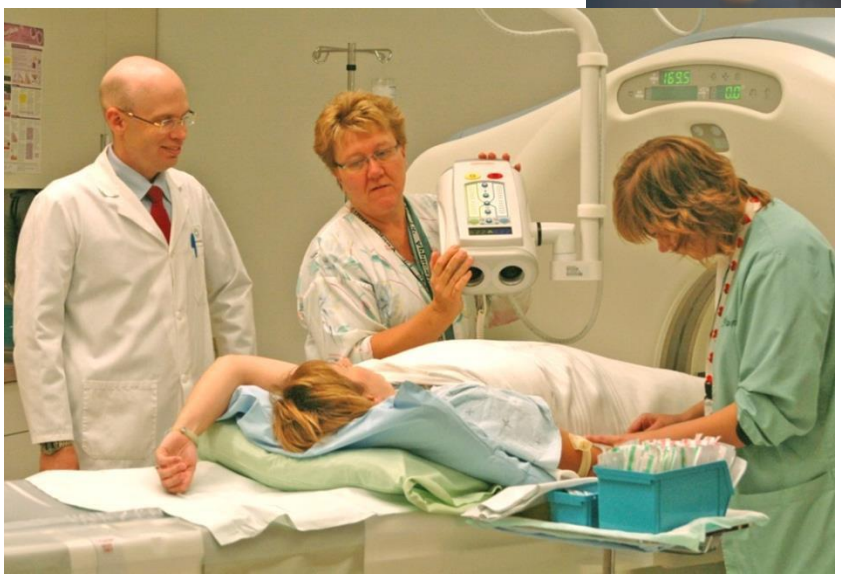
Appropriateness of Care Framework

Patient First



Version 1: December 4, 2015

Government of Saskatchewan

Patient First

Executive Summary

A Framework for Improving Appropriateness of Care in Saskatchewan

The Canadian Medical Association (CMA) has defined Appropriateness of Care as: "The right care provided by the right providers, to the right patient, in the right place, at the right time, resulting in optimal quality care." This definition has been adopted as the vision statement for the Saskatchewan Appropriateness of Care program, with approval from the CMA.

Saskatchewan's health system leaders identified improving Appropriateness of Care as one of the key system priorities in 2013-14 by indicating that a provincial framework would be developed, with the intent that the framework will be broadly applied and widely used by clinicians and health care organizations across the continuum of care. Two ambitious targets have been set:

- By March 31, 2018, 80% of clinicians in at least three selected clinical areas within two or more service lines will be using agreed-upon best practices.
- By March 31, 2018, at least three clinical areas have been deployed care standards and used measurement and feedback to inform improvement at the provincial level.

When patients visit health care practitioners they assume and expect that the care they receive is the best care for their condition. Patients and their families want care that is evidence-informed and clarifies the best approach for treatment options.[1] Physicians want to provide the best care possible for their patients. An appropriate health care service is defined as one for which the "the expected health benefit (increased life expectancy, relief of pain, reduction in anxiety, improved functional capacity) exceeds the expected negative

[1] From Innovation to Action: The First Report of the Health Care Innovation Working Group Council of Federation; 2012

consequences (mortality, morbidity, anxiety, pain, time lost from work) by a sufficiently wide enough margin that the medication, treatment or procedure is worth doing.[2]

However, at times patients don't always receive the best treatment options for a variety of reasons, including availability of services, access to care, variation in clinician practices and lack of solid evidence available for clinicians to support best treatment options leading to uncertainty and variation in decision-making. All these factors impact the Appropriateness of Care that patients, clients and residents receive.

Inaccurate research, hasty recommendations, personal bias, lack of currency in education or training, an abundance of information on the internet, and television talk shows promoting the latest fad in health care (often without the rigor of evidence to support the fad) all contribute to overuse, underuse, misuse and variation in health care, or, inappropriate care. Unnecessary or wrong tests, treatments and procedures do not add value and take away from care by potentially exposing patients to harm, and at times, lead to more testing to investigate false positives, adding stress for patients. Additionally, this wastes precious resources within an already stretched health care system, and contributes to increased wait times for patients who really do require the tests and procedures.

Quality improvement initiatives in health care have made significant progress over the past several decades; however, there are still significant areas of opportunity to address Appropriateness of Care. The purpose of the provincial Appropriateness of Care framework is to provide a shared understanding of what Appropriateness of Care means to patients, clinicians, health system stakeholders and the public, and a strategy for the health system to improve and embed Appropriateness of Care within a broad range of patient-centered clinical areas. The framework has been developed based on research on the successes of similar initiatives in several high-performing US-based health care organizations, and aligns strongly with the Canadian Medical Association's Choosing Wisely Canada campaign.

Choosing Wisely Canada, launched in 2014, is a campaign to help physicians and patients engage in conversations about unnecessary tests, treatments and procedures.[3]

"For many years, both physicians and patients have had a 'more is better' attitude. It is time to adopt a 'think twice' attitude to avoid unnecessary and potentially harmful tests, procedures and treatments." *Dr. Wendy Levinson, Choosing Wisely Canada*

[2] Appropriateness Criteria to Assess Variations in Surgical Procedure Use in the U.S. Elise Larson, Clifford Ko et al JAMA Surgery. December 2011

[3] Choosing Wisely Canada. Canadian Medical Association. Choosingwiselycanada.org

Numerous health care initiatives have been successfully implemented in Saskatchewan, and many more are currently underway. Most of these initiatives fit under the umbrella of Appropriateness of Care and have been implemented without the benefit of using a standard quality improvement methodology. A provincial framework will provide the advantage of offering a standardized approach, supporting a more coordinated provincial effort.

