



All-Ireland Digital Capability Framework

for Health and Social Care





Developed for Ireland and Northern Ireland by:
the Health Service Executive and
Digital Health and Social Care Northern Ireland

**Adapted from the Australian National Nursing and
Midwifery Digital Health Capability Framework
developed by the Australian Institute of Digital Health (2020)**



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 (WHO, 2019).

Digital health is a critical part of any modern health and care industry and its adoption is fundamental to improving outcomes for patients, clients and their families, improving clinical and social care utility and increasing sustainability of the Republic of Ireland (ROI) and Northern Ireland (NI) health and social care systems. Implementing digital ways of working is more than simply deploying new technologies or devices. The evolution of technology in health and care also requires a workforce who understand and realise the significance of socio-technical dimensions in digital health implementations.

Ireland

Ireland has an ambitious ten year plan to transform health and social care services (Department of Health, 2017). Putting in place a modern digital health infrastructure is a key enabling strategic action to realise this transformation. This has the potential to be the biggest and most effective driver of change and improvement for better patient outcomes across the health system in Ireland. It is about having a coherent suite of digital health solutions underpinning and supporting our overall vision for integrated, patient-centred care, population health planning and more effective and safe delivery of health services. Patients and health professionals will have ready access to the right information about the right patient in the right place at the right time which will enable better decisions to be made.

Northern Ireland

Health and Social Care in NI has recently published its new Digital Strategy and Vision 2022 -2030. The strategy outlines an ambitious transformation journey including a number of major programmes of work including the adoption of a citizen-focused Electronic Health Care Record (EHCR) across integrated, multi-professional services, taking into account the diverse range of health and social care needs of the population; digital shared services; development of technology enabled care services; and mobilisation of the workforce.

The strategy clearly outlines the importance of ensuring that the appropriate building blocks are in place to improve the health of the population; the quality and experience of care; the support given to the workforce; and the future sustainability of services. A component part of this work is focused on the digital capabilities of the HSC workforce as an enabler for change and driver to achieve improved outcomes.

Background to the Framework

The National Nursing and Midwifery Digital Health Capability Framework (Australian Digital Health Agency, 2020) was led by the Australian Digital Health Agency and developed by the Australasian Institute of Digital Health.

After engagement with and agreement from AIDH the Office of the Nursing and Midwifery Services Director, HSE, and Northern Ireland Practice and Education Council initially adapted the Framework for Nursing and Midwifery in Ireland and Northern Ireland.

To ensure the Framework would meet the needs of health services a consultation process was undertaken across Ireland and Northern Ireland. This involved webinars, a survey, written feedback, a series of consultation workshops and a national appraisal process on the document before final approval and sign-off.

Following on from this, Health and Social Care Professions (HSCP)* and medicine undertook a similar consultation approach across Ireland and Northern Ireland.

From the consultations across all groups, contributions were received from a broad range of health and social care roles representing a variety of professional practice and work settings including education. The overarching aim is for the Framework to be practical and relevant to the professions, their employers and to be embraced as a key contribution to the health and care workforce generally.

* Different terms are used to recognise the various Health and Social Care Professions. Where 'Health and Social Care Profession (HSCP)' is used, this is equivalent to all professionals delivering and supporting care within HSC in Northern Ireland.

Acknowledgements

This would not have been possible without the collaboration of the Australian Institute of Digital Health and their willingness to share the Framework and the learning from their journey. The HSE and DHCNI would like to extend particular gratitude to Louise Schaper, Greg Moran and Liz Cummings for your time, energy and commitment in progressing this work with ROI and NI.

In addition we would like to acknowledge the important contributions of the following:

- Members of the initial Nursing and Midwifery Framework Advisory Group for their important input and support in guiding direction for this work
- Members of the National Health and Social Care Professional E-Health Advisory Group for their input into and coordination of the HSCP contribution to the project
- The individuals and groups who organised, facilitated and reported on the consultation processes for Nursing and Midwifery, Health and Social Care Professions and Medicine
- The many individuals and organisations that have contributed their expertise to the framework's development throughout the consultation process by completing the online survey attending the consultation workshops, and providing written feedback



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Context Statement

All-Ireland Digital Capability Framework for Health and Social Care

Digital interventions when implemented appropriately can improve the quality, safety and efficiency of health and social care; facilitating the provision of the right care for the right person in the right place by the right health and care professional. To achieve the full value, a digital health capable workforce is key to ensuring safe, quality health and care in the future. The Framework has been built around health and care staff throughout as they are most often those with direct responsibility for collection, documentation, and use of clinical and care information. Whilst the Framework is intended for all those working in practice and refers to health and care professionals, it is open to anyone working in any area of patient or client care.

Recognising the changes in health and social care delivery due to the COVID-19 pandemic, the growing adoption of digital technologies, considering all aspects of professional practice and extending the foundational work of our Health and Social Care colleagues (in the Republic of Ireland and Northern Ireland) this Digital Health Capability Framework (the 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

All health and care staff have important roles that cross the domains of patient and client care, leadership, advocacy, education, and research. As the ROI and NI health and care systems increase the use of digital technologies to deliver care, digital related roles and capabilities will become commonplace amongst the health and care workforces.

