

Rapid Synthesis

Lessons from COVID-19: Leveraging Integrated Care During Ontario's COVID-19 Response

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HEALTH FORUM



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Rapid Synthesis:
Lessons from COVID-19: Leveraging Integrated Care During Ontario's COVID-19 Response
30-day response

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Rapid-Improvement Support and Exchange

RISE's mission is to contribute to the Ontario Ministry of Health's 'one window' of implementation supports for Ontario Health Teams by providing timely and responsive access to Ontario-based 'rapid-learning and improvement' assets.

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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 (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. How have efforts towards integrated care in Ontario Health Teams intersected with responses to the pandemic?
2. What lessons have been learned to support pandemic responses and integrated care in Ontario going forward?

Why the issue is important

- In Ontario, the first 24 Ontario Health Teams were in the very early stages of implementation when the pandemic was declared, while others were preparing or revising their applications.
- As the province takes stock of the initial response to the pandemic and the subsequent waves of increasing cases, Ontario Health Teams and provincial supports have an opportunity to consider whether and how the building blocks of integration and principles of population health management can be used going forward.

What we found

- We conducted 22 key informant interviews with stakeholders in Ontario, including 17 with policymakers, leaders from Ontario Health Teams, healthcare organizations and associations, and patient and caregiver advocates, as well as five interviews with international or inter-provincial key informants.
- In addition to key informant interviews, we identified three rapid reviews, 16 journal publications (which were primarily case descriptions and commentaries), and four grey literature reports related to integrated care during COVID-19 locally and internationally.
- Findings related to question 1 suggest that efforts towards integrated care among Ontario Health Teams (OHTs) have intersected with responses to the COVID-19 pandemic in a number of domains:
 - in-scope services were expanded to address emergent COVID-specific needs, but the home and community-care sector was not fully leveraged or supported;
 - although patients, families and caregivers were left out of pandemic planning in many OHTs, some innovative strategies for engagement were developed;
 - proactive outreach to at-risk patients supported patient experiences in some OHTs and represents a missed opportunity in others;
 - virtual care was rapidly adopted and continues to face challenges including interoperability and the need for investment to support sustainability;
 - previously established relationships were a key facilitator of continued collaborative governance during the pandemic; and
 - targeted emergency funding was perceived to have been uneven in its effects.
- Findings related to question 2 provide lessons learned in the first wave of COVID-19 in Ontario that can support pandemic responses and integrated care in Ontario going forward:
 - starting from a perspective of protecting the vulnerable (instead of a perspective of managing a surge) will require focusing on supporting home and community care, long-term care and addressing mental health needs, along with partnerships and resources addressing the social determinants of health;
 - patients and families must be at the table and involved in developing the broader vision for OHTs;
 - realizing the value of digital health tools will require an understanding of the opportunities and limits of digital care, recognizing that digital care may need to be adapted for particular types of care and populations
 - centralized leadership and local knowledge are both critical to effective planning and management of the pandemic;
 - facilitating integrated care during COVID-19 requires activities at multiple levels (e.g., provincial, regional, and local levels) to ensure the right resources and players are involved; and
 - at the provincial level, building stability into integrated funding packages, and flexibility into rules, will maximize the agility of teams' responses.

QUESTIONS

1. How have efforts towards integrated care in Ontario Health Teams intersected with responses to the COVID-19 pandemic?
2. What lessons have been learned to support pandemic responses and integrated care in Ontario going forward ?

WHY THE ISSUE IS IMPORTANT

Prior to the pandemic, 24 Ontario Health Teams (OHTs) were in the very early stages of implementation. These teams comprise voluntary, intersectoral networks of health organizations that at maturity will provide integrated care across the full continuum of health services and jointly work towards achieving quadruple-aim outcomes (improved patient outcomes and experiences, controlled costs, and improved provider experiences).

However, addressing the new context of COVID-19 and related emergent objectives will require revisiting OHT's plans for moving towards an integrated approach. Across the health system, unprecedented steps were taken to ensure acute-care capacity, mobilize human and technical resources, and limit and prevent the spread of infection among patients and providers. This enormous undertaking required all players in the health system to focus on the pandemic.

The pandemic is ongoing and dynamic. However, lessons related to integrated care from the first wave can inform planning for current and future resurgence. In Ontario (1) and internationally,(2; 3) organizations and researchers have argued that population-based integrated care can play a role in managing COVID-19, through ensuring data-driven, collaboratively led, and co-designed approaches that cross sectors and address equity, social determinants, and population-specific needs. As the province takes stock of the initial months of the pandemic, OHTs and associated provincial supports have an opportunity to consider whether and how the framework set out for integrated care in the province and the principles of population health management can be used to navigate a way forward.

In this synthesis, we consider intersections between integrated care and responses to the COVID-19 pandemic in Ontario and beyond. We then summarize key lessons identified by key informants that can inform planning for subsequent waves of COVID-19.

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.

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

This rapid synthesis was prepared over a 30-business-day timeframe and involved four steps:

- 1) submission of a question from a policymaker or stakeholder (in this case, an Ontario Health Team);
- 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.

WHAT WE FOUND

We conducted 22 key informant interviews with integrated care stakeholders in Ontario, including policymakers, leaders from Ontario Health Teams, healthcare organizations, and associations, and patient and caregiver advocates. We also included five interviews with international and inter-provincial key informants. We did not conduct key informant interviews with public-health professionals or front-line providers given their focus on the pandemic response. In addition to key informant interviews, we searched the COVID-END guide to evidence sources, along with the websites of key organizations in Ontario and internationally. We identified three rapid reviews, 16 journal publications (which were primarily case descriptions and commentaries), and four grey literature reports. Data extracted from this literature can be found in Appendix 1, which includes rapid reviews and systematic reviews; Appendix 2, which includes journal publications and grey literature relating to Ontario; and Appendix 3, which includes journal publications and grey literature relating to international jurisdictions.

