



ALIGNING OUTCOMES AND SPENDING

Canadian Experiences with
Value-Based Healthcare

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FOREWORD

The aim of this Executive Brief is to provide a Canadian perspective on value-based healthcare (VBHC) and how these concepts are being applied across the country.

It draws on a review of academic literature, surveys, and case studies. To inform the Brief, profiles of six Canadian initiatives that embody key elements of value-based healthcare, such as tracking and linking outcomes and costs, were developed. Selection of the examples was based on the following criteria:

Enabling new models of care

A wide range of mechanisms and implementation approaches are being considered as part of VBHC initiatives. We focused on examples that aimed to enable new models of care, e.g. through digital solutions, innovative technology, or care integration.

Geography

Where possible, we sought geographic diversity to ensure broader relevance and insights.

Maturity

Many VBHC initiatives in Canada and internationally are in the early stages. Sharing information on their design and aims can be useful to those who are considering similar projects. Where possible, we also prioritized examples that have progressed further so that information on results and lessons learned was available.

Availability of Information

Sufficient information had to be available, either in the public domain or through requests to those undertaking the initiatives, to provide a meaningful description of included initiatives and their intent.

Structured profiles of each initiative selected for inclusion appear in the Appendix.

Readers who are interested in further exploring the theory behind value-based healthcare and use of the approach on a global basis are encouraged to consult the resources listed in the For More Information section at the end of the Brief.

KEY MESSAGES

Value-based healthcare (VBHC) links dollars spent to outcomes that matter to patients, rather than to the volume of services or to specific processes or products that may or may not achieve those outcomes.

In some cases, progress towards this goal is possible within existing health sector governance and fiscal frameworks. Strong leadership, along with transparent outcome and cost information, can be important in driving change. Often, however, flexibility to allocate resources in a way that optimizes value is also needed.

Alignment of funding models with a strategic focus on value is also a work in progress. Those responsible for providing health services rarely receive the autonomy and tools to optimize value within an agreed accountability framework that directly links patient outcomes and resources.

Stakeholder support

Many voice support for a strategic focus on value across Canada. Ministers often emphasize the importance of spread and scale of innovations that improve quality of care and value for money. In 2017, the Canadian College of Health Leaders surveyed its members about value-based care. Seven in 10 health leaders said that their organization has a commitment to value-based care that is acted on. And stewardship of healthcare resources has been identified as an expected clinical competency across the country.

As a result, scaling innovative models of care that improve value frequently requires transforming how we organize, pay for, and/or procure health services.

From rhetoric to action – enabling conditions

As in other countries, the extent to which key enablers of VBHC are in place varies. Robust information on outcomes and costs is central to success. So are mechanisms which make on-going feedback on performance and quality improvement routine. A relentless focus on value can also challenge existing professional and sectoral norms and boundaries.

In Canada, measurement of outcomes and costs at a patient level is routine in some care settings, absent in others. Similarly, while there are areas where services and information are seamlessly integrated throughout a patient's journey, care coordination challenges are common.

Early adopters

Early adopters are navigating these complexities and have forged ahead to introduce VBHC principles in a variety of contexts. This Executive Brief provides links to selected international experiences, as well as profiles of six Canadian VBHC initiatives. These examples cut across the continuum from prevention to inpatient medical units and present a variety of outcomes.

Lessons learned

Canadian experiences echo global findings. An explicit and structured focus on value – supported by compatible information and tools, care pathways and integration, funding models, and governance – is relatively new in the health sector. Its implementation is not widespread.

Variation in enabling conditions contributes to differences in the readiness of individual Canadians, health care providers, suppliers, funders, and others to embrace VBHC.

This is particularly true given that the process can involve deep patient and cross-team engagement, is data and evidence-intensive, may transfer risk between participants, and can change long-established care models and relationships.

Looking ahead

Value-based healthcare is a holistic strategy, not an isolated initiative or quick fix. It has significant cultural, policy, and practical implications for the health sector.

A broad-based focus on value has the potential to trigger fundamental change in how we design, organize, deliver, and evaluate health services.

Leading examples of VBHC highlight its promise for addressing some of the health sector's enduring challenges.

By building on these experiences, we have the potential to advance a more person-centred, integrated system that uses available resources to optimize the outcomes that matter most to those it serves.

UNPACKING THE CONCEPT OF VALUE-BASED HEALTHCARE

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HEALTH SYSTEMS GOALS AND CONTEXT

Health systems – in Canada and elsewhere – are well-intentioned, complex, and imperfect. Many things work well; some do not. To build on our systems’ strengths and address their deficits, agreement on the results we seek matters.

Improving patients’ experiences and outcomes is a priority for Canadians, for health care providers, and for governments. It is a shared purpose that can unite collective interests and efforts. So too is achieving health gains for the population as a whole. Doing either depends on the long-term resilience of systems that focus on these overarching goals.

Progress requires new models of care tailored to today’s realities. Federal, provincial, and territorial Ministers of Health reinforced this in 2016 when they identified spread and scale of “proven and promising approaches that improve the quality of care and value for money” as one of their top three immediate priorities.¹

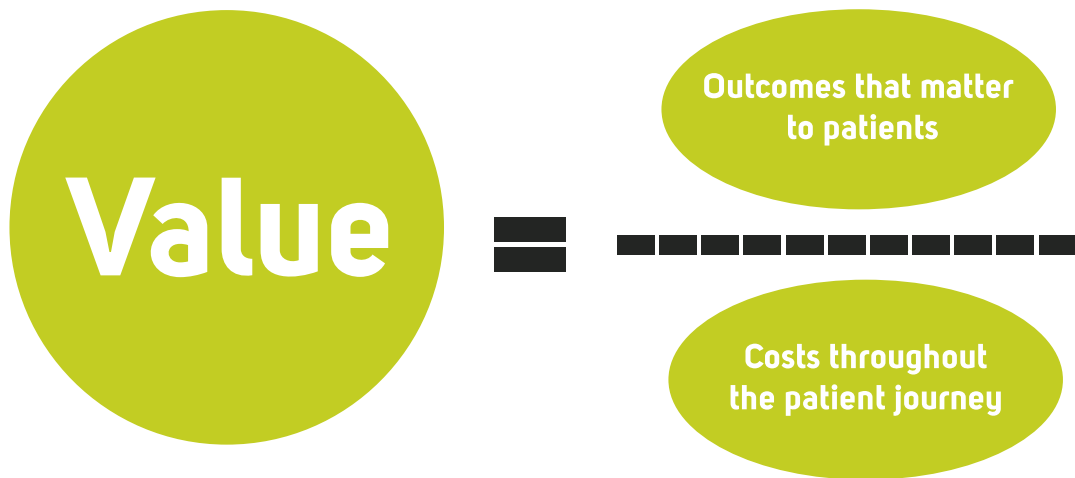
Others share this goal. Demographic pressures, changing patterns of health and disease, and the need to ensure health system resilience have driven global interest in aligning payment systems and incentives in a way that recognizes health, healthcare, and financial imperatives.

WHAT IS VALUE-BASED HEALTHCARE?

Value-based healthcare (VBHC) is gaining traction. Popularized in recent years by Michael Porter and colleagues,² the concept builds on decades of work in areas such as cost-effectiveness, outcomes measurement, patient preferences, and adoption of innovations.³

While there are various ways of defining value,⁴ at its core VBHC is about linking dollars spent to outcomes that matter to patients, rather than to volumes of services or to specific processes or products that may or may not achieve those outcomes.

