



Planetary health and nursing: Embedding values into standards, behaviours, and education[☆]

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ABSTRACT

Planetary health, which recognises the interdependence between human and environmental health, is a growing imperative in healthcare. Nurses are at the frontline of climate-related health challenges, yet planetary health remains largely absent from professional nursing standards and practice. While the International Council of Nurses (ICN) explicitly identifies environmental responsibility as a nursing obligation, national nursing standards, including the *Nursing and Midwifery Board of Australia (NMBA) Registered Nurse Standards for Practice* (2019), fail to integrate planetary health principles. This regulatory gap limits nursing's capacity to address climate-related health disparities, weakening the profession's ethical commitment to sustainability and global health.

This contemporary issues paper examines the alignment between planetary health and nursing's professional values, focusing on five key values—advocacy, empathy, equity, reciprocity, and hopefulness—that underpin ethical nursing practice. Drawing on the *ICN Code of Ethics* and the *Planetary Health Framework*, we argue that integrating these values into nursing standards and education is critical for preparing nurses to lead in planetary health. We review international nursing standards and highlight their lack of explicit commitment to environmental responsibility.

To bridge this gap, we propose embedding planetary health values into nursing education through curriculum reform, experiential learning, and accreditation requirements. Equipping nursing students with the knowledge and skills to address planetary health challenges will strengthen their professional identity and leadership capacity. Aligning nursing standards with planetary health principles will not only uphold ethical obligations but also position nurses as key advocates in creating sustainable, adaptive, and equitable healthcare systems. Without regulatory and educational reform, planetary health risks remain a peripheral concern rather than a core nursing responsibility.

1. Introduction and background

Planetary health, a concept that recognises the interdependence of human health and the health of the natural environment (Romanello et al., 2021), has gained increasing importance as the climate crisis accelerates and environmental degradation threatens both planetary ecosystems and public health. As frontline healthcare professionals, nurses

are uniquely positioned to recognise and address the growing health impacts of climate change and environmental harm (Ward et al., 2024a). However, despite its urgency, planetary health remains largely absent from professional nursing standards and practice globally.

The International Council of Nurses (ICN) Code of Ethics (ICN, 2021) explicitly highlights the responsibility of nurses to advocate for sustainability, environmental protection, and global health, calling on

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nurses to preserve, sustain, and protect the natural environment. The ethical guidance provided by the ICN (2021) positions nurses as key advocates in planetary health, making integration of these responsibilities into national nursing standards an imperative. This disconnect risks relegating planetary health to a philosophical idea rather than embedding it as a professional responsibility. This regulatory silence not only limits nurses' ability to address the health impacts of climate change but also weakens the profession's ethical commitment to global health. Embedding planetary health into nursing standards is an important step to ensuring that nurses are empowered to take meaningful action in the face of environmental threats. To empower the future nursing workforce, there must be an accompanying change in the way curricula are delivered. This includes curricula designed to disrupt the status quo and deliver an education experience that ensures students can take action towards addressing planetary health (Fields et al., 2023).

This contemporary issues paper explores how planetary health values align with nursing standards and practice. We examine connections between planetary health and professional standards, such as the ICN Code of Ethics (ICN, 2021) and the Nursing and Midwifery Board of Australia (NMBA) Registered Nurse Standards for Practice (NMBA, 2019), and consider how integrating planetary values into nursing education can position the profession as a leader in advancing a sustainable, adaptive and equitable healthcare system.

2. Identification of the values associated with planetary health for nurses

Planetary health is underpinned by core values that align with nursing's ethical foundations, reinforcing the profession's role in protecting both human and environmental wellbeing (Levett-Jones et al., 2025). These values guide nurses in their practice, decision-making, and advocacy efforts, ensuring that planetary health is embedded into nurses' professional identity and responsibilities. Five key values have been identified as exemplars from the ICN Code of Ethics (2021) and the Planetary Health Framework (Guzmán et al., 2021) due to their pedagogical applicability and alignment with nursing roles. While other values such as social justice and human rights are equally vital, the five selected offer a focused foundation for integration into curricula and profession practice; these include: advocacy, empathy, equity, reciprocity, and hopefulness.

2.1. Advocacy

Nurses are ethically and professionally bound to advocate for individual, community, and global health (ICN Code of Ethics, Element 4.6). In the context of planetary health, advocacy extends beyond the clinical setting to include environmental justice, policy engagement, and sustainable healthcare practices. Nurses play an essential role in amplifying the voices of vulnerable populations who are disproportionately affected by climate change, ensuring their needs are represented in health and environmental policies (Ward et al., 2024b).

