Rapid Synthesis

Creating Rapid-learning Health Systems in Canada

Appendix B7: Quebec

10 December 2018

McMaster University | McMaster HEALTH FORUM

EVIDENCE >> INSIGHT >> ACTION

Rapid Synthesis:
Creating Rapid-learning Health Systems in Canada
Appendix B7: Quebec
90-day response

Lavis JN, Gauvin F-P, Mattison CA, Moat KA, Waddell K, Wilson MG, Reid R. Appendix B7: Quebec. In Rapid synthesis: Creating rapid-learning health systems in Canada. Hamilton, Canada: McMaster Health Forum, 10 December 2018.

Table 1: Assets and gaps at the level of Quebec's health system

Characteristic	Examples	Health-system receptors and supports	Research-system supports
Engaged patients: Systems are anchored on patient needs, perspectives and aspirations (at all levels) and focused on improving their care experiences and health at manageable per capita costs and with positive provider experiences	1) Set and regularly adjust patient-relevant targets for rapid learning and improvement (e.g., improvements to a particular type of patient experience or in a particular health outcome) 2) Engage patients, families and citizens in: a) their own health (e.g., goal setting; self-management and living well with conditions; access to personal health information, including test results) b) their own care (e.g., shared decision-making; use of patient decision aids) c) the organizations that deliver care (e.g., patient-experience surveys; co-design of programs and services; membership of quality-improvement committees and advisory councils) d) the organizations that oversee the professionals and other organizations in the system (e.g., professional regulatory bodies; quality-improvement bodies; ombudsman; and complaint processes) e) policymaking (e.g., committees making decisions about which services and drugs are covered; government advisory councils that set direction for (parts of) the system; patient storytelling to kick off key meetings; citizen panels to elicit citizen values) f) research (e.g., engaging patients as research partners; eliciting patients' input on research priorities) 3) Build patient/citizen capacity to engage in all of the above	• Carnet Santé Québec (launched in May 2018) allows patients to access their health information online (including medication, medical imaging tests, and lab tests) • Ministry of Health and Social Services (MSSS) and other healthcare organizations are regularly consulting user committees and resident committees about quality-improvement initiatives • The Act Respecting Health Services and Social Services indicates that boards of directors of integrated health and social-services centres, as well as boards of unamalgamated institutions must include one person designated by and among the members of the institution's users' committee • Some organizations use co-design and patient-partnership approaches in designing and evaluating policies, programs and services • The Partnership School led by the Centre of Excellence on Partnership with Patients and the Public (CEPPP), Direction collaboration et partenariat patient at the Faculty of Medicine at the Université de Montréal, or Université des patients à l'Université du Québec à Rimouski aim to build the capacity of patients and professionals to foster greater partnership • CEPPP has a growing database of patients who have signed up to act as patient partners in health-system initiatives • The MSSS produced guidelines for implementing patient partnership at all levels of the health system • Gaps may include the limited attention to engage citizens in policymaking and in the organizations that deliver care due to centralization reforms of the past decade (including shutting down the Commissaire à la santé et au bien-être du Québec which had a mandate to assess health-system performance and inform public debates based on citizens' values and concerns)	• Unité SOUTIEN SRAP du Québec and the CEPPP support masterclasses on the conduct and use of patient-oriented research (for patients as well as providers, policymakers and researchers), as well as patient-partnership projects and training workshops, and the national SPOR networks • Canada Research Chair in Shared Decision Making and Knowledge Translation, Canada Research Chair in Patient and Public Partnership, and Chaire de recherche sur l'engagement des citoyens et des patients dans la transformation des organisations et du système de santé are actively studying patient engagement • CEPPP has a growing database of individuals who have signed up to act as patient partners in research • CEPPP leads efforts to create a community of practice focused on the science and practice of patient partnership • Alliance Santé Québec aims to promote public- and patient-engagement mechanisms in research and innovation • Gaps may include the limited engagement of patients in setting research priorities, and the limited requirements or incentives for research groups to act on lessons learned about robust patient-engagement processes
Digital capture, linkage and timely sharing of relevant data: Systems capture, link and share (with individuals at all levels) data (from real-life,	1) Data infrastructure (e.g., interoperable electronic health records; immunization or condition-specific registries; privacy policies that enable data sharing) 2) Capacity to capture patient-reported experiences (for both services and	• Dossier Santé Québec is the province's clinical information system (launched across the province in 2013) • Tripartite agreement between the ministry, the Régie de l'assurance maladie du Québec, and the Institut national	• Plateforme apprenante pour la recherche en santé et services sociaux (PARS^3) (a project by Unité SOUTIEN SRAP Québec) aims to implement strategies and infrastructures to facilitate the access and use of administrative and clinical data from electronic medical

