National Nursing and Midwifery Digital Health Capability Framework
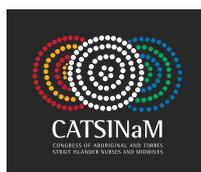
October 2020

The National Nursing and Midwifery Digital Health Capability Framework is supported by:

Disclaimer

The creators of this guide are Australian Digital Health Agency and the Australasian Institute of Digital Health (formerly the Health Informatics Society of Australia).

This guide is of a general nature and should not be regarded as professional advice or relied on for assistance in any particular circumstance. Readers should seek appropriate independent professional advice in relation to their situation.

No representations are given about the accuracy, completeness or suitability of this guide. The creators do not accept any responsibility or liability for any damage, loss or expense incurred as result of any reliance on information contained in this guide.

First Edition

ISBN 978-0-9876434-5-2 (online)

The suggested citation for this document is:
Australian Digital Health Agency, 2020. *National Nursing and Midwifery Digital Health Capability Framework*. Australian Government: Sydney, NSW.

National Nursing and Midwifery Digital Health Capability Framework, v1.0, 2020, available at nursing-midwifery.digitalhealth.gov.au

Copyright © 2020 Australian Digital Health Agency

The material in this guide is licensed under a Creative Commons Attribution ¬4.0 International (CC BY 4.0) licence, with the exception of:

- the Australian Digital Health Agency logo which is subject to the Guidelines for Using the Commonwealth Coat of Arms at https://www.pmc.gov.au/government/commonwealth-coat-arms,

- the AIDH, ACN, ACM, ANMF, APNA, CEQ, CATSINaM, Digital Health CRC, and eHealth Queensland logos and trademarks, and

- any third-party material, any material protected by a trademark, and any images and/or photographs.

The Creative Commons legal code is at https://creativecommons.org/licenses/by/4.0/legalcode.

Enquiries about this licence:
Australian Digital Health Agency
Level 25, 175 Liverpool Street, Sydney, NSW 2000
Phone: 1300 901 001

Enquiries about the publication, feedback and use:
workforce@digitalhealth.gov.au

Table of Contents

Introduction

The World Health Organisation (WHO) defines digital health as the use of digital, mobile and wireless technologies to support the achievement of health objectives. Digital health includes the general use of information and communication technologies for health as well as advanced technologies for managing data and information such as artificial intelligence and genomics[1].

Digital health is a critical part of any modern healthcare industry and its adoption is key to improving patient care outcomes, improving clinical utility, and increasing sustainability of the Australian healthcare system. The evolution of technology in healthcare also requires a specialised workforce who understand and realise the significance of socio-technical dimensions in digital health implementations.

The pressing need for recognised digital heath training and education is supported by *Australia's National Digital Health Strategy – Safe, Seamless, and Secure*[2]. The Australian Digital Health Agency is tasked with implementing the strategy, including the 'Workforce and Education' priority to support a "workforce confidently using digital health technologies to deliver health and care". The stakeholder consultation that informed the Workforce and Education priority identified that healthcare professionals want more support in learning how to maximise the benefits of digital health tools and services.

The Agency has committed to collaborating with governments, care providers, and partners in workforce education so that all healthcare professionals have access to resources that will support them in the confident and efficient use of digital health. In addition, the strategy proposes rapid promotion of a network of clinician digital health leaders and champions across Australia[2].

To address this need for the nursing and midwifery workforce, the Agency initiated the development of the National Nursing and Midwifery Digital Health Capability Framework.

The work was led by the Australasian Institute of Digital Health (AIDH), formerly the Health Informatics Society of Australia (HISA), in collaboration with key stakeholders. Members of the advisory committee included the:

- Australian College of Midwives (ACM)

- Australian College of Nursing (ACN)

- Australian Nursing and Midwifery Federation (ANMF)

- Australian Nursing and Midwifery Accreditation Council (ANMAC)

- Australian Primary Health Care Nurses Association (APNA)

- Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM)

- Digital Health Cooperative Research Centre (Digital Health CRC)

- Australasian Institute of Digital Health Nursing and Midwifery Special Interest Group (AIDH-NaM – formerly Nursing Informatics Australia)

- Nursing and Midwifery Board of Australia (NMBA)

- a consumer representative

- the Queensland Chief Nursing and Midwifery Officer (CNMO) as a conduit for information sharing with the ANZ CNMOs

Work on development of the framework commenced in 2019. A review and mapping of the following literature informed development of the initial domains:

- National Health Service (NHS) capability framework[3]

- Australia's Enrolled Nurse[4]

- Registered Nurse[5] and Midwife[6] standards

- Brunner's[7] capability framework

The capability levels were developed from the levels proposed in the *APNA Career and Education Framework for Nurses in Primary Health Care*[8].

A phased consultation process was undertaken. This involved development workshops, webinars, consultation sessions, written submissions, and a public survey between December 2019 and March 2020. Contributions were received from nurses, midwives, educational experts, and nursing and midwifery organisations at various stages throughout the consultation process. All feedback was collated and considered for inclusion in the final document.

Acknowledgements

Context Statement

The nursing and midwifery professions collectively represent Australia's largest health workforce, with direct responsibility for collection, entry, and use of clinical information. Recognising the changes in healthcare due to the growing adoption of digital technologies, and taking into account all aspects of professional practice, the National Nursing and Midwifery Digital Health Capability Framework has been created to:

- define the digital health knowledge, skills and attitudes required for professional practice

- complement existing individual knowledge, skill, and attitudinal frameworks

- provide a solid basis for tailored learning

The Australian Commission on Safety and Quality in Health Care (ACSQHC) endorses the safe and effective implementation of digital health in Australia. Digital health when implemented appropriately can improve the quality, safety and efficiency of healthcare. A digital health capable workforce is key to ensuring safe, quality healthcare in the future. The framework has therefore been developed with a central theme of safety and quality in healthcare within the digital healthcare environment.

Nurses and midwives have important roles that cross the domains of patient care, leadership, advocacy, education, and research. As the Australian healthcare system increases use of technology to deliver patient care, digital health related roles and capabilities will become commonplace amongst this important workforce. The framework seeks to recognise these roles and the unique digital health capabilities of nurses and midwives.

Consumer expectations are changing in line with the increased availability and use of affordable digital health technologies. The Advisory Committee found that Australians are more informed; they expect to be actively involved in managing their health and in decision making, and be provided with prompt, individualised care. The evolving role for nurses and midwives has also been brought to the fore during the COVID-19 pandemic with nurses and midwives providing care via telehealth. It is expected that for many consumers telehealth consultations will become the preferred model of care due to its convenience and timeliness.

Whilst many nurses and midwives are familiar with competencies or competency statements, this framework provides capability statements consistent with the most recent nursing and midwifery standards for practice[4-6]. The difference is described by Brunner and colleagues:[7]

"Although capability has been described as being similar to competence, it in fact encompasses competence and extends beyond the technical skills implied by competence to emphasize the components of adaptability to change, lifelong learning, and self-efficacy. As such, capability-informed frameworks address wider aspects of professionalism, focusing on supporting continuous development rather than assessment of a skill at a specific point in time."

NOTE: There is a broad range of terminology used for those cared for by nurses and midwives. Throughout the framework the term used to describe the person receiving care is the patient/consumer. This includes reference to women, men, people who identify as gender diverse, children, clients, residents and all other people receiving healthcare provided by nurses and midwives in Australia.

Background Assumptions

The framework is underpinned by the following assumptions:

- The framework is a guide for individuals and employers on the skills and knowledge required to deliver healthcare in a digital world

- Nurses and midwives have varying levels of digital literacy and access to digital technologies[i]

- All nurses and midwives currently, and increasingly, work and live in a digital environment

- It is essential that every nurse and midwife has the skills to use data, information, knowledge and technology to maximise health and societal outcomes, improve services, and extend their evidence-based practice

Intended Use

The framework outlines the capabilities required to support individuals and organisations in extending their digital health development rather than providing a rigid set of competencies. It is intended to enable and inform and is not intended to be adopted as a professional standard but should be used as a resource to guide individuals, employers, and educators in their workforce and professional development planning and delivery.

Most importantly, the framework intends to promote and encourage positive attitudes in relation to the increasing introduction and adoption of technology and innovation.

Effort has been made to ensure that every nurse and midwife[ii] can use the framework to assess their own capability across a range of digital health specific domains, and for employers to understand the digital health capability they should be supporting within their workforce.

