2026 EDITION

Digital Health CANADA

Health Informatics Professional (HIP®) Core Competencies Framework

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Digital Health Canada
Health Informatics Professional (HIP®)
Core Competencies Framework
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Using the Health Informatics Professional Competencies Framework

The Digital Health Canada Health Informatics Professional (HIP®) Core Competencies Framework describes the shared knowledge, skills, judgement, and applied capabilities that support effective health informatics practice across Canada's digital health ecosystem. It provides a common language for practice and supports workforce development, education, professional growth, career planning, and credentialing. The 2026 refresh retains the established seven-domain foundation while reflecting how digital health practice has evolved.

How the framework can be used

The HIP® Core Competencies Framework is intended to support a wide range of audiences, including:

- Educators and post-secondary institutions aligning curriculum to digital health workforce needs
- Employers and workforce planners defining roles, recruitment needs, and professional development pathways
- Professionals assessing their own growth and development
- Students and emerging professionals understanding the field
- Anyone using Digital Health Canada's education, professional development, certification, and workforce tools
- Health system partners in understanding contemporary health informatics practice

How the framework is designed

The framework is intentionally designed to be role-agnostic and level-neutral. The competencies are not tied to a particular job title, career level, employment setting, or professional discipline. A competency may be relevant to many roles, but the expected depth and nature of its application will vary. The refreshed HIP® Core Competencies Framework uses applied language to reflect how digital health practice has evolved. Many capability areas that may once have required general awareness now require more practical understanding across a broader range of roles. The use of applied language does not mean that every professional is expected to be a specialist in every area. Appropriate depth depends on the role, setting, career stage, and purpose for using the framework.

Cross-cutting practice capabilities

A key finding of the 2026 refresh was that several important and evolving capabilities operate across the seven domains rather than belonging within a single area of practice. These capabilities are intentionally embedded throughout the framework to avoid siloing important areas of practice and reflect how digital health work happens in real-world settings.

AI literacy and responsible use	Data governance and stewardship
Equity-aware practice	Human factors and usability
Indigenous data sovereignty	Interoperability
Patient and consumer-centred orientation	Benefits realization

How the framework connects with other Digital Health Canada tools

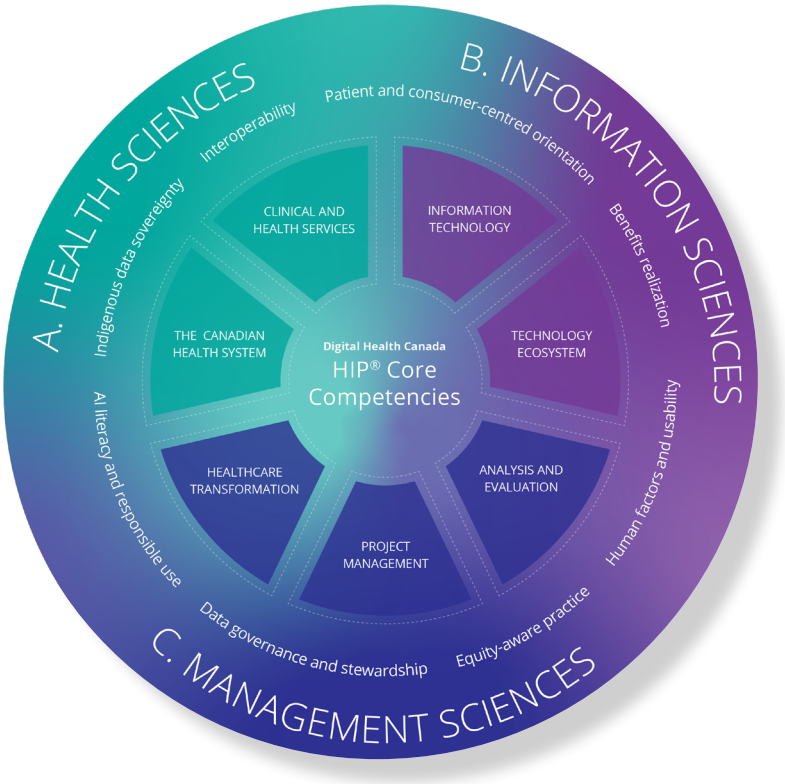
The HIP® Core Competencies Framework and the Digital Health Canada Career Matrix are complementary tools. The HIP® Core Competencies Framework describes the capabilities that support health informatics practice. The Career Matrix helps illustrate how those capabilities may be reflected across roles, career pathways, and levels of mastery. Course materials develop the knowledge, methods, examples, and applications associated with each area. Used together, these tools can support clearer career pathways, curriculum alignment, professional development planning, and workforce conversations across Canada's digital health ecosystem. The competencies are also an input into CPHIMS-CA certification planning. These tools are complementary but not interchangeable.

