

North American Medical Informatics (NAMI)

Karen Greenwood¹, Eileen McPhee², Mark Casselman², André Kushniruk^{2,3}

¹ American Medical Informatics Association, Bethesda, MD, USA

² Digital Health Canada, Toronto, Ontario, Canada

³ School of Health Information Science, University of Victoria, Victoria, Canada

This article reports on North America for both the United States (AMIA) and Canada (Digital Health Canada). In both countries there have been significant moves to broaden the scope of the national informatics associations and increase the range and scope of memberships. Both countries continue to expand their programs, events, and work in areas such as education, certification, and exposure and dissemination of advances at all levels of the healthcare ecosystem.

Informatics Activities in the United States – Report from AMIA

AMIA – Informatics Professionals. Leading the Way.

AMIA represents more than 5,600 healthcare professionals, students, informatics researchers, practitioners, and thought-leaders in biomedicine, healthcare, and science. AMIA's members are subject matter experts in the science and practice of informatics as it relates to clinical care, research, education, and policy. They address challenges across the continuum of the health ecosystem—consumers and patients, healthcare providers and care delivery systems, population and public health, and basic and clinical research with the ultimate goal to advance better health, better healthcare, and improved efficiency through the use of informatics and information technology.

Why Informatics?

In 2020, AMIA continues its communication campaign—promoting the fact that every day people benefit from informaticians' ability

to accelerate healthcare's transformation by collecting, analyzing and applying data directly to care decisions. The campaign features AMIA members telling their stories on video. Members share how informatics is connected to real-world outcomes by lowering costs, increasing safety and promoting the use of high-quality services.

For more information and to share the videos with colleagues and students, visit <https://www.amia.org/why-informatics>.

Meetings and Conferences

AMIA meetings offer education, networking and peer-reviewed presentation opportunities reflecting the comprehensive range of informatics domains serving hundreds of health and healthcare related disciplines. AMIA meetings are widely regarded as the world's most comprehensive meetings on clinical and health informatics and provide a broad range of sessions on timely topics of informatics.

AMIA 2020 Informatics Summit
Bioinformatics | Clinical Research | Implementation | Data Science
March 23 – 26, Houston, Texas, US

The summit focuses on cutting edge research around four main areas: translational bioinformatics, clinical research informatics, implementation informatics and data science. The meeting brings together researchers from these fields and beyond to share their work and promote a vibrant exchange of ideas leading to new collaborations, innovation and discovery. The program is diverse including research

presentations, keynote speakers, panels and short “elevator pitch” presentations highlighting the newest developments in the field of informatics with the goal of enhancing the sharing of methods and approaches across the four areas of focus.

The conference welcomes students, educators, researchers from academia as well as industry who all benefit from participating in the AMIA 2020 Informatics Summit and learning about the newest informatics developments. This year we are excited to host the meeting in Houston for the first time and welcome all of you to join us there!

AMIA 2020 Clinical Informatics Conference
Evidence | Analytics | Best Practice
May 19 – 21, Seattle, Washington, US

AMIA's Clinical Informatics Conference is making a mark on healthcare. CIC is where practitioners in health informatics including physicians, nurses, physician assistants, technicians, HIT developers, data analysts, C-suite executives, and all members of the health care team come together at their home conference. Our collective goal is to advance healthcare systems driven by data, evidence, and best practice with the explicit purpose of creating better health information technologies.

Known as AMIA's “doing conference,” the conference features workshops, presentations, and networking events that provide attendees with tools to support their day-to-day efforts while working toward the quadruple aim. The conference is filled with unbiased content combining evidence and experience-based informatics to foster a true learning health system.

AMIA 2020 Annual Symposium
November 14 – 18, Chicago, Illinois, US

AMIA's flagship annual meeting draws the multidisciplinary, interprofessional community of informaticians together for five intensive days of learning and networking. It features hundreds of scientific sessions, workshops, exhibition, posters, and opportunities showcasing the full breadth and depth of the informatics profession.

