

**The Value-based Healthcare and Procurement Journey:  
How Can We Accelerate Adoption for Better Patient  
Outcomes and Sustainability?**

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## Summary

Several challenges affect the transformation to and adoption of value-based healthcare (VBHC) and procurement. Despite the high interest, investment and training that have occurred, widespread VBHC adoption has been hampered by a limited understanding of how: outcomes and sustainability will be measured, budgets are affected and change will be effectively introduced and managed.

In order for innovations to be more rapidly adopted, they must align with the healthcare system to support better patient outcomes. As with most new approaches, there can often be over- and/or under-estimation of some of the adoption challenges. The factors, enablers and approaches that can help accelerate the adoption of initiatives (including VBHC and procurement) are identified.

### The Transformation to Value-based Healthcare Is a Journey

The purpose of VBHC and procurement is to improve the overall quality, safety and sustainability of healthcare while reducing delivery costs of more effective care.<sup>1</sup> The transformation to VBHC has been an ongoing journey rather than an “off the shelf” quick fix. In 2001, the Institute of Medicine published a call to action for healthcare providers and the global medical community suggesting that the quality and safety of healthcare delivery needed to be improved.<sup>2</sup> There continues to be a need to more seriously consider the quality of competing products and benefits (e.g., patient outcomes and experiences) in addition to healthcare costs.<sup>3</sup> The total value to the healthcare system across patient care and budget silos must also be considered.

The cost of healthcare delivery in Canada remains high when compared to other Organisation for Economic Co-operation and Development (OECD) countries. However, the healthcare expenditure in Canada is lower for hospital-based services than for

outpatient care on a per capita basis. Over the past 10 years, outpatient costs in Canada grew by 25% while inpatient costs increased by only 17%, reflecting changing healthcare dynamics<sup>4</sup>.

The evolution of Canadian healthcare has been built on successive ad hoc improvements and “work-arounds” that attempt to allow it to deliver better outcomes and value for money invested.<sup>2</sup> This process has had challenges and practical lessons, including those associated with adopting the adoption of VBHC.<sup>6</sup> Over the past two decades, the healthcare systems have remained costly, complex, fragmented and siloed despite the substantial investment in and effort to align healthcare delivery with changing

population requirements. There is a need to reduce complexity and improve the patient experience and help sustainability.

This paper presents some of the issues, enablers, disablers and challenges associated with the adoption of innovation and proposes solutions to support more efficient adoption of VBHC and procurement.

*“The shift to VBHC requires that enabling solutions be adaptable throughout the implementation process.”*

### What Issues Are Affecting the Transformation to VBHC and Procurement?

The Canadian Institute for Health Information (CIHI) noted in 2009 that one of the largest issues in the transformative process to outcome-based measurements is the speed with which system integration, data intelligence transfer and adoption of innovation occur.<sup>7</sup> Since the rate of adoption of innovation is relatively slow, it is not surprising that the level of interest in a VBHC approach to enhance patient outcomes and sustainability remains high.<sup>2,8</sup>

In order for innovations to be more rapidly adopted, they must align with the healthcare system to support better patient outcomes. Evidence is often not available when a new product or service is being trialed or adopted and needs to be collected and analyzed as a pilot study<sup>9</sup> or as part of an integrated supply chain

structure that includes product registries.<sup>10</sup>

Budgets are another frequent challenge. Many integrated supply chain models have shown both savings and quality improvements, which help immediate sustainability issues.<sup>10</sup> However, consideration must be given to an unintended consequence of this approach. As savings for existing technologies are realized, related budgets may be reduced. If a more expensive innovation provides better patient outcomes and improves sustainability objectives, it may be necessary to provide budget to enable its procurement and adoption. In today's environment, increasing budgets is challenging.

The healthcare system requires a delicate balance between patient outcomes and costs enabling a necessary tension that also affects the transformation to VBHC and procurement. Although there is pressure for better patient outcomes, which are frequently enabled by innovation, it is often associated with increased costs. Funding requires consideration of both the overall savings to healthcare due to better patient outcomes/wellness, as well as, being fiscally responsible and mindful of the taxpayer. Achieving the optimal balance is difficult creating this tension.

As with most new approaches, including VBHC and procurement, there can often be over-and/or under-estimation of some of the adoption challenges. Based on our observations, there may be an inclination to:

- overestimate the ease of adopting an innovation, including VBHC and procurement; and
- underestimate the effort and length of time it will take to make the necessary change to adopt the same innovation.

