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Assessing Value in Ontario Health Links.

Part 1: Lessons from US Accountable Care Organizations

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Executive Summary

Context

Health Links in Ontario have the flexibility to create their own strategies to deliver integrated health care services to the high needs population, depending on local conditions. It is critical to understand what value they may be adding to the system and how this value is being achieved.

Objective

This report responds to an Applied Health Research Question (AHRQ) from the Ontario Ministry of Health and Long-Term Care (MOHLTC) Transformation Secretariat, with specific interest in the identification of value that Health Links add to the health system, such as avoided hospitalizations, reduced complications of care, improved quality of life, etc. In this report we identify how value has been recognized and measured in U.S. Accountable Care Organizations (ACOs) and how these lessons may inform Health Links' strategies. A working framework for assessing value in Health Links is proposed.

Methods

We conducted a narrative review of the health service and policy literature that provided us with a general understanding of the ACO initiative in the US and the Health Links initiative in Ontario and identified the way that value is defined and measured.

Findings

ACOs in the US have several common characteristics yet important differences with Health Links in Ontario. Based on this, we propose the HSPRN Working Framework for Assessing Value in Health Links, containing the following three aims and eight performance domains:

Aims	Better Care for Individuals	Better Health for Populations	Lower Growth in Health Care Cost
Domains	Patient / Caregiver Experience	Preventive Care	Cost Containment
	Patient Outcome / Safety	Healthy Lifestyle	Adequate Use of Resources
	Care Coordination / Integration	Target Population Health Outcomes	

Most MOHLTC Health Link Performance Indicators are currently associated to care coordination and adequate use of resources, with no indicators in the areas of population health, patient outcomes and safety, and patient and caregiver experience.

Conclusions

The HSPRN Working Framework for Assessing Value in Health Links represents a first step into an operational definition of value for Ontario Health Links, and into providing a framework to guide the development of performance measures to assess the value actually created.

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Context

Health Links were launched in January 2013 to deliver integrated health care services to the high needs population in Ontario. As of January 2014, there were 47 Health Links in operation, and more are being planned (Ontario Ministry of Health and Long-Term Care [MOHLTC], 2014).

Health Links have the purpose of improving care coordination among the multiple providers involved in the management of high-needs patients, including seniors and others with complex conditions. In Ontario, it is estimated that five per cent of patients account for two-thirds of health care costs (MOHLTC, 2014). Health Links will encourage collaboration at multiple levels in the development of personalized care plans for this high-user population.

Health Links have the flexibility to create their own strategies to integrate care and identify target populations, according to previously existing relationship among organizations and depending on local needs. Consequently, it is critical to understand what mechanisms are being implemented across the province and what value they may be adding to the system. In this three-part research series we explore the value of Health Links for Ontarians and their health care system.

Objective

The overall purpose of this research project is to give an answer to the following three questions:

- What value do Health Links add to the health care system?
- What are Health Links doing to integrate and improve care for high needs patients?
- What is the intended outcome of any new mechanisms and partnerships in place to integrate care?

Our research approach is to provide the following three-part response:

1. To identify how value has been recognized and measured in U.S. Accountable Care Organizations (ACOs) and how these lessons may inform Health Links' strategies. This will yield a working framework for assessing value in Health Links.

2. To explore how 'value' has been recognized by Ontario Health Links, to identify promising Health Links' strategies, and why these strategies are creating value for patients and the health care system.

3. To conduct empirical analysis testing the impact of promising Health Links' strategies on critical "value" measures using data from the Institute for Clinical Evaluative Sciences (ICES).

This first report: "Assessing Value in Ontario Health Links – Part 1: Lessons from US Accountable Care Organizations" addresses the first part of this response. Specifically, we pursue the following objectives:

- To examine the way that ACOs define and measure value.
- To recognize key commonalities and differences between ACOs and Ontario's Health Links.
- To identify lessons from ACOs that can be used to understand the value that Health Links can create in Ontario, and how to measure that value.

Methods

We conducted a narrative review of the health service and policy literature that provided us with, first, a general idea of the ACO initiative in the US and the Health Links initiative in Ontario, including: program objectives, requirements for operation, key characteristics, and state of development. Second, our review sought to specifically identify the way that value is defined from the perspective of ACOs, and how this definition articulates with the characteristics of the program. Third, we identified indicators that are being used to measure performance of ACOs by the Center for Medicare and Medicaid Services (CMS) in the US. Fourth, we analyzed what types of performance domains and measures are suitable and recommendable to be used for Health Links in Ontario. Finally, we developed a working framework for assessing value in Ontario's Health Links.

Findings

Integrating Care for High Needs Populations

The challenge of integrating the health care system is shared by most jurisdictions worldwide, with the US and Canada among them (Kodner & Spreeuwenberg, 2002; Busse & Stahl, 2014). The prominence of chronic disease and multiple chronic conditions, tightly related to an aging population, has made most models of health care delivery obsolescence to manage the need of large segments of the population. In particular, seniors and other adults with multiple complex conditions have several simultaneous needs and receive care from multiple providers. The lack of integration of services and coordination among providers generate inefficiencies and decreases the patient experience of care across the continuum. Simultaneously, these high-need population groups concentrate a majority of costs borne by the health care system.

Health Links and ACOs, in Ontario and the US respectively, are among the main initiatives developed in recent years to encourage integration of care among multiple providers. Together with the shared purpose of providing coordinated care, ACOs and Health Links have in common the freedom of developing their own local solutions, depending on local resources and needs of their communities.