This Framework seeks to recognise those roles and the unique digital health capabilities of health and care staff across all disciplines. Consumer expectations are changing in line with the increased availability and use of affordable digital health technologies. People who use our services are more informed; they expect to receive prompt, individualised care, be actively involved in shared decision making and managing their own health and wellbeing. The evolving requirements of doing health and care differently, came to the fore during the COVID-19 pandemic, enabling opportunities for care provision via digital health technologies such as telehealth, telecare and wearable devices.



Whilst most health and care staff across the disciplines are familiar with competencies or competency statements, this framework provides capability statements. The difference is described by Brunner and colleagues (Brunner et al, 2018): “Although capability has been described as 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”.

The Framework is intended to empower individuals, their teams and organisations. What is relevant to one individual in their particular setting may not be relevant to another. Health and care staff may be at a learning level (formative) in some domains and be proficient at others (leading/being a champion). There is a level below formative for colleagues who need foundational training and literacy in digital health. At the other extreme – there will be a need for specific high level consideration around leadership for staff with specific needs beyond proficient in some domains.

NOTE: there is a broad range of terminology used for those receiving health and care services. Throughout the framework the term used to describe the person receiving care is patient/consumer. This includes reference to women, men, people who identify as gender diverse, children, clients, residents and all other people receiving health and care provided by the multidisciplinary workforce in the ROI and NI.



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 health and care in a digital world.
- Health and care professionals have varying levels of digital literacy and access to digital technologies.ⁱ
- All health and care professionals currently, and increasingly, work and live in a digital environment.
- It is essential that every health and care professional has the skills and knowledge to use data, information 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 health and care professionalⁱⁱ can use the Framework to assess his/her 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 health and care contexts
- can be used by individual health and care professionals 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 health and care specialties.

i. It is acknowledged that not all health and care professionals have access to the technologies and tools they need; however, addressing this is outside of the scope of the Framework. Health and care professionals 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 health and care professionals, health and care students and health care assistants are encouraged to use this Framework, recognising their current scope of practice, degree of autonomy and practice setting.



What the Framework Means for Person-Centred Care

As people live longer, with more long-term conditions, there is and will be an increasing demand for health and care to deliver better outcomes and wellbeing for our populations. The COVID-19 pandemic created a huge set of pressures on the health and social care system in addition to acting as a transformation catalyst, accelerating the implementation and adoption of digital health across our systems.

Person-centred care is providing care that is respectful of and responsive to individual patient preferences, needs and values, ensuring that patient values guide all clinical decisions with a core element being the involvement of users of services as equal partners in planning, developing and monitoring care.

Digital health can empower people who use our services to make better-informed decisions about their own health and provide new options for facilitating prevention, early diagnosis of diseases, management of chronic conditions and support treatment adherence outside of traditional care settings. It also enables partnership in care processes, and mechanisms for improvement through the collection of real-time information generated by citizens. The use of technologies, such as smart phones, social networks, and internet applications, all of which many people now have access to, is not only changing the way we communicate, but also providing innovative ways for us to engage with our health and well-being and giving us greater access to information. It can help to:

- Reduce inefficiencies
- Improve access
- Reduce costs
- Increase quality
- Make care more personalized
- Improve the patient-health and social care professional relationship
- Enable care closer to home
- Increase responsiveness

Digital health capable health and care professionals will be in a position to advance person-centred and coordinated care by influencing and shaping the systems and solutions for now and into the future.

The Framework and its intended uses will support and enable health and care professionals to grow and strengthen the care they provide and be in a strong position to advocate on behalf of people who use our services to ensure optimum access to and use of digital technology to improve health and wellbeing.

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 health and care professionals' roles, workplace settings and the professional standards that apply to their practice (Figure 1). This recognises the breadth of the disciplines of health and care and the fact that they operate within existing professional structures and rules.