### What Are the Enablers?

As noted, there are processes (albeit slow) for the adoption of change. Many of the initiatives that have been designed and launched to target improved outcomes, quality and safety, and manage costs that have evolved from value for money, outcomes-based procurement to VBHC and procurement programs. Table 1 lists several of these key initiatives.

In defining specific enablers to innovation adoption, it useful to consider positive examples and identify the common elements that support change. Both the Quality Improvement Plans (QIP) and Ontario Health Technology Advisory Committee (OHTAC) from Ontario Health (Quality), Alberta's Strategic Clinical

TABLE 1  
Canadian initiatives to help drive quality and safety improvements and VBHC\*

<ul style="list-style-type: none"><li>• Health Ontario (Quality)</li><li>• Quality improvement plans (QIP)</li><li>• Patient-centred care</li><li>• Strategic clinical networks (SCN)</li><li>• Broader Public Sector Procurement Directive</li><li>• Value for money directives</li><li>• Health technology assessments (HTA)</li><li>• Competitive dialogue supplier and provider</li><li>• Solutions-based procurement</li></ul>	<ul style="list-style-type: none"><li>• Bundled services</li><li>• Health-based Allocation Model (HBAM)</li><li>• Quality-based procedures</li><li>• Education, training and development</li><li>• Wait time reduction</li><li>• Supply chain centralization (Ontario)</li><li>• Value-based healthcare and procurement strategies</li><li>• Transformation</li></ul>
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\*partial list

Networks (SCN) and Quebec’s Institut national d’excellence en santé et en services sociaux (INESSS) are examples of successful programs that took time to develop and should be recognized for their progressive roles. As well, Ontario’s recently announced Ontario Health agency and supply chain centralization initiatives which include broader category management and adoption of innovation are promising steps in the right direction.

A critical element to successful introduction of any innovation or process is effective education, training and development programs. Publicly funded VBHC and procurement training and development programs have been complimented by a range of educational events and tools from several associations including: Healthcare Supply Chain Network (HSCN), Medtech Canada, and The Conference of Canada.

Table 2 describes the factors and elements of the enablers we have identified that can help accelerate the adoption of an initiative (including VBHC and

procurement). Challenges (and potential delays) to the implementation of innovation(s) can occur when some of the items listed in the table are not fully and appropriately considered.

Budgets are usually an overriding issue in the adoption of innovation. Department budgets may often be reduced because of savings realized due to the procurement process used for older technologies. This can create a challenge when technology assessment organizations such as Canadian Agency for Drugs and Technologies in Health (CADTH), SCNs in Alberta, Ontario Health (Quality) and INESSS recommend funding an innovation. Both the Ontario Health agency and Quebec Health Innovation Bureau help address these funding challenges. A mechanism is also needed that would allow for the savings generated from the procurement of older technologies be used to help fund the acquisition of innovations.

Although, there has been substantial effort to improve the quality and sustainability of healthcare.

TABLE 2

**Enablers for successful innovation adoption (including VBHC and procurement)**

Factors	Elements
Policy, oversight and incentives	<ul style="list-style-type: none"> <li>• Government policy with oversight to help navigate obstacles</li> <li>• Leadership understands and accepts associated risks</li> <li>• Incentives aligned for achieving VBHC and procurement</li> </ul>
Planning and change management	<ul style="list-style-type: none"> <li>• Align stakeholders (e.g., government, management, health team, patient) with a focus and a clear priority to “adopt”</li> <li>• Understand the changes necessary before implementing</li> <li>• Work with stakeholders throughout the patient journey</li> </ul>
Resources	<ul style="list-style-type: none"> <li>• Allocate sufficient resources to support success (e.g., funding, time, people, education and training, institutional rewards, pilot/trial projects with dispersion plans)</li> <li>• Allow real-time access to information that supports knowledge transfer and decisions</li> </ul>
Environment and culture: determine the level of preparedness	<ul style="list-style-type: none"> <li>• Ensure visibility to data, analytics (key performance indicators) and learnings to make and support decisions</li> <li>• Assess the level of preparedness including system tolerance for additional change</li> <li>• Recognize that the change process is challenging and tailor the changes/process to the local environment and culture</li> </ul>
Execution: focus, transparency and visibility	<ul style="list-style-type: none"> <li>• Ensure there is flexibility and recognize that a “one size fits all” solution may not be possible in all cases</li> <li>• Large scale (e.g., provincial) integrated supply approaches need agility to address regional or local issues that may require unique solutions</li> <li>• Accurately measure the results of care and act on these results</li> </ul>