Question 1: How have efforts towards integrated care in Ontario and elsewhere intersected with responses to the COVID-19 pandemic?

Broadly, we found that organizations were able to draw on OHT structures and processes when these had been already entrenched, and that they retreated from integrated care when this was not the case. For instance, in organizations with well-developed mechanisms for patient, family and caregiver engagement, this work was pursued throughout the first wave of the pandemic. On the other hand, patients, families and caregivers were often left out of pandemic planning in organizations that did not have established structures in place to facilitate their engagement. Similar patterns were observed with respect to integrated governance and decision-making amongst OHT partners. While not limited to OHTs, some partnerships built on Indigenous-led governance models in response to the pandemic, while more nascent partnerships without established structures and processes in place suffered under the strain brought on by the pandemic.

Below we highlight intersections between integrated care and pandemic responses. We address the six building blocks (out of eight; see Table 1 for full list of building blocks) where multiple key informants described activities relating to the pandemic. Within each building block, we consider activities in Ontario, other Canadian jurisdictions, and other countries, where applicable. In Table 1, below, we highlight strategies facilitating integrated care during the pandemic within each building block, with illustrative examples of these strategies (or missed opportunities to use these strategies).

Building block #2: In-scope services

In Ontario, key informants described new or adaptations to existing partnerships that emerged during the pandemic to ensure services addressed specific, emergent needs. The crisis in long-term care, with devastating outbreaks occurring across the province, led to partnerships between acute care and long-term care settings.

Box 2: Identification, selection and synthesis of research evidence

We identified documents addressing the question by searching [the guide to key COVID-19 evidence sources](#) on 15 June 2020, with an updated search on 22 September, 2020. In addition, we searched grey literature from key organizations in Ontario.

The results from the searches were assessed by one reviewer for inclusion. A document was included if it addressed integrated care during the COVID-19 pandemic.

For each 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, 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 extracted information to develop a synthesis of the key findings from the included reviews and primary studies.

We also conducted 17 key informant interviews with integrated care stakeholders in Ontario, including policymakers, leaders from Ontario Health Teams, health care organizations, and associations, and patient and caregiver advocates. Based on these interviews, we reached out to an additional four Ontario-based key informants associated with innovative pandemic responses identified in the first wave of interviews. Findings related to these innovative practices are attributed to specific organizations in the text. We also included five interviews with international or inter-provincial key informants.

Hospitals, within and outside of OHTs, offered infection prevention and control support, human resources, and protective equipment to long-term care homes. In another instance, a home-care agency and rehabilitation hospital collaborated to provide physical space and support to evacuated long-term care residents. One key informant from a community-based organization described reaching out to hospitals for support, including partnering with a hospital to offer universal testing in a specific residential setting. Other organizations extended their services to encompass social determinants of health, particularly when public-health measures had an impact on services addressing social needs. One key informant commented on the increased burden on those still active in community sectors, such as community health centres, who took on expanded roles and partnerships to address social determinants of health not traditionally addressed by the health system (such as providing food, organizing housing for seniors, etc.). In more remote areas, key informants shared that much of this work was done while organizations were still trying to secure adequate personal protective equipment for their staff.

A number of key informants stressed that the focus on acute care during the initial phases of the pandemic led to an under-utilization of the home and community-care sector's capacities. Key informants from home-care organizations stated that the sector has the ability to offload pressures that have an impact on acute care by providing support to patients in the home whenever possible. This was especially true in light of declining home-care volumes due to delayed elective procedures. Key informants suggested this capacity went unused both because home and community care received little focus in the planning process, and because issues accessing personal protective equipment prevented the full deployment of the sector's human resources. Key informants noted that the home and community-care sector serves individuals with additional vulnerability to COVID-19, due to age or chronic conditions. The sector's exclusion from many planning tables was identified as a key missed opportunity to protect vulnerable Ontarians. However, many expressed optimism that planning for a second wave was already taking these lessons into account. Key informants also pointed to innovative home and community-care programs that were able to maintain continuity of care throughout the initial wave of the pandemic. For instance, Southlake@home in the York region of Ontario, offers coordinated care to patients with complex needs following hospital discharge. Even prior to the pandemic, personal-support workers were hired into the program on a full-time basis. This ensured continuity during periods of changing rules around home and community-care staffing.

Key informants in other provinces and countries highlighted the importance of including public health in integrated responses. Alberta Health Services, which coordinates health services across the province, includes public health under its umbrella. This was deemed to be absolutely essential by key informants from the province, who noted that it facilitated seamless communication. The importance of integrating public health and healthcare was also identified by a key informant speaking to the Australian response, who noted that while health services in the country are not broadly integrated, hospitals and public-health units are both based in local health departments and this enabled better joint working and an improved response to the pandemic.

Building block #3: Patient partnership and community engagement

Patients, families and caregivers were left out of pandemic planning in many OHTs. Under crisis conditions, organizations prioritized rapid and centralized decision-making and focused on infection prevention and control and surge capacity. In some cases, this shift in priorities meant that patient and family advisors as well as community members were excluded from decision-making processes altogether. This was particularly critical with respect to decisions relating to family and caregiver access to healthcare settings. A key informant expressed that these measures did not take into account the full balance of risks and benefits involved in family and caregivers' presence in healthcare settings. This key informant suggested that engaging patients, families and caregivers in planning around caregiver access during future waves of the pandemic can contribute to better patient care and more manageable demands on providers, through caregiver contributions to meeting patients' needs and care coordination.

Key informants further noted that organizations had varying interpretations of, and responses to, ministry directives around caregiver access. One key informant attributed this variation to a number of factors including some organizations acting more cautiously because of high rates of COVID-19 regionally or sectorally (especially in long-term care). Organizational culture was described as a critical enabler of more flexible responses: some organizations were able to interpret ministry directives around visitation in light of local risk and need. Creative solutions included implementing programs that formalize the role of caregivers on inpatient care teams. At Hotel-Dieu Grace Healthcare in Windsor, patient and family advisor members were included on the incident-management response team, with one team chief assigned to facilitating their involvement. These advisors were key players in the development of a “designated care partner” program whereby patients with high needs can nominate a “designated care partner” who receives infection prevention and control training, wears an ID badge, and functions as a member of the care team, including when visitor restrictions are in place.

