Rapid Synthesis

Supporting Transitions to Local-system Leadership in Ontario

22 March 2022

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Rapid Synthesis:
Supporting Transitions to Local-system Leadership in Ontario
30-day response

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McMaster Health Forum

The McMaster Health Forum's goal is to generate action on the pressing health-system issues of our time, based on the best available research evidence and systematically elicited citizen values and stakeholder insights. We aim to strengthen health systems – locally, nationally, and internationally – and get the right programs, services and drugs to the people who need them.

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Timeline

Rapid syntheses can be requested in a three-, 10-, 30-, 60- or 90-business day timeframe. This synthesis was prepared over a 30-business day timeframe. An overview of what can be provided and what cannot be provided in each of the different timelines is provided on McMaster Health Forum's Rapid Response program webpage (https://www.mcmasterforum.org/find-evidence/rapid-response).

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Conflict of interest

The authors declare that they have no professional or commercial interests relevant to the rapid synthesis. The funder played no role in the identification, selection, assessment, synthesis or presentation of the research evidence profiled in the rapid synthesis.

Merit review

The rapid synthesis was reviewed by a small number of policymakers, stakeholders and researchers in order to ensure its scientific rigour and system relevance.

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KEY MESSAGES

Questions

1) What are the capabilities required for local-system leadership (particularly for driving system transformation at the local level)?
    - What are the benefits of having these capabilities established?
    - What efforts are required to facilitate the establishment of these capabilities?
    - What factors support or hinder the establishment of these capabilities?
2) What can be done to support transitions from institutional to local-system leadership, and the sustainability of local-system leadership (including through efforts to attract and retain leaders and succession planning)?

Why the issue is important

- Supporting transitions to local-system leadership has emerged as an important issue since the introduction of Ontario Health Teams (OHTs). As OHTs continue to work towards adopting a population-health management approach to improve outcomes in alignment with the quadruple-aim for their attributed populations, the shift towards a more coordinated approach to planning and delivering care across multiple organizations and sectors has brought with it new governance and leadership needs. To support these changes, health-system leaders need to integrate their historical focus on institutional leadership (i.e., leading a hospital network) with local-system leadership (i.e., leading the network of OHT partners accountable for the care of their attributed populations)
- Since OHTs were introduced, there have been few targeted efforts to address the transition to new leadership models. Furthermore, little progress has been made in addressing the longstanding gaps in how leadership development is supported in Ontario's health system (and in health systems across Canada).

What we found

- We identified 21 systematic reviews and 24 primary studies that addressed leadership capabilities required in the context of local-system leadership, where multiple individuals and organizations spanning a range of sectors (e.g., home and community care, primary care, specialty care, rehabilitation care, long-term care and public health) plan for and deliver care in a coordinated way.
- The evidence about capabilities required for local-system leadership – while acknowledging leaders' needs to consider the complexity of health systems – primarily focused on individual-level characteristics that can be developed across the five domains of the LEADS framework with 'engage others' and 'systems transformation' receiving most emphasis. While few reviews or primary studies directly linked these capabilities with specific outcomes, many pointed to potential benefits, such as having a more strategically oriented and collective leadership structure in place to support large-scale system transformation, better interdependence and collaboration across organizations and support for rapid-learning and improvement, better resource management and greater satisfaction among staff, improved engagement of patient, families and caregivers, the potential for better health outcomes, more accountability and a self-reinforcing culture that promotes leadership capacity.
- Efforts identified to support the development of local-system leadership capabilities focused on the individual level (e.g., mentorship and peer coaching), the organizational level (e.g., institutionalization of leadership development as an element of career development) and the system level (e.g., adoption of a common leadership-capabilities framework), with specific barriers and facilitators to capabilities development associated with each level.
- No reviews or primary studies were identified that addressed ways to incentivize leaders to take on local-system leadership roles (or more generally about the factors that influence efforts to attract and retain leaders), or that described the process of leaders transitioning from leading large healthcare organizations, such as hospitals (or a small hospital-led networks), to a local system that extends beyond a single organization (or network of organizations). A number of approaches were identified as being important to consider when considering the sustainability of local-system leadership (e.g., designing and implementing a unified approach such as a leadership network, providing opportunities to emerging leaders, and formalizing succession planning).

QUESTIONS

1) What are the capabilities required for local-system leadership (particularly for driving system transformation at the local level)?
   - What are the benefits of having these capabilities established?
   - What efforts are required to facilitate the establishment of these capabilities?
   - What factors support or hinder the establishment of these capabilities?
2) What can be done to support transitions from institutional to local-system leadership, and the sustainability of local-system leadership (including through efforts attract and retain leaders and succession planning)?

Box 1: Background to the rapid synthesis

This rapid synthesis mobilizes both global and local research evidence about a question submitted to the McMaster Health Forum's Rapid Response program. Whenever possible, the rapid synthesis summarizes research evidence drawn from systematic reviews of the research literature and occasionally from single research studies. A systematic review is a summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select and appraise research studies, and to synthesize data from the included studies. The rapid synthesis does not contain recommendations, which would have required the authors to make judgments based on their personal values and preferences.

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This rapid synthesis was prepared over a 30-business day timeframe and involved four steps:
1) consultation and agreement about a question from a policymaker or stakeholder (in this case, the Ontario Ministry of Health);
2) identifying, selecting, appraising and synthesizing relevant research evidence about the question;
3) drafting the rapid synthesis in such a way as to present concisely and in accessible language the research evidence; and
4) finalizing the rapid synthesis based on the input of at least two merit reviewers.

WHY THE ISSUE IS IMPORTANT

Supporting transitions to local-system leadership has emerged as an important issue for two reasons: 1) the introduction of OHTs has fundamentally changed the leadership needs in Ontario's health system; and 2) there have been few targeted efforts to address these new leadership needs since beginning the transformation.

The introduction of OHTs has changed the leadership needs in Ontario's health system

In 2019 the Ontario Ministry of Health introduced Ontario Health Teams (OHTs), which may one day be seen to be as landmark a development in Ontario's health system as the introduction of universal coverage for hospital-based and physician provided care. The new approach to organizing and delivering care in the province has the aim of bringing together healthcare providers and organizations from all sectors in the health system (i.e., home and community care, primary care, acute and specialty care, rehabilitation care and long-term care) to work as one coordinated team. Ontario Health Teams aim to adopt a population-health management approach to move the needle on quadruple-aim metrics (e.g., care experiences and specific health outcomes) for their attributed populations. As of March 2022, 51 OHTs have been approved across the province, and at maturity these teams will care for 95% of Ontarians.

A key aspect of enabling OHTs' to move towards establishing new ways of organizing and delivering care in Ontario is to ensure that the eight OHT building blocks (defined patient population, in-scope services patient care and experience, digital health, leadership accountability and governance, funding and incentive structure and performance measurement, quality improvement and continuous learning) are put in place and harnessed to achieve specific targets related to the care experiences and health outcomes of the entire population for which they are accountable.(1)

As OHTs continue to mature in their development and make strategic decisions across the 58 domains included across the eight OHT building blocks, their governance and leadership needs increasingly differ from those familiar to partners who have been responsible for organizing and delivering care in Ontario's health system prior to the introduction of OHTs and the *Connecting Care Act*, *2019*, which established a duty for 'integrated care delivery systems.' For instance, OHTs have had to engage in efforts to establish Collaborative Decision-Making Arrangements that are self-determined and fit-for-purpose, in which leaders from multiple organizations engage in deliberative, consensus-oriented, collective decision-making to achieve shared goals, accountabilities, and opportunities for improving patient care. (i.e., the quadruple aim).(2) To be eligible for OHT Implementation Funding, leaders from all 51 approved OHTs had to establish Collaborative Decision-Making Arrangements between members, in accordance with ministry requirements as articulated in the Guidance for Ontario Health Teams: Collaborative Decision-Making Arrangements for a Connected Health Care System.

In addition, OHTs may wish to consider a number of possible models that would, despite evolving over time, eventually lead to an 'end state' such as collaboration arrangements or joint-venture agreements, organizational alliances, the establishment of one corporation (i.e., amalgamation of organizations with assets transferred to an existing or new organization), or a combinations of these models.(2)

The nature and extent of these fundamental changes towards collaborative governance – rather than governance of an individual organization or institution – in the context of OHTs' mandate to deliver integrated care has many 'knock-on' effects that will continue to shape health-system governance, financial and delivery arrangements in the coming years. One particularly important requirement to support these changes is a transition by health-system leaders from institutional leadership (e.g., leading a hospital network, family health organization) towards consideration of local-system leadership (i.e., leading the network of OHT partner organizations accountable for the care of their attributed populations).