What the framework is not

The framework is not, on its own, a job description, curriculum checklist, professional scope-of-practice document, or certification examination blueprint. It does not imply that every digital health professional must demonstrate the same depth in every competency.

The HIP® Core Competencies Wheel

The wheel illustrates the interconnected nature of health informatics, bringing together health, information, and management practices across the seven competency domains. Together, these domains represent the shared capabilities that support effective health informatics practice across Canada's digital health ecosystem. The seven domains reflect the breadth of practice, while allowing professionals to build deeper expertise in areas most relevant to their roles.





A. Health Sciences

A.1. The Canadian Health System

This domain positions practitioners within the distinctly Canadian context of health system structure, governance, and values. Understanding how Canada's health system is organized, funded, and delivered, including the social, cultural, and political factors that shape it, is essential for designing and implementing digital health solutions that are appropriate, equitable, and responsive to the people they serve.

ID	Competency Statement
A.1.1.	Apply knowledge of the key characteristics of Canada's health system, including governance structures, funding models, related organizations, and emerging trends, to contextualize digital health work within the Canadian health policy and delivery environment.
A.1.2.	Apply knowledge of the social, environmental, and economic determinants of health, including digital determinants, to design and implement health information solutions that address health equity and support population health outcomes.
A.1.3.	Analyze key factors affecting Canadian healthcare delivery, including demographic change, health human resource pressures, emerging and AI- enabled technologies, and evolving funding and accountability frameworks, to anticipate and respond to digital health needs across the system.
A.1.4.	Identify and engage relevant organizations across Canada's health informatics and digital health ecosystem, including professional associations, standards-setting and accreditation bodies, pan-Canadian health data and digital health organizations, and industry partners, to leverage resources and networks that support digital health practice.
A.1.5.	Apply knowledge of the cultural, linguistic, and community contexts of care access and delivery, including the distinct contexts of Indigenous, francophone, rural and remote communities, newcomer and immigrant communities, to support equitable and culturally safe digital health design and implementation.
A.1.6.	Apply benefits realization frameworks to measure and demonstrate the value of health information technology investments in the Canadian healthcare system to support evidence-informed decision-making and accountability.
A.1.7.	Apply knowledge of Canadian healthcare delivery models across the continuum of care, including acute, primary, long-term, home and community, ambulatory, and virtual care, as well as integrated care networks, to design and implement digital health solutions that are appropriate for diverse care settings.
A.1.8.	Analyze how people, resources, and information flow through the Canadian health system, including the influence of key drivers such as chronic disease management, aging populations, and digital transformation, to identify system-level opportunities and barriers relevant to health information system design and implementation.
A.1.9.	Apply knowledge of the roles, relationships, and regulatory structures of health professionals to support effective collaboration and appropriate governance of health information systems across interprofessional care settings.
A.1.10.	Address the organizational, clinical, and cultural challenges related to the adoption of health information systems to support sustained and effective use, improve care delivery, and realize the intended value of digital health investments across the health system.
A.1.11.	Apply system-level approaches to health information use that balance data access for care improvement and system management with the protection of personal health information and the data sovereignty rights of Indigenous communities, to support equitable and trustworthy digital health practice.
A.1.12.	Promote the safe and appropriate use of health information technologies within health system governance and accountability frameworks to reduce technology-related harm and ensure system-wide patient safety.

A. Health Sciences

A.2. Clinical and Health Services

This domain bridges informatics expertise and clinical practice. Practitioners in this domain apply clinical and biomedical knowledge to the design and implementation of digital health systems, support safe and effective clinical decision-making, and facilitate the meaningful engagement of clinicians and patients with health information technologies. Patient and consumer participation should support informed involvement without displacing professional accountability.