The Appropriateness of Care Framework is depicted in the schematic on page 18, and includes the following components:

- a quality improvement methodology to improve Appropriateness of Care at the clinical practice level and the system structures required to embed Appropriateness of Care into Saskatchewan health care organizations;
- a stakeholder engagement and communication plan;
- a plan that outlines infrastructure requirements for capturing, analyzing and reporting essential data; and
- a toolkit with information to support groups or organizations who want to undertake improvement work in any clinical area.

In 2015-16 the Appropriateness of Care Framework is being tested in the clinical area of Magnetic Resonance Imaging (MRI) of the lumbar spine where there is strong evidence that suggests overuse of this diagnostic imaging modality in Canada.

Successful implementation of the framework requires a multi-year strategy and ongoing, unwavering system-wide support for this transformational change. Organizations that the framework is modeled after have taken many years to reach a stage of maturity in their programs. To be successful, a health care system that "thinks and acts as one," working towards common understanding and agreed-upon evidence-based practices, will have a key role to play in recognizing when health care decisions result in "too much or too little" care being provided. There is a role for clinicians, patients, families and the public to work together to improve Appropriateness of Care. In Saskatchewan these roles will be supported by the provincial Appropriateness of Care Framework.

With the system-wide adoption of the Saskatchewan Healthcare Management System and advancement of Patient and Family-Centred Care over the last few years, the Saskatchewan health system is poised to start down the path of improving Appropriateness of Care, another major transformative initiative that will help the system achieve its goals of: Better Health, Better Care, Better Value and Better Teams.

Introduction

"For so many years the patient voice has been missing in healthcare, contributing to varying outcomes for patients. By incorporating the voice of the patient throughout many areas of this work, [Appropriateness of Care] will ensure the goals of the initiative will be met. [The Appropriateness of Care Vision] Right care provided by the right provider, to the right patient, in the right place, at the right time, resulting in optimal quality care … So promising to our patients and families but also will make sure our patients will be getting the safest quality of care."

- Heather Thiessen, a Patient and Family Advisor

Appropriateness of Care has been noted in the literature for decades, mainly discussed as variation in clinical practice across the entire continuum of care: from chronic disease management to the use of medications, to surgery. As early as 1938 a study was published documenting varying rates of tonsillectomies across geographical regions of England[4], noting geographic clusters of variation in how physicians treat patients with similar conditions.

Appropriateness of Care in Saskatchewan was raised in Commissioner Tony Dagnone's Patient First Review, *For Patients' Sake*, released in October 2009[5]. According to the report, patients with similar health conditions frequently experience differences in diagnostic testing and treatment options, resulting in varied experiences and outcomes.

It's accepted in health care that some variation in patient care is to be expected. There are known geographic differences in population health status, including the genetic predisposition to disease, socio-economic status, lifestyle, nutrition, and other factors which influence different patterns of health care. These examples are considered "justified or warranted variation." Decisions regarding treatment of medical conditions are influenced by clinician education and training, available resources and capacity, as well as individual and local practice cultures. These factors may lead to unjustified variation in clinical care. Quality improvement experts contend that if unjustified or unwarranted variation exists, there may be a potential quality of care issue. For example, in two similar populations that do not differ in age, sex, health status, and other relevant determinants of

[4] *Variations in Hospital Admissions and the Appropriateness of Care: American Preoccupations*? John P. Bunker BMJ September 1990

[5] *For Patient's Sake Patient First Commissioner's Report for SK Minister of Health*. Commissioner Tony Dagnone October, 2009

need, if there are three times as many procedures, tests, medications administered in one place compared to the other, both cannot be best practice – either there are too few procedures in one population, too many in the other, or neither is getting it right. This variation is now known to be a feature of almost every country's health care, including Canada, and this has potential for negative patient outcomes as well as unnecessary costs to the health care system[6].

As a result, there has been a growing interest in addressing Appropriateness of Care issues in Canada:

- In response to fiscal challenges, Ontario passed legislation in 2010 to strengthen the commitment toward the delivery of high-quality care, the *Excellent Care for All Act* (*ECFAA*) 2010. The *ECFAA* is a key component of a broad strategy that improves the quality and value of patients' experiences by providing them with the right evidence-informed health care at the right time and in the right place.
- In July 2013 the Council of the Federation (Provincial and Territorial Premiers) recommended that all participating provinces and territories adopt guidelines as appropriate for their jurisdiction for the use of medical imaging in minor head injuries, lower back pain and headaches.
- The Canadian Medical Association (CMA) launched Choosing Wisely Canada campaign in April 2014 to raise awareness of inappropriate care contributed by unnecessary tests, treatments and procedures. This campaign has been endorsed by provincial and territorial medical associations, including the Saskatchewan Medical Association (SMA).