Provinces need a process that efficiently assesses and promotes innovation adoption and the related change management programs to ensure VBHC is delivered

### Managing the Disablers (Challenges)

VBHC and procurement and integrated supply chain initiatives can be implemented and adopted but the size and scope of these initiatives tend to add complexity, making the process challenging and slow. Associated challenges include the large number of recommendations and initiatives that create issues for system-wide engagement, alignment and collaboration. Evolving and changing priorities also lead to an expanding range of initiatives and as the list grows, few are adopted.

A frequent challenge is the large number of pilot programs that are initiated without proactive plans for scale and dispersion. This is exacerbated by the need for evidence to support broader implementation. Collecting data and the benefits of an innovation take time to collect and analyze and can lead to delays in innovation adoption. Implementation programs should begin earlier for promising innovations, although all performance data may not be available. In these scenarios, data should continue to be collected and analyzed as a pilot study<sup>9</sup> or as part of an integrated supply chain with product registries.<sup>10</sup> Periodic analysis of the ongoing data collected could help define/refine the wider dispersion plan on an ongoing basis.

Innovation adoption also requires additional effort and resources during development and implementation to foster a more efficient transition. It is challenging for individuals to concurrently work on existing job responsibilities and implement the innovation. After the innovations have been implemented, the need for additional resources may be reduced. It is also important to acknowledge, that as the innovation implementation becomes more challenging, there is a tendency to revert to 'old ways' that feels more 'comfortable'. An effective change management process is critical.

There have been several helpful training initiative noted previously that could be enhanced with

a stronger change management component. It is important to recognize that each healthcare institution and its training needs are likely to be unique and customization of content/approach is important.

Finally, effective communication is critical. Our healthcare system is complex has limited resources and other factors that affect patient safety, wellness and outcomes need to be considered. Figure 1 illustrates the complexity of the healthcare system. Support of innovation adoption and creating "buy in" for change and adoption of innovation requires more than sharing of information. Team opinions and advice need to be sought with a recognition of the role they play in innovation adoption. For example, sharing information about learnings and that programs can be customized is helpful. As well, describing the role an individual plan in developing and adopting transformation to help ensure that projects are of a manageable.

### Key Learnings: What Can Be Done?

All stakeholders, including government, healthcare leaders, management and teams, must recognize that the health system transformation to VBHC and procurement is a journey. The transformation process needs to be considered over the continuum of the

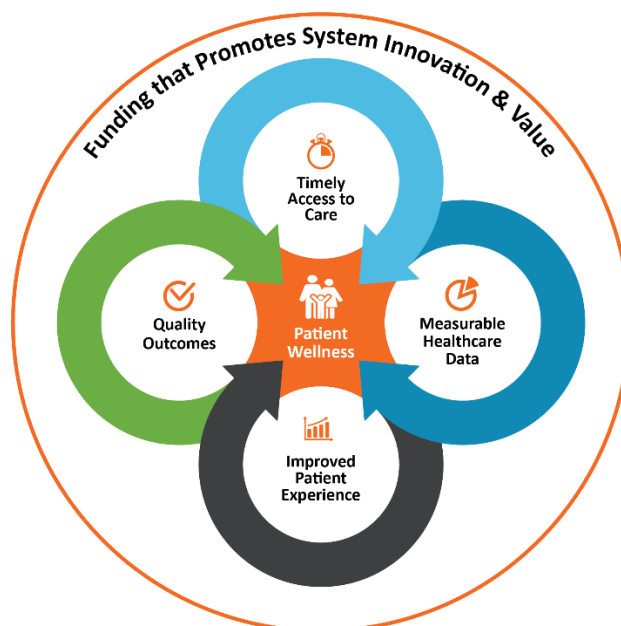


Figure 1: Complexity of the Canadian Healthcare System

journey with special efforts on more rapidly reaching the destination. It is important to remember that the enablers be used to help mitigate disenablers.

The shift to VBHC requires that enabling solutions and their implementation be flexible and should be revised as needed during the journey. Our experience and observations (published<sup>11, 12, 13</sup> and empirical) show there are common critical features that promote a more rapid adoption of innovation. These include:

- engaging stakeholder and team alignment and “buy in”;
- understanding of the benefits of adopting the innovation;
- setting realistic timelines;
- creating manageable and scalable initiatives (i.e., start small);
- using a process to capture and analyze data and share learnings;
- completing of current initiatives before new ones are undertaken; and
- institutionally celebrating successes.