In developing this resource, we foresaw the following intended uses. The framework:

- is intended to be accessible and understandable across a broad range of healthcare contexts

- can be used by individual nurses and midwives to assess their own digital health capabilities and to identify learning and developmental needs or inform personal and professional development plans relevant to their current or future workplace or role

- can be used by health services as part of their continuous quality improvement activities to assess organisational capacity and educational requirements

- can be used to develop tools to assist in extending the digital health capabilities

- will provide direction for career advancement planning in digital health or other nursing and midwifery specialties

---

i. It is acknowledged that not all nurses and midwives have access to the technologies and tools they need; however, addressing this is outside of the scope of the framework. Nurses and midwives should be given the opportunity to develop the necessary skills and knowledge as per this framework, regardless of the stage of digital maturity of their organisation.

ii. Whilst the framework was specifically designed for registered nurses and midwives, nursing and midwifery students and enrolled nurses are encouraged to use this framework, recognising their current scope of practice, degree of autonomy, and practice setting.

The Framework

The framework consists of five domains:

- Domain 1 – Digital Professionalism
- Domain 2 – Leadership and Advocacy
- Domain 3 – Data and Information Quality
- Domain 4 – Information Enabled Care
- Domain 5 – Technology

The five domains sit within the context of nurses and midwives' roles, workplace settings and the professional standards that apply to their practice (Figure 1). This recognises the breadth of the disciplines of nursing and midwifery and the fact that they operate within existing professional structures and rules.
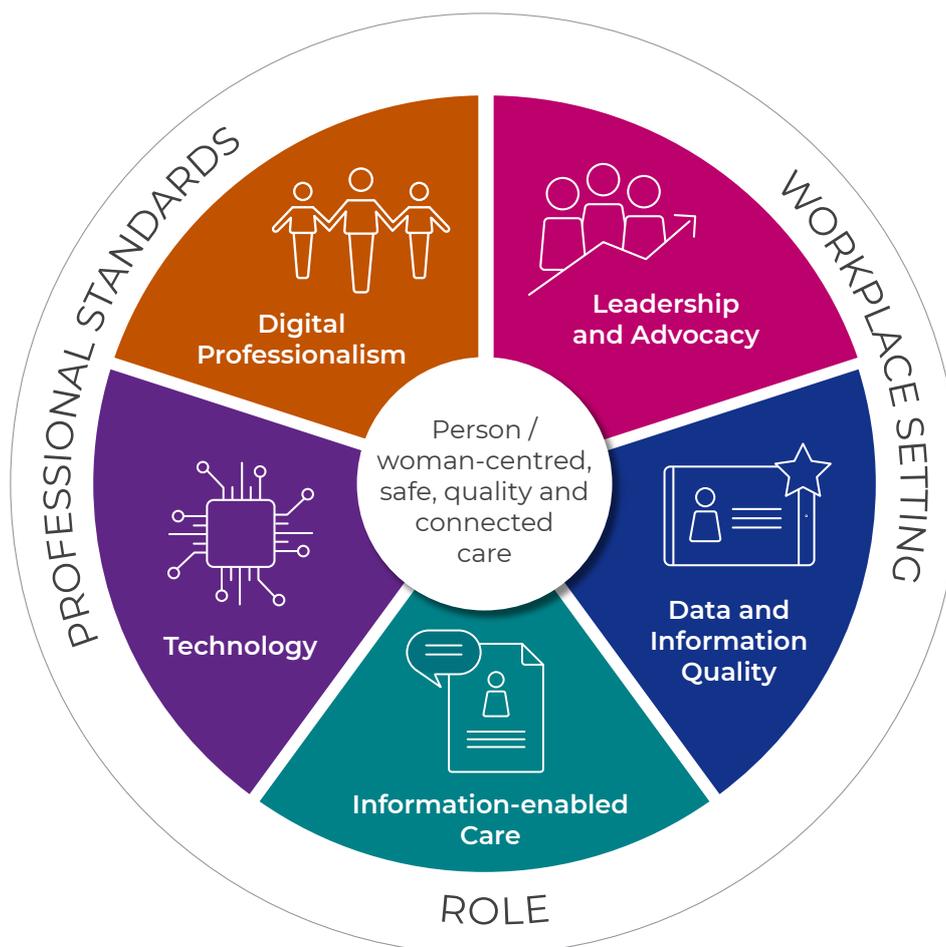
Figure 1. Framework Domains

Each domain has three sub-domains and each sub-domain has four related capability statements. The capability statements progress from formative to proficient levels.

Capability Levels
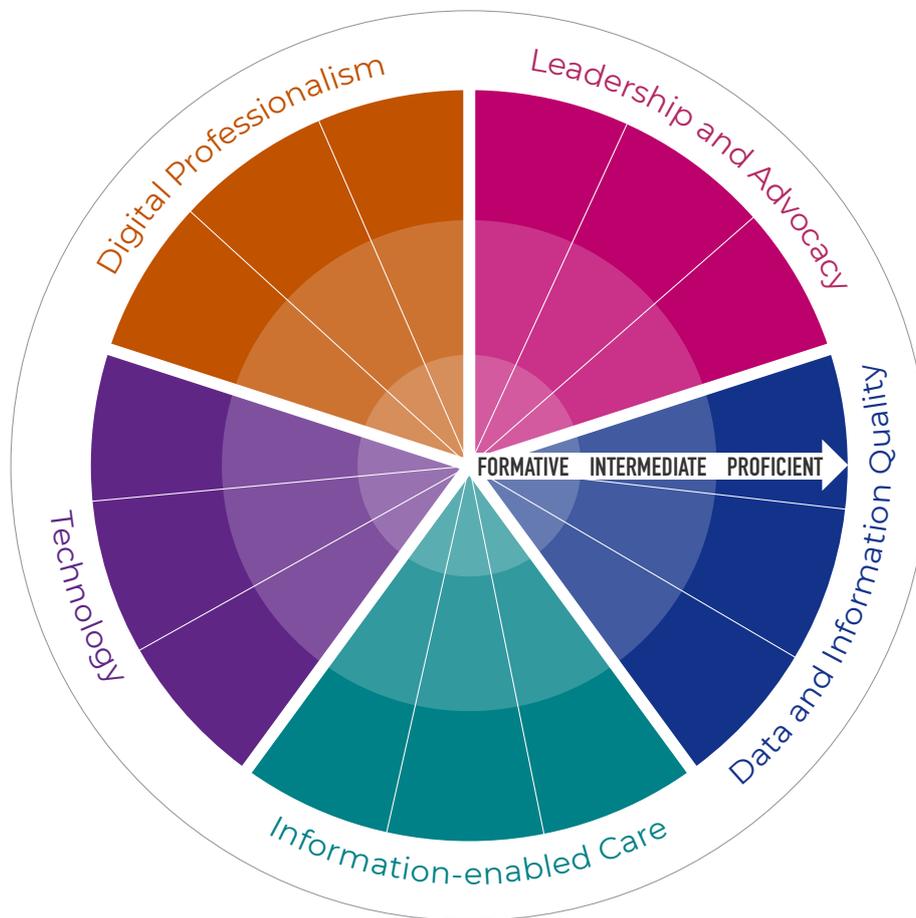
Figure 2. Capability Levels

Each capability statement has three levels which depict the anticipated growth of knowledge, skills and abilities in the capability area. The degree of capability at each level is illustrated by the level indicator statements. These statements are not intended to be an exhaustive list, and every indicator is not necessarily relevant to every role or practice setting.

The three levels do not correspond to employment grade or position as different roles and settings may require and support capabilities at different levels. Most nurses and midwives should aspire to achieving the highest level of capability possible relating to their role and practice setting.

Formative level – This level reflects nurses and midwives who are beginning to use and understand digital health and the implications for practice.

Intermediate level – This level reflects nurses and midwives who are developing increased confidence, knowledge, skill and capacity in the use of digital health in their practice.

Proficient level – This level reflects nurses and midwives who are assuming leadership in the use and championing of digital health within both practice and the broader nursing/midwifery professions.

The capability statements and levels are presented in Tables 2 to 6.