There have been few targeted efforts to address the new leadership needs

Though implementation funds have been provided to teams to support project management and leadership activities, the need to move towards a local-system leadership model has not yet been addressed. This could create challenges in ensuring OHTs are successful across the province. One significant challenge is that (in some cases) those leading OHTs continue to do so 'off the side of their desks' while maintaining roles within their own individual organizations. This may limit the time available to an individual leader to focus on broader system transformation and, ultimately, their overall success. Furthermore, it may result in individual leaders remaining centered on the perspectives of single institutions, rather than the full scope of institutions working together within established collaborative governance arrangements in the local system (i.e., an OHT).

The health-system transformation as envisioned hinges on having effective leadership equipped with the right skills. Evidence from previous syntheses point to the need for both designated leadership that displays a sustained commitment to change at the highest levels, and distributed leadership throughout the local system.(3) As such, the status quo is insufficient to ensure that the ongoing development of OHTs is set up for success in terms of leadership supports. An evidence brief and stakeholder dialogue led by the McMaster Health Forum in 2015 on the topic of enhancing leadership in the primary- and community-care sectors in Ontario suggests that supporting health-system leadership is a long-standing gap in the province,(4) and therefore cannot be considered a problem specific to the introduction of OHTs. However, the type and scope of leadership required to ensure OHTs are successful in adopting a population-health management approach and achieving the quadruple aim is unique given the breadth of transformation to the system. In particular, the types of leaders needed now may look like those who have led large service networks within the province and are able inspire change across sectors and levels of the system.

This rapid synthesis is an effort to inform ongoing conversations about how Ontario can support transitions to local-system leadership. The sections that follow present the results from identified systematic reviews and

select primary studies detailing what is known about capabilities required for local-system leadership and their potential benefits, efforts required to support the development of capabilities (and contextual factors that can affect these efforts), as well as efforts required to support the sustainability of local-system leadership.

Box 2: Identification, selection and synthesis of research evidence

We identified research evidence (systematic reviews and primary studies) by searching (in March 2022) Health Systems Evidence (www.healthsystemsevidence.org), Social Systems Evidence (www.socialsystemsevidence.org) and PubMed. In these databases we searched for keywords focused on leadership and health and social systems, and excluded results that focused on leadership in clinical settings or in the context of a single team of care providers.

The results from the searches were assessed by one reviewer for inclusion. A document was included if it fit within the scope of the questions posed for the rapid synthesis.

For each systematic review we included in the synthesis, we documented the focus of the review, key findings, last year the literature was searched (as an indicator of how recently it was conducted), methodological quality using the AMSTAR quality appraisal tool (see the Appendix for more detail), and the proportion of the included studies that were conducted in Canada. For primary research (if included), we documented the focus of the study, methods used, a description of the sample, the jurisdiction(s) studied, key features of the intervention, and key findings. We then used this

WHAT WE FOUND

We identified 21 systematic reviews (appendix 1) and 24 primary studies (appendix 2) that addressed the health-system leadership capabilities required in the context of local-system leadership, where multiple individuals and organizations spanning a range of sectors (e.g., home and community care, primary care, specialty care, rehabilitation care, long-term care and public health) plan for and deliver care in a coordinated way.

An important knowledge gap identified during the preparation of this rapid synthesis was in relation to the motivations of individual leaders in the context of the second question (i.e., what can be done to support transitions to and sustainability of local-system leadership). Specifically, we didn't find any reviews or primary studies that addressed the specific approaches that could be used to incentivize and support individuals to take on leadership roles in local systems (and particularly when there is an imperative to manage the health of a defined population through the efforts of several organizations from different sectors). We also did not identify any evidence that described factors that influence the process of leaders transitioning from leading large healthcare organizations, such as hospital networks, to a local system that extends beyond a single organization (or network of organizations). Given the importance of this dimension in the context of OHTs, additional work to gather the views and experiences of key stakeholders from Ontario and from other jurisdictions is necessary.

Furthermore, while a question of particular importance in the context of OHTs is how a focus on local-system leadership across several institutions and sectors can lead to improvements in quadruple-aim metrics when compared to the current focus in Ontario on institutional leadership, no reviews or primary studies were identified to support this comparison directly. As such, no conclusions could be drawn about the comparative advantage of local-system leadership based on the results that follow.

We did, however, find a significant amount of literature that related to the: 1) capabilities required for local-system leadership and their potential benefits; 2) efforts required to support the development of capabilities (and contextual factors that can affect these efforts); and 3) efforts required to support the sustainability of local-system leadership. We present the results in relation to each of these areas in the sections that follow.

Capabilities required for local-system leadership and their potential benefits

Our results related to capabilities required for local-system leadership suggest that, while some may focus on a leader's ability to engage with and consider the complexity of an entire health system, the best available systematic reviews and primary studies on the topic conceptualize them as individual-level characteristics that can be developed (and as the next section suggests, there are individual, organizational, and system-level

approaches that can support this development). When attempting to thematically group the results, we found the LEADS in a caring environment framework to be a particularly useful organizational tool because it provides high-level domains that aligned with the full range of capabilities identified during our analysis.(5) The five LEADS domains include:

1) **Lead self** (self-motivated leaders are self aware, manage themselves, develop themselves and demonstrate character)
2) **Engage others** (engaging leaders foster development of others, contribute to the creation of health organizations, communicate effectively and build teams)
3) **Achieve results** (goal-oriented leaders set direction, strategically align decisions with vision, values and evidence, take action to implement decisions and assess and evaluate)
4) **Develop coalitions** (collaborative leaders purposefully build partnerships and networks to create results, demonstrate a commitment to customers and service, mobilize knowledge, and navigate socio-political environments)
5) **Systems transformation** (successful leaders demonstrate systems/critical thinking, encourage and support innovation, orient themselves strategically to the future and champion and orchestrate change).

Table 1 below provides an overview of the individual-level capabilities identified through our analysis within the five domains of the LEADs framework.

Overall, our analysis found that the capabilities most frequently mentioned mapped aligned with the LEADS domains of 'engage others' and 'systems transformation', while those focused on the LEADS domains 'lead self' and 'develop coalitions' were mentioned less often (although they were still prominent themes across many of the reviews and studies included in this synthesis). The capabilities required for local-system leadership listed in the 'achieve results' domain were the least frequently mentioned, however, when they were addressed, we noted them as being particularly important.

Table 1: Capabilities required for local-system leadership mapped to the LEADS framework

LEADS domain	Capabilities related to the domain identified from research evidence specific to local-system leadership
Lead self (self-motivated leaders are self-aware, manage themselves, develop themselves and demonstrate character)	Self-motivated local-system leaders need to be: • open to learning about leadership (through both experiential/situational learning and from the guidance of others) and willing to engage in leadership-development opportunities; • self-aware and open to feedback from others; • resilient in the face of challenges; • confident in their ability to lead a local-system with many moving parts; and • willing to take ownership over and be held accountable for decisions (while sharing responsibilities with other individuals and organizations).
Engage others (engaging leaders foster development of others, contribute to the creation of health organizations, communicate effectively and build teams)	Engaging local-system leaders need to be: • able to collaborate with key stakeholders and build teams; • able to communicate directly and openly with diverse individuals and organizations; • focused on collaborative (i.e., across organizations), rather than siloed strategic thinking; • willing to share responsibilities with other individuals and organizations (while taking ownership and being held accountable for decisions); and • able to mentor and empower others to lead.
Achieve results (goal-oriented leaders set direction, strategically align decisions with vision, values and evidence, take action to implement	Goal-oriented local-system leaders need to be: • able to link decisions with the collective vision and goals established through collaborative strategic thinking; and • able to manage current resources (e.g., time, people and money) while forecasting future needs.

decisions and assess and evaluate)	
Develop coalitions (collaborative leaders purposefully build partnerships and networks to create results, demonstrate a commitment to customers and service, mobilize knowledge, and navigate socio-political environments)	Collaborative local-system leaders need to be able to: • establish and maintain effective partnerships through the establishment of a shared vision and goals; • engage key stakeholder, build networks and establish cross-organizational culture that promotes the principles needed to ensure equity, diversity and inclusion; • engage patients and position them at the centre of decision-making; • understand and manage political factors, including the power dynamics among diverse individuals and organizations; • solve problems and manage conflicts; and • negotiate and reframe issue.
Systems transformation (successful leaders demonstrate systems/critical thinking, encourage and support innovation, orient themselves strategically to the future and champion and orchestrate change)	Successful local-system leaders need to be: • flexible 'systems thinkers' who understand and embrace complexity; • initiators of innovation (including adopting new technologies); • committed to transformational (rather than incremental) change; • willing to take risks; • encouraging of interdependencies across organizations (including among staff); • able to forecast future resource needs; and • committed to investing in leadership development and succession planning.