Launched in January 2011, ACOs preceded Health Links in two years. During this time, US government agencies have advanced an active agenda focused on program implementation, evaluation, and have created the necessary infrastructure to support the successful development of the model. Based on our research objective of understanding how Health Links can create value for Ontario's health care system, a reasonable first step is to study how ACOs can create value for the US health care system, and to compare these organizations in order to identify lessons that may be applicable in the Ontario context.

Accountable Care Organizations

Accountable Care Organizations (ACOs) are health care organizations formed by groups of doctors, hospitals, and other health care providers, who come together voluntarily to give coordinated high quality care to their U.S. Medicare patients and that can be held accountable for the cost and quality of care delivered to a defined population (Center for Medicare & Medicaid

Services [CMS], 2014; Devers & Berenson, 2009). ACOs were essentially created to operate a model of coordinated care within a payment system that allows them to share Medicare savings, conditional on delivering high quality care. The US Patient Protection and Affordable Care Act includes a provision that allows Medicare to reward healthcare organizations with a share of the savings that would result from improving care quality and reducing the cost for their eligible Medicare populations. To participate in the Medicare Shared Savings Program, healthcare organizations need to become ACOs (Holloway, 2013). More on requirements of ACOs is provided in Exhibit 2.

In January 2011, the U.S. Department of Health and Human Services (HHS) launched the program with 32 Pioneer ACOs. Under the final rule issued by CMS in November 2011, the first round of the Medicare Shared Savings Program (MSSP) started operations in April 2012. The third and latest round of approvals in January 2014 brought the total of Medicare ACOs to 368, with about 5.3 million Medicare beneficiaries, an estimated 10% of total Medicare beneficiaries. Most of these Medicare ACOs also serve non-Medicare patients and are moving toward serving all their patients under ACO arrangements, bringing the total number of patients served by Medicare-approved ACOs to 38.3 million. The total number of patients in organizations with ACO arrangements was estimated at 46 to 52 million by 2014, roughly 15 to 17 percent of the American population (Wyman, 2014).

Lessons learned at early stages of the implementation of the US ACOs model may inform the implementation of similar models of collaborative care coordinated across multiple providers, such as the Ontario Health Links. The next section explores how 'value' has been assessed and measured in ACOs and whether these elements are valid for assessing value in Health Links.

A Definition of the Term "Value"

General Definition of Value in Health Care

A classic widespread definition of value that is useful in health care services research is the definition of value under the following simple equation:

Value = Benefit / Cost

Applying this equation means that any initiative aimed at increasing benefits at equal cost, or reducing costs at equal benefits, will be value-adding initiatives. These are conceptually the same elements of a cost-effectiveness analysis. Although intuitive, attempting to quantify benefits and costs with valid and reliable measures is complex.

A first challenge to this intuitive definition of value is to identify what are the expected benefits of a particular endeavour. In health care, benefits are generally measured as better patient outcomes, and may include access to service, quality of care, and quality of life, among others. Health benefits can be measured at the individual level or aggregated at the population level. These attributes of health care are not easy to define and measure, and few have readily available indicators. Similarly, accurately identifying the relevant costs of care is not always straightforward. For example, evaluating total cost savings attained by investments in community-based coordinated care can be difficult to trace and attribute.

Defining Value for ACOs

CMS has defined value in ACOs based on an adaptation of the Institute for Health Care Improvement (IHI)'s Triple Aim framework. Following the seminal paper by Berwick, Nolan and Whittington (Berwick, 2008), IHI currently defines the Triple Aim as: improving the patient experience of care (including quality and satisfaction); improving the health of populations; and reducing the per capita cost of health care (Institute for Health Care Improvement, 2014).

CMS adapted this framework to define value of ACOs through pursuing the following three-part aim (Holloway, 2013):

- Better care for individuals
- Better health for populations
- Lower growth in Medicare expenditures

In pursuing the first two aims, ACOs add value to the health care system by increasing the benefits perceived by users, while the third aim adds value through reducing health care cost.

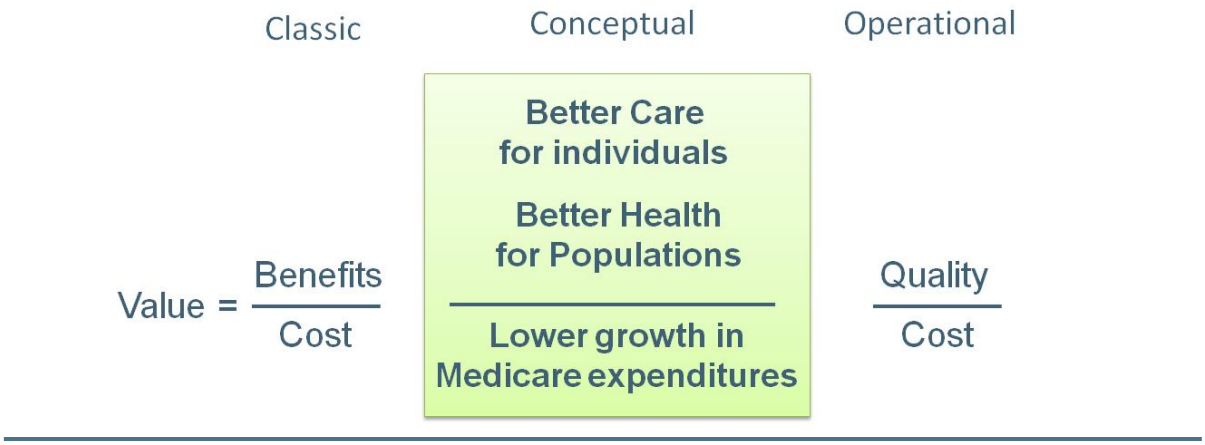
Operationally, CMS defines the benefits of ACOs as improving the quality of care for individuals and populations, which translates into four quality domains:

1. Patient/caregiver experience
2. Care coordination/patient safety
3. Preventive health
4. At-risk population

Quality measures in the first two of these domains help to achieve the aim of 'better care for individuals', while those in the third and fourth domain help to achieve the aim of 'better health for populations'.

