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Partnerships for Health System Improvement (PHSI)

Leadership and Health System Redesign

Atlantic (Nova Scotia) Node Case Study Final Report

CIHR IRSC

MICHAEL SMITH FOUNDATION FOR HEALTH RESEARCH
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December 2013

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Executive Summary

The objectives of the Nova Scotia arm of the Atlantic node were to (a) identify leadership skills that improve physician engagement and to clarify the connections between physician engagement and health system redesign; (b) identify the leadership capabilities that are key to advancing physician engagement; and (c) advance and make accessible contextual factors that relate to increasing physician engagement. To address these objectives researchers partnered with Capital Health and the IWK Health Centre to identify leader competences relevant to engaging physicians in health systems redesign. These two organizations are collaborating to advance physician engagement by offering a physician leadership program called "Fully at the Table" (FATT) and through other activities. NS researchers focused on FATT in cycle 1, then expanded the scope in cycles 2 and 3 to better capture and advance broader physician engagement actions and strategy.

The Nova Scotia study was a qualitative design involving two cycles of interviews and a third cycle focus group with health care leaders. Cycle 1 was aimed at capturing contextual elements that shaped the current situation and are driving the need for advancing engagement in health care. This was done in relation to the "Fully at the Table" physician leadership development program. Cycle 2 asked participants to describe leadership actions related to physician engagement using the *critical incident technique* and the third cycle asked participants for their interpretation of cycle 1 and 2 findings. All interview and focus group data were recorded, transcribed, and analyzed using NVivo software.

Results indicated that five core competencies and three core skills are required for leaders to engage physicians in health systems design. These included *systems thinking* (i.e., how physicians' roles fit within the larger system and how leaders and physicians can work together to enhance the sustainability of the entire healthcare structure); *change management* (e.g. gauging readiness and planning change); r*elationship building* (developing partnerships and coalitions to achieve goals and improve efficiency); *managing performance* (e.g. clarifying common goals and utilizing feedback); and *knowledge and awareness* (i.e., awareness of the strengths and weaknesses of ones' self, team, the existing culture, and the organization). The three core skills observed from the data were: *effective communication* (e.g. delivering clear information, soliciting input and feedback); *motivation and commitment* (e.g. intrinsic motivation, perseverance); and *personal characteristics* (e.g. personality, leadership style). These

findings were interpreted and discussed within the content of the system in cycle 3. It became clear that systems thinking and interorganizational collaboration were the two weakest areas and are in need of the most focus moving forward. Specifically, it was observed that communication and partnerships often do not extend beyond each individual organization. As such, organizations in the system operate independently. This is problematic for physicians especially, because they work for the entire system and are affiliated with almost all of the organizations. In this way they can be viewed as boundary spanners and would benefit from more unity and collaboration among organizations throughout the system. To address this issue, the researchers recommend the development of a coalition for the advancement of physician engagement (CAPE) that involves the highest-level executive leaders of physicians across organizations within Nova Scotia (and perhaps beyond). Such a coalition would provide an overarching body that serves as a high level interorganizational partnership aimed at improving physician engagement an in turn achieving greater system reform. A CAPE would mobilize knowledge generated within the NS research project by demonstrating effective leadership.

Moreover, the data highlighted an organizational need for system-wide systems thinking development. It's recommended that systems thinking development be integrated into the educational curriculum and into the professional development of physicians. For example, medical schools could focus on getting medical students to work collaboratively across disciplines while in school. Additionally, Fully at the Table is an exemplar program for promoting systems thinking among physician leaders. Finally, leveraging co-leadership in order to share knowledge and experience by providing leadership development opportunities to both physician and non-physician leaders could prove successful. If formed, the CAPE could take ownership of this issue and work to improve systems thinking at various levels of the system.

Cycle 1 and 2 analyses of the FATT data revealed similar results and recommendations. Systems thinking and collaboration were described by participants as important competencies needed for the continued success of the program and maintenance of physician engagement. Additionally, results indicated that competencies related to system transformation, engagement, coalition-building, and achievement orientation were important to the ongoing success of the program. Lastly, awareness of contextual factors in internal and external environments as well as assessment of feedback from these environments were also important competencies that enhanced the success of the FATT program.

Part 1: Introduction and Context

Purpose

Overall project

- *Summary of overall PHSI leadership project and contribution of regional nodes/national node; written by same person*
    - *Core leadership research questions common to all nodes*
    - *How participatory action research (PAR) embedded in research design and how the researcher-decision maker relationship managed over time*
    - *PAR focus (i.e., real life change projects), cycles and reporting methods (i.e., individual case reports for each cycle and summary report for region)*

Structure of report

Part II: Regional Case Study: Atlantic Node

The purpose of the research project is to explicate the leadership competencies related to health system redesign. In addition, the research project is designed such that researchers will partner with health care leaders to advance their leadership in ways that will improve the initiatives under focus. The Atlantic Node initiative is focused on engagement. Nova Scotia (NS) and Newfoundland (NF) have come together to explore engagement. Specifically, NS project centred on physician engagement while NF focused on employee engagement. Thus, the purpose of this node is to identify leader competences relevant to engaging physicians and employees in health systems redesign while creating a partnership between researchers and health care leaders to advance leadership.

Many organizational models converge in asserting that engaging workers is critical to the success of organizational change (c.f., Transitions, The ChangeCycle). Within healthcare, two key groups of workers – physicians and employees – are pivotal to system redesign. Yet, there is insufficient empirical evidence to support evidence-based approaches that reliably advance physician and employee engagement. Thus, the purpose of the Atlantic Node project is to explicate the leadership capabilities related to increased physician and employee engagement.

Brief history

The Atlantic Node project includes two independent studies. In Nova Scotia, researchers have partnered with Capital Health (CH) and the IWK Health Centre (IWK). These two organizations are collaborating to advance physician engagement by offering a physician

leadership program called Fully at the Table (FATT), by advancing a model of co-leadership, and through other activities. NS researchers originally focused only on FATT but, after analyzing the results of the situational analysis, researchers have expanded the scope to better capture and advance the broader physician engagement actions and strategy.

The objectives of the NS study are:

1. Clarify the connections between physician engagement and health system redesign.
2. Identify the leadership capabilities that are key to advancing physician engagement.
3. Advance and make accessible contextual factors that relate to increasing physician engagement.

Original Research Design

As in other nodes, the NS research design is a qualitative study. Researchers collected data during two cycles of interviews and a third cycle focus group. Interviews were recorded, transcribed, and analyzed using NVivo designed for this purpose.

In addition to the above methods for gathering data, and with an aim of advancing leadership, NS researchers and leaders met twice to review, interpret, and act on emerging results. Informal communications (conversations, meetings) between the researchers and leaders enhanced information exchange. Leaders openly discussed challenges and researchers provided intuitive knowledge to advance leadership throughout the project lifecycle.

Literature Review

Recently, a group of researchers reviewed the academic literature related to physician engagement and suggested that although organizational structure (i.e., creating formal leadership positions for physicians to influence the health care system) is an effective approach to involving physicians in health systems redesign, it is not sufficient for health system redesign (Denis et al. 2012). The authors of the report note that system redesign efforts are dependent on physician engagement (Denis et al., 2012). Specially, this literature review suggests that physician involvement at all levels of the organization, from the clinical practice team to the executive leadership team, is necessary if organizational change initiatives are to be successful (Denis et al. 2012). However, there are several barriers to engaging physicians in organizational change. Physicians face challenges when becoming more involved in health system redesign as they wrestle with three seemingly conflicting facets of their professional identity (Lounsbury, 2007). As clinicians, physicians train and commit to treating the individual patients, define success as

excellent care, and act with accountability toward their patients and peers (Salter, 2001). As members of organizations, physicians are pulled toward quality improvement and service to patient populations, work that, at times, appears to be in conflict with physicians' clinical role (Ferlie et al., 1996). Beyond their roles as clinicians and members of organizations, physicians also advocate for broad system change as they contribute their perspective in policy development (Friedland & Alford, 1991). To advance physician engagement in service of health care redesign, leaders must create conditions within which conflicts arising from these three facets of physician identity may be resolved.

Advancing physician engagement requires developing new social norms that guide physician involvement in organizations (Denis et al., 2012). Leadership training and development aimed at establishing new social norms for physicians requires changes in leadership within and beyond the medical profession (Denis et al., 2012). A focus on system redesign is a key to establishing these new social norms because it serves as a superordinate goal needed to unite physicians and administrators in navigating conflicting facets of physician identity (Sherif, 1954/1961).

Denis et al. (2012) concluded that changes are needed at the individual, organizational, and system level to advance physician engagement and health care redesign. The present study contributes to this quest at the level of the individual leader by explicating the leadership capabilities and skills needed to advance physician engagement for the sake of health system redesign.

Number of Cycles

There are three research cycles with the NS project. The aim of the first cycle was intended to capture contextual elements that shape the current situation and drive the need for advancing engagement in health care. This was done in relation to the "Fully at the Table" physician leadership development program at Capital Health. . The second and third cycles involve participants in clarifying leadership actions related to physician engagement. The aim of the second and third cycles were to explicate and advance leadership using the critical incident technique.

The Objectives of the Halifax Study:

1. Clarify the connections between physician engagement and health system redesign.
2. Identify the leadership capabilities that are key to advancing physician engagement.

3. Advance and make accessible contextual factors that relate to increasing physician engagement.

Additional questions

Cycle One. Semi structured interviews aimed at understanding contextual factors related to leadership and physician engagement were guided by the following questions:

1. What leadership capabilities are required to facilitate and achieve successful health system change with respect to this program?
2. What leadership actions and by whom, appear to align effort(s) at all levels of the system (local, provincial, national) to initiate and implement change in this program?
3. Who were the key leaders in this change initiative, and what responsibilities were required of them, to create effective change in the program?
4. Where did the change imperative start for the program?
5. What contextual factors, internal and external, both impede and facilitate leadership of sustained, meaningful change in the program?
6. What leadership lessons from past practices are important for leaders of change to learn?
7. To determine whether the "Fully at the Table: Bringing New Life to Physician Leadership" program is achieving its desired outcomes.

Cycle Two. In preparation for Cycle Two interviews, NS researchers determined that richer information might be obtained using critical incident technique. Critical incident technique is recognized as a best practice approach to competency modeling (Campion et al, 2011) and is a set of procedures used to collect observations of situations and events that are memorable to organizational members (Flanagan, 1954). Memorable events are salient to leaders efforts to engage physicians because such events help to shape organizational norms that guide and constrict workplace behaviour. The critical incident technique script and questions are note below.

Critical Incident Technique Script and Questions. Thanks for meeting with us today. As you know, we are interested in learning more about leadership, physician engagement, and system redesign. More specifically, we are exploring what leaders do to help physicians become more involved in improving the healthcare system to provide sustainable, safer, and better quality care. To learn more, we are asking people to tell us about situations and events where physicians were really involved in change. We want to know more about what occurs when

leadership engages physicians in change successfully, and also hear about times when things didn't go so well so we can learn about what doesn't work.

To start, we would like you to think about a situation or event when physicians were well engaged (or disengaged) in change work. Please tell us about this situation or event.

- What initiated this event/situation?
- What factors led to physicians becoming engaged or disengaged?
- Describe the event/situation.
- What happened after this situation or event was over?
- What role did your organization take in this initiative?
- What did you do?
- Who was there to help you lead this work before, during, and after the event/situation occurred?
- What did others do?
- Did you learn anything from other organizations anything related to this event/situation?
- Did you learn anything from the internet or research literature that informed this work?
- What was going on in the context of this event/situation that might be related to the success or failure?
- What did you learn as a leader as a result of this situation or event? How did you put those learnings into action?
- What did you do to ensure the future success of this initiative?

  OR
- What actions did you take to learn or recover from this failure?

Could you tell us about a second time when you achieved success or failure in trying to engage physicians?