When assessing the potential benefits of having these capabilities in place, we found that there is very little evidence from reviews or primary studies that link local-system leadership capabilities with specific outcomes such as benefits or harms (and as mentioned in the previous section, no evidence about whether local-system leadership has a comparative advantage over institutional leadership). Instead, most of the reviews and studies provided general insights about what positive outcomes might be associated with the establishment of various elements of system-level leadership. The potential positive outcomes of establishing local-system leadership include:

- a more strategically oriented and collective leadership structure that can support large-scale system transformation;(6-10)
- improvements in an organization's ability to be part of an interdependent and collaborative network, that supports rapid learning and improvement;(11-13)
- better resource management (including time, people and money);(6)
- improved job satisfaction, staff well-being, productivity, and human resource recruitment and retention;(14, 20, 28, 29, 36)
- improved engagement of patients, families and caregivers, higher levels of patient satisfaction and potential for better health outcomes; (7, 27-29, 36)
- better clinical performance (particularly in times of crisis);15)
- more accountability for health-system outcomes;(16) and
- self-reinforcing culture that promotes sustained leadership capacity development.(16-17)

Efforts required to support the development of capabilities (and contextual factors that can affect these efforts)

The results of our analysis suggest that efforts required to support the development of local-system leadership capabilities generally target three levels: the individual level, the organizational level, and the system-level. Table 2 provides an overview of the specific types of efforts identified at each level, as well as any potential barriers to, and facilitators of, capabilities development.

Overall, many of the reviews and studies identified did not focus on efforts to support the development of leadership capabilities specifically, but instead focused more generally on the factors that facilitate local-system collaboration among multiple organizations and relationship-building. Those that did identify efforts very rarely addressed the range of contextual factors that create barriers to, or facilitators for capabilities development. However, the results suggest that there is a need for both structured (e.g., formal training programs) and less structured (e.g., mentorship) efforts at the individual and organizational level and that supportive perceptions (at the individual level) and cultures (at the organizational level) are key to ensuring capabilities for local-system leadership are developed. At the level of the system, while training also emerged as an important effort, the emphasis was placed on establishing common leadership frameworks that are supported by existing leaders (e.g., through strong signaling and investment).

As noted earlier, we identified very little evidence related to the types of factors (e.g., incentives) that would make a transition from institutional to local-system leadership something of interest to individuals in leadership positions. However, in addition to what we describe in Table 2 below, one primary study was particularly relevant to transitions in leadership style more generally (however, in the context of interprofessional arrangements, rather than in the context of a local system).(18) Some of the key insights from this study related to the need to support leaders to transition from transactional leadership (e.g., leading through the establishment of rewards and punishments that can be effective in the short term) to altruistic leadership that promotes collaboration and trust over the long term. Given the authors noted that a high degree of professional altruism and altruistic leadership is required when there is a complicated arrangement of organizations involved, and when there is need for integration on different levels, this may be particularly relevant in the context of OHTs.

Table 2: Efforts identified that can support the establishment and sustainability of local-system leadership

Levels through which efforts to establish and sustain capabilities can be pursued	Types of efforts identified	Barriers to capabilities development	Facilitators of capabilities development
Individual-level	• Mentorship and peer coaching arrangements that target specific individuals • Formal training programs that target specific individuals	• Perception of leadership as an additional set of responsibilities with no direct benefit • Individuals feeling unprepared to take on leadership role • Narrow job descriptions that promote vertical career movement	• Perception of leadership as a shared strategic endeavour that everyone contributes to • Content of leadership-development programs, and delivery formats tailored to the needs of those in (or likely to be) in leadership positions

Organizational-level	• Mentorship and peer coaching programs that are widely available and build organizational leadership capacity • Formal training programs made available to all staff in an organization • Performance feedback loops established that engage both internal and external individuals, and the explicit adoption of a 'learning and improvement' lens • Institutionalization of leadership development as an element of career development	• High staff turnover • Poor organizational culture (i.e., lack of clear strategic vision and goals, lack of collaboration and shared ownership) and lack of infrastructure (i.e., inadequate staffing, limited resources)	• Positive culture and team environment which promotes a shared purpose and trust in leadership • An emphasis on distributed leadership, and organization-wide (rather than individually targeted) leadership-development opportunities • Tailored activities that align with an organization's strategic vision and goals
System-level	• Formal leadership development opportunities (e.g., post-graduate programs, the establishment of an institute to support ongoing leadership development that adapts with system needs) • Adoption of a common leadership capabilities framework that establishes a shared understanding of the capabilities needed, and the knowledge and skills that can be developed to build these capabilities • Establishment of a shared understanding of the leadership roles required to support local-system leadership	• Resistance from vested interests who believe they are already developing leaders (e.g., professional associations) • Lack of emphasis on, and investments in, leadership development by government decision-makers • Challenges establishing link between investments in leadership and health-system outcomes with existing evidence • Regular turnover in senior leadership positions • Lack of incentives to take on leadership roles when risks associated with failure are high, and where transactional leadership rather than altruistic leadership is rewarded	• Shared vision and commitment among existing leaders • Investments earmarked for leadership development

Efforts required to support the sustainability of local-system leadership

Most of the reviews and primary studies identified through our searches did not explicitly address efforts to support the sustainability of local-system leadership. A number of identified documents assessed the role that leadership played in introducing and sustaining system-wide innovations or reforms,(7, 10, 19), or how leadership affected health-system sustainability more generally through the examination of a specific health-system arrangement (e.g., workforce management).(20) However, the relatively few identified documents that did discuss how to support the sustainability of local-system leadership highlighted the following as approaches that should be considered:

- designing and implementing a unified approach at the individual, organizational and system level to support leadership development (e.g., through leadership networks);(6, 21-22)

- ensuring leadership-development focuses on establishing shared responsibilities;(15)
- ensuring emerging leaders are identified and provided with opportunities – including protected time – to develop their leadership capabilities (through mentorship, experiential/situational learning, as well as formal learning);(15, 16, 23)
- integrating leadership into existing training opportunities, rather than delivering them as stand-alone initiatives;(14)
- ensuring there are formal processes established to promote succession planning (e.g., identifying the roles where succession planning is needed, identifying the skills needed, finding potential successors, providing mentorship and learning opportunities, monitor and evaluate whether the approach is working at regular junctures);(12, 16)
- ensuring existing leaders establish a culture that promotes leadership development, encourages learning and improvement, and acknowledges the need to balance constancy and flexibility, while putting in place the necessary processes to identify future leadership needs.(16, 24- 26)

Furthermore, when identifying capabilities for local system leadership (table 1) it should be noted that a core capability within the 'systems transformation' domain of the LEADS framework

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APPENDICES

The following tables provide detailed information about the systematic reviews and primary studies identified in the rapid synthesis. The ensuing information was extracted from the following sources:

- systematic reviews - the focus of the review, key findings, last year the literature was searched, and the quality; and
- primary studies - the focus of the study, methods used, study sample, jurisdiction studied, key features of the intervention and the study findings (based on the outcomes reported in the study).

For the appendix table providing details about the systematic reviews, the fourth column presents a rating of the overall quality of each review. The quality of each review has been assessed using AMSTAR (A MeaSurement Tool to Assess Reviews), which rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. It is important to note that the AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to systematic reviews pertaining to delivery, financial or governance arrangements within health systems. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, a review that scores 8/8 is generally of comparable quality to a review scoring 11/11; both ratings are considered "high scores." A high score signals that readers of the review can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the review should be discarded, merely that less confidence can be placed in its findings and that the review needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8).

All of the information provided in the appendix tables was taken into account by the authors in describing the findings in the rapid synthesis.