Exhibit 1 summarizes the relationship between a classic, conceptual, and operational definition of value in ACOs.

Exhibit 1: Comparative concepts of value in ACOs

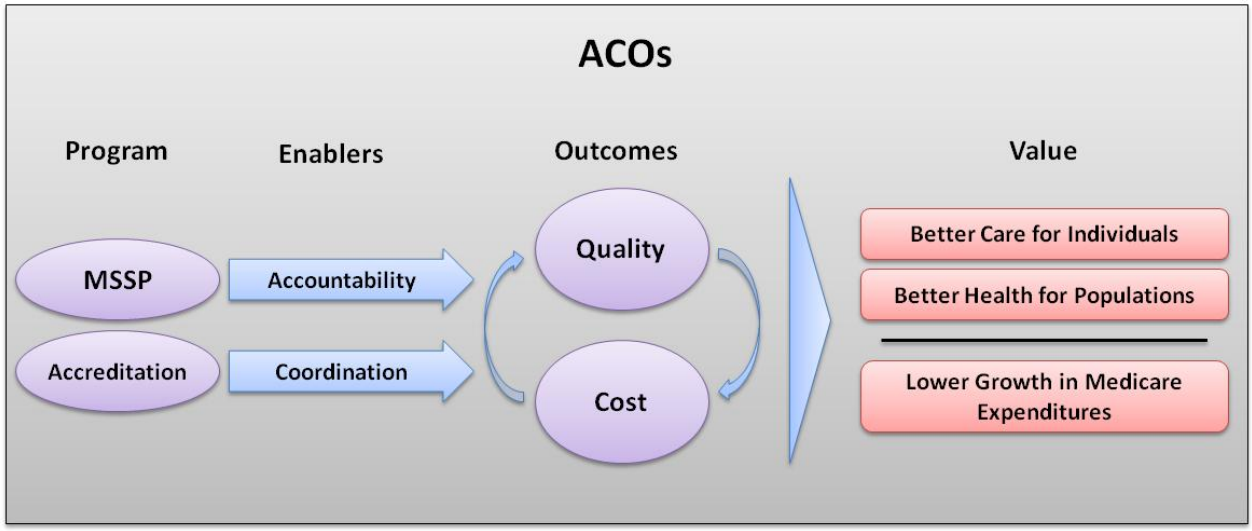


Value Framework of US Accountable Care Organizations

The basic elements in the value creation process behind the ACO model are represented in Exhibit 4, which has been denominated here as the conceptual "value creation chain". The chain starts with the Medicare Shared Savings Program (MSSP) and the accreditation process to be recognized as an ACO. The accreditation process sets the basis for care coordination across settings and providers. The MSSP is the regulatory framework that sets the incentive for ACOs to create value. MSSP basically makes providers accountable for their decisions and actions in health care delivery.

Both ‘accountability for the care delivered’ and ‘care coordination among providers’ enable value creation when they result in cost savings and high quality of care. Medicare cost containment generates value to CMS that is shared with providers, conditional to high quality care. Quality measures in both patient care and population health domains allow value creation to individuals and populations.

Exhibit 4: Conceptual Value Creation Chain of ACOs



Quality of Care in ACOs

CMS requires that ACOs meet quality performance standards before they can share in any savings created. CMS uses a set of 33 nationally recognized quality measures, seven of them in the ‘patient/caregiver experience’ domain, six in the ‘care coordination/patient safety’ domain, eight in the ‘population health’ domain, and 12 measures in the ‘at-risk population’ domain. A summary of the 33 quality measures is presented in Exhibit 3.

Exhibit 3: Quality Indicators for ACOs

Legend:

- Quality measures with ICES data readily available.
- Quality measures that could be approximated or partially measured from ICES data.
- Quality measures with ICES data readily available but low relevance to HL populations.
- No ICES data readily available.

AIM	Domain	Quality Measure	Narrative Specifications
Better care for individuals	Patient/ caregiver experience	ACO 1: Getting Timely Care, Appointments, and Information†	1) Got urgent care appointment as soon as you needed; 2) Got appointment for check-up or routine care as you needed; 3) Called provider's office during regular hours and got answer to medical questions same day; 4) Called provider's office after hours and got answer to medical questions as soon as you needed; 5) Saw provider within 15 minutes of appointment time; 6) Ease of getting care, tests, or treatment you thought you needed.
		ACO 2: How Well Your Providers Communicate†	1) Provider explained things in a way that was easy to understand; 2) Provider listened carefully to you; 3) Provider gave you easy to understand instructions about health problem or concern; 4) Provider knew the important information about your medical history; 5) Provider showed respect for what you had to say; 6) Provider spent enough time with you.
		ACO 3: Patient Rating of Provider†	0 to 10 Rating of Provider
		ACO 4: Access to Specialist†	1) Ease of making appointments with specialists; 2) Specialist you saw most often knew the important information about your medical history; 3) Number of specialists seen.
		ACO 5: Health Promotion and Education†	1) Care team talked with you about specific things you could do to prevent illness; 2) Care team talked with you about healthy diet and healthy eating habits; 3) Care team talked with you about your exercise or physical activity; 4) Care team talked with you about specific goals for your health; 5) Care team asked if there are things that make it hard for you to take care of your health; 6) Care team talked with you about all your prescription medicines; 7) Care team asked if you had a period of feeling sad, empty or depressed; 8) Care team talked with you about things that worry you or cause you Stress; 9) Care team talked with you about a personal problem, family problem, alcohol use, drug use, mental or emotional illness.