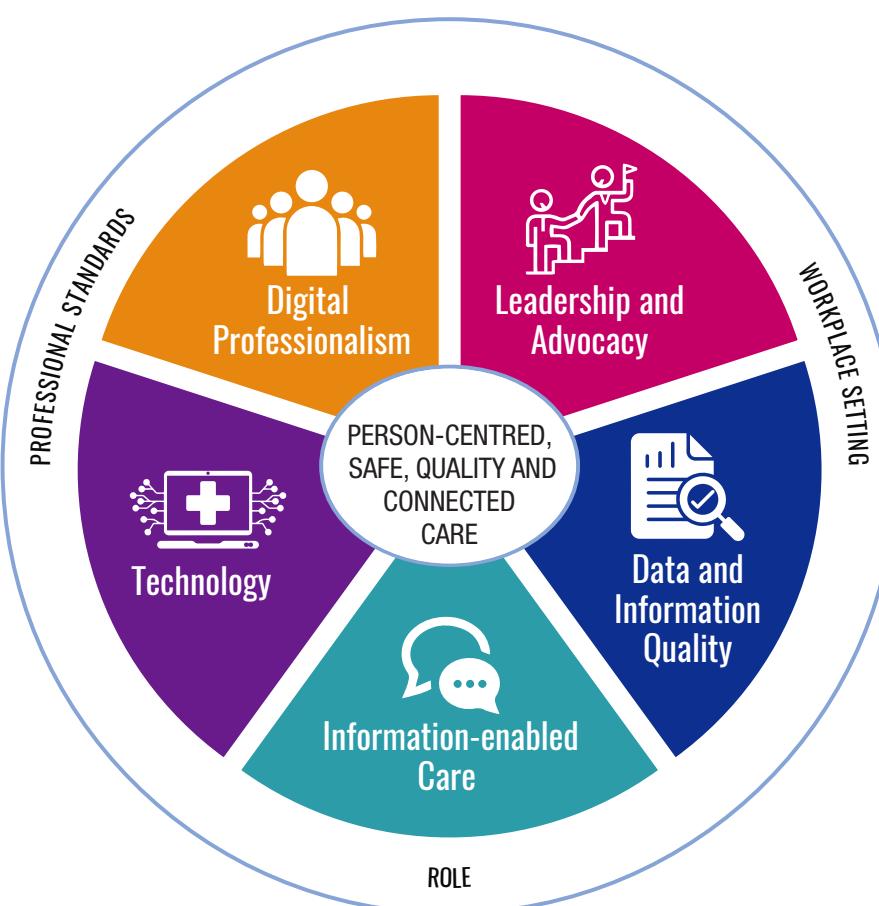


Figure 1. Framework Domains

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

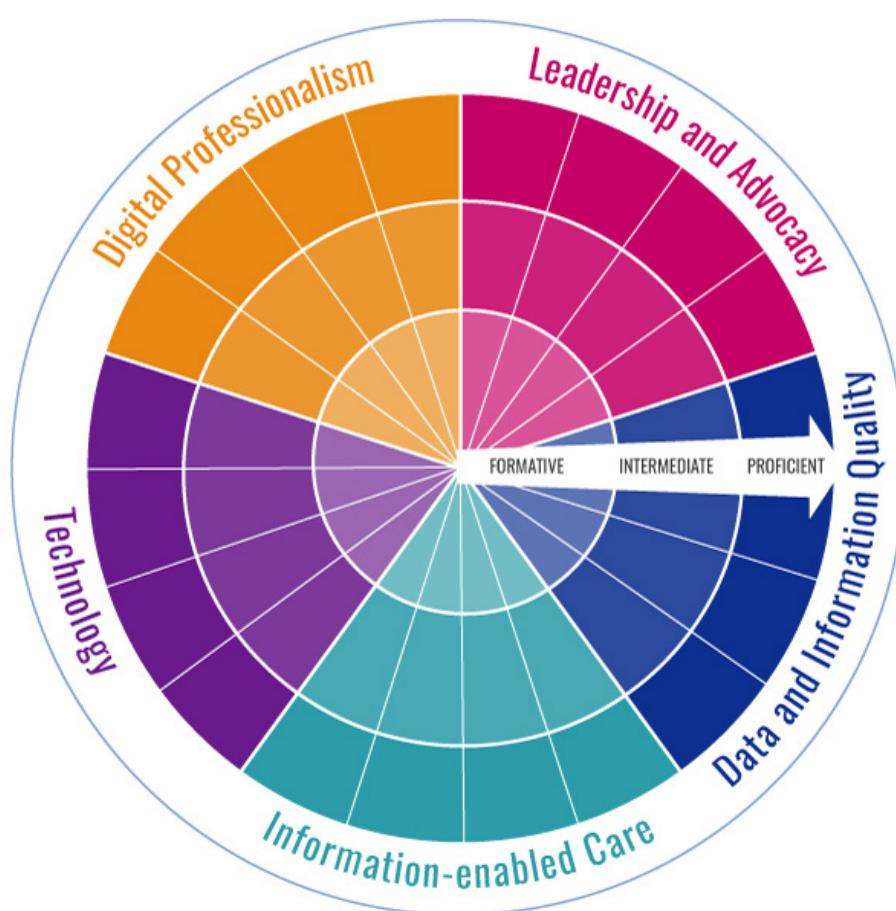


Figure 2. Capability Levels

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 health and care professionals should aspire to achieving the highest level of capability possible relating to their role and practice setting.

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

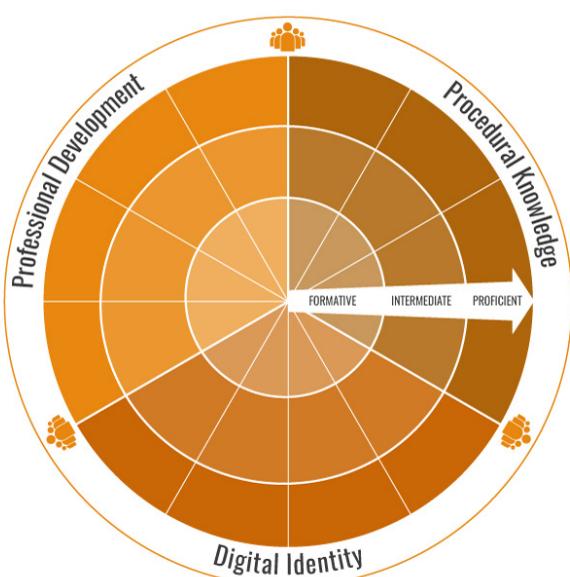
Intermediate level – This level reflects health and care professionals who are developing increased confidence, knowledge, skill and capacity in the use of digital health in their practice.