Appendix 1: Summary of findings from systematic reviews about transitioning from institutional to local-system leadership in Ontario

Type of review	Focus of systematic review	Key capabilities and factors that were the focus of the review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating
Systematic review addressing other questions	Describing the leadership competence of healthcare leaders and managers in hospital environments (6).	• Informal learning • Mentorship • Shared strategic mindset • Learning through experience	Outcomes associated with the establishment of leadership at the system level included time management, interpersonal skills, strategic mindset, application skills and human resource management are outcomes of leadership competence. Efforts to support competency development at the system level included integrating informal learning through mentors, peers or coaches to build organizational capacity. Efforts to support sustainability of system leadership (including succession planning) included: • unifying individual and organizational approaches to leadership and management competence; and • improving managerial effectiveness in line with strategies of the organization Contextual factors that support/hinder system leadership included viewing managerial tasks as a "task list" hinders leaders from reaching their leadership potential, as well as presenting managerial work as a shared strategic mindset in management across all organizational levels will enable system leadership	2013	3/9 (AMSTAR rating from McMaster Health Forum)
	Describing shared leadership in healthcare action teams and associated outcomes related to healthcare emergencies (15).	• Mentorship • Sharing of responsibilities • Taking initiative • Physician leadership • Collaboration • Communication	Outcomes associated with the establishment of leadership at the system level include improved clinical performance during a crisis. Efforts to support competency development at the system level include adequate leadership sharing, which is expected to improve documentation and length of stay in the emergency department. Additionally, senior physicians should judge the appropriate amount of leadership to delegate to junior physicians to limit additional treatment times in acute care settings. Efforts to support sustainability of system leadership (including succession planning) include: • Reducing the tasks of the team leader by sharing more responsibility with other team members • Empowering junior team members by distributing responsibility across the team. • Giving ownership to each member. • A positive team environment which includes a shared purpose and social support.	2017	5/9 (AMSTAR rating from McMaster Health Forum)

Type of review	Focus of systematic review	Key capabilities and factors that were the focus of the review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating
			Contextual factors that hinder system leadership include a failure of physicians and medical students to acknowledge nurses as members of their team.		
	Identifying the necessary policy changes to enhance clinical and managerial leadership skills of managers of residential aged care (14).	• Self-awareness • Leadership development • Confidence • Communication • Flexibility • Team building • Mentorship • Empowerment	Outcomes associated with the establishment of leadership at the system level include improved job satisfaction, workforce retention, increased productivity at the workplace and improved staff perceptions of the manager's leadership capabilities. Efforts to support competency development at the system level include a clear delineation of scope of practice, appropriate workload and maximum utilization of the workforce and encouraging a leadership style that empowers and motivates employees. Efforts to support sustainability of system leadership (including succession planning) include: • Promotion of stability for leadership and management positions. • Integration of leadership training with other organizational development rather than stand alone programs. Contextual factors that hinder system leadership include high rates of turnover, shortages and absenteeism in residential aged care facilities. These factors lead to a lower quality of care and less opportunity for quality improvement.	2010	3/9 (AMSTAR rating from McMaster Health Forum)
	Exploring the association between leadership and well-being at the workplace (20).	• Motivation • Collaboration • Seeking feedback •	Outcomes associated with the establishment of leadership at the system level include good leadership and increased job satisfaction which are supported by low level evidence. Moderate level evidence supported the outcomes of increased well-being at work, decreased risk of absence due to sickness and a decreased risk of disability pension. Efforts to support sustainability of system leadership (including succession planning) include: • Routine follow-up with workforce about well-being at the workplace to reduce absenteeism and occupational accidents. Contextual factors that hinder system leadership include rapid promotions, narrow jobs and vertical career movement. Direct supervisors were identified as the most important determinants of trust in leadership, which would support system leadership.	2005	5/11 (AMSTAR rating from McMaster Health Forum)
	Describing approaches to large-system transformation and identify barriers that	• Sharing responsibility • Seeking feedback • Confidence	Outcomes associated with the establishment of leadership at the system level include sustained commitment to change in senior levels of an organization and involving families and patients in change processes. These outcomes result in more distributed leadership throughout an organization, and an improvement in health literacy and better health outcomes for families and patients.	2012	Not available

Type of review	Focus of systematic review	Key capabilities and factors that were the focus of the review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating
	hinder its implementation (7).	• Stakeholder engagement • Patient involvement	Efforts to support competency development at the system level include the implementation of feedback loops between those inside and outside the organization. Efforts to support sustainability of system leadership (including succession planning) include: • Introduction of incentives or penalties for acting or not acting on feedback. • Engaging physicians is critical for change efforts to be successful. Contextual factors that hinder system leadership include the continuous measurement of success in large system transformation		
	Assessing the effectiveness of eLearning for health system leadership capability building (27).	• Strategic thinking • Leadership development • Problem solving • Innovation	Outcomes associated with the establishment of leadership at the system level include improved patient health outcomes, financial protection, user satisfaction and user skill acquisition. Efforts to support competency development at the system level investigated in this study include various training interventions, including no training, traditional training such as didactic, face-to-face learning as well as other forms of eLearning.	2017	No rating tool available for this type of document
	Exploring varying definitions and applications of complex leadership in healthcare settings (11).	• Systems thinking • Open communication • Adaptability • Peer coaching • Mentorship • Relationship building • Developing new networks to keep the conversation going • Encouraging staff interdependence	Outcomes associated with the establishment of leadership at the system level include positive development if leaders build interdependent and collaborative networks across different levels of an organization, focus on learning and adaptability, and encourage new ways of engaging in systems thinking. Additionally, leadership approaches which encourage interconnectedness, transparent communication, network construction and taking non-linear approaches are connected to positive change at the organizational level, collaborative learning, innovation, and positive team performance. Contextual factors that support/hinder system leadership (including succession planning) include: • Systems that foster staff interaction, emphasize distributed leadership model and adaptability in learning were found central to supporting system leadership and building leadership capabilities among staff.	2016	5/9 (AMSTAR rating from McMaster Health Forum)
	Exploring the capabilities, context and consequences of leadership in healthcare (28).	• Transformational leadership • Transactional leadership • Direct leadership • Innovating and problem-solving	Outcomes associated with the establishment of leadership at the system level varies according to context, type of task, type of team, culture within an organization and roles. Transactional and transformation leadership styles were reported to be associated with staff job satisfaction, with the latter providing staff with a greater sense of empowerment. Transactional leadership was found to be valuable for establishing and maintaining adequate performance management	2005	2/9 (AMSTAR rating from McMaster Health Forum)

Type of review	Focus of systematic review	Key capabilities and factors that were the focus of the review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating
		• Problem and context identification • Risk taking • Adaptability • Reframing issues • Seeing complexities • Aligning decisions with vision • Recognizing contexts	systems. Direct leadership was found to have a greater impact on staff attitudes. Strong and adequate leadership was associated with fewer patient complaints. Efforts to support the development of capabilities for system leadership include tailoring leadership development activities to align with an organization's goals, vision, practices and people rather than taking a universal, one-size fits approach. Leadership development must support leaders in recognizing and understanding internal and systems wide context surrounding problems, learning how to adequately identify problems, and recognize how to respond to problems. Additionally, learning how to shift accepted norms and practices in workplaces, foster innovation and manage risk were identified as important capabilities to develop. Contextual factors that support system leadership include the recognition of interrelationships at the regional level, the ability to understand how to best lead under shifting contexts, adaptability, awareness about informal and formal components of organizations, systems thinking and the ability to effectively define and frame a situation for group members. Contextual factors that hinder system leadership include a lack of alignment between organizational culture and the broader environment. Different leadership styles were found to be more suitable depending on the degree of control leaders have in a certain situation.		
	Investigating the effectiveness of leadership development programs in healthcare settings and metrics that can be used to assess effectiveness (29).	• Open communication • Self-awareness • Collaboration • Skill building • Negotiation skills • Conflict management • Confidence	Efforts to support the development of capabilities for system leadership include leaderships development programs to enhanced communication skills, self-awareness, conflict resolution and negotiation skills, confidence, decision-making skills, collaborative skills and assertiveness. Patient satisfaction, patient adverse events, patient mortality and infection rates were the most common patient-related metrics used to evaluate the impact of specific leadership qualities and leadership development programs. Job satisfaction, turnover, burn out, work effectiveness, organization commitment and effective teamwork were the most common staff-related metrics used to evaluate the impact of specific leadership qualities and leadership development programs	2016	5/9 (AMSTAR rating from McMaster Health Forum)

