Partnerships for Health System Improvement (PHSI)

Leadership and Health System Redesign

Prairie Node Case Study Final Report

Gregory P. Marchildon
Canada Research Chair and Professor
Johnson-Shoyama Graduate School of Public Policy
University of Regina

Donald Philippon
Professor Emeritus
School of Public Health
University of Alberta

Amber Fletcher
Post-doctoral Research Fellow
Johnson-Shoyama Graduate School of Public Policy
University of Regina

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Executive Summary

The Prairie Node study is one of five regional case studies, or "nodes", in the pan-Canadian "Leadership and Health System Redesign" project funded by the Canadian Institutes of Health Research's (CIHR) Partnerships for Health System Improvement (PHSI) program. The purpose of the pan-Canadian project is to help develop leadership capacity in the Canadian health system through applied research and knowledge translation. The project began in 2009 in response to growing concern throughout the health system about the impending expiry of the 2004 federal-provincial 10-year plan and the future role of the federal government. The project also responds to broader public concerns about health system efficiency, quality, and accessibility – crises for which restructuring is seen as a potential solution. Despite growing recognition of the importance of leadership in restructuring and transforming health systems, there is a need to clearly understand the most effective leadership practices to facilitate health system reform. Beyond this, the pan-Canadian project strives to bridge knowledge with practice by developing and mobilizing a set of approaches, tools, and techniques to create a culture of effective health leadership in Canada.

The Prairie Node case study focused on leadership in the implementation of shared services in Saskatchewan. Originating from the 2009 Patient First Review, the goal of the Shared Services Initiative (SSI) was to achieve cost savings by consolidating supply management and business functions through a central office. Recognizing the limitations of the recent centralization initiative that produced a single health organization in Alberta, the goal of Saskatchewan's SSI was to achieve economies of scale and scope while maintaining its decentralized system. To date, SSI implementation has targeted supply chain, linen, and human resource lines, with future projects planned for environmental services, medical imaging, and laboratory functions.

Like the other regional nodes, the Prairie Node project used a Participatory Action Research (PAR) framework, which emphasizes the involvement of participants in designing and implementing the research. To this end, the Prairie Node researchers actively consulted with three decision-makers (who represented multiple organizations and levels of authority) throughout the project. The involvement of decision-makers required a careful approach to preserving participants' confidentiality; the methods were specifically designed to preserve confidentiality to the greatest extent possible.

Another key goal of PAR studies is to produce usable knowledge that can be implemented by the partners (i.e., the decision-makers in this project). To this end, the research was conducted in three cycles between 2011 and 2013 in order to correspond with the implementation of SSI projects in real time and to provide input at key junctures. Overall, Prairie Node researchers conducted 62 semi-structured interviews, three focus groups, and a Delphi survey with a total of 60 health system leaders in multiple organizations and at three main levels of authority. Group 1 included governance and directional leadership at the ministry and health region executive level, Group 2 consisted of Shared Services senior leadership immediately below CEO level at collective and individual project stream levels, and Group 3 included front-line leadership of existing business units within each project. Cycle 1, which was conducted between October 2011 and January 2012, focused on Shared Services generally. For Cycle 2 (January – April 2013), we narrowed the focus to two specific projects currently under implementation: group purchasing (part of the Supply Chain business line) and Gateway Online (a Human Resources software initiative). We continued to focus on these lines for Cycle 3, which was completed in September and October 2013.

The first cycle of research revealed four main challenges of leadership in the SSI, several of which grew in significance over subsequent cycles. The challenges were related to: (1) vision, (2) engagement, (3) personal leadership, and (4) political will. The findings not only highlight the importance of vision and engagement, which are already key parts of existing leadership frameworks such as LEADS, but also suggest that these are areas of continuing weakness in Canadian health leadership. Personal leadership and political will are important contextual factors that can either hamper or facilitate health system transformation. Two other contextual issues emerged as the study progressed: the importance of alignment between change initiatives or projects and the importance of understanding the nature of distributed leadership in a decentralized health system.

Early in the project, we found that higher-level leaders responsible for visioning (i.e., Group 1) were not communicating a well-articulated vision for the SSI. As a consequence, front line leaders (Group 3) felt unable to adequately articulate the purpose of the required changes to their own staff as well as other employees in associated organizations. Despite the recognition that vision is important, mid-level leaders in Group 2 expressed concern that they were unable to devote sufficient time to communicating and carrying out the SSI vision. The vision problem

gradually improved throughout the study, particularly because of efforts made by 3sHealth (the central shared services office established in March 2012) to include actors at all levels in "visioning sessions" for future shared services projects.

These visioning sessions also helped address the engagement challenge. In Cycle 1, participants in Groups 2 and 3 had continually cited the importance of engagement, but it was not as emphasized by higher-level leaders in Group 1. Most participants promoted the importance of regular meetings, check-ins, and continual communication about the SSI. By Cycle 2, participants felt that engagement conditions had worsened, largely because of the competing priorities associated with Lean and *hoshin kanri* planning. Although these competing priorities remain an issue, by Cycle 3 the engagement efforts by 3sHealth had improved matters somewhat. Despite these improvements, and despite senior leaders' continued emphasis on the importance of engagement, there remain some challenges obtaining full "buy-in". Many front-line leaders expressed a lack of control over the actual implementation of initiatives, including Lean and *hoshin kanri*. Addressing remaining concerns about job loss and facilitating front-line leaders' control over implementation – i.e., empowering them to lead, not just manage – could help attain "buy-in" in the future.

Indeed, some of the most important findings in the Prairie Node study were related to personal leadership at all levels of the health system. Challenges related to personal leadership were first revealed in Cycle 1. When asked about their own leadership, many participants focused on external constraints and many were unable to critically reflect on their personal leadership abilities. Nonetheless, many participants were interested in leadership learning and development opportunities, and several had undertaken leadership education initiatives on their own. By Cycle 3, personal leadership – especially amongst front-line leaders – had emerged as an important issue that, in the minds of many senior leaders, would determine the success or failure of key initiatives. In a hierarchical health system structured by rules and protocols to ensure accountability, front-line leaders have been habituated to manage rather than "empowered to lead". Further, fear of job loss – which is particularly pertinent in restructuring initiatives – may prevent managers from taking the risks of leadership. The challenge of personal leadership can be addressed by extending more training and control to front-line leaders, as well as further engagement of senior leaders into the daily activities of those on the front-line. It is also important that leadership development efforts are integrated into existing activities and draw on

existing networks, as leaders have little time available for new initiatives.

The fourth and final leadership challenge was related to political will. In Cycle 1, leaders in all three groups mentioned their concern about the government's political willingness to follow through on the reform when the "rubber hits the road" in the implementation stage. Developments that had occurred by Cycle 3 – particularly the provincial cabinet's major decision in Spring 2013 to centralize linen services – had diminished this challenge somewhat, but in other areas political will "remains to be seen".

Beyond the four challenges of leadership, Cycle 2 revealed two further issues that had become amplified by Cycle 3. These were: (1) a potential lack of alignment (or lack of understanding about the alignment) between Shared Services and the two quality improvement tools being emphasized by the Ministry – Lean and *hoshin kanri*; and (2) emerging issues concerning distributed leadership in a decentralized health system. The very nature of the initiative studied in Prairie Node is most revealing about Distributed Leadership from at least two perspectives. First, as an initiative moves from central levels to regional level the perspectives change greatly and the further you get from the central table the harder it is to maintain the vision and achieve true engagement. Second, no initiative exists on its own so the same people expected to drive and implement an initiative also have their time and energies devoted to other priorities. As the momentum for change increases along with the usual need to address day-to-day health system issues, the loading effect of all these demands gets lost. Accordingly, there is a need to better gauge the overall demands being placed on individuals who must balance the needs of their individual organizations with the many obligations (and opportunities) of providing leadership at the level of the provincial health system.

The findings from the Prairie Node case study support the main components of LEADS as an emerging leadership competency framework. In general, participants found all components of the LEADS framework to be important, but when pressed for time it was often personal leadership (i.e., the LEADS component, "increasing your awareness about your own values, principles, strengths and limitations") that fell to the wayside. Similarly, leaders under pressure were less likely to practice evaluation (i.e., "measuring and evaluating outcomes of your initiatives"). Further, the Prairie Node findings reveal the importance of not just vision, but specifically *long-term* vision, as a key leadership characteristic in health reform contexts. This suggests a potential extension of LEADS to include more longitudinal leadership thinking.

Part One: Introduction and Context

The purpose of the *Leadership in Health Systems Redesign* Participatory Action Research (PAR) project is to help develop leadership capacity in the Canadian health system through applied research and knowledge translation. The project is stewarded by a network comprised of senior decision-makers (under the auspices of the Canadian Health Leadership Network [CHLNet]) and representatives of the health leadership research community from nine universities across Canada (led by Royal Roads University [RRU]) in a unique collaborative partnership – a *network of networks)*.

In addition to the research itself, aiming at understanding leadership in action, there was also the twin goals of: (1) building an integrated regional and national knowledge translation and knowledge mobilization (KT/KM) strategy that distils the knowledge from the case studies and translates it into practice; and (2) developing a sustainable *network of networks* in health leadership research that will last well beyond the PHSI funding envelope and timeframe.

The research questions being explored are:

1) What is the current state of health leadership capacity in Canada? What is working, or not working, in terms of stimulating and supporting health system transformation, and what contextual factors influence effective leadership action?
2) Where are the gaps between current practices, the evidential base in the literature, and the expectations for leadership outlined in the emerging health leadership capability/competency frameworks (e.g., LEADS capabilities framework), and how might a set of national standards for leadership be structured?; and
3) How can knowledge of effective leadership be translated and mobilized by the network into approaches, programs, tools and techniques to develop a culture of effective leadership in Canada, and enhance the development of quality health leaders?

The methodology employed to answer these questions was chosen to reflect the unique context of distributed or shared responsibility for health service delivery in the Canadian federal system. Canada is a Westminster-style con federation with a Canada-wide set of interlocking set of provincial/territorial universal health insurance programs, guided by the spirit and intent of

national standards as set out in the Canada Health Act (1984). This decentralized approach its due to the fact that constitutional responsibility for health service delivery resides primarily at the provincial and territorial level (except for specific services delivered by the federal government provides to first nations and aboriginal peoples and to employees of national agencies, such as the Department of National Defence).

To understand the leadership dynamics of health system delivery in Canada, the project conducted action research into the practice of leadership to create health system redesign in five regional contexts and one national context. This approach reflects the decentralized or 'loose' governmental stewardship and approach to leadership of health care in Canada (Tholl & Bujold, 2011, Currie and Lockett, 2011).

The research methods employed in this project were to conduct a longitudinal PAR approach (i.e., three cycles of participatory action research over two years) utilizing mixed qualitative methods to gather data. This method recognizes the ongoing, iterative development of understanding phenomena such as leadership of change, distributed leadership and its dynamic manifestation through time, circumstance and situation. The research is both exploratory and interpretive, aimed at hermeneutic understanding or 'meaning making' (Greenfield in Gronn, 1983; Krauss, 2005; Nicklin, 2012; Varney, 2009). Concomitantly, this report explores, documents, interprets and describes, in rich, thick case reports, the exercise of the practice of leadership in real life situations demanding or requiring its skills in creating change (Lincoln, 2010; Lincoln & Guba, 1985).

The project employed a multiple case comparative analysis approach (Yin, 2009) to investigate, and if possible, elucidate common themes and practices re: effective leadership for health reform in Canada, and the factors that both impede and facilitate its distributed action (Currie and Lockett, 2011; Gronn, 2004; LEADS framework, 2012) in a Canadian context. A case-study approach is appropriate to investigate new areas in which knowledge is sparse or missing, and when complex phenomena are being studied (Creswell, 2003; Flick, 2009; Stake, 1995).

Part Two: Regional Case Study: Prairie Node

Background and Selection of the Case Study

The Prairie Node case study is the Saskatchewan Shared Services Initiative. Shared Services originated with the 2009 Patient First Review, which recommended that the province, its regional health authorities, and the provincial cancer agency should establish shared services to achieve cost savings in supply management and business functions common to these organizations. The broader context of Shared Services includes the 2008 creation of a single regional health authority in Alberta, known as Alberta Health Services (Donaldson, 2010). At that time, there had been considerable discussion in Western Canada concerning the potential advantages of creating a single organization to improve efficiency and reduce the cost of "back-office" functions in particular. However, by the time Shared Services was being introduced in Saskatchewan, some of the disadvantages of this highly centralized approach were also becoming evident. By relying on the existing leadership capacities of individuals within this distributed system, Shared Services hopes to achieve economies of scale and scope that could be potentially achieved through a unified health care organization, but without the need to establish a single, hierarchical organization and thereby avoid some of the problems associated with this type of centralization.

First announced by the provincial government in March 2010, the original objective of Shared Services was to increase provincial health service alignment and integration, facilitate sharing of best practices and capacity, improve process efficiency, and introduce greater standardization and consistency across diverse delivery organizations. A further objective of Shared Services was to facilitate process redesign in order to enhance value to the system, improve service quality including superior customer service to patients and health system partners, and reduce costs through increasing economies of scale and reducing overlap and duplication. Although directed by the Saskatchewan Ministry of Health, Shared Services was implemented through the active co-operation of 12 delegated health regions, the Saskatchewan Cancer Agency and the independent health care organizations and health providers, including physicians, that contract with these provincial organizations. In April 2012, the Saskatchewan

Association of Health Organizations (SAHO) amended its bylaws to produce a central office, known as 3sHealth, for Shared Services in Saskatchewan.

Shared Services was identified as an appropriate case study through a process of consultation with Deputy Ministers and health authority CEOs in Manitoba, Saskatchewan, and Alberta. The planning for Shared Services was considered well enough advanced so that meaningful research on leadership from vision to implementation could take place within the time span of the research project. Consistent with the other regional nodes in this project, this research was designed to shed light on how issues of accessibility and quality, as well as efficiency and effectiveness, are negotiated in the context of a distributed model of health system leadership, governance and decision-making. Since other provincial governments in Canada are also struggling to find the optimal balance between centralization and decentralization while striving to reduce waste and obtain greater economies of scale and scope, this research was designed to be relevant to all jurisdictions in Canada and beyond.

Prairie Node Research Design and Methodology

Overview.

The Prairie Node case study was designed to assess leadership at various stages in Shared Services as it progressed. All participants were actors in the Saskatchewan health system who have been involved in some capacity with Shared Services. They represented three levels of health system engagement and were categorized into three corresponding participant groups. Group 1 included governance and directional leadership at the ministry and health region executive level, Group 2 consisted of Shared Services senior leadership immediately below CEO level at collective and individual project stream levels, and Group 3 included front-line leadership of existing business units within each project.