Proficient level – This level reflects health and care professionals who are assuming leadership in the use and championing of digital health within both practice and the broader Health and Social Care professions.

The capability statements and levels are presented in Tables 2 to 6 (pages 19 to 30).



Domain 1 Digital Professionalism



Professional standards are maintained in the digital environment

Health and care professionals 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” (Wholey et al, 2018).

In health and care 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 health and care environments, there is a focus on the development of the capability of health and care professionals in digital professionalism as part of their professional identity (Mather and Cummings, 2019). This links with the professional standards for health and care professional registration (NMBI, 2014) (Nursing and Midwifery Council, 2018) (Nursing and Midwifery Council, 2019) (CORU, 2019) (Medical Council, 2019) (Northern Ireland Social Care Council, 2022) (General Medical Council, 2012).

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

1.1 Professional Development

Health and care professionals use digital tools to achieve and maintain professional development requirements

1.2 Procedural Knowledge

Health and care professionals use of digital tools in health and care aligns with procedural, policy, legal, ethical, security and privacy requirements

1.3 Digital Identity

Health and care professionals use digital tools to develop and maintain their online identity and reputation



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 monitor continuing professional development (CPD) and relevant registration standards
- Demonstrates and champions appropriate and innovative digital technologies to enhance learning and patient/consumer care

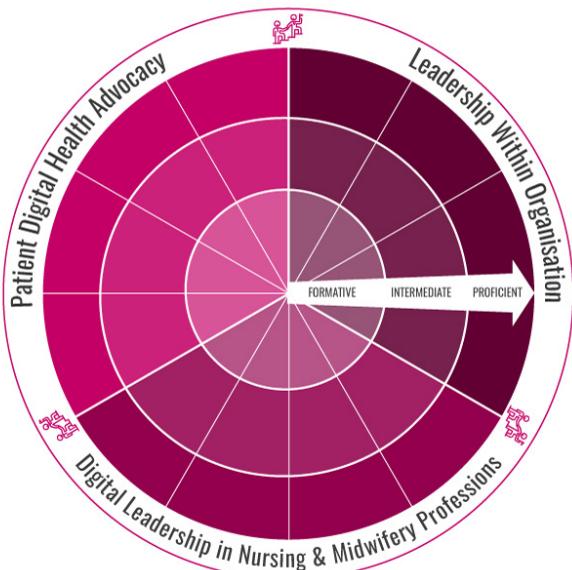
1.2 Procedural Knowledge

- 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 and adheres to organisational and professional social media policies
- 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

It is important for health and care professionals 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

The World Health Organisation's, Global Strategy on Digital Health 2020-2025 (WHO, 2020) recognises the importance of leadership in all aspects of digital health including vision and strategy, governance, design, delivery, implementation and operations. The leadership roles are referenced throughout the documents to include developing future digital leaders in health and care.

As advocates for patients, their families and the community, health and care professionals campaign for health care reforms that improve quality and access. The importance of leadership in digital health is heightened because health and care professionals 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

Health and care professionals work in partnership with patients/consumers regarding education and advocacy about information collection, access and use.

2.2 Leadership Within Organisation

Health and care professionals are visible and active players in digital health decision making within their organisations.

2.3 Digital Leadership in Health and Social Care Professions

Health and care professionals provide active leadership to ensure the professions have input into national digital health decisions.



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

2.1 Patient Technology Advocacy

- Advocates for patient/consumer access to digital health technologies
- 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

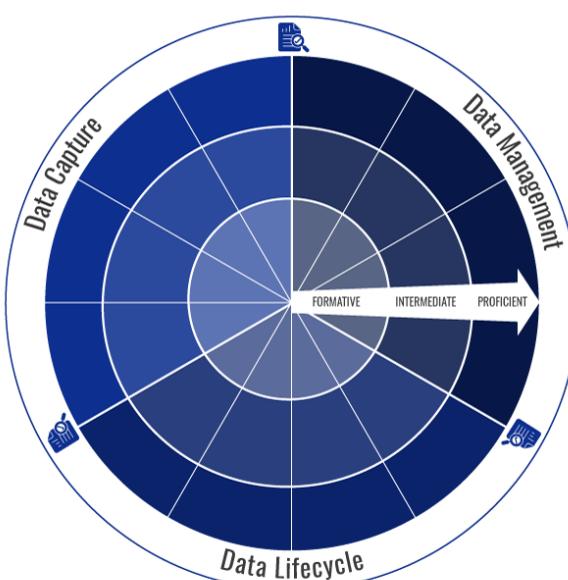
- Champions the use of digital health technologies in the organisation and with peers
- Understands and contributes to the development of digital health policies and procedures within local organisation
- Uses digital health to support communication within the organisation
- Ensures appropriate digital health education is available within the organisation
- Promotes and encourages innovation in digital health for Health and Social Care practice and understands the factors for successful innovation and its adoption

2.3 Digital Leadership in Health and Care Professions

- Promotes Health and care professionals' leadership in design, implementation and evaluation of digital health technologies that support Health and Social Care practice
- Explores, promotes, and contributes to the potential of emerging digital data sources and data systems to transform health and health and care
- 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; health and care professionals have a critical role in the capture, creation, recording and use of increasingly large quantities of clinical and health and care data.