Type of review	Focus of systematic review	Key capabilities and factors that were the focus of the review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating
	Identifying best practices for succession planning in healthcare settings (31).	• Skill building • Forecasting needs and organization goals • Mentorship • Talent management • Resource management	Efforts to support sustainability of system leadership (including succession planning) include: • pinpointing skills needed to meet the organization's long- and short-term goals; • finding potential successors to meet organization goals; • providing mentorship or other approaches to skill development to potential successors; • identifying which positions require succession planning, when and what type of leaders are needed to fill these positions; • dedicating time and energy specifically for succession planning; and • evaluating existing succession planning frameworks to determine whether organization goals are being met.	2008	3/9 (AMSTAR rating from McMaster Health Forum)
	Exploring contextual factors that influence quality improvement in healthcare settings (12).	• Open communication • Supportive organization culture	Outcomes associated with the establishment of leadership at the system level include quality improvement through the communication of new expectations were associated with success reaching quality improvement goals. The role of board leadership in quality improvement was found the vary in included studies. Contextual factors that support system leadership include an organization's success with quality improvement, the length of involvement with quality improvement and a supportive organization culture.	2009	7/10 (AMSTAR rating from McMaster Health Forum)
	Identifying factors associated with healthcare organizations struggling to improve quality (13).	• Open communication • Establishing shared goals and vision • Taking ownership and accountability • Supportive organization culture • Encouraging staff interdependence	Contextual factors that hinder system leadership include poor organizational culture, limited infrastructure, lack of clear mission and vision, unplanned or planned events that detract from everyday operations, and poor external relations with other stakeholders. A lack of responsibility and ownership among staff, non-collaborative environment, and hierarchal organization with disconnected leaders were three key issues identified as a part of poor organizational culture. Poor quality insurance infrastructure, inadequate staffing, limited resources, and insufficient information technology services were identified as key issues with respect tot poor infrastructure. Factors that impede collaboration across organizations, include doubting others' motive to help others, feeling threatened by team member's involvement, different ideas and understanding about scope of practice, negative ideas surrounding the profession, lack of confidence in team member's skills and power struggle between team members	2018	8/9 (AMSTAR rating from McMaster Health Forum)
	Comparing factors that contribute to successful collaboration in interprofessional and interorganizational healthcare settings (32).	• Open communication • Shared decision-making • Establishing share goals and vision	Six structural and organizational characteristics were identified to enhance interprofessional collaboration. These include: • implementing evaluation processes to reflect on approaches being undertaken; • establishing a shared vision and set of goals; • creating formal and informal opportunities for collaboration, communication and information exchange;	2014	6/9 (AMSTAR rating from McMaster Health Forum)

Type of review	Focus of systematic review	Key capabilities and factors that were the focus of the review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating
			• clarifying roles and responsibilities to all members of an organization; • allocating sufficient resources for tasks to be completed • creating work culture that is supportive, safe and holds all members of an organization accountable. Contextual factors that support system leadership include frequent and formalized bidirectional communication, trust and respect between team members, shared power, shared goals and mission, and patient-centered decision-making. With respect to communication, this review found that collaboration is best fostered when formal and informal communication is frequent, active, reciprocal and mutually exchanged between all members involved. This review found a positive correlation between engaged leadership, team-based approaches, and a collaborative organizational culture with high performance		
	Pinpointing frameworks to assess governance in health systems (33).		Efforts to support sustainability of system leadership (including succession planning) include: • Sixteen frameworks that can theoretically be used to assess governance and leadership in health system settings, which include: o Frameworks rooted in three theories, including the principal-agent theory, Douglas North's theory of institutional analysis and Elinor Ostrom's theory of common pool resources. o Frameworks stemming from principle-agent theory aim to assess accountability. o Frameworks rooted in the theory of institutional analysis aim to assess and contextualize the institutional rules and arrangements set by different organizations. o Frameworks using the theory of common pool resources aim to explore the creation of varying institutional arrangements that can be used manage a limited amount of open resources. • Most of the included studies applied frameworks that use a qualitative approach to evaluating governance based on the idea that studying interaction between different actors and the reasons for these interactions is most reflective of governance structures.	2016	4/9 (AMSTAR rating from McMaster Health Forum)
Systematic review of effects	Pinpointing factors that support joint working between health and social system services (34).	• Establishing shared goals and vision • Skills building • Providing clear direction • Flexibility • Open communication	Outcomes associated with the establishment of leadership at the system level include less role conflict when healthcare staff were working in integrated teams. Contextual factors that support system leadership include facilitators for collaboration in joint working teams, which include: • developing a shared organizational vision and policies collaboratively with staff; • providing ongoing training to staff;	2011	4/9 (AMSTAR rating from McMaster Health Forum)

Type of review	Focus of systematic review	Key capabilities and factors that were the focus of the review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating
		• Resource management • Supportive organization culture • Relationship building • Reliable and timely information sharing	• providing staff and organization partners with a clear understanding of policies, roles and responsibilities; • creating a culture that appreciates roles and responsibilities; • undertaking a flexible approach with integrated roles in multiorganization teams; • having streamlined communication pathways that allows for information sharing, including having access to information technology systems that are compatible; • encouraging informal interactions between joint working teams to build mutual understanding; • providing strong management and professional support; • having a history of strong local partnerships; • providing sufficient resources to joint initiatives; • shared professional ideologies and values across professional teams; • trust and respect between members of a team, especially those from different professional backgrounds; and • frequent team building events and meetings to build rapport, establish shared vision and mutual understanding between different professional groups. Contextual factors that hinder system leadership include having separate management structures and team members who do not trust their team manager. One included study noted that pooled budgets hold the potential to detract from a joint working approach if service responsibilities were divided.		
Systematic review of effects	Assessing the effectiveness of postgraduate leadership education (35).	• Skills building • Confidence • Time management	Efforts to support the development of capabilities for system leadership include postgraduate leadership education, which resulted in shifts to the participant's career aspirations, increased confidence, increased engagement and interest in leadership, increased leadership management skills including teamwork, conflict resolution, time management, facilitation and other interpersonal skills. Postgraduate leadership education was also found to improve interactions with hospital administrative authorities, success securing leadership positions and other achievements, such as publications. At an organizational level, education was found to positively impact organizational communication, group dynamics and staff hiring, as well as reported to increase participant initiative in taking on projects. The most common teaching approaches included lectures and workshops with interactive elements, project work, and case-based learning.	2017	4/9 (AMSTAR rating from McMaster Health Forum)
	Exploring factors influencing physician leadership in health systems (36).	• Skills building • Mentorship • Managerial experience	Outcomes associated with the establishment of leadership at the system level include patient satisfaction and sustainability of initiatives. Health system workers experienced improvements in retention and turnover rates, increased receptivity to change, an increased commitment to organization, decreased stress, and a supportive team environment.	2017	3/9 (AMSTAR rating from McMaster

Type of review	Focus of systematic review	Key capabilities and factors that were the focus of the review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating
		• Systems thinking • Seeing complexity • Relationship building	Efforts to support the development of capabilities for system leadership include leadership development, performance feedback, leadership training, mentorship, and role-modeling. Contextual factors that hinder system leadership include physician hesitance in taking on formalized leadership roles due to higher work demands, little financial incentives, a devalued perception of physician leaders, fear of appearing too managerial, limited understanding of the complexities of healthcare systems, and a poor understanding about how to implement reform. Contextual factors that support system leadership include health systems that value advocacy and social justice, as well as perceived exclusion from decision-making spaces as these were found to be motivators for physicians taking on leadership roles.		Health Forum)
	Pinpointing factors that facilitate interorganizational collaboration in health promotion settings (37).	• Establishing shared goals and vision • Resource management • Open communication • Providing clear direction • Stakeholder engagement	Contextual factors that support system leadership include shared vision and goals, strong leadership, commitment to collaboration by all partner organizations, sufficient resources and funding to support collaboration, clearly defined roles and responsibilities for all project partners, trust between partners, and open communication. Additionally, a diversity of members in a partnership, previously existing relationships between partners and engaging community-based organizations and target populations were found to support the development of system leadership. Contextual factors that hinder system leadership include power conflicts between collaborating organizations.	2015	5/9 (AMSTAR rating from McMaster Health Forum)
	Investigating the impact of collaboration in healthcare and factors that shape collaboration (38).	• Establishing shared goals and vision • Resource management • Open communication • Providing clear direction • Stakeholder engagement • Shared decision-making • Reliable and timely information sharing	Outcomes associated with the establishment of leadership at the system level were identified as having weak and unclear links. Contextual factors that support/hinder system leadership include shared vision, commitment to collaboration by leaders and staff, trust between partners, aligned values and philosophies, clearly defined roles and responsibilities, and clearly established frameworks for collaboration. Open and frequent communication, adequate and compatible information sharing systems and sufficient resources were additionally reported as facilitators to collaboration. Well-defined decision-making and accountability frameworks were also found to address challenges to collaboration such as power and resource conflicts, and limited accountability. Involvement of all stakeholders and senior leaders, national policies, political context, geographical location, boundaries of partner organizations, institutional and organization context of services were also factors that impact collaboration.	2019	6/9 (AMSTAR rating from McMaster Health Forum)