Two rapid reviews addressed patient, caregiver and community engagement during the COVID-19 pandemic internationally. One low-quality rapid review on patient and caregiver engagement during COVID-19 identified studies focused on involving patients in their own care through the use of decision supports, and increasing communication between providers and caregivers, while another study reported on creating space for reflexive practice for practitioners. No studies addressed patient or caregiver engagement at organizational or system levels.(4) Meanwhile a medium-quality rapid review produced by the K2P Centre in Lebanon addressed community-centred responses to the COVID-19 pandemic with a focus on the Eastern Mediterranean region. The review argues for an approach driven by community health needs, aligned with community values and preferences, and provided in community settings. It recommends leveraging community leaders in information-sharing, deploying lay workers to support contact tracers and case finding, developing community-based isolation sites and triage mechanisms, and using community assets and networks to offset the social impacts of public-health measures.(5)

Building block #4: Patient care and experience

Patient care and experiences within OHTs varied during the initial wave of COVID-19 as organizations were able to adopt varying levels of population-level approaches to their pandemic responses. One key informant described efforts to build a COVID-specific care pathway, involving primary care, community paramedicine, and acute care. Some organizations, including public health, were able to engage in proactive outreach to patients who were known to be at risk (either to COVID-19 or to deterioration) due to health or social factors, because these high-risk patients had long been a focus of the organization’s care. For instance, in one organization, an existing focus on specialized geriatrics meant that isolated seniors in the community were already known to clinical providers. However, a key informant from another organization noted that providers did not proactively identify and follow up with patients at risk of deterioration. Some of these patients delayed seeking care during the initial wave of the pandemic, and experienced worsening health as a result.

Internationally, available literature described innovations in patient care during COVID-19. These innovations included care pathways for COVID-19 patients: in the United Kingdom, a pathway was developed with entry points in both acute and primary care to offer multidisciplinary rehabilitation to patients following COVID-19(6), while in France, regional geriatric consultation teams were developed to provide guidance on referral pathways for older adults with COVID-19.(7) Pathways were also developed to enhance bed capacity, such as a “Discharge-to-Assess” pathway in the United Kingdom.(8) Other approaches were tailored to specific vulnerable populations. In Singapore, a centralized command centre was developed to address the needs of long-term care facilities and residents, while community outreach teams were deployed to support seniors in the community.(8) A centralized response was also deployed to support skilled nursing facilities in Seattle, Washington, where collaboration with public health was also deemed to be important in protecting residents.(10) Meanwhile, Veterans Affairs Greater Los Angeles Healthcare System reached out to 25 community long-term care providers to offer infection prevention and control expertise, support for surveillance testing, and twice-daily telephone consultation.(11) In New Jersey, social barriers to care rendered

the Latino population particularly vulnerable. Social-service organizations, which benefitted from greater public trust than government agencies, partnered with student volunteers to offer check-ins and navigation support to Latino COVID-19 patients.(12) A medium-quality rapid review on palliative care during epidemics and pandemics suggested that palliative-care needs must be considered when planning for care during COVID-19. The review found that integrating palliative approaches during pandemics and epidemics requires palliative-care teams to work across sectors and settings, and may be facilitated by shifting resources from inpatient to community settings, and training and deploying non-specialist staff.(9)

Building block #5: Digital health

The rapidly accelerated switch to virtual care during the pandemic has been widely noted. Multiple key informants commented on high rates of uptake – up to 100% for physicians in some organizations. Beyond patient-facing virtual solutions, one key informant noted that hospitals were able to adopt data systems that enabled better tracking of patient journeys within the hospital. Some of this rapid adoption was supported by system-level elements that had been in place before the pandemic. A digital collaborative convened before the pandemic to coordinate OHTs’ work towards digital health was used as a site for information-sharing and learning early in the pandemic. However, as organizations became overwhelmed by other COVID-related demands, monthly meetings of this collaborative dropped off.

Some challenges in digital health that predated the pandemic continued to present barriers during the initial phases of the response. In particular, organizations still contended with fragmented electronic health records that were not interoperable across organizations or sectors. This was particularly frustrating for those providers working across sectors such as between a primary-care practice and long-term care homes. Access to data was also a challenge, as OHTs did not have access to current data on their attributed populations, including COVID-specific data. Key informants suggested that while the pandemic demonstrated the versatility and feasibility of digital health, strategic investment will be required to address these entrenched barriers and to ensure sustainability of gains.

Three American studies addressed digital health in integrated care organizations during the COVID-19 pandemic. Health+ in New York aimed to improve efficiency through standardized templates and order sets, and ensured consistent communication between an informatics leadership team and key clinical areas.(13) The Carequality interoperability framework, in place prior to the pandemic, facilitated information-sharing across hospital systems.(13) In Colorado, uptake of digital health at UCHHealth was facilitated by flexible, rapid onboarding. Innovative uses of digital platforms included asynchronous physician collaboratives for information-sharing, and deployment of nurses who worked remotely to access digital charts and communicate with family members of patients.(14) In Virginia, the transition to telepsychology was facilitated by in-house technical expertise, while barriers included social concerns such as patient access to technology and the unavailability of a safe space for making sensitive phone calls.(15) It was noted that some benefits of integrating mental and physical healthcare, such as scheduling tandem visits, were lost during the transition to virtual care.(15)

Building block #6: Leadership, accountability and governance

Leadership, accountability and governance enabled integrated care during COVID-19 in organizations where collaborative governance structures were well-established prior to the pandemic. Both well-established formal structures and established interpersonal relationships were critical in continued collaborative governance. One key informant stated that “working with people we already knew” allowed an intersectoral coordinating council to continue their work throughout the first wave. Another key informant noted this pattern of continuation of previous strong relationships (and retreat from newer ones, as discussed below) in the context of partnering with Indigenous communities. Some pre-existing relationships that supported pandemic responses were developed prior to the formation of OHTs. Other relationships were at a broader regional level. For instance, a Local Health Integration Network (LHIN) forum for hospital CEOs also facilitated a regional hospital response: hospitals across the area were able to generate new capacity collaboratively in

anticipation of a surge. In another instance of repurposing relationships at the LHIN level, Waypoint Centre for Mental Health Care – the regional lead for mental health and addictions in the North Simcoe Muskoka LHIN area – used existing and new relationships to create a toolkit for reopening mental health and addiction services. The toolkit draws on examples across the new central health region. These regional responses were able to support pandemic-related activities within OHTs and their constituent organizations.

