

The Impact of Supply Chain Transformation in Health Systems

Case Study:
Alberta Health Services, Canada 

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Introduction

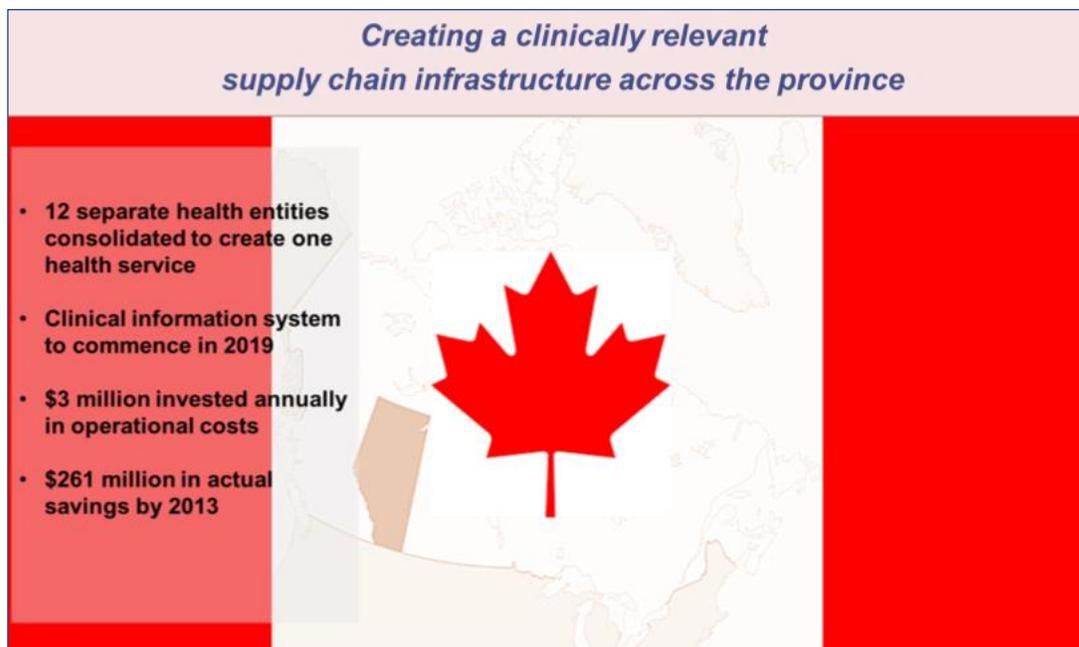
The Alberta Health Services (AHS) in Canada case study provides emerging empirical evidence of the health system level impact of implementing supply chain transformation to improve safety, quality and performance. An overview of the progress, leadership strategy, outcomes and impacts of supply chain transformation in Canada's first province-wide, fully integrated health system is examined.

The World Health Innovation Network (WIN) conducts research on the impact and models for scalable health system supply chain innovation to track and trace products from bench to bedside, to patients, based on global standards. WIN's goal is to generate empirical knowledge and key learnings about the value of supply chain implementation in health systems across global jurisdictions.

Alberta Health Services, Canada

AHS is publicly funded by the province of Alberta and consolidated from 12 formerly separate health entities in the province to create a single governance structure with over 108,000 employees providing services to a population of over 4.2 million and over 35,000 patient beds. The 2017/18 AHS budget is forecast at \$14.9 billion. Three AHS hospitals made the 2016 list of Canada's Top 40 Research Hospitals. AHS implements supply chain infrastructure to advance patient safety, clinical productivity and operational efficiencies to enhance return on investment.

Supply Chain Implementation Strategy



A series of adverse events in the province of Alberta led the government to focus on traceability as a strategy to improve safety and quality of care. In 2010, the province began to implement enterprise resource planning (ERP) to support the province-wide health system and advance the goals and objectives of the supply chain strategy for Alberta. AHS implemented GS1 global standards into its transformational supply chain strategy to enable traceability and improve patient safety across the health system.

Additional components of the supply chain strategy include strong leadership, price harmonization, a provincial item master and data infrastructure, and a centralized warehouse and distribution infrastructure. The outcomes of this case reflect the early implementation of the program infrastructure in a province-wide setting.

Supply Chain Transformation—AHS



Findings

The evidence of impact and return on investment demonstrated in this case study reveal remarkable progress toward achieving the vision of the “one health service” and creating a more efficient and streamlined health system for both patients and professionals.

1. *Leadership—A Driver of System Transparency*



- Government priority to improve patient safety is a key driver.
- The AHS mandate to create Canada’s first province-wide, fully integrated health system is an accelerator.
- Clear deliverables drive adoption and scale.
- Leveraging supply chain transformation to create transparency enables learning, accountability, evidence informed decision-making and performance.

2. *Clinician Engagement—Accountability of Clinician Teams*



- Integrating supply chain and clinician teams enhances accountability and decision-making to improve safety, quality and cost.

3. *Adverse Event Reporting—Integrates Safety and Quality in Supply Chain Processes*



- Responds to safety and quality priorities for AHS supply chain strategy.
- Enables data analysis to identify trends and achieve system-wide reporting.
- Informs risk mitigation strategies to improve patient safety.

4. *Return on Investment (ROI)—the Impact of Supply Chain Strategy*



- Achieves 7:1 ROI on inventory savings alone with more expected as supply chain infrastructure in clinical settings is implemented province-wide.
- Price harmonization and product category analysis lead to substantial savings for specialty programs.
- Suggests opportunity to significantly reduce provincial health system costs.

Conclusion

This seminal research demonstrates the value and impact of embedding and scaling supply chain based on GS1 global standards in health systems. This case documents impressive findings about the importance of transparency in creating the foundation for health system accountability informed by data and evidence. As the program scales, further evidence of the impact and the value of health system transparency and accountability and patient safety can be examined empirically.

Transparency may be the new currency that achieves an accountable, safe and sustainable health system.

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