by inclusion of appropriate curricula.

We argue that including planetary health content as a stand-alone subject aligns with international educational practice. In November 2022, The University of Barcelona announced that all students will take a mandatory course on the climate change crisis commencing in 2024, a change that will effectively produce climate-literate nurses. Additionally, Harvard Medical School has launched a Climate Doctor of

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Medicine program which focuses on the health care effects of climate change and prepares a climate ready medical workforce. To achieve an Australian workforce who delivers sustainable planetary and human health care, an explicit link with the graduate capabilities of critical thinking and advocacy is also required. As a generic skill already embedded in nursing curricula, critical thinking could be contextualised to planetary health, reducing further pressure to overload the curriculum. For example, the well-established nursing practice partnership between critical thinking and quality evidence for problem solving could be applied to the challenging problem of the carbon footprint of the health system.<sup>3,5</sup>

When it comes to the planet's health and adapting to climate change impacts, individual action is not enough. We need nurses who are educated and informed about planetary health, ready to incorporate climate change awareness into their practice, and to influence future policy.<sup>10</sup> For this, planetary health education is essential.<sup>11</sup> Incorporating planetary health into the nursing curriculum, by linking it to health literacy and current graduate capabilities, and by teaching it as a stand-alone subject, is essential for training tomorrow's healthcare practitioners. We need nurses who understand the links between climate change and health and who are ready to respond appropriately to their patients' needs. We argue that planetary health education for nursing students must be formalised and extended. The current unregulated approach to planetary health within the nursing curriculum creates the risk that nursing education will become less relevant to the practice environment and will not fulfill the ANMAC requirements.

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