Type of review	Focus of systematic review	Key capabilities and factors that were the focus of the review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating
		• Establishing shared goals and vision • Open communication			
Systematic review of effects	Assessing the effectiveness of eLearning opportunities for capacity building in healthcare leadership and management (30).	• Skill building • Resource management • Relationship building • Developing new networks to keep the conversation going • Recognizing contexts	Outcomes associated with the establishment of leadership at the system level include improvements in the following four categories: • management of resources, such as managing staff, finances, and information; • management of relationships, such as network construction, supervision, monitoring, and teamwork; • self-management, such as time-management, stress-management, and emotional intelligence; and • management with a context, such as familiarity with community needs, policies, laws and organizational culture. Efforts to support the development of capabilities for system leadership can take on an eLearning or blended learning model. Benefits of eLearning approaches include: • increased accessibility to healthcare professionals; • greater capacity to rapidly update and customize trainings to participants needs; • increased engagement from participants through the inclusion of interactive games, videos, and other multimedia; • increased experiential learning opportunities, such as through virtual reality environments and case-based learning; • increased opportunities for collaboration during learning; and ○ increased scalability. Barriers of eLearning approaches include: • limited digital literacy among healthcare staff; • limited administrative capacity to create and update eLearning modules; and poor internet connectivity.	Not reported	4/6 (AMSTAR rating from McMaster Health Forum)

Appendix 2: Summary of findings from primary studies about transitioning from institutional to local-system leadership in Ontario

Question addressed	Focus of study	Study characteristics	Sample description	Key capabilities identified or that were the focus of the study	Key findings
What does the evidence say about optimal leadership characteristics to drive system transformation? What are the frameworks related to the attributes/capabilities/domains of leadership that need to be considered?	Assessment of 11 identified leadership attributes in high performing innovative practices (39).	*Publication date:* May 2020 *Jurisdiction studied:* United States of America *Methods used:* Direct observation of practice activities and audio recorded interviews	9 LEAP (Learning from Effective Ambulatory Practices) sites that ranked in the top 10 on the scales of learning and leadership identified by Leykum et al. From the Assessment of Chronic Illness Care scale and in the PCMH National Demonstration Project, respectively.	• Management of power influence • Collaboration • Open communication • Goal setting and reflection • Innovation	Outcomes associated with the establishment of leadership at the system level include the development of 11 key leadership competencies identified by the study. The relative importance of each of these competencies differed across practices. Efforts to support the development of capabilities for system leadership should include the following three stages where the 11 leadership attributes are developed: • The foundational level includes 5 attributes related to building self-organization capacity, motivation and landscape awareness. • Once these foundational strategies are underway, efforts in instilling a collective mind, cultivating teamwork, assuring psychological safety, fostering emergent leaders, generating a learning organization can occur. These allow for effective innovation and adaptive emergence. • Boundary spanning is a third level attribute which benefits from a number of foundational and second order attributes. Efforts to support sustainability of system leadership include developing the leadership competency of anticipating the future.
	Identifying key lessons for leading integrated care (8).	*Publication date:* 2016 *Jurisdiction studied:* Canada *Methods used:* Qualitative analysis of verbal discussions	The Integrated Care for Complex Populations (ICCP) program by the Toronto Central Community Care Access Centre (TC-CCAC) was analysed.	• Situational learning • Collaboration • Stakeholder engagement • Internal management • Goal setting and reflection	Outcomes associated with the establishment of leadership at the system level include effective relationship-building with partners in order to further conversations about responsibilities, resource commitments and programs and services. Efforts to support the development of capabilities for system leadership should include the application of a learning lens which empowers staff to take risks and facilitates ongoing improvement.

Question addressed	Focus of study	Study characteristics	Sample description	Key capabilities identified or that were the focus of the study	Key findings
					Contextual factors that support system leadership include initiating conversation with patients and families to understand their values, and finding a balance between a micro-level focus on patients and caregivers with a macro-level view of the healthcare system . Efforts to support sustainability of system leadership include adapting integrated care models and interventions to the local context which was found to enhance the probability of success.
	Outline the change towards patient-centered service delivery models for leaders and steps to enhance their effectiveness (40).	*Publication date:* 2016 *Jurisdiction studied:* Pan-Canada *Methods used:* Document review	This report addresses Canadian healthcare leaders.	• Leadership development • Stakeholder engagement • Situational learning • Use of technology	Efforts to support the development of capabilities for system leadership include the development of collaborative leadership to engage providers across organizations and builds relationships between organizations and the community. The LEADS framework, endorsed by the Canadian Health Leadership Network, is a common language aimed at facilitating collaborative leadership. The Canadian Health Leadership Network has also created a Canadian Health Leadership Action Plan which aims to facilitate leadership development. The creation of a Canadian Healthcare Leadership Institute with a mandate to build, rationalize, and revamp healthcare leadership was suggested by the authors of this study. Contextual factors that hinder system leadership include resistance from professional associations and a lack of follow through by provincial governments which prevents policy change surrounding leadership in Canada. Reasons for the lack of involvement of leaders are feeling alienated from change processes, disconnected from senior leadership, constrained by bureaucratic structures or the lack of ability to address the myriad of challenges. Contextual factors that support system leadership include using a complexity lens to help leaders in using creative thinking to identify solutions, involving patients and communities, and using electronic medical record technologies.
	Reporting on the need and suggestions for increasing	*Publication date:* 2017 *Jurisdiction studied:* Pan-Canada	This report addresses Canadian healthcare leaders.	• Innovation • Situational learning	Efforts to support the development of capabilities for system leadership include the development of a "digital house" where information sources are connected and transferred between teams to help leaders in making informed decisions.

Question addressed	Focus of study	Study characteristics	Sample description	Key capabilities identified or that were the focus of the study	Key findings
	leadership innovation (19).	*Methods used: Document review*			Efforts to support sustainability of system leadership should include creating the necessary conditions for innovations and supporting innovations, more coordinated and transformational effort aimed at re-engineering leadership processes, government, regulatory, and organizational policy frameworks, the documentation of the impact and scalability of innovation projects and processes across system stakeholders and the use of technology and the establishment of relationships to protect intellectual property and share risk among organizations. Contextual factors that could support or hinder system leadership include the availability of funding and the degree of risk aversion.
	Identifying the leadership capabilities that are most important for healthcare organizations and how well healthcare sector leaders perform these capabilities (24).	*Publication date:* 2016 *Jurisdiction studied:* United States of America *Methods used:* Survey analysis	The data comes from people working across the healthcare sector (including employees of large hospital systems, regional providers, insurance firms, state and federal healthcare agencies, pharmaceutical firms, and medical device manufacturers).	• Resourcefulness • Innovation • Leadership development • Internal management • Relationship building • Communication • Work life balance • Self-awareness • Diversity	Outcomes associated with the establishment of leadership include developing the leadership competencies identified. Efforts to support sustainability of system leadership include placing a greater focus on gaining the experience and skills needed for future roles and challenges and creating a leadership strategy that builds essential skills and behaviors of individual leaders and invests in its culture. Contextual factors that hinder system leadership include a too narrow functional orientation and difficulty building and leading a team.
	Identifying themes in the delivery and access of adult social care (41).	*Publication date:* February 2021 *Jurisdiction studied:* United Kingdom *Methods used:* Interview analysis	40 people working within social care and accessing its services were interviewed.	• Relationship building • Stakeholder engagement • Internal management • Leadership development	The responses of local leaders to feedback influence the ways in which they are perceived. Efforts to support the development of capabilities for system leadership include the need for investing into training and development at every level. Efforts to support sustainability of system leadership included the need to honor promises and for a mechanism for the negotiation of fees was identified. Additionally, a more unified voice for the various stakeholders and annual assessments were identified to be beneficial in improving social service delivery.