Cycle 1, which occurred from October 2011 to August 2012, examined leadership throughout the stages of commitment in principle and design. Cycle 2, which ran from January to April of 2013, focused on the leadership being exhibited in two Shared Service business streams that had experienced some progress in implementation – Group Purchasing (common procurement) and Gateway Online (IT-based common human resource processes). Cycle 3 was

conducted in late September and early October 2013, examining recent developments in procurement and human resources. Cycle 3 also identified concrete steps that could be taken by decision-makers to address the findings of the study.

Cycles 1 and 2 each included two distinct phases of research employing distinct research methods. In Cycle 1, the first phase generated 39 semi-structured individual interviews. The second phase involved an assessment of the collective results in order to create a Delphi survey that was distributed to the same 39 participants so that they could respond to the collective results, as well address the areas where the responses were significantly different among the three groups in the first phase.

Prior to beginning Cycle 2, the researchers met with the key decision-makers to identify the business lines that were entering implementation phase. It was decided that Cycle 2 would focus on two projects that were most advanced in implementation: Group Purchasing and Gateway Online. The first phase of Cycle 2 consisted of interviews with 16 strategically chosen participants, and the second phase involved two focus groups with front line managers from each business line.

In early September 2013, the researchers met with decision-maker partners and the 3sHealth executive team to discuss the Cycle 2 results and to plan the final cycle of research. It was suggested that some issues identified in Cycle 2 might no longer be applicable due to 3sHealth's activities in the preceding months. Therefore, Cycle 3 was designed to capture any changes that had occurred in the six months since Cycle 2. Participants were also asked to identify concrete next steps that could address remaining issues. The third cycle involved key informant interviews with six leaders in Groups 1 and 2 as well as a small focus group and one key informant interview with five Group 3 managers.

Ethics Issues Associated with Participatory Action Research.

In participatory action research (PAR), participants are seen as collaborators in the project and are involved in research design and implementation. The project involved three participants positioned as "leader-researchers": health system actors who are involved in the research process and remain connected to the academic research team, yet also act as participants in the study. These leader-researchers – the Deputy Minister of Saskatchewan Health (Dan

Florizone), the CEO of the Saskatoon Health Region (Maura Davies, who was also one of the principal applicants on the original grant application to CIHR), and the executive head of 3sHealth (Mike Shaw, later succeeded by Andrew Will) – played an instrumental role in encouraging participation, as well as assisting with the study design and procedures. Overall, the involvement of leader-researchers exemplifies the PAR goal of creating horizontal research alliances.

The Prairie Node academic research team[1] tracked the establishment and implementation of Shared Services, originally presented by the Government of Saskatchewan as a major current restructuring initiative. The research was intended to provide relevant and useful information for decision-makers by collecting confidential feedback from participants at various levels of authority within the system and at different points in time. The inclusion of leader-researchers facilitated this process, but also created particular ethical challenges related to participant confidentiality. Since the participants work at various levels of power and authority, confidentiality measures were of utmost importance. This was confirmed by the fact that a number of participants conveyed feelings of anxiety or fear about their future employment to the research team, a situation that could, if left unaddressed, produce biased results by inhibiting participants from speaking honestly.

Confidentiality issues were addressed in two ways. First, individual participants' responses were kept confidential within the academic research team. The leader-researchers were only provided with aggregated results. Second, the academic research team used a "post-interview" consent form (adapted from Kaiser, 2009), which allowed participants to speak freely during the course of the interview and later select any information they did not want to include in the final results. For example, participants could "select out" any stories or anecdotes that might reveal their identity as a participant. This approach was particularly useful considering the highly interconnected and relatively small number of Saskatchewan health system actors, and was also consistent with the PAR goal of enhancing participant control over the research.

[1] The three members were: Gregory P. Marchildon, Prairie Node Research Director; Don Philippon, Director of Knowledge Translation; and Amber Fletcher, Postdoctoral Research Associate under the supervision of Marchildon. Both Marchildon and Philippon had also been senior civil servants in the governments of Saskatchewan and Alberta.

Modified Delphi Method

The research was conducted using a modified Delphi method, which corresponds with the PAR framework of the study. The Delphi method has been defined as "a method for the systematic solicitation and collection of judgements on a particular topic", which occurs "through a set of carefully designed sequential questionnaires interspersed with summarized information and feedback on opinions derived from earlier responses" (Delbecq, Van de Ven, & Gustafson, 1986, p. 10). The method is commonly used for examining "subject matter where the best available information is the judgment of knowledgeable individuals" (Ziglio, 1995, p. 15). Therefore, the Delphi method relies on a carefully selected participant pool and requires systematic reporting, validation and revision of results by experts over successive phases. A key goal of conventional Delphi studies is to create a gradual consensus of expert opinion by encouraging participants to revise their answers in light of the group average.

Because individual participants' data is kept confidential and only the aggregate data is shared, the Delphi method can mitigate the effect of power differentials that may operate in conventional face-to-face focus groups (Ziglio, 1995), thus preventing the domination of group opinion by a particular individual or sector, a particularly important consideration for the Prairie Node. In addition, because Delphi surveys can be administered electronically, the method is useful for collecting information from geographically dispersed leaders in Saskatchewan.

Since its inception in the 1950s, there have been numerous adaptations, modifications, and uses of the Delphi method. The Prairie Node study used a modified Delphi method with three different methods of data collection: interviews, a Delphi survey, and focus groups. This methodological triangulation enhanced the dependability of the data (Denzin, 1970). In the first phase of Cycles 1 and 2, we used semi-structured interviews rather than the survey-type questionnaire commonly used in the first phase of Delphi studies. Instead of seeking consensus amongst the participants in the second phases, we used two different methods to obtain further reflection and validation of the previous results.

In the second phase of Cycle 1, we used a Delphi survey to track any change in participants' views over time in order to explore more deeply the areas where participants' views (from phase 1) differed from each other. To do this, the Delphi survey reported the aggregated interview data results to participants, sought participants' validation of the interview data, and provided them with an opportunity for additional input in light of recent events. It also asked

participants to interpret, using open-ended comment boxes, the reasons why participants' views varied dramatically in five key areas. In this way, the Delphi survey facilitated a PAR approach to research by ensuring continuous interaction with participants and providing them with the opportunity to read and revise the research results, to interpret the findings, and to provide feedback on leadership within Shared Services as it progressed. By the second phase of Cycle 2, the focus had been narrowed to two particular Shared Services projects and several key issues had been identified. Therefore, we conducted two focus groups with representatives from the two targeted business lines to investigate the key findings. These focus groups benefited from the reflections of new participants who had not yet been involved in the study. Cycle 3 was designed as a final verification step to ensure that the findings were accurate and current and to identify future actions by decision-makers; therefore, it required only one phase of data collection and interpretation.

Application of Methods

Cycle 1, phase 1: Interviews and coding.

The first phase of the Delphi process involved semi-structured interviews with 39 research participants: 17 in Group 1, 12 in Group 2, and 10 in Group 3. Each interview lasted approximately one hour and as many as possible were conducted in person, with the remainder conducted by telephone. The interviews involved a set of qualitative, open-ended questions followed by a set of quantitative Likert scale rating questions.

Some of the open-ended interview questions were specific to the Prairie Node case study, while other questions were intended to address the three broad questions that each node address as part of the broader national project: 1) What is the current state of health leadership capacity in Canada? What is working, or not working, in terms of stimulating and supporting health system transformation, and what contextual factors influence effective leadership action? 2) Where are the gaps between current practices, the evidentiary base in the literature, and the expectations for leadership outlined in the emerging health leadership capability/competency frameworks (e.g., LEADS), and how might a set of national standards for leadership be structured? 3) How can knowledge of effective leadership be translated into approaches,

programs, tools and techniques to develop a culture of effective leadership in Canada, and enhance the development of quality health leaders? The interview questions (see Appendix D) were designed to foster a deeper understanding of the leadership abilities that most accurately constitute a "best practices" framework in health system redesign.

After collection, the interview data were coded using NVivo 9 qualitative data processing software. Responses from each participant group were coded separately in order to identify key areas of correspondence and difference between the groups. A combination of inductive and deductive coding strategies was used. First, repeating ideas were identified inductively using an automated word frequency query. Although this strategy proved useful for identifying several dominant themes that could be encompassed in a single word, it was insufficient for identifying all relevant themes and thus represented only a first step in the coding process.

Further coding was conducted using three strategies: (1) inductive "open coding", which produced 52 codes, (2) deductive coding based on themes drawn from the interview questions, which yielded 21 codes, and (3) deductive coding using words identified through the word frequency search, 23 usable codes. This mixed approach proved very productive. Several key themes emerged during the open coding process that would otherwise have been missed if coding had followed only pre-determined codes. Further, the open coding process identified important differences between the groups, which again would have been lost if the same pre-determined codes were applied to each group. Conversely, the deductive approaches *did* apply the same coding categories to all groups, illustrating areas of convergence. The deductive approaches also helped to ensure a sharp focus on issues of leadership, which otherwise may have been overshadowed by details about the Shared Services Initiative itself. Further analysis of the codes and their content led to several important sets of findings, which were then further elaborated through the Delphi survey (phase 2).

The quantitative portion of the interview sought to understand which leadership styles and behaviours are most emphasized and acted upon in this particular case study of health system change. The 20 leadership styles and behaviours were based on the LEADS framework originally created by the Health Care Leaders Association of British Columbia and the Canadian Health Leadership Network.[2] First, using a scale of 0 to 10 (10 highest), participants ranked the

[2] See http://www.hclabc.bc.ca/leadersforlife and http://www.chlnet.ca/

importance *they* have placed on each leadership style or behaviour during their involvement in Shared Services, given their time constraints. In the second round of Likert scale questions, participants used the same scale to rank the same leadership styles and behaviours, albeit focused on the Shared Services leaders with whom they have interacted. After collection, the quantitative ratings were averaged and compared on an inter-group basis to identify key areas of difference among the participant groups, and five statistically significant inter-group differences were identified for further explanation in the subsequent Delphi survey.

Cycle 1, phase 2: Delphi survey.

The Delphi survey was administered using the online survey management program Survey Monkey. A letter describing the process and directing participants to the survey was sent to the 39 participants in the individual interview. In total, 32 participants responded to the Delphi survey, for an overall response rate of 82 per cent.

The Delphi survey contained two broad topic sections: one on leadership styles and behaviours and the second on problems and challenges in Shared Services leadership. Each section addressed an important set of findings from the interview data and provided validation, revision, or further elaboration of these findings.

Although many of the survey questions were structured with a fixed number of choices, they did include an open-ended comment field for further elaboration. This created an opportunity for participants to disagree or criticize the ideas presented, with participants being encouraged to express disagreement if they desired.

Cycle 2, phase 1: Targeted interviews and coding.

Phase 1 consisted of semi-structured interviews with 16 carefully selected participants, all of whom had been highly involved with Shared Services within one of two selected business lines (Group Purchasing and Gateway Online). Participants were selected to equally represent

each line and also to strike a balance between large and small health regions. Thirteen participants had participated in Cycle 1 and three were new to the research project. Two of the new participants represented the new executive team established in 3sHealth between research cycles. The third new participant was added to compensate for attrition or unavailability of Group 2 participants representing Group Purchasing.

Participants from Cycle 1 were asked to reflect on any changes in their view of Shared Services since their last interview. They were also asked to comment on whether participating in the research project had caused them to reflect differently on leadership or to perform differently as a leader. All participants were asked to comment on the four main leadership challenges identified in Cycle 1; specifically, they were asked about any changes that had occurred vis-à-vis these challenges, and if so, whether leadership had played a role in the change. Participants were also asked a number of questions about leadership and progress in the project at the current stage of implementation.

Due to the precise nature of the questions, interview data was coded manually by question. Response themes for each question were quantified by the number of participants mentioning them. The themes were also disaggregated by group, which allowed us to see if a theme was more or less prevalent among participants in a certain group.

Cycle 2, phase 2: Focus groups.

The second phase of Cycle 2 involved two focus groups held in March 2013. Lawrence Thompson, an experienced facilitator and a knowledgeable health system investigator, facilitated the focus groups. The focus groups were held during regular meetings between representatives of various RHAs in each of the two business lines. Therefore, they included mostly new participants who had not yet participated in the research project. In total, 18 people participated in the focus groups, 11 in Group Purchasing and seven in Gateway Online. Only one (in Gateway Online) had previously participated in the research project. All of the Group Purchasing participants were employed in the health regions. Five of the Gateway Online participants were employed in the health regions or cancer agency, but two employees of 3sHealth also participated in this group. In almost all cases, each participant represented a different health region, with the exception of two Group Purchasing participants from the same health region.

Unlike the decision to use the Delphi survey instrument in Cycle 1, the choice to use a focus group approach was less to validate the research results obtained in the first phase of Cycle 2 than to explore in greater depth key leadership dilemmas and conundrums. However, since each focus group had to be restricted to one hour in duration, we were limited to two major themes in each session.

We selected two issues from the first phase that would benefit from group feedback and scrutiny:

(1) The leadership approaches, styles, and behaviours needed to facilitate Shared Services. In particular, we wanted to understand the choices made by interviewees in the first round much better.

(2) Systems leadership (to "think and act as one") and what was needed to get to systems thinking more quickly.

The focus groups also offered the opportunity to probe the thorny issue of Shared Services tradeoffs and conflicts with other initiatives, particularly Lean and the *hoshin kanri* strategic planning exercises that have increasingly occupied health system leaders in the ministry and health regions. This issue had emerged strongly in the Cycle 2 interviews.

Cycle 3 (one phase).

Cycle 3 involved one phase of data collection. This final phase ensured that all information was up-to-date and accurate. It also identified any steps that could be taken by decision-makers to address the issues identified by the research project. The cycle consisted of interviews with five key informants at the Group 1 and 2 levels, including the decision-maker partners. A focus group was held with five Group 3 leaders in Regina on October 8. One Group 3 leader had been unable to attend the focus group so was interviewed in person the following day. All Group 3 leaders represented either the Supply Chain or Gateway Online business lines.

Part Three: Research Results by Cycle

Cycle 1 Results (October 2011 - August 2012)

Results for the LEADS framework.

Findings from open-ended interview questions and Delphi follow-up.