Characteristic	Examples	Health-system receptors and supports	Research-system supports
not ideal conditions) about patient experiences (with services, transitions and longitudinally) and provider engagement alongside data about other process indicators (e.g., clinical encounters and costs) and outcome indicators (e.g., health status)	transitions), clinical encounters, outcomes and costs 3) Capacity to capture longitudinal data across time and settings 4) Capacity to link data about health, healthcare, social care, and the social determinants of health 5) Capacity to analyze data (e.g., staff and resources) 6) Capacity to share 'local' data (alone and against relevant comparators) – in both patient- and provider-friendly formats and in a timely way – at the point of care, for providers and practices (e.g., audit and feedback), and through a centralized platform (to support patient decision-making and provider, organization and system-wide rapid learning and improvement)	d'excellence en santé et en services sociaux allowing access and analysis of clinical administrative data • Institut de la statistique du Québec (ISQ) and the MSSS developed a survey program to evaluate care experiences, the quality of services and met/unmet healthcare needs • Bureau d'information et d'études en santé des populations (BIESP), hosted by the Institut national de santé publique du Québec (INSPQ), brings together multidisciplinary professionals dedicated to the surveillance and epidemiological analysis of population health • The province has been participating in the Commonwealth Fund's International Health Policy Survey documenting adults' perception of the health system and their care experiences • Gaps may include the lack of requirements and incentives to document diagnostic codes; many clinics still using paper-based systems; the limited data being collected about patient-reported experiences and outcomes, about caregivers or about the broader social determinants of their health; the lack of consistent standards for what types of patient experience data to collect and how across sectors, conditions, treatments and populations (and the management, linkage, analysis and presentation of data are particularly under-developed in some of these areas, such as in the primary-care sector); and the limited staff and infrastructure to analyze and present locally contextualized data to support learning and improvement.	records, with the goal of generating research focused on patients and promoting reflective practice • Université de Montreal is a hub of research on artificial intelligence, which could be leveraged to create rapid-learning health systems • Gaps may include barriers to the timely access of data to conduct research (including the need for researchers to go through ethics committees and relevance committees, and the Commission d'accès à l'information du Québec tightening rules to access data even more in response to recent news that electronic medical record service providers were selling or cross-linking data)
Timely production of research evidence: Systems produce, synthesize, curate and share (with individuals at all levels) research about problems, improvement options and implementation considerations	1) Distributed capacity to produce and share research (including evaluations) in a timely way 2) Distributed research ethics infrastructure that can support rapid-cycle evaluations 3) Capacity to synthesize research evidence in a timely way 4) One-stop shops for local evaluations and pre-appraised syntheses 5) Capacity to access, adapt and apply research evidence 6) Incentives and requirements for research groups to collaborate with one another, with patients, and with decision-makers	• INESSS, INSPQ, Units for evaluating health technologies and intervention methods (UETMIS) in university hospitals, and other organizations have developed in-house capacity to conduct research syntheses (including systematic reviews and rapid reviews), as well as rapid-cycle evaluations • Gaps may include the limited access to clinical and administrative data, which impedes the timely production of research evidence	• Fonds de recherche du Québec – Santé (FRQS) provides financial support for the timely production of research evidence, as well as support to create partnerships with universities, colleges and healthcare institutions, and the various governmental departments and bodies • Unité SOUTIEN SRAP Québec is working through the ethical issues involved in rapid-learning health systems • Cochrane Canada Francophone is hosted by the Centre hospitalier universitaire de Québec-Université Laval and promotes the production and use of high-quality systematic reviews