Question addressed	Focus of study	Study characteristics	Sample description	Key capabilities identified or that were the focus of the study	Key findings
					This study found that the more local the leadership, the more influence it could have. However, a lack of data, infrastructure and research was identified in adult social care, which prevents continuing personal development. Finally, a lack of leadership from those at the head of departments and from politicians was identified.
	Identifying challenges to collaboration between Integrated Care Systems and Sustainability and Transformation Partnerships (9).	*Publication date:* November 2019 *Jurisdiction studied:* United Kingdom (England) *Methods used:* Interview analysis	16 chairs and leads of Integrated Care Systems and Sustainability and Transformation Partnerships.	• Situational learning • Empathy • Commitment • Innovation	The establishment of Integrated Care Systems and Sustainability and Transformation Partnerships as performance managers for their areas, as opposed to planning and implementation bodies will allow more collective leadership. Efforts to support the development of capabilities for system leadership in include ensuring enough people with different experience across different parts of health and social care take on leading roles. Contextual factors that support/hinder system leadership included the relationship between Integrated Care Systems and Sustainability and Transformation Partnerships with local governments, which affects the level at which they are able to engage. Legislation surrounding Integrated Care Systems was also identified as something that is needed as these systems develop. Finally, this study identifies change that has been achieved voluntarily as more likely to stick than change that has been imposed.
	Identifying the skills, knowledge and behaviours required of new system leaders and learning from systems with strong organizational leadership and collaborative system-level leadership approaches (21).	*Publication date: Octo*ber 2014 *Jurisdiction studied:* United Kingdom (England) *Methods used:* Cross-case analysis	Analysis of the Advancing Quality Alliance (AQuA) and the King's Fund between 2011 and 2014, and the analysis of the learning from this in the City of Manchester.	• Internal management • Innovation • Ethical standards • Relationship building	Efforts to support the development of capabilities for system leadership include: • a knowledge and skills framework for successful leadership was reported, consisting of skills pertaining to technical know-how, improvement know-how and personal effectiveness; and • a combination of collaborative approach to leaderships, with leaders at many levels in the system. This study also identified that small tests of change to observe, reflect and explore what works best are used in successful health care systems to encourage learning This study identified the need to have a dual focus, both on developing individual leaders and on developing a leadership system

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					Contextual factors that support/hinder system leadership identified in this study included the pacesetting leadership style and focusing too narrowly on specific goals, both of which were found to be ineffective in dynamic networks.
	Identifying soft power skills needed for systems leader to enable others to see and deliver the needed changes (25).	*Publication date:* May 2015 *Jurisdiction studied:* United Kingdom (England) *Methods used:* Interview analysis	Interviews of 10 senior leaders in the NHS from different backgrounds and who work in different contexts.	• Internal management • Community building • Empathy • Communication • Diversity	Outcomes (benefits/harms) associated with the establishment of leadership include the frequent reorganization of the provider and commissioning landscape which was found to prevent stability of leadership. Efforts to support competency development at the system level focused on the need to engage clinicians in understanding the need for change and to lead efforts to achieve that change, as well as the need to involve other stakeholders such as patients, service users and care givers in identifying services that need to be redesigned. Finally, role specific training on capabilities was identified as helpful to leaders. Efforts to support sustainability of system leadership included the need to strike the right balance between constancy of purpose and flexibility. Also the study found that facilitating conversations about what needs to change, being flexible about how that would be achieved, and ensuring that these changes are delivered are all needed. Lack of money, training, incentives, and the current system architecture and regulation were identified as barriers to effective system leadership.
	Exploring the potential for collective leadership in establishing cultures that value compassionate care (26).	*Publication date:* May 2014 *Jurisdiction studied:* United Kingdom (England) *Methods used:* Document analysis	Reports prepared with the Center for Creative Leadership (CCL) about unlocking cultural change throughout the NHS were analyzed in this study.	• Goal setting and reflection • Visionary • Community building • Innovation • Internal management • Collaboration	The current and future leadership was determined to be important in the development and maintenance of an organization's culture. A leadership strategy makes organizational components of institutions more explicit, such as the number and kinds of leaders needed, and the ways individuals and groups should behave Efforts to support competency development at the system level include purposefully describing the leadership culture desired for an organization which allows effective leadership. The focus on developing collective capability should be embedded in the development of leaders. The need for all staff to focus on continual learning and improvement was identified as important, and could be

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					achieved through dialogue, debate and discussion to understand problems and solutions. Careful planning, persistent commitment and a focus on leadership and culture allows staff to adopt leadership roles in their work and take responsibility for developing effective, high quality and compassionate care.
	Clarifying what capabilities are, what they can be used for, and how they relate to healthcare professions (42).	*Publication date:* January/February 2006 *Jurisdiction studied:* United States of America *Methods used:* Document review	Analysis of seven health administration competency models developed through author experience, review of prior models, validation with a sample, among other methods	• Key capabilities not specified	Efforts to support competency development at the system level include: • the modeling of competency related activities which was identified to provide a grounds for the development of local leadership training; • introduction of tools for designing and communicating about performance which can be used to improve performance by clarifying an individual's roles, performance expectations and plans for development; and • defining competencies, which can allow for strategic human resource management practices and planning.
What are some examples of	Exploring the leadership dynamics at play in Canadian	*Publication date:* November 2014 *Jurisdiction studied:* Canada	Analysis of six case study projects across Canada that helped	• Relationship building • Systems thinking • Adaptability	Improved systems thinking and aligned strategic action are the desired outcomes needed to create large-scale change. Informants identified courage and resilience as keys to

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leadership and innovation present in Canadian health systems?	health reform and investigating the impeding and facilitating factors of its distributed action (43).	*Methods used:* Cross-case analysis	develop leadership capacity through applied health research and knowledge translation.	• Stakeholder engagement • Engagement of physicians and development of physician leadership • Champions for change • Empowering individuals and physicians to take action • Open communication • Self-awareness • Leading by example (role models) • Mentorship • Resilience	initiating change, and that leadership development should be institutionalized as a life-long commitment of individuals in leadership positions. Efforts to support sustainability of system leadership include: • ongoing meaningful physician engagement and mentorship; and • maintenance of focus and momentum, which are needed for large-scale projects in particular. The ongoing need to overcome structural, cultural and political factors that impede change are draining the leadership capacity of Canada's leaders, as well as change fatigue which is growing among senior leaders. A shared vision among formal leaders and alignment of thinking is challenged by conventional notions of autonomy and accountability among formal leaders. Additionally, regular turnover among senior leaders impedes leadership or large-scale change over time.
	Describing the development, implementation and evaluation of the Saskatchewan Leadership Program among healthcare professionals (16).	*Publication date:* January 2016 *Jurisdiction studied:* Canada *Methods used:* Summary of collaborative leadership program	450 existing and emerging leaders (physicians, nursing managers, project managers) from four health regions across Saskatchewan participated in the program.	• Mentorship • Peer coaching • Innovating and problem solving • Skill building • Scenario-based learning • Reflective learning • Setting goals	The establishment of leadership at the system level may help to ensure leaders take ownership for outcomes. Progression of leadership skills measured through pre- and post-program self-assessment increased motivation and engagement, particularly after using the coaching approach to support leadership development. Efforts to support competency development at the system level include: • formalized support from senior leaders, which can lead to accelerated leadership development in participants; and • creating a common language about coaching among healthcare organization leaders with a certified coaching skills training provider. Efforts to support sustainability of system leadership include: • building leadership in existing managers, directors and program leads; • succession development in those identified as candidates with potential for leadership positions; and • dyad development to create partnerships and joint accountability.

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					Finally, formalized support from senior leaders supports emerging leaders. However, an aging sector and increasing potential retirements are unmasking skill deficits among the workforce , and there is a reluctance to change within the workplace which hinders leadership development.
	Monitoring organizations' progress of leadership development and capacity every 3-5 years to determine the impact of leadership investments (17).	*Publication date:* May 2014 *Jurisdiction studied:* Canada *Methods used:* Quantitative survey	Chief Executive Officers, Chief Operating Officers or Human Resource people at health organizations such as the Canadian Health Leadership Network Partners, the Health Action Lobby Members, the Canadian Academic Healthcare Organization and others.	• Commitment to customers • Champions for change • Aligning decisions with vision • Physician engagement • Growing talent internally	Leadership capacity is needed to respond to future challenges and reforms. Efforts to support competency development at the system level includes: • establishing a shared vision linked to policy imperatives; • adopting a leadership capabilities framework such as LEADS which can be utilized to create a common language across provinces and territories; • securing additional funding focused on health leadership; and • the ongoing coordination of research and knowledge mobilization. Efforts to support sustainability of system leadership include protected time for leadership development programs within organizations. Finally, this study found that there is a leadership gap occurring Canada, in the form of a skills gap rather than a supply-demand gap for middle and senior managers. Quality physician leadership is an important enabling component of health system reform.
	Addressing barriers to fostering leadership for health system redesign in Canada (22).	*Publication date:* March 2014 *Jurisdiction studied:* Canada *Methods used:* Dialogue summary	Policymakers, managers, stakeholders and researchers across Canada deliberated about potential approaches and implementation strategies to improve health system leadership capacity.	• Learning from innovation • Learning from other jurisdictions • Taking ownership and accountability • Systems thinking • Formalized approach to skills development • Talent management • Developing new networks to keep the conversation going	Efforts to support competency development at the system level include: • establishing clear, measurable outcomes that reflect the aim of leadership development, perhaps using the "Triple Aim" as the goal; • establishing a common understanding and language using the LEADS framework; and • learning from current innovation and examples of leadership excellence. Efforts to support sustainability of system leadership should focus on improving existing networks and collaborations that foster innovative practices in leadership for health system transformation, and supporting local, provincial, regional and national calls to action for preparing leaders to achieve health system redesign.