Publications

JAMIA

JAMIA provides members and subscribers with the best in biomedical and health informatics publishing as the premier journal in the field. Led by Sue Bakken, JAMIA celebrated its 25th anniversary last year with a special collection focused on highly cited articles as well as a special collection featuring Jim Cimino as this year's Morris F. Colleen Award winner. In 2020, JAMIA will publish special issues focused on the 30th anniversary of the Unified Medical Language System (UMLS) and one to honor the legacy of Diana Forsythe's work on innovative and cross-disciplinary scholarship at the intersection of biomedical informatics and social science.

JAMIA Open

JAMIA Open, AMIA's peer-reviewed, online-only, and gold open access journal also celebrated a milestone in 2019 with its one year anniversary. JAMIA Open provides a global forum for the publication of novel research and insights in the major areas of informatics for biomedicine and health (e.g., translational bioinformatics, clinical research informatics, clinical informatics, public health informatics, and consumer health informatics), as well as related areas such as data science, qualitative research, and implementation science. In 2020 the journal will also publish a special issue focused on the 30th anniversary of UMLS with application and database notes as well as patient perspective articles.

ACI (*Applied Clinical Informatics*)

AMIA members continue to receive the ACI journal as part of their membership. As the

official eJournal of AMIA and IMIA led by Christoph Lehmann, ACI aims to establish a platform that allows sharing knowledge between clinical medicine and health IT specialists as well as bridging gaps between visionary design and successful and pragmatic deployment.

ACI Open

ACI Open is the open access companion journal to ACI led by David Dorr and Lipika Samal. The journal publishes subject matters in the field of clinical informatics including clinical information systems, mobile health applications, and administrative and management systems.

Certifications and Accreditation Activities

As announced in November, 2019, AMIA took another critical step towards creating certification for health informatics professionals with the appointment of the inaugural members of the Health Informatics Certification Commission.

The Certification Commission will finalize plans for and manage the AMIA Health Informatics Certification (AHIC) program, including eligibility, exam development, and recertification.

Joseph (Joe) Hales, PhD, FACMI and Catherine (Cathy) Ivory, PhD, RNC-OB, RN-BC, FAAN serve as chair and vice-chair. Joe was an active participant in the 2018 health informatics practice analysis and has extensive experience in health informatics practice and education. He was instrumental in AMIA obtaining accreditation for continuing education during his tenure as chair of the Education Committee. Cathy brings significant operational and academic experience. She is active in the nursing informatics community and has experience in other certification programs. Joe Hales and Cathy Ivory possess the unique set of qualifications needed to lead the Health Informatics Certification Commission during its inaugural period.

Commission members began their work in late 2019 and expect to announce details about AHIC in 2020. The Commission's work will expand health informatics certi-

fication opportunity for professionals and is a complement to the clinical informatics subspecialty certification.

"Commission members are enthusiastic and eager to bring a valid, credible, and transparent certification program online as soon as possible. AMIA's work over the past several years – particularly the 2018 health informatics practice analysis – will provide a solid foundation for the work ahead," said Joe Hales.

"The multidisciplinary structure of the Certification Commission reflects the collaborative team approach that is the essence of informatics. The range of Commission member perspectives and experiences will contribute to a certification program that advances the field and supports individual professionals," said Cathy Ivory.

The Health Informatics Certification Commission is a committee of AMIA that will be autonomous with respect to all certification decisions and operations. Following certification best practice, there will be a firewall between the certification program and AMIA's education activities.

The 14 Commission members bring a broad range of perspectives and significant expertise to their work. They represent individuals who have training in nursing, health informatics, public health, pharmacy, medicine, dentistry, and nutrition. Commission members are at different career stages and work in health care delivery organizations/systems, universities, industry, federal agencies, and a community health organization.

For more information

AMIA

4720 Montgomery Lane, Suite 500

Bethesda, MD 20814

Tel: +1 301 657 1291

Fax: +1 301 657 1296

E-mail: mail@amia.org

Website: www.amia.org

Twitter: [@AMIAinformatics](https://twitter.com/AMIAinformatics)

LinkedIn: Official Group of AMIA

Facebook: American Medical Informatics Association

Informatics Activities in Canada – Report from Digital Health Canada

Current Membership and Direction

Digital Health Canada now includes over 2,700 members across Canada from all areas of healthcare, including clinicians, innovators, students, researchers, thought leaders, and practitioners at all levels. Digital Health Canada offers both Individual and Student Membership, as well as multi-level Group Membership for academic institutions, startups, and leading-edge public and private sector organizations operating in the digital health ecosystem. Digital Health Canada's CHIEF Executive Forum offers membership for senior professionals and leaders in digital health and healthcare and the public and private sector organizations they represent.