Figure 5. Domain 3 - Data and Information Quality

Digital health relies on quality data for information management. This means that Health and care professionals have a critical role in the capture, creation and recording of increasingly large quantities of clinical and health and care data. Additionally, all services are expected to develop a culture of and drive improvement in health and care quality and increasingly are focussed on patient experiences (HSE, 2020).

A number of strategic, corporate and regulatory policy documents highlight the importance of data standards and interoperability (ONMSD, 2019) (NIPEC, 2020) (DoH, 2020). Supported by data standards, health and social care professionals can be confident that the information they are using and sharing is accurate, timely and complete. Quality data gathered by health and social care professionals can be used for multiple purposes across health and care and enable improved health outcomes.

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

3.1 Data Capture

Health and care professionals play a crucial role in the capture of complete, timely and accurate data

3.2 Data Management

Health and care professionals play a pivotal role in ensuring the accessibility, reliability, privacy, security and timeliness of data within health and care environments

3.3 Data Lifecycle

Health and care professionals are able to recognise that data have different uses or usefulness at various points within health and care



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

3.1 Data Capture

- Understands that health and care professionals are crucial in the capture of data and advises on their use within the health and care system
- Understands how data is stored and used throughout the health and care 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

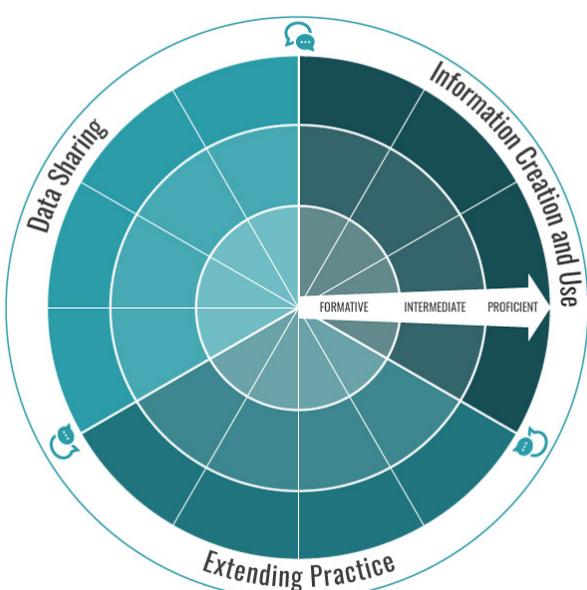
- Understands informatics and digital health terminology
- Understands the purpose, structure, use, and storage of electronic health records
- Manages and applies information within the relevant scope of practice and the health and care context
- Understands who uses health data and how, for the benefit of the patient/consumer, for research and the health and care system

3.3 Data Lifecycle

- Understands data structures and their importance in health and care
- Maintains a degree of understanding about terminologies used in health and care in relation to data capture, aggregation, storage and use within digital health systems
- Recognises the role of data integrity in health and care 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 health and care professionals 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 extend health and care knowledge.

Figure 6. Domain 4 - Information Enabled Care

Increasingly, health and care professionals are required to use their critical thinking to analyse complex data in the provision of care. This extends more broadly than any individual setting as we move towards ensuring continuity of care across health and care settings and providing 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 health and care delivery and supports evidence based activities.

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

4.1 Data Sharing

Health and care professionals appropriately use and share digital data with other health and care professionals and patients/consumers.

4.2 Information Creation and Use

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

4.3 Extending Practice

Health and care professionals 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

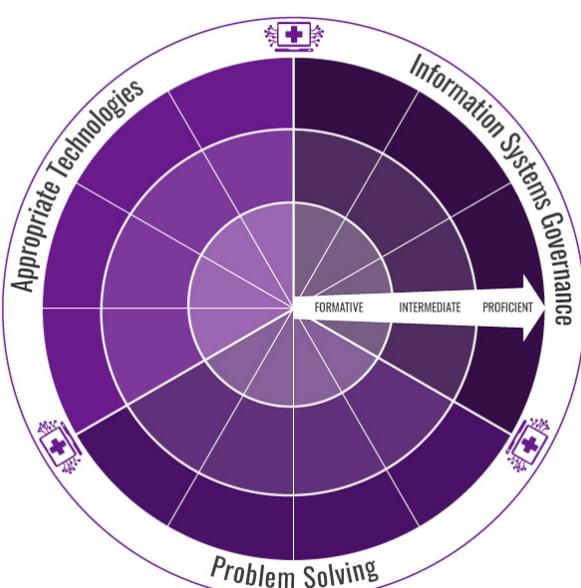
- Sources and critically evaluates information to support evidence-based decision making for practice, education and research
- Uses their skills to assist patients/consumers to access and evaluate electronic health information
- Understands that using accurate data to assess care and health outcomes 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 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 health and care professional health and care practice, patient/consumer safety, patient/consumer interaction, and the quality of care



Domain 5 Technology



Care must be supported by rigorous data analysis and critical appraisal

The evidence-based actions and behaviours of health and care professionals 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 extend health and care knowledge.