Despite the investments to move healthcare transformation forward to VBHC and procurement, adoption is slow and an accelerated pace would be beneficial to improve the quality of healthcare and increase sustainability. Several common elements to help accelerate the rate of adoption have been identified. The investments in education, training and development; a wide range of trial and pilot projects; and sharing of lessons learned and experience are a good start. The change management and adoption process could benefit from using more of the enablers.

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## References

1. Institut du Quebec. 2017. "Adopting Health Care Innovations in Quebec. Suggested Alternative Models Briefing March, 2017." Retrieved March 26, 2019. [https://www.institutduquebec.ca/docs/default-source/default-document-library/8704\\_adoptinghealthcare\\_idq\\_eng\\_br.pdf?sfvrsn=0](https://www.institutduquebec.ca/docs/default-source/default-document-library/8704_adoptinghealthcare_idq_eng_br.pdf?sfvrsn=0)
2. Institute of Medicine (IOM). 2001. "Crossing the Quality Chasm: A New Health System For The 21st Century." Retrieved March 18, 2019. <http://www.nationalacademies.org/hmd/~media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf>
3. Arshoff, L.; C. Henshall, D. Juzwishin and R. Racette. 2012: "Procurement Change in Canada: An Opportunity for Improving System Performance." *Healthcare Management Forum* 25(2): 66-9.
4. Canadian Institute for Health Information (CIHI). 2019. "National Health Expenditure Trends, 1975 to 2018", Ottawa, Ontario. Retrieved March 20, 2019. <https://www.cihi.ca/en/health-spending/hospital-spending>
5. Pinney, S. 2016. "How Hockey Can Save Healthcare: A Principle-based Approach to Reforming the Canadian Healthcare System." Lulu Publishing Services. (Kindle Edition)
6. Horne, F. G. Katz and G. Sedman. 2019. "Four Lessons for a Successful Switch to Value-based Healthcare. World Economic Forum" Retrieved March 20, 2018. <https://www.weforum.org/agenda/2019/03/four-lessons-for-successful-healthcare-transformation/>
7. Canadian Institute for Health Information (CIHI). 2009. "Health Care in Canada 2009: A Decade in Review", Ottawa, Ontario. Retrieved March 1, 2019. [https://secure.cihi.ca/free\\_products/HCIC\\_2009\\_Web\\_e.pdf](https://secure.cihi.ca/free_products/HCIC_2009_Web_e.pdf)
8. Zelmer, J. 2018. "Aligning Outcomes and Spending: Canadian Experience with Value Based Healthcare." Canadian Foundation for Healthcare Improvement. Retrieved March 1, 2019. [https://www.cfhi-fcass.ca/sf-docs/default-source/documents/health-system-transformation/vbhc-executive-brief-e.pdf?sfvrsn=c884ab44\\_2](https://www.cfhi-fcass.ca/sf-docs/default-source/documents/health-system-transformation/vbhc-executive-brief-e.pdf?sfvrsn=c884ab44_2)
9. Arshoff, L. 2010. "Assessing Innovations: What Is the Optimal Approach for Healthcare Organizations?" *Healthcare Quarterly* 13(2): 84-96.
10. Snowdon, A.W. 2018. "Clinically Integrated Supply Chain Infrastructure in Health Systems: The Opportunity to Improve Quality and Safety." *Healthcare Quarterly* 21(3): 19-23.
11. Mitchell, S.E., J. Martin, S. Holmes, L.C. van Deusen, R. Cancino, M. Paasche-Orlow, C. Brach and B. Jack. 2016. "How Hospitals Reengineer their Discharge Processes to Reduce Readmissions." *Journal of Healthcare Quality*. 38(2): 116-26.
12. Chadwick, J. M. Knapp, D. Sinclair, and L. Arshoff. 2014. "Impact of a Change Management Program in a Medical Device Reprocessing Department: A Mixed Methods Study." *Healthcare Management Forum* 27(1): 20-4.
13. Lalla, F. and L. Arshoff. 2013. "A Mental Health Initiative to Enhance Schizophrenia Treatment Efficacy." *Healthcare Management Forum* 26(1): 46-50.