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					Contextual factors that support/hinder system leadership include: • lack of perceived urgency in addressing leadership development; • language that implies failure of existing leadership will negatively affect efforts to support further leadership development; • politicization, blame avoidance and risk aversion hinder efforts to foster leadership capacity for health-system redesign in Canada.
	Evaluating the LEADS health leadership capability framework in a Shared Services initiative in Saskatchewan (44).	*Publication date:* January 2016 *Jurisdiction studied:* Canada *Methods used:* Case study	Frontline health system managers and senior executives responsible for creating a Shared Services initiative were asked about the relevance of LEADS in their work.	• Commitment (resilience) • Champions for change • Collaboration • Systems thinking • Innovation • Taking responsibility for your own performance	One of the aims of leadership development in Saskatchewan are to support efforts to integrate and consolidate functions such as human resource recruitment, information technology, procurement, and payroll managements across the diverse health regions of Saskatchewan. Efforts to support competency development at the system level include adopting the LEADS framework, and gathering feedback from users on the components of the LEAD framework they found most relevant to their leadership capabilities. Time and resource constraints that require priority setting depending on the demands on the individual initiative are key factors affecting leadership development.
PubMed Searches: What does the evidence say about interorganizational leadership?	Critically examining the theoretical and practical value of the concept of leadership transmission in the modernization of healthcare (45).	*Publication date:* November 2007 *Jurisdiction studied:* United Kingdom (England) *Methods used:* Document analysis	Theoretical perspectives on leadership, including debates, are reviewed in this study.	• Innovation • Internal management • Situational learning • Leadership development	Leadership can be identified in terms of influence, which can be classified as top down, inter-organizational and dispersed. This study suggests that organizational changes are often led by spontaneous concerted action at all levels as opposed to senior leaders. Widely dispersed leadership is identified as necessary in healthcare modernization, and establishing the conditions under which leadership transmission is encouraged allows the support and develop new leaders.
	Analysis of territorial behaviour among professional groups as a barrier to interprofessional	*Publication date:* July 2009 *Jurisdiction studied:* Not specified *Methods used:* Document analysis	Existing literature on organization, leadership and collaboration, and data from a case study of interprofessional	• Collaboration • Internal management • Interprofessional collaboration	A long process of development is typically required for professionals in interdisciplinary teams to see the differences in capabilities as an advantage rather than a problem. Altruistic leaders are able to lead through transformational leadership in

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	collaboration, and altruistic behaviour as an alternative (18).		collaboration in vocational rehabilitation.	• Altruism	contrast to transactional leadership. A high degree of professional altruism and altruistic leadership is required in projects with complicated organization and integration on different levels. It could be difficult and may take a long time to develop altruism in interprofessional collaboration and leadership, but it is a necessary development to increase coordination in the welfare system. Professional altruism and altruistic leadership may be regarded as a threat to professionalization, while altruism may be regarded as unrealistic and may come into conflict with traditional evaluation criteria for managers and professionals
	Determining the strategies to improve cross sector collaboration when initiating a project for a healthy living environment (46).	*Publication date: August* 2020 *Jurisdiction studied:* The Netherlands *Methods used:* Case study, interviews with stakeholders	Stakeholders' experiences of initiating cross-sector collaboration within three regional projects in the Netherlands.	• Internal management • Collaboration • Interdisciplinary collaboration • Relationship building	Seven themes were identified for addressing cross-sector collaboration, including creating a feeling of equivalence among the partners, building trust among the partners, creating a connection between the different sectors and perspectives, providing clarity about roles and tasks, creating and leveraging reasons to commit to the cross-sector project, and making sure the partners feel engaged within the cross-sector project, understanding whom to engage at which point of the process Specifying the causal links between strategies, contexts, mechanisms and outcomes for each of these themes allows an increased understanding for how cross-sector collaboration for a healthy living environment can be achieved.
What are the necessary pre-requisites for existing system leaders to transition into these positions?	Investigating factors that influence member involvement and satisfaction in partnerships (47).	*Publication date:* October 2020 *Jurisdiction studied:* United States of America *Methods used:* Self-assessment tools	Member experiences in a national pilot partnership involving four organizations were evaluated over a period of four years.	• Collective decision-making and ownership	This study found that a partnership's capacity to foster members engagement over time is related to member's satisfaction with their role and influence in the partnership. Authors of this study reported that members feels more strongly connected to partnerships when partnerships encourage dialogue from all members and provide members with a greater capacity to shape their roles within such relationships. Collective ownership of decisions within partnerships and a collective understanding about the direction of partnerships were also pinpointed as central to collaboration. Other contextual factors which were found to impact collaboration include the history of relationships between organizations in a partnership, support provided by an organization to members for their work and local challenges experienced by partnerships in carrying out initiatives.

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What are the necessary pre-requisites for existing system leaders to transition into these positions? What components should be in place to support distributed leadership across local systems that focuses on equity, diversity and inclusion?	Evaluating the impact of leadership training on participants understanding and practices surrounding leadership (48).	*Publication date:* 2005 *Jurisdiction studied:* United States of America *Methods used:* Telephone interview and content-based analysis	12-month leadership and team-work based learning program provided by the National Public Health Leadership Institute to systems leaders.	• Skills building	This study found that leadership training provided to senior leaders by the National Public Health Leadership Institute shifted participant's perspectives and confidence, approach to collaboration and network practices. With respect to leadership perspectives and confidence, participants reported a stronger understanding that complex issues require collaborative problem-solving and for leaders to engage in strong partnerships. Participants also reported greater confidence to engage in leadership and work in team settings, such as through coaching, mentorship, conflict resolution and negotiation, and reported a greater capacity to secure funding in collaborative teams. Regarding approaches to collaboration and network practices, participants reported increased communication with partners at the local, state and national level, improved capacity to negotiate with other leaders, to receive and provide feedback about challenges and approaches to leadership, and an increased ability to conduct needs assessments collaboratively, co-construct goals and develop programs under partnerships. Participants additionally reported an increase in the quantity and quality of partnerships with community organizations, including the development of new policies that enable collaboration.
What are the necessary pre-requisites for existing system leaders to transition into these positions?	Assessing leadership practices in the implementation of coordinated healthcare networks (49).	*Publication date:* November 2021 *Jurisdiction studied:* Canada *Methods used:* Comparative case studies analysis, semi-structured telephone interviews, document review and administrative data	Distributed leadership approaches and implementation strategies were evaluated across three coordinated care networks in Ontario.	• Providing clear direction • Establishing shared goals and vision • Relationship building	This study found that the implementation of a distributed leadership approach was dependent on the presence of a single leader who unified members of a group, co-established a shared vision, and provided clear direction for joint action.
What are the necessary	Evaluating the effectiveness of leadership	*Publication date:* 2011 *Jurisdiction studied:* Canada	Six-day customized leadership development program by York	• Systems thinking • Seeing complexity	This study found that program content helped participants understand decision-making in organizations more broadly, and in achieving goals identified in learning plans either fully or

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pre-requisites for existing system leaders to transition into these positions?	development training for leadership succession planning (23).	*Methods used:* Participant feedback, self-assessment, and document review	University including experiential learning, mentorship, and career coaching opportunities.		to some extent. Mentorship experiences were also reported to be important to learning for three quarters of participants. More than half of participants reported feeling prepared for a leadership role and transitioned into leadership roles following this program
What components should be in place to support distributed leadership across local systems that focuses on equity, diversity and inclusion?	Conceptualizing a framework to understand the governance capacity of public policy networks (50).	*Publication date:* 2021 *Jurisdiction studied:* Brazil *Methods used:* Document review	Framework based on two studies exploring governance models and responsibilities in public policy network management.	• Supportive organization environment • Relationship building • Providing clear direction • Establishing shared goals and vision • Open communication • Reliable and timely information sharing	This study proposed six factors that can be used to assess the governance capacity of public policy networks, including: • the degree to which a network has social capital, such as an environment of trust between partners, transparency and active engagement by partners in decision-making; • the extent to which a network has been institutionalized with shared norms and procedures, distribution of capabilities and established areas of decision-making; • the sustainability of a network over time; • the presence of coordinating structures and tools, such as cooperation guidelines or contracts, or collegiate bodies, • the quality of internal and external communication between stakeholders; and • the quality and reliability of information shared between stakeholders.

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