While established relationships were repeatedly noted as a facilitator of collaborative governance during the pandemic, novel partnerships were also leveraged or developed to address pandemic-specific needs. Some of these partnerships were local and highly targeted in nature, supporting activities including the evacuation of long-term care homes, surveillance screening in congregate-living environments, and sharing of resources related to infection prevention and control. Others were much broader. Some health regions formed “triads” representing public health, primary care, and acute care within sub-regions. These triads then coordinated responses within their designated areas, drawing on expertise and connections across the three represented sectors. For instance, the triads in one LHIN managed long-term care staffing and community-based infection prevention and control needs. Memoranda of understanding that had been developed during OHT formation enabled sharing personal protective equipment (PPE) and resources across organizations. The East Toronto OHT undertook focused initiatives to ensure that congregate housing and other vulnerable settings were fully equipped with PPE early on in the pandemic. In some regions, while primary-care providers largely procured their own PPE, they also collaborated with system partners to address supply-chain bottlenecks. Emergency measures that loosened restrictions imposed by collective agreements also enabled organizations to collaborate to address pandemic-related needs by facilitating the staff redeployment across organizations to support critical functions. While organizations are typically limited in the roles into which unionized staff can be placed, the temporary lifting of these rules meant that staff could be deployed as needed.

However, integrated leadership, accountability and governance were either not leveraged or not sufficiently established in all OHTs: especially where OHTs were built on newer collaborations, organizations retreated from joint governance, and moved towards command-and-control approaches during the initial phases of the crisis. Key informants described this as a mechanism to seek stability by working with familiar structures and people. Where OHT governance tables were repurposed as COVID-19 coordination tables, processes deviated from OHT approaches as not every involved organization was given a voice at the table. Moreover, one key informant noted that ‘good will’ to share resources among organizations was insufficient in teams that did not have fully established structures to do so. Another informant shared that the pandemic arrived just as trusting relationships were being formalized, but that under the pressures of the pandemic, these efforts did not translate into greater coordination or communications. In fact, it was noted that some partners may have since abandoned previous efforts at collaborative governance. A key informant described how the extraordinary pressures imposed by COVID-19 prompted their organization to re-evaluate OHT relationships and reconsider which collaborations were valuable in terms of resources, opportunities and mutual trust. This review prompted the organization to prune a less valuable relationship, thus ensuring that all possible energy, focus and time could be devoted to ensuring patient safety.

Multiple key informants noted that COVID-19 planning and decision-making across the province centred on hospitals. While this resonated with some key informants as hospitals were among the most affected by the pandemic, other key informants suggested that this detracted from the promise of intersectoral collaborative governance. One key informant even described the response as “pitting sectors against each other,” noting that at the start of the pandemic, community agencies like shelters and group homes were competing with healthcare agencies for scarce PPE resources, and that testing was not uniformly available across health and social services. Another key informant questioned the hospital-centred approach and suggested that hospitals do not have full knowledge of relevant aspects of home and community care and long-term care, including how infection prevention and control is accomplished in home, community and congregate settings. Consequently, decisions made in a hospital-led response may not reflect the unique needs of these sectors. Meanwhile a third key informant from the hospital sector stressed that the hospital-centred response was also a problem for hospitals themselves: the hospital sector was asked to support staffing, testing, and other systemic needs while also addressing the urgent demands within acute care.

Key informants in Alberta, which has a single health authority, called attention to the importance of centralized leadership and clear messaging and accountability. They noted that having a single health authority made it easier to rapidly reach consensus on urgent issues, ensured consistent policies and procedures, and facilitated procurement of testing resources and PPE. A key informant commented that clear lines of communication meant “everyone knew what everyone was doing,” leading to a more seamless response across the province. Meanwhile, although primary care operates outside of the Alberta Health Service, stronger relationships between the sector and the health authority were built during the pandemic. These relationships facilitated planning for how to care for COVID-19 patients in the community, how to manage outbreaks, and how to ensure primary-care providers had access to testing results. As such, pandemic responses were able to mobilize resources through centralized channels, while drawing on the deep community knowledge and relationships within primary care.

Internationally, key informant interviews called attention to issues of governance at both organizational and jurisdictional levels. One key informant in the United Kingdom shared the example of a strong integrated response in a Clinical Commissioning Group. Prior to the pandemic, work was underway to integrate management and funding, and to develop pathways across acute and community care including mental health care. At the onset of the pandemic, the systems development team that was supporting this work shifted from monthly to daily meetings, with a focus on preventing hospitalization and protecting socially and medically vulnerable patients. The key informant described a galvanizing sense of shared purpose and urgency among organizational leaders, that facilitated a rapid and effective shift in purpose. However, another key informant noted that at a national level, England in particular had a very fragmented response to the pandemic. While some innovation occurred at a national level (for example, informational letters were sent to all patients deemed vulnerable on the basis of administrative data), this key informant suggested that concerns around data transfer and unclear lines of accountability led to substantial challenges. For instance, a third party was contracted to conduct tests, but information was not shared with local governments, primary-care providers lacked mechanisms to refer to for testing, and confusion existed around responsibility for contact tracing. This same key informant suggested that strong leadership was sufficient to overcome a lack of integrated care, offering examples including Germany and Scotland: while healthcare in these countries is not broadly integrated, a clear policy strategy was developed at the national level that facilitated a more coherent response. The key informant also argued that strong integrated care was not sufficient for an effective pandemic response in the absence of strong leadership.