- Use same prompts as above…

Cycle Three. Cycle three was a focus group aimed to explore and interpret Cycle Two results. The questions below guided the focus group discussion. In addition, an executive summary sent one week ahead of the focus group and a power point presentation used during the focus group can be found on InspireNet.

- Is there anything that surprises you about the findings?

- How do these findings relate to your own accountabilities with regard to physician engagement?
- What contextual factors (e.g., politics, power, etc.) should be considered?
- What key actionable outcomes would advance physician engagement?
- Is it possible/desirable to have a superordinate goal for health care reform?

Part III: Research Results by Cycle

Cycle 1: Research Findings

Results by Questions

What leadership capabilities were responsible for creating the current state of readiness of the FATT initiative? Almost every participant mentioned the strategic alignment within their organization while the organizations directly involved with this work do not have identical strategies, it seemed important that there was sufficient overlap in purpose between IWK and CDHA. The collaboration between organizations appears to be important to this development. This finding indicates that building coalitions is a key leadership capability. Discomfort arises when conflicting ideas, values, beliefs, and emotions coexist. People sense this dissonance and work to narrow the gap between what 'ought' to be and their perception of the current reality. Here, we note that participants were uncomfortable that the organizational strategy and current operations were not in harmony. This finding indicates that internal processes, such as awareness of dissonance between what is and what ought to be (awareness that a problem exists), were key leadership capabilities in motivating the development of FATT.

We found that strategy was key, alignment among influencers helped drive development, and people consistently identified their discomfort that what the health care system needed, from all accounts, was greater physician leadership and involvement. From this perspective, leaders noted that there were insufficient organizational efforts focused on physician leadership. This apparent lack of integrity between strategy and practice indicates that strategic thinking was a key leadership capability in developing FATT.

Participants reported that conceptualizing the organization within a larger system is helpful in several ways. First, it helped to see healthcare as a system of cooperative entities rather than entities in competition with one another. Second, program developers were able to leverage community resources not only as models but also as contributors. Third, participants reported

that multiple actions came together to create desired outcomes. This finding indicates that systems thinking was a key leadership capability in developing FATT.

Established relationships among organizational leaders supported collaboration between IWK, CH and beyond. This was helpful but participants told us that it was not enough to ensure the program was created and launched. In addition, leaders ensured that roles and responsibilities were clearly understood and accepted. This finding indicates that managing social relationships was a key leadership capability in sustaining the FATT program.

People involved in the development of the program kept the client as their primary focus. They asked themselves what physicians need, who physicians were likely to appreciate as facilitators, when would be convenient, and what can be done to change our program as a result of feedback. This finding indicates that service orientation was a key leadership capability in evolving the FATT program.

There were specific efforts to tie the content of the program to the strategic need. That is, to focus on the leadership capabilities most salient to the current organizational need.

People in the program reported connecting with one another. One program participant mentioned that they wanted to learn here because they worked here. So, even though they could go to PMI or many other optional programs, they enrolled in FATT. This finding indicates that managing in-group or team dynamics was a key leadership capability for creating the FATT program.

The FATT program content was edgy without being over the top – skilfully meeting client need while expanding client thinking and challenging group norms. FATT Participants felt the training was excellent in quality and usefulness. They had a hard time answering the question: which module was the most valuable… FATT participants stated that all the modules were valuable. This finding indicates that program development and cognitive ability were key capabilities needed to create program content.

How did leadership in different contexts affect the current state of the FATT initiative? See below.

Who were the key leaders, and what roles did they perform, in order to create FATT? The key leaders represent all levels of management within the two health care organizations who contributed to developing FATT. This included both Chief Executive Officers, two Vice Presidents representing physicians, Directors of Physician Services (CDHA)

and Director of HR (IWK), and managers accountable for creating and coordinating the program. Creating FATT involved a team approach that engaged the Dalhousie University Medical School, Doctors Nova Scotia, the Authentic Leadership in Action institute, and volunteers from the community to develop and deliver a meaningful leadership program.

Where did leadership for the change imperative come from to implement FATT? See above.

What contextual factors, internal and external, impeded or facilitated leaders' abilities to achieve FATT? Participants relayed that developing a physician leadership program was made easier because other entities, e.g., provincial governments and associations such as Doctors Nova Scotia, were all ready taking similar steps. No one talked about National involvement but this does not appear to be a barrier as no one reported a lack action at the federal level as an impediment to this work. This finding indicates the policy alignment among provincial governments, medical professional associations, and health care organizations is key to successful physician engagement and system redesign.

What learning activities were effective in developing FATT? Leaders did not undertake learning activities specifically for the purpose of developing FATT. However, an award-winning program of leadership development likely played a key role in developing leadership capabilities. This program, called My Leadership, is based on the Pan-Canadian leadership model of Being, Caring, Doing, a predecessor of the LEADS framework. The program was mandatory for all formal leaders within Capital Health and consisted of two days of training, a 360-degree and self-assessment, and a goal oriented learning plan.

Implications

NS researchers gathered in January 2013 to review and revise research questions before the next round of interviews that occurred in February 2013.

Further Investigation

Organizational attrition of two Vice Presidents presents an opportunity to explore how efforts to engage physicians are effected by transitions in leadership.

Timeframe

No time adjustments.

Data analysis adjustments

No data analysis or methods adjustments.

Cycle II: Research Findings

NS Cycle Two research findings are presented in two sections. The first section presents results from thirteen interviews conducted using critical incident technique. These results indicate that five core competencies and three core skills are required for leaders to engage physicians in health systems design. Results are organized based on these themes with detailed interpretation and participant quotations to enrich the findings.

The second section presents results of a nested analysis specific to Fully at the Table (FATT), a physician leadership development program. The original scope of the Nova Scotia research project was limited to an investigation of FATT. After Cycle One, researchers and key decision makers determined that the scope was too narrow to provide novel material. That is, we agreed that focusing on FATT alone was insufficient to sustain the interest of participants and unlikely to provide new knowledge in the research domain. However, key decision makers were interested in understanding whether and why FATT was successful. Thus, we completed a separate analysis of FATT and present these results within our report.

General Results

Five Core Competencies. The interview transcripts were analyzed and five primary themes emerged as being key to leaders' success in engaging physicians in systems redesign. It is important to note that although each of the five themes are identified and discussed independently there is a lot of overlap among the themes and they work interdependently to improve leadership and system redesign. For example, to have a true awareness of change processes it is necessary to also have some systems thinking knowledge that would enable an understanding of how the system functions and why changes are initiated and needed. The following is an outline of these five themes with underlying capacities and direct quotations from the interviewees.

1. Systems Thinking. Systems thinking refers to leaders showing concern for the success of the overall health system by considering how physicians' role fits within the larger system and how leaders and physicians can work together to enhance the sustainability of the entire healthcare structure. Systems thinking is beneficial for improving co-leadership, employee performance, and collaboration among individuals and organizational partners. Systems thinking includes several specific capabilities.

Historical Perspective. Historical perspective involves having an understanding of how the system has been developed and managed in the past, and how this influences the current system.

> "Well, they've been very good at framing and spending money that they didn't have. And that's why we're in debt up to our ears and with no more money. And now we can't do the things… Well, we're struggling to do the things. I shouldn't say we can't do because we are. But it's a struggle. And it's not going to get easier. And so unless we want to end up like Greece, sooner or later something is going to have to take the reins."

Logistics and Process Planning. This capability involves considering the systemic constraints that may prevent physician engagement and planning to overcome those constraints through strategic scheduling, advance planning, and appropriate timing.

> "The meetings need to be scheduled like a year in advance for this guy because there's only a few of them on a rotation. So some of it is just logistical."

Navigating Politics. Navigating politics involves having an awareness of politics within organizations and across the system, and understanding the nuances of political opportunities and constraints during decision-making.

> "It's a system but it's not really functioning as fluidly as it should because of all these other outside influences. And the biggest one is politics, there's no question."

Sense of Control and Authority. Sense of control and authority refers to addressing physicians' feelings of autonomy (i.e., control) over their work environment, including their departments, schedules, procedures, and change initiatives that influence them. Their perceived authority relates to their decision-making power and their ability to control aspects of the job. The data indicates that when physicians perceive a lack of control, their engagement and willingness to commit and participate in change initiatives decreases. As such, resistance to change can be observed in cases where physicians have less autonomy.

> "My perception is they are more or less coming in and saying this is the way it needs to be, and you need to just accept that. And the physicians are feeling very much like we do not have control of our departments anymore."

Systems thinking. General systems thinking references were also noted in the data and tended to indicate the importance of prioritizing one's role within the system and contributing towards the performance and function of the system through thorough understanding, effective

decision-making, and addressing systemic problems when necessary.

> "Patients aren't getting the care they need and there are real risks. We're making medical advances, and patients aren't going to have a chance to get them because we can't afford to do it. So my feeling is it's really, really important that we work together to make the system sustainable."

2. Change Management. Change management relates to the leaders' and physicians' involvement in strategic change initiatives within the system. This includes awareness of the need for change; perceiving readiness for change; communication involving change; initiating and planning change; participating in change, and adapting one's own leadership style to facilitate change. Change capabilities include the following:

Awareness of the Change Process. Awareness of the change process refers to a leaders ability to understand and recognize the importance of the change and the process by which change occurs. Moreover, being aware of the factors that contribute to successful or unsuccessful change outcomes is crucial and impacts a leaders' ability to monitor the change climate and change processes over time.

> "I think physicians have come to realize that they are better off participating in changing the healthcare system than having the healthcare system try to change without them."

Advocacy. Advocacy involves becoming or recruiting a credible and relatable champion for important initiatives that require physician support. An advocate is someone who will encourage and model engagement across any given initiative.

> "The physician leaders were all, yeah, we're going to do this. And a couple of our colleagues went and seriously just flogged it until, you know, they could not do it anymore."

Awareness of Climate. Being aware of the organizational and system climate involves recognizing the strengths and weaknesses within the system in order to inform the best way of transforming the system and to identify what changes are specifically needed.

> "…a recognition that perhaps the care being provided wasn't as patient-centred as the patients might aspire or even for the physicians."

Enforcing Change and Accountability. Enforcing change and accountability involves holding others accountable to both leadership and to their peers for following through on planned change initiatives.

> "There was no accountability for it so why would they spend their resources? And when I say resources, I mean their time on something for which…you know. So you've got to be aware of the problem, you've got to have a passion for the problem, and you have to have somebody who's going to be holding you accountable for making those changes. Without that, it's no longer a 3 legged stool. It falls over."

Agility. If a leader is agile they are flexible and adaptive in their approach to change. This helps to facilitate change initiatives by being able to change with the process. Agility may also involve empowering others to champion the change or adopting a strong leadership style to facilitate the change as leader.

> [it is important to develop an] "understanding [of] when to follow and when to lead."

Innovation and Creativity. Innovation and creativity involves conveying the importance of innovation and creativity as well as encouraging and facilitating discussion of new ideas, new techniques or initiatives that may benefit the system. Thinking and supporting ideas that are 'outside of the box' is one approach to innovative and creative thinking applied to change.

> "We have a [director] who's really bright, a very bright [individual]. And [this individual] said, well, you know what, I could do the same test with less reagent, and I'm going to try that. And he was able to dilute the reagent that we were using, which are very expensive reagents, and change the technique a little bit, and saved almost one-third of our reagent money."

Involving Others in Change. Involving others in change was identified as a major capability in successful change initiatives. Soliciting input from physicians regarding how to implement change and giving them some responsibility for decision-making concerning the change lead to increased engagement and better change outcomes.

> "I think the key thing is a small group of people have an idea and are passionate or whatever, are convinced that this is the way to go but we haven't perhaps involved the others to the degree that they need to be involved so that they're owning it. It's an initiative that I think some feel is being pushed on them."