		ACO 6: Shared Decision Making†	1) Provider talked about the reasons you might want to take a prescription medicine; 2) Provider talked about the reasons you might not want to take a prescription medicine; 3) When talking about starting or stopping a prescription medicine, provider asked you what was best for you; 4) Provider talked about the reasons you might want to have surgery or procedure; 5) Provider talked about the reasons you might not want to have surgery or procedure; 6) When talking about surgery or procedure, provider asked you what was best for you; 7) Provider talked about including family or friends in making health decisions; 8) Provider talked about how much of your personal health information you wanted to share with family or friends; 9) Provider respected your wishes about sharing personal health information with family or friends; 10) You brought a family member or friend with you to talk with this provider.
		ACO 7: Health Status/Functional Status†	1) Rating of overall health; 2) Rating of overall mental or emotional health; 3) You had 3 or more visits for the same health condition or problem; 4) You take prescription medicine for a condition that has lasted 3 months or longer; 5) Extent to which physical health interferes with normal social activities; 6) Frequency with which physical health interferes with social activities; 7) Health limits you in moderate activities; 8) Health limits you in bending, kneeling, or stooping; 9) Health limits you in lifting or carrying groceries; 10) Deafness or serious difficulty hearing; 11) Blindness or serious difficulty seeing; 12) Serious difficulty concentrating, remembering, or making decisions; 13) Serious difficulty walking or climbing stairs; 14) Serious difficulty dressing or bathing; 15) Difficulty doing errands alone; 16) What is your age?; 17) Are you male or female?; 18) Are you Hispanic, Latino or Spanish origin?; 19) What groups best describe you?; 20) What is your race?; 21) Do you speak a language other than English at home?; 22) What language do you speak at home?
	Care coordination/ patient safety	ACO 8: Risk Standardized All Condition Readmission	Risk-adjusted percentage of ACO assigned beneficiaries who were hospitalized who were readmitted to a hospital within 30 days following discharge from the hospital for the index admission.
		ACO 9: Ambulatory Sensitive Conditions Admissions: Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults	Ratio measure of observed to expected discharges from an acute care hospital with a principal diagnosis of COPD or Asthma, for Medicare FFS beneficiaries assigned or aligned to an ACO, aged 40 years and older, with COPD or Asthma.

		ACO 10: Ambulatory Sensitive Conditions Admissions: Heart Failure (HF)	Ratio measure of observed to expected discharges from an acute care hospital with a principal diagnosis of HF, for Medicare FFS beneficiaries assigned or aligned to an ACO, aged 18 years and older, with HF.
		ACO 11: Percent of Primary Care Physicians who Successfully Qualify for an EHR Program Incentive Payment	
		ACO 12: Medication Reconciliation	Percentage of patients aged 65 years and older discharged from any inpatient facility (e.g., hospital, skilled nursing facility, or rehabilitation facility) and seen within 30 days following discharge in the office by the physician providing on-going care who had a reconciliation of the discharge medications with the current medication list in the outpatient medical record documented.
		ACO 13: Falls: Screening for Future Fall Risk	Percentage of patients aged 65 years and older who were screened for future fall risk at least once within 12 months
Better health for populations	Preventive health	ACO 14: Preventive Care and Screening: Influenza Immunization	Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization.
		ACO 15: Preventive Care and Screening: Pneumococcal Vaccination for Patients 65 Years and Older	Percentage of patients aged 65 years and older who have ever received a pneumococcal vaccine.
		ACO 16: Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up	Percentage of patients aged 18 years and older with a calculated BMI in the past six months or during the current visit documented in the medical record AND if the most recent BMI is outside of normal parameters, a follow-up plan is documented within the past six months or during the current visit.
		ACO 17: Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention	Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.
		ACO 18: Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan	Percentage of patients aged 12 years and older screened for clinical depression during the measurement period using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen.
		ACO 19: Preventive Care and Screening: Colorectal Cancer Screening	Percentage of patients aged 50 through 75 years who received the appropriate colorectal cancer screening.

		ACO 20: Preventive Care and Screening: Breast Cancer Screening	Percentage of women aged 40 through 69 years who had a mammogram to screen for breast cancer within 24 months.
		ACO 21: Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented	Percentage of patients aged 18 years and older seen during the measurement period who were screened for high blood pressure (BP) AND a recommended follow-up plan is documented based on the current blood pressure reading as indicated.
	At-risk population	ACO 22: Composite (All or Nothing Scoring‡): Diabetes Mellitus: Hemoglobin A1c Control (<8 %)	Percentage of patients ages 18 to 75 years of age with diabetes mellitus who had HbA1c < 8.0 percent.
		ACO 23: Composite (All or Nothing Scoring‡): Diabetes Mellitus: Low Density Lipoprotein (LDL) Control	Percentage of patients ages 18 to 75 years of age with diabetes mellitus who had LDL-C < 100 mg/dL.
		ACO 24: Composite (All or Nothing Scoring‡): Diabetes Mellitus: High Blood Pressure Control	Percentage of patients ages 18 to 75 years of age with diabetes mellitus who had a blood pressure < 140/90 mmHg.
		ACO 25: Composite (All or Nothing Scoring‡): Diabetes Mellitus: Tobacco Non-Use	Percentage of patients ages 18 to 75 years of age with a diagnosis of diabetes who indicated they were tobacco non-users.
		ACO 26: Composite (All or Nothing Scoring‡): Diabetes Mellitus: Daily Aspirin or Antiplatelet Medication Use for Patients with Diabetes and Ischemic Vascular Disease	Percentage of patients ages 18 to 75 years of age with diabetes mellitus and ischemic vascular disease with documented daily aspirin or antiplatelet medication use during the measurement year unless contraindicated.
		ACO 27: Diabetes Mellitus: Hemoglobin A1c Poor Control	Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent hemoglobin A1c greater than 9.0%.
		ACO 28: Hypertension (HTN): Controlling High Blood Pressure	Percentage of patients aged 18 through 85 years of age who had a diagnosis of HTN and whose blood pressure (BP) was adequately controlled (< 140/90 mmHg) during the measurement year.
		ACO 29: Ischemic Vascular Disease (IVD): Complete Lipid Profile and Low Density Lipoprotein (LDL-C) Control	Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) who received at least one lipid profile within 12 months and whose most recent LDL-C level was in control (<100 mg/dL).
		ACO 30: Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic	Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) with documented use of aspirin or another antithrombotic.