Figure 7. Domain 5 - Technology

The introduction of technology has changed the way health and care professionals practice across the full spectrum of practice settings. Health and care professionals 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 health and care system. It is recognised that not all health and care professionals 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 across the Republic of Ireland and Northern Ireland as key to improving service delivery and health outcomes and supporting national policy implementation (ONMSD, 2019) (DoH, 2020) (DoH, 2017) (HSCB, 2013). Technology is therefore an important domain in the delivery of a digitally capable health and care professional workforce.

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

5.1 Appropriate Technologies

Health and care professionals are able to identify and recommend appropriate digital technologies for their environment and for patients/consumers, and use these where available.

5.2 Digital Health Governance

Health and care professionals are able to implement policy and procedures that govern digital health use in their workplace.



5.3 Problem Solving

Health and care professionals 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 health and care professionals and patients/consumers using a range of electronic means
- Recognises the advantages and challenges of digital health in practice
- Understands the principles of digital clinical safety to keep patients/consumers safe

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 clinical 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 their 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



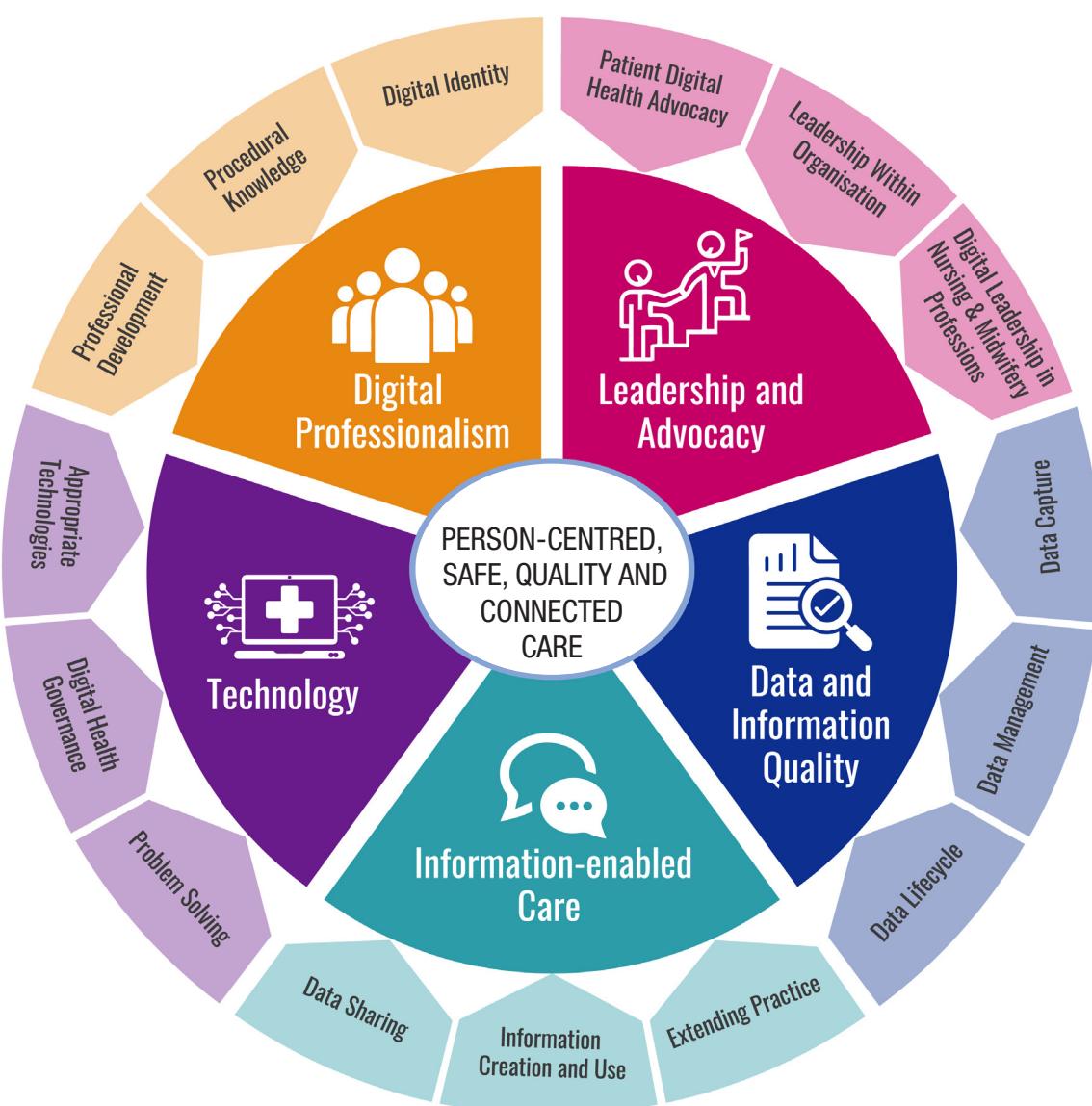
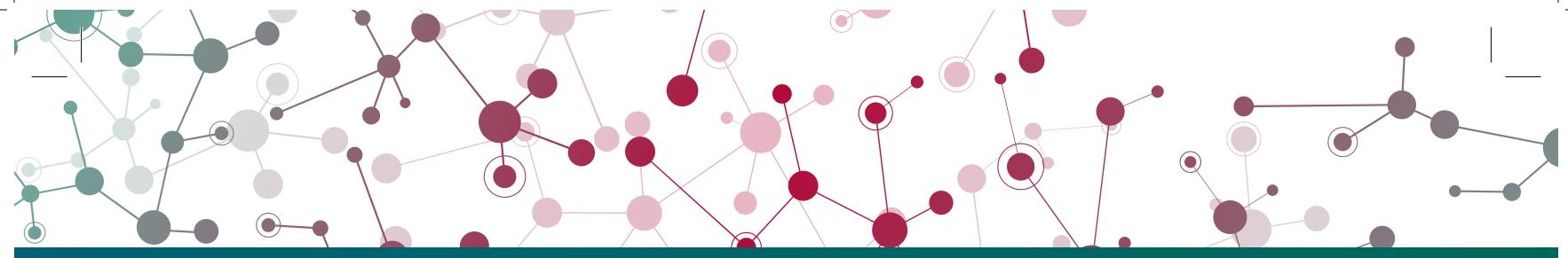