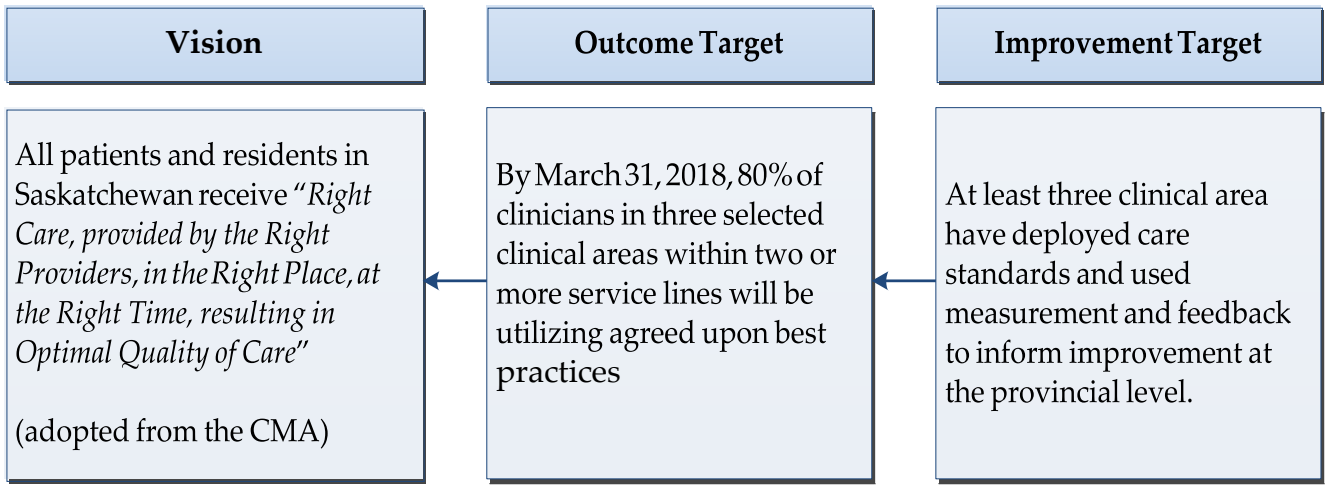
Improving Appropriateness of Care is not new to the Saskatchewan health system. Since 2009 various clinical pathways for patients faced with prostate cancer, lower back pain, joint pain in hips and knees and pelvic floor conditions have been developed and implemented to improve the consistency of assessment and care and to use multidisciplinary teamwork to provide the necessary information for patients to help determine appropriate care options. In 2012, Saskatchewan Surgical Initiative's Variation and Appropriateness Working Group (VAWG) was formed to study surgical variation in Saskatchewan and develop strategies to narrow the gap in rates of specific surgeries performed. Currently, there are many other efforts to improve Appropriateness of Care under various initiatives (Saskatchewan Context, page 8).

In 2014-15, the Saskatchewan health system Provincial Leadership Team (PLT) made a commitment to improve Appropriateness of Care by making it one of the key priorities for

[6] *Population-Based Variation in Rates of Surgical Interventions in Saskatchewan: A First Look at Province-Wide Data* SK Surgical Variation and Appropriateness Working Group 2012

the health care system. An Appropriateness of Care team led by two physicians and an administrative program lead, supported by the Ministry of Health and the Saskatchewan Health Quality Council (HQC) was established to develop a provincial Appropriateness of Care framework to be implemented across the system. The main purpose of the framework is to provide a shared understanding of what Appropriateness of Care means to patients, clinicians, health system stakeholders and the public, and a shared vision for improving Appropriateness of Care in Saskatchewan by embedding it in daily work of clinicians using a standard quality improvement approach that applies to a broad range of patient-centred clinical areas.

Appropriateness of Care Vision, Outcome Target and Improvement Target



As previously mentioned, reaching the point where the Appropriateness of Care program vision statement becomes a reality will depend on implementation of a multi-year strategy and ongoing system-wide support for this transformational change. A system that is working towards common understanding and agreed-upon evidence-based practices will have a key role to play in recognizing when health care decisions result in "too much or too little" care being provided.

Key Values and Guiding Principles

Key Guiding Principles

- Clinician-Led
- Evidence-Based Care
- Effective Care
- Patient- and Family-Centred Care
- Information Sharing
- Equitable Care
- Standardized Care (does not mean "exactly the same care rather consistent care)
- Continuous Learning and Improvement
- Interdisciplinary team (care team)

Value to Clinicians, Patients and the System

- Eliminate unnecessary referrals, testing and treatments, thereby reducing wasted time for both clinicians and patients
- Improve transparency in clinical decision-making
- Greater involvement and collaboration of clinicians in developing new knowledge
- Standardized care makes it easier for clinicians to provide the care that meets the needs of patients
- Reduced wait times by ensuring only the right (best) tests or treatments are provided to patients
- Reduce potential risks of patient harm associated with unnecessary testing and treatments

What is Appropriateness of Care?

In general, appropriate health care has been described as a treatment, procedure, medication or intervention that is expected to do more good than harm for a patient with a given health problem or set of problems, based on scientific evidence. The potential benefit and risk associated with any intervention/procedure varies according to the circumstances in which it is applied. In some cases the risks and benefits of an intervention for a particular patient will be quite predictable; in others there is a higher degree of uncertainty.

Optimizing health care delivery means reducing uncertainty – the more accurately we can assess risk and potential benefit, the greater the likelihood of both improving outcomes and avoiding harms. Where the risk outweighs the likely benefit, or the likely benefit is very small, the intervention may be inappropriate. It is also inappropriate to withhold an intervention where the likely benefits are considerable and the level of risk acceptable. There are multiple perspectives that need to be considered in determining the value (benefit vs harm) of a service, including those of the patient, the health care provider and the health care system.

Overuse, underuse, misuse and unjustified variation have been widely used to describe care that may be considered "inappropriate." [7]

- **Overuse:** Any patient who receives a treatment, procedure or medication for an uncertain indication, which means that there is minimal or no scientific evidence supporting that the benefits outweigh the risks. Patients may receive services that are considered unnecessary (i.e. unnecessary tests), which may even endanger their health if needless testing leads to more invasive procedures (i.e. medical imaging tests leading to unnecessary exposure to radiation or surgical procedures that do not improve patient outcomes). Unnecessary testing and screening can lead to false positive diagnoses and overtreatment.

- **Underuse:** Any patient who does not receive a treatment, procedure or medication that is proven value to their condition based on evidence (i.e. effective care). Underuse of effective care can result in a wasted opportunity to prevent serious illness. For example, underuse of specific types of medications in cardiac-related illnesses such as beta-blockers after an acute myocardial infarction and inappropriate use of calcium-channel blockers have been associated with increased rates of re-hospitalization, death, or both.