Domain 1. Digital Professionalism
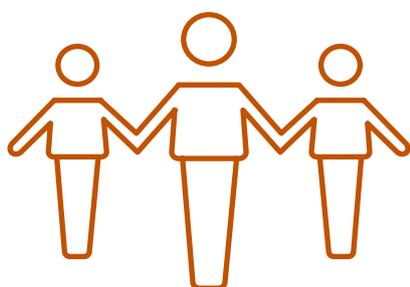
Professional standards are maintained in the digital environment

Nurses and midwives demonstrate attitudes and behaviours reflecting recognised professional standards when utilising digital tools both professionally and personally.
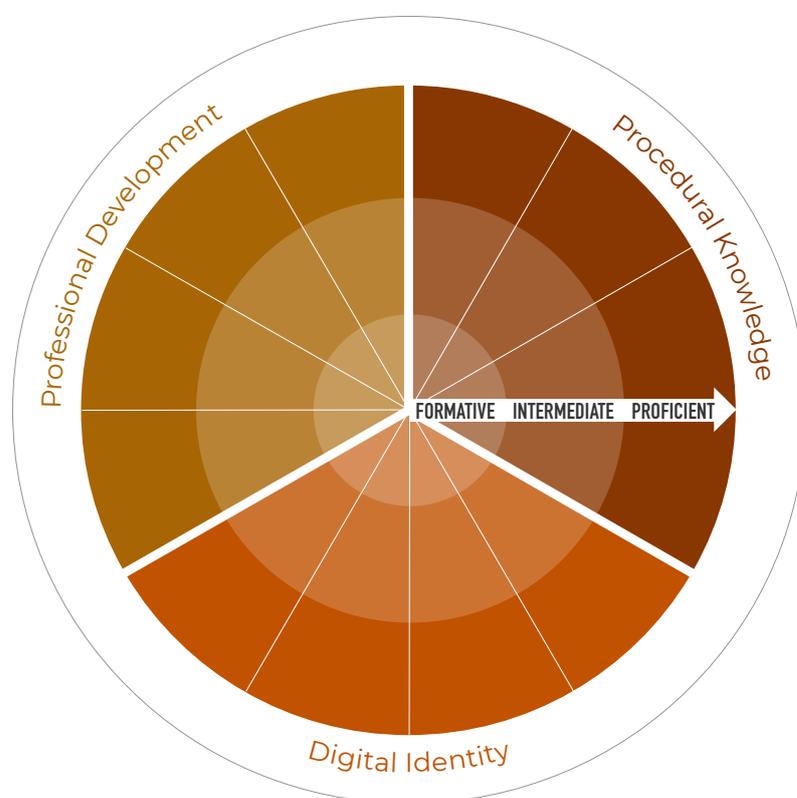
Figure 3. Domain 1 - Digital Professionalism

Digital professionalism has been defined as "the attitudes and behaviours (some of which may occur in private settings) reflecting traditional professionalism paradigms that are manifested through digital media"[9(p. 67)].

In healthcare, digital professionalism has emerged in response to the requirement for clinical workers to understand, develop and demonstrate appropriate behaviour when using digital media. As digital technologies become more embedded in healthcare environments, there is a focus on the development of the capability of healthcare professionals in digital professionalism as part of their professional identity[10]. This links with the professional standards described within the NMBA standards for enrolled nurses[4], registered nurses[5], midwives[6] and nurse practitioners[11].

The three sub-domains within Domain 1, Digital Professionalism, are:

1.1   **Professional Development**
Nurses and midwives use digital tools to achieve and maintain professional development requirements.

1.2   **Procedural Knowledge**
Nurses and midwives use of digital tools in healthcare aligns with procedural, policy, legal, ethical, security and privacy requirements.

The capability statements for each of the sub-domains are listed below:

1.1   Professional Development

- Employs digital technologies in personal learning and professional development

- Maintains currency with tools and innovations, and in relation to the changing nature of digital health

- Uses technologies to improve practice and to monitor continuing professional development (CPD) and the NMBA's registration standards

- Demonstrates and champions appropriate and innovative digital technologies to enhance learning and patient/consumer care

1.2   Procedural Knowledge

- Ensures professional responsibilities, through understanding and adhering to digital health legislation, policy and ethics, including privacy and security, and professional conduct

- Recognises and acts upon digital situations and events, including illegal practices or unprofessional conduct, that might compromise personal, professional or organisational security or reputation

- Maintains awareness of cultural, ethical, and socioeconomic issues when accessing and using digitally held health information

- Recognises and acts upon cultural, ethical, and socioeconomic inequity related to access to, and use of, health information

1.3   Digital Identity

- Maintains a professional development record demonstrating innovation, reflecting upon skills and experience to help monitor professional identity

- Understands the benefits and risks of different ways of presenting oneself online, both professionally and personally while adhering to the NMBA social media policy

- Understands that online posts can stay in the public domain and contribute to an individual's digital footprint

- Recognises that their professional digital footprint, where it exists, should showcase their skills, education, and professional experience

Domain 2. Leadership and Advocacy
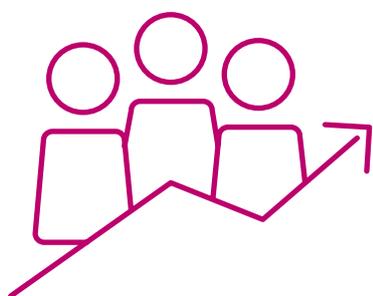
Digital health leadership and advocacy supported by clear policy

Nurses and midwives are the largest health professional group in all contexts of health, education, and care. It is important for nurses and midwives to be actively involved in the leadership, policy development, and advocacy for digital health at individual, local, and national levels.
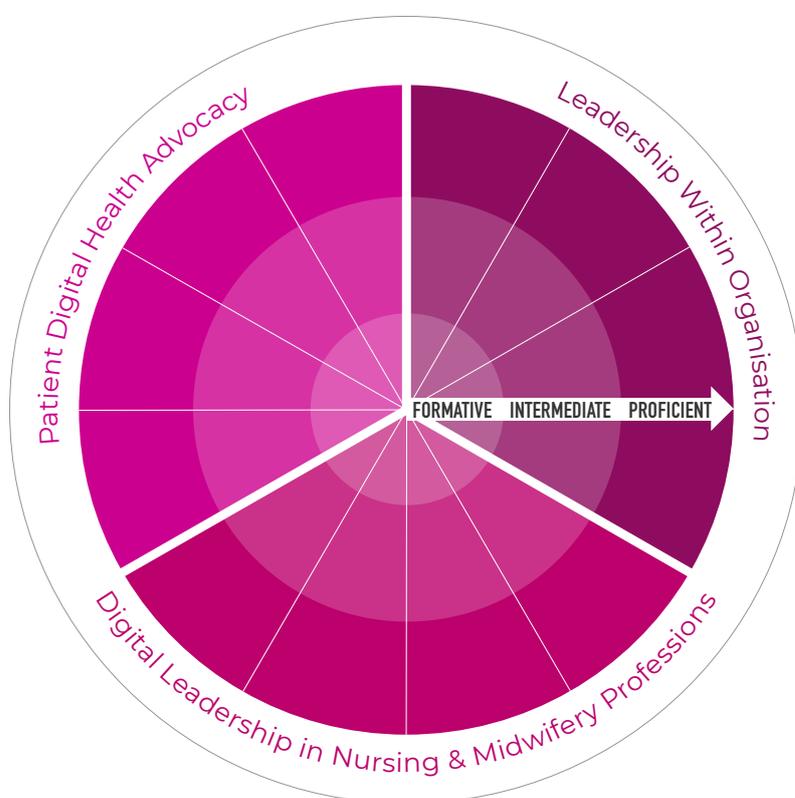
Figure 4. Domain 2 - Leadership and Advocacy

In the *2017 Nursing Informatics Position Statement*[12] the authors recognise the importance of nurses and midwives being leaders in digital health. They state "nurses specifically – must be enabled to take a leading role in digital healthcare to ensure technology is designed and used effectively. Nurses must ensure that technology does not get in the way of patient care, but rather enhances capacity to deliver better, safer care."[12(p.5)]

As advocates for patients, their families, and the community, nurses and midwives campaign for health care reforms that improve quality and access[13]. The importance of leadership in digital health is heightened because nurses and midwives are responsible for the planning, implementation, and evaluation of a broad range of initiatives to improve health outcomes, patient satisfaction and the utilisation of resources. The domain of leadership and advocacy therefore bridges the current gap between policy and procedures and patient/consumer centred care.

The three sub-domains within Domain 2, Leadership and Advocacy, are:

2.1   Patient Digital Health Advocacy

Nurses and midwives work in partnership with patients/consumers regarding education and advocacy about information collection, access and use.

2.2   Leadership Within Organisation

Nurses and midwives are visible and active players in digital health decision making within their organisations.

2.3   Digital Leadership in Nursing and Midwifery Professions

Nurses and midwives provide active leadership to ensure their professions have input into national digital health decisions.