This conceptualization of VBHC focuses on goals that align with the intrinsic motivation of key stakeholders. It also recognizes that what works best for whom in different contexts will vary, and our knowledge will evolve over time. As a result, VBHC aims to avoid over-specifying how these outcomes will be achieved.



Formally, Porter defines value as outcomes relative to costs.²

“A measure of value cannot be about spending the most; it must be about spending the most effectively.”

Source: Soroka SN, Mahon AN. (2012). Better Value: An Analysis of the Impact of Current Healthcare System Funding and Financing Models and the Value of Health and Healthcare in Canada - CNA/ CHSRF Series of Reports to Inform the CNA National Expert Commission: the Health of Our Nation – The Future of Our Health System: Paper 3

WHAT VALUE-BASED HEALTHCARE IS NOT

The focus of VBHC is not cost-containment.

Both overuse and underuse can affect value. Rather, the aim is to encourage services that deliver high value, scale back or drop those that do not, and/or re-balance the mix of services to improve the ratio of outcomes to overall costs. Better outcomes at the same or lower total cost is the goal.⁵

Equally, evidence-informed practice can facilitate more appropriate care and improved outcomes but it is not the ultimate goal of VBHC.

Providers should and will use evidence regarding the effectiveness of interventions to design and continuously adapt models of care to optimize value. However, VBHC is not the same as pay-for-performance models that reward delivery of specific care processes, e.g. prescribing of medications recommended in clinical guidelines. Such approaches have had mixed results.⁶

VBHC focuses on the whole, not the parts.

It does not aim to optimize individual components of an episode of care in isolation. Rather, it seeks to understand and promote improvement in outcomes and costs that span an episode of care or population group, not just those delivered by a specific healthcare provider or at a particular time. Any targeted improvements must contribute to the overall goal that cuts across organizational and budgetary boundaries.

Design features and context appear to have a strong influence on both direct results and broader effects on health sector governance and strategic purchasing.

VBHC also does not reward cost reductions in isolation.

Instead, it targets improvement in outcomes experienced by patients relative to resources used. Specific operational improvements may – or may not – deliver value for patients in this context.

In some cases, this increased value may come from options outside the health sector that improve health outcomes, not just services offered by traditional health care providers.⁷ How we learn, live, work, and play can all affect our health. A broader focus that includes interventions addressing social determinants of health is sometimes referred to as value-based care.

Value grows when the total costs of achieving the same or better outcomes fall.

ENABLERS OF VALUE-BASED HEALTHCARE

ENABLERS OF VALUE-BASED HEALTHCARE

The intent of value-based healthcare (VBHC) is to orient all those in the health sector around a shared goal: optimizing outcomes that matter to patients within available resources.

Grounded by this guiding principle, stakeholders are then given “the autonomy, the right tools and the accountability to pursue the most rational ways of delivering value to patients.”⁸

Easy to say; challenging to do. A range of important building blocks are required to make progress. For example, one must identify and be able to measure health outcomes and to track spending throughout the patient’s full care pathway. One must be able to track these data not just overall, but also for specific groups of patients. And one must be able to develop, implement, and scale approaches that increase value for different groups of people.

Together, these requirements imply a sophisticated set of tools, resources, and capacity for system transformation.

Nurturing this foundation requires personal and organizational investments of time, energy, and resources. This includes cultivating the skills, experience, and relationships needed to drive a focus on value across the health system and its partners in change. There are examples of excellence, but also significant gaps.

HOW PERSPECTIVES ON ENABLERS OF VBHC ALIGN

Three recent reports based on a review of global experiences cite similar enablers of progress towards broad-based use of VBHC principles.

ECONOMIST INTELLIGENCE UNIT ⁹	MICHAEL PORTER ¹⁰	WORLD ECONOMIC FORUM ^{5,8}
Care pathways and integration	Organizing clinical teams into integrated practice units	Innovations in organizing care delivery, to improve coordination across the health system
	Integrating care delivery systems	
Measurement of outcomes and costs	Measuring outcomes and costs for every patient	Benchmarking, research, and tools to leverage data on outcomes and costs for clinical practice improvement & innovation
	Using enabling information technology platforms	Health informatics to facilitate collection, analysis, and sharing of outcomes and cost data
Outcome-based payments	Moving to bundled payments for complete episodes of care	Value-based payments to create incentives for all to focus on value
Enabling context, policy, and institutions	-	Policy, regulatory, and legal framework
-	Expanding geographic reach where it improves value	-

VBHC ENABLER 1: ENABLING CONTEXT, POLICY, AND INSTITUTIONS

Three recent reports based on a review of global experiences cite similar enablers of progress towards broad-based use of VBHC principles.

Among the strengths identified was stakeholder consensus on the importance of value.

From Ministers of Health¹ and Auditors General¹¹ to clinicians^{12,13} and health sector leaders, there is broad support for a strategic focus on value. Likewise, researchers in Ontario found that many potential adopters of accountable care organization-like models were willing to consider joint accountability between hospitals and physicians for cost and quality of care, including mechanisms to share financial gains or losses with funders based on the achievement (or lack thereof) of quality targets.¹⁵ The Economic Intelligence Unit (EIU) also pointed to Canada's universal health coverage, health technology assessment capacity, and similar strengths as enablers.

That said, they noted potential areas for development, such as strengthening health professional education on VBHC and publication of explicit strategies or plans to move towards this approach. In both the public and private sectors, there are natural tensions that prevent or delay great ideas from being translated into action. They can create challenges for moving from broad-based support for VBHC's underlying principles to substantive action that achieves results at scale. Leadership commitment for change is key.



7 in 10 Canadian health leaders say that their organization has a commitment to value-based care that is acted on.¹⁴

9 in 10 say that achieving quality care outcomes is more important than cutting costs for sustainability.¹⁴

VBHC ENABLER 2: MEASUREMENT OF COSTS AND OUTCOMES

The EIU report identified national strengths and weaknesses with regards to measurement of costs and outcomes.

As a country, we have a long tradition of research on health status and health outcome measurement.

For example, researchers at McMaster University did seminal work on defining quality-adjusted life years (QALYs) in the 1970s, metrics that are now used on a global basis.¹⁶

There have been many advances over the decades since that early work.

Today, the Canadian Institute for Health Information and Statistics Canada regularly report on a series of health outcomes and other indicators for organizations, regions, and provinces/territories.¹⁷ Jurisdictions, quality councils, researchers, and healthcare organizations also track a variety of health system performance measures. In addition, a range of research has explored what types of policies, programs, and interventions are effective in achieving healthier populations.¹⁸

Nevertheless, here too there is more to do.

For instance, in the same 2017 survey of members of the Canadian College of Health Leaders referenced above, only 4 in 10 indicated that their organization measures value in its information systems.¹⁴ About half (56%) said that their organizations ask patients questions about the value of care they received. Gaps in outcome measurement also exist in other areas of the health sector.³

In addition, there is variation in the extent to which costs are tracked at a patient level.

And systematic tracking of costs outside of the publicly funded health system including those incurred by patients and families directly, such as time off work or travel costs, is rare.

VBHC ENABLER 3: CARE PATHWAYS AND INTEGRATION

“Moderate” was also the EIU researchers’ judgment of Canada’s status on the third enabler evaluated: care pathways and integration.

Across the country, there is broad policy consensus on the need to strengthen integration and coordination along the continuum of care to ensure more seamless services.

