

Turning AI Principles Into Actionable Strategies for Healthcare

A CHIEF Executive Forum Round Table Discussion Summary
August 2024

Introduction

CHIEF Executive Forum leaders recognize the challenges and opportunities that exist across all jurisdictions due to accelerated adoption, or the desire to accelerate adoption, and deployment of Artificial Intelligence (AI) tools and solutions across healthcare settings.

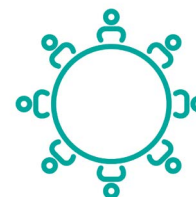
This document summarizes the discussions and deliberations of the breakout groups at the 2024 Spring CHIEF Executive Forum Symposium, one of which focused on turning AI principles into actionable strategies for healthcare. Participants set themselves the task of answering the question: How can AI implementation be accelerated and what is the role of governments in scaling AI initiatives?

Discussions resulted in the following concrete actions recommended to encourage the development of a cohesive national vision for AI in healthcare, aligning policies, strategies, and goals across regions and sectors to ensure a unified approach to AI adoption and integration.

Note: This resource is intended to 1) refresh the memory of those who were in attendance at the Spring Symposium, and 2) flag key topics for follow-up for those who were unable to attend. It is not designed as a comprehensive or stand-alone resource.

THANK YOU to these Emerging Professionals for volunteering to attend and take notes at the 2024 Spring CHIEF Executive Forum Symposium:

- Chris Ng-Fletcher, Canada Health Infoway
- Francesca D'Angelo, Hamilton Health Sciences
- Himanshu Khetarpal, Provincial Health Services Authority
- Hrudaya Wunudurthy, Provincial Health Services Authority
- Rita He, Provincial Health Services Authority
- Robyn Emde, Provincial Health Services Authority
- Sean Leighton, Providence Health Authority
- Simone Luu, Provincial Health Services Authority
- Stephanie Rintoul, Hamilton Health Sciences



Define challenges and priorities

It is important to define the challenges that an AI solution is intended to address and to include the stakeholders who will be expected to implement and work with these solutions.

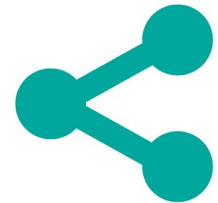
- Co-design AI solutions with a clinical team using a bottom-up approach.
- Start by looking at the pain points and then determine if AI is appropriate.
 - Start with requirements, and then design from these requirements
 - Move to proof of concept, and then can scale and spread
 - Be agile when responding to end-user feedback
 - Plan for multiple iterations of AI solutions
- Accelerate the implementation of low-risk, high-impact scenarios (when no Personal Health Information (PHI) is involved, the solution is low risk)
- Use AI solutions like Digital Twin or Digital Front Door to highlight priority areas
- Set priorities for AI development and adoption using the four shared health priorities



Create a collaborative platform

A collaborative platform for sharing AI models and use cases enables organizations to leverage collective expertise and accelerate innovation and implementation.

- Establish a central repository or organization to coordinate efforts, share resources, and avoid duplication of work in AI development and implementation
- Share trained AI models across provinces
- Create a centralized data hub which allows data to be published and become accessible to enable more AI models
- Facilitate the sharing of learnings and experiences from various AI implementations to foster continuous improvement
- Encourage outsourcing and resource sharing to address limited capacity for AI expertise



Educate and engage stakeholders

Educating stakeholders about the benefits and limitations of AI fosters trust in the technology and promotes wider adoption and acceptance while ensuring AI tools are used effectively and benefits are maximized.

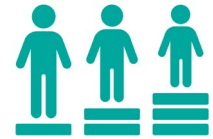
- Define terms surrounding AI to mitigate differences in interpretations
- Complete education and implementation in parallel
- Identify clinical champions and bring clinicians into early stages of design
- Implement standardized training programs to educate healthcare professionals, administrators, and patients about AI technologies, ensuring widespread understanding and proper utilization
- Build patient engagement
- Highlight and promote successful AI use cases to demonstrate the benefits of AI



Ensure equity and access

Reduce disparities in healthcare and foster inclusivity by ensuring AI tools are accessible, unbiased, and designed to serve diverse populations.