Although the Likert scale portion of the interview directly addressed the leadership styles and behaviours in the LEADS framework, many LEADS items also emerged during the more exploratory open-ended questions. Participants were asked to name important leadership capabilities that facilitate health system change in general, and to describe leadership characteristics and strategies that have been successful or detrimental in the context of Shared Services in particular.

These questions produced several common themes that support the LEADS framework:

LEADS theme: "Engage Others" → Engagement in general, particularly engagement of all system actors, was seen as critically important both in past Shared Services successes and to the future success of the project.

- *"Communicate effectively" (sub-theme)* → Recent successes in Shared Services were attributed to frequent communication, meetings, and "check-ins". However, many participants, particularly those closer to the front line, reported frustration over a perceived lack of communication and emphasized the need for increased communication about the project to their level.

LEADS theme: "Develop Coalitions" →

- *"Purposely build partnerships and networks to create results" (sub-theme)* → Participants reported that alliances and coalitions have been conducive to the success of the project thus far. In particular, participants appreciated the use of pre-existing

networks, such as working groups and committees, as a basis for future collaboration under 3sHealth. Some participants, especially those in Group 2, saw a positive outcome in the form of increased collaboration with their regional counterparts.

LEADS theme: "Achieve Results" →

- *"Strategically align decisions with vision, values and evidence (integrate organizational missions and values with reliable, valid evidence to make decisions)" (sub-theme),* and
- *"Assess and evaluate outcomes" (sub-theme)* → Participants attributed previous gains in Shared Services to effective evidence-gathering and data collection, particularly the observation of lessons learned in other locations, the use of outside expertise when necessary, and sharing evidence of Shared Services "wins" or successes.

The coding also revealed important leadership characteristics that are not explicitly addressed in the LEADS framework. As such, these characteristics help to extend the current content of the LEADS framework. These characteristics were subjected to further ranking and elaboration in the Delphi survey.

- *Long-term vision:* participants emphasized the importance of persevering vision over the long term. This illustrates a connection between LEADS items "Achieve Results" and "Systems Transformation", which emphasize vision and future thinking, respectively;

- *Integrity, credibility, and trustworthiness*: these characteristics identified by participants build upon the "demonstrate character" subtheme of LEADS item "Leads Self"). Note that integrity is already present in the LEADS framework. This emphasis thus confirms its importance;

- *Commitment and perseverance*: participants emphasized the need for leaders to remain committed to a particular project. Some expressed concern about their efforts being wasted as projects fall to the wayside. If added to the LEADS framework, this characteristic would further elaborate both the "Leads Self" and "Systems Transformation" items in LEADS;

- *Humility and flexibility*: these characteristics supplement the "demonstrate character" subtheme of the LEADS framework.

These four clusters of characteristics emerged from the interview data during the coding process. Since they are not explicitly contained in the LEADS framework (again, with the exception of integrity), they had not been included as Likert scale questions in the interviews. Therefore, they were incorporated into the Delphi survey for further explanation. To gain an appreciation of their relative importance, participants ranked each in relation to the other, with results as follows:

Table 1: Rankings of 4 additional leadership characteristics not contained in LEADS (1=most important; 4=least important).

CHARACTERISTIC	GROUP 1		GROUP 2		GROUP 3		TOTAL
	Mean	Group Rank	Mean	Group Rank	Mean	Group Rank	
(Integrity), credibility, trustworthiness	1.71	1	2.00	1	1.67	1	**1.78**
Long-term vision	2.08	2	2.22	2	2.44	2	**2.23**
Commitment and perseverance	3.00	3	2.88	3	3.33	4	**3.07**
Humility and flexibility	3.36	4	3.25	4	2.56	3	**3.10**

All groups rated "Integrity, credibility, and trustworthiness" as the most important of these four items. "Long-term vision" was consistently ranked second. Group 3 diverged from the trend by ranking "humility and flexibility" as more important than "commitment and perseverance", which was ranked third by the other more senior groups. It could be speculated that this is a result of front-line leaders having to be flexible in how they implement Shared Services on the ground, and the changes that have to be made to adapt to local circumstances after the initial direction. Humility and flexibility were grouped together for ranking because, in the context of this leadership project, participants referred to humility as the characteristic of acknowledging what one does not know, and the ability to admit one's errors. This was associated with flexibility, defined as the ability to make necessary changes as conditions change or as new information emerges.

Five participants used the open comment box to add other items, most of which were already covered in the Likert scale questions (namely: “systems thinking”; “openness, transparency, communicative”; “honestly transparency” [*sic*]; “service philosophy”; “ability to communicate”). It is notable that two separate participants mentioned transparency, a fact that reiterates its importance.

Findings from Likert rating scale interview questions and Delphi follow-up.

The Likert rating scale questions were also used to evaluate the LEADS framework. As discussed previously, interview participants were asked to rate the importance placed on each LEADS characteristic by both themselves and other leaders involved with Shared Services. This provided an understanding of the most emphasized and valued LEADS items in this particular case study.

Table 2 below displays the total aggregated mean Likert ratings of each leadership characteristic. Eight characteristics are marked by a notable difference (equal to or greater than 5 points) between the self-assessment and the assessment of other Shared Services leaders. (See Appendix A for the mean and median participant-group ratings for each leadership style or behaviour rated on the Likert Scale). These differences, highlighted in yellow below, will be explored further in the next phase of the Delphi process.

Table 2: Average Likert ratings and ranks (all groups): self-assessment and assessment of other leaders (10=most importance)

LEADS LEADERSHIP CHARACTERISTIC	SELF-ASSESSMENT		ASSESSMENT OF OTHERS**	
	IMPORTANCE	RANK	IMPORTANCE	RANK
Modelling qualities such as integrity, honesty, resilience and confidence	8.35	1	8.05	1
Being a champion for change to improve health services	7.76	2	7.79	4
Creating connections, trust and shared meaning with others	7.59	3	*7.76	5
Creating teams that use cooperation and collaboration to achieve results	7.41	4	*7.68	6
Taking action to implement decisions	7.41	5	7.18	12
Negotiating through conflict and understanding the socio-political environment	7.38	6	*7.21	11
Demonstrating systems thinking	7.38	7	7.82	2
Facilitating collaboration among diverse groups to improve service	7.36	8	7.31	8
Scanning the environment for best practices	6.97	9	7.82	3
Taking responsibility for your own performance and health	6.91	10	7.08	13
Encouraging creativity and innovation	6.91	11	6.74	16
Creating an environment where others have meaningful opportunities and resources to carry out their roles	6.85	12	6.53	19
Listening and encouraging open communication using a variety of media	6.79	13	6.97	14
Integrating organizational missions, values and evidence to make decisions	6.76	14	7.23	10
Developing a vision and setting direction	*6.56	15	7.67	7
Developing methods to gather and use evidence to improve action	6.47	16	*7.31	9
Fostering the development of others	6.38	17	6.47	20
Your/their personal self development and learning	6.06	18	6.7	17
Measuring and evaluating outcomes of your initiatives	5.91	19	6.75	15
Increasing your awareness about your own values, principles, strengths and limitations	5.74	20	6.55	18

*Items marked with an asterisk (*) are the five items wherein a statistically significant difference was found between groups, as described below.

**Participants were asked to evaluate the importance other leaders in Shared Services had placed on each item. Although they were free to discuss any leaders they had interacted with, most focused on those within their peer grouping (i.e., Group 1, Group 2, or Group 3).

Five items were identified as showing significant differences between the three participant groups in the Phase 1 interview stage. These items are marked by an asterisk in Table 2 and are highlighted in yellow on the charts in Appendix A. Because of their statistical significance, these five items were selected for further follow-up in the Delphi survey.

The 5 items in question were:

- Self-assessment item: importance the participant her/himself placed on "developing a vision and setting direction";
- Assessment of other Shared Service leaders: importance other leaders in the project placed on "creating teams that use cooperation and collaboration to achieve results";
- Assessment of other Shared Service leaders: importance other leaders in the project placed on "creating connections, trust and shared meaning with others";
- Assessment of other Shared Service leaders: importance other leaders in the project placed on "developing methods to gather and use evidence to improve action";
- Assessment of other Shared Service leaders: importance other leaders in the project placed on "negotiating through conflict and understanding the sociopolitical environment."

In the first section of the Delphi report, participants were presented with the aggregated Likert ratings and asked to comment on the five areas where a statistically significant inter-group difference was found. Participants' interpretations of these differences provided little additional insight. Most attributed the differences to the different roles and responsibilities of each group. The fifth item, wherein participants were asked about the importance other leaders had placed on "negotiating through conflict and understanding the socio-political environment", produced a diversity of answers, some of which did not address the question asked. See Appendix B for more detailed information on the Likert ratings and summaries of the qualitative interpretations provided by participants.

After interpreting the statistically significant inter-group differences, participants were given an opportunity to revise their previous rating based on the mean response and/or more recent events in Shared Services. Once respondents were exposed to the aggregate results in the Delphi report, Likert ratings for all 5 items increased. The largest increase was 15% for the self-assessment of "importance placed on 'developing a vision and setting direction'. This could mean that participants reconsidered and elevated the importance of vision and setting direction as a critical part of leadership in Shared Services. The smallest increase was 1% for participants' assessments of other Shared Services leaders in the area of "developing methods to gather and use evidence to improve action."

It is notable that Group 1 consistently increased its rankings on all five items, whereas Groups 2 and 3 provided both increasing and decreasing rankings. Only on the first item (self-assessment, "vision and direction") did ratings increase consistently across all groups.

Four key leadership challenges in Shared Services.

Analysis of the coded data allowed the academic researchers to identify four key leadership challenges for Shared Services that were included in the Delphi survey for further validation and feedback.

Challenge #1: Vision → while it is inevitable that the vision for most major health system reform including Shared Services will come from the stewards of the entire health system; in this particular case, it was initiated by the provincial government including the Minister of Health and the Ministry of Health. It is also the case that any major communications concerning the reform, including the basic vision underpinning the reform, are less frequent as you move away from the central decision makers. In this case, many Group 3 respondents felt that higher-level leaders have not communicated a well-articulated vision for Shared Services. As a consequence of this, these front line leaders felt unable to adequately articulate the purpose of the changes necessitated by Shared Services to their own staff as well as other employees in associated organizations. Group 3 leaders were also concerned about the veracity and accuracy of the information they have provided to staff concerning potential job losses.

At the same time, many Group 2 leaders were concerned about the lack of time they could devote to Shared Services including communications concerning the project vision despite their recognition that setting the vision is an essential component of leadership. This appears to be a consequence of most Group 2 members being torn between their regular jobs and their leadership responsibilities in Shared Services. Group 2 members recognize this and expressed great concerns about the time they are actually able to devote to Shared Services.

Challenge #2: Engagement → there was a dramatic difference between Group 1 and Groups 2-3 in the emphasis placed on the importance on engagement. While the importance of engagement was cited continually by the two latter groups in their interviews (it was the second most

dominant theme in their responses), engagement was a relatively minor theme for Group 1. However, all groups, including Group 1, recognized the importance of regular meetings, check-ins, and continual communication regarding Shared Services. As noted above, Group 2 readily admits they have not been able to devote the time necessary to engage staff sufficiently.

Challenge #3: Political Will → leaders in all three groups mentioned their concern about the government's political willingness to follow through on the reform when the "rubber hits the road" in the implementation stage. Many repeated the view that while the government had an appetite for change, few are convinced that it will, ultimately, have the stomach for Shared Services, particularly in the face of organized opposition on the ground.

Challenge #4: Personal Leadership → the questions that were asked concerning personal leadership and lessons learned during the initial stages of Shared Services indicate some challenges in terms of leadership self-awareness. When asked questions about their own leadership in Shared Services, many interviewees focused on factors, including constraints, external to their own ambit for action and leadership. Few were able to identify personal behaviours and strategies that were changing as a result of this project, at least thus far. Despite this, a few leaders across all three groups identified or requested future learning opportunities that would improve their own leadership development and enhance their change management skills. Given the differences in views around the clarity of vision, to use one example, we would have predicted that leaders would be more self aware of personal limitations and therefore more cognizant of how they improve their leadership style.

Potential responses to key leadership challenges.

A section of the Delphi survey was designed to seek potential responses to these four major challenges of leadership. For each leadership problem in Shared Services, participants were asked to rank a list of possible solutions. An open comment box was available for additional commentary and feedback. These quantitative and qualitative responses are presented below. Yellow highlighted areas indicate items where a group's ranking differed from the overall mean ranking.

Potential responses to vision challenge.

Table 3: Rankings of potential responses to "vision" challenge

(1=most important; 4=least important). Refer to full survey in Appendix for full names of each solution.

RESPONSE	GROUP 1		GROUP 2		GROUP 3		TOTAL
	Mean	Group Rank	Mean	Group Rank	Mean	Group Rank	
More communication on 3sHealth from CEOs of health regions	2.14	1	1.56	1	1.78	1	**1.88**
More regular communication between 3sHealth office and front-line	2.29	2	2.50	2	2.89	4	**2.52**
Fewer but more strategic communication from CEOs and 3sHealth office	2.50	3	3.00	4	2.78	3	**2.71**
More communication from government and Ministry	3.23	4	2.88	3	2.56	2	**2.93**

Comments by Participants:

- "Communicate examples of successes as they occur" (Group 1 participant)
- "More regular communications about strategic direction on Shared Services to CEOs and senior leadership of the health regions" (Group 1 participant)
- "All communication on shared services should be transparent, occur in real time and be provided by the regions NOT Ministry or Shared Services Office unless otherwise agreed to" (Group 2 participant)
- "Strategy and support for Communication should be led by Shares Services Office, but the actual communication with staff should be by the RHA/SCA" (Group 2 participant)

Potential responses to engagement challenge.

Table 4: Rankings of potential responses to "engagement" challenge

(1=most important; 4=least important). Refer to full survey in Appendix for full names of each solution.

RESPONSE	GROUP 1		GROUP 2		GROUP 3		TOTAL
	Mean	Group Rank	Mean	Group Rank	Mean	Group Rank	
CEOs engage employees and stakeholders	2.43	2	1.78	1	2.00	1	**2.13**
Providing Group 2 (now 3sHealth) with time to engage front-line (Group 3)	2.08	1	2.44	3	2.67	3	**2.37**
Group 1 directly engage Group 3	2.71	3	2.33	2	2.44	2	**2.53**
Deeper engagement between HRs/SCA, Council of CEOs, & Ministry	2.92	4	3.63	4	2.89	4	**3.10**

Comments by Participants:

- "Be sure all CEOs are on the same page, including CEO of 3S Health" (Group 1 participant)
- "Communication to stakeholders, i.e., affiliate organizations" (Group 1 participant)
- "Providing SSOC and SSO with adequate time to regularly engage Group 1" (Group 1 participant)
- "Effective engagement requires content and process for feedback, supported by change management skills/framework. General information communicated in newsletters isn't engagement" (Group 2 participant)

Potential responses to political will challenge.