For instance, the Advisory Panel on Health Innovation concluded that “movement is being made to integrate services and budgets around patients, but far more work needs to be done to continue breaking down the silos that impede the achievement of patient-centred care.”²⁰

This sentiment paralleled the findings of the EIU researchers. The report recognized work that has been undertaken related to care pathways for specific health conditions, but noted a lack of national policies to support care integration and systematic coordination of care throughout a patient’s journey.

VBHC ENABLER 4: OUTCOME-BASED PAYMENT APPROACH

For the final enabler, an outcome-based payment approach, the EIU noted that none of the countries in their study had moved forward comprehensively.

In Canada, they highlighted efforts underway to develop bundled payment approaches.

Experts in healthcare financing have suggested that progressing down this path requires a clear vision and desired end goal for new payment models, active engagement with physicians and other health care providers, strengthened analytic capacity, and a rigorous evaluation approach.²¹

The EIU analysis also noted that Canada has a range of mechanisms to identify interventions that should be de-adopted (disinvestment) because of their lack of efficacy, whether or not directly related to outcome-based payments. The national Choosing Wisely campaign that engages health professionals and patients in identifying and addressing unnecessary tests and treatments is an example of this approach.²²

So too are the efforts that provinces such as British Columbia, Saskatchewan, Manitoba, Ontario, and Quebec have made to use Lean techniques to optimize performance and root out waste in support of their healthcare reform efforts. The resulting tools and capacity may also be able to support broader implementation of value-based healthcare.

WHAT PATIENTS SAY ABOUT CARE EXPERIENCES AND OUTCOMES

Understanding patients' perspectives on the outcomes that they value and the care that they receive is essential for value-based healthcare.

A growing number of organizations and jurisdictions are using patient reported data to drive quality improvement efforts.

Patient Reported Experience Measures (PREMs) capture perspectives on care received, such as with regards to communication with clinicians and coordination of health services. Patient Reported Outcome Measures (PROMs) typically track how patients perceive their health and symptoms, often before and after a health intervention.

While some healthcare providers have captured PREMs or PROMs for many years, their use is far from ubiquitous.

Accordingly, CIHI has launched pan-Canadian efforts to track and compare both types of measures.¹⁹ CIHI and various Canadian organizations are also cooperating with the International Consortium for Health Outcome Measurement's efforts to grow consensus on outcome measures relevant to different groups of patients.

NEW MODELS THAT SUPPORT CARE COORDINATION

Gaps in care coordination can lead to poor patient outcomes and higher costs. Innovators have proposed a range of new models of care to address these issues.

For instance, several hospitals in Saskatchewan are transforming care on inpatient medical units, inspired by a model for accountable care units originally developed at Emory University.²³ They have implemented dedicated unit-based teams, structured inter-disciplinary bedside rounds that include patients and families, unit-level performance reporting, and unit-level nurse and physician co-leadership. Early results show improvements in quality of care, patient experience, and length of stay, among other outcomes.²⁴ As this approach expands across the province, their experiences reinforce that scaling new models of care may require re-thinking how we organize and pay for health services.

Elsewhere too there is growing recognition that the ways that we typically fund care provision can get in the way of delivering high-value integrated care.

As a result, payers have been exploring new funding models, such as bundled payments and integrated population-based payments.²⁵

For details on accountable care units in Saskatchewan, see the **Transforming Care Outcomes in Medical Inpatient Units** profile in the Appendix.

BUNDLED PAYMENT MODELS

Under bundled payment models, a group of healthcare providers receives a pre-determined payment to cover all the services required for an episode of care.

Usually, bundled payments are used for clinical conditions or services that have relatively well-defined boundaries.

For instance, a bundled payment for patients receiving hip and knee replacement surgery might cover costs associated with preparing patients for the surgery, the surgery itself, the associated hospitalization, post-surgery rehabilitation, home care, and any complication-related readmissions.

In practice, the range of services included in a bundle varies. For instance, standard payments to physicians, the cost of prescription medications, and patient/family costs are often omitted from bundles.

From 2015, Ontario supported bundled payment models in several communities. The province recently announced voluntary expansion of the program. This includes preparing to scale standardized bundled care models with the province's Quality Based Procedures (QBP) framework as a foundation.

Early focus areas include hip and knee replacement surgery and integrated dialysis care for assisted peritoneal dialysis. Another stream of work will explore expanding bundled payment models to address a range of chronic diseases, beginning with chronic obstructive pulmonary disease and congestive heart failure.

For details on Ontario's work on bundled payments see the **Enabling New Integrated Models of Care** profile in the Appendix.

INTEGRATED POPULATION-BASED PAYMENT MODELS

Integrated population-based payment models go a step further than bundled payments.

Integrated population-based payment models offer a single payment for a broad range of services needed by a specific group of people.

These payments are often risk-adjusted to reflect variation in expected care needs for different populations. For instance, people who have complex health and/or social circumstances tend to have different needs for health services than those who do not. Traditional payment models often do not align well with the person-centred, integrated approaches that may best serve their needs.²⁶

Canadian researchers have explored the potential for the use of integrated accountable care mechanisms that would link outcomes and funding more broadly. They noted that realizing the desired results would require quality improvement capacity-building, development of a learning and improvement culture, and rigorous monitoring and evaluation.¹⁵

**GLOBAL
EXPERIENCES OF
VALUE-BASED
HEALTHCARE**

GLOBAL EXPERIENCES OF VALUE-BASED HEALTHCARE

Growing attention to optimizing value across a patient's journey has led to increased interest in aligning organizational and financial models with this objective.

Innovations in linking funding with outcomes have been introduced in several countries. Many of these efforts are relatively small in scale, but a few have a broader focus.

“Value-based healthcare is a genuinely patient-centric way to design and manage health systems. Compared to what health systems currently provide, it has the potential to deliver substantially improved health outcomes at significantly lower cost.”

Source: World Economic Forum⁸

VALUE-BASED HEALTHCARE IN THE UNITED STATES

The Centres for Medicare and Medicaid Services (CMS) initiated a series of large programs that used incentive payments to reward healthcare providers that deliver higher quality care.²⁷

This fit with their goal of shifting a large share of payments from fee-for-service to value-based models. While there have been some changes under the new administration, CMS has linked incentives to a variety of process, patient experience, and outcome metrics over time.²⁸ Examples of the latter include reduced hospital readmissions and hospital-acquired complications, improved quality of care for those with end-stage renal disease, and supporting integrated accountable care organizations that provide care to a group of patients for a capitated fee, with the possibility of earning bonuses if health outcomes improve.²⁷

Other payers have experimented with similar initiatives or are exploring VBHC in other contexts.

For example, some pharmaceutical companies have agreed to provide rebates on the cost of certain medications if pre-agreed health outcomes, such as reductions in hospitalizations for heart failure, are not achieved.⁸

VALUE-BASED HEALTHCARE IN EUROPE

A number of European countries, such as Sweden, have moved forward with VBHC.

Drawing on patient registries, Swedish healthcare providers can track and compare patient care and outcomes for a wide range of conditions in detail. In some cases, bundled payments make providers financially responsible for the full cycle of care for procedures such as hip and knee replacements and cataract surgery. This includes care related to the operation itself, as well as post-procedure services.⁸

Bundled payment or population-based integrated payment models are also in use elsewhere in Europe.²¹

In rural southwest Germany, for example, an accountable care model for individuals with chronic conditions has demonstrated the potential to achieve sustained improvement in outcomes, high levels of client satisfaction, and overall cost savings.²⁹

In addition, European countries have seen the introduction of a range of other VBHC models at national or regional levels.