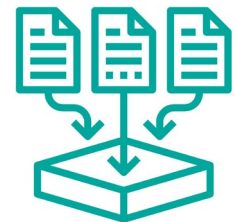
- Collect equity data to provide equitable care for all patients
- Standardize methods for data collection
- Utilize maturity models
- Democratize with Large Language Models (LLMs) and Intellectual Property (IP) clauses
- Ensure transparency in AI use to maintain trust and ethical standards



Be strategic about data

Building AI implementation-focused data strategies to ensure that data is accurate, relevant, and accessible. Good data strategies enable effective AI training, decision-making, and deployment, leading to more reliable and impactful outcomes.

- Maintain focus on improving access to and sharing of quality data
- Use AI to capture and sort data (pull from Electronic Medical Record (EMR) notes field into International Patient Summary (IPS))
- Declare the data - increase transparency and highlight any potential biases in the model by specifying what dataset is being used to train the model
- Ensure high data quality/standardization by creating a common dictionary/lexicon
- Use data that includes human workflow considerations



Establish governance (AI standards and meaningful regulation)

AI governance establishes clear guidelines, ethical standards, and accountability measures, ensuring that AI systems and tools are developed and deployed responsibly, safeguarding privacy, fairness, and transparency, and aligning with organizational and societal values.



- Develop a common framework for AI implementation
- Provide guidelines and best practices for ensuring the quality and reliability of AI systems
- Employ evidence-based standards
- Develop AI certification and accreditation models to standardize and ensure the quality and safety of AI applications
- Treat algorithms as medical devices (as in other international jurisdictions)
- Balance the need for regulation to ensure patient safety and data security with the imperative to not stifle innovation
- Categorize AI projects by risk level to determine the appropriate level of regulatory scrutiny and support
- Invest locally in redesigning healthcare systems to accommodate AI integration
- Publish a list of government-approved use cases (ensure the list is flexible and not restrictive, allowing for expansion as AI technology evolves)

Manage risk

Risk management identifies, assesses, and mitigates potential risks associated with AI systems—data security, algorithmic bias, and regulatory compliance. Effective risk management ensures the safe, ethical, and reliable use of AI, protecting both the organization and its stakeholders from unforeseen challenges and negative impacts.

- Develop a comprehensive framework to manage risks associated with the deployment of AI in healthcare, ensuring patient safety and ethical standards are maintained
- Conduct regular risk assessments to identify and mitigate potential issues with AI systems
- Align AI projects with organizational visions
- Identify and focus on vertical use cases rather than generic tools



Build partnerships

Partnerships bring together diverse expertise and resources, facilitating the development and deployment of robust AI solutions. Collaborating and partnering enables organizations to access cutting-edge innovations, share best practices, and address challenges collectively. These partnerships enhance the scalability and impact of AI initiatives, ensuring they are well-integrated.

- Build test environments with vendors to trial AI solutions
- Establish robust partnerships with vendors to help address talent retention challenges and ensure that AI solutions are tailored to meet specific local needs
- Explore collaboration and establish relationships with research organizations
- Bring industry together to gather data and evidence for policy makers and help guide informed actions



About Digital Health Canada

Digital Health Canada connects, inspires, and empowers those enabling digital healthcare in Canada. Our members are a diverse community of accomplished, influential professionals working to make a difference in advancing healthcare through information technology. Digital Health Canada fosters network growth and connection; brings together ideas from multiple segments for incubation and advocacy; supports members through professional development at the individual and organizational level; and advocates for the Canadian digital health industry.



About CHIEF Executive Forum

Digital Health Canada's CHIEF Executive Forum provides a place for senior professionals and leaders in digital health and healthcare 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. Members contribute their active participation, industry experience, and in-depth insight to working groups, publications, and health informatics discussions at the semi-annual CHIEF Symposia, and throughout the membership year.



Learn more at digitalhealthcanada.com

CHIEF Executive Forum Member Organizations