The capability statements for each of the sub-domains are listed below:

2.1   Patient Digital Health Advocacy

- Advocates for patient/consumer access to digital health

- Understands the benefits and possible risks of different digital health applications when assisting patients/consumers

- Uses digital health in partnership with patients/consumers to aid culturally appropriate, informed decision making and health literacy

- Assists patients/consumers to use a range of communication technologies in their care, such as telehealth consultations

2.2   Leadership Within Organisation

- Champions the use of digital health technologies in the organisation and with peers

- Understands and contributes to the development of digital health policies and procedures within local organisation

- Uses digital health to support communication within the organisation

- Ensures appropriate digital health education is available within the organisation

2.3   Digital Leadership in Nursing and Midwifery Professions

- Promotes nurses' and midwives' leadership in design, implementation, and evaluation of digital health technologies that support nursing and midwifery practice

- Explores, promotes, and contributes to the potential of emerging digital data sources and data systems to transform health and healthcare

- Actively participates in making decisions regarding digital health technologies

- Engages with the processes of digital health strategy and policy development within the profession

Domain 3. Data and Information Quality
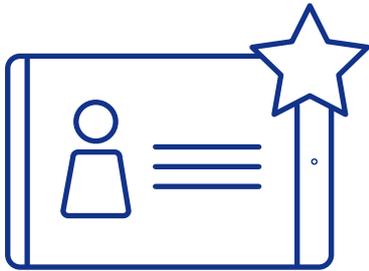
Data quality must be present

Digital health relies on quality data for information management. Nurses and midwives have a critical role in the capture, creation, recording, and use of increasingly large quantities of clinical and healthcare data.
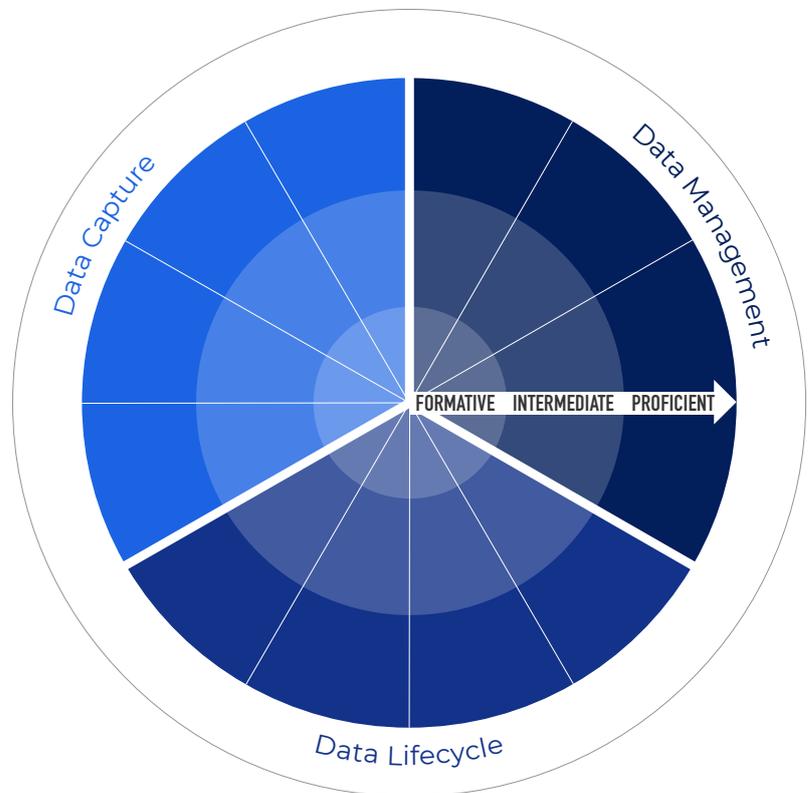
Figure 5. Domain 3 - Data and Information Quality

Digital health relies on quality data for information management. This means that nurses and midwives have a critical role in the capture, creation, and recording of increasingly large quantities of clinical and healthcare data. Additionally, all states and territories in Australia are required to measure healthcare quality and are increasingly focussed on patient experiences[14].

The ANMF National Informatics Standards for Nurses and Midwives 2015[15] discusses the importance of data standards, interoperability, and nursing clinical domain models. Supported by data standards, nurses, and midwives can be confident that the information they are using and sharing is accurate, timely, and complete. Quality data gathered by nurses and midwives can be used for multiple purposes across healthcare and enable improved patient health outcomes.

The three sub-domains within Domain 3, Data and Information Quality, are:

> **3.1   Data Capture**
> Nurses and midwives play a crucial role in the capture of complete, timely, and accurate data.

3.2   Data Management

Nurses and midwives play a pivotal role in ensuring the accessibility, reliability, privacy, security and timeliness of data within healthcare environments.

3.3   Data Lifecycle

Nurses and midwives are able to recognise that data have different uses or usefulness at various points within healthcare.

The capability statements for each of the sub-domains are listed below:

3.1   Data Capture

- Understands that nurses and midwives are crucial in the capture of data and advises on their use within the healthcare system

- Understands how data are stored and used throughout the healthcare system

- Systematically and accurately collects and records relevant data in a structured form

- Understands the benefits and risks of using patient/consumer generated data in delivering care

3.2   Data Management

- Understands informatics and digital health terminology

- Understands the purpose, structure, use, and storage of electronic health records

- Manages and applies information within the relevant scope of practice and the healthcare context

- Understands who uses health data and how, for the benefit of the patient/consumer, for research, and across the healthcare system

3.3   Data Lifecycle

- Understands data structures and their importance in healthcare

- Maintains a degree of understanding about structured languages used in nursing and midwifery in relation to data capture, aggregation, storage, and use within digital health systems

- Recognises the role of data integrity in healthcare and the importance of complete, timely, and accurate data

- Understands the transition from data, through information and knowledge, to wisdom and decision making

Domain 4. Information Enabled Care

Care must be supported by rigorous data analysis and critical appraisal

The evidence-based actions and behaviours of nurses and midwives increasingly rely on the appropriate use of complex data. Information enabled care is central to modern practice. It requires the development of a validated knowledge-base, through rigorous data analysis, to inform quality clinical decision making and to extend nursing and midwifery knowledge.
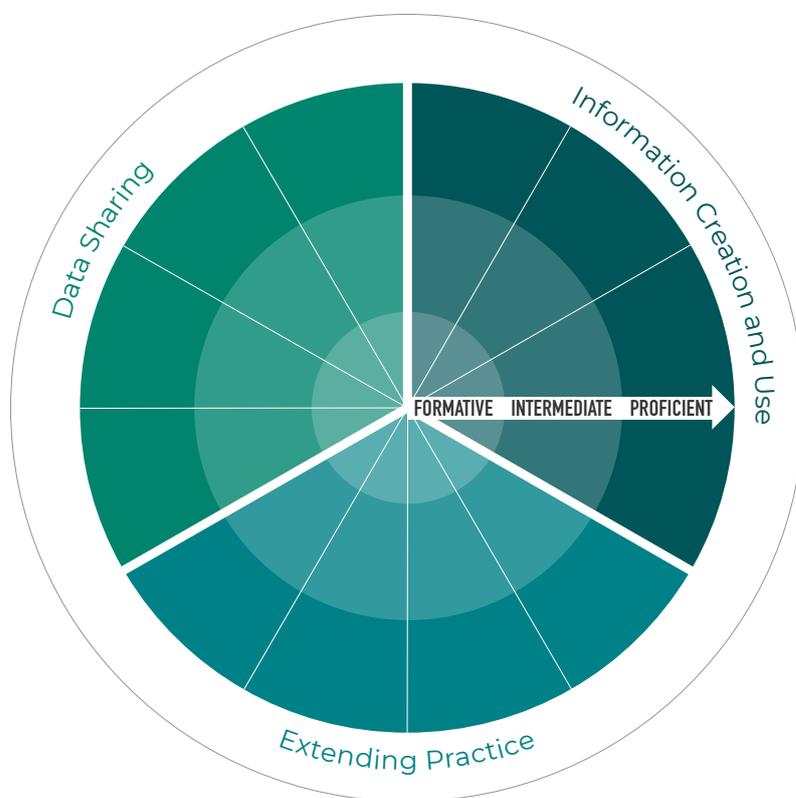
Figure 6. Domain 4 - Information Enabled Care

Increasingly, nurses and midwives are required to use their critical thinking to analyse complex data during the provision of care. This extends more broadly than any individual setting as we move towards ensuring continuity of care across health settings and provide patients/consumers with connected care. These changes are enabled by the information exchanges that occur with the implementation and use of digital health tools. Information provides the key to safe, quality healthcare delivery and supports evidence based activities[14].

The three sub-domains within Domain 4, Information Enabled Care, are:

4.1   Data Sharing

Nurses and midwives appropriately use and share digital data with other healthcare professionals and patients/consumers.

4.2   Information Creation and Use

Nurses and midwives use data from a wide range of sources to create information for themselves, their patients/consumers and other healthcare providers and users to implement, support, and evaluate care.

4.3   Extending Practice

Nurses and midwives use information to develop, extend, and support evidence-based care in critical decision making.