		ACO 31: Heart Failure: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction	Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) 40% who were prescribed beta-blocker therapy either within a 12 month period when seen in the outpatient setting OR at each hospital discharge.
		ACO 32: Composite (All or Nothing Scoring‡): Coronary Artery Disease (CAD): Lipid Control	Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who have a LDL-C result 100 mg/dL OR patients who have a LDL-C result 100 mg/dL and have a documented plan of care to achieve LDL-C 100 mg/dL, including at a minimum the prescription of a statin.
		ACO 33: Composite (All or Nothing Scoring‡): Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy – Diabetes or Left Ventricular Systolic Dysfunction (LVEF <40%)	Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have diabetes OR a current or prior Left Ventricular Ejection Fraction (LVEF) 40% who were prescribed ACE inhibitor or ARB therapy.

† Quality measure built from survey questions based on the CAHPS Clinician and Group survey.

‡ The all-or-nothing scoring means that diabetes and CAD composite measures will each receive the maximum available points if all criteria of the composite measure are met, and zero points if one or more of the criteria are not met.

Sources:

- RTI International & Telligen (2012) Accountable Care Organizations 2013: Program Analysis. Quality Performance Standards: Narrative Measure Specifications. Centers for Medicare & Medicaid Services. Baltimore, MD.
- CMS (2012) CG CAHPS for ACOs – Field Test Survey Content by Survey Domain Overview.

The scores for each domain will be calculated by adding the points earned for the individual measures within each domain as a proportion of the total points available for the domain. An average of the four scores will determine the ACO's quality performance score, with the domains weighted equally (RTI International & Telligen, 2012).

CMS established the benchmarks using: Medicare fee-for-service (FFS) data reported through the Physician Quality Reporting System (PQRS); calculated from Medicare claims; reported by ACOs, including ACOs participating in the Pioneer ACO Model; and data collected from surveys administered to the larger Medicare FFS population (CMS, 2014).

For pay for performance measures, the minimum attainment level is set at the national 30th percentile of the performance benchmark. ACOs that do not achieve the minimum attainment level on at least 70 percent of the measures in each domain are placed on a corrective action plan. In addition, CMS will also use measures to monitor that ACOs are not avoiding high-risk patients or engaging in overuse, underuse, or misuse of services (RTI International & Telligen, 2013).

Pay for performance will be phased in over the ACO's first agreement period. In the first year, all 33 measures will be subject to pay for reporting. By year three, all measures will be subject to pay for performance, with the exception of one survey measure of functional status, ACO 7, which will remain in pay for reporting for the entire agreement period.

Medicare Cost of Care in ACOs

Even before creating value from higher quality of care, ACOs are expected to create value by reducing health care cost. Certainly, the most distinctive and essential characteristic of ACOs is the shared savings model, which incentivises ACOs to manage resources wisely. The basic payment model is the Medicare Shared Savings Program (MSSP), and the two alternatives are the Pioneer ACO Model and the Advance Payment ACO Model.

Under MSSP, Medicare continues to pay providers who participate in an ACO under Medicare FFS rules. However, CMS also establishes benchmarks based on an estimation of the total FFS payment for the Medicare beneficiaries of each ACO in the absence of the ACO, against the organization's annual incurred costs to assess whether it qualifies to receive shared savings (RTI International & Telligen, 2012; Holloway, 2013; CMS, 2014). CMS will update benchmarks by the projected absolute amount of growth in national per capita expenditures (Holloway, 2013). Within MSSP, ACOs can choose between two models, one with lower risk and lower reward and one with higher risk and higher reward. If an ACO meets quality standards and achieves savings that exceed a Minimum Savings Rate, the ACO will share in all savings, based on the quality score of the ACO, up to a performance payment limit. Similarly, ACOs with expenditures meeting or exceeding the Minimum Loss Rate will share in all losses, up to a loss sharing limit (RTI International & Telligen, 2012).

The Pioneer ACO Model is a program designed for early adopter organizations with experience in coordinating care across settings. These provider groups will move more rapidly from a shared savings payment model to a population-based payment model. There are 23 Pioneer ACOs and the program no longer accepts applications.

The Advance Payment ACO Model is a supplementary incentive program for selected physician-based and rural provider participants in the MSSP[1], who receive an advance on the shared savings they are expected to earn through upfront and monthly payments, to help them make investments in their care coordination infrastructure. There are 35 ACOs participating in the Advance Payment ACO Model (CMS, 2014).

Comparisons between ACOs and Health Links Relevant to Value Creation

In order to use the ACO model to help develop a framework to assess value in Ontario Health Links, it is necessary to explore the differences between these two models. Exhibit 2 compares some of the most fundamental components of these programs.