Figure 8. Framework Domains and Sub-Domains

Table 1. Descriptions of Domains and Sub-Domains

Domain Description	Sub-domain 1	Sub-domain 2	Sub-domain 3
Domain 1 - Digital Professionalism			
<i>Professional standards are maintained in the digital environment</i>	1.1 Professional development	1.2 Procedural knowledge	1.3 Digital identity
Health and care professionals demonstrate attitudes and behaviours reflecting recognised professional standards when utilising digital tools both professionally and personally	Health and care professionals use digital tools to achieve and maintain professional development requirements	Health and care professionals use of digital tools in health and care aligns with procedural, policy, legal, ethical, security and privacy requirements	Health and care professionals use digital tools to develop and maintain their online identity and reputation
Domain 2 - Leadership and Advocacy			
<i>Digital health leadership and advocacy supported by clear policy</i>	2.1 Patient Technology Advocacy	2.2 Leadership within organisation	2.3 Digital leadership in Health and Social Care professions
Health and care professionals are the largest health professional group in all contexts of health, education and care. It is important for health and social care professionals to be actively involved in the leadership, policy development and advocacy for digital health at individual, local and national levels	Health and care professionals work in partnership with patients / consumers regarding education and advocacy about information collection, access and use	Health and care professionals are visible and active players in the digital health decision making within their organisations	Health and care professionals provide active leadership to ensure the professions have input into national digital health decisions
Domain 3 - Data and Information Quality			
<i>Data quality must be present</i>	3.1 Data capture	3.2 Data management	3.3 Data lifecycle



Domain 4 Information-enabled Care			
<i>Care must be supported by rigorous data analysis and critical appraisal</i>	<i>4.1 Data sharing</i>	<i>4.2 Information creation and use</i>	<i>4.3 Extending practice</i>
The evidence-based actions and behaviours of health and care professionals 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 extend Health and care professional knowledge	Health and care professionals appropriately use and share digital data with other health and care professionals and patients/consumers	Health and care professionals use data from a wide range of sources to create information for themselves, their patients/consumers and other health and care providers and users to support care	Health and care professionals use information to develop, extend and support evidence based care in critical decision making
Domain 5 - Technology			
<i>Technology needs to be understood and used appropriately</i>	<i>5.1 Appropriate technologies</i>	<i>5.2 Digital health governance</i>	<i>5.3 Problem solving</i>
Health and care professionals access and use available technologies appropriately to deliver safe and quality care, and to ensure information availability	Health and care professionals are able to identify and recommend appropriate digital technologies for their environment and for patients/consumers, and use these where available	Health and care professionals are able to implement policy and procedures that govern digital health use in their workplace	Health and care professionals are able to use digital technologies to support problem solving in practice

Table 2. Domain 1 Digital Professionalism – Capability Statements

Domain 1 - Digital Professionalism	<i>Professional standards are maintained in the digital environment</i> - Health and care professionals 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			
Health and care professionals 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 technologies to improve practice and monitor continuing professional development (CPD) and relevant regulatory bodies registration standards	I am learning to use technologies to improve practice and monitor mandatory requirements	I confidently use technology to improve practice and monitor mandatory requirements	I lead in the use of technologies 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 care	I confidently use appropriate and innovative digital technologies to enhance learning and patient 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			
Health and care professionals use of digital tools in health and care 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 socio-economic 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 socio-economic 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			
Health and care professionals 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	I champion the use of digital professional development record to demonstrate innovation, reflect on skills and experience to help monitor
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	<i>Digital health leadership and advocacy supported by clear policy – Health and Social Care professionals to be actively involved in the leadership, policy development and advocacy for digital health at individual, local and national levels.</i>		
Sub-Domain Description	Levels		
	Formative	Intermediate	Proficient
2.1 Patient Digital Health Advocacy			
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 tele-health 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