The capability statements for each of the sub-domains are listed below:

4.1   Data Sharing

- Understands the concepts relating to data linkage

- Identifies the purposes, benefits, and risks of aggregating clinical data from multiple sources

- Understands the importance of data analytics and how they influence decision making and care delivery

- Recognises the various data sources available and judges their quality, including patient/consumer generated data

4.2   Information Creation and Use

- Sources and critically evaluates information to support evidence-based decision making for practice, education, and research

- Uses their skills to assist patients/consumers to access and evaluate electronic health information

- Understands that using accurate data to assess nursing and midwifery care and health outcomes provides the opportunity to influence health service management, planning, policy, resourcing, practice, research, education, and continuous improvement

- Recognises the potential of digital health to support current practice and enable new models of care

4.3   Extending Practice

- Advocates for the use of digital health technologies to support innovation, quality improvement, research, and evidence-based practice

- Uses research to guide practice in the use of digital health to support nursing and midwifery practice

- Uses digital technologies to facilitate patient/consumer engagement, education, and self-management

- Understands and evaluates the impact of digital health on the role of the nurse/midwife, healthcare practice, patient/consumer safety and interaction, and the quality of care

Domain 5. Technology
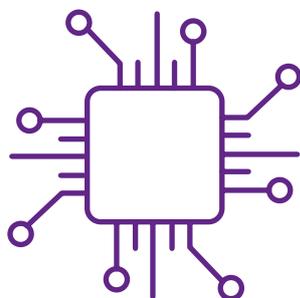
Technology needs to be understood and used appropriately

Nurses and midwives access and use available technologies appropriately to deliver safe and quality care, and to ensure information availability.
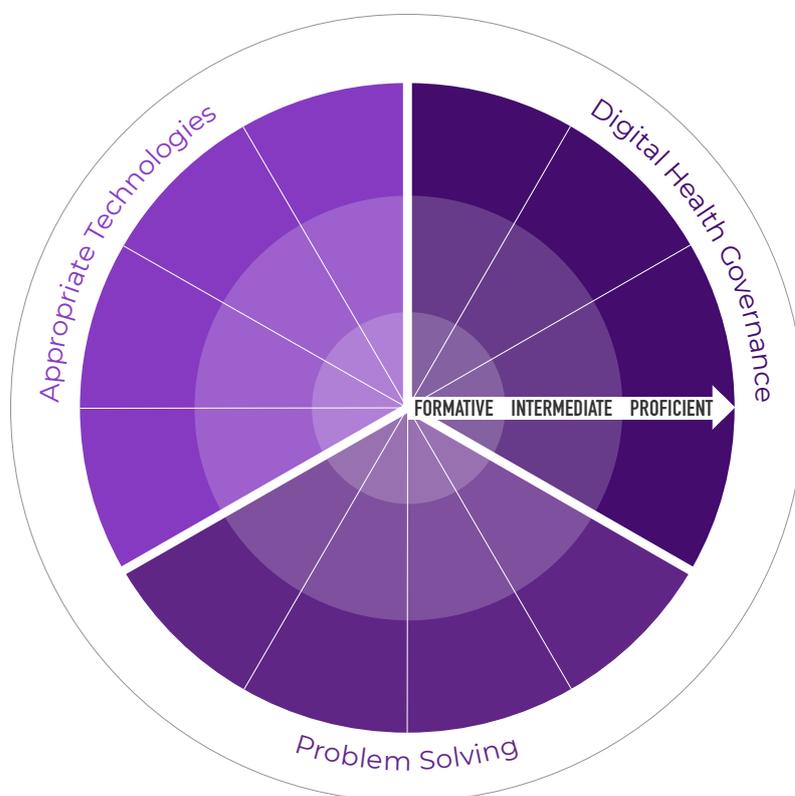
Figure 7. Domain 5 - Technology

The introduction of technology has changed the way nurses and midwives practice across the full spectrum of practice settings. Nurses and midwives have always adapted to the introduction of technologies that improve patient outcomes by allowing faster diagnosis, more precise therapies, and increasing their time for hands-on patient care. Digital health technologies are increasingly providing improved recording of care and sharing of patient/consumer information, linked with continuity of care and decreased replication of data across the healthcare system. It is recognised that not all nurses and midwives have the same level of access to digital health technologies, but it must also be recognised that there is a focus on the digitisation of health nationally "as key to improving service delivery and health outcomes".[2 (p.3)] Technology is therefore an important domain in the delivery of a digitally capable nursing and midwifery workforce.

The three sub-domains within Domain 5, Technology, are:

5.1 **Appropriate Technologies**

Nurses and midwives are able to identify and recommend appropriate digital technologies for their environment and for their patients/consumers and use these where available.

5.2   Digital Health Governance

Nurses and midwives are able to implement policy and procedures that govern digital health use in their workplace.

5.3   Problem Solving

Nurses and midwives are able to use digital technologies to support problem solving in practice.

The capability statements for each of the sub-domains are listed below:

5.1   Appropriate Technologies

- Recognises the right technology for the clinical or professional situation, or identifies when the wrong one is being used

- Maintains knowledge currency in relation to digital health innovations and their uses, relevant to their area of practice

- Maintains the ability to communicate appropriately with other healthcare professionals and with patients/consumers using a range of electronic means

- Recognises the advantages and challenges of digital health in practice

5.2   Digital Health Governance

- Understands policies and procedures that govern the management, adoption and use of digital health technologies

- Understands the principles of data and information governance, including privacy and security requirements

- Uses a range of devices, applications and software for undertaking nursing and midwifery responsibilities

- Ensures timely reporting of errors and near misses, and monitors outcomes

5.3   Problem Solving

- Provides appropriate and informed feedback on the digital health technologies in use and participates in improvement or customisation

- Demonstrates the ability to solve problems when using digital health technologies

- Understands and knows how to action the back-up processes in the event of a system failure

- Demonstrates an ability to detect, report, and action technology related errors

Figure 8. Framework Domains and Sub-Domains

Table 1.
Descriptions of Domains and Sub-Domains

Domain Description	Sub-domain 1	Sub-domain 2	Sub-domain 3
Domain 1 - Digital Professionalism			
Professional standards are maintained in the digital environment	*1.1 Professional development*	*1.2 Procedural knowledge*	*1.3 Digital identity*
Nurses and midwives demonstrate attitudes and behaviours reflecting recognised professional standards when utilising digital tools both professionally and personally	Nurses and midwives use digital tools to achieve and maintain professional development requirements	Nurses and midwives use of digital tools in healthcare aligns with procedural, policy, legal, ethical, security, and privacy requirements	Nurses and midwives use digital tools to develop and maintain their online identity and reputation
Domain 2 - Leadership and Advocacy			
Digital health leadership and advocacy supported by clear policy	*2.1 Patient digital health advocacy*	*2.2 Leadership within organisation*	*2.3 Digital leadership in Nursing and Midwifery professions*
Nurses and midwives are the largest health professional group in all contexts of health, education, and care. It is important for nurses and midwives to be actively involved in the leadership, policy development, and advocacy for digital health at individual, local, and national levels	Nurses and midwives work in partnership with patients/consumers regarding education and advocacy about information collection, access and use	Nurses and midwives are visible and active players in the digital health decision making within their organisations	Nurses and midwives provide active leadership to ensure the professions have input into national digital health decisions
Domain 3 - Data and Information Quality			
Data quality must be present	*3.1 Data capture*	*3.2 Data management*	*3.3 Data lifecycle*
Digital health relies on quality data for information management. Nurses and midwives have a critical role in the capture, creation, recording, and use of increasingly large quantities of clinical and healthcare	Nurses and midwives play a crucial role in the capture of complete, timely and accurate data	Nurses and midwives play a pivotal role in ensuring the accessibility, reliability, privacy, security and timeliness of data within healthcare environments	Nurses and midwives are able to recognise that data have different uses or usefulness at various points within healthcare

Domain 4 - Information Enabled Care

Care must be supported by rigorous data analysis and critical appraisal	4.1 Data sharing	4.2 Information creation and use	4.3 Extending practice
The evidence-based actions and behaviours of nurses and midwives increasingly rely on the appropriate use of complex data. Information enabled care is central to modern practice and requires the development of a validated knowledge-base through rigorous data analysis, to inform quality clinical decision making and to extend nursing and midwifery knowledge	Nurses and midwives appropriately use and share digital data with other healthcare professionals and patients/consumers	Nurses and midwives use data from a wide range of sources to create information for themselves, their patients/consumers and other healthcare providers and users to support care	Nurses and midwives use information to develop, extend and support evidence based care in critical decision making

Domain 5 - Technology

Technology needs to be understood and used appropriately	5.1 Appropriate technologies	5.2 Digital health governance	5.3 Problem solving
Nurses and midwives access and use available technologies appropriately to deliver safe and quality care, and to ensure information availability	Nurses and midwives are able to identify and recommend appropriate digital technologies for their environment and for patients/consumers, and use these where available	Nurses and midwives are able to implement policy and procedures that govern digital health use in their workplace	Nurses and midwives are able to use digital technologies to support problem solving in practice