Characteristic	Examples	Health-system receptors and supports	Research-system supports
			• PULSAR is a new a collaborative research and innovation space (hosted by Université Laval) bringing together actors from various backgrounds to improve people's health and well-being through concrete, meaningful actions • Gaps may include the legal and cultural shift necessary to facilitate the timely access to valid and reliable data; the challenges of maintaining long-term and meaningful research-policy partnerships; the limited capacity to use data from electronic health records to support reflexive learning (and value-based decision-making); and the challenges of recruiting clinician-scientists
Appropriate decision supports: Systems support informed decision-making at all levels with appropriate data, evidence, and decision-making frameworks	1) Decision supports at all levels – self-management, clinical encounter, program, organization, regional health authority and government – such as a) patient-targeted evidence-based resources b) patient decision aids c) patient goal-setting supports d) clinical practice guidelines e) clinical decision support systems (including those embedded in electronic health records) f) quality standards g) care pathways h) health technology assessments i) descriptions of how the health system works	• Many groups make recommendations to patients and providers about optimal care, for example: o INESSS and INSPQ produce guidelines; and o Decision Box at Université Laval is a one-stop shop of decision aids for professionals and patients • Some initiatives underway to ensure that electronic health records incorporate decision supports (e.g., Concerto in primary care, decision aids in prostate cancer) • INESSS and INSPQ have a formal role, and many other government-supported groups play an informal role, in providing data and research to inform managerial and policy decision-making (e.g., to inform decisions about which prescription drugs and which non-drug technologies to pay for publicly) • Québec Medical Association is coordinating Choosing Wisely Quebec to optimize clinical practice in partnership with the Direction collaboration et partenariat patient at the Faculty of Medicine at the Université de Montréal, the Alliance des patients pour la santé, and the faculties of Medicine at Université Laval and McGill University • INESSS and Units for evaluating health technologies and intervention methods (UETMIS) in university hospitals conduct health technology assessments to support decisions at all levels • Gaps may include a lack of easy-to-use tools to understand the added value of services (e.g., home care for the elderly), as well as the end of the Commissaire à	• Unité SOUTIEN SRAP Québec funds several research groups to provide support in the areas of health systems, knowledge translation and implementation • Gaps may include the limited use of systematic-review and clinical-guidelines expertise to support decisions at all levels.

Characteristic	Examples	Health-system receptors and supports	Research-system supports
		la santé et au bien-être du Québec which produced health-system performance reports	
Aligned governance, financial and delivery arrangements: Systems adjust who can make what decisions (e.g., about joint learning priorities), how money flows and how the systems are organized and aligned to support rapid learning and improvement at all levels	1) Centralized coordination of efforts to adapt a rapid-learning health system approach, incrementally join up assets and fill gaps, and periodically update the status of assets and gaps 2) Mandates for preparing, sharing and reporting on quality-improvement plans 3) Mandates for accreditation 4) Funding and remuneration models that have the potential to incentivize rapid learning and improvement (e.g., focused on patient-reported outcome measures, some bundled-care funding models) 5) Value-based innovation-procurement model 6) Funding and active support to spread effective practices across sites 7) Standards for provincial expert groups to involve patients, a methodologist, use existing data and evidence to inform and justify their recommendations 8) Mechanisms to jointly set rapid-learning and improvement priorities 9) Mechanisms to identify and share the 'reproducible building blocks' of a rapid-learning health system	• Stratégie de soutien à l'exercice de la responsabilité populationnelle (the population-based responsibility approach adopted in 2003) helps to guide health-system transformations • MSSS is providing guidance and mandating hospitals, long-term care homes and interprofessional team-based primary-care organizations to produce and share quality improvement plans (and to incorporate equity considerations in these plans) • Stratégie nationale 2018-2020 pour prévenir les surdoses d'opioïdes et y répondre is a comprehensive plan to align health-system strategies to address the opioid crisis and mobilize key stakeholders (monitoring and surveillance; interventions for overdose prevention and response and harm reduction; information and awareness activities; optimizing medical and pharmaceutical practices for opioids and pain management; access to integrated and responsive services for individuals requiring treatment for an opioid use disorder; training; research and evaluation) • COMPAS (Collectif pour les Meilleures Pratiques et l'Amélioration des Soins et Services), TRAUMA and other problem-focused initiatives addressing recent or current health-system priorities contribute to greater concertation and alignment • Gaps may include the centralization reforms of the last decade, which created a disconnect between the macro, meso and micro levels and larger organizations that are more difficult to coordinate (e.g., very large Centre intégré universitaire de santé et de services sociaux – CIUSSS - with multiple missions), and the challenge of coordinating clinical governance beyond healthcare organizations	• Quebec's Chief Scientist supports greater alignment by advising the Minister of Economic, Science and Innovation on matters pertaining to the development of science and research; directing the three Fonds in collaboration with their scientific directors, and chair their boards; and fostering inter-sectoral research.
Culture of rapid learning and improvement: Systems are stewarded at all levels by leaders committed to a culture of teamwork, collaboration and adaptability	1) Explicit mechanisms to develop a culture of teamwork, collaboration and adaptability in all operations, to develop and maintain trusted relationships with the full range of partners needed to support rapid learning and improvement, and to acknowledge, learn from and move on from 'failure'	• Director of Innovation in Health and Social Services within the MSSS (appointed in April 2018) has the mandate to coordinate efforts to accelerate the adoption of relevant and effective innovations • Gaps may include the current culture focusing on performance, as opposed to a culture promoting the use of reflexive data and partnership to improve the quality of care, and the lack of mechanisms that could foster such culture among health-system leaders	• Academic Health Centers in Canada: Prospects and Challenges for Learning Health Systems, a new research project funded by the Canadian Institutes of Health Research led by Jean-Louis Denis (principal researcher) aims to examine the conditions for implementing innovation in health systems