Piloting Ideas. Piloting ideas refers to experimenting, that is, testing and evaluating ideas for change initiatives prior to rolling out the initiative to a greater population. This emerged in the data as a very helpful technique. It enabled leaders and champions to identify barriers to change and provided them with an opportunity to address and correct any barriers, or revise their

plan of action, prior to trying to illicit the support of a broader audience.

> "We're going to evaluate it and see. What we've decided to do was to bring this in as a test to see what we do learn from it, and to see whether it was going to be valuable. And I mean obviously there's a cost associated. So we would need to be careful about that. But I think we wanted to just try and pilot this to see if it's something worthwhile pursuing or not."

Planning Change. An important capability of change is planning the change. The data suggests forethought in advance of change implementation will increase the likelihood of engagement and achieving desired outcomes. Planning change should involve considering such factors as scheduling, securing resources, seeking input from others, anticipating challenges, and other factors. Piloting ideas overlaps with planning change as it can help vet planned changes and identify new factors that should be considered before change is actually implemented.

> "So we get it on the agenda. And we had to find out how to get the money. Then we had to decide if we had the money, what are we going to build? How are we going to do this? Are we going to build a whole new suite somewhere else? What are the trade-offs for that? Are we going to build it where we are? And how are we going to keep operating while we build it? And you have go to through all those exercises."

Readiness for Change. Readiness for change involves recognizing whether there is a need for change and whether or not key stakeholders are ready to commit to and follow through on change initiatives, and whether the timing and nature of the change(s) are appropriate.

> "Yes. So that's the biggest piece. So it's maybe not always just the shared goal but it seems like whenever they're dissatisfied with something or something is not working…"

Selling. Selling involves explaining the nature of proposed change, reasons for the change, and anticipated benefits of the change (e.g., improved patient care) using credible evidence. The goal of selling is to get 'buy-in' and engagement from individuals who will be needed to ensure the changes succeed as well as those who will be involved and affected by the change. The data indicated that when "selling" new ideas to physicians and trying to garner physician engagement the outcomes of all change initiatives (either direct or indirect outcomes) should be tied back to improvements in patient care, as this is the primary concern for most physicians.

> "The message for things clinical is you show people data. And the second piece is I've never met a doctor who didn't want what was best for his or her patients. They may not care about anybody else or what else is going on but… I mean that's your job. And so you usually appeal to those instances."

3. Relationship Building. Relationship building involves building positive relationships, coalitions, and partnerships with key stakeholders within the system in order to achieve goals and improve efficiency. Several capabilities fall within this competency.

Challenging Others. Challenging others involves working with others and enabling them to take risks, fail at times, and try again for success.

> "And we need to do a better job of finding the talent, enabling the talent, you know, letting people take risks and not getting mad at them if it doesn't work. Just say, listen, you tried something. It didn't work. Move on to the next thing. That's what I think we need to do more and more of."

Emergent Leadership. Emergent leadership refers to recognizing leadership potential in others and allowing others to emerge as formal or informal leaders as well as empowering others to take on leadership roles within the system.

> "So I think we have to be open, more open perhaps than even I am or many of us are, to the fact that there is leadership potential everywhere."

Bridging. Bridging is an important capability that involves the facilitation of partnership and team development between key stakeholders within the system in order to achieve goals.

> "I feel a lot of what my job is to translate things and enable different cultures to come together."

Collaboration. This capability refers to developing partnerships with key partners and stakeholders in order to make progress with programs and initiatives and solve current issues. Collaboration can facilitate the sharing of resources, information, and ideas and reduce redundancy across the system. Collaboration can be done on a small (within a department) or large scale (across the system).

> "You help them understand what the issues are. They help you solve the problems. We work together. I mean it sounds idealistic but it does work. And it is a lot to do with relationships."

Develop Relationships. Develop relationships refers to establishing relationships with colleagues that are characterized by trust and support which can facilitate goal achievement.

> "I think if you build up currency with the docs, they're going to go, you know what, Jen is asking and I know Jen so I'm okay. Jen has some currency with me, and I trust Jen. So if Jen asks me to sit on a committee, I'll give that some thought."

Develop Teams. Develop teams involves both recognizing the importance of teams and facilitating team development through clarifying the team's purpose and team member roles.

> "The manager is going to give a project they need to work on together. And the project is to come up with a plan, a quality control plan for each section. And then we'll meet again in a few weeks once they have… So it's like giving them homework to do. They have to sit down together, do their homework, and bring it back. And hopefully that will reinforce the relationship. So they've always had a relationship but it clearly wasn't the best relationship possible and not the best understanding of what each one's roles are."

Knowing members. Knowing and understanding members is an important relationship building capability that involves recognizing members' strengths and weaknesses, and differences in personality and culture that may influence their perspectives, skills, and abilities.

> "I basically looked for, you know, commitment, leadership potential, individuals who are task-oriented and complete them."

Listening. Listening refers to hearing and acknowledging physicians' concerns, which may inform change.

> "In a lot of these meetings, physicians are going to the table and they're raising concerns, and they're feeling like they're being ignored. So I think the government is trying to engage people by bringing them to the table but at the same time, it's being perceived that everything that is being said from the physicians is not being listened to or taken into consideration."

Psychological Safety. Psychological safety refers to creating a safe environment wherein members feel comfortable sharing ideas and discussing potentially sensitive issues without fear.

> "So all teams had a formal process that they would go through to identify opportunities. And that would be, you know, somewhat influenced by politics and putting out safe options as opposed to ones you really didn't want to highlight. But there was also the anonymous suggestion box which was if you saw waste in the systems somewhere, if you

> saw something you really felt should be evaluated, put the idea in. You don't have to put your name to it. You shine a light on something that you may know people don't want to talk about but really needs to be addressed."

Seeking input. An important aspect of relationship building is seeking input, suggestions, and feedback from others to inform decision-making.

> "It was just Capital Health people didn't come and say to the physicians, 'Listen, people, we've got to do this because of this, this, this and this. So we don't have a choice here. And how can we make it the best we can make it? Or how can we make this work the best for everybody? And how is it going to work for you?' And that didn't really happen."

Nurturing Stakeholder Relationships. Nurturing Stakeholder relationships involves developing and maintaining positive relationships with key stakeholders within and outside the organization and encouraging physician involvement with those stakeholders.

> "We worked a lot with the Department of Health in engaging physicians and communities of physicians in the CEC model, both the delivery side, the payment side, everything. And you know, for physicians who are participating in CECs, they're far better off having been involved at the outset. And I think there's no question that government and district health authorities are far better off of having physicians engaged at the outset."

Succession planning. Succession planning refers to selecting and investing in the best possible candidates for future leadership roles.

> "If we want to invest in leadership then we have to pull out the early and mid-career people in the organization and actually do the succession planning and the talent management that the board wants to actually make things better in 5 or 10 years now."

Support. Support refers to providing physicians with moral and emotional support to help them succeed in projects by showing confidence in them, giving them the autonomy to make decisions in initiatives, and supporting their decisions even if failures occur.

> "I would say the main elements were identifying the right people who were…the people who clearly had a passion or an interest in this area, and providing them with support and encouragement. You know, support in the broadest sense. Support being the moral

support, the financial support when that was required, the administrative support, etc."

Trusting others. Trusting others is characterized by having confidence in physicians' abilities and open, honest communication.

> "I mean there are sometimes this kind of paternalistic idea that they wouldn't understand. We better not tell them about that, they won't understand. Well, that's stupid because they will understand more than you think. And if you don't explain the truth, they will then believe it's something else. And then that doesn't help to get to the goal that you want."

4. Managing Performance. Managing performance is a major competency that involves adopting a results-oriented leadership style. Leaders who use this approach are good at clarifying common goals to others, delegating and supervising work, and decision-making. Managing performance capabilities found in the data include:

Being Accountable. Being accountable to others for following through on decisions related to spending resources and also holding others accountable for their involvement in projects.

> "So even if it's small things, you have to have that follow through…And it has to be habit. It has to become the way it's done."

Education. Education involves informing physicians about the structure of the system, financial and sustainability issues, policy and administration, and initiatives within the system in order to convey their importance and promote engagement.

> "You know, the money and the trade and politics in the hospital that doctors don't get. I don't really understand the layers of administration and accountability."

Efficiency. Efficiency involves effective time-management, organization, and responding to others' concerns in a timely manner.

> "He's very, very organized. He's very on top of things. He knows where everything is. He's very organized. And he controls a lot of his calendar himself. Right? It doesn't necessarily go through the secretary. He deals with a lot of stuff himself. But he's very brief with how he deals with his emails but he's basically explained that I'm not going to get into hi, how are you. I'm just here's the answer, because I just want to get on to the next thing. I want to make sure you have the information you need."

Establishing Practice and Structure. Establishing practice and structure is an important

management skills that enables leaders to provide others with structure within work teams and in meetings by setting an agenda, clarifying goals, keeping others on task, and generating actionable tasks following discussion.

> "And I think they need to define, you know, what is the agenda for the meeting and maybe have a couple, you know, maybe 3 or 4 key points, that those are the only points that are going to be discussed and addressed. I think from my understanding, is they set off with an agenda but it goes off track. Right? It doesn't get reined in and kept to the issue at hand."

Evaluation and Feedback. Evaluation and feedback refers to evaluating the outcomes of initiatives and providing feedback to those involved in the initiative as well as soliciting their feedback in order to inform future decisions.

> "You've got to be able to show what did you do with it, what did that generate in terms of results, and what's your sort of final assessment of what worked and what didn't, and how would you do it better the next time?"

Leader Selection. Leader selection involves identifying and choosing the most appropriate individuals as leaders in specific roles and/or allowing physicians to self-select for leadership positions based on personal interest.

> "Some people say, choose leadership and others are thrust into leadership."

Managing People. Managing people involves assessing each individual physician's performance, behaviour, and involvement in initiatives and either rewarding or correcting physician performance as necessary.

> "So you would have to have that discussion, and then you have to find a resolution. And most times you can do that. Most people are reasonable. There are sometimes passion gets… And sometimes they cool off and you try again tomorrow. You know? And if it's something that's really bad then I have the authority to do things if I have to. You know, if they're really misbehaving then I may have to suspend them."

Managing Conflict. Managing conflict involves being aware of and effectively dealing with conflict that arises between members.

> "And because it's a very sensitive topic when you get into the nitty gritty because one could say, well, if this person is saving lives every day, why should you care that they berate staff members or treat people poorly? Well, there's all sorts of reasons as an HR

guy I would care about that."

Managing Expectations. Managing expectations involves communicating to physicians what expectations are reasonable for any given initiative, in terms of timeline to completion, expected outcomes, or level of involvement in the initiative(s).

> "Governments might move slowly but, you know, you have to understand that that's the system. And while we're not making excuses or allowances, that's the system we have to operate in. And don't get frustrated or give up. Sometimes progress isn't as readily evident as you might like it to be."

Alignment. Alignment refers to clarifying common goals to others and focusing others on these goals. It is about getting everyone on the same page and working toward the same goal.

> "You also have to align the nurses and the physicians so they're thinking about the same thing".

Decision-making. Decision-making refers to deliberately reviewing data and key information and using one's judgment and experience in order to make informed decisions. Effective decision-making also stems from knowing when to involve others and seek their input throughout the decision-making process as well.

> "Everything is based on data. The trouble is a lot of the data we have, and it's very true in medicine, a lot of the data we have is not very good data. And so we have to do the best we can. And that's where judgment comes in, and you have to make up for the fact that we don't have information.…"

Delegating Responsibility. Delegating responsibility refers to making use of the skills and abilities of others by delegating work to those who are most likely to be successful, supporting those individuals, and supervising as needed. To delegate appropriate it is crucial that leaders have a strong awareness of others (see competency 5).

> "At the end of the day, he would get so much more done because he was getting a whole bunch of other people to do things."