2.2. Empathy

Empathy extends beyond interpersonal care to encompass planetary empathy - a recognition of the interconnectedness between human health and the health of the planet (Levett-Jones et al., 2025). Nurses develop this empathic stance through their deep engagement with nature, human suffering and their role in responding to health inequities exacerbated by environmental degradation. Fostering planetary empathy encourages nurses to integrate sustainable practices into their care and advocate for systemic changes that protect both people and the planet.

2.3. Equity

Climate change and environmental degradation disproportionately impact marginalised communities, exacerbating health disparities (Levett-Jones et al., 2025). Nurses have an ethical duty to address these inequities, ensuring that planetary health initiatives prioritise those most affected. The principle of equity requires nurses to acknowledge historical and systemic injustices, including the colonial legacies that have contributed to environmental harm, and to work towards solutions that are culturally safe and inclusive (ICN Code of Ethics, 2021, Standard 1.8).

2.4. Reciprocity

Grounded in Indigenous knowledge systems, reciprocity acknowledges the interdependent relationship between humans and nature (Redvers et al., 2022). Nurses, as custodians of health, must also act as stewards of the environment, recognising that the health of ecosystems is integral to human well-being. Reciprocity informs sustainable healthcare practices, guiding nurses to consider the environmental impact of clinical decisions and foster partnerships with Indigenous communities that honour traditional ecological knowledge in health interventions.

2.5. Hopefulness

Addressing planetary health challenges can be daunting, yet hopefulness is an essential value that drives action and innovation. Nurses, as trusted professionals, have a role in fostering optimism by promoting evidence-based solutions, engaging in planetary health leadership, and empowering communities to build resilience (Levett-Jones et al., 2024). Hopefulness shifts the narrative from despair to action, reinforcing that collective efforts can lead to meaningful change in health and environmental sustainability.

These five values - advocacy, empathy, equity, reciprocity, and hopefulness - provide a foundation for integrating planetary health into nursing standards, behaviours, and education (Martin et al., 2024). These values are essential in equipping nurses with the ethical and practical frameworks necessary to respond to the climate crisis and promote sustainable, equitable healthcare systems.

3. Representation of values and behaviours in professional standards and codes

3.1. Code of ethics

The ICN (2021) Code of Ethics positions climate change and ecological responsibility as core professional values, providing an ethical foundation for integrating planetary health into nursing practice and education. For over seven decades, the ICN Code of Ethics has guided nurses worldwide in upholding human rights, promoting health, preventing illness, and alleviating suffering across individual, community, and global levels. The Code explicitly and implicitly incorporates planetary health principles. For example:

Explicitly, in Element 4, '*Nurses and Global Health*' the Code of Ethics positions environmental responsibility and global health well within nurses' scope of practice (ICN, 2021). By calling for nurses to understand, advocate for, and take action to limit the health implications of environmental change, the Code upholds the principles of planetary health. Additionally, The Code of Ethics encourages recognition and advocacy for social justice in planetary health by aligning with the United Nations Sustainable Development Goals (United Nations [UN], 2022). This element demonstrates that planetary health concepts are underpinned by the fundamental doctrines; limit illness, promote health and alleviate suffering. Categorically, the Code of Ethics places awareness, advocacy and action in planetary health within the nurses'

responsibility:

“Nurses collaborate and practice to preserve, sustain and protect the natural environment and are aware of the health consequences of environmental degradation, e.g. climate change. They advocate for initiatives that reduce environmentally harmful practices to promote health and well-being” (ICN, 2021, Element 4.6).

Beyond explicit mentions, the Code (ICN, 2021) implicitly integrates planetary health into nurses’ responsibilities across multiple elements. In practice, this means nurses can act by advocating for sustainable healthcare practices, reducing waste in clinical settings, participating in policy and community engagement on climate issues, and integrating environmental considerations into health promotion activities - all consistent with the ethical directives outlined in the code. Element 1.1 outlines nurses’ obligation to care for current and future generations, while Element 1.6 calls for action to address health and social needs, and Element 1.8 highlights a commitment to justice and responsiveness. These values intersect with planetary health, acknowledging that human rights and a healthy biosphere are interdependent. These ethical responsibilities mirror the Planetary Health Framework’s focus on systems thinking, intergenerational equity, and justice (Guzmán et al., 2021), which collectively align with the ICN’s call for nurses to act on climate-related health determinants and environmental degradation. As such, the Code of Ethics frames planetary health as an ethical imperative within nursing, reinforcing nurses’ responsibility to advocate, lead, and engage in research and policy development to protect both human and environmental well-being.