ID	Competency Statement
A.2.1.	Apply knowledge of clinical and biomedical concepts, care processes, and clinical workflows to inform the analysis, design, development, and implementation of health information systems that support safe and effective care delivery.
A.2.2.	Understand basic clinical terminology and commonly used abbreviations and acronyms to communicate effectively with clinical partners and accurately interpret health information in digital health contexts.
A.2.3.	Apply knowledge of commonly used formats, structures, and standards for recording and communicating clinical data to ensure accurate, consistent, and meaningful capture of health information across care settings and digital health applications.
A.2.4.	Foster the adoption and effective use of health information systems in clinical settings to support care delivery improvements, benefits realization, and equitable access to digital health tools across diverse patient populations.
A.2.5.	Facilitate meaningful patient and consumer engagement with health information technologies, including participation in co-design and use of personal health tools, to support patient-centred care and informed participation in health decisions.
A.2.6.	Assess and mitigate clinical safety risks associated with health information systems, including those arising from AI-enabled tools and automated processes, throughout the system life cycle to protect patient safety and system integrity.
A.2.7.	Facilitate clinicians' critical and informed use of clinical decision support tools, including AI-enabled applications, to enhance evidence-based practice, support clinical judgement, and ensure appropriate human oversight of automated recommendations.
A.2.8.	Apply human factors and usability principles in clinical digital health contexts to support the design and implementation of systems that minimize workflow burden, reduce risk of digital harm, and are safe and usable for clinicians and patients.





B. Information Sciences

B.1. Information Management

This domain establishes the foundational professional capabilities for managing health information as a strategic asset. Practitioners in this domain govern the quality, integrity, and appropriate use of health data; apply relevant standards and policies; and ensure that information is managed ethically, securely, and in alignment with organizational and system-level accountability frameworks.

ID	Competency Statement
B.1.1.	Advance the management of health information as a key strategic resource to support evidence-informed decision-making and demonstrate the value of information assets across the healthcare system.
B.1.2.	Assess the key attributes of health data and information, including quality, accuracy, consistency, and fitness for purpose, to determine their appropriate use and recognize their limitations within the context of intended use.
B.1.3.	Evaluate the appropriateness of data sources and identify gaps in data availability to address defined business and clinical needs across the healthcare system.
B.1.4.	Evaluate the architecture, interrelationships, and dependencies among health information systems—including electronic medical and health records, clinical decision support tools, patient portals, and provincial and territorial health information assets - to inform system design, implementation planning, and governance decisions.
B.1.5.	Apply knowledge of ethical, legislative, and regulatory requirements governing health information, including emerging frameworks related to AI-enabled systems and secondary use of data, to ensure organizational compliance and protect individual rights.
B.1.6.	Apply accepted policies, principles, standards, and guidelines for health information management to promote consistent, responsible, and secure information practices across the healthcare system.
B.1.7.	Apply relevant health data and information standards, including clinical terminologies, classification systems, and data exchange standards such as HL7 FHIR, to support consistent, high-quality data capture and enable safe and effective exchange of health information across systems, settings, and jurisdictions.
B.1.8.	Integrate data quality principles and methodologies into the identification, use, and ongoing management of health information sources to ensure that data is accurate, complete, and fit for its intended clinical and administrative purposes.
B.1.9.	Apply information governance principles, including accountability, transparency, integrity, and lifecycle management, to support responsible management and use of information aligned with organizational and health system objectives.
B.1.10.	Apply privacy, security, and confidentiality principles, including applicable consent requirements, to the collection, use, and disclosure of personal health information to build and maintain trust among patients, providers, and the public, and uphold individual rights throughout the information lifecycle.
B.1.11.	Evaluate relevant privacy frameworks applicable to health information projects, assessing their relative strengths, limitations, and jurisdictional applicability, to select and apply the most appropriate approach for protecting personal health information.
B.1.12.	Identify the roles and accountabilities within the health information management domain, including Chief Information Officer (CIO), Chief Technology Officer (CTO), Chief Nursing Officer (CNO), Chief Privacy Officer (CPO), and Chief Data Officer (CDO), to support effective decision-making and governance of health information practices.
B.1.13.	Apply distinctions-based Indigenous data governance principles in collaboration with relevant rights holders, recognizing the distinct rights and governance approaches of First Nations, Inuit, and Métis Peoples, including the First Nations principles of OCAP® where applicable, to respect Indigenous rights, sovereignty, and self-determination.
B.1.14.	Apply data stewardship practices, including responsible data sharing, secondary use governance, and cross-jurisdictional accountability, to ensure that health data is used ethically, transparently, and in the public interest.