For instance, as early as 2009, the Commissioning for Quality and Innovation (CQUIN) tariff in England allowed health commissioners to withhold 2.5% of hospital treatment costs based on outcomes.³⁰

As in the United States, there are examples of outcome-based contracting for pharmaceuticals in several European countries, although arrangements are often confidential.

Payers and companies expect their use to continue to expand.³¹ Drivers of growth cited in a recent study include a national outcome-based contracting framework in Spain, discussion of similar directions in the United Kingdom (particularly for new and high-cost products), and activity by sickness funds in Germany (with a focus on mature/high total budget items).

VALUE-BASED HEALTHCARE IN DEVELOPMENT COOPERATION

With results-based financing, expected results to be achieved with funding are defined up front, as is how achieving these results will be compensated.

While it is more common to link funding with improving processes of care, some initiatives have tied spending to outcomes.^{32, 33}

Madagascar and Senegal focused on the percent of malnourished children and child anthropometry measures, for instance. Cambodia targeted rates of childhood diarrhea and infant mortality. Costa Rica also prioritized mortality reductions.

In addition, on a global basis, the World Bank recently issued a large social impact bond to facilitate urgent financing in health emergencies.³⁴

It effectively provides pandemic risk insurance that rapidly channels funding to countries that face a major disease outbreak. Investors will lose part or all of their investment if a low-income country faces a 'trigger event,' indicative of a major disease outbreak with pandemic potential. In total, the bonds support a \$500 million pandemic emergency financing facility.

CURRENT STATUS OF VALUE-BASED HEALTHCARE GLOBALLY

Global experiences underline that, while the concept is comparatively straightforward, implementation of value-based healthcare can be complex.

Implementation is a work in progress, even in countries that have moved the furthest.

As a result, many initiatives have not yet been comprehensively evaluated.

Where studies have been undertaken, some initiatives have shown improvement in short-term and long-term outcomes and cost, highlighting the promise and potential of this approach. Others have shown mixed results, in some cases reflecting gaps in key enablers of progress.³⁵

Integrated population-based payment models go a step further than bundled payments.

As the World Economic Forum noted in 2017, “despite considerable progress, however, no country has fully embraced value-based healthcare at the level of a national health system. Moreover, even the institutions that have taken the lead are encountering obstacles to change that are built in to how traditional health systems are organized, financed and regulated, and how financial and non-financial incentives are structured.”⁸

CANADIAN APPROACHES TO VALUE-BASED HEALTHCARE

CANADIAN APPROACHES TO VALUE-BASED HEALTHCARE

THE CANADIAN CONTEXT

In Canada too, silos in the organization and financing of health care can impede innovations that improve outcomes for patients.

The federal Advisory Panel on Health Innovation noted that many stakeholders cite “fragmented financing as a barrier to the uptake of innovation, a frustration to entrepreneurs and industry, and an impediment to high-quality and cost-effective care.”²⁰ These concerns have led to increased interest in value-based healthcare.

Some organizations are trialing focused applications of the concept. Others, such as the North West Local Health Integration Network in Ontario are making it a foundational principle of their plans.

In a publicly-funded health system, VBHC principles can be applied at multiple levels.

One is outcomes gained through funding for health services, such as payments to healthcare providers or regional health authorities. VBHC principles can also be used in procurement of products or services from suppliers, e.g. purchase of pharmaceutical products or medical devices.

These applications may be interrelated. Integrated funding models may prompt procurements that reflect value across a patient’s entire episode of care, or indeed at the level of a population’s health.⁸

VALUE-BASED FUNDING OF HEALTH SERVICES

The way healthcare providers are paid affects the volume, quality, and cost of health services.^{36, 37}

Traditionally, funding for healthcare providers has been linked to the volume of services provided or global budgets, rather than to longer-term outcomes for patients or the health of the population.

Accountability structures to support on-going measurement and feedback on performance based on patient outcomes are rare. Fragmentation of services can be an unintended result.

Financing silos can also make it difficult to achieve appropriate investments in quality, safety and productivity.

For instance, expenditures may be needed in one area to make gains in another aspect of a patient's journey – perhaps a community-based program that can help to prevent hospitalizations. As a result, conventional funding models can be barriers to 'doing the right thing.'³⁵ Incorporating more nuanced measurement of performance into funding for routine health services is central to value-based healthcare.

FUNDING INNOVATIONS IN CANADA

The timing and nature of funding reform varies across provinces and territories.

For example, some jurisdictions moved earlier than others to consolidate budgets under regional authorities.

The combination of services included in regional budget envelopes continues to vary across jurisdictions, as does the basket of services beyond hospital and medical care that is paid for by the public purse. So do the mechanisms for allocating funds among regions.

In addition, the pace of change in how physicians are compensated differs across Canada, although overall the share of spending via alternative payment plans has more than doubled since 1999-2000.³⁸ In some provinces, such as Alberta, recent agreements between government and physicians have included opportunities to expand capitation and other alternative payment plans further.³⁹

In some cases, recent funding model innovations have specifically aimed to enable value-based healthcare.

Bundled payments for specific procedures or integrated funding for groups of patients are designed to cross traditional organizational and/or budget silos. There have also been trials of other approaches – such as outcome-linked funding and social impact bonds – that directly tie funding received to health outcomes.

OUTCOME-LINKED FUNDING: A CANADIAN EXAMPLE

With outcome-linked funding, the amount of money that a health service provider receives depends on the extent to which pre-defined outcomes are achieved.

Telehomecare – also known as remote patient monitoring – connects patients with their healthcare providers via technology. It enables patients to receive care from home or other locations outside of conventional settings.

Canada Health Infoway is using outcome-linked funding for its investments in telehomecare for individuals with serious chronic conditions, such as congestive heart failure and chronic obstructive pulmonary disease.⁴⁰ Almost 24,000 Canadians have taken part in telehomecare programs since 2010, with growth in use accelerating over time.⁴¹

A variety of studies have found benefits for patients participating in these programs, such as improvements in blood pressure for those with hypertension or in oxygen saturation for those with chronic obstructive pulmonary disease.⁴²

Since 2014, larger-scale projects supported by Infoway had to identify at least two outcome measures that they aimed to improve. Examples include reducing participants' emergency department visits or hospital readmissions.

While part of the funding for projects depends on achieving process milestones (e.g. the number of patients enrolled), a portion depends on demonstrating substantive improvement in these pre-defined health outcomes.

For details on the investment model that Canada Health Infoway and its partners are using, see the **Fostering Effective Chronic Disease Management with Telehomecare** profile in the Appendix.

SOCIAL IMPACT BONDS: A CANADIAN EXAMPLE

With social impact bonds, investors' return on investment depends on achievement of pre-defined social outcomes.

"Pay for success" social impact bonds are the basis of the Community Hypertension Prevention Initiative.⁴³ This initiative involves the Public Health Agency of Canada, the Heart and Stroke Foundation, the MaRS Centre for Impact Investing, and other partners.

It intends to help 7,000 Canadians aged 60 or older with pre-hypertension control their blood pressure. The program includes digital solutions, coaching, and community resources.

Eleven individual and institutional investors have purchased a bond that will pay upfront operating costs for a three-year Community Hypertension Prevention Initiative led by the Heart and Stroke Foundation. Enrollment begins in 2018.

