

Webinar Summary

Implementing Artificial Intelligence (AI) in Healthcare: Lessons Learned from Innovators and Early Adopters

January 22, 2021

SPEAKERS

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SESSION OBJECTIVES

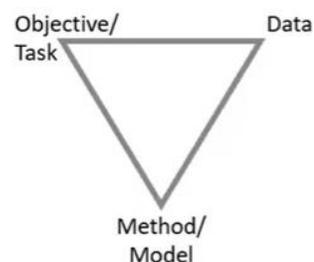
- Explore the implementation of artificial intelligence (AI) at an organizational level through the sharing of lived experiences and lessons learned from innovators and early adopters in the health sector.
- Identify some of the current enablers and challenges for implementing AI in health and discuss possible solutions.
- Uncover some of the necessary elements and pathways for successfully implementing AI in healthcare organizations.

SUMMARY

A triad for data-intensive research & innovation

Alignment of the following three factors ensures the successful implementation of artificial intelligence in an organization:

- Objective/Task
- Data
- Method/model



Key themes regarding applications and the successful implementation of AI in healthcare organizations

1. Contextualization

AI is implemented in an existing context that must be considered by the implementer (i.e., pre-established data and tools).

2. Person-centered care

AI supports person-centered care efforts by enabling teams to provide more personalized care and improve the patient experience. Some examples include using AI to:

- Bring care to the patient, instead of the patient coming to the institution. For example, not waiting until the next appointment to flag concerns or interventions, and identifying patients needing assistance with care at home or in community.
- Enable patients to have access and contribute to their own health records.
- Diagnose and allow patients to co-monitor and self-manage at home. For example, turning a cellphone into a thermal scanning device to determine oxygen saturation.
- Digitize care plan information so patients and care partners can refer to it after they leave the clinic.
- Prevent and predict illness. For example, by analyzing data collected when patients are both feeling well and ill.
- Create supportive communities of patients with similar conditions.
- Facilitate communication with patients.

Lessons learned by innovators and early adopters:

- Involve end users (i.e., patients and providers) in your planning – patients have the power to change provider practices!
- Pop culture has influenced how the public feels about AI. There are hesitations that will need to be addressed.
- Patients expect us to proceed with caution but are intrigued by the promise of personalized medicine that AI can provide.
- Digital health literacy remains a key barrier to using AI-enabled platforms or applications and is an important factor in building the public's trust of AI in health.
- Patients have had positive experiences. For example, being able to experience a rapidly expedited diagnosis (i.e., skin cancer diagnosis within a few days, in comparison to the typical 3-6 week range).
- Patients and the public have the power to influence change. It's important to inform the public about the power and benefits of AI for patients.

3. **Organizational structure**

AI can be a key support for streamlining an organization's processes and resources. It can help organizations:

- Manage inventory. For example, hospital beds, personal protective equipment, etc.
- Analyze data and alert providers of potential concerns that require an intervention.
- Organize their volunteers and staff.
- Match patients with specific profiles with appropriate clinical trials and treatments.
- Undertake COVID-19 modeling at the institutional level. For example, measuring case incidence over time.

Lessons learned by innovators and early adopters:

- AI does still require a human infrastructure to provide the best and safest care possible.
- Consider your own organization's legal, governance, ethics, and privacy aspects.

4. **Leadership imperative & team-based care**

It's imperative that leadership include change management in any AI implementation strategy. This enables a care team to understand the potential for AI to support improved patient care, care planning and coordinated care. Some examples include using AI to:

- Collaborate seamlessly within the organization and with other organizations.
- Determine high-risk patients and reduce hospital admissions, emergency department visits, and overall costs to the system.
- Track treatment progress. For example, determining the intersection between when the patient begins to show signs of decline and predict when they may visit the emergency department, and intervene.

5. **Stakeholder Involvement**

Successful AI implementation requires deep involvement from all stakeholders. It's important to consider:

- Bringing the right people together to discuss implementation and understand each partner's role in bringing AI to life.
- Ensuring patients and the public are involved in your teams.
- Possible beliefs in care team members that AI removes the human element of care.

6. Life Cycle Planning

Understanding the complexities and challenges of implementation, spread, and sustainability will contribute to the successful implementation of AI. Lessons learned include:

- Don't reinvent the wheel. Search out literature, research, etc. from similar organizations.
- Evaluate and capture data from the onset of AI implementation.

RESOURCES SHARED

Listed below are the resources mentioned during the webinar:

- AI Deployment Symposium Report, Vector Institute & SickKids Health

WEBINAR RECORDING

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