Building block #7: Funding and incentive structures

Targeted emergency funding introduced to support pandemic-related initiatives was perceived to have limited the capacity of some organizations to meet population needs. For example, a key informant noted that their organization was ineligible for virtual-care funding that was specific to OHTs and, as such, did not receive funding to support its transition to virtual care. They commented that it was difficult to predict whether organizations would be eligible for special funding. Another key informant noted that emergency funding was not offered to some community-based agencies, similarly leading to difficulties in effectively planning a response. Funding and incentive structures also posed a challenge in primary care, where reimbursement delays affected the viability of some independent practices. Moreover, key informants also noted that while adaptable and short-term emergency funding was critical, future funding sources will need to be stable and predictable in order to facilitate proactive, longer-range planning. Finally, a key informant saw the roll-out of testing capacity within privately run pharmacies as a missed opportunity to leverage and strengthen existing publicly funded infrastructure.

Meanwhile, existing funding models also presented challenges to pandemic responses. One key informant noted that funding models did not take into account the higher costs of providing in-person care during the pandemic. In particular, PPE costs increased substantially, but this was not taken into account. Meanwhile, for home-care organizations with volume-based funding, the drop in volume created by postponing elective procedures in hospital threatened their financial viability. Another key informant noted that OHTs did not

have funding mechanisms in place to hire additional staff or to shift funds around internally, and suggested that this limited their abilities to respond to pandemic-related needs.

Table 1: Strategies facilitating integrated pandemic responses by OHT building block

OHT building block	Strategies facilitating integrated pandemic responses	Illustrative example
BB #1: Defined patient population	<ul style="list-style-type: none"> Identifying vulnerable populations Considering social vulnerabilities 	<ul style="list-style-type: none"> Drawing on relationships with known vulnerable clients to conduct proactive outreach to isolated seniors Building partnerships and services based on social determinants of health relevant to the patient population
BB #2: In-scope services	<ul style="list-style-type: none"> Partnering with public health Partnering with long-term care Focusing on home and community care 	<ul style="list-style-type: none"> Enhanced partnerships with public health and long-term care along with social services Previous full-time hiring of PSWs enabled uninterrupted provision of coordinated post-discharge care in Southlake@home
BB #3: Patient partnership and community engagement	<ul style="list-style-type: none"> Maintaining patient, family and caregiver engagement Developing visitation policies addressing both infection, prevention and control concerns and the essential role of caregivers 	<ul style="list-style-type: none"> Implementation of caregiver ID programs “Designated care partners” at Windsor Hotel-Dieu Grace Healthcare: high-needs individuals nominate a designated care partner who receives IPAC training and ID, and who is considered a team member, not a visitor Assigning responsibility for patient, family and caregiver engagement to members of crisis planning teams
BB #4: Patient care and experience	<ul style="list-style-type: none"> Providing continuity of care for patients with chronic conditions and/or social vulnerabilities Co-designing COVID-19 care pathways 	<ul style="list-style-type: none"> Missed opportunity to proactively identify and follow up with patients at risk of deterioration Development of COVID-19 care pathway involving primary care, community paramedicine, and acute care Missed opportunities for co-design in the development of services addressing pandemic-specific needs
BB #5: Digital health	<ul style="list-style-type: none"> Adopting virtual care Using unified digital health tools 	<ul style="list-style-type: none"> Implementation of new remote care-monitoring initiative using a regional approach to ensure coordination across organizations
BB #6: Leadership, accountability and governance	<ul style="list-style-type: none"> Collaborating equitably across sectors (including public health, home and community 	<ul style="list-style-type: none"> Triads representing public health, primary care, and acute care

OHT building block	Strategies facilitating integrated pandemic responses	Illustrative example
	care, long-term care, and primary care) • Partnering with Indigenous communities	coordinating pandemic responses regionally • Responsiveness of regional tables and commitment to navigating bottlenecks strengthened trust • Distributed leadership in Toronto East • Dedicated OHT personnel supported collaborative decision-making throughout the pandemic
BB #7: Funding and incentive structure	• Shifting funds within OHTs to address emergent issues • Incentivizing new and emergent roles and practices	• Missed opportunity to shift surge funding across OHT partners as needed • Dedicated funding to support physician leadership in pandemic response • Development of virtual care reimbursement codes
BB #8: Performance measurement, quality improvement, and continuous learning	• Incorporating rapid-learning approaches • Incorporating lessons from the first wave into subsequent planning	• Recognizing areas for growth (e.g., patient, family and caregiver engagement) and proactively addressing these in the second wave and beyond

Question 2: What lessons have been learned to support pandemic responses and integrated care in Ontario going forward?

Ontario's health system responded with urgency, flexibility and creativity during the first wave of COVID-19. Given the ongoing, dynamic nature of the pandemic, lessons learned in the first wave will help guide the system through subsequent phases. Below we describe key lessons identified by key informants.

Lesson 1: Starting from a perspective of protecting the vulnerable (instead of a perspective of managing a surge) will require centring home and community care and long-term care, along with partnerships and resources focused on social determinants of health. (This corresponds to building block # 1, defined patient population, and building block # 2, in-scope services.)

Key informants noted that COVID-19 cast into sharp relief the vulnerabilities created by adverse social conditions and expressed that a population-health management approach would need to centre this issue. This could include understanding populations and population segments defined by social, rather than medical conditions, and through detailed, community-rooted understandings of the factors affecting health within OHTs' attributed populations. One key informant from the hospital sector emphasized that while OHTs have a role in addressing health determinants through integrating social services, the upstream factors affecting health are deeply entrenched and complex, and will not be "solved" through integrated care alone. The concept of entrenched or structural influences on healthcare was broadly reflected across key informant interviews, along with a sense of resolve to foreground these challenges in ongoing efforts at population-health management.