Table 2. Domain 1. Digital Professionalism – Capability Statements

Domain 1 - Digital Professionalism	*Professional standards are maintained in the digital environment* - Nurses and midwives demonstrate attitudes and behaviours reflecting recognised professional standards when utilising digital tools both professionally and personally.		
Sub-Domain Description	**Levels**		
	Formative	Intermediate	Proficient
1.1 Professional Development Nurses and midwives use digital tools to achieve and maintain professional development requirements			
Employs digital technologies in personal learning and professional development	I am **learning** to use digital technologies in my personal learning and professional development	I **confidently** use digital technologies in my personal learning and professional development	I am an **expert** in my use of digital technologies in my personal learning and professional development
Maintains currency with tools and innovations, and in relation to the changing nature of digital health	I am **learning** about the tools available in digital health	I am **confident** in my knowledge about digital health tools and innovations	I have **expert** knowledge about tools and innovations, and in relation to the changing nature of digital health
Uses technology to improve practice and to monitor continuing professional development (CPD) and the NMBA's registration	I am **learning** to use technology to improve practice and monitor mandatory requirements	I **confidently** use technology to improve practice and monitor mandatory requirements	I **lead** in the use of technology to improve practice and monitor mandatory requirements
Demonstrates and champions appropriate and innovative digital technologies to enhance learning and patient/consumer care	I am **learning** about digital technologies to enhance learning and patient/consumer care	I **confidently** use appropriate and innovative digital technologies to enhance learning and patient/consumer care	I **lead** and champion the adoption and use of appropriate and innovative digital technologies to enhance learning and patient/consumer care
1.2 Procedural Knowledge Nurses and midwives use of digital tools in healthcare aligns with procedural, policy, legal, ethical, security, and privacy requirements			
Ensures professional responsibilities, through understanding and adhering to digital health legislation, policy and ethics, including privacy and security, and professional conduct	I understand and adhere to digital health legislation, policy and ethics, including privacy and security, and professional conduct	I **confidently** recognise professional responsibilities, through understanding and adhering to digital health legislation, policy and ethics, including privacy and security, and professional conduct	I **lead** through demonstrating my professional responsibilities, through understanding and adhering to digital health legislation, policy and ethics, including privacy and security, and professional conduct

Recognises and acts upon digital situations and events, including illegal practices or unprofessional conduct, that might compromise personal, professional or organisational security or reputation	I understand and can recognise digital situations and events, including illegal practices or unprofessional conduct, that might compromise personal, professional or organisational security or reputation	I **confidently** recognise and act upon digital situations and events, including illegal practices or unprofessional conduct, that might compromise personal, professional or organisational security or reputation	I **lead** others in recognising and acting upon digital situations and events, including illegal practices or unprofessional conduct, that might compromise personal, professional or organisational security or reputation
Maintains awareness of cultural, ethical, and socioeconomic issues when accessing and using digitally held health information	I understand and am developing awareness of cultural, ethical, and socioeconomic issues when accessing and using digitally held health information	I am **confidently** aware of cultural, ethical, and socioeconomic issues when accessing and using digitally held health information	I **lead** others through my awareness of cultural, ethical, and socioeconomic issues when accessing and using digitally held health information
Recognises and acts upon cultural, ethical, and socioeconomic inequity related to access to, and use of, health information	I am **learning** to recognise and act upon cultural, ethical, and socioeconomic issues related to access to, and use of, information	I **confidently** recognise and act upon cultural, ethical, and socioeconomic issues related to access to, and use of, information	I **lead** in recognising and acting upon cultural, ethical, and socioeconomic issues related to access to, and use of, information

1.3 Digital Identity

Nurses and midwives use digital tools to develop and maintain their online identity and reputation

Maintains a professional development record demonstrating innovation, reflecting upon skills and experience to help monitor professional identity	I am **learning** about the use of digital professional development record	I **confidently** use a digital professional development record to demonstrate innovation, reflect on skills and experience to help monitor professional identity	I **champion** the use of digital professional development record to demonstrate innovation, reflect on skills and experience to help monitor professional identity
Understanding of the benefits and risks of different ways of presenting oneself online both professionally and personally	I am **learning** about the different ways of presenting myself online and about the inherent risks	I **confidently** understand the benefits and risks of different ways of presenting oneself online both professionally and personally	I provide **leadership** and guidance to others in understanding the benefits and risks of different ways of presenting oneself online both professionally and personally
Understands that online posts can stay in the public domain and contribute to an individual's digital footprint	I am **learning** about the contribution of all online posts to my digital footprint	I **confidently** understand that online posts can stay in the public domain and contribute to an individual's digital footprint	I am **proactive** in ensuring that others understand that online posts can stay in the public domain and contribute to an individual's digital footprint
Recognises that their professional digital footprint, where it exists, should showcase their skills, education, and professional experience	I am **learning** about my digital footprint and its importance to my professional life	I **confidently** use my digital footprint to showcase skills, education, and professional experience	I am **proactive** in supporting others in the development and use of their digital footprint to showcase skills, education, and professional experience

Table 3. Domain 2. Leadership and Advocacy – Capability Statements

Domain 2 - Leadership and Advocacy	Digital health leadership and advocacy supported by clear policy - Nurses and midwives are the largest health professional group in all contexts of health, education, and care. It is important for nurses and midwives to be actively involved in the leadership, policy development, and advocacy for digital health at individual, local, and national levels.		
Sub-Domain Description	**Levels**		
	Formative	Intermediate	Proficient

2.1 Patient Digital Health Advocacy

Nurses and midwives work in partnership with patients/consumers regarding education and advocacy about information collection, access and use

	Formative	Intermediate	Proficient
Advocates for patient/consumer access to digital health technologies	I **understand** the importance of patient/consumer access to digital health technologies	I **confidently** advocate for patient/consumer access to digital health technologies	I **champion** the right for patient/consumer access to digital health technologies
Understands the benefits and possible risks of different digital health applications when assisting patients/consumers	I am **aware** of the benefits and possible risks of different digital health applications for patients/consumers	I **confidently** assist patients/consumers in understanding the benefits and possible risks of different digital health applications	I **champion** the use of and support others in assisting patients/consumers in understanding the benefits and possible risks of different digital health applications
Uses digital health in partnership with patients/consumers to aid culturally appropriate, informed decision making and health literacy	I am **learning** to use my digital health skills in patient/consumer education	I **confidently** use my digital health skills in patient/consumer education and assist them in informed decision making	I **lead** in use of the digital health skills in patient/consumer education, assisting them in informed decision making and enhancing health literacy
Assist patients/consumers to use a range of communication technologies in their care, such as telehealth consultations	I am **learning** about how communication tools can be used with patients/consumers in my scope of practice	I **confidently** assist patients/consumers to use a range of communication technologies in their care	I **champion** the use of and support others in assisting patients/consumers to use a range of communication technologies in their care

2.2 Leadership Within Organisation

Nurses and midwives are visible and active players in the digital health decision making within their organisations

	Formative	Intermediate	Proficient
Champions the use of digital health technologies in the organisation and with peers	I am **learning** to encourage others to use of digital health technologies in the organisation and with peers	I **confidently** discuss the use of digital health technologies in the organisation and with my peers	I **champion** the use of digital health technologies in the organisation and with my peers
Understands and contributes to the development of digital health policies and procedures within local organisation	I **adhere** to digital health policies and procedures within my local organisation	I **confidently** understand the digital health policies and procedures within local organisation	I **lead** and contribute to digital health policies and procedures within my organisation

Uses digital health to support communication within the organisation	I am **learning** how to use digital health tools to support communication in my organisation	I **confidently** use digital health to support communication within the organisation	As an **expert**, I provide **leadership**, advocacy, guidance and support on the use digital health to support communication within the organisation
Ensures appropriate digital health education is available within the organisation	I attend digital health education that is available within the organisation	I attend, engage with and provide feedback on digital health education available within the organisation	I **lead** and conduct digital health education within the organisation

2.3 Digital Leadership in Nursing and Midwifery Professions

Nurses and midwives provide active leadership to ensure the professions have input into national digital health decisions

Promotes nurses' and midwives' leadership in design, implementation and evaluation of digital health technologies that support nursing and midwifery practice	I am **learning** about the importance of nurses' and midwives' leadership in design, implementation and evaluation of digital health technologies that support nursing and midwifery practice	I **confidently** promote the need for nurses' and midwives' leadership in design, implementation and evaluation of digital health technologies that support nursing and midwifery practice	I contribute to advancing nurses' and midwives' **leadership** in design, implementation and evaluation of digital health technologies that support nursing and midwifery practice
Explores, promotes, and contributes to the potential of emerging digital data sources and data systems to transform health and healthcare	I am **learning** about the potential of emerging digital data sources and data systems to transform health and healthcare	I **confidently** explore the potential of emerging digital data sources and data systems to transform health and healthcare	I **champion** the potential of emerging digital data sources and data systems to transform health and healthcare
Actively participates in making decisions regarding digital health technology	I am **developing** confidence in making decisions regarding digital health technology	I am **actively** involved in decisions regarding digital health technology	I **lead** decisions regarding digital health technology
Engages with the processes of digital health strategy and policy development within the profession	I am **learning** about digital health strategy and policy development within the profession	I **confidently** contribute to the processes of digital health strategy and policy development within the profession	I **lead** in digital health strategy and policy development within the profession