The association continues to maintain a global and holistic perspective on the field of health informatics and digital health and works to connect, inspire and educate health professionals who are shaping the future of health in Canada. The organization aims to catalyze the digital health community and incubate knowledge by demonstrating leadership in health informatics and supporting collaboration through sharing of health informatics and digital health knowledge and experience. Digital Health Canada is committed to continuous learning, being guided by professionalism and ethics, and responding to the emerging needs of its members and the health system.

Regional Chapters 2019

Building on the success of the Atlantic Chapter (formed in 2018), Digital Health Canada announced the formation of a British Columbia Chapter and an Alberta Chapter in 2019. Regional Chapters align with the association's mission to connect, inspire, and educate the digital health professionals creating the future of health in Canada and enhance the membership experience by focusing on regional activities and initiatives.

Partnerships 2019

In November 2019 the College of Healthcare Information Management Executives (CHIME) and Digital Health Canada announced

the launch of an international chapter in Canada. Canada's Health Informatics Executive Forum (CHIEF) will operate the chapter.

Conferences and Events 2019

eHealth 2019: Celebrate, Grow & Inspire Bold Action in Digital Health, was held in Toronto from May 26-29, 2019 and focused on the past, current, and future state of Canada's digital health community. The conference welcomed approximately 1,400 attendees, 250 educational sessions and over 85 exhibitors, a "Start Up Zone" for new companies, and an interactive pre-conference workshop where delegates and patients collaborated in the co-creation of human-centric digital solutions for common healthcare delivery challenges. The annual Canadian Health Informatics (CHIA) Awards Gala at e-Health celebrated thought leaders, innovators, and emerging health informatics professionals. eHealth 2020 will be held from May 31 till June 3, 2020 at the Parq hotel in Vancouver and will mark the 20th anniversary of Canada's national digital health event.

Webinar Wednesdays provide a convenient way for health professionals to keep up with emerging issues, trends, and ideas in health informatics and digital health. Webinar Wednesday topics including telehealth, standards, privacy and security, data quality, patient-centered care, consumer health informatics, and other timely and important areas of interest to Digital Health Canada members.

7th Annual Digital Health Canada/ANHIX Calgary Winter Conference: Advancing Healthcare Through Technology was held in Calgary on Thursday, February 5, 2019. Presentation and discussion topics included Artificial Intelligence and Machine Learning for Health, Advancing Healthcare Through Digital Innovation, Bridging Technology and the Clinical Setting, and Using Technology to Measure Health Equity and Advance Population Health.

3rd Annual 'Ahead of the Curve' Conference took place in Vancouver on February 7, 2019. Presentations included an update on British Columbia's Digital Health Transfor-

mation Imperative from Ministry of Health Assistant Deputy Minister Corrie Barclay. Presentation and discussion topics touched Patient Engagement and Access to Information, Brain Tech (the use of virtual care to improve access to mental health services), and an update Canada's Digital Technology Supercluster.

UPONDIGITAL: The Update on Ontario Digital Health took place in Toronto on March 4, 2019 and featured an opening keynote from Dr. Rueben Devlin, Special Advisor and Chair of the Premier's Council on Improving Health Care and Ending Hallway Medicine. Presentation and discussion topics included Shared Services, Virtual Care, Value-based Healthcare Models, Opportunities in Health Tech and AI, Hospital-based Initiatives, and updates on Canada Health Infoway's PrescribeITM and eHealth Ontario's Innovation Lab.