B. Information Sciences

B.2. Technology Ecosystem

This domain equips practitioners to navigate, evaluate, and apply the technologies that underpin digital health systems. From infrastructure and cybersecurity to AI-enabled tools and human factors design, this domain ensures that technology decisions are informed, safe, equitable, and aligned with the needs of the health system and its users.

ID	Competency Statement
B.2.1.	Apply knowledge of key health information technology concepts and components, including networks, cloud infrastructure, data storage, operating systems, applications, and security architecture, to make informed decisions about technology selection, design, and governance.
B.2.2.	Engage relevant groups at appropriate stages of the system life cycle, including those representing clinical, technical, administrative, and patient and community perspectives, to ensure that health information systems meet diverse user needs and support safe, equitable care delivery.
B.2.3.	Identify and align information, business, and technical requirements to support the design and delivery of solutions that meet the full range of partner needs across the healthcare system.
B.2.4.	Contribute to the evaluation and selection of appropriate health information technologies, including AI-enabled solutions, to meet the needs of patients, health professionals, organizations, and the health system while supporting safety, equity, and value.
B.2.5.	Apply interoperability models and pan-Canadian interoperability frameworks to the design and configuration of health information systems to enable safe, governed, and sustainable exchange in which health information is consistently understood and used as intended across systems, organizations, and jurisdictions.
B.2.6.	Apply knowledge of health data, information, and clinical workflow models to the design and configuration of information technology solutions to ensure that systems support safe and effective care delivery and minimize workflow burden.
B.2.7.	Apply information technology best practices, including quality management, testing, ongoing monitoring, service level agreements, business continuity, and incident management, throughout the system life cycle to support reliable performance and organizational resilience.
B.2.8.	Apply cybersecurity best practices and frameworks to protect health data, systems, devices, and networks to safeguard organizational and patient information against evolving threats and support organizational resilience.
B.2.9.	Evaluate emerging technologies, including artificial intelligence (AI), and assess their implications for healthcare delivery, interoperability, safety, equity, and governance to support informed adoption decisions and responsible implementation.
B.2.10.	Apply principles of AI literacy and ethical AI use, including understanding of algorithmic bias, transparency, governance, and appropriate application, to support responsible integration of AI-enabled tools across digital health contexts.
B.2.11.	Apply human factors, usability, and accessibility principles to the design, selection, and evaluation of health information technologies to minimize workflow burden, reduce risk of digital harm, and support inclusive, safe, and effective use by clinicians, patients, and administrative users.



C. Management Sciences

C.1. Healthcare Transformation

This domain develops the leadership and change capabilities needed to drive meaningful digital health transformation. Practitioners in this domain apply management and governance principles, promote data-informed cultures, lead change with equity and accountability, and contribute to the organizational strategies that enable digital health to deliver lasting value.