Problem Analysis. Problem analysis involves identifying factors contributing to any given problem and determining how these issues may be overcome in the future. Some data in this category was specific to physician engagement and the timing of involving others in change initiatives.

> "I think it's fair to say that as an association, I don't know that we were engaged as early on as possible in the structure and the framework. You know, I think folks saw us simply as the negotiator for physicians. So when it came time to do a physician contract, you'd write us in and we'd sign a contract with the docs. And I think it became clear upfront that that wasn't going to work as well. You know, that it clearly wasn't a build it and they will come scenario."

Resource Allocation. Resource allocation refers to the effective management of resources (money, materials, information). This also includes communicating with physicians to explain resource allocation decisions.

> "We told everyone that every department had to come up with 8% of their budget savings opportunities… I think it was a way of forcing people to think seriously about digging deep. We didn't say that we were going to do it to them. But I mean again, because there was a budget pressure, people were worried that yeah, I could go out and do the academic exercise of coming up with the 8%."

Role Clarification. Role clarification involves discussing and clarifying what physicians' and leaders' roles entail in their jobs and in specific projects and how they view one another's' roles.

> "And the first thing we started with was what's the job description for the supervisor, what's the job description for the medical director, how they see each other. And you could see that they were not clear on how the job is or who's doing what."

Role Modeling. Role modeling involves personally demonstrating a commitment to initiatives and also enlisting the help of other physician leaders (whether formal or informal) to model high engagement.

> "You'll undermine the credibility of the change if you don't buy in yourself."

Superordinate Goal. Superordinate goal refers to defining and articulating a common goal among a group of physicians regarding projects and initiatives that everyone can work towards. A superordinate goal can implemented at various levels in the organization and system. When a superordinate goal was not present successful outcomes appeared less likely. The absence of this was found to be a large barrier and in across the system it is a current weakness.

> "A lot of physicians initiatives to getting involved in things would be to if they get a chance to be a part of it before something is done improperly that doesn't recognize some

of the things they bring to the table. So for instance, for the new building planning. There's a new addition being put on the Infirmary, and everybody is going to go up there. The physicians are very anxious to be involved so that mistakes aren't made."

Taking Responsibility. Taking responsibility involves encouraging physicians to take ownership over the health of the system and to become active participants in improving the system by initiating change or becoming involved in change efforts.

"It's not uncommon, I think, for your physician colleagues to say, "Well, you're the leader, you sort it out and figure it out. That's what you get time to do." Right? So it can be a little bit of a, you know, it's not my problem, it's your problem and you solve it."

Transparent Decision-Making. Transparent decision-making refers to openly and honestly communicating the nature of decisions and reasons for those decisions to establish a common understanding. Hiding information from certain groups, not providing thorough rational for decisions, and not informing everyone about potential events appeared to lead to frustration and decreased success rates.

"Because what they did was they had a really open, honest, transparent conversation in front of a whole group of people."

Work Flow. Work flow refers to the improving the efficiency with which work is carried out, including time management, procedures, and decision-making.

"It's not just about the gas and the lights, it's about how do you get the patients from A to B, how do you get them back? Where are they going to meet the parents? How do you deal with family-centred care? How do we deal with all of those issues?"

5. Knowledge and Awareness. Knowledge and Awareness refers to a general awareness of the strengths and weaknesses of ones' self, team, the existing culture, and the organization in order to capitalize on strengths and address weaknesses. Knowledge and awareness capabilities include:

Confidence and Competence. Confidence and competence refers to the leaders' belief in their own ability (i.e., their degree of self-efficacy) to lead and fulfill role responsibilities based on their education, experience, and support resources. The data suggests a lack of systems knowledge and awareness leads to less confidence in enacting some types of change initiatives. To improve self-efficacy in change management and engagement areas of self-perceived

weakness (e.g. systems knowledge) need to be addressed. Higher self-efficacy often accompanied more successful outcomes.

> "So I just was more confident, and for all different reasons. I was playing a different role in the organization, I had more experience, I felt more prepared. You know, some of the things you've pointed to already. But I also felt I had people on my side."

Likeability and Credibility. Likeability and credibility are important factors that relate to a leaders capability to garner interest and commitment from others through their own charisma or credibility. Credibility emerged in the data as a key factor when selling, garnering buy-in, and achieving successful results. Engaging physicians appeared to be much easier when the engagement was initiated and requested by an individual who is viewed as credible. Moreover, having a credible and likeable champion or advocate for a particular change initiative also appeared to help garner additional engagement and commitment to the initiative.

> "He's been a great success. And I think more because he's intensely intellectual. He's very, very intellectual. You know, so he doesn't approach things with… So my approach has been really enthusiastic and keen and hardworking and running around. Whereas his is very calm but he never says anything that isn't deeply thought of and thought out. And so people really listen to what he says."

Recognition. Recognition also emerged as an important capability and key component of awareness. Leaders who recognize (i.e., publicly or privately) the successes of others appeared to be more likeable and were often better able to match select physicians to select initiatives. Moreover, acknowledging others achievements and encouraging team members to recognize one another's successes leads to better team dynamics and more successful outcomes.

> "So you do showcase what people are doing. I don't mean showcase in terms of writing articles about it. You refer to it. You let people know who's doing what. And actually people love it."

Leadership Knowledge. Having leadership knowledge refers to having knowledge of different leadership styles and their varying degrees of effectiveness in different contexts. This, coupled with agility, is particularly important for managing conflict, managing change, engaging physicians, and leading others.

> "Whereas the leadership, it kind of seeps in. And there's so much of it. It's a bit like kind of drinking from a fire hydrant. You know, you pick up bits but you're not really aware

that you're picking up. But you are aware that there's a lot that you're not picking up and a lot that you're forgetting."

Learning Orientation. Learning orientation refers to encouraging the acquisition of new knowledge and skills in areas where physicians may be lacking knowledge and fostering shared learning experiences to promote continuous improvement.

"So physicians, you know, it's a kind of academic environment. And if you keep teaching them new things, if they keep learning new things, then coming to work is more fun because then you get a chance to do that."

Measurement. Measurement of key outcomes and predictors that can highlight what is working or not working within the system to inform change.

"Measurement is one of the biggest challenges we have in healthcare. And I mean it sounds strange to say. We measure everything and we measure nothing. We've got tons of data points, and very little time, energy or systems that will actually integrate that into intelligence."

Openness. Openness refers to being open to others' ideas, suggestions, feedback and implementing them into change efforts as well as having open, honest, and straight-forward conversation with members about issues.

"Don't BS them. Don't candy coat it. Don't pretend or try to do something backhanded. I think some of our folks are really good about just sitting down and straight up."

Perspective Taking. Perspective taking involves a cognitive process whereby the leader is able to recognize and understanding others' points of view on any given issue. Perspective taking appeared to be very valuable for understanding barriers, planning change and getting physician's engaged.

"And you have to explore the issue from as many sides as you can so that it doesn't become a very focused argument on one facet of a complex problem."

Understanding Current Needs. Understanding current needs refers to identifying need for change based on areas of dissatisfaction or concern with the current system as well as examining what already works well and should remain unchanged.

"The reason why the concept came about was because of dissatisfaction of clinical faculty with the facilities and the support systems that exist within the building. So there was underlying dissatisfaction or concern with the situation. And so that led to this idea,

this initiative, this project."

Understanding Organizational and Departmental Culture. A leader's ability to understand organizational and departmental culture is important for successfully engaging physicians. Being able to communicate clearly with members of different cultures, share perspectives, and observe similarities or differences across departments are important aspects of cultural understanding.

"My biggest job has been to appreciate different cultures. And boy, it's been rough."

Core Skills. In addition to the above five competencies, we also identified three core skills that do not fit within any one competency specifically, but rather universally apply to all five.

***1. Effective communication*.** Effective communication emerged as a prevalent skill across all five themes, and as such, may enhance performance in all areas. Key aspects of effective communication included providing necessary information to the appropriate people, delivering a clear message, delivering information regularly and through the most appropriate channels, and soliciting input and feedback from others.

"It's almost impossible to communicate too much."

2. *Motivation and Commitment*. Motivation and Commitment is another key factor that seemed to span across all five themes, and may enhance performance in all areas. This factor includes intrinsic motivation, general motivation, and perseverance. Intrinsic motivation involves finding interest, enjoyment, and passion, which drives commitment to initiatives.

"it's easier perhaps to engage them in things they are passionate about."

General motivation. General motivation refers to more general motivation for engagement besides intrinsic motivation and other motivating factors such as competition, external threats, compensation, or desire for change. Example: "The chiefs started betting with one another. So [an individual] started betting with [one of the Chiefs] to say we're going to get a higher response rate than you guys. And I think it was the competition that got them to do the survey."

Perseverance. Perseverance involves persisting in the face of obstacles and maintaining commitment. Example: "they're persistent. You know, they don't give up easily. I mean I guess that would be the same as to say they're committed"

3. Personal characteristics. Personal characteristics refer to several qualities identified as important to engaging physicians including ego/humility, personal interests, culture and background, skill, personality, and leadership style.

> "I don't think you can have a big ego. You have to let the docs, you have to be able to say, "Guys, I've got an issue. I need your help. I need you to come. You guys are the experts. I need you to…" And it's not subservience or anything like that but if you come across as…" [Other]: "It's participatory leadership."

Fully at the Table Analysis and Results

Our analysis indicates that the FATT program is effective from two different perspectives: content and outcomes. First, analysis indicates that the program content is focused on many of leadership competencies that appear to be important given general results reported above. That is, there is an alignment between the competencies needed to engage physicians and the competencies that FATT program aims to develop in physician leaders. Second, outcomes are encouraging. That is, physician participants indicated that they enjoyed the program, learned material that they would not otherwise have learned, and continue to apply these learning in their health care settings.

Introduction

Decision-makers in the Canadian health care system, such as hospital CEO's, and national association leaders, feel that the traditional models and approaches to leadership are not generating energy for meaningful health system transformation. This stymies important initiatives such as primary care reform to deal with chronic disease management (CDM), health human resources issues, and implementing system redesign to support quality improvement and safety (CCHSE, 2009; Lockhart & Backman, 2009). Herein, leadership is taken to mean "the capacity to influence others to work together to achieve a constructive purpose" (Dickson, 2009). Demands for more effective leadership are also fuelled by a fundamental shift in the national and international expectations around the quality of leadership needed for transformation in healthcare systems (Dickson, 2009). Leaders, and their successors, are expected to navigate increasingly complex policy environments, adapt to the changing expectations of society, and adjust their behaviours to correspond to increasingly large organizational delivery systems (Dickson, 2009). Therefore, it is important to determine leadership practices that are currently working to transform the Canadian health care system and then to successfully implement them

in other jurisdictions. Bearing this in mind, this research project was aimed at enhancing the development of leadership capacity in the Canadian health care system by addressing the imperative of developing physician leaders as a way to enhance physician engagement.

We proposed to study the leadership factors involved in the development and implementation of a leadership program aimed at engaging physicians and developing physician leaders. The government of Nova Scotia has mandated strategies for enhancing the sustainability of the healthcare system. Capital District Health Authority (CDHA) of Nova Scotia responded by developing a strategic response focused on cost savings and developing better methods of delivering care that is people-focused. Similarly, the IWK Health Centre in Halifax also developed new strategic directions aimed at improving quality, access, and sustainability. However, a major challenge in implementing these strategies involved the engagement of healthcare workers and the public. Therefore, in order to enhance the engagement of these stakeholders these two organizations developed a physician engagement program called "Fully at the Table: Bringing New Life to Physician Leadership". This program is aimed at improving physician engagement and is part of a three-pronged approach based on three pillars of engagement comprising the community, hospital employees, and physicians. Physician engagement is important because physicians frequently determine the majority of health care decisions related to patient care and have direct and indirect influences on how health care dollars are allocated.