- **Misuse:** Any patient who receives the wrong treatment, procedure or medication during the course of their treatment (i.e. use of antibiotics in illnesses caused by viruses; prescribing of specific medications in the elderly without a diagnosis, duplicate medical imaging testing, such as CT when MRI is the most appropriate test).

- **Unjustified Variation:** Practice variation occurs among clinicians, hospitals, health care organizations, regions, and health care systems and may be due to patient's clinical differences, population health differences, and geographical differences, which are considered justifiable variation. Unjustified variation, however, may indicate that there is an issue with inappropriate care (i.e. overuse, underuse and/or misuse).

[7] *For Patient's Sake Patient First Commissioner's Report for SK Minister of Health*. Commissioner Tony Dagnone October, 2009

Underlying Causes of Inappropriate Care

"15% – 20% of care is 'clinically inappropriate."
- Dr. Brent James, Chief Quality Officer at Intermountain Healthcare in Utah

There is significant clinical variation in patient care happening across Canada. Several reports issued by the Canadian Institute of Health Information[8] (CIHI) over the past several years provide examples of clinical variation in Canada which may indicate inappropriate care.

- Between 2007-08 and 2009-10, Newfoundland and Labrador had the highest mastectomy rate (69%) in Canada, followed by Saskatchewan (65%). Quebec had the lowest mastectomy rate (26%).
- Saskatchewan had the highest rate in angioplasty with stents (PCI) and coronary artery bypass surgery (CABG) despite the evidence that PCI and CABG do not prevent heart attacks or improve survival rate for patients with stable angina compared to medical therapy alone.
- Alberta had the highest overall child birth assisted-delivery rate (e.g. vacuum-assisted delivery and forceps-assisted) (16.8%) among the provinces, followed by Saskatchewan (15.8%).
- The primary Caesarian-section rate also varies significantly across Canada. Newfoundland and Labrador and B.C. have the highest primary C-section rates (23.5% and 22.9%, respectively), while Saskatchewan and Manitoba have the lowest rates (14.7% and 14.4%, respectively).

According to the Saskatchewan Surgical Initiative's Variation and Appropriateness Working Group (VAWG) report released in July 2012, there is a significant range in rates of certain high volume surgical procedures performed in Saskatchewan based on patient's geographical location, with a high-to-low variance range in some instances as high as 7 to 1. This data indicates that there may be Appropriateness of Care issues within specific surgical procedures in the Saskatchewan health system.

Some of the factors that may contribute to overuse, underuse, misuse, and variation in patient care include:

- **Access to patient information**
  eHealth Saskatchewan is building the platform for a universal electronic health record for patients; however, patient information currently is fragmented and most often information is located in several different charts in different physical

[8] CIHI Health Indicator Reports; 2011, 2012; Breast Cancer Surgery in Canada, 2007-08 to 2009-10

locations. Obtaining clinical information (tests, test results and procedures performed on patients) is challenging and time consuming, and leads to over-testing in many instances.

- **Utilization of clinical practice guidelines (CPGs) among clinicians**[9]
  CPGs are "statements that include recommendations, intended to optimize patient care, that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options." [10] They include criteria for helping to determine appropriateness of care. Although many clinicians agree that they are helpful sources of advice, good educational tools and likely to improve quality of care, they also view them impractical and too rigid to apply to individual patients. Critics indicate they may reduce clinician autonomy, oversimplify medicine (standardizing practice around the average patient) and focus on cost-cutting, limiting innovation and clinical freedom.[11] CPGs often are not presented in a clearly understandable or decipherable form. CPGs often aren't integrated into clinicians' work environments, making it difficult for clinicians to apply it to their daily practice. Failure to make them available at the point of care rather than relying on the ability of clinicians to read, remember and apply the guidelines contributes to lower utilization. Engaging clinicians in developing and use CPGs or agreed-upon best practices and then embedding them into their workflow or daily practice will be key for improving utilization of CPGs. The preferred format needs to be available "just in time," where and when needed.

- **Limited patient involvement in health care decision-making**
  Patients are not always fully informed and involved in health care decision-making, particularly when there is more than one treatment option available and minimal evidence suggesting one option is better than the other. In this case, patient involvement in treatment decision-making can be very important to achieve the best possible outcomes for patients. Research shows that patients choose differently when they are fully informed about treatment options with their benefits and risks[12]. One of the Appropriateness of Care strategies is to inform patients about their treatment options with benefits and risks, as well as involve them in the treatment decision-making through embedding Shared Decision-Making (SDM)

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[9] *Hidden Barriers to the Improvement of Quality of Care*. Barbara J. McNeil. NEJM November, 2001

[10] Institute of Medicine definition

[11] Clinicians' Attitudes to Clinical Practice Guidelines: A Systematic Review. Cynthia Farquhar et al. The Medical Journal of Australia. August 2002.

[12] *Decision Aids for People facing Health Treatment or Screening Decisions*. Stacey D, Bennett LC, Barry JM, Col FN, Eden BK, Holmes-Rovner M, Llewellyn-Thomas H, Lyddiatt A, Légaré F and Thomson R. Cochrane Database of Systematic Reviews. 2011. Issue 10.

tools into the Appropriateness of Care projects (see the Patient/Families/Public Stakeholder Engagement and Communication Plan).

- **Increased demand for particular treatments and diagnostic tests due to advanced technologies and their availability**
  The abundance and availability of health care information has the potential to be confusing and misleading for the public. Information available about medications, treatments and procedures often is highly profiled on a variety of media sites, TV shows, or social media, but may not be supported by rigorous research or evidence or provide enough information for the general public to make an informed decision.