ID	Competency Statement
C.1.1.	Apply foundational management principles including organizational behaviour, human resources, financial, governance, and risk management concepts, to lead and support digital health initiatives that are sustainable, accountable and aligned with organizational and health system priorities.
C.1.2.	Contribute to organizational digital health strategies and plans, including those addressing emerging technology adoption, data governance, and system modernization, to ensure that information systems enable clinical and organizational goals and support long-term health system sustainability.
C.1.3.	Promote a data-informed organizational culture by facilitating appropriate, ethical, and equitable uses of information and knowledge to support evidence-informed decision-making, continuous learning, and trust in digital health systems.
C.1.4.	Facilitate individual, team, and organizational learning and capability development through the use of appropriate technologies and communication approaches to build digital health literacy and support ongoing workforce development.
C.1.5.	Use audience-appropriate communication and language to present information and convey digital health concepts to relevant groups.
C.1.6.	Apply best practices in quality improvement, service and process redesign, and human factors design to facilitate safe, equitable, and sustainable business and clinical transformation through digital health.
C.1.7.	Contribute to the ongoing strategic evaluation of health information systems, assessing benefits realization and alignment with evolving clinical best practice, to support continuous improvement and demonstrate value to the organization and health system.
C.1.8.	Apply change management principles in the implementation of new digital health processes and systems to support adoption, minimize disruption, and enable equitable and sustainable organizational transformation.
C.1.9.	Contribute to the design and implementation of digital health transformation initiatives using equity-aware approaches, including assessment of differential impacts across populations and communities, to ensure that digital health change reduces rather than reinforces health inequities.

C. Management Sciences

C.2. Project Management

This domain provides the practical project delivery capabilities essential to the successful implementation of digital health initiatives. Practitioners in this domain plan and manage projects with rigour, navigate the unique complexity of health information system environments, and ensure that investments in digital health are delivered accountably and demonstrably achieve their intended value.

ID	Competency Statement
C.2.1.	Apply project management principles and best practices, including defining success criteria, planning, scope management, lifecycle oversight, budgeting, and resourcing, to deliver digital health projects effectively and to the required standard.
C.2.2.	Apply project management principles within health information system contexts, accounting for clinical governance requirements, multi-party complexity, regulatory constraints, and digital health, data, and patient safety risks, to successfully deliver projects that meet clinical and organizational needs.
C.2.3.	Anticipate, assess, and mitigate risks and opportunities associated with digital health projects to protect project outcomes and support organizational interests.
C.2.4.	Develop and monitor benefits realization plans as an integral component of digital health project management to demonstrate the value of health information system investments and support evidence-informed decision-making about future initiatives.
C.2.5.	Manage vendor relationships and procurement processes for digital health solutions, applying evaluation, contracting, and performance monitoring practices, to ensure that technology investments deliver value and meet organizational, clinical, and patient safety requirements.





C. Management Sciences

C.3. Analysis and Evaluation

This domain builds the analytical capabilities that transform health data into actionable insight. Practitioners in this domain frame meaningful analytical questions, apply appropriate methods including AI and machine learning, and communicate findings in ways that drive evidence-informed decision-making with attention to equity, responsible data use, and the integrity of analytical outputs.

ID	Competency Statement
C.3.1.	Identify and frame information queries in collaboration with community members to clarify analytical priorities and ensure that data analysis supports actionable health system decisions.
C.3.2.	Identify, and where appropriate collect, relevant health data sources, assessing quality and fitness for purpose, to draw valid and responsible conclusions that support clinical, organizational, and health system decision-making.
C.3.3.	Apply appropriate analytical methods, including qualitative, quantitative, and AI/ML-enabled approaches, to generate reliable and actionable insights that support health system decision-making.
C.3.4.	Apply appropriate evaluation designs, methods, and frameworks, including program evaluation, outcome measurement, and performance assessment approaches, to assess the effectiveness, value, and unintended effects of health information systems and digital health initiatives.
C.3.5.	Organize and transform health data into reliable, meaningful, and accessible information for diverse audiences to support informed decision-making and ensure that analytical outputs are understood and used appropriately across clinical, operational, and policy contexts.
C.3.6.	Present health data and analytical findings in clear, accurate, and accessible formats to support understanding, informed action and equitable access to insights.
C.3.7.	Apply knowledge of indicators and metrics for healthcare delivery, population health, and digital health benefits realization to monitor system performance, demonstrate the value of health informatics investments, and support continuous quality improvement.
C.3.8.	Evaluate and apply AI and machine learning enabled analytics responsibly, critically assessing model assumptions, algorithmic bias, output limitations, and governance requirements, to ensure that AI-generated insights are accurate, equitable, and used with appropriate human oversight.
C.3.9.	Apply equity-aware analytical approaches, including identification of bias in data and methods and assessment of differential impacts across populations, to ensure that health data analysis reduces rather than reinforces health inequities.



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