

Leading digital health transformation: The value of Chief Nursing Information Officer (CNIO) roles

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KEY STATEMENT

The Australian College of Nursing (ACN) advocates for the role of nurses to optimise the adoption and ongoing use of information and technology to improve patient care and patient outcomes. ACN promotes the establishment and/or expansion of the Chief Nursing Informatics Officer (CNIO) role in Australian health care organisations. The CNIO role requires the expertise to support and drive successful planning, implementation, workforce adoption and management of both digital technologies and new models of care within any health care setting.

Nurses are the largest professional group in the Australian health care workforce and the only profession to be with patients all day, every day, everywhere across all aspects of the patient journey. Nursing is a safety-critical profession and nurses routinely assess, identify and escalate care concerns to prevent adverse events and patient harm. They play a critical role in ensuring that clinical information and communication systems are designed and used to deliver high quality, coordinated care to all those engaged across the health care continuum in Australia. Contemporary professional practice requires nurses to navigate the digital environment and utilise information systems, processes and technologies to effectively meet the needs of those they care for.

PURPOSE

This Position Statement outlines the value and contribution of the CNIO role. The CNIO role title in some organisations may expand to include midwifery. These Chief Nursing and Midwifery Information Officer (CNMIO) positions will include the oversight of the midwifery workforce and this Position Statement is inclusive of the dual responsibilities implicit within these roles. ACN calls on all Australian health care organisations to establish a substantive career pathway

for nurses to lead the extensive and necessary digital reform, including CNIO positions. This will ensure that there is the requisite level of nursing involvement in digital health transformation and will enable the successful and sustainable achievement of key strategic priorities in digital health at local, State/Territory and Federal levels.

There is an urgent need to expand this essential leadership role across Australia. Nurses in CNIO roles are recognised for their clinical expertise, knowledge and experience of digital health transformation.

The CNIO role:

1. acts as a conduit between the technical and the clinical requirements of health care. The CNIO can translate and understand the implications that technology has on clinical workflow practices and care provision.
2. ensures that nursing's clinical information and workflow requirements are met and that adverse events for health care consumers are minimised in order to uphold the quality and safety of care for all.
3. strengthens informatics and clinical analytics capacity across the health workforce.
4. oversees the transformation of care and workflow towards fulfilling the Digital Health Strategy.

BACKGROUND

Digital health technologies and information systems will continue to transform health care organisations. With pervasive information technology affecting most patient care processes, CNIOs serve as critical links between digital health, organisational change and clinical communities in the shared effort to shape responsive, coordinated and safe patient care.

Internationally, there is growing recognition of the importance of the CNIO role for meeting strategic health care aims. It is imperative that Australian health care organisations also recognise the importance and strategic priority of these roles. In 2016-17, there were 695 public hospitals in Australia, providing about two-thirds (62,000) of all hospital beds and employing 151,000 nurses (AIHW, 2018). However, there were only about 20 nurse leaders in CNIO roles to lead digital health transformation across the whole of Australia.

As knowledge in the specialty of health informatics grows, it is imperative that health care organisations support the CNIO role and employ nurse leaders to achieve the aims of health ICT implementation. This role requires nurses who are not only experienced in informatics, but are also skilled to deal with the societal, economic and political challenges in contemporary health care (Australian College of Nursing, 2019). Inadequate or ineffective use of the CNIO role may compromise the transformation of health care and restrict the adoption and interoperability of health ICT, as well as wasting valuable human and fiscal resources.

Nurses manage the bulk of communication and information flows on behalf of their patients or clients. Nurses spend more time accessing and using digital technologies than any other clinical staff category, yet they are not adequately represented at all levels of decision making in order to positively influence digital transformation and change management activities. The CNIO role advocates for the nursing workforce to ensure that nurses are prepared and supported to adopt and optimise the use of technologies to improve patient outcomes. Further, the CNIO role ensures clinical technologies and information systems are designed to meet the needs of the workforce, prioritising safety and professional practice requirements.

THE CNIO COMMUNITY OF INTEREST

ACN established the Chief Nursing Informatics Officer Community of Interest (CNIO COI) as a key strategic body to identify priority areas for nursing informatics in Australia and to assist in advocacy for the profession across the digital health landscape. The COI provides an informed and consistent platform for leading and communicating the unique contributions nurses make to direct patient care, health service delivery and health care research and to support the establishment of coordinated systems of care.

THE POSITION OF THE AUSTRALIAN COLLEGE OF NURSING (ACN)

ACN recommends that:

Recommendation One

All Australian health services establish a Chief Nursing Informatics Officer role (or equivalent) as part of the nursing workforce.

The CNIO COI will:

- advocate for the establishment of ongoing and specific Executive Nurse Informatics roles which will incorporate nursing in their role titles.
- role model and promote the critical role of the CNIO in contemporary health care design and delivery.
- establish its function as the key advocate for issues impacting the nursing workforce and patient care related to the implementation of digital health technologies.
- positively influence the national health informatics/digital health agenda, providing the voice for nursing informatics leadership, developing a nursing informatics strategy and supporting policy for national adoption.
- foster awareness and share information on developments, achievements, data, evidence and issues concerning nursing informatics with a view to continual improvement in the provision of care.
- provide advice to health organisations, governments and key stakeholders and promote information governance structures and business processes which adhere to guiding principles of information and technology standards to address data integrity, security and interoperability challenges.

Recommendation Two

The ACN CNIO COI will develop/adopt and endorse a standardised national nursing clinical terminology for use across all digital health information systems.

The CNIO COI will:

- develop/adopt an Australianised nursing clinical terminology reference set using SNOMED CT-AU and mapped to ICNP (International Classification of Nursing Practice) for use in digital health technologies in Australia in alignment with the National Safety and Quality Health Service Standards.
- articulate and promote the benefits to the nursing profession and to patient outcomes of national adoption of standardised terminology.
- engage in international collaborations whilst developing Australia's standardised terminology.
- gain recognition as an international leader in this emerging field.

Recommendation Three

Advocate and champion the establishment of nursing informatics to be a recognised specialty in Australia.

The CNIO COI will:

- advocate for a nursing informatics speciality to be recognised in Australia through:
 - developing a career pathway for nurses that enhances and embeds nursing informatics education in undergraduate and postgraduate programs.
 - ensuring that on-boarding and graduate nursing programs equip newly graduated nurses with the skills and confidence to use ICT systems as part of operational health care service delivery.
 - aligning nursing workforce informatics capability goals with clinical learning programs within organisations to ensure that informatics skills are a feature of successful continuous professional development for all nurses.
- advocate for the inclusion of Chief Nursing Informatics Officers in the ANZSCO database to enable recognition and documentation of this role within the nursing workforce.
- develop nursing informatics specialists to:
 - critique digital health strategies and programs affecting contemporary nursing practice.
 - influence executive level decision making and infrastructure investment.
 - recommend key actions required across jurisdictions to build nursing informatics capacity for current and future workforce development.
 - act as change management and digital transformation leaders for the nursing workforce, and as part of integrated teams.
 - research, monitor and optimise informatics systems to ensure they improve patient outcomes.

Abbreviations

ACN	Australian College of Nursing
AIHW	Australian Institute of Health and Welfare
ANZSCO	Australian and New Zealand Standard Classification of Occupations
CNIO	Chief Nurse Information Officer
CNMIO	Chief Nursing and Midwifery Information Officer
COI	Community of Interest
HIMSS	Healthcare Information and Management Systems Society
HISA	Health Informatics Society Australia
ICNP	International Classification of Nursing Practice
ICT	Information and Communication Technology
NIA	Nursing Informatics Australia

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