Saskatchewan Context

> "*I don't blame anybody – they're just doing what makes sense and we have to change what makes sense*."
>
> - Don Berwick, Former President/CEO of the Institute of Health Improvement

There are numerous opportunities to improve Appropriateness of Care within the Saskatchewan health system. (See Appendix A: *Opportunities for Appropriateness of Care Framework to Align with Provincial Initiatives*). A few examples where improvements are required or work is underway include:

- overuse or test substitution in medical imaging (MRI, CT);
- overuse of specific laboratory tests (Vitamin D);
- unnecessary referrals to specialists resulting in long wait times to see a specialist;
- high volumes of patients, including seniors, receiving care in hospitals where alternate care could be provided but not available elsewhere;
- overuse of specific classes of medications in seniors;
- overuse and misuse of antibiotics; and
- underuse of effective treatments for patients with chronic diseases.

Many initiatives are underway to address some of these issues e.g. ED Waits and Patient Flow, Chronic Disease Management-Quality Improvement Program, Seniors' House Calls, Home First/Quick Response Home Care, Improving Access to Specialists and Diagnostics Initiative, Clinical Pathways, Surgical Variation and Appropriateness Working Group, Synoptic Reporting for breast cancer and lower leg bypass surgeries. Embedding the Appropriateness of Care Framework and methodology into these initiatives can ensure that patients receive the right care, provided by the right providers, in the right place, at the right time resulting in optimal quality of care.

As previously mentioned, the Choosing Wisely Canada (CWC) campaign was launched in April 2014 to help physicians and patients engage in healthy conversations about unnecessary tests, treatments and procedures, and to help physicians and patients make smart and effective choices to ensure high-quality care. Since its launch in 2014, more than 150 recommendations have been produced on various treatments, as well as 50 patient education pamphlets. Given that the Saskatchewan Medical Association (SMA) is fully onboard with this campaign, there is opportunity for the Saskatchewan health system to collaborate with the SMA to leverage this campaign to improve Appropriateness of Care in Saskatchewan.

The Saskatchewan Center for Patient Oriented Research (SCPOR) has been formed to develop a patient-oriented research (POR) strategy for the Saskatchewan health system, which will be part of the Canadian Institute of Health Research (CIHR)'s nation-wide POR strategy in Canada. The SCPOR group is comprised of researchers and academic research organizations (University of Saskatchewan, University of Regina, First Nations University, Saskatchewan Polytechnic, and HQC). Appropriateness of Care has been identified as one of their core priorities. SCPOR will be partnered with the provincial Appropriateness of Care Program, Regional Health Authorities (RHAs), the Saskatchewan Cancer Agency (SCA) and other health care organizations to integrate the research components into Appropriateness of Care, which will ensure that the care provided to patients is evidence-based.

The opportunities are vast with linkages to many ongoing initiatives in the Ministry of Health, RHAs, SCA, 3sHealth, individual clinicians and other health care organizations that have a burning interest to improve care, as well as many external organizations.

Moving Forward with Appropriateness of Care in Saskatchewan

"The framework and standard work for Appropriateness is so important, so that information given to patients is clear- from primary care givers to specialists. Of course, there will always be differing opinions among doctors, but patients can make better decisions when armed with good (more standard) information. We can be more involved in the decision making."

- Cindy Dumba, a Patient and Family Advisor

1. System-wide adoption of a common methodology for improving Appropriateness of Care

A number of high performing health care systems in the US have been successful in their work on improving Appropriateness of Care by reducing clinical practice variation, including Intermountain Healthcare in Salt Lake City, Utah and Virginia Mason Hospital and Medical Centre in Seattle, Washington. As part the Appropriateness of Care Framework, a Saskatchewan model of improving Appropriateness of Care has been developed based on the methodologies used by these organizations: a clinician-led, evidence-based, data-driven and continuous- learning approach to improving Appropriateness of Care.

Appropriateness of Care projects will each be led by a Clinical Development Team of frontline clinicians (specialists, family practitioners, nurses, pharmacists, etc.) administrative/support staff, data experts, researchers, patients and their families. Clinical Development Teams will implement common agreed-upon best practices while measuring and analyzing data required to measure outcomes including clinical, safety, service and cost. An important part of the implementation process is that both the common agreed-upon practices and measurements need to be built into the clinical workflow. This will make it easier for clinicians to use the agreed-upon best practices and to track the progress and outcomes. Using Plan Do Study Act (PDSA) tools, feedback received from clinicians will be reported back to the Clinical Development Team for further improvement in agreed-upon best practices (See Appendix F: Implementation Process for AC Methodology).

2. Provincial, Regional and Organizational Structures for Appropriateness of Care

Successful implementation and integration of the provincial Appropriateness of Care Framework into the Saskatchewan health care system is dependent on the creation of not only a provincial strategy, but also a plan within each health region and health care organization to support the framework's methodology (depicted in Figure 1 on page 18). Provincial, regional and organizational level requirements include physician champions (part-time), staff to support data collection and analysis, as well as administrative support. Major risks of implementing the Appropriateness framework without system supports include delays in implementation, limited or poor results, and disengaged physicians who will be reluctant to re-engage in the future.

The provincial level structure includes the Provincial Appropriateness of Care program. The program, established in 2015, has a formal governance and decision making structure (Appendix E), to support provincial Appropriateness of Care projects. A provincial

Appropriateness of Care project will be a larger scale project affecting a significant portion of population in Saskatchewan or several health regions. The roles and responsibilities of the Provincial Appropriateness of Care program include:

- integration and coordination of all Appropriateness of Care efforts across the system;
- support health regions and other health organizations to begin their Appropriateness of Care program (e.g. provide facilitation, consultation, data support, and education and training);
- lead, coordinate, replicate provincial Appropriateness of Care projects;
- monitor and measure the progress and outcomes;
- increase awareness of Appropriateness of Care (e.g. stakeholder engagement, public awareness campaign, communication, etc.); and
- ensure that Appropriateness of Care work is aligned with provincial priorities and initiatives.