It is notable that the potential solutions to the challenge of political will were ranked in the same order by each group. All other challenges of leadership are marked by differences between the groups. This indicates inter-group agreement on the most effective solutions to this particular problem.

Table 5: Rankings of potential responses to "political will" challenge
(1=most important; 4=least important). Refer to full survey in Appendix for full names of each solution.

RESPONSE	GROUP 1		GROUP 2		GROUP 3		TOTAL
	Mean	Group Rank	Mean	Group Rank	Mean	Group Rank	
Better clarify overall SSI vision	2.00	1	1.56	1	1.78	1	**1.81**
Stronger statement of commitment from govn't and RHAs	2.21	2	2.11	2	2.22	2	**2.19**
Better explain cost savings from SSI	2.38	3	2.78	3	2.33	3	**2.48**
Increase pace of SSI implementation	3.43	4	3.56	4	3.67	4	**3.53**

Comments by Participants:

- "The BEST thing that shared services could do right now is explain how this work aligns with the Hoshins and the Lean management work. If this is not done it will be difficult for anyone to pay attention to it" (Group 2 participant)
- "Group 3 leaders need help with workload so they can better communicate within regions about shared services" (Group 3 participant)

Potential responses to personal leadership challenge.

Table 6: Rankings of potential responses to "personal leadership" challenge
(1=most important; 4=least important). Refer to full survey in Appendix for full names of each solution.

RESPONSE	GROUP 1		GROUP 2		GROUP 3		TOTAL
	Mean	Group Rank	Mean	Group Rank	Mean	Group Rank	
Change management	2.36	2	1.33	1	1.67	1	**1.88**
Communication	2.00	1	2.56	2	2.67	3	**2.34**
Health system leadership	2.64	3	3.38	4	2.22	2	**2.71**
Self development	3.00	4	2.63	3	3.44	4	**3.03**

Comments by Participants:

- "How to use scripted communication and Q&A guides to the system's best advantage; media relations" (Group 1 participant)
- "Lean - learn by doing/ engaging" (Group 1 participant)
- "Shared service leadership - lessons from other provincial leaders" (Group 2 participant)

Leadership characteristics for future success of initiative.

A further section of the Delphi survey inquired about leadership characteristics necessary for future success of the initiative. The 5 characteristics were selected because of their dominance in the coded interview data.

Table 7: Rankings of leadership characteristics for future success

(1=most important; 5=least important)

CHARACTERISTIC	GROUP 1		GROUP 2		GROUP 3		TOTAL
	Mean	Group Rank	Mean	Group Rank	Mean	Group Rank	
Engagement (of all system actors, meaningful consultation, engagement using communication)	1.92	1	2.33	2	2.22	2*	**2.13**
Clear vision / clear communication of vision	2.57	3	1.78	1	1.89	1	**2.16**
Communication (increased frequency, transparency, well-timed)	2.54	2	3.22	3	2.22	2*	**2.65**
Development of leadership skills / change management skills	3.79	4	3.44	4	4.22	3	**3.81**
Exchange of tools, lessons, and strategies with other locations	4.29	5	4.22	5	4.44	4	**4.31**

"Engagement" received the highest mean ranking as important for future success of Shared Services; however, the mean ranking for "vision" (and communication of vision) was only .3 points lower. In fact, Groups 2 and 3 ranked "vision" as the most important characteristic, indicating that both "engagement" and "vision" are highly valued for the future success of the project. All three group averages placed "exchange of tools, lessons, and strategies with other locations" as the least important of the five characteristics.

Concluding observations and implications for Cycle 1.

Conclusions relevant to the LEADS framework.

While there was general support of the characteristics of leadership defined by the LEADS in a Caring Environment framework adopted by the Canadian College of Health Leaders, some leadership characteristics were emphasized more than others by the leaders participating in Saskatchewan's Shared Services Initiative. In addition, some leadership qualities falling outside LEADS were also identified as critical in the establishment of Shared Services. In the next round of research, we will try to determine whether these characteristics remain constant at a later stage of Shared Services implementation.

Almost all Shared Services leaders placed considerable emphasis on the importance of engaging others by communicating frequently and effectively through periodic meetings and "check-ins", and a number of front-line leaders expressed frustration over what they saw as a lack of communication. However, when all 39 Shared Services leaders were forced to rank the importance, most assessed the leadership characteristic of "listening and encouraging open communication using a variety of media" much less importance. We think it would be useful to explore this apparent contradiction in the next round of research, but we will also be sure to use more precise language in any follow-up of this issue.

The other LEADS theme stressed by Shared Services leaders was the need to use existing partnerships or networks, and to develop new coalitions where these do not exist, at the regional and local level that will facilitate collaboration on Shared Services. Here, the results were consistent with the Likert ratings, in which those interviewed felt that they put great importance on "creating connections, trust and shared meaning with others" (#3 out of 20), and they perceived other Shared Service leaders as largely doing the same (#5 out of 20). Although not rated nearly as high among other leadership characteristics, "facilitating collaboration among diverse groups to improve service" was rated as #8 in importance by Shared Service leaders, the same rating they assigned to what the importance they felt other Shared Service leaders were placing on this same characteristic.

The 39 Shared Service leaders also identified leadership characteristics that are only partially captured in the LEADS framework. In particular, they identified the importance of:

- Generating and sharing (communicating) long-term vision
- Reflecting integrity, credibility and trustworthiness in all your actions
- Having commitment and perseverance
- Showing some humility and flexibility

Conclusions relevant to the future of Shared Services.

The 39 leaders interviewed identified the following four key leadership challenges that need to be surmounted if Shared Services is to succeed in Saskatchewan, as well as how best to deal with these barriers to effective implementation:

Vision: Clear vision as well as a clear communication of the vision (along with engagement discussed below) was identified as the critical leadership factor that will determine the future success of Shared Services. Although initiated by the Ministry of Health, the operational vision for Shared Services was the product of a broader health system initiative involving the executives and boards of the health regions and cancer agency. This vision was well understood by the principals but has not been as well understood or received by more front line Shared Services leaders who have difficulty articulating the vision to their own staff and partner organizations. This may be connected to the lack of time and focus that Group 2 leaders (most of whom had other full-time responsibilities) could devote to the Shared Services initiative, including the time to communicate the Shared Services vision to Group 3 leaders. Some participants suggested more transparent and regular communications about vision, and the CEOs and senior leadership in the health regions should not delegate these communications to 3sHealth or the Ministry of Health.

Engagement: along with vision, this factor was seen as one of the most important leadership characteristics that will determine the future success of Shared Services. Considerable emphasis was again placed on communications including the importance of regular meetings and check-ins concerning the progress of Shared Services, even if there was a difference between Group 1 and

the other two leadership groups concerning its relative importance – more likely a product of role definition than any profound difference in view. Suggested solutions included better communication with the health affiliates, iterative processes involving substantive feedback on Shared Services changes (and the skills needed to accompany these), and ensuring that CEOs (Group 1) are on the same page as planners (Group 2), especially 3sHealth.

Political Will: many leaders, equally expressed in all three groups, expressed concerns about the political willingness of the government and ministry to follow through on the reforms once opposition builds in the community. However, there were few potential solutions offered, perhaps unsurprising in an environment where the majority of leaders likely perceive that they have limited influence on the political and ministry level of leadership. One leaders suggested that the political will issue might be addressed through a better alignment with Lean and the Hoshins change management efforts, which are key priorities for the cabinet and ministry of health.

Personal Leadership: the external focus on many Shared Service leaders often seemed to leave little room for individual leadership initiative, including the personal behaviours and strategies that would facilitate the success of the initiative. However, leaders across all three groups identified and requested learning opportunities that could improve their own leadership development and enhance their change management skills (with another connection to Lean). One respondent suggested that it would be useful to get some examples of leadership from other provincial leaders, presumably those in other sectors.

Cycle 2 Results (January – April 2013)

Interview results in phase 1 of cycle 2.

Responses to the Cycle 2 interviews were extremely diverse and varied. Although this section presents some themes, they are presented cautiously with emphasis on the diversity of the responses.

Progress of the Shared Services initiative.

Participants were asked to comment on their view of the Shared Services Initiative since their last interview. The responses were very mixed, with some viewing it more positively and others more negatively. Although they were asked to discuss any leadership strategies that had caused a change in their opinion, most participants focused on the structure and governance of Shared Services. Some felt that the new 3sHealth executive team had added much-needed structure to the 3sHealth office, while others expressed concern or confusion about the structure. Many wondered about the current role of the 3sHealth office (i.e., is the office acting as a counterpart to the RHAs, as a service provider to RHAs, or as an agent of the Ministry?). Many expressed concern or confusion about the role of the Council of CEOs in 3sHealth governance, and others felt there was a lack of clarity in terms of decision-making authority for 3sHealth.

Despite these questions, many participants believed that Shared Services in general had the potential to make a major difference in overcoming the "natural fragmentation" of the health system. Many felt it was bringing people together but that more work was needed, especially around communication, engagement, and dealing with potential employment losses that could result from Shared Services. Most participants felt that leaders could make a difference in these three areas.

Shared Services leadership at the implementation stage.

When people spoke positively of Shared Services, their views were often linked to collectivity and cooperation. For example, systems thinking and "acting as one" were seen as effective leadership behaviours or strategies that had facilitated Shared Services implementation thus far. Many participants felt that Shared Services had been beneficial for their own leadership by causing them to think more systemically. In contrast, negative and/or resistance behaviours were mostly attributed to fears at the individual level (e.g., additional workload, loss of personal control, or loss of one's job). Once again, communication and transparency – what one participant referred to as "answering the 'me' questions" – were strongly promoted as the best way to assuage these fears.

To follow up on the four leadership challenges identified in Cycle 1, participants were asked to comment on whether each of these challenges had diminished, remained the same, or intensified.

a) Vision. The majority (n=10. G1=4; G2=3; G3=3) felt that the problem of vision had improved, but most were cautious about this improvement. Some felt that the new 3sHealth structure had helped with communicating Shared Services vision. Others felt that more communication was funnelling downward to front-line employees.

b) Engagement. A slight majority of participants (n=9) reported that conditions had become worse when it came to engagement. This view was especially common amongst Group 1 (who represented 6 of the 9 who reported this). This disintegration was consistently attributed to the competing priorities of Lean and *hoshin kanri* or associated time deficits.

c) Political Will. The majority of participants (n=9; 3 in each group) felt that there had been no change on the issue of political will, with most stating that this would "remain to be seen" as implementation proceeds. Three participants felt that the government had shown its commitment to Shared Services, while three had seen a worsening of political will due to the slow pace of implementation. One had mixed feelings and cited the competing priorities (i.e., Lean, *hoshin kanri*) as an on-going challenge to Shared Services.

d) Personal Leadership. A slight majority of participants (n=9) felt that attention to personal leadership had improved amongst health leaders. This was mostly attributed to increased leadership education associated with Lean training. In a similar vein, a few felt that the competing priorities had actually prevented personal reflection on leadership.

Focus group results in phase 2 of cycle 2.

1. The leadership approaches, styles, and behaviours needed to facilitate Shared Services.

In particular, we wanted to understand the choices made by interviewees in the first round much better. While the discussion did not necessarily elucidate all the reasons for the original choices, the participants did at least explain to some extent what they meant by these approaches, styles and behaviours. The results also validated the original results despite the minimal overlap in the participants. The results were also mainly consistent across both the Group Purchasing and Gateway Online groups (see Appendix E).

Without a doubt, the top two leadership approaches, styles and behaviours were: "clear and consistent communication" (7); and "engagement, trust and transparency" (6). This was followed by "long-term vision" (5) although this response was weighted more heavily to the Group Purchasing focus group. However, there was one important shift that occurred as a result of the discussions in the focus groups. "Long-term vision" grew in importance as a generic leadership quality and as a leadership quality that is needed in order to facilitate the future success of Shared Services as a reform. However, the front line leaders in both focus groups also viewed themselves as managers implementing a leadership vision provided by others, rather than as leaders in their own right. As managers, they had two main preoccupations with leadership approaches: receiving a clear and practical vision from others, and engagement of their own staff and colleagues. In any event, the majority of participants were unable or unwilling to use or share their own experiences to answer the questions posed.

2. Systems leadership (to "think and act as one"); what was needed to get to systems thinking more quickly?

In the interviews, it was clear that a majority of leaders felt that Shared Services was making a major change in encouraging a health systems approach. By giving participants the opportunity to learn from counterparts outside their immediate organization/health region, many felt they had learned much about the health system in general. However, there was little

clarity as to what was needed to push this systems leadership to the next level. In other words, few proposed concrete tools, instruments, education, training and experiences are needed to deepen systems leadership. They also had few innovative suggestions on how to sustain transparent engagement at multiple levels.

It should be noted that the actual results on these questions were also inconsistent between the two focus groups. The two groups held different perceptions of the factors that would most contribute to getting to systems thinking more quickly. It should be noted that 5 of the 11 responses from the Gateway Online group emphasized the need for more communication from Shared Service project leaders describing the health system (and presumably how Gateway Online fits into the overall system). As for the participants in the Group Purchasing focus group, they saw a need for health region leadership to increase commitment and reduce resistance. At the same time (and perhaps not surprisingly), they supported the new top-down approach and policy of compulsion ("all-in or all-out").

3. Competing Priorities.

The focus groups also offered the opportunity to probe the thorny issue of Shared Services tradeoffs and conflicts with other initiatives, particularly Lean and the *hoshin kanri* strategic planning exercises that have increasingly occupied health system leaders in the ministry and health regions. The question posed to focus group participants was how to sustain momentum in Shared Services given other major initiatives such as Lean and *hoshin kanri*.

Based on previous interview evidence, it was clear that the agenda of health system managers in Saskatchewan has become increasingly crowded since 2010, particularly with the extensive implementation of Lean processes and Lean leadership training in the government of Saskatchewan and in the highly distributed health system in Saskatchewan (Marchildon, 2013). This has raised the issue of whether some health reform items – including Shared Services – might be sacrificed in favour of new reform priorities such as Lean or whether the Shared Services initiative would actually be reinforced by these new priorities. Even if the latter is the case, there is the question of the time available in a day. As one focus group participant put the dilemma, managers are "doing half of everything " but "not a whole of anything" in recent months.