Characteristic	Examples	Health-system receptors and supports	Research-system supports
Competencies for rapid learning and improvement: Systems are rapidly improved by teams at all levels who have the competencies needed to identify and characterize problems, design data- and evidence-informed approaches (and learn from other comparable programs, organizations, regions, and sub-regional communities about proven approaches), implement these approaches, monitor their implementation, evaluate their impact, make further adjustments as needed, sustain proven approaches locally, and support their spread widely	1) Public reporting on rapid learning and improvement 2) Distributed competencies for rapid learning and improvement (e.g., data and research literacy, co-design, scaling up, leadership) 3) In-house capacity for supporting rapid learning and improvement 4) Centralized specialized expertise in supporting rapid learning and improvement 5) Rapid-learning infrastructure (e.g., learning collaboratives)	• Gaps may include the limited capacity to link and transform current data into reflexive data; the challenge of identifying the core competencies required to support a rapid-learning health system (including new competencies such as data visualization); the limited resources of many organizations to develop in-house capacities; and the need to engage colleges and universities to develop 21st-century professionals who will have the skills necessary to develop and implement a rapid-learning health system	• Réseaux Universitaire Intégré de Santé (RUIS) assigned to each of the province's four Faculties of Medicine (McGill University, Université de Montréal, Université de Sherbrooke and Université Laval) facilitates specialized care, medical education, and medical research across the province • Fonds de recherche du Québec – Santé (FRQS) provides financial support for the training of researchers through merit scholarships for graduate and postgraduate students and persons who engage in postdoctoral research, and through professional development scholarships for persons who wish to re-enter the research community • Unité SOUTIEN SRAP Québec offers various training that could support the development of rapid-learning health systems (e.g., training in systematic reviews, rapid reviews, economic evaluations, KT strategies, etc.)