Table 4. Domain 3. Data and Information Quality – Capability Statements

Domain 3 - Data and Information Quality	*Data quality must be present* - Digital health relies on quality data for information management. Nurses and midwives have a critical role in the capture, creation, recording, and use of increasingly large quantities of clinical and healthcare data.		
Sub-Domain Description	**Levels**		
	Formative	Intermediate	Proficient
3.1 Data Capture			
Nurses and midwives play a crucial role in the capture of complete, timely and accurate data			
Understands that nurses and midwives are crucial in the capture of data and advises on their use within the healthcare system	I **understand** what data must be collected and their use within the healthcare system	I **confidently** understand what data must be collected and their use within the healthcare system	I **lead** in data collection and use
Understands how data are stored and used throughout the healthcare system	I am **learning** about database structures and functions	I am **confident** that I understand database structures and functions	I have **expert** understanding of database structures and functions
Systematically and accurately collects and records relevant data in a structured form	I **can** collect and record relevant data in a structured form	I **confidently** collect and record relevant data in a structured form	I **systematically** and accurately collect, record and review relevant data in a structured form
Understands the benefits and risks of using patient/consumer generated data in delivering care	I am **aware of** the benefits and risks of using patient/consumer generated data in delivering care	I am **confident** that I understand the benefits and risks of using patient/consumer generated data in delivering care	I provide **leadership** and guidance to others to understand the benefits and risks of using patient/consumer generated data in delivering care
3.2 Data Management			
Nurses and midwives play a pivotal role in ensuring the accessibility, reliability, privacy, security and timeliness of data within healthcare environments			
Understands informatics and digital health terminology	I am **learning** about informatics and digital health terminology	I **confidently** understand informatics and digital health terminology	I have **advanced understanding** of informatics and digital health terminology
Understands the purpose, structure, use, and storage of electronic health records	I am **aware of** the purpose, structure, use, and storage of electronic health records	I **confidently** understand the purpose, structure, use, and storage of electronic health records	I **lead** in design, implementation and evaluation of electronic health records
Manages and applies information within the relevant scope of practice and the healthcare context	I can manage and apply information within my relevant scope of practice and the healthcare context	I **confidently** manage and apply information within my relevant scope of practice and the healthcare context	I **lead** and **guide** others to manage and apply information within my scope of practice and the healthcare context

Understands who uses health data and how, for the benefit of the patient/consumer, research and the healthcare system	I understand about different uses for health data	I am **confident** that I understand the different uses for health data	I **lead** in using health data

3.3 Data Lifecycle

Nurses and midwives are able to recognise that data have different uses or usefulness at various points within healthcare

Understands data structures and their importance in healthcare	I am **learning** about data structures and their importance in healthcare	I am **confident** that I understand data structures and their importance in healthcare	I **lead** in my understanding of data structures and their importance in healthcare
Maintains a degree of understanding about structured languages used in nursing and midwifery in relation to data capture, aggregation, storage and use	I am **learning** about nursing and midwifery languages	I **confidently** use nursing and midwifery languages	I **lead** others with my understanding of nursing and midwifery languages
Recognises the role of data integrity in healthcare and the importance of complete, timely and accurate data	I am **learning** about data integrity in healthcare and the importance of complete, timely and accurate data	I **confidently** recognise the role of data integrity in healthcare and understand the importance of complete, timely and accurate data	I **lead** in promoting the role of data integrity in health-care and ensure complete, timely and accurate data are available
Understands the transition from data, through information and knowledge, to wisdom and decision making	I am **learning** about the transition from data, through information and knowledge, to wisdom and decision making	I am **confident** that I understand the transition from data, through information and knowledge, to wisdom and decision making	I am **confident** and **proficient** in my understanding of the transition from data, through information and knowledge, to wisdom and decision making

Table 5. Domain 4. Information Enabled Care – Capability Statements

Domain 4 - Information Enabled Care	*Care must be supported by rigorous data analysis and critical appraisal -* The evidence-based actions and behaviours of nurses and midwives increasingly rely on the appropriate use of complex data. Information enabled care is central to modern practice. It requires the development of a validated knowledge-base, through rigorous data analysis, to inform quality clinical decision making and to extend nursing and midwifery knowledge.		
Sub-Domain Description	**Levels**		
	Formative	**Intermediate**	**Proficient**
4.1 Data Sharing Nurses and midwives appropriately use and share digital data with other healthcare professionals and patients/consumers			
Understands the concepts relating to data linkage	I am **learning** the concepts relating to data linkage	I am **confident** that I understand the concepts relating to data linkage	I **lead** in my use of linked data
Identifies the purposes, benefits and risks of aggregating clinical data from multiple sources	I am **learning** about the purposes, benefits and risks of aggregating clinical data from multiple sources	I **confidently** identify the purposes, benefits and risks of aggregating clinical data from multiple sources	I provide **leadership** and guidance to others in identifying and understanding the purposes, benefits and risks of aggregating clinical data from multiple sources
Understands the importance of data analytics and how they influence decision making and care delivery	I am **learning** about data analytics	I **confidently** understand the importance of data analytics	I **lead** in the development, implementation and use of data analytics to influence healthcare delivery
Recognises the various data sources available and judges their quality, including patient/consumer generated data	I am **learning** about the various data sources available and how to judge their quality	I **confidently** recognise the various data sources available and judge their quality, including patient/consumer generated data	I am proficient and proactive in recognising available data sources and evaluating quality
4.2 Information Creation and Use Nurses and midwives use data from a wide range of sources to create information for themselves, their patients/consumers, and other healthcare providers and users to support care			
Sources and critically evaluates information to support evidence-based decision making for practice, education and research	I **can** source information to support evidence-based practice	I **confidently** source and critically evaluate information to support evidence-based practice	I **lead** others in sourcing and critically evaluating information to support evidence-based practice
Uses their skills to assist patients/consumers to access and evaluate electronic health information	I **can** assist patients/consumers to access and evaluate electronic health information	I **confidently** assist patients/consumers to access and evaluate electronic health information	I am **confident** and proficient in assisting patients/consumers to access and evaluate electronic health information

Understands that using accurate data to assess nursing and midwifery care and health outcomes provides the opportunity to influence health service management, planning, policy, resourcing, practice, research, education, and continuous improvement	I **understand** the relationship between assessment of nursing and midwifery care, health outcomes, health service management, planning, policy, resourcing, practice, research, education, and continuous improvement	I **confidently** understand the relationship between assessment and health outcomes, health service management, planning, policy, resourcing, practice, research, education, and continuous improvement	I **lead** others in developing their understanding of the relationship between data analysis and health outcomes, health service management, planning, policy, resourcing, practice, research, education, and continuous improvement
Recognises the potential of digital health to support current practice and enable new models of care	I **recognise** the potential of digital health to support current practice	I **confidently** recognise the potential of digital health to support current and future practice	I **proactively** use digital health to support current practice and inform new models of health care
4.3 Extending Practice Nurses and midwives use information to develop, extend, and support evidence based care in critical decision making			
Advocates for the use of digital health technologies to support innovation, quality improvement, research and evidence based practice	I am **learning** how the use of digital health technologies can support quality improvement, research and evidence based practice	I **confidently** use digital health technologies to support quality improvement and evidence based practice	I **lead** in the use of digital health technologies to support innovation, quality improvement, research and evidence based practice
Uses research to guide practice in the use of digital health to support nursing and midwifery practice	I am **learning** to use research to assist my use of digital health to support my practice	I **confidently** use research to guide practice in the use of digital health to support nursing and midwifery practice	I **lead** research to guide the use of digital health to support nursing and midwifery practice
Uses digital technologies to facilitate patient/consumer engagement, education, and self-management	I am **learning** to use digital technologies to facilitate patient/consumer engagement	I **confidently** use digital technologies to facilitate patient/consumer engagement and education	I **lead** in using digital technologies to facilitate patient/consumer engagement, education, and self-management
Understands and evaluates the impact of digital health on the role of the nurse/midwife, healthcare practice, patient/consumer safety and interaction, and the quality of care	I am **learning** to understand and evaluate the impact of digital health on the role of the nurse/midwife and patient/consumer safety	I **confidently** understand and evaluate the impact of digital health on the role of the nurse/midwife, healthcare practice, patient/consumer safety and interaction, and the quality of care	I provide **leadership** and guidance to others to understand and evaluate the impact of digital health on the role of the nurse/midwife, healthcare practice, patient/consumer safety and interaction, and the quality of care