Investors' return depends on the extent to which the program meets enrollment goals and on how well participants' blood pressure is controlled six-months after enrollment.

The Public Health Agency of Canada has guaranteed \$1 million of investor capital. This means that \$1.9 million is at risk. If the program meets pre-determined goals, investors will receive a return of 6.7%. This can rise to 8.8% if stretch goals are achieved.

For details on this social impact bond, see the **Improving Blood Pressure Control** profile in the Appendix.

VALUE-BASED PROCUREMENT

“Strategic value-based procurement could actually reinvent the future of health care. This patient-centred approach to system integration stresses the quality of procurement, rather than minimization of costs and quantities.” – Institut du Québec⁴⁶

Just as conventional funding models can create barriers to value-based healthcare, so can traditional approaches to procurement.

While evidence of clinical effectiveness may be considered in regulatory or health technology assessment processes,⁴⁴ value-based procurement is relatively rare. Instead, purchasers often specify in detail how a product or service will be designed or delivered. This can inadvertently block entry of innovations that target the same goal but in a different way.

The Ontario Health Innovation Council highlighted resultant challenges: “innovators often face major challenges in connecting with the right people and resources to advance their ideas to market, and in navigating a fragmented and price-driven procurement system.”⁴⁵

Having identified similar issues, an Institute du Québec report suggested that a solution would be to “switch from the existing cost-based procurement system to a value-based system, which shifts responsibility to bidders for suggesting solutions to problems defined by the purchaser. It also encourages solutions not yet available in the marketplace and helps to develop new responses to existing problems while reducing costs.”⁴⁶ Purchasers in several other jurisdictions are also exploring value-based procurement in the health sector.⁴⁷

PROCUREMENT INNOVATIONS IN CANADA

The intent of value-based procurement innovations is to pull solutions that deliver high value into the health system.

Outcome-based specifications describe what the desired result is, allowing for flexibility in how it can be achieved.⁴⁸

The full cost for the outcomes obtained is considered, rather than only the price of a specific narrowly-defined product or service. Efforts may initially focus primarily on operational efficiencies, evolving towards broader patient outcomes over time.

In some cases, these initiatives have been supported by broader efforts to promote economic development and innovative procurement models, such as research and development procurement, innovation partnerships, design contests, competitive dialogue, competitive procedures with negotiation, and innovation-friendly competitive processes.^{49, 50, 51, 52}

Explicitly tying procurement to outcomes achieved also remains comparatively rare.

An early example at the Centre hospitalier universitaire de Sherbrooke focused on access-related outcomes and streamlining workflow.⁵⁵ The hospital contracted with Roche Diagnostics and Sysmex to fully renovate/replace biochemistry and hematology lab technology and to undertake associated change management. The contract involved a guarantee of five percent growth in testing volumes, achieving faster turnaround of results, at no additional cost to the hospital.

On a broader basis, there is emerging experience with use of value-based approaches for medical device procurement, out-of-hospital services, and digital health solutions, among other examples.

VALUE-BASED PROCUREMENT FOR PHARMACEUTICALS: CANADIAN EXPERIENCES

With outcome-linked funding, the amount of money that a health service provider receives depends on the extent to which pre-defined outcomes are achieved.

Pharmaceutical products are one area where value-based procurement has been considered.⁵³

Key informant interviews with Canadian and international opinion leaders from health technology assessment organizations, the pharmaceutical industry, and payers/drug plan managers explored current practice in this area.⁵⁴

Participants noted several potential benefits from value-based product listing agreements, such as improvements in patient outcomes, generation of new knowledge, and efficiencies across the health system.

However, they also identified associated challenges. Examples included the effort required to execute and manage such agreements, to agree on and track outcomes, and to adapt existing healthcare practice patterns. Siloed budgets for both payers and manufacturers, as well as willingness to take on risk/uncertainty and the level of trust required, were also flagged.

In addition, study participants were asked about the state of value-based procurement in Canada. They estimated that a minority (5-20%) of product listing agreements had innovative financial/and outcomes-based components. Factors seen to contribute to the success of such agreements included:

- Broad consultation and collaboration with stakeholders prior to and throughout the life of the agreement;
- Clarity regarding clinical and economic uncertainty before development of the agreement;
- Agreement on quantitative outcome measures that are well-defined and can be tracked within no more than 3 years; and
- A trusted third-party who can help with designing the agreement, data collection, and/or interpretation of outcomes.

RISK/GAIN SHARING: CANADIAN EXAMPLES

With risk/gain sharing, contracts specify desired outcomes and how risks and/or gains will be shared among the procurement authority, supplier, and/or others based on results achieved.

New Brunswick's 'Primary Health Care Integration Project' uses risk/gain-sharing with the goal of improving coordination and collaboration among several types of services provided outside of hospitals, including ambulance services, home care (extra-mural program), and the 811 tele-triage health advice line.

Medavie Health Services New Brunswick currently runs Ambulance New Brunswick. The government recently contracted with them to deliver additional services.

Payment under the new 10-year \$74 million contract includes incentives based on results for several pre-defined indicators, such as increasing home care visits and reducing emergency department visits by home care patients.

In undertaking this work, Medavie is building on earlier experiences with performance-based contracts for emergency medical services in Nova Scotia.

Risk/gain-sharing approaches have also been used in procurement of specific health technologies.

For instance, a provincial procurement for cardiac devices considered the expected life span of the devices, among other factors. (When batteries wear out, patients require surgery to replace them.) Under the terms of this procurement, if a device had to be replaced before seven years, the supplier had to pay the cost of the replacement surgery.⁵⁷

For details on New Brunswick's experience, see the **Integrating Out-of-Hospital Care** profile in the Appendix.

Like the space industry's X-Prize, open innovation challenges encourage progress towards defined goals without specifying the best means to achieve them.

Canada Health Infoway's ImagineNation Challenges use an open innovation approach to foster innovative emerging digital solutions that provide value to patients, healthcare providers, and the health system.

Each challenge specified a desired outcome, such as growth in the use of secure messaging and other patient online services. Innovators who achieved the best results for these outcomes were rewarded, rather than 'picking winners' in advance and specifying how the goal was to be achieved.

Between 2011 and 2016, there were 10 ImagineNation Challenges with a combined total of \$2.3 million in awards. Collectively, the 435 participating teams reported almost 75 million uses of their digital health solutions.

For details, see the **Improving Health and Health Care with Digital Solutions** profile in the Appendix.

LOOKING AHEAD

LOOKING AHEAD

While interest in value-based healthcare is high, adoption has been limited. To deliver on its promise and potential, we must leverage learnings from emerging experiences with its use.

Early adopters have highlighted a range of important cultural, policy, and implementation questions.

For example, the readiness and capacity of citizens, funders, healthcare providers, and suppliers to embrace VBHC varies significantly. This is particularly true since VBHC initiatives can involve deep engagement and collaboration and they are data and evidence-intensive.

They may also involve significant changes to patterns of practice, as well as to how healthcare providers work with each other and those they serve. For instance, a relentless focus on value can challenge historical professional and organizational boundaries where they impede effective and efficient patient-centred care. Furthermore, VBHC may transfer risks over time and between participants, e.g. from healthcare organizations to suppliers who take on contracts that share gains and/or losses. Interest in participating in such arrangements varies.

In addition, designing effective VBHC initiatives can be complex.