Individual health regions and other health care organizations interested in pursuing Appropriateness of Care may require regional/organizational support to implement the Appropriateness of Care program. This support could include Appropriateness of Care leads (one physician lead, one administrative lead such as a vice president) that are passionate, and knowledgeable about Appropriateness of Care issues and quality improvement methodologies. The roles and responsibilities of the regional programs may include:

- selecting targeted clinical areas for Appropriateness of Care projects within the organization;
- implementing Appropriateness of Care projects;
- replicating the projects to other areas and sharing results with other regions and agencies;
- monitoring and measuring the progress and outcomes; and
- providing ongoing communication with the senior leadership team and those who will be impacted by the Appropriateness of Care projects.

Individual regions and organizations may need to leverage existing resources and structures such as the Lean Management System (e.g. Kaizen Promotion Offices, Kaizen Operation Teams, and various Lean quality improvement tools). This will benefit implementation of the framework and mitigate duplication/addition of resources within the organization.

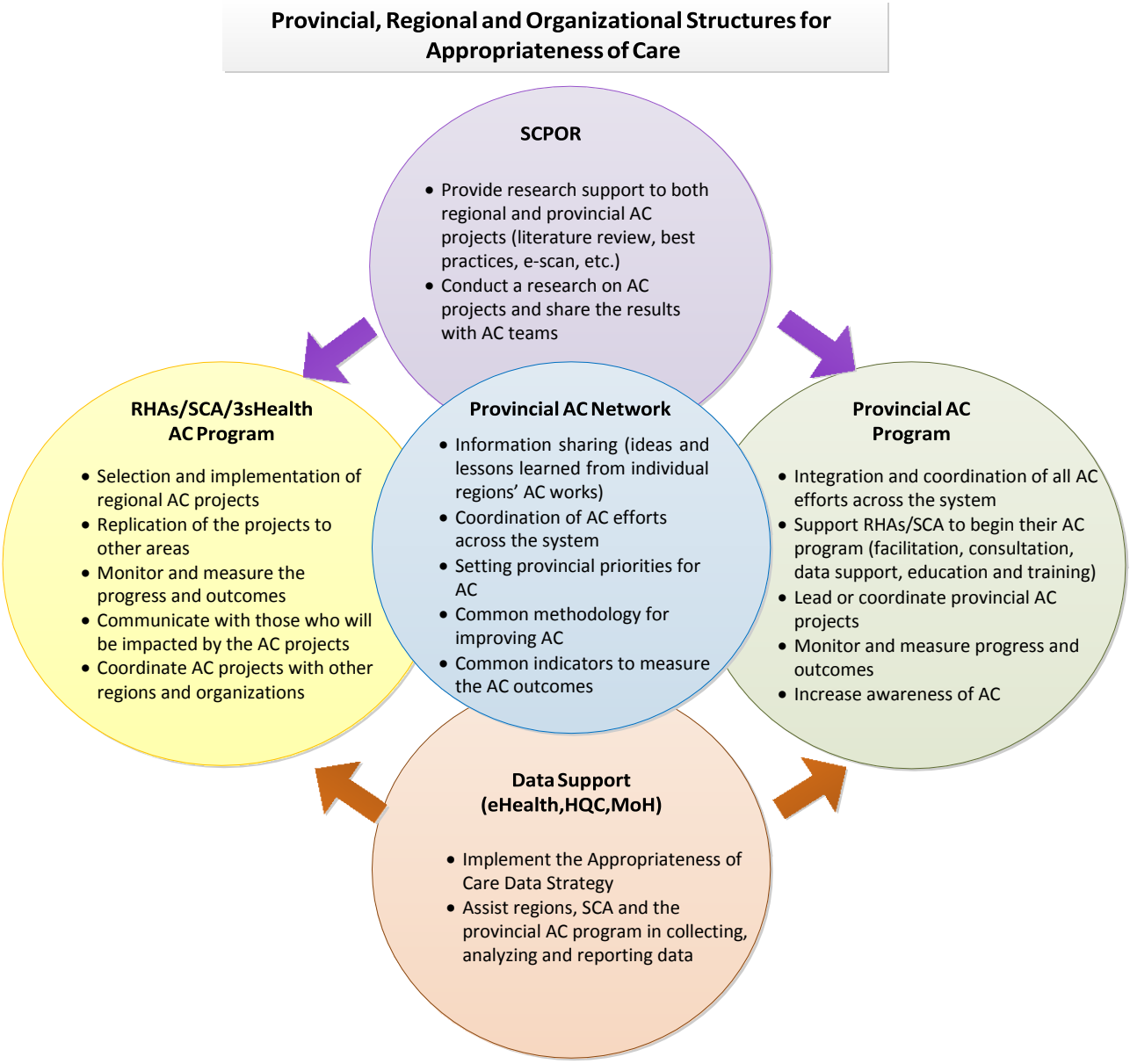
To ensure success, it is important that all health regions and organizations have a shared understanding of the Appropriateness of Care Framework, use the same methodology and tools for improving Appropriateness of Care, and work collaboratively toward achieving

the provincial goals and targets. A Provincial Appropriateness of Care Network will be established to facilitate this system-wide adoption and will coordinate all Appropriateness of Care work across the system.