There is some evidence from the interviews and focus groups in Cycle 2 that Lean and *hoshin kanri* have, at best, produced some inconsistencies and, at worst, pushed Shared Services right off the table of priorities at the ministry in most health regions. The layered priority setting approach through *hoshin kanri* exercises no doubt has had some unintended consequences, including pushing Shared Services off the list of priority actions in recent months.

Implications for third and final cycle of research.

One of the purposes of participatory action research is to allow decision-makers the opportunity to reflect and make course corrections based on research conducted in real time. For this reason, the research results obtained from front line and middle managers from Cycle 2 were used in a further Cycle 3 meeting with 3sHealth executives, key informant interviews with Group 1 and 2 leaders (plus one Group 3 leader) and a focus group involving Group 3 (front line) managers as discussed below.

Cycle 3 Results (September – October 2013)

Introduction.

This section presents the results of the third and final research cycle for the Prairie Node of the pan-Canadian research project on health system leadership. During the course of a discussion with 3sHealth executives, we realized that a number of changes had been made to the implementation of Shared Services and we felt it essential to conduct another cycle of research to determine which of our earlier findings were relevant to this fast-changing environment.

During the course of this study, Shared Services has evolved from a plan to a set of initiatives involving a broad range of support functions. The initiative directly involves hundreds of health system workers, clinicians and managers working in a myriad of health care and other organizations. From the beginning, the motivation behind Shared Services has been to achieve economies of scale and scope at a provincial level for what have often been termed "back office functions" including supply chain procurement, medical imaging equipment, environmental

services, human resource information and recruitment, laboratory services, information technology services, hospital laundry and other facility services, as well as institutional food services.

In Cycle 3, we continued our focus on two Shared Services projects: (1) group purchasing, which is the procurement aspect of the supply chain initiative, and (2) the Gateway Online[3] portion of the human resource (HR) initiative. Gateway Online is transitional software that increases standardization of human resources functions across health organizations. Both of these initiatives were selected because they were further advanced in implementation relative to other Shared Services initiatives.

Thus far, the majority of the cumulative direct savings for the province – $60 million, or $40 million net when the costs of 3sHealth are subtracted – have been obtained through collective procurement. This has been achieved by establishing agreement between all health care organizations and providers on product standardization which, in turn, has allowed the system as a whole to exercise more bargaining power with potential vendors.[4]

The context of distributed leadership.

Recent years have brought increased interest in "distributed leadership" models of healthcare. In these models, leadership is viewed as a collective process rather than the actions of individual people (Denis, Langley, & Rouleau, 2010; Gronn, 2002), and leaders operate at various levels of authority within various organizations (Fitzgerald, Ferlie, McGivern, & Buchanan, 2013). Previous research has determined the importance of contextual factors in the success or failure of distributed leadership initiatives (Currie & Lockett, 2011; Fitzgerald et al., 2013). In particular, the importance of sound working relationships and social capital (Chreim, Williams, Janz, & Dastmalchian, 2010; Fitzgerald et al., 2013), dispersion of authority and legitimacy across levels (Chreim et al., 2010), and micro-level leadership characteristics such as humility (Denis et al., 2010) have been identified as determinants of success in distributed leadership.

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[3] Gateway Online will eventually be replaced by a more comprehensive HR software known as Sunset.

[4] However, it should be noted that our Cycle 3 front-line focus group suggested that there is little "low hanging fruit" left in terms of savings since suppliers have already been "beaten to death" on price.

Distributed leadership is a key feature in the Canadian health system, which features varying degrees of decentralization. Leaders in the Prairie Node study were navigating the highly decentralized context of the Saskatchewan health system, in which many health services are delivered by organizations at arm's length or independent from the Ministry of Health.

The structure of the Saskatchewan health system creates an interesting set of potential dilemmas and tradeoffs between centralization and decentralization. In this form of distributed leadership, accountability and responsibility nonetheless remains with the organizations responsible for the managers, workers and clinicians they employ and pay. The one important exception is physicians who remain self-employed and without a direct accountability link to such provincial health system organizations. However, in contrast to this traditional form of accountability, the desire goal of "acting and thinking as one" health system – and to do so in a way that largely benefits the users of the system – requires new system-wisdom accountabilities and responsibilities.

This generates genuine conundrums for leaders operating under severe time constraints and limited staff capacity, including: the time devoted to system-wide priorities vs. single organization priorities, pressure to meet organizational performance targets, the accountability to system-wide networks and organizations versus traditional accountabilities to a single organization, and the time and energy devoted to the provincial health system and the linkages among service lines versus increasing knowledge and specialization in a delivery line within a defined geographic context. Health system leadership requires new tools and approaches in order to manage these inherent tradeoffs in ways that will improve health system performance and outcomes.

Research objectives of Cycle 3.

Cycle 3 was conducted in September and early October 2013. There were three important reasons for conducting a third cycle of research. First, given the speed at which Shared Services has evolved and the possibility that our research findings might have become outdated by events on the ground, we needed an opportunity to validate the research findings in Cycle 2, which had been conducted between January and March 2013.

The second reason for Cycle 3 was to work with our decision-making partners to recommend more concrete actions, techniques, tools, and approaches, which can facilitate more effective leadership and implementation of Shared Services.

The third reason for Cycle 3 was to provide another point of inquiry in our participatory action research that would allow us to explore the nature of the conflicts and tradeoffs inherent in distributed health system leadership. Due to the decentralized nature of health care in Canada, it is clear that provincial governments have most of the stewardship responsibilities and tools to change health policy and to reform the way health services are administered and delivered. However, almost all of the delivery agents work at arm's-length from, or are independent of, the provincial government.

To accomplish these purposes, we prepared an interview guide (see Appendix F) that could address the questions above. We conducted 6 key informant interviews involving key decision-makers at senior levels of responsibility in the health regions, 3sHealth and the ministry. We also conducted one small focus group involving 4 front-line decision-makers as well as one key interview with a front-line leader.

Research results.

The previous cycles of research had identified four major leadership challenges affecting the future success of Shared Services: personal leadership, engagement, vision, and political will. Cycle 2 revealed two further issues: (1) a potential lack of alignment (or lack of understanding about the alignment) between Shared Services and the two quality improvement tools being emphasized by the Ministry – Lean and *hoshin kanri*; and (2) confusion, particularly amongst front-line leaders, about the precise role of 3sHealth in the system. Cycle 3 highlighted another important emerging issue concerning distributed leadership in a decentralized health system. Although most interviewees acknowledged that the results obtained in Cycle 2 were applicable at a particular point of time (the first quarter of 2013), a large majority nonetheless agreed that the responses still reflected the reality of Shared Services as of early October 2013.

The challenge of personal leadership.

In particular, most Cycle 3 participants supported our findings that, in the words of one interviewee, managers were "not acting as leaders" and most saw this as a "major barrier to success" in Shared Services. This was seen by a majority of interviewees as the most significant observation in the Cycle 2 research and many commented on the causes and implications of this finding.

In part, some interviewees saw this as a structural problem, since health care is organized as a "top down" and " hierarchical" system. Given this "command and control" environment with rules and protocols – related in part to the need for democratic accountability – "people are not given much latitude to think."

Other interviewees saw this as a behavioural issue in that managers have been habituated to manage rather than "empowered to lead", a deficiency that can be addressed through better training and mentorship. As one interviewee put it: "we have to get supports in place for front-line managers" because "they are the point of contact with service providers" and if "they can't articulate, modify, and contribute to the overarching strategic direction, then we have failed…" If front-line leaders are "passive and waiting for the centre to give direction" then "we are missing the boat entirely." Another interviewee stated that front-line leaders are needed "to generate specific ideas for change" and that they are critical to building "the business cases for innovation" central to Shared Services. Although the front-line leaders in Cycle 3 had showed some initiative by halting changes that they saw as unworkable in their business lines, few reported having suggested any alternatives.

A few interviewees mentioned the fact that some managers are reluctant to act as leaders – refusing to step out and take risks – because of the fear of losing their jobs or being seen as "not on board" with the reform direction. As one interviewee put it: "We will not achieve innovation if people don't talk about their real concerns." This finding about the fear of stepping out was also mentioned in the focus group with front-line managers. Another fear mentioned in the front-line focus group was that making suggestions and sharing new ideas would simply result in more tasks added to participants' already-extensive workloads. One front-line leader said, "there's nothing wrong with visioning sessions, but once we throw it on the board, we're held to it. It sticks. At the next meeting, there's a timeline attached to it". Another reiterated this

point, saying, "people come back from visioning with all these great ideas, but then they say to us, 'Do it'".

There was also the sentiment, eloquently expressed by one interviewee, that managers should not oppose change once everyone has been consulted and a decision has been made, and that managers that continue to oppose the reform should exit. In this view, leadership is also about having the courage to identify and let go of "anchor draggers", those out-of-scope managers who are purposely blocking change. At the same time, unnecessarily obstructive behaviour needs to be separated from the need to "speak truth to power" and that all leaders should "surround themselves with competent people who aren't afraid to disagree." The distinction that appears to be made here is the desire to have individuals who are willing to challenge other leaders while a decision is in the process of being made, but after it is made, to support the decision.

Challenges related to engagement, vision, and political will.

In response to the remaining three challenges (engagement, vision, and political will) identified and explored in Cycles 1 and 2, there were some clear shifts in relatively short period of time from January-March 2013 to September-October 2013. In particular, most Cycle 3 interviewees stated that there was much more engagement at all levels on Shared Services than there had been earlier. 3sHealth, in particular, had facilitated considerable engagement through regular communication and updates, regular committee meetings and visioning sessions involving a cross-section of managers and front-line employees from across the province. There was general agreement amongst the front-line leaders that the suggestions they contributed at the visioning sessions were not just heard, but were sometimes incorporated in the resulting vision or plan; in other words, these sessions move beyond just "lip service" to engage front-line leaders. However, as described above, there was some hesitancy that suggesting new ideas could ultimately result in more work for these leaders.

Workload pressures remain a key issue affecting engagement in Shared Services and other reform initiatives. The front-line leaders reported that additional resources dedicated to Shared Services, Lean, or *hoshin kanri* could translate into more work for front-line leaders, as one focus group participant put it, "3sHealth keeps increasing its office size and sending out

emails, but our staffing level hasn't changed. We're tasked with doing these off the sides of our desks." Another stated that, "3sHealth is getting all these extra people…they get a consultant – I want a consultant! They get resources and we get nothing." Frustrations about workload and perceptions of resource allocation continue to hamper engagement in Shared Services.

Most interviewees also felt that the vision for Shared Services had become much clearer. This was due to the business cases being developed for each line within Shared Services and their respective implementation, as well as the establishment of 3sHealth. At the same time, however, questions remained concerning the role of 3sHealth and a desire, expressed most adamantly in the front-line focus group, that the role of 3sHealth needed to be clarified in order to facilitate future work and engagement in Shared Services implementation. Most interviewees continued to question whether 3sHealth was an instrument of the Ministry of Health, a direct service deliverer or a support agency for the health regions. One front-line leader stated that "It is leaving me feeling in flux. They [3sHealth] are an agent of the Ministry. Am I working for 3sHealth or am I working for my region? We are highly accountable to the meetings and tasks we are given in Regina". Another stated that, "there is confusion because of the conflicting priorities. I don't know if I tell my VP that I can't do something for them because I'm doing it over here. If 3sHealth is an agent of the Ministry and we just do what we're told, then we deal with that. If they're working with us, we'll deal with that – but we need to know in order to know how to treat each other. We need to know where everyone else stands on the org chart."

A couple of interviewees suggested that 3s Health might be able to perform each of these roles but that the specific role on any initiative should be driven by the business case that is agreed upon by the stakeholders. One senior leader noted that the original goal was for 3sHealth to act as an objective body to recommend service delivery options, and questioned 3sHealth's continued objectivity if it should become a delivery organization. Concern was expressed that as 3sHealth became more actively engaged in projects that it was coming across as seeing itself as the delivery agent even before the business case and discussion had been completed.

Political will appears to be less of a challenge following a major decision by the provincial cabinet in Spring 2013 to centralize laundry processing. The majority of Shared Service managers and their stakeholders saw this decision as a major litmus test of political will. However, several interviewees also noted that even on the laundry initiative the decision to

centralize is only the first step as implementation has not yet occurred, begging the question of whether the decision will hold as the implementation moves forward and issues surface.

Aligning Shared Services with Lean and Hoshin Kanri.

One major difference of opinion concerned consistency between Shared Services and Lean, which is currently the most widespread reform initiative undertaken by the Ministry of Health and the health regions. Perspectives on time and immediate expectations differed between interviewees. For some, Shared Services focuses on finding and capturing cost savings while Lean focuses on making quality improvements in order to improve patient care and increase patient responsiveness. If accurate, this potentially creates a conflict since, in any given "business line", Shared Services may lead to a more centralized solution to generate economies of scale, while Lean may lead to a more decentralized solution to ensure patient responsiveness. Others felt that the two were consistent initiatives, with Lean actually reinforcing Shared Services implementation, and 3sHealth using Lean tools to achieve Shared Service objectives.

The majority of front-line leaders expressed concern about the timelines attached to *hoshin kanri* priorities. Many felt unable to complete existing *hoshins* before moving on to the next ones (a new *hoshin* is selected every year). A senior leader pointed out that since Shared Services was a *hoshin* in 2012 and continued to be part of the province's longer-range strategic planning, it should have been clear that it remained a priority. However, front line leaders expressed concern about balancing Shared Services tasks with the newest *hoshins*. As one front-line leader put it, "the Lean concept is great, but the Ministry is trying to make everything a hoshin – they are trying to do everything. We need to do something from start to finish."

Navigating the context of distributed leadership.

In the interviews, there were few suggestions on the appropriate balance between systems leadership on the one hand and organizational leadership on the other, much less how to manage the tension between the two. In the focus group, it was suggested that the easiest way to manage the dilemma might be to dissolve the health regions into a single health delivery organization. In this model, even physicians would be made part of the single organization. However, some

interviewees suggested that local needs still require local responses and that leadership in Shared Services requires that leaders "act as one" even while ensuring there are checks and balances to ensure local needs are being met and that the "system" is responsive to local patient and provider needs.

Testing the LEADS framework.

Unlike in Cycle 1, the Cycle 3 interview guide was not structured to follow the LEADS framework, nor was it explicitly designed to test the framework. Nonetheless, the findings from Cycle 3 both inform and support each major category within the LEADS framework. Cycle 3 findings related to LEADS are presented in the following section.

1. Lead self. One of the most significant findings from the Prairie Node case study has been the challenge of personal leadership, particularly amongst front-line leaders. Participants at all levels almost uniformly agreed on the importance of this finding.