Digital Health executives from across Canada meet twice annually at *CHIEF Executive Forums* to collaborate, exchange best practices, address professional development needs, and offer their expertise in setting the agenda for the effective use of information and technology to improve health and healthcare in Canada. The *CHIEF Executive Forum Spring Symposium 2019* (Toronto, May 24+25, 2019) and *CHIEF Executive Forum Fall Symposium 2019* (Toronto, October 21+22, 2019) covered topics such as Transformation Through Innovation, Delivering Lasting Change for Ontarians Through Transparent Data and Digital Health, How is Data Driving Information Globally in Healthcare Systems?, Data Security, and Data-Driven Care for Individuals and Populations. CHIEF Executive Forum Working Groups collaborated to produce papers on AI, Enterprise Innovation, and Unlocking the Value of Data.

3rd Annual Driving the Future of Digital Health Conference in Toronto on Monday, October 21, 2019 welcomed over 250 digital health professionals for a day focused on Charting a Course to Consumer Health, featuring innovation showcases, interactive sessions, demos, and presentations and panels on topics such as AI/ML and Interoperability: The Future of Digital Health in

Canada; Protecting Your Patients in a Digital World: The growing urgency of hardening healthcare data/cybersecurity; Digital Health & Strategic Planning: The Future of Health Care in Ontario; The Digital Health Toolbox: Enabling integrated care; Establishing Data Governance for Ontario Health Teams; and The Role of Digital Health Technology in Bringing Humanity Back to Healthcare.

The first [Atlantic Chapter Regional Conference](#) took place in Halifax on Tuesday, September 24, 2019 and featured a concurrent Atlantic Health Datapalooza and an international panel (with a video presentation from Tonga) as well as presentations and discussions on Rethinking Aging, Technology-Enabled Optimization of Transitional Care, Collaborating on Innovation, Improving Patient Flow for First Nation Community Members, Using Technology to Enhance Access to Care, and Development of a Bed Board to Improve Patient Flow at Health PEI.

Digital Health Canada [MeetUps](#) provide opportunities for digital health professionals to connect locally in small casual groups featuring a speaker or a round of Speed Mentoring. 2019 MeetUps took place in Toronto (May 28 and June 12, 2019) and Halifax (January 23 and October 29, 2019).

[Breakfast Events](#) condense the networking opportunities of a full-day conference into a quick morning session. Digital Health Canada hosted two Breakfast Events in 2019: Atlantic Chapter Breakfast in Moncton (March 20, 2019) focused in Telehealth and Virtual Care and Breakfast in Montreal (October 10, 2019) to discuss the future of digital health in Canada and Quebec.

Communities of Action 2019

Digital Health Canada [Communities of Action \(CoA\)](#) offer opportunities for connection, idea sharing and professional development. Community of Action Working Groups come together to enhance the quality of healthcare for Canadians by learning more about an important digital health topic, meeting virtually to learn, collaborate, and share knowledge with

the Canadian digital health community through reports, white papers, guidelines, or presentations. CoA Working Groups published the following papers in 2019: *Report: Pharmacy Practice and Digital Health* (May 2019); *Virtual Care in Canada: Snapshots of Innovative Virtual Care* (November 2019); and *Technology Adoption in Care Transitions: An overview of Canadian home and community care technology used in care coordination and integrated patient transitions* (August 2019).

Certification 2019

The Certified Professional in Healthcare Information and Management Systems – Canada (CPHIMS-CA)

Certification is provided through a partnership between Digital Health Canada and HIMSS, which issue the credential and certificate jointly to successful candidates. The CPHIMS-CA credential validates professional competency to respected international and Canadian criteria and signifies that a health informatics (HI) professional has the skills, knowledge and abilities to perform safely and effectively in a broad range of practice settings.

Candidates must qualify for and successfully pass both the CPHIMS and CA (Canadian Supplemental) Exams to achieve certification. Digital Health Canada hosted group exam sittings in Calgary (February 4, 2019), Toronto (February 21, May 26, + August 16, 2019), Vancouver (April 25 + December 2, 2019), Halifax (October 29, 2019), and Charlottetown (December 5, 2019).

New Study Resources 2019

- In 2019 Digital Health Canada published the new *Resource Guide to Digital Health in Canada — a comprehensive overview of the health informatics body of knowledge and the Canadian digital health ecosystem* (October 2019). The new Resource Guide builds on the *CPHIMS-CA Canadian Health Informatics Review and Reference Guide* and examines both the traditional and emerging challenges and opportunities that digital health professionals face today.