Members of Network will include the Provincial Appropriateness of Care team, representatives from all 12 health regions, SCA, HQC, eHealth Saskatchewan, Ministry of Health (MoH) and 3sHealth, SCPOR as well as patient and family advisors. Those regional representatives will be the ones who will lead Appropriateness of Care work within their organization. The main roles and responsibilities of this group may include:

- information-sharing (innovative ideas, success stories, and lessons learned from individual regions' Appropriateness of Care work);
- coordinating Appropriateness of Care efforts across the system;
- suggesting provincial priorities for improving Appropriateness of Care;
- ensuring that all health regions and organizations use the common methodology for improving Appropriateness of Care; and
- using common indicators to measure the provincial Appropriateness of Care outcome and improvement targets.

Figure 1



3. System-Wide Support Structure for Appropriateness of Care

Implementation of the provincial Appropriateness of Care framework initiates another transformational culture change in health care: clinicians, patients and the health care system will have key roles to play in recognizing when medical care is too much, too little, or the wrong care. Changing the current clinical culture has already proven to be challenging. The following three elements are the foundation that will help address

anticipated barriers and support the implementation of the Appropriateness of Care framework across the system.

a) An Involvement Strategy

A comprehensive strategy to involve stakeholders at all levels is critical to successful implementation as well as to achieve the culture change required to sustain momentum and any improvements. The key stakeholders of the Appropriateness of Care program include clinicians, health care system leaders, providers, researchers, patients, families and the public. Plans for involving individual stakeholder groups have been developed and they will be implemented over the next few years. Key goals and actions exist for involving each stakeholder group.

- **Health System Leadership and Provider Involvement Strategy**
  The goal is to create an environment where physicians and other health care professionals are supported to implement the Appropriateness of Care Framework within their own organizations and their own practices. A series of presentations to raise awareness of Appropriateness of Care work were given in late 2014-15, delivered to various health system leadership groups, including the Provincial Leadership Team (PLT), the Ministry of Health Senior Leadership Team (SLT), Senior Medical Officers Committee (SMOC) and a variety of physician groups. This action will continue throughout 2015-16 to engage other health system leaders, continue to create awareness and solicit their support for implementing the framework in their own regions and organizations.

- **Physician Involvement Strategy**
  Physicians play a key role in the health system, and are integral to quality of care, patient safety, and system leadership. Their commitment and participation are key to achieving cultural transformation. The goal of the physician involvement strategy is to create an environment that supports physician leadership and education in improving Appropriateness of Care. As part of the engagement strategy, key guiding principles and tools for involving physicians have been developed to facilitate physician involvement in Appropriateness of Care projects. A number of physician leadership groups, including Practitioner Advisory Committees, Department Heads at Regina Qu'Appelle and Saskatoon Health Regions, and the SMA have been engaged in discussion on improving Appropriateness of Care in Saskatchewan. In order to ensure ongoing involvement, existing physician compensation policies and models are being reviewed to address barriers for involving physicians, and to create an incentive structure that will motivate involvement.

- **Patient, Family and Public Engagement Strategy**
  The goal of this strategy is to create a collaborative partnership with patients and families in improving Appropriateness of Care. This means involving patients and families in designing and implementing any efforts to improve Appropriateness of Care, as well as involving them in their own care and treatment decision-making, ensuring that their perspectives are incorporated. To increase patient involvement in their own treatment decision-making at the level they choose, Shared Decision-Making (SDM) concepts and tools will be embedded into applicable Appropriateness of Care projects, allowing patients' values and preferences to be incorporated into their treatment plan.

  Most health regions and other organizations have structures to involve patients and families in improving quality of care and patient safety. A number of patient and family advisors and advisory councils have been involved in various quality improvement initiatives at the regional level and the provincial level. Appropriateness of Care will leverage these existing structures to involve patients and families.

Effective communication with these stakeholders will be an important part of the engagement strategies. Multi-modal communication techniques and tools will be used to inform and update stakeholders on various initiatives underway, successes and lessons learned. This will not only help them stay engaged but also will keep the momentum going for continued improvement.

For more detailed engagement and communication plans for individual stakeholders, see the supporting appendices (*Appendix B: Physician Involvement Plan; Appendix C: Stakeholder Engagement Plan*).

b) A Robust Clinical Information System

Successful implementation of the provincial Appropriateness of Care Framework is dependent on the availability of relevant clinical information to support continuous learning and improvement. Ability to access reliable and timely clinical data will not only display the current state of particular clinical areas (i.e. identifying clinical practice variation, any Appropriateness of Care issues and any practice changes needed to improve Appropriateness of Care) but also measure the impact of practice changes and improvements made on patient outcomes.

Although Saskatchewan has a number of rich health databases that can be used for quality improvement and clinical research (e.g. Discharge Abstract Database, MDS, etc.), the process for obtaining timely data can be complicated, challenging and expensive. The development of valuable clinical information systems requires leadership, methodology, human resources and infrastructure support. A data and measurement strategy has been developed in collaboration with eHealth Saskatchewan to address issues related to accessing reliable and clinically relevant data for Appropriateness of Care. Much of this work will focus on increasing awareness and accessibility of data, human resource and infrastructure capacity for measurement system design, and governance for the data strategy (i.e. clear roles and responsibilities of all participating organizations).

c) Education and Training Programs

Education and training is a very important component for building capacity to improve Appropriateness of Care within the system. Education and training will not only support the system to achieve Appropriateness of Care provincial targets but also facilitate the culture change needed to make Appropriateness of Care a norm in clinical practice. Several physicians and quality improvement experts in Saskatchewan have completed the Intermountain Healthcare Quality Improvement Training called Advanced Training Program (ATP). This program provides in-depth knowledge and tools for improving Appropriateness of Care in various clinical areas.

Education and training based on the Intermountain Healthcare model will be developed and implemented over the next few years. They will highlight the value of patient outcomes tracking and continuous quality improvement in order to identify and improve the care provided to patients.