Exhibit 2: Comparative Program Characteristics between ACOs and Health Links

	ACO	Health Links
Participation Voluntary	Yes	Yes
Target populations	Any Medicare FFS patients†	Focus on high users
Geographic boundaries	No	Yes
Financial incentive	Yes	No
Financial penalties	Yes	No
Requirements for operation	Eligibility Assessment and Accreditation process	Readiness Assessment and Business Plan
	Eligibility Assessment	**Readiness Assessment**
Minimum population	5,000 Medicare FFS patients	50,000 (focus on 1% to 10% high users)
Integrant organizations	The National Committee for Quality Assurance (NCQA) considers an organization's scope and the types of providers it includes in its network. At a minimum, primary care physicians, specialists, and hospitals. Regardless of structure, eligible entities must have a strong foundation of patient-centered primary care.	Include the right health care providers involved in the care of high use/high need patients. Must involve primary care; minimum of 65% of primary care providers in the region.

[1] The Advance Payment ACO Model is open only to two types of organizations participating in the Shared Savings Program: 1) ACOs that do not include any inpatient facilities and have less than $50 million in total annual revenue. 2) ACOs in which the only inpatient facilities are critical access hospitals and/or Medicare low-volume rural hospitals and have less than $80 million in total annual revenue.

Model of integrated/ coordinated care delivery	Every ACO chooses the model that best suits their needs. How providers are organized as accountable entities varies by a region's existing practice structures, population needs or local environmental factors. Regardless of structure, eligible entities must have a strong foundation of patient-centered primary care	Every HL chooses the model that best suits their needs. Should be able to show evidence of collaboration and high use of EMR. Should have the ability to identify and track high use-high need population.
	Accreditation	**Business Plan**
	Standards for ACO Accreditation in seven domains:	The Business Plan is designed to address the following four questions: 1. How will the HL works toward achieving key business objectives? 2. How will the HL engage patients? 3. What resources does the HL need? 4. How will the HL sustain itself?
1. Structure and Operations	The organization clearly defines its organizational structure, demonstrates capability to manage resources and aligns provider incentives through payment arrangements and other mechanisms to promote the delivery of efficient and effective care.	
2. Access to Needed Providers	The organization has sufficient numbers and types of practitioners and provides timely access to culturally competent health care.	
3. Patient-Centered Primary Care	The primary-care practices within the organization act as medical homes for patients.	
4. Care Management	The organization collects, integrates and uses data from various sources for care management, performance reporting and identifying patients for population health programs. The organization provides resources to patients and practitioners to support care management activities.	
5. Care Coordination and Transitions	The organization facilitates timely exchange of information between providers, patients and their caregivers to promote safe transitions.	
6. Patient Rights and Responsibilities	The organization informs patients about the role of the ACO and its services. It is transparent about its clinical performance and any performance-based financial incentives offered to practitioners**.**	
7. Performance Reporting and Quality Improvement	The organization measures and publically reports performance on clinical quality of care, patient experience and cost measures. The organization identifies opportunities for improvement and brings together providers and stakeholders to collaborate on improvement initiatives.	

†Although not a program requirement, an important number of ACOs have focused on high users.

Sources: NCQA, 2014; RTI International & Telligen, 2012; Greenberg, 2013; MOHLTC Health Link Readiness Assessment Template.

Assessing Value in Health Links: Applying Lessons from ACOs

The CMS value framework for ACOs is in general based on a classic concept of value (e.i., Benefit/Cost) and the IHI Triple Aim framework, commonly accepted as reflecting the objectives of health care organizations attending local populations, as ACOs and Health Links are. Hence, we could say that this framework is suitable to be used by both programs. It is however in the contents within these broad aims where differences between ACOs and Health Links may require different approaches to assess value.

The following is an analysis of the alignment between ACOs and Health Links for every one of the three aims and four quality domains in the CMS value framework for ACOs, in order to determine the importance or relevance in the inclusion of performance measures under each aim and quality domain to appropriately reflect the value of Health Links through their impact in health care outcomes.

Better Care for Individuals

A. **Patient/caregiver experience:** This quality domain is essential for ACOs and Health Links to reflect the commitment of the initiative with a patient-centred care delivery approach, common for these two programs. Therefore, performance quality measures under this domain should be developed and implemented in both cases, with characteristics that may be similar, comparable, or even sharing indicators between the two programs.

   Although data is not readily available at ICES, examples of the type of measures that may need to be developed in this domain are: patient/client satisfaction, information, and education; access (e.g. rostering to a primary care physician); shared decision making; and caregiver burden.

B. **Care coordination/patient safety:** This quality domain is also essential for ACOs and Health Links to reflect their common objective of enhancing integration of care. In this case, however, Health Links may require a stronger accent on process quality measures at the team and organizational level than what is currently in place for ACOs, aimed at encouraging teamwork and integration among services. Example of an important team-

based process quality measure is the completion of an individualized care plan for all complex patients in the Health Link program, with consensus among providers and approved by patient and family. These types of indicators are necessary to guarantee adequate and effective integration of care (Mery, Wodchis and col., 2013).

As shown in Exhibit 3, performance measures that may be empirically tested using readily available ICES data in this domain are "Risk Standardized All Condition Readmission" and "Admissions for Ambulatory Sensitive Conditions": COPD or Asthma, and HF. However, the last two measures would demand additional calculations of expected rates of discharge. "Medication Reconciliation" may be calculated from MedsCheck program data.

Better Health for Populations

C. **Preventive Health:** An accent on preventive health care is common to both the ACO and Health Links programs. However, in order to be relevant to Health Links, ACO measures may need to be adjusted, given the different age and morbidity profiles of the target population in each program. Screening for depression, blood pressure, and immunizations may all be relevant to Health Links' clients. Measures related to promotion of healthy lifestyles may also be advisable for Health Links, such as dietary assessments, control of body mass index (BMI), promotion of physical activity and counseling for tobacco cessation.