Despite their position of importance in terms of decision-making and cost driving status, as well as the unique position they hold within academic health centres, physicians have often been under-represented in senior management teams and strategic planning efforts. This is unfortunate because physician engagement in all aspects of medical care can enhance the development of a culture of physician engagement and provide an opportunity for sustainability and success of the health care system. Additionally, if change efforts are to be successful, strong physician leadership can be an effective influencer of physician engagement and health care transformation by helping to educate and support physicians through the implementation of change programs. However, through no fault of their own, physician leaders often lack the necessary management skills (competencies) to be truly effective in their leadership roles. This must change and health care organizations have an invaluable role in developing physician

leaders who are engaged and participating in the organization's vision, mission, and strategic direction.

These realities led CDHA and the IWK Health Centre to embark on a collaborative process for developing physician leaders. The "Fully at the Table: Bringing New Life to Physician Leadership" is an interactive program that started in October, 2009 and is taught by presenters from the medical and non-medical community, as well as the private sector. It consists of both medical and non-medical case studies and lectures, which provide an opportunity for participants to learn from local experts and their peers. The desired outcomes of the program are to:

- Increase physician engagement through collaboration and decision-making
- Provide useful tools and practices for leaders and potential leaders
- Increase reflection and self-knowledge
- Provide a deeper understanding of the context of leadership within institutions
- Develop a peer support, learning network and ongoing community practice

The FATT Modules

The modules are delivered in two-hour sessions once per week for 8 – 10 weeks. For 2009 – 2010, the modules included: 2009 – 2010: Introduction to Leadership – provocative perspective; Self Awareness – 360 degree review; Reflection and decision-making; Executing with courage – living one's ethics; Communication & coaching; Collaboration and understanding politics; Leadership & lifelong learning. The 2010 – 2011 sessions were comprised of: Transformational Leadership and Self-awareness – leadership perspective; Reflection and Decision-making; Transforming the Workplace – Conflict I; Transforming the Workplace – Conflict II; The Art of Negotiation; Executing with courage – living one's ethics; Collaboration and understanding Politics; Leadership & lifelong learning. The 2012 – 2013 FATT modules encompassed the following areas: Myers Briggs Assessment; Self awareness; Communication and Dialogue; Ethics and moral distress; trust and relationships; Conflict management I; Conflict management II; Leading change; Integration.

Methodology

The first aspect of the study involved a retrospective analysis (situational analysis) involving an exploration of the context preceding the development of the "Fully at the Table: Bringing New Life to Physician Leadership" leadership program. For this exercise, semi-

structured taped interviews were conducted with six members of senior management (implementers) at CDHA and IWK responsible for program initiation and start-up as well as three participants in the FATT program in the initial program that began in 2009 (the results are presented on pages 12 - 14). A report was presented to senior management and staff of CDHA and IWK following analysis of the interview data. A second cycle of interviews was conducted ten months later. Three participants from the FATT program and five senior managers responsible for program implementation were interviewed. NVivo software was used to perform thematic content analysis (TCA) on the interview data. A summary discussion of the qualitative results is presented below, however, the detailed results for both cycles 1 and 2 can be found in appendices A and B, respectively.

Discussion of Cycle 1 and 2 Results

Physician engagement is important for achieving health system goals while providing quality patient care (O'Hare and Kudrle, 2007). Efforts to transform the provision of health care are more likely to be successful if physicians are engaged, committed, and champion the change (O'Hare and Kudrle, 2007). Although physicians may be involved, they may not be engaged (Birk, 2009). An important mechanism for gaining physician engagement is physician leadership and the presence of physician champions who validate and support the change. This type of leadership aims to create an atmosphere where physicians connect positively both with organizational members and within their physician communities; thereby inspiring their colleagues toward pursuing a common set of shared goals (Serio & Epperly, 2006). Physician leadership can only occur if physicians are integrated into decision-making at all levels of the health care system. However, they need the necessary training and skills to be full participants in the decision-making process. The FATT program is premised on being a starting point for educating physicians regarding the competencies needed for being effective health care leaders. The implementation of the FATT program is also an exercise in change. The results indicated that there are several important competencies that must be present for the effective implementation of this program. The effect of the program on physician engagement yielded positive results.

The first cycle of the study demonstrated a theme reflecting competencies related to system transformation or adaptation. Aspects of this theme were an awareness of dissonance between an organization's espoused strategy and its actual strategy as witnessed by its activities

and is an important starting point for signalling the necessity of change. The development of this awareness represents an essential leadership capability. However, there are barriers to acting on this dissonance. These include the type of culture in place (presence of psychological safety) in terms of acting on perceived dissonance; the type of decision-making models that enhance or hamper the search for solutions; and the priority placed on the observed dissonance. The lack of congruence between espoused and actual strategy also reflects flaws in strategic thinking that demonstrates a lack of awareness of contextual factors or simply ignoring them when implementing strategy. Either way, this observation demonstrates the importance of being a competent strategic thinker. Allied with a competency in strategic thinking is being competent in system thinking, especially when seeking to transform a complex adaptive system such as health care. The implementation of FATT was enabled by policy alignment at all levels of the health care system. Health care leaders must be competent at determining whether specific policies at various levels of the system are congruent so that change programs such as FATT can be implemented with the ultimate goal of system transformation. Program implementers also canvassed their clients (physicians) to determine how to best deliver a program to suit their needs. This reflected a positive service orientation and client focus that is also important for system transformation.

Results from the second cycle also demonstrated the importance of developing competencies related to system transformation necessary for adaptation to changing environments. Participants indicated that an awareness of their leadership style and being able to modify their behaviour to suit different contexts were important competencies. They also indicated that being competent in implementing change was also important for system transformation. As in the first cycle, system thinking was described by participants as an important competency because of the presence of multiple stakeholders representing a diverse group of entities such as government, professional associations, unions, and organizations. Similarly, during the second cycle of interviews, implementers of FATT related that they had to balance these same multiple factors when determining the course content; therefore reinforcing the importance of system thinking.

The first cycle results indicated that managing in-group dynamics and program development skills were important competencies for garnering physician engagement. Participants felt that context was important to them in terms of knowing other participants in the

program through work and being aware of the nuances of the work environment at Capital Health and the IWK Health Centre. This created a positive environment for team-dynamics and enhanced physician engagement. The second cycle of interviews also revealed several competencies that directly enhanced physician engagement. They included open discussions about current system problems, managing conflict, program scheduling and promotion, and management support. These results were congruent with those noted in the first cycle and reinforce that these competencies are not only important for engaging physicians when initiating change programs but they are also important for maintaining engagement during program implementation.

Results from the first cycle indicated that coalition building through collaboration between the IWK and CHHA was important for initiating the development of the FATT program. Assessment of the interviews from the second cycle also indicated that ongoing collaboration between organizations was a key aspect of continued program success and maintenance of physician engagement. Achievement orientation was an important finding that emerged from the second cycle of interviews. Specifically, feedback, learning, an improvement orientation, and participant perceptions were important constituents of achievement orientation. Feedback gained from participants was used to modify the course offerings over time and implementers also learned what worked better from their experience of implementing the course and reflecting on how different modules were received. This aspect of improvement orientation was critical to the program content as it exists today. The perceptions of participants demonstrated that the program was achieving its goal of providing information that physicians found useful and engaging. Therefore, the model of physician engagement that is emerging from the second cycle is congruent with that presented in the first cycle report.

Cycle Three: Focus Group Results and Recommendations

A focus group held on September 25, 2013 involved six leaders within several Nova Scotia Capital District healthcare organizations. Attendees included senior level executives and participants of the Cycle One and Cycle Two interviews. The purpose of the focus group was to deliver our findings to the leaders and engage them in a dialogue focused on interpreting the findings from Cycle One and Two and to create actionable outcomes. Leaders were first presented with a summary of the detailed qualitative Cycle One and Two results and were asked

to provide their input and their own interpretations of the data based on their knowledge and experience.

Results

All data from the focus group was transcribed and systematically themed and analyzed using NVivo software. Twelve themes grouped into four overarching categories emerged from the focus group data. Each are described below and supported with quotations taken directly from the focus group transcript.

1. Systems Thinking Engagement. The first category that was observed in the data involved themes related to engaging physicians in systems thinking. There was a general consensus that systems thinking is a key aspect of physician engagement and needed for system reform (based on the results of Cycle Two). That is, having an understanding of the system is thought to be a crucial component for successfully engaging physicians in any type of change initiative, because physician work requires them to span many organizations -- their perspective is vast. Based on this understanding the discussion then centered on how we engage physicians in systems thinking. Current barriers (e.g. balancing roles) and suggestions and considerations for moving forward (e.g. making linkages and decreasing conflict among roles) to engage physicians in systems thinking were acknowledged and are discussed in detail below.

Transitioning Roles and Balancing Perspectives. The second most talked about theme centered on physicians' ability to transition between clinical and administrative roles and to balance a systems perspective versus a patient focused perspective. Currently, physicians feel taking a systems perspective is not the same as having a patient focused perspective. Therefore, when treating the patient in front of them, it is challenging for physicians to consider the system impact as oppose to just focusing unilaterally on the individual patient they are treating. The data suggest that administrators are more likely to see systems thinking and patient care as one in the same and approach all decisions from a systems perspective. Focus group participants discussed a need to reduce perceived conflict between systems engagement and patient care so that physicians begin to see them as one in the same. Often, physicians feel like they have to make a choice between patient care and systems engagement. It is therefore important to improve the linkages between systems thinking and patient care.

> "The commitment to the patient and feeling that the distress about committing to the system because you feel that this is a disengagement from your patient, this is where

> we need to do the most work. We know that we are committed to our patient. How can we link the system, commitment to the system and system engagement to our patients? And dissolve this conflict that you have between patient and system, and clarify that it's one."
>
> "One of the things they really struggle with is in that transition from that very engaged with their patients into administration is that what they refer to as that moral distress when they're looking at, you know, their training is all about this patient, this one patient in front of me. And then having to shift to knowing that systems thinking. And they feel like they are having…[other]: …to make a choice. [other]: They are. And it's a values… It's a very emotional distress for them. [other]: Yes. Which is why they say it's crossing over to the dark side."
>
> "It's not that physicians aren't engaged, they're just not engaged with us. That's the reality of what we're facing."
>
> "When people feel there's a binominal choice, you're always going to have… There's a loss. Like to your point around loss, that's the loss. Right? I'm losing something by doing this. So how do we… It's not an either or conversation. It's a both."
>
> "So the way you advocate for patients is by using your voice as their voice in system redesign. So connecting that all together."

2. Developing Systems Thinking. As discussed above, the data suggests that in order to reform the system physicians must be engaged in systems thinking. For this to work, physicians need to have an understanding of the system, something that is currently lacking for many. The data indicate that the level of systems understanding among physicians is variable with more senior physicians who also hold administrative positions having the greatest understanding. Therefore, there is a need to train and educate physicians on the system so that they can better understand its function, their own role within the system, and the value of taking a systems perspective when treating patients. Participants spent a lot of time discussing how best to educate systems thinking, when to educate systems thinking, identifying current strengths and weaknesses, and exploring strategies for its development. The specific themes relating to the development of systems thinking that were pulled from the data are discussed below.

Adapting formal training. Formal education in systems thinking is an important component. Participants discussed the need to offer systems training in medical schools as part of the curriculum. The consensus was that systems thinking needs to be a focus in the education and early career development of physicians. Education in this area should include training on how physicians can be engaged in the system (e.g. administratively), their role within the systems, and essential administrative components of the system, as well as teaching general systems thinking. The data suggests some steps have already been taken to incorporate systems training in the medical school curriculum via an elective course available to all students.