Once developed, education and training will be provided to clinicians, administrative staff, data experts, patients and families who will be part of developing and implementing Appropriateness of Care projects at both the regional and the provincial levels. Further, educational components ideally will be integrated into Lean for Improvement Leader Training as well as embedded into the College of Medicine curriculum, residency training programs, professional development workshops, and Continuing Medical Education (CME) so that Appropriateness of Care becomes routine practice.

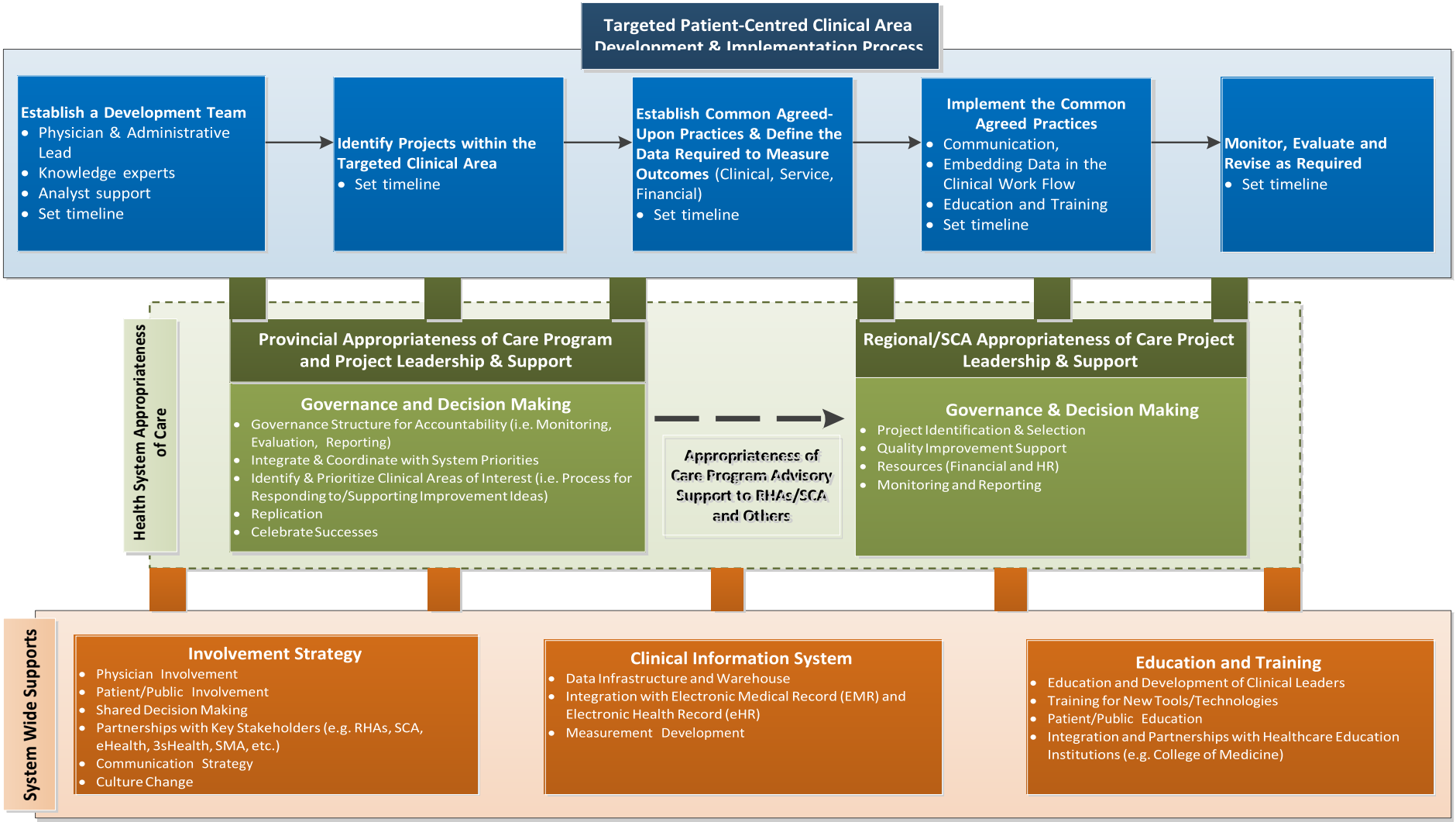
Next Steps

In order to achieve the ambitious goals around Appropriateness of Care in Saskatchewan, the framework has been developed to provide a strategy for embedding the Appropriateness of Care methodology into the Saskatchewan health system. The framework is expected to be implemented over the next several years and will require the collaborative action and support of the entire health system: leaders, clinicians, administrators, patients and their families, to continue to work together on this major transformational culture shift in "what" care is provided in Saskatchewan.

The next several years will be a learning experience for the health care system in Saskatchewan. Lessons learned over the course of 2015-16 with the MRI of lumbar spine work will contribute to modifications and refinement of the Appropriateness of Care Framework. The goal of changing the culture will evolve over time, given the will, commitment, and patience of the system as this program spreads its roots and becomes embedded in the daily work of providing health care.

The elements of the Provincial Appropriateness of Care Framework are illustrated in a one page schematic diagram on page 18.

Vision: "*The Right Care, provided by the Right Providers, to the Right Patient, in the Right Place, at the Right Time, resulting in Optimal Quality Care (CMA Definition).*"
Outcome Target: By March 31, 2018, 80% of clinicians in 3 selected clinical areas within two or more service lines will be utilizing agreed upon best practices.
Improvement Target: *By March 31, 2016, at least one clinical area within a service line will have deployed care standards and will be actively using measurement and feedback to inform improvement.*



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