- *Digital Health Canada Competency Requirements (Exam Version)*
- Canadian (CA) Supplemental Exam Candidate Handbook

Live Online and OnDemand Education 2019

Digital Health Canada [Live Online, OnDemand, and Custom Health Informatics \(HI\) courses](#) provide a deep understanding of the Canadian healthcare system and the critical topics underlying health informatics. Digital Health Canada education prepares professionals to achieve the Certified Professional in Healthcare Information and Management Systems – Canada (CPHIMS-CA) credential and acts as a refresher for experienced HI professionals. Mastery of the content establishes a common knowledge base for cross-sector project teams, and/or modernizes the skillset of already certified team members. All courses are delivered by volunteer experts - industry professionals with real world experience.

In 2019 Digital Health Canada delivered Live Online Education sessions from January 7-31, June 3-27, and October 3-31. Live Online classes air Mondays and Thursdays for two hours. Classes are recorded and remain viewable OnDemand for six months following registration.

Custom Education Update 2019

In 2019 Digital Health Canada continued to work with The Centre for Education and Training (TCET) to provide education and resources to new Canadians. This initiative enables 60 new Canadians (in five groups of 12) to receive Digital Health Canada Core Health Informatics (HI) education along with soft skills training from TCET. Eligible students are professionals seeking alternative careers in HI; each must have a post-secondary degree in IT or healthcare and a Canadian Language Benchmark of 7 or higher. Funded by Immigration, Refugees and Citizenship Canada, the training provides one-on-one employment planning and support, networking, job shadowing, informational interview opportunities, and digital health sector-specific information and resources. Custom Education sessions took place February 25-March 14, April 10-26, and November 12-30, 2019.

The association continues to work closely with the academic programs at universities and colleges across Canada. Work that continues to be influential includes the CPHIMSCA Certification, the HIP® Competency framework, HIP® core competencies (which have been used to guide curricula in health informatics throughout Canada and internationally), HIP® role profiles and the HIP® Career Matrix.

Publications 2019

- Report: *Pharmacy Practice and Digital Health* (May 2019)
- Report: *A Before B – Perspectives on Artificial Intelligence in Healthcare* (June 2019)
- Community of Action Whitepaper - *Technology Adoption in Care Transitions: An overview of Canadian home and community care technology used in care coordination and integrated patient transitions* (August 2019).
- Community of Action Whitepaper - *Virtual Care in Canada: Snapshots of Innovative Virtual Care* (November 2019)
- CHIEF White Paper – *Enterprise In-*

novation: The Current Landscape of Innovation in the Canadian Healthcare System (November 2019)

- CHIEF Whitepaper – *Unlocking the Value of Data: Creating a Unified, Informed, Proactive Community* (November 2019)
- *Resource Guide to Digital Health in Canada — a comprehensive overview of the health informatics body of knowledge and the Canadian digital health ecosystem* (October 2019)
- *Digital Health Canada Competency Requirements (Exam Version)* (December 2019)
- *Digital Health Canada Competency Requirements (HIP® Version)* (December 2019)
- *HIP® Career Matrix* (December 2019)

Upcoming Events 2020

Digital Health Canada/ANHIX Calgary Winter Conference 2020 – Partnering for Health Care Innovation

February 4, 2020 | Calgary, Alberta

Vancouver Ahead of the Curve Conference 2020

February 6, 2020 | Vancouver, BC

UpOnDigital: The Update on Ontario Digital Health

February 4, 2020 | Toronto, Ontario

e-Health Conference and Tradeshow 2020

May 31- June 3, 2020 | Vancouver, BC

Driving the Future of Digital Health

October 2020 | Toronto, Ontario

Digital Health Canada continues to focus on growth, expanded opportunities, new partnerships, enhanced networking, and creating and sponsoring a range of events and opportunities to facilitate the effective spread of digital health in Canada.

For more information:

Digital Health Canada
11th Floor, 151 Yonge Street
Toronto, Ontario M5C 2W7
Canada

digitalhealthcanada.com

Twitter | LinkedIn | Instagram | Facebook