D. **At-Risk Populations:** In this domain, differences between the two programs are more substantial given a more explicit focus on high users in the case of Health Links. The ACO approach to define quality measures and corresponding 'at-risk' populations based on single disease may not be recommendable for Health Links. High users generally present multiple chronic conditions and are all 'at-risk' of adverse outcomes. Instead, functional status and quality measures focused on autonomy may be more adequate for Health Links' target population. Patient level specific-disease outcomes can be included in individualized care plans, tailored to the individual needs and complexity of every patient.

As indicated in Exhibit 3, a performance measure that may be empirically tested using readily available ICES data in this domain is ACO 33: "Use of ACE Inhibitor or ARB Therapy on patients with CAD and Diabetes or LVEF <40%". However, this is only one part of a composite, all-or-nothing two-part quality measure for ACOs. The measures "Use of Aspirin or Another Antithrombotic" in IVD patients and use of "Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction" in HF patients may also be easily obtained from ICES data, although replicating same ACO specifications would require additional effort. The measure "Daily Aspirin or Antiplatelet Medication Use for Patients with Diabetes and IVD" is also a composite, all-or-nothing measure, which would also demand additional calculations. These outcome measures may be used at the patient level as disease-specific outcomes within individualized care plans or at the population level, with focus on the 5% high users.

Lower Growth in Health Care Expenditures

Cost containment is essential to value creation and should be a basic component of performance assessment in ACOs and Health Links. Nevertheless, there exists a variety of approaches to measure adequacy in the use of resources.

In the ACO program, the MSSP is a fundamental component of the model of incentives. To allow sharing savings with participant providers, adequacy in the use of resources is in this case conveniently measured as total cost of care. However, the nonexistence of these incentives in the Health Links model, at least at this point of program development, leaves room for the use of other performance measures, complementary to the use of total cost of care. Measures based on service utilization are often used to closely relate specific program objectives to performance, such as reducing ED visits and days of institutional care.

Costing data is readily available at ICES and can be used to compare value creation associated to Health Links' promising practices.

Working Framework for Assessing Value in Health Links

Based on the elements discussed above, Exhibit 5 presents a preliminary framework to assess value in Ontario Health Links. The elements in this framework are based on the CMS value framework for ACOs, adapted to Health Links based on program differences.

This framework provides recommendations on performance domains that seem suitable to guide the selection and development of performance measures that adequately reflect the value created by Health Links. This is based on the three basic aims of better care for individuals, better health for patients and lower growth in health care costs. We also provide examples of the types of measures that can me suitable to capture performance under each domain.

Exhibit 5: Working Framework for Assessing Value in Health Links

AIM	Domain	Type of Measures
Better Care for Individuals	**Patient/Caregiver Experience**	Patient/client satisfaction, information, education; access (e.g. rostering to a primary care physician); shared decision making; caregiver burden.
	Patient Outcomes/Safety	Functional decline; disease specific outcomes within individualized care plans.
	Care Coordination/Integration	Individualized care plans; use of EHR; medication reconciliation.
Better Health for Populations	**Preventive care**	Immunizations; screening for falls, depression, blood pressure.
	Healthy lifestyle	Dietary assessments; BMI; physical activity; tobacco cessation.
	Target population health outcomes	Outcome measures of the 5% high users; effectiveness in targeting the high user population.
Lower Growth in Health Care Cost	**Cost containment**	Total cost of care for HL population, compared to provincial high users, case mix adjusted.
	Adequate use of resources	Benchmarks for ED visits, acute hospital days, LTC use.

As the next step in this project, we plan to ask Health Links to define value and confront those ideas with the concepts in our framework. But first, in the next section we confronted the alignment of our framework with the performance indicators the MOHLTC is currently using for Health Links.

MOHLTC Performance Indicators for Health Links

The MOHLTC has identified 11 performance indicators to monitor the work of Health Links in Ontario. The alignment between the MOHLTC Health Link Performance Indicators and the HSPRN Working Framework for Assessing Value in Health Links is displayed in Exhibit 7.

We acknowledge the facts that performance indicators do not correspond uniquely to one performance domain or aim. However, we have made an effort to categorize them under the most relevant domain in terms of this study.

The following are the current indicators used to monitor Health Links' performance in Ontario:

1. Ensure the development of coordinated care plans for all complex patients.
2. Increase the number of complex patients with regular and timely access to a primary care provider.
3. Reduce the time from primary care referral to specialist consultation.
4. Reduce the number of 30 day readmissions to hospital.
5. Reduce the number of ED visits for patients with conditions best managed elsewhere.
6. Reduce time from referral to home care visits.
7. Reduce unnecessary admissions to hospitals.
8. Ensure primary care follow-up within 7 days of discharge from an acute care setting.
9. Enhance the health system experience for complex patients.
10. Achieve an ALC rate of 9 per cent or less.
11. Reduce the average cost of delivering health services to patients.

Of these 11 indicators, six are currently operational.

a. *Reduce the number of 30 day readmissions to hospital:*

   Name of indicator: Readmissions within 30 days for selected case mix groups.

   Description: Percent of patients with an acute inpatient hospital stay for: 1) cardiac conditions (excluding heart attack); 2) congestive heart failure; 3) chronic obstructive pulmonary disease; 4) pneumonia; 5) diabetes; 6) stroke; or 7) gastrointestinal disease; who after discharge have a subsequent non-elective readmission within 30 days.

b. *Reduce the number of ED visits for patients with conditions best managed elsewhere.*

Name of indicator: Emergency visits for conditions that could be treated in alternative primary care setting

Description: Crude rate of emergency visits for conditions that could be treated in alternative primary care settings, per 1,000 population. Includes all unscheduled visits to emergency rooms for a list of 72 ICD-10-CA codes with a Canadian Emergency Department Triage and Acuity Scale (CTAS) levels – IV and V (less-urgent, non-urgent).

c. *Reduce time from referral to home care visits.*

Two indicators are being used:

Name of indicator (c.1): Wait time for home care services - application to first service (community setting)

Name of indicator (c.2): Wait time from hospital discharge to service initiation.