Front-line leaders faced two types of barriers in developing and activating their personal leadership. First, they reported structural barriers related to the "top down" and "government mandated" approach to Shared Services implementation. This approach had begun to shift by Cycle 3, largely because of the establishment of the 3sHealth office in March 2012 and its recent initiatives to involve front-line leaders in developing business cases; however, some front-line leaders in Cycle 3 continued to view their room of manoeuvre as limited. Some had halted projects they saw as unworkable in their areas but felt unable to suggest new alternatives. Two participants stated that, "every time we try to challenge [a project], they [senior leaders] just say it's government mandated". Although every senior leader in Cycle 3 noted the importance of facilitating and encouraging front-line leadership, this may not be occurring in practice.

The second barrier to personal leadership, which emerged strongly in Cycles 1 and 2, was a lack of self-reflection by leaders at all levels. Earlier cycles revealed that time shortage was one cause of this. Time shortage remained a major issue for front-line leaders in Cycle 3. In addition, when asked to think of their own leadership and the leadership of others, almost all managers

gave lower scores to the leadership of others, indicating a lack of critical evaluation of their own leadership.

2. Engage others. Concerns about engagement, which emerged strongly in Cycles 1 and 2, have declined somewhat in Cycle 3. This was due to 3sHealth's inclusion of front-line leaders and staff in visioning, business case development, and operational committees. The amount of engagement prompted one Group 3 participant to state that, "it is almost getting to be too much engagement". One senior leader also commented that engagement "may be going overboard". This suggests the importance of carefully balancing engagement initiatives with available time.

However, it is notable that although senior leaders continue to emphasize the importance of engagement, there remain some challenges in obtaining full "buy-in". Addressing remaining concerns about job loss and facilitating front-line leaders' control over implementation could help attain "buy-in". At times, there was a lack of clarity concerning the distinction between getting consensus and getting active engagement.

3. Achieve results. Cycle 3 findings show that Shared Services projects are achieving the desired financial results. 3sHealth is leveraging these wins to encourage engagement. However, as noted above, early financial gains have benefited from what many participants have called "low-hanging fruit". The sustainability of these gains will depend in part on obtaining continuing engagement throughout the system.

All interviewees recognized that there would be increased challenges with other proposed Shared Service initiatives given the greater potential impacts on job loss, clinical practice choices, the potential opposition of different unions.

4. Develop coalitions. Cycle 1 revealed the importance of existing coalitions, such as working groups and other inter-regional collaborations, for success in Shared Services to that point. In Cycle 3, we found that:

- 3sHealth is using operational committees with at least one representative from each health region to lead the change in each business line. These are the committees that managed to halt some initiatives in Supply Chain;

- The relationship among senior health region leaders through the Council of CEOs and the senior leadership of 3sHealth
- The individuals, both managers and staff, participating in the Visioning exercises facilitated by 3sHealth

Overall, coalition building appears to have been strongest as the senior leadership level where they are beginning to think more as a system. However, this is far less pronounced among front line leadership level.

5. Systems transformation. Cycle 3 findings indicate the importance of clear vision, demonstrated political will, and front-line engagement to achieve innovative and sustainable transformation. In previous cycles, systems thinking was evidenced by the highly emphasized "think and act as one" mantra underlying Shared Services. In Cycle 3, two senior leaders spoke about the "old ways" and "new ways", indicating the shift from regional to integrated, provincial-level thinking. Front-line leaders also recognized this shift and expressed the desire to work beyond regional boundaries; however, there was a clear tension as they wished to stay focused on their own areas of specialization without distraction by other provincial priorities.

Overall, the three themes emerging from the Prairie Node study have a major bearing on the future prospects for system transformation: the need to continually develop a vision and have it embraced at all levels; the need for political will to be sustained when tough implementation issues arise, and the need to engage front line leaders in actively created innovative solutions.

Actionable next steps to improve leadership capacity in Shared Services.

We explored how existing tools and techniques that are currently being used might facilitate the implementation of Shared Services. We mention the two most common tools currently being deployed by health organizations in Saskatchewan: 1) Lean process improvements (Marchildon, 2013); and 2) the setting of key ("must do, can't fail") objectives

through *hoshin kanri*. We asked whether these could be used or amended to facilitate a more effective and timely implementation of Shared Services.

In the case of Lean, a majority of interviewees saw potential for further integration or alignment of Shared Services and Lean. As one interviewee put it: "Lean is really driving the need for Shared Services." If this suggestion is appropriate, it will be important to effectively communicate areas of alignment between Shared Services and Lean so the connection is understood at all levels. In contrast, a minority felt that Lean reform was too inconsistent with Shared Services and the best thing that could be done would be to separate the two reforms.

In terms of turning front-line managers into leaders, interviewees suggested the following tools, techniques and approaches:

- Extend *Kaizen Basics* (Lean) training to front-line managers;
- Integrate Lean tools (visioning sessions, rapid process improvement workshop or RPIW, just-in-time inventory methods or *Kanban*) even more extensively into Shared Services implementation;
- Use the leadership evaluation process, the Maturity Matrix, within the Lean Depth study to identify broader leadership needs and training opportunities;
- More direct engagement (beyond Rapid Process Improvement Workshops) of senior leaders with those on the front line. Group 3 participants emphasized the need for senior leaders to better understand daily operations on the front line as a prerequisite for further *hoshin kanri* and Lean initiatives;
- Increased latitude and opportunities for front-line leaders to shape or initiate Lean and *hoshin kanri* initiatives in their own business lines;
- Inclusion of front-line leaders in more system-wide (i.e. provincial) *hoshin kanri* planning processes.

Specific suggestions to enhance engagement included:

- Bridging the "what" and the "how"; in other words, emphasizing the processes involved in transformational change;

Exploring the conundrums inherent in health systems leadership.

There was one leadership challenge that interviewees found missing from the research results. They referred to this as the shift from leadership exercised within a single organization to leadership that is focused on the health system as a whole. Consistent with the stewardship responsibilities of the provincial government for publicly funded health care, the original idea for Shared Services was launched by the provincial Ministry of Health. However, the planning and implementation of Shared Services became the responsibility of the health regions and the Saskatchewan Cancer Agency, a necessary condition given the fact that almost all service delivery has been delegated from the provincial government to these arm's-length bodies which in turn must work with independent health care organizations and independent physician providers.

A second conundrum emerging from the project is the loading effect that many provincial-level initiatives have on delivery organizations. Most of these initiatives draw staff from the regions – to develop business cases, for example – which is a demand on top of these employees' regular jobs. Often new initiatives are started and capture the attention of the senior leaders, but work on the previous initiatives is not yet complete. A critical factor in system transformation is to develop a clear picture at the most senior level of the total demands being placed on the system and its resources to plan and implement change.

The research conducted thus far provides the barest sketch of the tradeoffs and conundrums inherent in the kind of distributed leadership that is a key feature of decentralized health systems. More detailed research would be required in order to determine the leadership behaviours and techniques most suited to this type of structure, and the leadership styles and approaches that are most likely to result in improved performance in a decentralized provincial health system.

Part Four: Regional Node Analysis of Leadership of Change

The Prairie Node findings address the three main research questions guiding the pan-Canadian project as a whole. These research questions, along with Prairie Node's contributions to each, are presented below.

> *1. What is the current state of health leadership capacity in Canada? What is working, or not working, in terms of stimulating and supporting health system transformation, and what contextual factors influence effective leadership action?*

The Prairie Node findings revealed the importance of four particular components of leadership: vision, engagement, political will, and personal leadership. Our research showed that, in health systems marked by a distribution of leadership responsibility, vision and engagement do not always permeate to leaders at the front-line level. Engagement was hampered by several key factors: time limitations caused by multiple mandated priorities (e.g., Shared Services, Lean, and *hoshin kanri* planning); front-line leaders not being empowered to lead, only to manage; and doubts about political will to carry through with a change, especially after leaders had seen many top-down initiatives dropped from the policy agenda before or during the early stages of implementation.

Systems thinking was identified as a key facilitator of system transformation over the long term. The systems thinking of senior leaders progressed significantly over the two-year span of the study. Although less marked, front-line leaders' system thinking developed through increased interaction with their provincial counterparts through the Shared Services initiative.

Throughout the study, we noted a lack of reflection on personal leadership. When asked about their own limitations, leaders focused mostly on external constraints and were less willing (or unable) to critically reflect on their own personal leadership strategies or behaviours. At the same time, many front-line leaders felt that their leadership ability was constrained by the "command and control" structure of the health system. Although senior leaders recognized the importance of facilitating leadership at the front line, much progress remains to be made in this regard.

2. Where are the gaps between current practices, the evidentiary base in the literature, and the expectations for leadership outlined in the emerging health leadership capability/competency frameworks (e.g., LEADS), and how might a set of national standards for leadership be structured?

The Prairie Node case study provides insight into the applicability and utility of the LEADS framework in a concrete example of a province-wide health system change. In Cycle 1, the LEADS framework was tested and evaluated through a twofold qualitative and quantitative approach. In the open-ended interview questions, participants identified the leadership styles or behaviours most pertinent to them without prompting from the researcher. In contrast, the Likert-scale questions enabled a more targeted, evaluative engagement with the specific components of the framework. Although participants considered all components to be valuable overall, the case study illustrated which components are actually prioritized and enacted by leaders under pressure. Participants placed the most importance on modelling qualities of integrity, honesty, resilience and confidence. The importance of communication and engagement were also emphasized. Indeed, communication and engagement emerged as key themes throughout the research project, often because leaders were not sufficiently emphasizing or enacting them.

Although not explicitly contained in our Likert questions drawn from LEADS, several additional leadership characteristics linked to LEADS were emphasized by participants in Cycle 1. These were: long-term vision; perseverance and commitment; credibility and trustworthiness; humility and flexibility. The first two characteristics may have arisen from participants' concerns about political will, indicating that leaders need to demonstrate a willingness to follow through on major changes over the long term.

As discussed previously, a key finding of the Prairie Node study is related to personal leadership – i.e., the "Leads Self" component of the LEADS framework. We found that "Leads Self" is downplayed and undervalued in practice. In the Cycle 1 exercise where participants were asked to rate how much importance they had actually placed on each characteristic of the LEADS framework (on a scale where 0=lowest importance and 10=highest importance), only three characteristics received a rating as low as 6. All other components received a rating of 7 or

higher. Two of these lowest-ranked components were classified within "Leads Self"; they were "increasing your awareness about your own values, principles, strengths and limitations" and "your personal self development and learning". These early findings proved to be highly relevant throughout the study.

In general, the remaining findings supported the current knowledge contained in the LEADS framework. Detailed discussions of LEADS can be found on pages 8-10 and 27-28 of this report.

3. How can knowledge of effective leadership be translated and mobilized by the network into approaches, programs, tools and techniques to develop a culture of effective leadership in Canada, and enhance the development of quality health leaders?

A key goal of this Participatory Action Research project was to identify concrete actions that can be taken to develop a culture of effective leadership in Canada. The weaknesses in personal leadership (i.e., "Leading Self") indicate the need for enhanced leadership training and the empowerment of front-line leadership. At the same time, leaders in the Saskatchewan health system face a time deficit due to a number of competing initiatives. Therefore, senior decision-makers are interested in using tools that draw on existing networks or can be embedded into existing projects. There is little time and few resources to create new avenues for effective leadership. Many of the concrete actions suggested on pages 29-30 of this report involve the use of existing tools, structures, and projects to facilitate leadership or involve more effective integration and connection between priority initiatives.

The Prairie Node research also revealed the importance of empowered leadership at multiple levels. In the increasingly decentralized health systems found nationally and provincially, distributed leadership will be an important area for future focus. As one senior leader put it, if leaders at all levels are not fully engaged an empowered to lead, "we are missing the boat entirely".

Part Five: Knowledge Mobilization Activities

The Prairie Node researchers view knowledge mobilization (KM) as a natural and ongoing dialogue between researchers and decision makers. During the first research cycle, the researchers met in person with senior 3sHealth leaders at two key stages of the research process: first, after the creation of the node research proposal and draft interview guide, and second, after the final Delphi survey results were processed into a draft report. These in-person meetings were complemented by email and telephone contact at various stages, including consultation on the draft Delphi survey before it was distributed to participants.

Prior to Cycle 2, the researchers met with the new 3sHealth executive team to identify key areas of focus for the cycle. Research results have been presented in public forums throughout the project, including at the Health Care Quality Summit held in Saskatoon in April 2012, and at the National Health Leadership Conference held in Halifax in June 2012. In December 2012, the researchers delivered a policy outreach presentation at the Western Regional Training Centre in Health Services Research (WRTC) in Regina. The seminar was simultaneously broadcast to seminar attendees in Saskatoon; the audience included students, scholars, and decision-makers. The combined results of Cycles 1 and 2 were also presented at the National Health Leadership Conference in Niagara Falls in June 2013.

Prior to Cycle 3, the researchers met with 3sHealth executives and two of the three decision-maker partners to review the previous results and address next steps.

During the cycle 3 interviews, ideas were generated on how to move forward with knowledge gained from this study. There was agreement that the results need to be shared at all levels and that particular discussions need to occur with each of the three levels of leadership that would use the results of this study to improve the leadership capacity in the province and even beyond. Some existing Western Canada and Saskatchewan specific structures were identified to advance these discussions. Upon completion of this final report a discussion will occur with the Council of CEOs in Saskatchewan and with 3sHealth to mobilize and leverage the study results to increase leadership capacity. On the western Canadian level the existing western CEO group has been identified as a starting point.

Part Six: Overall Findings and Lessons Learned

1. The Four Challenges of Leadership

The first cycle of research revealed 4 key leadership challenges in Saskatchewan's Shared Services initiative: vision, engagement, political will, and personal leadership. We explored these issues in more depth during the following two research cycles, tracking changes and identifying leadership strategies that contributed to changes in the issues over time.

a) **Vision:** Shared Services originated as a top-down initiative from the provincial government, including the Minister of Health and Ministry of Health. In Cycle 1, many Group 3 respondents felt that higher-level leaders had not communicated a well-articulated vision for Shared Services. As a consequence, these front line leaders felt unable to adequately articulate the purpose of the changes necessitated by Shared Services to their own staff as well as other employees in associated organizations. Group 3 leaders were also concerned about the veracity and accuracy of the information they had provided to staff concerning potential job losses. At the same time, many Group 2 leaders were concerned about the lack of time they could devote to Shared Services including communicating the project vision, despite their recognition that setting the vision is an essential component of leadership.