Table 2: Assets and gaps in the primary-care sector in Quebec

Characteristic	Examples	Health-system receptors and supports	Research-system supports
Engaged patients: Systems are anchored on patient needs, perspectives and aspirations (at all levels) and focused on improving their care experiences and health at manageable per capita costs and with positive provider experiences	1) Set and regularly adjust patient-relevant targets for rapid learning and improvement (e.g., improvements to a particular type of patient experience or in a particular health outcome) 2) Engage patients, families and citizens in: a. their own health (e.g., goal setting; self-management and living well with conditions; access to personal health information, including test results) b. their own care (e.g., shared decision-making; use of patient decision aids) c. the organizations that deliver care (e.g., patient-experience surveys; co-design of programs and services; membership of quality-improvement committees and advisory councils) d. the organizations that oversee the professionals and other organizations in the system (e.g., professional regulatory bodies; quality-improvement bodies; ombudsman; and complaint processes) e. policymaking (e.g., committees making decisions about which services and drugs are covered; government advisory councils that set direction for (parts of) the system; patient storytelling to kick off key meetings; citizen panels to elicit citizen values) f. research (e.g., engaging patients as research partners; eliciting patients' input on research priorities) 3) Build patient/citizen capacity to engage in all of the above	• Institut universitaire de première ligne en santé et services sociaux supports the engagement of users, family members, citizens and communities in quality-improvement initiatives • Groupes de médecine de famille universitaire (GMF-U) across the province increasingly engage patient partners in their governance structures and processes	• Unité SOUTIEN SRAP Québec, which is focused on primary care, provides training and support for patient-oriented research and patient partnership in research • Réseau-1 Québec (R1Q) engages patients, clinicians, managers in its governance and strategic working groups, in setting research priorities; supports the inclusion of partners in front-line practice-based research networks (PRPPLs); and supports a forum of patient and clinician partners
Digital capture, linkage and timely sharing of relevant data: Systems capture, link and share (with individuals at all levels) data (from real-life, not ideal conditions) about patient experiences (with services, transitions and longitudinally) and	1) Data infrastructure (e.g., interoperable electronic health records; immunization or condition-specific registries; privacy policies that enable data sharing) 2) Capacity to capture patient-reported experiences (for both services and transitions), clinical encounters, outcomes and costs 3) Capacity to capture longitudinal data across time and settings	• Régie de l'assurance maladie du Québec (RAMQ) and MSSS share quarterly data on the primary-care sector, including: o percentage of people registered with a family doctor o average attendance rate of all family physicians with regard to their clientele o number of people enrolled in each family medicine group	• INESSS and Unité SOUTIEN SRAP Québec (in collaboration with Réseau-1 Québec and other key stakeholders) produced recommendations about the use of clinical data from electronic health records to conduct research and continuously improve the quality of primary-care services (in the context of a rapid-learning health system) • Unité SOUTIEN SRAP Québec is aiming to establish national and international

Characteristic	Examples	Health-system receptors and supports	Research-system supports
provider engagement alongside data about other process indicators (e.g., clinical encounters and costs) and outcome indicators (e.g., health status)	4) Capacity to link data about health, healthcare, social care, and the social determinants of health 5) Capacity to analyze data (e.g., staff and resources) 6) Capacity to share 'local' data (alone and against relevant comparators) – in both patient- and provider-friendly formats and in a timely way – at the point of care, for providers and practices (e.g., audit and feedback), and through a centralized platform (to support patient decision-making and provider, organization and system-wide rapid learning and improvement)	○ attendance rate of physicians in each family medicine group ○ total number of visits to the emergency department of a health and social services institution with a triage priority of level 4 or 5 ○ proportion of this number compared to all visits to the emergency department • INESSS defined quality indicators for professionals and managers in primary-care sector (focus on cardiovascular diseases, Type 1 and 2 diabetes in adults, dyslipidemia, and respiratory diseases) • Gaps may include the challenge of accessing electronic medical record data due to the diversity of existing systems, the complexity of the extraction process and the heterogeneity of the data	collaborations on infrastructure projects or secondary data analysis focused on primary care
Timely production of research evidence: Systems produce, synthesize, curate and share (with individuals at all levels) research about problems, improvement options and implementation considerations	1) Distributed capacity to produce and share research (including evaluations) in a timely way 2) Distributed research ethics infrastructure that can support rapid-cycle evaluations 3) Capacity to synthesize research evidence in a timely way 4) One-stop shops for local evaluations and pre-appraised syntheses 5) Capacity to access, adapt and apply research evidence 6) Incentives and requirements for research groups to collaborate with one another, with patients, and with decision-makers	• None identified	• Unité SOUTIEN SRAP Québec provides strategic consultation and support to primary-care researchers, and is leading work to facilitate and support the conduct of clinical and evaluative studies in real settings, including support in conducting pragmatic trials • Réseau-1 Québec (R1Q) is a knowledge network focused on producing and disseminating research evidence on integrated primary-care services; its work rests on two founding values (i.e., patient-oriented research 3.0 and practice-based research network approach) which aims to support rapid-learning health systems
Appropriate decision supports: Systems support informed decision-making at all levels with appropriate data, evidence, and decision-making frameworks	1) Decision supports at all levels – self-management, clinical encounter, program, organization, regional health authority and government – such as a. patient-targeted evidence-based resources b. patient decision aids c. patient goal-setting supports d. clinical practice guidelines e. clinical decision support systems (including those embedded in electronic health records) f. quality standards g. care pathways h. health technology assessments	• Concerto produces and supports the implementation of computerized care pathways designed for interdisciplinary practice in family medicine	• None identified