Description (c.1): Time from when a client in the community applies for service until the first in-home service was provided, excluding case management.

Description (c.2): Number of days from the hospital discharge date to the first non-case management service, for clients whose referral source was hospital.

d. *Reduce unnecessary admissions to hospitals.*

Name of indicator: Hospitalizations for Ambulatory Care Sensitive Conditions (ACSC)

Description: Rate of hospitalization for ambulatory care sensitive conditions. Includes all Ontario residents less than 75 years of age hospitalized in an acute care hospital for a select disease diagnosis (ICD-10-CA) codes for most responsible diagnosis.

e. *Ensure primary care follow-up within 7 days of discharge from an acute care setting.*

Name of indicator: Physician visits after discharge from hospital.

Description: Percentage of patients discharged from hospital who saw their physician within 7 days of discharge.

f. *Achieve an ALC rate of 9 per cent or less.*

Name of indicator: Alternate level of care (ALC) days

Description: Percentage of inpatient days where a physician has indicated that a patient occupying an acute care hospital bed has finished the acute care phase of his/her treatment.

Exhibit 7: Alignment between MOHLTC Health Link Performance Indicators and the HSPRN Working Framework for Assessing Value in Health Links

AIM	Domain	Type of Measures
Better Care for Individuals	**Patient/Caregiver Experience**	- Increase the number of complex patients with regular and timely access to a primary care provider. - Enhance the health system experience for complex patients.
	Patient Outcomes/ Safety	- Reduce the number of 30 day readmissions to hospital **(Op)**.
	Care Coordination/ Integration	- Ensure the development of coordinated care plans for all complex patients. - Reduce time from referral to home care visits **(Op)**. - Reduce the time from primary care referral to specialist consultation. - Ensure primary care follow-up within 7 days of discharge from an acute care setting **(Op)**.
Better Health for Populations	**Preventive care**	
	Healthy lifestyle	
	Target population health outcomes	
Lower Growth in Health Care Cost	**Cost containment**	- Reduce the average cost of delivering health services to patients.
	Adequate use of resources	- Reduce the number of ED visits for patients with conditions best managed elsewhere **(Op)**. - Reduce unnecessary admissions to hospitals **(Op)**. - Achieve an ALC rate of 9 per cent or less **(Op)**.

Op = operational.

Indicators related to access to services were considered from the patient and caregiver experience of care perspective when involving only one setting (*'Increase the number of complex patients with regular and timely access to a primary care provider'*) and from the care coordination perspective when involving two or more care settings ('*Reduce time from referral to home care visits'*, *'Reduce the time from primary care referral to specialist consultation'* and *'Ensure primary care follow-up within 7 days of discharge from an acute care setting'*). They

were not considered as 'patient care' indicators because in this case they are not related to specific outcomes or processes of patient care.

Indicators aimed at reducing unnecessary hospital use were considered under the 'adequate use of resources' domain (*'Reduce the number of ED visits for patients with conditions best managed elsewhere'*, *'Reduce unnecessary admissions to hospitals'* and *'Achieve an ALC rate of 9 per cent or less'*). Although they may also be related to adverse patient outcomes and inadequate coordination of care, the indicators in this case are directly related to the cost of providing services in the hospital settings, and not to the associated patient outcomes or mechanisms for patient discharge.

From the perspective of alignment with the value framework, most current MOHLTC indicators are associated with care coordination and adequate use of resources. This situation is expected for a program in its initial phases of development and it also relates to provincial data availability. There is a shortage of indicators reflecting the impact of Health Links at the population level. Here, a convenient starting point may be the development of indicators on health outcomes specific to the target population of high users. There is also a need to develop additional indicators related to patient outcomes and safety, and patient and caregiver experience.

Conclusions

Accountable Care Organizations in the US have several common characteristics yet important differences with Health Links in Ontario. Among the first, it is worth highlighting the voluntary participation and flexibility of the programs, allowing the networks of providers to organize in the way that better fits their needs. Among the latter, financial incentives are only in place for ACOs, only Health Links use defined geographic areas, and while Health Links specifically focus on high users, ACOs have a broader mandate to Medicare beneficiaries.

In the HSPRN Working Framework for Assessing Value in Health Links we propose the same three aims adopted by ACOs, as suggested by the IHI in the US. We also propose the following eight domains related to the three aims:

Aim 1: Better Care for Individuals.

Domain 1: Patient / Caregiver Experience

Domain 2: Patient Outcome / Safety

Domain 3: Care Coordination / Integration

Aim 2: Better Health for Populations.

Domain 4: Preventive Care.

Domain 5: Healthy Lifestyle.

Domain 6: Target Population Health Outcomes.

Aim 3: Lower Growth in Health Care Cost.

Domain 7: Cost Containment.

Domain 8: Adequate Use of Resources.

Although the MOHLTC currently uses performance indicators only in some of these domains, we attribute this situation to the early stages of implementation of the Health Link initiative. Additional indicators should be generated in all domains, with an emphasis on areas that currently have no indicators, i.e. population health, patient outcomes and safety, and patient and caregiver experience.

The HSPRN Working Framework for Assessing Value in Health Links represents a first step into an operational definition of value for Ontario Health Links, and into providing a framework to guide the development of performance measures to assess the value actually created.

In the second phase of this research, we confront our framework with the definition and concepts of value that Health Links are currently adopting.

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