Multiple key informants also stressed the importance of balancing the need to manage an acute surge with the critical importance of identifying and caring for vulnerable populations in the community. Others added that

the objectives of surge management and protection of vulnerable populations in fact are aligned, because populations with both medical and social vulnerabilities are at heightened risk of contracting COVID-19 and experiencing severe illness. A renewed emphasis on primary and community care along with long-term care was suggested to ensure that individuals who are elderly and/or who have chronic conditions receive high-quality, continuous care throughout the pandemic. Proactive identification of vulnerable patients, including those at risk of deterioration in the event of reduced support, is also a key consideration.

Lesson 2: Patients, caregivers and families must be part of discussions around the pandemic response and involved in developing the broader vision for OHTs. Rebuilding trust will be crucial to facilitate this. (This corresponds with building block #3, patient partnership and community engagement.)

There was broad agreement across key informants that, for many OHTs, patient partnerships would need to be strengthened and in some cases rebuilt. As one key informant noted, this will take honest conversations, which in turn can require a significant investment of time. Another key informant stated that engagement and co-design can be done virtually, though this requires different approaches than those for in-person co-design processes. This informant suggested that re-envisioning family members as essential caregivers can support the design of visitation policies that balance infection control with the benefits of caregiver support. These policies will need to be designed, implemented and evaluated in collaboration with patients and caregivers themselves.

Lesson 3: Realizing the value of digital health will require an understanding of the opportunities and limits of digital care, recognizing that digital care may need to be adapted for particular types of care and populations. (This corresponds with building block #5, digital health.)

Key informants suggested that moving forward on digital health will require understanding of which services and populations may benefit the most from digital care, and which services require adapted approaches to provide an equal or greater level of effectiveness. A key informant in the community sector gave the example of case management for individuals with severe mental illness, where care continued to be provided in person as case managers rely on environmental cues to understand their clients' needs, and may also provide functional support. Another key informant suggested that options for use of different types of technologies be tailored to users' needs, suggesting that telephones and texting may be a more appropriate medium than videoconferencing for some patients and family members (due to varying levels of comfort with technology and access to high-speed internet). Other key informants pointed to a need for investments in digital infrastructure to fully realize and sustain the gains made.

Lesson 4: Centralized leadership and local knowledge are both critical to effective management of the pandemic. (This corresponds with building block #6, leadership, accountability and governance.)

Key informants called for clear, top-down communication and a shared framework across the province, as well as regional and local responsiveness to engage local stakeholders and adapt to on-the-ground realities. They identified a need for a shared provincial framework for health services during the pandemic, supported by clear communication and centralized leadership. They also expressed the importance of being able to operationalize this framework on the basis of knowledge about regional and local populations, and pandemic dynamics. For instance, in communities in northern Ontario, key informants described bottlenecks in accessing protective equipment and implementing testing and contact tracing initiatives. Trusting relationships were built through convening dedicated regional coordinating bodies that collaboratively address region-specific needs and opportunities.

Lesson 5: Facilitating integrated care during COVID-19 requires activities at multiple levels (e.g., regional and local level) to ensure the right resources and players are involved. (This corresponds with building block #6, leadership, accountability and governance.)

A number of key informants called attention to the importance of activities occurring at multiple levels to support integrated care. Some pointed to the importance of regional initiatives across a scale larger than OHTs, such as regional decision-making tables to support the pandemic response. This was suggested to facilitate more effective redeployment of human resources as it created a larger pool, and enabled capacity planning at a broader scale (for instance, multiple hospitals could coordinate to best make use of intensive-care beds). On the other hand, some highly effective partnerships were quite small in scale (for instance, one large community agency created a buddy system to partner with smaller community services, to ensure that these smaller local services had access to resources and support). A key informant from the large agency noted that these small partnerships occur outside of the OHT umbrella and do not necessarily benefit from the supports available to OHTs, while still contributing to integrated care.

Lesson 6: Building stability into funding, and flexibility into rules, will maximize the agility of teams' responses. (This corresponds with building block #6, leadership, accountability and governance, and building block #7, funding and incentive structure).

Key informants noted that stable and predictable funding is essential for organizational planning, and as particularly critical for longer-term planning. At the same time, flexible rules at the provincial level – including the flexibility to redeploy staff enabled by emergency orders, or the flexibility to shift funds within a single funding envelope – allow organizations to respond nimbly to emergent concerns. Given the dynamic nature of the pandemic, which includes both short-term “waves” and a longer-term state of instability, both stable funding and flexible rules can facilitate effective responses. For the most part, funding for the pandemic response was provided to individual institutions rather than as integrated funding packages to address population needs.

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APPENDICES

The following tables provide detailed information about the reviews and primary studies identified in the rapid synthesis. The ensuing information was extracted from systematic reviews - the focus of the review, key findings, last year the literature was searched, and the proportion of studies conducted in Canada.

For the appendix table providing details about the reviews included in this synthesis, 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 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: Key findings from systematic reviews and rapid reviews