> "I actually think there is an emphasis on this now. And they're starting definitely at the medical school in the curriculum very early on. So I think the message is out there, that you need to get the physician more thinking about systems and about administration, about that role, and inter-professional relationship and the role."
>
> "And we really are now looking at let's look at the people who are not even in the system yet. Let's look at the folks who are in medical school. How can we get in there and how can we start drilling this stuff in at that level? So we've started to have some preliminary discussions with the medical school folks about that. And you're right, from our discussions with [an individual] at the medical school, he's telling us that they are starting to change some of the curriculum so that this stuff is being included in there. The only thing is that it's not a required…it's not required that they take it. It's kind of like an elective. That's the only downside, I suppose."

Mentorship. In addition to formal education, mentorship was also discussed as an avenue for improving systems learning. Mentorship of residents has been successful in the past in terms of promoting systems thinking. This form of education would involve senior physicians teaching and modeling systems thinking to residents. Participants also discussed a need to focus on early career and medical student physicians in getting engagement rather than just on mid-career physicians and mentorship offers an opportunity for targeting this group. Moreover, participant observations suggest that residents who've received mentoring on systems thinking are entering the systems with a great deal more systems knowledge than in the past. This suggests mentorship is an effective way to teach systems thinking.

> "Somebody was complimenting him on the work that he was doing with his residents. And he spends time with his residents talking about administration and

> systems, and how the system works and how the hospital works. And one of our VPs went to meet with the residents, and her comments back was she said, "I was blown away by what they knew." Because typically our residents wouldn't have a clue about that, right. That's not their focus."

Timing and Targeting. Timing and targeting is about determining which groups to target for improving systems thinking and at what point in a physician's career should they be learning systems thinking. Recognizing opportunities, such as training residents, is an important consideration.

> "So we focused in the work we've done more on mid-career, I think of Fully at the Table, up and comers, and our co-leadership is about people who've already moved into leadership roles. And so they're probably in a different stage in their career as well. But how we need to do this work in looking at different cohorts, right, and very different strategies as we work through. And to what end? Understanding what our goals are."

Differentiating Levels of Systems Thinking. In addition to determining when to educate physicians, participants noted that the level of systems knowledge necessary for physicians would likely be different based on where they are at in their career and their specific job roles. That is, the data suggests that systems thinking should be different for different levels of leadership. For example, it may be appropriate to have different definitions of systems thinking capabilities that are specific to different levels of leadership. Systems knowledge requirements as you move up the organization become more complex, in that higher-level leaders may need systems thinking across contexts (e.g., provincial healthcare systems), knowledge of resource allocation, collaboration with other disciplines, and policy-making. However, at lower levels, perhaps a more simple recognition of the larger system and knowledge of a superordinate goal may be enough. At these lower levels of leadership, it may not be necessary to be concerned about policy-making. Recognizing these levels and appropriately engaging physicians requires decision makers to be strategic.

> "Is it fair to have one definition of systems leadership capability, like what does it looks like? If we think about those tiers of what jobs we're asking people to do like as kind of administrative physician leader versus frontline physician leader practice kind of thing. We don't need everybody to be creating policy. Right? We don't need

them all to be there. But we need them all to collaborate in interdisciplinary teams. That's a system thinking kind of behaviour. Is there a way that we can start to translate systems thinking into these behaviours that are kind of job-specific or accountability-specific depending on where people are finding themselves in their role?"

"We do need to talk about what does system thinking look like in the job you're in? I think that's the piece that is pulling out for me - in the job you're in. Because otherwise we're setting people up for an expectation that we haven't actually invited them into anyways. Right? And so they feel, you know, why am I doing this or it's not relevant."

"And also we're balancing that with the notion of appropriate engagement at appropriate levels...Because I think we came at this going we want everybody in, you know. And then the reality of when we started talking to physicians, a lot of them are very deeply in. They are swimming in the deep end of the pool with us when it comes to making those decisions and so on."

"We've got a lot of our senior physicians who are very engaged with administrative things, and then we've got that mid-level where our co-leadership and so on, and then we've got, you know, the bulk of our physicians who are very engaged at the patient level. Which is where we quite frankly want them to be. So we need to be very strategic about how we engage, what we expect from them, how we provide that return on the investment for their engagement as they move through the levels of that."

"This business, you know, the layers of your junior people who are focused on patient care, your intermediate people, and then your senior. You know, maybe there's a way to sort of chunk this up and then develop specific strategies for those different groups."

3. Sustainability. Focus group discussion on sustainability revolved around determining motivation for physician involvement in systems change, using a multi-layered approach when engaging physicians in sustainability initiatives, and concern related to the magnitude of the issue.

Motivating Engagement and Change. When talking about sustainability motivation came up as a key consideration. In this context the discussion centered on how to get physicians motivated to engage in trying to fix the system. The need to identify major drivers (i.e., incentives for engagement) was noted, as well as the importance of focusing on physicians without excluding other important groups such as nurses and support staff.

> "It is key to decide why change is or would be important to physicians in order to engage them. They will not engage in change initiatives just for the sake of change alone."
>
> "I think the important thing is to present a viable solution or a viable change that they can work with. That you can convince them that working with this change is worth getting involved. [other]: Yes. And working with it will get you where you want to be because it's easy to disengage just because I'm giving up. You know, it's a big system. It's falling apart. What am I going to do in it? So it's that motivation. What is the return on investment if I actually do engage in this? And how can I make a difference as opposed to just contribute to, as you say, the last 30 years, if it's not sustainable? [other]: So there is a shift in how we invite people and how we frame up what it is we're trying to do. And for the sake of something. [other]: And it has to be credible."
>
> "We all keep saying that the system needs to be more efficient. And if the system is more efficient, and we're engaged in making it more efficient then there would be more money for all of us. It could be a motivation, to say I need to improve the system so I can maintain my standard of living."
>
> "The thing to remember, when we look at these and when I looked at the summary that we sent out, is that what motivates people to be engaged is the same whether you are a physician. It's so similar whether you're a physician, whether you're administration, whether you're private industry. You look across the board and you go, okay, it's the same kind of driver. [other]: The reality is there's areas of commonality where we can focus on regardless of what the people's role is in the organization."
>
> "We invest in physician engagement as a unique kind of initiative, I'm not saying that the rest of the disciplines don't matter, but we know in order to shift…like

around appropriateness of care, if we don't have physicians having those discussions with patients, we're dead in the water. It's no good."

Scope and Responsibility. The scope of the sustainability issue is quite large and as a result there is concern that the magnitude of problem might diffuse the responsibility to the point that no one takes ownership of the issue leaving it completed unaddressed. Recommendations in the data suggest a need to break the issues down and highlight their relevance to each job role. Doing this may help make it clear how one individuals engagement can improve the greater sustainability issue.

"So there's just a part of me that's wondering if system sustainability allows people to opt out. Like whose job do you think it is to preserve the healthcare system?"

"You can't get your head around it, right. Because we've been talking about it as this big thing that, you know, there's a fix to. It just… I think it's way too big. So you know, maybe it's breaking it down. It's not the system transformation. We can't get our heads around that. It's someone else's job. Right. I'm interested in what's in front of me now, and that's what's in front of them now, as an example. So how do we pare it down to get that…something that people want to be part of in order to make a difference?"

4. Superordinate Goal. A superordinate goal is an overarching, system-wide goal that would be developed in collaboration with all of the organizations within the system and that would aim to unite these entities by providing a clear direction for moving forward. Having a superordinate goal would provide an opportunity for all organizations in the system to be working toward the same thing, facilitating collaboration and offering clarity for boundary spanners (i.e., individuals that work across the system as opposed to in one organization within the system) such as physicians.

Determining the Goal. All participants agreed that the development of a superordinate goal is key towards connecting systems thinking with the individual patient view. All organizations involving physicians (e.g., IWK, CDHA, Dalhousie, College of Physicians and Surgeons of Nova Scotia, Doctors of Nova Scotia) are currently competing for physician engagement, when they should instead be sending out the same message as well as collaborating to get physicians engaged across the system.

> "My fear is that we probably all our organizations have the same goal, it's just we don't have the clarity or the ability to clearly say what is this goal and make it evident to everybody. But I mean we're all in healthcare. We're probably working towards the same goal. [Other]: Absolutely. So it's like that superordinate goal is already there. "
>
> "It's important then that you have that overarching goal, and to identify a specific goal for each group of people. [Other]: That they can work together and they can see how could link to the main goal. [Other]: Yes. Or identify how those goals are already in play. Make the linkage already that's there explicit.
>
> "Health reform for the sake of what? Because I think that's the superordinate goal. So I would suggest that may be part of what we need to shift in engaging highly intellectual experts in this work, is change for the sake of change isn't going to do it for them. Right? And what is it that we think system reform can accomplish that's not happening today?"

Scope. The scope of the goal should also be considered. For example, should the goal be "healthy people" or "system sustainability?" The latter may allow people to opt out; may be too big of a focus. Alternatively, the IWK vision is "healthy people, healthy communities." However, healthy communities may be beyond the scope of physicians and not appropriate for physician engagement.

> "I'm thinking if the superordinate goal is the system sustainability or the superordinate goal is healthy people. Because if it's healthy people, people may not get engaged in system sustainability… I wonder sometimes if there's a thinking, an under-thinking that let the system crash. Let's see. Maybe that's what we need."

Building partnerships. In order to redesign the healthcare system, physicians need to be engaged in conversation with different institutions to come up with a superordinate goal that connects systems thinking with the individual patient view. Moreover, partnerships at a higher level need to be formed to facilitate the creation and dissemination of a superordinate goal across the system. A related point of discussion was that the superordinate goal should be developed in collaboration with physicians and also across disciplines so as to make it relevant across the system for people in different roles. It is important to avoid a goal that may be too physician-specific and which may emphasize the

physicians' power within the system. Doing so could increase the divide that often occurs between disciplines.

> "The point is collaborative leadership to an end of…systems redesign to an end of healthy people."
>
> "There's lots of organizations within the organization that we should be working with as well. And how we work with the medical staff associations, how we work with MACs, you know, the whole bunch of departments, there needs to be strategies that are individualized even within the organization that are incremental perhaps. It's not an easy thing to do."
>
> "How can we link the system, commitment to the system and system engagement to our patients? And dissolve this conflict that you have between patient and system, and clarify that it's one."
>
> "You look across the board and you go, okay, it's the same kind of driver...It doesn't matter if you're a physician, it doesn't matter if you're an employee. It makes no difference. Those were the drivers that we selected as an organization."
>
> "It's about health, right. It's kind of the overall… I could pull it out but it's where we all landed and agreed that as a system, that's where we needed to go. And so we all should be…everybody should be allowed in, right. So it would be nice to add to that the medical school, Doctors NS, the Royal College, the nursing school. You know, like all the other professionals that feed into the system, and how their vision feeds into this global one. Which I think…I'm sure it does. I know it does. It's just to clarify it. To put it together, to make everybody feel, well, those are different pieces of the same puzzle."
>
> "I'm not conflicting between going between organizations. I'm actually bridging the organizations."

Disseminating the Goal. A final key point related to the superordinate goal is a need to decide on how to communicate the goal. Any communication would need to send a consistent message across organizations and associations where physicians may become engaged. This may be a challenge that needs to be addressed in future meetings.

> "And all of those differences at different organizations are noise, make it much more difficult for them to think about how to get involved, and how to advance the system

> for the sake of patient care. And the key is to link every change to that superordinate goal. So no matter what organization is doing the project, that physicians see how it links to the overarching goal. Which would require organizations to also link their own strategies and their own change initiatives to a more higher level goal."

Readiness for change. The development of a superordinate goal and linking each change initiative to that goal may serve to improve physicians' readiness for change.

> "And moving forward, the next step should just be prepping that readiness. Instead of creating the change, focusing on the precursor. And I think by coming up with this superordinate goal and just identifying what it actually is will help to do that. Because it helps align everyone and gets them kind of on the same page. And then get people ready. So the focus could be the readiness for the change as opposed to the change."