Early adopters point to the importance of actively engaging key stakeholders throughout the process and achieving strong consensus on shared goals. Subsequent design decisions – such as which outcomes, costs, and time horizons to consider and how to segment patients and undertake measurement – also require focused attention.³⁵ Different interventions and designs have the potential to deliver varying value for specific groups of patients and for overall population health outcomes.³ For instance, changes in the structure of incentives may have consequences, intended or otherwise, both for patients and for stakeholders involved in implementing VBHC.

SEIZING THE OPPORTUNITIES, UNDERSTANDING THE RISKS

As with all organizational and funding models, the context in which value-based healthcare is implemented and the design choices made matter. Considerations include:

Outcome selection and measurement

Who chooses the outcomes to focus on and how they are defined can affect results. This can be particularly salient when there are trade-offs or variability among outcomes.

Likewise, measurement is at the core of VBHC. Incentives are not just financial. The improved cost and outcome measurement that this model promotes can have benefits far beyond specific VBHC initiatives.

That said, improved measurement often has a cost and not all that matters is – or can be – measured at least not with available techniques or at a reasonable cost.

Unintended consequences

Focusing on some outcomes or groups of patients may draw attention from others. This can have equity implications. Likewise, depending on how target outcomes are defined, there can be a risk of “cream-skimming,” where patients for whom targeted outcomes are easier to achieve receive more focus.

There are similar considerations at a systems level. VBHC rewards those who achieve better outcomes relative to cost. This may offer them resources to achieve further gains, e.g. via investments in capacity-building or innovation. The reverse is also true. While there are examples of gains made by leaders fostering broader improvement elsewhere in the system, the risk is that higher value providers improve more while those who have not improved fall further behind. This can be a challenge in situations, such as rural areas or specialized services, where care options are limited.

Market dynamics

VBHC presents opportunities and challenges for different stakeholders. For instance, design features may create advantages or disadvantages for small and medium-sized firms. Readiness and capacity also vary.

In addition, those implementing VBHC face choices about how aggressively to pursue value (e.g. what proportion of compensation should be linked with outcomes and over what timeframe), how potential gains or losses should be distributed between stakeholders, and similar trade-offs.

Change at scale may lead to reallocation of resources, new relationships, new workflows, and other system-level transformation.

Speedbumps and raceways

Bench to bedside speed, safety, affordability, and extent of disruption sometimes appear to be competing imperatives in the diffusion of innovation.

Value-based healthcare models continue to rely on appropriate assessment of safety and efficacy. However, the nature/timing of evidence required related to cost-effectiveness may change since the proponent of an innovation may bear some or all of the financial risk under outcome-based funding and procurement models.

A journey, not a destination

Regardless of progress already made, every healthcare provider has opportunities to increase value further. This implies a need to continuously learn more about what works best for whom in what contexts, and to apply that understanding at scale. In turn, this implies active efforts to describe how VBHC initiatives evolved, their outcomes, and how positive outcomes can be spread and scaled.

Capacity to generate and use real-world evidence, to assess health technologies, and to perform similar functions, will be one of the factors that influences the pace of progress. This is true locally, as well as at a system level. To move forward with VBHC at scale, there are opportunities to leverage and align the work of relevant provincial and pan-Canadian bodies with research, health technology assessment, information, and quality mandates.

LEARNING FROM EARLY ADOPTERS

Some types of change are possible within traditional governance and financial frameworks, but flexibility to allocate resources to optimize value is essential to reach many goals.

Early VBHC initiatives demonstrate that the opportunity to deliver results that are important to Canadians, healthcare providers, and the health system alike is real.

In both funding and procurement contexts, health system stakeholders have been able to agree on goals to pursue, as well as how to apply VBHC principles to these goals.

Their experiences also reinforce that focusing health systems on value is a team sport and often requires heavy lifting.

Organizing for truly integrated, person-centred care, for instance, often requires action on many different aspects of the environment in which services are delivered.

Core elements of successful large-scale change have all been identified as important by more than one of the early adopter initiatives profiled in this Brief – governance and leadership, stakeholder engagement, active communication, alignment of policies and incentives, workflow analysis and integration, capacity building, and evaluation.

Engaged and inspired change agents at all levels, supported by appropriate evidence and information, are key.

“All players should remember that payment models for health services are never silver bullets in themselves. Financial reforms can only be as successful as the degree of organizational and clinical reform that they enable to take place, bounded by the legislative and regulatory environment in which they occur.”²¹

REALIZING VALUE WITH VALUE-BASED HEALTHCARE

A focus on value offers a vision of health systems transformation that reaches beyond the interests of particular individuals or organizations.

Moving away from fragmented systems will not always be easy. But it will be essential to meet patients’ evolving needs for care.

With this in mind, there is room for experimentation with new approaches to advance more patient-centred, integrated health systems that deliver on the outcomes that matter most to those they serve.

As gains in value for individual patients scale to population-level improvements, there is also the potential to re-invest into further advances in health and healthcare.

**FOR MORE
INFORMATION**

FOR MORE INFORMATION: GETTING STARTED

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PROFILES OF CANADIAN VALUE-BASED HEALTHCARE INITIATIVES

Appendix

FOSTERING EFFECTIVE CHRONIC DISEASE MANAGEMENT WITH TELEHOMECARE

TYPE

Outcome-Linked Funding

SPONSOR(S)

Canada Health Infoway

PARTICIPANTS

Jurisdictions; health regions, disease-specific associations, or health associations/agencies with the support of the jurisdiction for projects based in a province/territory; or others with prior agreement of Canada Health Infoway were eligible to lead projects under this program

SCOPE

Projects in 5 jurisdictions (Ontario, British Columbia, Quebec, Prince Edward Island, and Newfoundland and Labrador), mostly focused on patients with congestive heart failure or chronic obstructive pulmonary disease

OVERVIEW

Telehomecare – also known as remote patient monitoring – connects patients with their healthcare providers via technology and enables them to receive care from home or other locations outside of conventional care settings. It includes transmission of vital signs, patient reported outcomes, and/or other information from a remote location to the provider for review. This process is usually part of an integrated set of services and processes including health coaching to support patient self-management and help avoid complications.

Canada Health Infoway has co-invested in telehomecare for patients with complex chronic conditions for many years. Since 2014, projects had to demonstrate achievement of substantive improvement in at least one pre-defined health outcome measure to receive full funding. These outcome measures and targets were tailored to the specific goals and context of each project. Projects that passed agreed process milestones but did not achieve target outcomes received partial funding.

TARGET OUTCOMES

In addition to progress milestones (e.g. patient recruitment and retention), teams identified at least two health outcome measures, such as reductions in emergency department visits and hospital readmissions.

STATUS/RESULTS

Almost 24,000 Canadians have taken part in telehomecare programs since 2010, with growth in use accelerating over time.⁴¹ Patients and caregivers tend to give the programs high marks. For instance, 97% of those participating in the Ontario Telemedicine Network's Telehomecare program indicated that they would recommend the program to others in a 2016 survey.⁵⁸ Most also indicated that the program reduced their need to visit an emergency department or primary care provider (86% and 79% respectively). Early adopters report substantial pre/post reductions in emergency department use and hospital readmissions during the program and in the six-month period after participants were discharged from it.⁵⁹ Likewise, a variety of studies have found benefits in terms of reduction in blood pressure for individuals who had hypertension at the time of enrollment, in oxygen saturation for those with chronic obstructive pulmonary disease, and in weight management.⁴²

An early qualitative evaluation of telehomecare in Ontario found positive overall impressions of the program, along with a range of facilitators and barriers to achieving its desired goals.^{6]} Some are specific to the intervention, such as the user-friendliness of equipment and how it is accessed and installed. Others apply to a range of types of programs that aim to support chronic disease self-management. Considering what may motivate or de-motivate participation is key. Program eligibility criteria and recruitment processes, such as support for those who may not speak English or French, can also be important. In addition, researchers pointed to the importance of alignment between expected healthcare provider roles and capacities to fulfill them. They also noted that alignment between organizational objectives and current health systems and policy is viewed as essential to success. This includes considering connection of services across health care providers, integration of innovative care models into workflows, and ensuring a supportive policy environment. These factors parallel the broader literature on overall enablers and barriers for value-based healthcare.