Focus of review	Key findings	Year of last search	AMSTAR rating (from McMaster Health Forum)	Proportion of studies that were conducted in Canada
Patient engagement during the COVID-19 pandemic (4)	<p>In many instances COVID-19 has resulted in health systems returning to inward-focused practices. As a response, patient partners and their families are calling for their recognition as partners in care and their potential to contribute to solutions for the pandemic.</p> <p>The rapid review examines how to maintain patient engagement and partnership at various levels. The rapid review pulls on evidence from 52 primary studies.</p> <p>At the level of support of patient engagement in their own care, practices have relied on increasing the use of videoconferencing and virtual visiting solutions to better support communication between patients and families. In addition, a number of groups including McMaster University and the National Hospice and Palliative Care Organization, have developed patient decision aids specific to COVID-19. Further, patients' partners have been advocating for the immediate reinstatement of visitors and family caregivers as essential partners in care for high-risk and resident patients.</p> <p>Other efforts including improving communication with patients and families by increasing the information provided about processes of care, as well as providing timing updates on when they may expect to receive additional information related to test results and any needed treatment.</p> <p>One particularly innovative solution has been the development of “Team Time” by health and social workers which acts as a 45-minute reflective practice that is provided online to share experiences of working in health and social care throughout the pandemic. This session provides an inter-organizational opportunity to discuss improvements in patient care and consider colleagues’ work in a given area.</p> <p>No study included in the rapid review described processes about including patients in system or organizational decision-making tables.</p>	2020	3/9	1/52
Community-centred approaches to COVID-19-(5)	<p>This rapid response, produced by the K2P Centre, focuses on the Eastern Mediterranean Region and addresses three questions based on a search of databases and grey literature:</p> <ol style="list-style-type: none"> 1) How can a community-centred approach be used to suppress COVID-19? 2) What are the roles of communities in pandemic responses? 3) How can community-centred approaches be operationalized? <p>The report suggests that community-centred care (i.e., an approach driven by community-health needs, aligned with community values and preferences, and provided in community settings) can be used to prevent transmission, contain outbreaks, manage less acute and post-acute cases, and offload lower-acuity care in the event of a surge in hospitalization.</p> <p>A number of roles are suggested for communities. Community engagement can be used to disseminate public-health information. Lay workers can also be deployed to support contact tracing and case finding. Community facilities and providers can be engaged to provide community-based triaging mechanisms, isolation and quarantine sites, practical</p>	2020	4/9	Unavailable

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Focus of review	Key findings	Year of last search	AMSTAR rating (from McMaster Health Forum)	Proportion of studies that were conducted in Canada
	<p>support for those in isolation or quarantine, and follow-up care or “reverse triage” following hospitalization. Community-level responses can be developed to offset the impact of social and financial disruption, such as through neighbourhood support mechanisms to ensure access to practical supports. Communities can also be engaged to support planning culturally appropriate ways to address resource allocation, distress and loss.</p> <p>Putting community-centred care into practice requires deep understanding of the community and partnering with key, respected community leaders, partnering with community members and inviting feedback and suggestions;; defining goals locally, providing flexible funding to accommodate changing needs, defining roles and coordinating efforts, and monitoring outcomes.</p>			
Role of palliative and hospice care during pandemics (9)	<p>Ten studies were identified: three from West Africa, one each from Hong Kong, Taiwan, Singapore, the U.S., and Italy, and one that was not geographically defined.</p> <p>These studies suggested a strong need for flexibility in palliative-care teams during pandemics, including the ability to work across sectors and settings, shift resources from inpatient to community settings, and train and deploy non-specialist staff. Palliative care can also play an important role in initiating advance care planning. There is a need to collect data about service provision and prevalence of unmet need. Palliative care is argued to be an ethical imperative during pandemic situations and should be integrated into pandemic planning.</p>	2020	4/9	0/10

Appendix 2: Key Ontario findings from single studies and other documents

Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
Calls for an integrated, coordinated health care system with primary and community care at the centre (1)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> Ontario <i>Methods used:</i> n/a	Advocacy report calling for reforms in Ontario's health system	N/A	<p>Following on ECCO 1.0 (2012) and ECCO 2.0 (2014), ECCO 3.0 renews the Registered Nurses Association of Ontario (RNAO) call for a healthcare system centred on community and primary care, and contextualizes this vision for COVID-19. The report recommends: universal access to interdisciplinary primary care including care coordination; enhanced capacity of community care including home care and mental health and addictions care; reforming funding and provision of home care and long-term care to meet complex needs and individual preferences; integrating and resourcing social services; a provincial plan for data collection and a provincial electronic personal health record; ensuring regulated health professionals can work to scope; and drawing on principles including patient-centredness, health promotion, community engagement, equity, evidence-based practice, and public funding. The report further recommends that developing a system in line with the above suggestions will require primary-care leadership during the transformation, financial incentives aligned with the Quadruple Aim, having a single agency (i.e., Ontario Health) oversee planning and funding, and ensuring public health can work in concert with the health system and is adequately resourced. The report argues for a strong primary care-led response to COVID-19.</p>
Management of flu surges at a Toronto OHT (16)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> Ontario <i>Methods:</i> Commentary	All organizations involved in the Toronto East Ontario Health Team (partners are not listed explicitly in the paper)	Funding provided to Michael Garron Hospital to support the “winter surge” of patients	<p>The commentary describes the integrated approach to using winter surge funds allocated to Michael Garron Hospital, which were used beyond the hospital. Planning for a broader approach to allocating the funding was done using a collaborative design workshop to design interventions alongside an implementation plan.</p> <p>Instead of using the funding solely within the hospital, the workshop illuminated the need to use it further upstream. Ten initiatives came out of the workshop which ultimately address the following three strategies: 1) divert people from hospital through proactive supports in the community; 2) reduce time in the ED through increased resources and operational improvements; and 3) transition patients home more efficiently by partnering with providers in the community.</p> <p>Four of the 10 initiatives were aimed at addressing patient needs before they got to hospital, and included efforts such as extending hours at community walk-in clinics and providing care outreach to five homeless shelters within the OHT geography.</p> <p>Key lessons learned included: 1) that having new money allowed for a collaborative conversation about what to do with the new funds; 2) the time-limited quality of the funding lent itself to pilot projects which felt like a safe short-term investment to the OHT partners; 3) the problem was framed as a collective challenge among OHT partners which allowed for all organizations to see a role for themselves in the conversation; 4) trusted relationships that had been established as part of the OHT initiative as well as in work prior were essential for supporting these conversations and willingness to work together; and 5) the funding allowed for partners to “learn by doing” in a low-rules environment, and to gain practical experience in working together.</p>