Part IV: Regional Node Analysis of Leadership of Change

The primary aim of this project was to examine what kind of leadership we need for health systems redesign. To that end, we looked specifically at physician engagement and found that systems thinking is a key leadership competency that is necessary for promoting physician engagement. This particular competency is important because of physicians' unique roles as boundary spanners within the system and because of their level of power and influence within the system. As such, if the goal is to engage physicians in systems redesign, then it is essential to spend time building systems thinking capabilities among physicians.

Response to Research Questions

1. Knowledge Translation. 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?

Develop a CAPE. Our research suggests that physicians must be more involved in decision-making related to health system redesign. However, organizations themselves can be a barrier to physician involvement if they compete for physician attention rather than cooperate to engage physicians. Thus, we recommend the development of a coalition for the advancement of physician engagement (CAPE) that involves the highest-level executive leaders of physicians across organizations within Nova Scotia (and perhaps beyond) to focus on developing systems thinking. Such a coalition would serve to provide an overarching body that can continue the

conversation about the development of a superordinate goal aimed at advancing health system redesign. Specifically, developing the scope and focus of a goal and common language for discussing and communicating that goal. A CAPE would mobilize knowledge generated within the NS research project by demonstrating effective leadership.

This recommendation stems from a weakness observed in the data such that communication and partnerships often do not extend beyond each individual organization. As such, organizations in the system are operating independently. This is problematic for physicians especially, because they work for the entire system and are affiliated with almost all of the organizations. In this way they can be viewed as boundary spanners and would benefit from more unity and collaboration among organizations throughout the system. A collaborative approach such as a CAPE is likely needed to foster physician engagement and in turn to achieve greater system reform. This approach would require top organizational members to come together to address issues and weakness, propose solutions, and oversee follow-through.

> "The question to me still is how do we raise the level of conversation from within organizations to be more structured outside of organizations? It is too big. And part of the reason it's too big is because we don't have a common language for having conversations about it. We don't have a common language because we don't have a body that's responsible for that. So within organizations, we develop common language and culture that tie us together. Above organizations, we don't have a body for that. And so you know, our key recommendation today is where is that, who's accountable for that, and how can we contribute to having that occur?"
>
> "My fear is that probably all our organizations have the same goal, it's just we don't have the clarity or the ability to clearly say what is this goal and make it evident to everybody. But I mean we're all in healthcare. We're probably working towards the same goal. [Other]: Right. Absolutely. So it's like that superordinate goal is already there."

Systems Thinking Development. Second, organizations need system-wide systems thinking development, which involves the integration of systems thinking into the educational curriculum and into the professional development of physicians. For example, medical schools may focus on getting medical students to work collaboratively across disciplines while in school. Although Fully at the Table seems to be an exemplar program

for promoting systems thinking among physician leaders, we also need systems thinking training for leaders of physicians (who may or may not be physicians themselves). Another opportunity for developing systems thinking as a part of physicians' professional development is to leverage co-leadership in order to share knowledge and experience by providing leadership development opportunities with co-leaders.

> "I think part of that is because part of Fully at the Table, I'm speaking on my behalf, is to enhance or to support the co-leadership model within CDHA. So that's why it started to focus more on CDHA. And at that point, I guess to answer Laurie's point, and people who had suggested that before, I think it would be very good to have an opportunity, a leadership learning opportunity for co-leaders together. [Other]: Yes, I think that's a very good point. [Other]: So we can appreciate each other kind of more when we learn together."

Moving forward with CAPE and Systems Thinking. Following from the recommendations discus thus far, all attendees of the Cycle Three focus group agreed that a second discussion should be held on November 5th, 2013. This meeting will focus on the issue of how to move forward with the recommendations. Specifically, the agenda will include how to develop a superordinate goal and how to approach key decisions regarding dissemination and communication (i.e. communicating that goal to all physicians across organizations). Also, the development of a coalition will be discussed with the hope of securing commitment to participate in the group from key organizational members.

2. National Leadership Standards. 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?

In analyzing our results, we used NVivo to theme interview and focus group data using a bottom-up (quasi grounded theory) approach. That is, we began each of our four sets of analyses (Cycle One interviews, Cycle Two interviews, Cycle Two nested Fully at the Table interviews; Cycle Three Focus group) by theming verbatim transcripts without making any attempt to 'fit' findings within a framework. Thus, the finding that our results reflect LEADS in four distinct sets of analysis conducted independently by two researchers indicate strong support for the LEADS framework. In addition, in informal communications, participants relayed issues

associated with multiple overlapping models of leadership that are within physicians' purview (e.g., Capital Health Leadership Competencies, Physician Management Institute Leadership Competencies, LEADS). Participants told us that is difficult, time consuming, and of little value to have multiple models depicting the same underlying principles or competencies.

It is clear that physician engagement requires a strong focus on systems thinking. As discussed in detail above, physicians are boundary spanners and see the health system from a perspective that is different from educators and professionals that work within an organization. For example, an executive leader involved in strategic planning must understand the system sufficiently to determine their organization's purpose within the system: a physician must make sense of many organization's strategic visions to conceptualize the health care system. Therefore, systems thinking is especially relevant to leaders attempting to involve physicians in health redesign.

Even though our findings converge with LEADS we posit that our results contribute to this and other leadership competency models by explicating the competencies in great detail. Our analysis provides insights into change competencies, for example, and go deeper to explore when and *why* change competencies are relevant to engaging physicians in system redesign. Thus, these findings may be helpful in motivating leaders to advance their leadership skills.

Therefore, our research supports a national standard for leadership competencies and we hope to expand this discussion to better specify which leadership competencies are most salient to what leadership endeavours. We look forward to exploring this more fully during cross-node analysis and knowledge translation.

3. Current State of Leadership. 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?

Participant interviews suggest that the current state of leadership capacity is varied. Higher-level organizational leaders stressed the importance of seeing health care as a system and advancing collaboration among entities in this system while lower level leaders struggled to create collaborative relationships. Participants reported that although they valued collaboration, colleagues in other organizations were often too burdened by heavy workloads to assist in developing FATT. Perceived heavy workloads appear to be a contextual factor that puts health care transformation at risk.

Generally, our research suggests a lack of leadership at the level of the system. For example, when researchers asked: "who is accountable for physician engagement across organizations", participant leaders could not provide an answer. We speculated that a lack of accountability at Federal and Provincial levels within the health care system makes engaging physicians even more difficult. Physicians are not members of any one particular organization within the system and may look for overarching leadership to indicate when and how they can be effective in systems redesign.

It is important to understand the perspective of physician practitioners. Their primary goal and responsibility of meeting their patient needs with quality and safe care has them working at an individual level within the system. The challenge of navigating across systems is a barrier to their patient goals. Therefore, it is critical that system level leaders make sense of various entities within the system and communicate this understanding to physicians. Such sense-making may remove barriers and advance physician engagement. And it appears that this system-level leadership is absent.

Part V: Knowledge Mobilization Activities

The researchers have developed core recommendations and participated in several activities to help disseminate the findings from the current project. First, cycle 3 was designed to not only obtain additional data but was also meant as the first knowledge translation activity. That is, the cycle 3 focus group enabled the researchers to have an open and detailed discussion with top-level leaders from several organizations. This provided an opportunity to refine our understanding of the results while also providing detailed feedback to key stakeholders. Moreover, following discussion of the results and their interpretation, talk shifted toward next steps and the development of actionable outcomes based on the findings. During this focus group, researchers presented the recommendation to develop a CAPE (i.e. a coalition for the advancement of physician engagement). The idea for the CAPE stems from findings that suggest interorganizational partnerships are limited, if not non-existent across the system, and systems thinking needs substantial development. The purpose of the CAPE would be to involve the highest-level executive leaders of physicians across organizations within Nova Scotia (and perhaps beyond) in a partnership aimed at targeting the weaknesses identified in this report (e.g. inadequate systems thinking, lack of a superordinate goal, lack of interorganizational collaboration) to improve physician engagement and ultimately achieve greater system reform.

Following this recommendation and the broader topics discussed at the initial focus group a second focus group was scheduled and held in November. The second focus group was attended by a greater number of organizational leaders. This enabled the researchers to disseminate the results to a broader audience and continue talks on how to move forward and put the information learned into action. As well, the development of the CAPE was again discussed. No official commitments have been made but interest in moving the recommendation forward was expressed by several executive members.

Finally, the researchers hope to disseminate the results at an upcoming healthcare conference. The primary researchers hope to attend the Canadian Health Leaders Network conference to share and discuss the results of the study.

Appendix A: FATT Cycle 1 Results

Three overarching themes emerged when analyzing the cycle one results. The first was adaptation, that is, having the ability to adapt to various situations and the knowledge required to appropriately adapt. The second theme was Engagement. Leaders were able to engage individuals by managing team dynamics and understanding individual and team needs. The third theme that emerged was coalition building that is achieved through collaboration and management of social relationships.

1. Adaptation (System transformation). This overarching theme is comprised of several subthemes including awareness of dissonance, strategic thinking, system thinking, service orientation, and policy alignment.

Awareness of Dissonance. Discomfort arises when conflicting ideas, values, beliefs, and emotions coexist. People sense an awareness of this dissonance and work to narrow the gap between what 'ought' to be and their perception of the current reality. Implementers of FATT were uncomfortable that the organizational strategy and current operations were not in harmony. They indicated that FATT was developed as one strategy to attempt to close this gap. Therefore, awareness of dissonance represents a key leadership capability in change, innovation, and ultimately system transformation.

Strategic thinking. Strategic thinking involves assessing current realities and determining how the best position the system to adapt to future circumstances – it is an important aspect of system transformation. The implementers of FATT frequently identified their discomfort that what the health care system needed, from all accounts, was greater physician leadership and involvement. They also noted that there were insufficient organizational efforts focused on physician leadership. This apparent lack of integrity between strategy and practice indicates that strategic thinking was a key leadership capability in developing FATT.

System thinking. System thinking involves seeing the big picture and recognizing patterns rather than individual events (Senge, 1990). Participants reported that conceptualizing the organization within a larger system is helpful in several ways. First, it helped to see healthcare as a system of cooperative entities rather than entities in competition with one another. Second, implementers were able to leverage community resources not only as models but also as contributors. Third, participants reported that multiple actions came together to create

desired outcomes. These observations indicate that systems thinking was a key leadership capability in developing FATT.

Service orientation. Service orientation is important demonstrates a commitment to clients. It was observed that program implementers kept the client as their primary focus. They canvassed opinions on physician learning needs; who physicians were likely to appreciate as facilitators; class times that would be convenient; and what can be done to change our program as a result of feedback. This finding indicates that service orientation was a key leadership capability in evolving the FATT program

Policy alignment. Policy alignment between inter-connected agencies is a key aspect of system transformation since service integration is a key outcome of system transformation. Implementers related that developing a physician leadership program was made easier because other entities, e.g., provincial governments and associations such as Doctors Nova Scotia, were already taking similar steps. No one spoke about National involvement but this does not appear to be a barrier as no one reported a lack of action at the federal level as an impediment to this work. This finding indicates that policy alignment among provincial governments, medical professional associations, and health care organizations is key to successful physician engagement and system redesign.

2. Engagement. This overarching theme is comprised of two subthemes – managing in-group dynamics and having program development skills.

Managing In-Group Team Dynamics. Engagement is enhancement when in-group team dynamics is well managed. There were specific efforts to tie the content of the program to strategic need. That is, to focus on the leadership capabilities most salient to the current organizational need. People taking the FATT program reported connecting with one another. One program participant mentioned that they wanted to learn here because they worked here. So, even though they could go to PMI or many other optional programs, they enrolled in FATT. This finding indicates that managing in-group or team dynamics was a key leadership capability for creating the FATT program.

Program Development Skills. Program development skills focused on assessing client needs help to engage organizational members because they feel their best interests are being considered. The FATT program content was edgy without being over the top – skillfully meeting physician needs while expanding their thinking and challenging group norms. FATT participants

felt the training they received was excellent in quality and usefulness. They had a hard time answering the question: which module was the most valuable? Participants stated that all modules were valuable. This finding indicates that program development was a key capability needed to create optimum program content.