Characteristic	Examples	Health-system receptors and supports	Research-system supports
	i. descriptions of how the health system works		
Aligned governance, financial and delivery arrangements: Systems adjust who can make what decisions (e.g., about joint learning priorities), how money flows and how the systems are organized and aligned to support rapid learning and improvement at all levels	1) Centralized coordination of efforts to adapt a rapid-learning health system approach, incrementally join up assets and fill gaps, and periodically update the status of assets and gaps 2) Mandates for preparing, sharing and reporting on quality-improvement plans 3) Mandates for accreditation 4) Funding and remuneration models that have the potential to incentivize rapid learning and improvement (e.g., focused on patient-reported outcome measures, some bundled-care funding models) 5) Value-based innovation-procurement model 6) Funding and active support to spread effective practices across sites 7) Standards for provincial expert groups to involve patients, a methodologist, use existing data and evidence to inform and justify their recommendations 8) Mechanisms to jointly set rapid-learning and improvement priorities 9) Mechanisms to identify and share the 'reproducible building blocks' of a rapid-learning health system	• MSSS is providing guidance to interprofessional team-based primary-care organizations to produce and share quality-improvement plans (and to incorporate equity considerations in these plans)	• None identified
Culture of rapid learning and improvement: Systems are stewarded at all levels by leaders committed to a culture of teamwork, collaboration and adaptability	1) Explicit mechanisms to develop a culture of teamwork, collaboration and adaptability in all operations, to develop and maintain trusted relationships with the full range of partners needed to support rapid learning and improvement, and to acknowledge, learn from and move on from 'failure'	• A Quality Improvement Advisor and Continuous Quality Improvement Officers are in place as part of the Management Framework for University Family Medicine Groups (GMF-U). • The creation of Family Medicine Groups fostered distributed leadership in primary care, which could be leveraged to stimulate and support a rapid-learning health system	• None identified
Competencies for rapid learning and improvement: Systems are rapidly improved by teams at all levels who have the competencies needed to identify and characterize problems, design data- and evidence-informed approaches (and	1) Public reporting on rapid learning and improvement 2) Distributed competencies for rapid learning and improvement (e.g., data and research literacy, co-design, scaling up, leadership) 3) In-house capacity for supporting rapid learning and improvement 4) Centralized specialized expertise in supporting rapid learning and improvement	• INSPQ offers ad hoc support to public-health professionals to better assess the relevance and understand the implications of establishing communities of practice • INSPQ has implemented a continuing-education program (which includes the Journées annuelles de santé publique and a virtual campus)	• Réseau-1 Québec (R1Q) evaluates the capacity-building needs of its members; supports the development of skills by members in 3.0 patient-oriented research; promotes the development of a stimulating learning network and the dynamic exchange between the different members of the network; supports mentoring of members with respect to their research projects, training needs and career; strengthens the leadership of

Characteristic	Examples	Health-system receptors and supports	Research-system supports
learn from other comparable programs, organizations, regions, and sub-regional communities about proven approaches), implement these approaches, monitor their implementation, evaluate their impact, make further adjustments as needed, sustain proven approaches locally, and support their spread widely	5) Rapid-learning infrastructure (e.g., learning collaboratives)		members in research; creates partnerships (e.g., SPOR SUPPORT Units, TUTOR-PHC); and collaborates with other pan-Canadian SPOR networks to share and leverage resources and tools, and create a shared vision for capacity building. • International Research Community on Multimorbidity (hosted at the Université de Sherbrooke) is a virtual community bringing together researchers and healthcare professionals to contribute to new understandings and approaches to address multimorbidity in primary care

Table 3: Assets and gaps in the area of aging (or for the elderly population or a relevant 'problem focus,' such as frailty) in Quebec