Table 6. Domain 5. Technology – Capability Statements

Domain 5 - Technology	*Technology needs to be understood and used appropriately* - Nurses and midwives access and use available technologies appropriately to deliver safe and quality care, and to ensure information availability.		
Sub-Domain Description	**Levels**		
	Formative	Intermediate	Proficient
5.1 Appropriate Technologies Nurses and midwives are able to identify and recommend appropriate digital technologies for their environment and for patients/consumers, and use these where available			
Recognises the right technology for the clinical or professional situation, or identifies when the wrong one is being used	I am **learning** to recognise the right technology for different situations	I **confidently** recognise the right technology for the clinical or professional situation	As an **expert**, I provide leadership, guidance and support for others in recognising the right technology for the clinical or professional situation
Maintains knowledge currency in relation to digital health innovations and their uses, relevant to their area of practice	I am **learning** about digital health innovations and their uses	I **confidently** keep up to date with most digital health innovations and their uses	I am proficient and proactive in my up to date knowledge of digital health innovations and their uses
Maintains the ability to communicate appropriately with other healthcare professionals and patients/consumers using a range of electronic means	I am **able** to communicate appropriately using electronic means	I am **confident** in my ability to communicate appropriately using electronic means with other healthcare professionals	I **lead** in my ability to communicate appropriately using electronic means with other healthcare professionals and patients/consumers
Recognises the advantages and challenges of digital health in practice (e.g. infection control)	I can **recognise** the advantages and challenges of digital health in practice	I **confidently** recognise the advantages and challenges of digital health in practice	I provide **leadership** and guidance to others in recognising the advantages and challenges of digital health in practice
5.2 Digital Health Governance Nurses and midwives are able to implement policy and procedures that govern digital health use in their workplace			
Understands policies and procedures that govern the management, adoption, and use of digital health technologies	I am **aware of** the policies and procedures around the use of information systems in my organisation	I **confidently** understand and use the policies and proce-dures that govern change management, adoption and use of information systems	I am **involved in developing** policies and procedures that govern change management, adoption and use of informa-tion systems
Understands the principles of data and information governance, including privacy and security requirements	I am **learning** about the principles of data and information governance	I **confidently** understand the principles of data and information governance	I **lead** in ensuring appropriate data and information governance

Uses a range of devices, applications and software for undertaking nursing and midwifery responsibilities	I am **learning** to use a range of devices, applications and software for undertaking nursing/midwifery responsibilities	I **confidently** use a range of devices, applications and software for undertaking nursing/midwifery responsibilities	I provide **leadership** and guidance to others on the use of devices, applications and software for undertaking nursing/midwifery responsibilities
Ensures timely reporting of errors and near misses, and monitors outcomes	I **understand** how to report errors and near misses	I **confidently** ensure timely reporting of errors, near misses and monitors outcomes	I **champion** the timely reporting of errors, near misses and monitors outcomes

5.3 Problem Solving

Nurses and midwives are able to use digital technologies to support problem solving in practice

Provides appropriate and informed feedback on the digital health technologies in use and participates in their improvement or customisation	I am **learning** about the systems in use	I **confidently** provide appropriate and informed feedback on the systems in use	As an expert user, I **lead** on and champion the effective, appropriate and informed feedback on the systems in use
Demonstrates the ability to solve problems when using digital health technologies	I am **learning** to solve problems when using systems	I **confidently** solve problems when using systems	I **lead** on and assist others to solve problems when using systems
Understands and knows how to action the back-up processes in the event of a system failure	I am **learning** to work with others to resolve or report technology issues	I **confidently** assist others to resolve or report technology issues	I **lead** in assisting others to resolve or report technology issues
Demonstrated ability to detect, report and action system generated errors	I am **learning** to detect and action system generated errors	I **confidently** detect and action system generated errors	I am **proactive** in supporting others to detect and action system generated errors

References

1   World Health Organization (WHO). (2019). WHO guideline: recommendations on digital interventions for health system strengthening, Geneva. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/324998/WHO-RHR-19.7-eng.pdf

2   Australian Digital Health Agency. (2016). Australia's National Digital Health Strategy - Safe, Seamless and Secure: evolving health and care to meet the needs of modern Australia. Retrieved from https://conversation.digitalhealth.gov.au/australias-national-digital-health-strategy

3   National Health Service (NHS). (2018). A Health and Care Digital Capabilities Framework. Health Education England's Technology Enhanced Learning Programme, UK. Retrieved from https://www.hee.nhs.uk/sites/default/files/documents/Digital%20Literacy%20Capability%20Framework%202018.pdf

4   Nursing and Midwifery Board of Australia (NMBA). (2016). Enrolled nurse standards for practice. Retrieved from https://www.nursingmidwiferyboard.gov.au/Codes-Guidelines-Statements/Professional-standards/enrolled-nurse-standards-for-practice.aspx

5   Nursing and Midwifery Board of Australia (NMBA). (2016). Registered nurse standards for practice. Retrieved from https://www.nursingmidwiferyboard.gov.au/codes-guidelines-statements/professional-standards/registered-nurse-standards-for-practice.aspx

6   Nursing and Midwifery Board of Australia (NMBA). (2018). Midwife standards for practice. Retrieved from https://www.nursingmidwiferyboard.gov.au/Codes-Guidelines-Statements/Professional-standards/Midwife-standards-for-practice.aspx

7   Brunner, M. et al. (2018). An eHealth Capabilities Framework for Graduates and Health Professionals: Mixed-Methods Study, 28 February, Journal of Medical Internet Research, 20(5): p. e10229. Retrieved from https://www.jmir.org/2018/5/e10229/pdf

8   Australian Primary Health Care Nurses Association (APNA). Career and Education Framework for Nurses in Primary Health Care – Registered Nurses, Melbourne. Retrieved from https://www.apna.asn.au/nursing-tools/framework

9   Wholey, D.R. et al. (2018). Developing Workforce Capacity in Public Health Informatics: Core Competencies and Curriculum Design. Frontiers in Public Health, 2 May, 6: 124. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5940737/

10 Mather, C.A. and Cummings, E. (2019). Developing and sustaining digital professionalism: a model for assessing readiness of healthcare environments and capability of nurses. BMJ Health & Care Informatics, 26(1): p. e100062. Retrieved from https://informatics.bmj.com/content/26/1/e100062

11 Nursing and Midwifery Board of Australia (NMBA). (2014). Nurse practitioner standards for practice (updated 2018), Melbourne. Retrieved from https://www.nursingmidwiferyboard.gov.au/Codes-Guidelines-Statements/Professional-standards/nurse-practitioner-standards-of-practice.aspx

12   Australian College of Nursing (ACN). (2017). Australasian Institute of Digital Health (AIDH), and Nursing and Midwifery Special Interest Group (AIDH-NaM), Nursing Informatics Position Statement, AIDH: Melbourne. Retrieved from https://www.acn.edu.au/wp-content/uploads/joint-position-statement-nursing-informatics-hisa-nia.pdf

13   Premji, S. and Hatfield, J. (2016). Call to Action for Nurses/Nursing. Biomed Research International: p. 5. Retrieved from https://www.hindawi.com/journals/bmri/2016/3127543/

14   Australian Commission on Safety and Quality in Health Care (ACSQHC). (2010). Patient-Centred Care: Improving Quality and Safety by Focusing Care on Patients and Consumers — Discussion Paper. Retrieved from https://www.safetyandquality.gov.au/sites/default/files/migrated/PCCC-DiscussPaper.pdf

15   Australian Nursing and Midwifery Federation (ANMF). (2015). National Informatics Standards for Nurses and Midwives, Melbourne. Retrieved from http://anmf.org.au/documents/National_Informatics_Standards_For_Nurses_And_Midwives.pdf

Glossary

Data – facts that can be interpreted or analysed to gain knowledge or aid decision making

Data standards – rules used to standardise the way data are collected and recorded

Digital health – use of information and communication technologies to improve health, healthcare services, and facilitate wellness

Digital health literacy – the ability to search, retrieve, understand, and judge electronically held health information and use the knowledge gained to address a health problem

Digital footprint – the stream of data you create when you use the Internet. It includes a record of the websites you visit, emails you send, and information you provide to online services

Digital literacy – the ability to interpret and develop appropriate communication across changing digital forms

Digital technologies – broad term for a variety of technologies that use computers and computerisation

Interoperability – the ability to exchange and use information across different networks and applications

Information – processed or analysed data that now have relevance for a specific purpose or context

Media – refers to various means of communication. The term can also refer to different types of data storage options

Nursing languages – standardised sets of terms that describe the clinical judgments involved in assessments (nursing diagnoses), along with the interventions, and outcomes related to the documentation of nursing care

Social media – websites and applications that enable users to participate in social networking and to create and share content

Telehealth – using information and communications technologies for long-distance clinical healthcare, health-related education, public health, and health administration