3.2. Standards of practice

The NMBA Standards for Practice (2019) reflect the professional and public expectations of nurses and midwives by defining scopes of practice and professional aspirations. Students’ performance is appraised with regards to these standards and must demonstrate proficiency in order to register as a nurse or midwife, all registered nurses and midwives must uphold the Standards throughout their careers. While the NMBA Standards address social, personal, and professional responsibilities, they notably lack an explicit commitment to planetary health, climate health, sustainability or human rights. This absence signals a gap in addressing the nurse’s role in promoting planetary health.

The NMBA Standards contain no explicit references to environmental responsibility or human rights. Standard 4.3, which states that nurses “work in partnership to identify factors that affect, or potentially affect, the health and well-being of people and populations...,” (NMBA, 2019) could be interpreted as an implicit link to planetary health. However, without explicit language, planetary health remains marginal in the Standards. In contrast, the ICN Code of Ethics positions planetary health as integral to nurses’ responsibilities. The Code explicitly encourages environmental awareness, social justice, and alignment with the United Nations Sustainable Development Goals. This guidance acknowledges nurses as key advocates for environmental responsibility and climate health, encouraging them to engage in education, advocacy, and policy efforts aimed at planetary health.

With the primary focus of the NMBA Standards on practice proficiency, minimal emphasis is given to global concerns. This effectively leaves the moral and ethical heavy lifting to the ICN Code of Ethics. Therefore, sidelining planetary health as an external, abstract issue rather than integrating it into an operational, practice-related priority within the nursing role. Consequently, this creates a gap between the ICN Code’s ethical imperatives and the NMBA’s benchmark for nursing practice. This lack of explicit guidance in the NMBA Standards hinders nurses’ proactive involvement. It relegates planetary health to an intangible, if not insurmountable, problem outside of nurses’ scope of practice. However, with ecological issues increasingly impacting public

health, these risks leave nurses unprepared to address the threats from environmental degradation and climate change. To prepare nurses for an active role in mitigation, adaptation and responsiveness, the NMBA Standards would benefit from including planetary health as an inherent component of nurses’ roles and responsibilities. In doing so the Standards would better align with the ICN Code of Ethics and more effectively reflect the ethics, values and practical dimensions of contemporary nursing.

To gain a global context, the nursing standards of countries with similar healthcare systems and/or population demographics were sought. Standards from the United Kingdom (Nursing and Midwifery Council, 2015), Canada (Canadian Nurses Association, 2015), Republic of Ireland (Nursing and Midwifery Board of Ireland, 2025), and New Zealand (New Zealand Nurses Organisation, 2012) were all reviewed. Unfortunately, the United States (US) standards for practice are only freely available for US registered nurses and therefore, unable to be reviewed. Similarly, the Canadian provincial approach to registration and regulation limited the review of the Canadian standards. Instead, the Canadian Nurses Association’s Framework for the Practice of Registered Nurses in Canada was reviewed. An examination of nursing standards from a number of countries revealed that the notion of planetary health is noticeably absent. Like the Australian NMBA Standards, none of the international standards reviewed made explicit reference to planetary health.

While planetary health is not currently embedded in most regulatory nursing standards internationally, some professional associations are taking leadership. The American Nurses Association for instance, highlights environmental health responsibilities within its ethical framework and outlines climate action in its position statement on climate justice (ANA, 2022). Similarly, the Canadian Nurses Association and the Canadian Association of Nurses for the Environment (2024) call for planetary health integration across all domains of nursing practice, identifying it as a key determinant of health. These examples demonstrate how professional nursing bodies can advance planetary health even in the absence of regulatory mandates.

4. Integrating planetary health values in nursing curriculum

To equip future nurses with the knowledge, skills, and confidence required to address the complex relationship between health and environmental systems (Martin et al., 2024), curricula must be designed to support graduate nurse empowerment. Planetary health values, such as advocacy, empathy, equity, reciprocity, and hopefulness can be effectively woven into nursing education by embedding them within graduate attributes and learning outcomes (Tutticci et al., 2024). Aligning curriculum with the ICN Code of Ethics would ensure that graduates possess an awareness of their role in environmental stewardship, health advocacy, and the ability to address the disproportionate impacts of environmental degradation on vulnerable populations.