Characteristic	Examples	Health-system receptors and supports	Research-system supports
Engaged patients: Systems are anchored on patient needs, perspectives and aspirations (at all levels) and focused on improving their care experiences and health at manageable per capita costs and with positive provider experiences	1) Set and regularly adjust patient-relevant targets for rapid learning and improvement (e.g., improvements to a particular type of patient experience or in a particular health outcome) 2) Engage patients, families and citizens in: a. their own health (e.g., goal setting; self-management and living well with conditions; access to personal health information, including test results) b. their own care (e.g., shared decision-making; use of patient decision aids) c. the organizations that deliver care (e.g., patient-experience surveys; co-design of programs and services; membership of quality-improvement committees and advisory councils) d. the organizations that oversee the professionals and other organizations in the system (e.g., professional regulatory bodies; quality-improvement bodies; ombudsman; and complaint processes) e. policymaking (e.g., committees making decisions about which services and drugs are covered; government advisory councils that set direction for (parts of) the system; patient storytelling to kick off key meetings; citizen panels to elicit citizen values) f. research (e.g., engaging patients as research partners; eliciting patients' input on research priorities) 3) Build patient/citizen capacity to engage in all of the above	• Resident committees in long-term care facilities have the mandate to promote quality improvement in order to improve the living conditions of residents, to evaluate residents' satisfaction, inform them about their rights and obligations, as well as to defend their collective rights and interests. • 18 tables de concertation des aînés bring together representatives of seniors and key stakeholders in their region concerned with the living conditions of seniors • PRISMA (a model of integrated service delivery for frail older people) emphasized the need to measure the satisfaction in regard to the services received, client empowerment and caregivers' burden (among other measures) • Gaps may include a lack of efforts to institutionalize the PRISMA model, and the lack of engagement of community organizations (and lack of recognition of their contributions)	• Centre AvantÂge (hosted by the Institut universitaire de gériatrie de Montréal) disseminates to the general public the most recent research evidence through conferences, training and workshops
Digital capture, linkage and timely sharing of relevant data: Systems capture, link and share (with individuals at all levels) data (from real-life, not ideal conditions) about patient experiences (with services, transitions and longitudinally) and	1) Data infrastructure (e.g., interoperable electronic health records; immunization or condition-specific registries; privacy policies that enable data sharing) 2) Capacity to capture patient-reported experiences (for both services and transitions), clinical encounters, outcomes and costs 3) Capacity to capture longitudinal data across time and settings 4) Capacity to link data about health, healthcare, social care, and the social determinants of health	• Système d'information clientèle en centre d'hébergement et de soins de longue durée (SICHELD) supports the provision of services to clients or users transitioning between the different missions of institutions in the health and social services network • MSSS has several indicators to assess its programs supporting the autonomy of seniors	• None identified

Characteristic	Examples	Health-system receptors and supports	Research-system supports
provider engagement alongside data about other process indicators (e.g., clinical encounters and costs) and outcome indicators (e.g., health status)	5) Capacity to analyze data (e.g., staff and resources) 6) Capacity to share 'local' data (alone and against relevant comparators) – in both patient- and provider-friendly formats and in a timely way – at the point of care, for providers and practices (e.g., audit and feedback), and through a centralized platform (to support patient decision-making and provider, organization and system-wide rapid learning and improvement)	• No system in private nursing homes and assisted living facilities to capture, link and timely share relevant data • ICLSC (Système d'information sur la clientèle et les services) provides data on requests for services, users and interventions (including services to support the autonomy of older adults) • Gaps may include the lack of culture (and political will) among some health-system leaders to systematically use data to improve the quality of care (e.g., no changes being made to home-care supports despite the PRIMSA initiative, and the determination of the functional autonomy profiles indicating that we do not provide home-care supports to those most in need); the lack of user friendly formats to present reflexive data; and the Secrétariat du Québec aux relations canadiennes which may constitute an obstacle to sharing relevant data with other Canadian jurisdictions	
Timely production of research evidence: Systems produce, synthesize, curate and share (with individuals at all levels) research about problems, improvement options and implementation considerations	1) Distributed capacity to produce and share research (including evaluations) in a timely way 2) Distributed research ethics infrastructure that can support rapid-cycle evaluations 3) Capacity to synthesize research evidence in a timely way 4) One-stop shops for local evaluations and pre-appraised syntheses 5) Capacity to access, adapt and apply research evidence 6) Incentives and requirements for research groups to collaborate with one another, with patients, and with decision-makers	• None identified	• Fonds de recherche du Québec – Santé (FRQS) identified aging as a priority research area • INSPQ leads ongoing knowledge translation activities related to aging, including KT activities for CISSS or CIUSSS and other partners on the social isolation of seniors, a scientific watch on some components of healthy aging (physical activity, healthy eating, social participation and others), and provides support to the MSSS, CISSS or CIUSSS and other partners on healthy aging interventions • Réseau québécois de recherche sur le vieillissement supports interdisciplinary research on aging, promotes the development of research capacity, and fosters the creation of research partnerships on aging
Appropriate decision supports: Systems support informed decision-making at all levels with appropriate	1) Decision supports at all levels – self-management, clinical encounter, program, organization, regional health authority and government – such as a. patient-targeted evidence-based resources b. patient decision aids	• Multiclientele Assessment Tool introduced by the MSSS is an integrated tool to assess the needs of people with loss of autonomy and to identify the services they need (especially in institutions or at home)	• None identified