FOR MORE INFORMATION

Ernst & Young LLP. (2014). [Connecting Patients with Providers: A Pan-Canadian Study on Remote Patient Monitoring](#)

[Ontario Telehomecare Program's THETA Telecare Evaluation](#)

[Centre de coordination de la télésanté du Centre intégré universitaire de santé et services sociaux de l'Estrie-Centre hospitalier universitaire de Sherbrooke \(CCT du CIUSSS de l'Estrie - CHUS\) – Telehomecare service for COPD Clients: Service Evaluation Preliminary Report](#)

IMPROVING BLOOD PRESSURE CONTROL USING A SOCIAL IMPACT BOND

TYPE

Social Impact Bond

SPONSOR(S)

Bond issued by the Heart and Stroke Foundation with funding from the Public Health Agency of Canada

PARTICIPANTS

11 investors including corporations, charitable foundations and private individuals

SCOPE

Intent to enroll 7,000 Canadians aged 60 or older with pre-hypertension in a six-month program to help them adopt healthy behaviours and control their blood pressure.

OVERVIEW

This social impact bond reflects a “pay for success” investment model. Heart and Stroke is using the capital invested (\$2.9 million) and is reinvesting intake volume incentives to pay up front operating costs (budget of \$3.4 million) for a three-year Community Hypertension Prevention Initiative. Investors’ return depends on whether the Heart and Stroke Foundation enrolls the target number of participants and the extent to which the program prevents hypertension in the target group. The Public Health Agency of Canada has guaranteed \$1 million of investor capital. This means that \$1.9 million is at risk depending on progress made. If the program meets pre-determined goals, investors will receive a return of 6.7%. This can rise to 8.8% if stretch goals are achieved.

Recruitment will take place in selected Shoppers Drug Mart pharmacies and Loblaws grocery stores. Those identified as pre-hypertensive will be invited to take part in a free program focused on risk factor management, including increasing physical activity and improving diet. The program includes digital solutions, coaching, and community resources. Results will be assessed after six months.

TARGET OUTCOMES

- Recruitment of 7,000 Canadians aged 60 or older with pre-hypertension
- Changes in blood pressure for participants after six months

STATUS/RESULTS

Recruitment of patients in the \$4 million initiative begins in Toronto in 2018, with expansion to Vancouver scheduled for 2020.

FOR MORE INFORMATION

[Community Hypertension Prevention Initiative](#)
[Details on the social impact bond](#)

IMPROVING HEALTH AND HEALTHCARE WITH DIGITAL SOLUTIONS

TYPE

Open Innovation Challenges with Crowd Sourcing

SPONSOR(S)

Canada Health Infoway with 18 national supporting organizations

PARTICIPANTS

Individual Canadians, health care professionals, health care and public health organizations, companies of all sizes, research groups, students, and others.

SCOPE

Between 2011 and 2016, there were 10 ImagineNation Challenges with a combined total of \$2.3 million in awards. They involved 435 team or individual submissions from across Canada, as well as 211 volunteer judges.

OVERVIEW

Open innovation challenges specify a desired outcome and reward innovators who best meet it, rather than a traditional funding or procurement approach that selects those who will be supported and specifies how a goal is to be achieved.

The ImagineNation Challenges aim “to inspire, provoke and promote innovation in health and healthcare to improve the quality of care and the patient experience for Canadians by leveraging widely distributed knowledge, skills and resources to accelerate value from emerging digital solutions.” Target outcomes are specified in advance and individuals or teams register to participate and track their results via a website. Those who are most successful in reaching the target outcomes receive prizes, including monetary awards and other support.

TARGET OUTCOMES

Target outcomes varied by challenge. Examples included:

- Growth in the use of digital health solutions for e-booking, patient access to health information, clinical synoptic reporting, and medication reconciliation;
- Improved use of, and quality of, digital solutions that enabled health care providers to connect digitally with their patients and each other through e-visits, e-requests for prescription renewals and refills, e-requests for services, and e-reports on services; and
- Creative and innovative ways to improve public health using social media initiatives.

STATUS/RESULTS

Collectively, teams reported almost 75 million uses of their digital health solutions during the challenges, 3.5 million for consumer-focused solutions and 71.4 million for solutions designed to be used by clinical teams.

Teams participating in the Public Health Social Media Challenge achieved over 30 million social media impressions to help spread public health messages to target audiences.

Overall, the challenges demonstrated that open innovation can be a cost-effective way of involving a diverse group of stakeholders in pursuing specific outcomes. Organizers of the challenges identified the following success factors related to challenge design and implementation: partnerships and outreach, active management and strong design, importance of considering multiple motivators, external support and recognition, and using open innovation as part of a broader portfolio of complementary strategies to foster innovation. Risks rose with increased complexity, over-weighting some desired outcomes relative to others, misjudging time required for different stages of a challenge, and making high demands on teams and judges.

FOR MORE INFORMATION

ImagineNation Challenge outcomes, rules, judges, awards and more: www.imagination-challenge.ca (English) or defimagination.ca (French)

Zelmer J, F Ratchford, J Noble. (2017). Open Innovation Prizes and Challenges: Learnings from the ImagineNation Series, *Healthcare Quarterly*, 19(4).

INTEGRATING OUT-OF-HOSPITAL CARE IN NEW BRUNSWICK

TYPE

Outcome-Linked Procurement

SPONSOR(S)

Government of New Brunswick

PARTICIPANTS

Medavie Health Services New Brunswick (a not-for-profit organization)

SCOPE

Selected out-of-hospital services across New Brunswick

OVERVIEW

The 'Primary Health-Care Integration Initiative' aims to improve coordination and collaboration among several types of services provided outside of hospitals, including ambulance services and home care (extra-mural program). The intent is also to establish a close relationship with the 811 teletriage health advice line. Payment under the 10-year \$74 million incentive-based contract depends on results for several pre-defined indicators. For instance, targets in the first year include increasing homecare visits and reducing emergency department visits by homecare patients.

The salaries, benefits, pension plans, and work agreements for approximately 700 nurses and other employees who provide these services will remain unchanged. About 32 senior managers will become Medavie employees. A new Board with representation from the province's two health networks and the government will govern the initiative.

TARGET OUTCOMES

Payment under the incentive-based contract depends on 15 indicators. Examples include reducing emergency department visits and hospitalizations, increasing the number of home care visits, having less variation in home care programs, and shorter waits to access home care services.

STATUS/RESULTS

Medavie Health Services New Brunswick already runs Ambulance New Brunswick. It is assuming responsibility for the new services in 2018. Initially, the incentive fees and payments outlined in the extra-mural program service agreement relate to the following key performance indicators:

- Time from new referral to care for the extra-mural program;
- Ratio of emergency department visits by extra-mural patients to the number of people served by the extra-mural program;
- Extra-mural referrals from primary care providers;
- Extra-mural visits; and
- Patient experience for those receiving services from the extra-mural program.