By Cycle 2, the majority of participants reported a slight improvement in the vision problem. Some attributed this change to the creation of the 3sHealth office, while other simply saw more communication funnelling down to front-line levels. By Cycle 3, the situation had improved further. Most participants felt that the vision for Shared Services had become much clearer due to the establishment of 3sHealth and its efforts to involve leaders at all levels in developing business cases for each Shared Services line and respective implementation. Some even said that, at times, there was more communication than they could keep up with, although few perceived this as a real problem.

b) **Engagement:** in Cycle 1, there was a dramatic difference between Group 1 and Groups 2-3 in the emphasis placed on the importance on engagement, with the latter two groups citing its importance more strongly. However, all groups, including Group 1, recognized the importance of

regular meetings, check-ins, and continual communication regarding Shared Services. By Cycle 2, the majority of participants felt that engagement had worsened. This was attributed mostly to the competing priorities of Lean and *hoshin kanri* planning. However, by Cycle 3, most interviewees stated that there was much more engagement at all levels on Shared Services than there had been earlier. 3sHealth, in particular, had facilitated considerable engagement through regular communication and updates, regular committee meetings and visioning sessions involving a cross-section of managers and front-line employees from across the province.

Despite these improvements, and despite senior leaders' continued emphasis on the importance of engagement, there remain some challenges obtaining full "buy-in". Many front-line leaders expressed a lack of control over the actual implementation of initiatives, including Lean and *hoshin kanri*. Addressing remaining concerns about job loss and facilitating front-line leaders' control over implementation – i.e., empowering them to lead, not just manage – could help attain "buy-in" in the future.

c) **Political Will:** in Cycle 1, leaders in all three groups mentioned their concern about the government's political willingness to follow through on the reform when the "rubber hits the road" in the implementation stage. By Cycle 2, most reported that political will "remained to be seen". Political will appeared to be less of a challenge by Cycle 3, after the provincial cabinet's major decision in Spring 2013 to centralize laundry processing. Although many had seen this decision as a litmus test of political will, several interviewees also noted that even on the laundry initiative the decision to centralize is only the first step as implementation has not yet occurred, begging the question of whether the decision will hold as the implementation moves forward and other issues surface.

d) **Personal Leadership:** A strong majority of Cycle 3 participants felt that this was one of the most important findings in the Prairie Node study. Challenges related to personal leadership were first revealed in Cycle 1. When asked questions about their own leadership in Shared Services, many interviewees focused on factors, including constraints, external to their own ambit for action and leadership. There was relatively little reflection on personal behaviours and strategies of leadership. Despite this, a few leaders across all three groups identified or requested future learning opportunities that would improve their own leadership development and enhance their

change management skills. Some perceived an improvement by Cycle 2. This was attributed mostly to increased leadership training as part of Lean.

By Cycle 3, personal leadership – especially amongst front-line leaders – had emerged as a key issue that, in the minds of many senior leaders, would determine the success or failure of key initiatives. The root causes of the issue are complex. In part, some interviewees saw it as a structural problem, since health care is organized as a "top down" and " hierarchical" system. Given this "command and control" environment with rules and protocols – related in part to the need for democratic accountability – "people are not given much latitude to think." Other interviewees saw this as a behavioural issue in that managers have been habituated to manage rather than "empowered to lead", a deficiency that can be addressed through better training and mentorship. A few interviewees mentioned the fact that some managers may be refusing to act as leaders – refusing to step out and take risks – because of the fear of losing their jobs or being seen as "not on board" with the reform direction. However, there was also the sentiment, eloquently expressed by one interviewee, that managers should not oppose change once everyone has been consulted and a decision has been made, and that managers that continue to oppose the reform should exit.

Cycle 3 identified some concrete steps that can be taken to facilitate personal leadership and engagement in the future. These are presented on pages 29 and 30. In summary, however, key actions include extending more training and control to front-line leaders, as well as further engagement of senior leaders into the daily activities of those on the front-line. It is also important that leadership development efforts are integrated into existing activities and draw on existing networks, as leaders have little time available for new initiatives.

2. Competing Priorities and the Challenge of Distributed Leadership

Beyond the four challenges of leadership, Cycle 2 revealed two further issues that had become amplified by Cycle 3. These were: (1) a potential lack of alignment (or lack of understanding about the alignment) between Shared Services and the two quality improvement tools being emphasized by the Ministry – Lean and *hoshin kanri*; and (2) emerging issues concerning distributed leadership in a decentralized health system.

In Cycle 3, we identified concrete steps to increase alignment between Shared Services, Lean, and *hoshin kanri* planning (presented on page 29 and 30). The very nature of the initiative studied in this case study is most revealing about Distributed Leadership from at least two perspectives. First, as an initiative moves from central levels to regional level the perspectives change greatly and the further you get from the central table the harder it is to maintain the vision and achieve true engagement. Second, no initiative exists on its own so the same people expected to drive and implement an initiative also have their time and energies devoted to other priorities. As the momentum for change increases along with the usual need to address day-to-day health system issues, the loading effect of all these demands gets lost. Accordingly, there is a need to better gauge the overall demands being placed on individuals who must balance the needs of their individual organizations with the many obligations (and opportunities) of providing leadership at the level of the provincial health system.

APPENDIX A: CYCLE 1 LIKERT SCALE RESPONSE SUMMARIES

PART A: SELF-BASED EVALUATION OF LEADERSHIP STYLES AND BEHAVIOURS

Given your time constraints, how much importance were you actually able to place on…

		All Participants			Group 1			Group 2			Group 3		
		M	SD	Med	M	SD	Med	M	SD	Med	M	SD	Med
Set 1	Increasing your awareness about your own values, principles, strengths and limitations	5.74	2.21	6	5.92	2.18	6	4.91	2.55	5	6.40	1.71	6.5
	Taking responsibility for your own performance and health	6.91	1.58	7	6.92	1.66	7	6.64	2.11	7	7.20	0.63	7
	Your personal self development and learning	6.06	2.09	6	6.62	1.94	7	5.73	2.24	6	5.70	2.16	5.5
	Modelling qualities such as integrity, honesty, resilience and confidence	8.35	1.35	9	8.08	1.61	9	8.36	1.43	9	8.70	0.82	9
Set 2	Fostering the development of others	6.38	1.81	7	6.77	2.09	7	6.00	1.79	7	6.30	1.49	6
	Creating an environment where others have meaningful opportunities and resources to carry out their roles.	6.85	1.62	7	7.31	1.18	8	6.82	1.78	7	6.30	1.89	7
	Listening and encouraging open communication using a variety of media	6.79	1.70	7	7.15	1.21	7	5.73	2.20	5	7.50	1.08	7.5
	Creating teams that use cooperation and collaboration to achieve results	7.41	1.79	8	7.38	1.56	8	6.73	2.37	8	8.20	1.03	8
Set 3	Developing a vision and setting direction	6.56	2.05	7	7.38	1.98	8	6.55	2.25	7	5.50	1.51	5
	Integrating organizational missions, values and evidence to make decisions	6.76	2.00	7	7.23	1.88	7	6.18	2.60	7	6.80	1.32	7
	Taking action to implement decisions	7.41	1.52	8	7.15	1.57	7	7.00	1.61	7	8.20	1.14	8
	Measuring and evaluating outcomes of your initiatives	5.91	2.10	6	6.38	2.33	6	5.70	2.00	6	5.50	1.96	5

Set 4	Creating connections, trust and shared meaning with others	7.59	1.28	8	7.31	1.32	7	7.45	1.51	8	8.10	0.88	8
	Facilitating collaboration among diverse groups to improve service	7.36	1.56	7	7.00	1.58	7	7.09	1.76	7	8.22	0.97	9
	Developing methods to gather and use evidence to improve action	6.47	1.46	7	6.54	1.66	7	6.73	1.74	7	6.10	0.74	6
	Negotiating through conflict and understanding the socio-political environment	7.38	1.37	8	7.08	1.50	8	7.45	1.29	8	7.70	1.34	8
Set 5	Demonstrating systems thinking	7.38	1.30	7	7.54	1.33	7	7.36	1.50	8	7.20	1.14	7
	Encouraging creativity and innovation	6.91	1.75	7.5	7.31	1.65	8	6.18	1.83	6	7.20	1.69	8
	Scanning the environment for best practices	6.97	1.49	7	6.92	1.38	7	6.73	1.95	7	7.30	1.06	7
	Being a champion for change to improve health services	7.76	1.26	8	8.00	1.47	8	7.18	1.17	7	8.10	0.88	8

Notes: M – Mean (Average); SD – Standard Deviation; Med – Median

PART B: EVALUATION OF SYSTEMIC LEADERSHIP STYLES AND BEHAVIOURS

How would you rank the way leaders in this project were actually able to…

		All Participants			Group 1			Group 2			Group 3		
		M	SD	Med	M	SD	Med	M	SD	Med	M	SD	Med
Set 1	Increase their awareness about their own values, principles, strengths and limitations	6.55	1.50	7	6.24	1.39	6	7.00	1.76	7	6.56	1.33	7
	Take responsibility for their own performance and health	7.08	1.04	7	6.71	0.92	7	7.73	1.19	8	7.00	0.71	7
	Their personal self development and learning	6.70	1.13	7	6.76	1.20	7	6.91	1.22	7	6.33	0.87	7
	Modelling qualities such as integrity, honesty, resilience and confidence	8.05	1.25	8	7.65	1.41	8	8.67	0.98	8.5	8.00	1.00	8
Set 2	Fostering the development of others	6.47	1.54	7	6.65	1.46	7	6.50	1.88	7	6.11	1.27	6
	Creating an environment where others have meaningful	6.53	1.59	7	6.59	1.23	7	6.75	1.86	6.5	6.11	1.90	7

	opportunities and resources to carry out their roles.												
	Listening and encouraging open communication using a variety of media	6.97	1.79	7	6.94	1.60	8	7.00	2.22	7	7.00	1.73	7
	Creating teams that use cooperation and collaboration to achieve results	7.68	1.54	8	7.12	1.69	8	8.67	1.23	9	7.44	1.01	8
Set 3	Developing a vision and setting direction	7.67	1.91	8	7.53	1.91	8	8.08	2.23	8.5	7.40	1.58	8
	Integrating organizational missions, values and evidence to make decisions	7.23	1.58	7	7.06	1.43	7	8.00	1.76	8	6.60	1.35	7
	Taking action to implement decisions	7.18	1.52	8	6.88	1.50	7	7.92	1.16	8	6.80	1.75	7
	Measuring and evaluating outcomes of their initiatives	6.75	1.66	7	6.65	1.77	7	7.36	1.57	7	6.13	1.46	6
Set 4	Creating connections, trust and shared meaning with others	7.76	1.63	8	7.00	1.66	7	9.00	0.85	9	7.56	1.51	8
	Facilitating collaboration among diverse groups to improve service	7.31	2.03	8	6.53	2.03	7	8.17	1.95	9	7.60	1.78	8
	Developing methods to gather and use evidence to improve action	7.31	1.54	7	6.71	1.53	7	8.33	1.30	9	7.10	1.29	7.5
	Negotiating through conflict and understanding the socio-political environment	7.21	1.73	7	6.24	1.79	7	8.25	1.14	8	7.60	1.43	7.5
Set 5	Demonstrating systems thinking	7.82	1.27	8	7.41	1.33	8	8.33	1.30	9	7.90	0.99	8
	Encouraging creativity and innovation	6.74	1.39	7	6.53	1.42	7	7.33	1.37	7.5	6.33	1.22	6
	Scanning the environment for best practices	7.82	1.57	8	7.35	1.69	8	8.50	1.68	9	7.80	0.92	8
	Being a champion for change to improve health services	7.79	1.28	8	7.29	1.45	8	8.25	1.22	8	8.10	0.74	8

Notes: M – Mean (Average); SD – Standard Deviation; Med – Median

APPENDIX B: CYCLE 1 DELPHI SURVEY – LIKERT SCALE QUESTIONS

PARTICIPANT INTERPRETATIONS OF INTER-GROUP DIFFERENCES

Question 2: *"In the first round (self-assessment) questions, Group 1 placed significantly more importance on 'developing a vision and setting direction' than Group 3 did, with a ranking of 7.4 compared to 5.5. Can you speculate why the groups would respond so differently on this leadership dimension?"*

Most participants responded to this question in a similar way: they simply attributed the difference to the different day-to-day activities of the two groups. Most emphasized the primary responsibility of Group 1 for broad visioning and the primary responsibility of Group 3 for direct ("front line") implementation and execution of tasks.

A secondary theme is the suggestion that Group 3 is disconnected from the vision set by Group 1. This disconnection was attributed to several possible causes: differential understandings of Shared Services, lack of connection between SS and the daily activities of Group 3 (therefore, less commitment to it); one member of Group 1 suggested that his group may not be engaging or communicating sufficiently with Group 3 on Shared Services. Another member of Group 1 stated that visioning is perhaps not seen as important as "doing" the work, perhaps implying a lack of understanding on the part of Group 3 toward the role of Group 1. It is notable, however, that the disconnection theme was not prominent amongst Group 3 members themselves, and was mostly identified by Groups 1 and 2 (particularly Group 1).

Question 4: ***"****In the second round (assessment of others) questions, there is a significant difference between the average answer of Group 2 and the other two groups, indicating that participants in Group 2 see Shared Services leaders placing a comparatively strong emphasis on 'creating teams that use cooperation and collaboration to achieve results'. For this question, Group 2 responses averaged 8.7, while Groups 1 and 3 answered with average responses of 7.1 and 7.4. Can you speculate why the groups would respond so differently on this leadership dimension?"*

Responses to this question followed two major themes. The majority of all participants indicated that teamwork was crucial for Group 2's success *in the Shared Services Initiative specifically*. Others – including a slight majority of Group 2 participants themselves – answered in a similar way, but indicated that teamwork was not just necessary for Shared Services; rather, it is a key part of Group 2 jobs in general – even before the onset of Shard Services. Several pointed out that Groups 1 and 3 are not required to engage in teamwork to the same extent as Group 2. Two participants, both in Group 2, noted a relationship between such teamwork and the Shared Services office itself. Note also the number of Group 3 participants who did not respond or did not know how to answer this question.