Characteristic	Examples	Health-system receptors and supports	Research-system supports
data, evidence, and decision-making frameworks	c. patient goal-setting supports d. clinical practice guidelines e. clinical decision support systems (including those embedded in electronic health records) f. quality standards g. care pathways h. health technology assessments i. descriptions of how the health system works		
Aligned governance, financial and delivery arrangements: Systems adjust who can make what decisions (e.g., about joint learning priorities), how money flows and how the systems are organized and aligned to support rapid learning and improvement at all levels	1) Centralized coordination of efforts to adapt a rapid-learning health system approach, incrementally join up assets and fill gaps, and periodically update the status of assets and gaps 2) Mandates for preparing, sharing and reporting on quality-improvement plans 3) Mandates for accreditation 4) Funding and remuneration models that have the potential to incentivize rapid learning and improvement (e.g., focused on patient-reported outcome measures, some bundled-care funding models) 5) Value-based innovation-procurement model 6) Funding and active support to spread effective practices across sites 7) Standards for provincial expert groups to involve patients, a methodologist, use existing data and evidence to inform and justify their recommendations 8) Mechanisms to jointly set rapid-learning and improvement priorities 9) Mechanisms to identify and share the 'reproducible building blocks' of a rapid-learning health system	• Secrétariat aux aînés offers a horizontal vision of seniors' issues and develops strategies and actions that promote optimal aging (hosted by the ministère de la Famille). • Ministère de la Famille supports the social, economic and professional contribution of seniors (with a focus on the social aspects of aging), and has three subcommittees (subcommittee of non-governmental partners working with seniors; subcommittee of senior representatives; and subcommittee of stakeholders conducting research and offering practical support to seniors) • Plan d'action 2018-2023 - Un Québec pour tous les âges (the first government policy on aging) may provide greater alignment	• Quebec's Chief Scientists identified demographic changes and aging as key research priorities, which may help to foster greater alignment and inter-sectoral approaches
Culture of rapid learning and improvement: Systems are stewarded at all levels by leaders committed to a culture of teamwork, collaboration and adaptability	1) Explicit mechanisms to develop a culture of teamwork, collaboration and adaptability in all operations, to develop and maintain trusted relationships with the full range of partners needed to support rapid learning and improvement, and to acknowledge, learn from and move on from 'failure'	• None identified	• None identified
Competencies for rapid learning and improvement: Systems are rapidly improved by teams at all levels who have the competencies	1) Public reporting on rapid learning and improvement 2) Distributed competencies for rapid learning and improvement (e.g., data and research literacy, co-design, scaling up, leadership)	• Réseau sur le vieillissement et les changements démographiques was established by the MSSS as a knowledge translation mechanism on aging-related issues and demographic changes for researchers, professionals and educators	• None identified

Characteristic	Examples	Health-system receptors and supports	Research-system supports
needed to identify and characterize problems, design data- and evidence-informed approaches (and learn from other comparable programs, organizations, regions, and sub-regional communities about proven approaches), implement these approaches, monitor their implementation, evaluate their impact, make further adjustments as needed, sustain proven approaches locally, and support their spread widely	3) In-house capacity for supporting rapid learning and improvement 4) Centralized specialized expertise in supporting rapid learning and improvement 5) Rapid-learning infrastructure (e.g., learning collaboratives)		

McMaster University

McMaster HEALTH FORUM

>> Contact us

1280 Main St. West, MML-417
Hamilton, ON, Canada L8S 4L6
+1.905.525.9140 x 22121
forum@mcmaster.ca

>> Find and follow us

mcmasterforum.org
healthsystemsevidence.org
mcmasteroptimalaging.org

mcmasterforum

FORUM+

McMaster University