Concepts, such as planetary health, cannot be taught using passive and didactic approaches to learning. Curricula and learning approaches that nurtures students to become informed, and critically literate are key (UNESCO, 2015). Experiential learning, such as the *healthy planet healthy people* desktop game (Levet-Jones et al., 2025), offers a powerful tool to bridge theory and practice, providing nursing students with real-world insights into the health implications of climate change. Case studies and simulations focusing on climate-related health challenges, such as extreme weather events or the health impacts of air pollution, allow students to engage with these issues in a structured and reflective way (Álvarez-Nieto et al., 2022; Grose et al., 2015; López et al., 2022; Richardson et al., 2015). Fostering debates, open and frank discussions, and acknowledging diverse perspectives for other viewpoints to be heard is important (Fields et al., 2022). Encouraging reflection, so that students seek a deeper and more critical awareness of planetary health can be empowering and may assist them to take action (Fields et al., 2022). Co creation of teaching and learning material is also beneficial.

Additionally, embedding sustainability practices in laboratory and practical placements fosters a hands-on understanding of how nurses can lead change in their workplaces.

Curriculum reform must also emphasise the role of planetary health in shaping nurses' professional identity. Nurses should view themselves as advocates and leaders in promoting sustainable healthcare practices and influencing policy at local, national, and global levels. Trans-disciplinary collaboration is essential to achieving this goal; integrating planetary health content from fields such as environmental science, public health, and Indigenous knowledge systems enriches students' understanding of the systemic nature of health and environmental challenges (Levett-Jones et al., 2025). These reforms ensure nursing education not only aligns with ethical imperatives of the profession but also empowers nurses to lead transformational efforts in planetary health (Fields et al., 2023).

5. Evolving professional identity

The values associated with planetary health guide nurses in their professional practice by influencing decision-making, advocacy, and leadership. Integrating planetary health values into the NMBA Standards for Practice has the potential to further evolve the professional identity of nurses as planetary health advocates. The development of professional identity is a process of experiencing and learning the skills, values and cultural norms of the profession which is ongoing throughout the nurse's career (Rasmussen et al., 2021). When a person begins nursing, they bring with them their own individual values and beliefs. Over time these values are either reinforced or challenged as the nurse integrates the professional values and thereby develops their professional identity.

The professional identity of nurses also informs societal expectations of the professional values that nurses uphold. Far removed from nurses' historical association as assistants to medical staff, nurses are expected to be autonomous, ethical and committed to person-centred care. Such behaviours, which are inarguably essential to nursing in theory, can be challenging to enact in practice. As an example, patient advocacy is a pillar of patient safety, however not all people who come to nursing will adopt the ability to advocate immediately, rather it is a skill which needs to be taught, practiced and role modelled. Furthermore, research supports the fact that articulating values, critically reflecting on experiences, and developing the ability to talk about values is central to the enacting of behaviours which align with values (Gentile, 2010). As the climate crisis increasingly influences health outcomes and healthcare systems, the nursing professional identity must evolve to encompass environmental stewardship as a core responsibility. Planetary health challenges demand that nurses not only embody traditional values of care and advocacy but also adopt a systems-thinking approach that positions them as leaders in environmental sustainability, public health policy, and intersectoral collaboration (Levett-Jones et al., 2025; Guzmán et al., 2021).

6. Conclusion

This paper explored how planetary health values align with nursing standards, identity and practice, and examined the connections between planetary health and professional codes and standards. While concepts of planetary health are explicitly and implicitly incorporated into the ICN Code of Ethics, the NMBA Standards of practice do not contain explicit references to environmental responsibility or human rights. This lack of detail may hinder the development of nurses who are needed to advance sustainable, adaptive and equitable healthcare systems.

Despite the lack of detail in the standards, embedding planetary health values into nursing curricula is critical in shaping a nurses' professional identity. Experiential learning strategies that include case-based learning, and simulation can assist students to bridge the theory practice gap, and develop a real world understanding of how to address

climate-related health challenges. Furthermore, providing students with opportunities to voice their values is central to the development of their identity. This will lead to nurse empowerment, critical to leading transformational efforts in planetary health.

CRedit authorship contribution statement

Aletha Ward: Project administration, Conceptualization, Writing – review & editing, Writing – original draft. **Carolyn Antoniou:** Conceptualization, Writing – review & editing, Writing – original draft. **Tracey Moroney:** Conceptualization, Writing – review & editing, Writing – original draft. **Tracy Levett-Jones:** Conceptualization, Writing – review & editing, Writing – original draft. **Julia Charalambous:** Writing – review & editing, Writing – original draft. **Leah East:** Writing – review & editing.

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Declaration of competing interest

The authors declare no conflicts of interest.

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