Question 6: *"In the second round (assessment of others) questions, there is a significant difference between the average answer of Group 2 and the other two groups, indicating that participants in Group 2 see Shared Services leaders placing a comparatively strong emphasis on "creating connections, trust, and shared meaning with others". For this question, Group 2 responses averaged 9.0, while Groups 1 and 3 answered with average responses of 7.0 and 7.6. Can you speculate why the groups would respond so differently on this leadership dimension?"*

The majority of answers to this question were very similar to those of the previous question – i.e., teamwork is a major part of Group 2's role, particularly in Shared Services. Many participants simply indicated that their answer was the same as their previous answer. However, this question was also an opportunity for some participants (in all groups) to express concern about lack of communication. Notably, participants in Group 3 expressed their own disconnection here, and many in this group did not respond to the question at all.

Question 8: *"In the second round (assessment of others) questions, there is another significant difference between the average answer of Group 2 and the other two groups on the importance of "developing methods to gather and use evidence to improve action", indicating that participants in Group 2 see this as emphasised by Shared Services leaders. For this question, Group 2 responses averaged 8.3, while Groups 1 and 3 answered with average responses of 6.7 and 7.1. Can you speculate why the groups would respond so differently on this leadership dimension?"*

As in previous questions, most of the answers to this question were focused on differential roles and responsibilities. Many considered evidence gathering to be within the purview of Group 2, especially as it pertains to making a "business case" and proving results. As in other questions, Group 3 response to this question was very low, and the existing answers focused more on that group's specific concerns.

Question 10: *"In the second round (assessment of others) questions, Group 2 again observed the importance of "negotiating through conflict and understanding the socio-political environment" amongst the Shared Services leaders they interacted with. For this question, Group 2 responses averaged 8.3, while Groups 1 and 3 answered with average responses of 6.2 and 7.6. Can you speculate why the groups would respond so differently on this leadership dimension?"*

This question produced a variety of diverse responses. Several of the responses did not seem to explicitly address the question or did not address the number results inquired about in the question (e.g., "Group 1 are closest to knowing the reality of any socio-political issues – and Group 3 are the least likely to care"; "in the context of developing viable business cases, there will inevitably be winners and losers as a result. So careful balancing of gains and loses from one region to the next, or one community to the next, rural vs urban is critical").

Coding the responses to this question was particularly challenging due to the diversity of responses. Two codes could be extracted. First, many participants spoke about the different perspectives and understandings between the groups; specifically, the fact that Group 2 may have been more involved with negotiating conflict due to their position within the initiative or the system. One participant in each group alluded to either the confidence or the possible overconfidence of Group 2 in this regard, which may indicate that some tensions went unresolved or were not dealt with, but again does not really answer the question of why Group 2 would rate this highly. Along the same line, another Group 1 participant indicated a lack of understanding of the magnitude of SS, but does not specify who holds this lack of understanding. As in the other questions, there was a high non-response level from members of Group 3.

APPENDIX C: CYCLE 1 LIKERT SCALE → PHASE 1 RANKINGS, PHASE 2 RE-RANKINGS, RATES OF CHANGE

Question Item	Group 1	Group 2	Group 3	Total
3. Original Answer ("vision & direction")	7.79	6.78	5.22	**6.78**
3. Re-ranking ("vision & direction")	8.38	8.67	7.33	**8.16**
3. Change Score	0.69	1.89	2.11	**1.45**
3. Change %	7%	19%	21%	**15%**
5. Original answer (other leaders' team-building)	7.23	8.56	7.38	**7.68**
5. Re-ranking (other leaders' team-building)	8.08	8.22	7.67	**8.00**
5. Change Score	0.85	-0.33	0.63	**0.42**
5. Change %	8%	-3%	6%	**4%**
7. Original answer (other leaders' "connections, trust, shared meaning")	6.92	8.78	7.38	**7.61**
7. Re-ranking (other leaders' "connections, trust, shared meaning")	7.85	8.22	7.44	**7.81**
7. Change Score	0.92	-0.56	0.38	**0.29**
7. Change %	9%	-6%	3%	**3%**
9. Original answer (other leaders' "gather and use evidence")	6.69	8.00	7.11	**7.22**
9. Re-ranking (other leaders' "gather and use evidence")	7.50	7.67	7.00	**7.39**
9. Change Score	0.92	-0.33	-0.11	**0.19**
9. Change %	7%	-3%	-1%	**1%**
11. Original answer (other leaders' "negotiating conflict/socio-political environment")	6.36	8.22	7.44	**7.19**
11. Re-ranking (other leaders' "negotiating conflict/socio-political environment")	7.21	8.00	7.44	**7.50**
11. Change Score	0.86	-0.22	0.00	**0.31**
11. Change %	9%	-2%	0%	**3%**

APPENDIX D: CYCLE 1 INTERVIEW QUESTIONS

**Note: Parenthetical items in italics are explanatory notes, provided in case participants do not understand the question. These should allow the 3 interviewers to provide consistent explanations to participants.*

High-Level Interview Questions

1. What leadership capabilities do leaders need in order to initiate and to implement health system change?

2. How does leadership at different levels of the health system affect change in the Shared Services project? (*e.g., our two main levels are the RHAs and the governmental departments – there are multiple levels within those. What is optimal leadership at these various levels?).*

3. Who was effective in exercising leadership in support of change in the Shared Services project? What roles did they play, and what did they do?

4. In particular, what leadership qualities did these leaders possess that made them effective in building support for the initiative?

5. Where did the impetus for change come from, internal vs. external? Bottom up vs. top down?

6. What leadership strategies most effectively encouraged participation in the visioning and the initial implementation of shared services?

7. What external and internal factors influenced leadership in Shared Services across and between levels of the health system in order to achieve sustained, meaningful change?

8. What strategies did the leaders (you mentioned) use to ensure continued participation in the transition toward shared services?

9. What learning opportunities from this project will maximize the potential of leaders to sustain long term health system transformation?

Self-Reflection on own Leadership Role including Enablers and Constraints

1. What has been the impact, if any, of the Shared Services Initiative (SSI) on your own role as a leader in your own organization (before and after)? (*Focusing on their role in their own organization, not SSI*)

2. What are the constraints on your ability to make progress on the SSP?

3. How do you feel about your own **leadership** on this project? (identify highlights and low points)?

Questions on Doing Leadership

1. What did you do as a leader/manager earlier in Shared Services that **expanded** your potential to be an effective leader?

2. Who were the people that were critical to your success as a leader in this SSI? How important was it for you to create alliances inside and outside your organization? (*Over all time*)

3. Did you have to change the way you interacted with others in order to achieve your goals? How do you think others interpreted your actions as a leader? (*Over time*)

4. Did you find that some of the things you did as a leader that helped you succeed in Shared Services at first, ended up hurting you later on in the project?

Leadership Style and Behaviours

Part A – Self-Based Evaluation of Leadership Styles and Behaviours

This part explores the participant's views of their own actual or desired leadership styles/behaviours.

1. Leads Self – On a scale of 0-10 (10 highest), given your time constraints, how much importance were you able to place on:
    - Increasing your awareness about your own values, principles, strengths and limitations
    - Taking responsibility for your own performance and health
    - Your personal self development and learning
    - Modeling qualities such as integrity, honesty, resilience and confidence

2. Engage Others – On a scale of 0-10 (10 highest), how much importance were you able to place on:
    - Fostering the development of others
    - Creating an environment where others have meaningful opportunities and resources to carry out their roles.
    - Listening and encouraging open communication using a variety of media
    - Creating teams that use cooperation and collaboration to achieve results

3. Achieve Results – On a scale of 0-10 (10 highest), how much importance were you able to place on**:**
    - Developing a vision and setting direction
    - Integrating organizational missions, values and evidence to make decisions
    - Taking action to implement decisions
    - Measuring and evaluating outcomes of your initiatives

4. Develop coalitions – On a scale of 0-10 (10 highest), how much importance were you able to place on**:**
    - Creating connections, trust and shared meaning with others
    - Facilitating collaboration among diverse groups to improve service
    - Developing methods to gather and use evidence to improve action
    - Negotiating through conflict and understanding the socio-political environment

5. Systems Transformation – On a scale of 0-10 (10 highest), how much importance were you able to place on:
    - Demonstrating systems thinking
    - Encouraging creativity and innovation
    - Scanning the environment for best practices
    - Being a champion for change to improve health services

Part B – Evaluation of Systemic Leadership Styles and Behaviours

In this part, participants will express their views of how each style and behaviour has been engaged or illustrated by leaders during the transition to shared services. (They should focus on speaking about the group of leaders involved in Shared Services)

1. Leads Self – On a scale of 0-10 (10 highest), how would you rank the way leaders in this project were actually able to:
    - Increase their awareness about their own values, principles, strengths and limitations
    - Take responsibility for their own performance and health
    - Their personal self development and learning
    - Modeling qualities such as integrity, honesty, resilience and confidence

2. Engage Others – On a scale of 0-10 (10 highest), how much importance were leaders in this project actually able to place on:
    - Fostering the development of others
    - Creating an environment where others have meaningful opportunities and resources to carry out their roles.
    - Listening and encouraging open communication using a variety of media
    - Creating teams that use cooperation and collaboration to achieve results

3. Achieve Results – On a scale of 0-10 (10 highest), how much importance were leaders in this project actually able to place on:
    - Developing a vision and setting direction

- Integrating organizational missions, values and evidence to make decisions
- Taking action to implement decisions
- Measuring and evaluating outcomes of your initiatives? Of their own initiatives?

4. Develop coalitions – On a scale of 0-10 (10 highest), how much importance were leaders in this project able to place on**:**
    - Creating connections, trust and shared meaning with others
    - Facilitating collaboration among diverse groups to improve service
    - Developing methods to gather and use evidence to improve action
    - Negotiating through conflict and understanding the socio-political environment

5. Systems Transformation – On a scale of 0-10 (10 highest), how much importance were leaders actually able to place on:
    - Demonstrating systems thinking
    - Encouraging creativity and innovation
    - Scanning the environment for best practices
    - Being a champion for change to improve health services

APPENDIX E: CYCLE 2 INTERVIEW QUESTIONS

Preamble

You are being interviewed as part of a leadership study looking at the Shared Services Initiative in Saskatchewan which is part of a larger national study looking at leadership and health system change in Canada. We are beginning Cycle 2 of this study in Saskatchewan and you have been selected as one of the key informants. Once we complete the interviews we will be generating an initial report that will be shared with you again and with others either using a focus group or Delphi approach.

Question for Persons interviewed in Cycle 1.

1. Now that Shared Services is being implemented, has your view of this initiative changed since your first interview? If so, can you pinpoint any changes in leadership approaches, good or bad, that have caused this change? If not, what other factors caused this change?

2. From the time you were interviewed in late Fall 2011 until now, has your participation in this research project on leadership affected your leadership style or behaviours? Has participating in this research caused you to reflect on, or change, your own leadership behaviours?

Reflections on Cycle 1 Findings

3. Four major challenges emerged from the cycle 1 research. We would welcome your thoughts on each of these findings so that you can tell us whether you think they have increased or diminished in the past few months, and if so, the extent to which leadership was a factor in the change:

    a. Lack of shared understanding of the vision for the initiative, particularly between senior leaders and front line leaders (follow on: what does good visioning feel like, sound like, and look like?);

b. Issues with engagement of people across the system and a noted inability by stream leaders to devote sufficient time to engage others in the initiative;

c. Concerns about the extent of political will to actually implement what was being contemplated in the project design phase (follow on: what exactly would reduce your concerns about this challenge); and

d. The general tendency of leaders not to reflect on their own leadership behaviours in terms of the success of the initiative.

4. The motto that stands behind Shared Services is "Think and Act as One." The idea here is that Shared Services is intended to overcome at least some of the *natural fragmentation* that exists in any health system, since it is made up of many different organizations, suppliers, professions and individuals with very specialized knowledge and expertise. Based on the implementation you have seen so far, is Shared Services going to make a major difference in overcoming this natural fragmentation in Saskatchewan? If so, how (and does leadership make a difference)? If not, what would need to be changed in terms of leadership?

5. Have there been any leadership behaviours (individual or group) at the system level that have either facilitated or hampered the successful implementation of Shared Services? Has there been a noticeable change in the leadership style or behaviour since implementation of Shared Services began? If so, what do these leadership styles or behaviours look like, sound like and feel like?

6. Now that Shared Services is being implemented, at least two business lines (e.g. provincial-level competitive contracting[5] and Gateway Online which is an HR standardization project), how would you describe resistance to the changes (e.g. fear, lack of understanding, desire to

[5] This includes artificial hips and knees (now implemented) as well laboratory equipment and cardiac equipment and devices all slated for implementation before the end of 2013. Laundry could also be included but this change involves much more than provincial-level competitive tendering (i.e. the potential replacement of the existing and outworn six laundry plants in the provinces).

wait it out, or just stubbornness)? Is there any leadership style or behaviour that Shared Services leaders, including you, can employ to reduce this resistance?

7. What changes in leadership styles and behaviours would you like to see as provincial-level competitive contracting and Gateway Online are fully implemented?

8. Has participating in Shared Services caused any changes in your leadership approach? If so, what has changed (in terms of your approach, tools used, reading, continuing education, ongoing discussions, etc.)? If not, why not?

9. What leadership lessons emerge from Shared Services (design and implementation) that would be relevant to future health system transformation?

10. How would you describe the culture or climate of the collective leadership within your organization as it relates to Shared Services? Empowering? Fearful? Hesitant? Cynical? Energized? Why do you think this is the dominant culture or climate?

APPENDIX F: CYCLE 3 INTERVIEW QUESTIONS

General Interview Questions:

1. Do you have any comments or suggestions on the overall findings of the study? Are you surprised by anything? Are there any findings that you think do not accurately reflect the current situation? If yes please elaborate why you think that.

2. Do you think we have missed any major points about leadership in the Shared Services initiative – either leadership strengths or limitations?

3. As a participatory action research project we have put forward some ideas that could help address the issues and challenges. What is your reaction to the following and can you suggest something more concrete in each case?

- Identification of opportunities within Lean training that would directly facilitate a more effective and timely implementation of Shared Services projects
- Integrating Shared Services into *hoshin kanri* planning (or has this been done already)
- Encouraging front-line managers to behave as leaders
- Addressing any remaining concerns about communication, transparency, engagement, political will and job loss
- Training opportunities or tools to help managers approach Shared Services projects and problems from a systems perspective

4. In our interviews, some participants expressed confusion about the role of 3sHealth; for example, some were unclear whether 3sHealth is a service provider, an independent delivery agent that partners with the health regions, or an agent of the Ministry. Does this concern affect the future effectiveness of 3sHealth to implement shared services? What concrete steps could be taken to address this concern?

5. Do you have any suggestions on how the results of this study could be used to increase the capacity of leaders, managers and health professionals to bring about health system change in other areas in Saskatchewan?

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