At the end of a fiscal year, performance on these indicators will be reviewed against established targets to determine if partial or full incentive fees will be paid (up to \$1.8 million per year). Penalties can also be assessed if actual results are worse than baseline. Both baselines and targets can be adjusted annually.

Other metrics are also monitored but are not tied directly to incentives or penalties.

FOR MORE INFORMATION

[Primary Health Care Integration Project](#)

[Service Agreement for the Extra-Mural Program](#)

ENABLING NEW INTEGRATED MODELS OF CARE IN ONTARIO

TYPE

Bundled Payments (funding)

SPONSOR(S)

Ontario Ministry of Health and Long-Term Care

PARTICIPANTS

Wave 1 Integrated Funding Model (bundled care) teams:

- *Connecting Care to Home*: Optimizing Care for Chronic Obstructive Pulmonary Disease (COPD) and Congestive Heart Failure (CHF) Patients in London Middlesex with London Health Sciences Centre, South West Community Care Access Centre, St. Joseph's Health Care London, Thames Valley Family Health Team, South West Local Integration Network
- *Integrated Comprehensive Care 2.0*: Hamilton Niagara Haldimand Brant (HNHB) LHIN-wide COPD and CHF with St. Joseph's Healthcare Hamilton, Brantford Community Health System, Centre de Santé Communautaire, Grand River Community Health Centre, Haldimand War Memorial Hospital, Hamilton Health Sciences, HNHB Community Care Access Centre, HNHB Local Health Integration Network, HNHB Primary Care lead, Joseph Brant Hospital, Niagara Falls Community Health Centre, Niagara Health System, Norfolk General Hospital, North Hamilton Community Health Centre, St. Joseph's Home Care, West Haldimand General Hospital
- *Hospital 2 Home*: The Central West Integrated Care Model with William Osler Health System, Central West Community Care Access Centre, Headwaters Health Care Centre, Central West Local Health Integrated Network, Ontario Telemedicine Network
- *Putting Patients at the Heart*: A Seamless Journey for Cardiac Surgery Patients in Mississauga Halton with Trillium Health Partners and Saint Elizabeth Health Care with support from the Mississauga Halton Local Health Integration Network
- *One Client, One Team*: Central and Toronto Central LHIN Integrated Stroke Care with Sunnybrook Health Sciences Centre, Providence Healthcare, North York General, Toronto Central Community Care Access Centre, Central Community Care Access Centre

SCOPE

Wave 1 involved specific Ontario communities and groups of patients (see participants list above).

OVERVIEW

Under bundled or integrated payment models, a group of healthcare providers receives a pre-determined payment to cover all the services required for an episode of care. For instance, a bundled payment for patients receiving hip and knee replacement surgery might cover costs associated with preparing patients for the surgery, the surgery itself, the associated hospitalization, post-surgery rehabilitation, home care, and any complication-related readmissions. The intention is to align incentives to improve quality and the patient experience while controlling costs. Not all bundled payment models include all costs (e.g. fee-for-service payments to physicians and pharmaceutical costs are often omitted).

TARGET OUTCOMES

Improved integration of care in the hospital and community for specific groups of patients

STATUS/RESULTS

As part of its overall funding reform plans and building on experiences with integration of cancer care and a bundled care pilot at St. Joseph's Health System in Hamilton, the Ministry supported five new "wave 1" integrated funding model teams in 2015, with a focus on defined patient groups that required care beyond their hospital stay.

In March 2015, the wave 1 teams were selected from 50 Expressions of Interest to pilot bundled payment models for patients who require short-term care in the community after leaving hospital. Teams began implementation in the fall of 2015. Based on early results, the Ministry of Health and Long-Term Care announced voluntary expansion of the program in 2017/18. This includes preparing to scale standardized bundled care models with the provincial Quality Based Procedures (QBP) model as a foundation in areas such as hip and knee replacement surgery and integrated dialysis care models for assisted peritoneal dialysis. Another stream of work will explore expanding bundled payment models to address a range of chronic diseases, beginning with chronic obstructive pulmonary disease and congestive heart failure.

FOR MORE INFORMATION

[MOHLTC Backgrounder on Wave 1 Teams](#)

[Update: Health System Integration, May 19, 2017](#)

Wojtak A, D Purbhoo. (2015). Perspectives on Advancing Bundled Payment in Ontario's Home Care System and Beyond, *Healthcare Quarterly*, 18(1), 18-25.

[Integrated Funding Models: Supporting sector-led innovation \(2015\)](#)

TRANSFORMING CARE OUTCOMES IN MEDICAL INPATIENT UNITS IN SASKATCHEWAN

TYPE

Accountable Care Units

SPONSOR(S)

Saskatchewan Health Authority/Saskatchewan Ministry of Health

PARTICIPANTS

Initiated by Regina Qu'Appelle Health Region (now Saskatchewan Health Authority)

SCOPE

Medical Inpatient Units

OVERVIEW

Building on a model for accountable care units originally developed at Emory University, health regions in Saskatchewan are transforming care on inpatient medical units. Key features of their approach are as follows:

- Unit-based team of dedicated family medicine physicians or general internists who serve as hospitalists, nurses, and allied health professionals (e.g. physiotherapists, pharmacists, and social workers);
- Structured inter-disciplinary bedside rounds, where patients and families plus all members of the care team take part in daily rounds that occur at a designated time and follow a consistent structure, as well as structured shift-to-shift nursing handover that occurs at the bedside in which the patient participates and a unit-level shift to shift huddle;
- Unit-level performance reporting on quality, safety, flow and sustainability indicators; and
- Unit-level nurse and physician co-leadership.

TARGET OUTCOMES

Improved clinical outcomes, patient flow, patient satisfaction, and staff satisfaction, retention, and recruitment.

STATUS/RESULTS

There are currently three functioning accountable care units in Regina, with plans to expand across Regina, to Saskatoon (3 Units), and Lloydminster. A group in Cambridge, Ontario is also introducing this model.

An evaluation of outcomes during the first six months after the launch of the first Unit in Regina found reductions in code blue calls, complaints to the client advocate, length of stay (down 18%), and time spent in the emergency department for patients who were admitted to the Unit. It also reported improvements in a variety of evidence-based care processes and clinical outcomes. Over this same period, admissions to the unit rose by over 8%.

Critical success factors identified include:

- Strong leadership at the unit, hospital, and regional level;
- Support for inter-disciplinary practice and the significant cultural changes involved in introducing this new model;
- Staffing models that support the team-based approach (e.g. ensuring that allied health staff are dedicated to the unit when the new model is launched and “mirrored” staffing for nurses that ensures robust 24/7 care);
- Clarity and alignment of physician compensation, given that physician compensation is generally separate from regional health authority budgets in Saskatchewan;
- Robust local data and evidence to inform decisions about practice change; and
- Recognizing that “hard dollar” savings are challenging to achieve in a capacity-constrained environment.

FOR MORE INFORMATION

Stein J, et al. (2015). Reorganizing a Hospital Ward as an Accountable Care Unit, *Journal of Hospital Medicine*, 10(1), 36-40. DOI: 10.1002/jhm.2284

Taylor R, et al. (2017). Results from Canada’s First Accountable Care Unit. Abstract presented at *Hospital Medicine* 2017.