3. Coalition building. This themes involves collaboration and the ability to manage social relationships.

Collaboration. Collaboration is essential for coalition building as each party feels they are being heard. Almost every participant mentioned the strategic alignment within their organization. While the organizations directly involved with this work do not have identical strategies, it seemed important that there was sufficient overlap in purpose between IWK and CDHA. The collaboration between organizations appears to be important to this development. This finding indicates that collaboration is a key leadership capability.

Managing social relationships. Managing social relationships helps to build coalitions and trust. Established relationships among organizational leaders enhanced collaboration between IWK, CDHA and beyond. This was helpful but participants told us that it was not enough to ensure the program was created and launched. In addition, leaders ensured that roles and responsibilities were clearly understood and accepted. This finding indicates that *managing social relationships* was a key leadership capability in sustaining the FATT program.

Appendix B: FATT Cycle 2 Results

The second cycle results were very similar to cycle one. The same three themes, that is, system transformation, engagement, and coalition building were identified with the addition of one new theme, achievement orientation.

1. Adaptation (System Transformation). This main theme reflects adaptation to changing environments and is comprised of several subthemes including awareness, agility, change management, system thinking, balancing multiple factors, and having champions.

***Awareness*.** Adaptation is enhanced by participants *awareness* of their personality characteristics and their leadership style. Participants in the FATT program reported that the program allowed them to gain an awareness of their leadership style by allowing them to assess their personality and reflecting on how it affected their leadership in different situations.

> "to be centred or to be grounded as well, this discussion was very helpful, as well as to understand that your personality and your whole demeanour as a whole will help in your leadership style as well in implementing change".

Agility. The program also made participants aware that their leadership style must match situational characteristics (*agility*). Although, this may not always be possible (Fiedler, 1967?), there should be an effort to adapt their style to the context of the situation.

> "so I think the leadership style, that's where I learned it the first time, at Fully at the Table, I was impressed."

Change Management. The importance of change management competency was exemplified by the answer to the question: "Do you think it has helped you improve change initiatives that you've had to oversee?

> "Yes. I would think so. Definitely." The participant also indicated "And to be able to keep going with that. And I guess the different leadership styles is one we did as well, on how to implement change. Because you use a different style in a different way."

System Thinking. System thinking is an important aspect of implementing change and enhancing innovation (Senge et al., 1999) – thus being important for leading health care transformation. The FATT program reinforced this to participants.

> "You know, the money and the trade and politics in the hospital that doctors don't get. I don't really understand the layers of administration and accountability".

In response to the question "Do you think it would be worthwhile to try and educate doctors on that system? And do you think that would help engage them in certain administrative policies?", a participant commented:

> "I think stuff like Fully at the Table does. They brought people in to do that kind of stuff".

Balancing multiple factors. Balancing multiple factors is key to health care transformation because health care is organized within a complex adaptive system framework and as such multiple entities affect system performance and must be consulted if system transformation is to succeed (Lipsitz, 2012). Implementers of the FATT program recognized the importance of carefully balancing multiple factors and assessing the context within which leadership will occur when deciding what to include when developing and revising the program content thus reflecting a system perspective. This included speaking to various stakeholders such as physicians, hospital administrators, university affiliates and policy makers.

> "You know, I think in some ways, we're trying to serve multiple masters with the Fully at the Table program, and meeting the needs that Dalhousie has outlined around CME. So you know, they want some pretty black and white stuff in there. Aligning it with the PMI (Physician Management Institute) content which is also I think well substantiated in the literature. And also aligning it with My Leadership (a hospital-based strategic initiative open to all employees). There's almost a rub about one more group of competencies or capabilities we have to check off, right. […..] But it's also multidimensional as a result. So that would be the description. It's like having a picture, a one dimensional picture, probably the first iteration. And I think now we're in a 3D because we've got 3 kind of frameworks or masters, for lack of a better word, that are informing the content and process of Fully at the Table".

Champions. Having champions is an important ingredient in implementing change(s) because someone who is respected and trusted can have a positive effect on colleagues contemplating adopting innovations (Kotter, 2008). A physician implementer who championed the FATT program commented "I did encourage a number of our staff to go to it. I advertised it and encouraged them to be interested in it and so on".

2. Engagement. This theme involves seven subthemes including communicating and having open discussions, managing conflict, well-being, program scheduling, program promotion, relevance for personnel, and management support.

***Communication*.** *Communication and open discussion* is important to deciding that current processes are inadequate and solutions need to be found. This is an important precursor to system transformation and stakeholders must be engaged for this to occur. Therefore leaders need to provide a psychologically safe environment where participants feel their opinions will be heard and they will not be censored for them (Schien, 2010). Participants agreed this was an imperative prerequisite for open discussion.

> "I mean the other thing with Fully at the Table was to get a whole bunch of people like yourself, you know, physicians who know about treating patients but don't know about leadership, and putting them into the same room and talking about…you know, just talking about what the issues are".

Managing conflict. Managing conflict in an effective way within a psychologically safe environment can serve to engage organizational members thereby enhancing solution identification and decision-making.

> "One of the useful sessions was the conflict resolution sessions. And that was very useful as well definitely to help me in my ability in how can I have a difficult discussion with an individual or how can I come through a very stormy discussion? So then when you're calm enough then you should be able to still get your voice through or like still get your message through. So that made a huge difference in my ability to change or help with change".

Well-being. Well-being is important for staff functioning. An environment that enhances psychological well-being may reduce the chance of burnout therefore it is important for leaders to create such an environment (Schaufelli, Leiter, & Maslach, 2009).

> "I was impressed with the second session where they started talking about…kind of your spiritual being or your…Yes, psychological wellbeing as well as a leader, and how important is that for you as a leader".

Scheduling and Promotion. The *scheduling and promotion* of the FATT served to engage physicians as reflected in their participation in the program. Physicians have tight

schedules and recognizing this and scheduling FATT modules that took this into consideration while also giving them time to contemplate what they had been taught was seen as positive.

> "Yes. And it was nice. It was quite nice that it was sort of spread out. So you did a bit and then you went away, and you did a bit".
>
> "So you know, I think it's been successful and folks have heard about it. But we have a very well read monthly magazine that we'll put out and say, you know, we're going to run another Fully at the Table program. If people are interested, and talk to your colleagues or whatever if you want to learn a little bit about it. So we do that, that sort of passive or soft sell. And then we also call. We'll ask Districts and the Board and anybody if they know of anybody who they'd like to sort of promote into… And when I refer to promote, I don't mean promote in a… I mean promote the concept of leadership to and sort of reach out to them. So it's a mix of both".

Relevance to Personnel. In order to engage physicians it is important to provide material that is relevant for personnel. The content of the FATT program must be relevant for personnel or participants in terms of engaging them to take the program and finding people who are at the optimum stage in their career (early or mid-career people) to enroll in the program so that they can contribute to system transformation in the future. Therefore, selecting the correct people to take the program is an important competency.

> "I always say the receiving end has got to be also the one that makes decisions on what enters leadership roles or administrative roles as well. And if you want to prepare or set expectation up then somebody who has an interest or a leaning can get there through a long path, you know, in terms of you're 95% physician a day with 5% administrative, and if you're interested, you take on a little bit more, we'll augment that with a Fully at the Table or something like that. There are ways to then prepare them so when they really do step over into the administrative leadership side, they're prepared. They've been engaged."
>
> "The other thing that as an organization, we have to be better at, is that, you know, why are you sending the guy who's 5 years from retirement to these things? And what role are they playing? I mean do we really think that it's actually return on investment to send people to this stuff? Because if you're that senior, is there even a capacity to change your style? Really? I would say probably not. And I've seen this over and over again. You

> know, we even had someone who's finishing up as Division Director, and he's asking if he can go to… And he's not taking a second term in a leadership role. And he's asking for $12,000 to go to a leadership course. And I felt like saying, now, why would we give it to you? Like if we want to invest in leadership then we have to pull out the early and mid-career people in the organization and actually do the succession planning and the talent management that the board wants to actually make things better in 5 or 10 years now".

Management Support. Management support is vital for implementing change and innovation. This is reflected in the provision of the necessary training and resources to those who will be affected by the change. These tangible actions overtly signal management's commitment to proposed changes and serve to enhance employee engagement (Kotter, 2008; Schaufelli et al., 2008).

> "I think the program is a great program to… It's an invitation. That's how I characterize it. It's an invitation to physicians to safely enter space like leadership without scaring them too much".
>
> "Well, I think it's useful to have a course. I did encourage a number of our staff to go to it. I advertised it and encouraged them to be interested in it and so on".

3. Coalition Building. Coalition Building is an important competency involving collaboration with other organizational members at all levels.

Collaboration. Collaboration between those who affect change and are affected by change is integral to system change and transformation (Kotter, 2008). Therefore implementers of FATT programs province-wide collaborated with CDHA and IWK.

> "So where we're at now with that, I think we've run 3. And now we've been meeting with the QEII, the CDHA, and essentially saying you guys are doing it and we're doing it, can we get together and do it? So I think the intention is for us to kind of roll into the QEII program hopefully, and potentially reach beyond the walls of the QEII or the CDHA. Because a lot of the docs that refer to the QEII, you know, it's a fairly small community. I think we're interested in just leveraging what they're doing and making sure we're not competing, and that we run essentially the same program".

4. Achievement Orientation. This overarching theme involves feedback, improvement orientation, and participant perceptions.

Feedback. Feedback is vital for learning and innovation (Argyris, 1999). It informs on the effectiveness and efficiency of current processes while signalling the necessity for change when necessary (Latham & Locke, 2002). Implementers of the FATT program survey FATT participants at the end of the program and annually. The feedback gained from these surveys has been used to modify program content as can be noted from the inception of the program and its current format.

> "We've probably run 3 Fully at the Table programs through Doctors Nova Scotia. I think we've done 3, each with between 20 and 25 physician participants. The feedback has been very positive. We've changed some of the curriculum and we've changed some of the structure. So I think the first year we ran it, for example, we did, I think, 8 half day sessions. Now we do 4 2-day sessions. So I think we've matured a little bit in terms of what might work better".

Learning is the fundamental to innovation and transformation (Argyris, 1999).

> "So it's now been through one cycle of action learning and they're in their next cycle. I think we're starting to get deeper now. And I think that deepening of it is a reflection of the learning of the people who are leading the program. […] I suspect that experience, yes, it's content, no question. But I think the content is different because the people structuring the program have learned through the process of what is relevant and what is meaningful".
>
> "We've introduced a little bit different curriculum. So less, I don't want to say esoteric but more things on budgeting and financial management kinds of things have been introduced to a small degree."

Improvement Orientation. A culture that encompasses *improvement orientation* is necessary for learning and innovation (Argyris, 1999). This entails having leadership that places a premium on continuous improvement and practices it themselves.

> "Our chair of the board, Dr. X… and I think he's been through Fully at the Table and the PIM process. And I think Dr. X has definitely grown as a leader, you know, more formal. I think he always had the innate sort of leadership, which is how he became president and chair of the board. But I think he's really looked at things around dispute resolution in

> less of a theoretical construct and more of a how do I take…you know, if I have an issue with the Department of Health, how do we resolve that? So I think he would probably be a good example of somebody who I think has really taken the theory and moved it into practice".

Participant perceptions. Participant perceptions of the FATT program is an aspect of feedback that is used by implementers to improve program relevance and effectiveness. Implementers listened to this feedback and made changes to later iterations of the program. For example, feedback from program participants indicted a need for content on conflict management and negotiation and this has been implemented.

> "Fully at the Table was fantastic, I thought. I loved it. In fact, I think the Fully at the Table was probably the best of all the leadership things I've done".

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