Health and care professionals are visible and active players in the digital health decision making within their organisations

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
Leads and promotes innovation in digital health practice and understands the factors for successful innovation and its adoption	I am learning about innovation in digital health for Health and Social Care and the factors for successful adoption	I confidently promote innovation in digital health for Health and Social Care and enable the factors for successful adoption	I lead innovation in digital health for Health and Social Care and build enabling supports for successful adoption

2.3 Digital Leadership in Health and Social Care professions

Health and Social Care professionals provide active leadership to ensure the professions have input into national digital health decisions

Promotes health and care professionals' leadership in design, implementation and evaluation of digital health technologies that support practice	I am learning about the importance of health and care professionals' leadership in design, implementation and evaluation of digital health technologies that support practice	I confidently promote the need for health and care professionals' leadership in design, implementation and evaluation of digital health technologies that support practice	I contribute to advancing health and care professionals' leadership in design, implementation and evaluation of digital health technologies that support practice
Explores, promotes, and contributes to the potential of emerging digital data sources and data systems to transform health and health and care	I am learning about the potential of emerging digital data sources and data systems to transform health and health and care	I confidently explore the potential of emerging digital data sources and data systems to transform health and health and care	I champion the potential of emerging digital data sources and data systems to transform health and health and care
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; health and care professionals have a critical role in the capture, creation, recording and use of increasingly large quantities of clinical and health and care data.		
Sub-Domain Description	Levels		
	Formative	Intermediate	Proficient
3.1 Data Capture			
Understands that health and care professionals are crucial in the capture of data and advises on their use within the health and care system	I understand what data must be collected and their use within the health and care system	I confidently understand what data must be collected and their use within the health and care system	I lead in data collection and use
Understands how data is stored and used throughout the health and care system	I am learning about how data is stored and used throughout the health and care system	I am confident that I understand how data is stored and used throughout the health and care system	I have expert understanding of how data is stored and used throughout the health and care system
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 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 generated data in delivering care



3.2 Data Management

Health and care professionals play a pivotal role in ensuring the accessibility, reliability, privacy, security and timeliness of data within health and care 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 health and care context.	I can manage and apply information within my relevant scope of practice and the health and care context.	I confidently manage and apply information within my relevant scope of practice and the health and care context.	I lead and guide others to manage and apply information within my scope of practice and the health and care context.
Understands who uses health data and how, for the benefit of the patient/consumer, research and the health and care 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

Health and care professionals are able to recognise that data have different uses or usefulness at various points within health and care

Understands data structures and their importance in health and care	I am learning about data structures and their importance in health and care	I am confident that I understand data structures and their importance in health and care	I lead in my understanding of data structures and their importance in health and care
Maintains a degree of understanding about structured languages used in Health and Social Care in relation to data capture, aggregation, storage and use	I am learning about Health and Social Care languages	I confidently use Health and Social Care languages	I lead others with my understanding of Health and Social Care languages
Recognises the role of data integrity in health and care and the importance of complete, timely and accurate data	I am learning about data integrity in health and care and the importance of complete, timely and accurate data	I confidently recognise the role of data integrity in health and care and understand the importance of complete, timely and accurate data	I lead in promoting the role of data integrity in health and care and ensure complete, timely and accurate data is 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	<i>Care must be supported by rigorous data analysis and critical appraisal</i> - The evidence-based actions and behaviours of health and care professionals 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 extend health and care professionals knowledge.		
	Levels		
Sub-Domain Description	Formative	Intermediate	Proficient
	4.1 Data Sharing Health and care professionals appropriately use and share digital data with other health and care 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 health and care 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 Health and care professionals use data from a wide range of sources to create information for themselves, their patients/consumers and other health and care 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 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 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

Health and care professionals 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 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 Health and Social Care practice	I lead research to guide the use of digital health to support Health and Social Care 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 health and care professional, health and care practice, patient/consumer safety, patient/consumer interaction, and the quality of care	I am learning to understand and evaluate the impact of digital health on the role of the health and care professional and patient/consumer safety	I confidently understand and evaluate the impact of digital health on the role of the health and care professional, health and care practice, patient/consumer safety, patient/consumer 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 health and care professional, health and care 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 - health and care professionals 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			
Health and care professionals 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 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 health and care 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 health care professionals	I lead in my ability to communicate appropriately using electronic means with other health care 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
Understands the principles of digital clinical safety to keep patients/consumers safe	I am learning about clinical digital safety	I confidently understand digital clinical safety	I have an advanced understanding of digital clinical safety and provide leadership and guidance in ensuring digital clinical safety for patients/consumers



5.2 Digital Health Governance - Health and care professionals 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 procedures 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 information 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 Health and Social Care responsibilities	I am learning to use a range of devices, applications and software for undertaking Health and Social Care responsibilities	I confidently use a range of devices, applications and software for undertaking Health and Social Care responsibilities	I provide leadership and guidance to others on the use of devices, applications and software for undertaking Health and Social Care 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 - Health and care professionals 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



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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, health and care 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 has 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 create and share content

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





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