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Adoption of virtual care by Family Health Teams during COVID-19 (17)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> Ontario <i>Methods used:</i> n/a	Report of feedback from the Association of Family Health Teams of Ontario members regarding the shift to virtual care	Various virtual modalities including phone and video	Family Health Teams (FHTs) are providing 90% of services remotely, including both medical and allied health services (e.g., dietetics, social work). Challenges include lack of access to high-speed internet in rural areas, barriers for patients who do not have phones or computers, and need for training, support and equipment. Informal patient feedback has been positive. Innovative approaches include proactive phone outreach to seniors, people with mental health and addiction concerns, new parents, and unattached patients. Some FHTs have also coordinated with unaffiliated physicians.
Addresses experiences of Black patients in health care in Ontario, with an attached letter contextualizing the report within COVID-19 (18)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> Ontario <i>Methods used:</i> n/a	Report on a symposium involving Black health-system leaders in Ontario	n/a	<p>The report recommends holding Ontario's publicly funded health organizations, including OHTs, accountable for: including Black leadership; collecting race-based data across the continuum of care with the support of existing entities like CIHI and ICES, and communicating the purpose and use of data that is being collected; mandating training on anti-Black racism, anti-oppression, and decolonization for health-system leaders and providers; developing and implementing culturally competent mental health services for Black Ontarians, and ensuring family members of individuals experiencing mental health concerns are supported; creating paid roles for community leaders to build trust and relationships between Black communities and health services; and creating a strategy for engaging diverse Black community members in provincial and regional decision-making.</p> <p>The report authors contextualize these findings within the COVID-19 response, noting the disproportionate burden borne by racialized communities including Black communities. The authors call for collection of race-based COVID-19 data, and consideration of pre-existing social and health disparities, and the need for accessible, appropriate care during the pandemic response and beyond.</p>
Evaluation of social prescribing in community health centres, with attached letter contextualizing findings for COVID-19 (19)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> Ontario <i>Methods used:</i> n/a	<p>Over 1,100 clients across 11 community health centres received social prescriptions</p> <p>40% were aged 61-80, 46% had income below \$19,999, 64% were female, and 63% were white</p> <p>Evaluation included focus groups with clients, providers, and community members, and extraction of quantitative data from electronic medical records</p>	The report identified five key components of social prescribing: a client who has health and social concerns and goals; a prescriber who may be a primary-care provider or interdisciplinary team member; a navigator or link worker to facilitate clients' connection to prescribed resources; the prescription itself, referring to non-medical supports and community partnerships; and data tracking to support evaluation.	<p>Over 1,100 clients received social prescriptions during a one-year pilot, with anxiety and depression as the most common present complaints and at least 57% uptake of prescriptions (which does not include activities where data was not tracked, e.g., some external partners). Social prescribing was found to enhance client well-being and self-management. Providers perceived social prescribing and navigator support as useful. Social prescribing strengthened integration within interprofessional teams, and between health and social services. Implementation barriers included staff and organizational capacity, data limitations, and environmental/structural issues (e.g., lack of transportation and need to create locally-defined models). Implementation facilitators included a team- and community-based model, a culture of innovation, and provincial coordination. Lessons learned include: the need for organizational culture shifts to a strengths-based perspective, and normalizing collaboration with social services; need for dedicated staff time especially early on and for clinical champions; importance of regularly reviewing data collection; need for core principles defining a social prescription model; and the importance of client-driven goals, recognizing strengths of individuals with complex needs, and a high level of navigator support.</p> <p>An accompanying letter contextualizes these findings within the current pandemic. It notes that public-health measures have lead to suspension of social and community services, and that marginalized individuals are more likely to face long-term detrimental effects as a result. The letter points out that individuals continue to turn to primary-care providers for advice, and refer to creative strategies including phone outreach to maintain social connectedness.</p>

Appendix 3: Key international findings from single studies and other documents

Focus of study	Study characteristics	Sample description	Key features of the intervention(s)	Key findings
Commentary addressing challenges for integrated care during the pandemic (2)	<p><i>Publication date:</i> 2020</p> <p><i>Jurisdiction studied:</i> not specified</p> <p><i>Methods used:</i> commentary</p>	n/a	n/a	<p>The commentary authors argue that the disproportionate impact of COVID-19 on marginalized populations reveals the shortcomings of fragmented health and social systems. They describe three challenges related to integrated pandemic responses.</p> <p>First, they note that responses to COVID-19 were generally not integrated. This left people with complex chronic conditions without supports. The hospital-centred response also failed to adequately address the needs of residential and home-care settings. Moreover, needed data was not always available to decision-makers. The authors suggest that health and social services need to be maintained throughout crises, and call for proactive planning including investment in primary care and community services.</p> <p>Second, they point to inequalities in care and outcomes relating to COVID-19. They note that shutdowns in response to the pandemic will disproportionately harm those with low incomes through affecting access to the social determinants of health, and call for greater focus on these determinants.</p> <p>Third, they call for approaches informed by interdisciplinary evidence, including evidence about people-centred systems, social effects of public-health measures, and other social science and humanities-based research.</p>
Report on consolidating integrated care during and beyond the pandemic (3)	<p><i>Publication date:</i> 2020</p> <p><i>Jurisdiction studied:</i> international</p> <p><i>Methods used:</i> “call to action”</p>	n/a	n/a	<p>This report calls for using the pandemic as a catalyst to build integrated, equitable, and resilient health systems. The report addresses implications of the pandemic across nine domains relevant to integrated care.</p> <ol style="list-style-type: none"> 1) “Shared vision and values”: the report calls for prioritizing the social determinants of health and enacting cross-sectoral, “health in all policies” approaches to address these determinants. 2) “Population health and local context”: the report notes the deleterious effects of past austerity policies on population health and argues that truly addressing population health requires a focus on disparities and determinants. Approaches based on accountability for a population (rather than disease-specific approaches) are argued to offer a way forward, and will require data and information about local needs, strengths and assets. 3) “People as partners in care”: the report calls for involving citizens and patients in health-system design, including proactive outreach to marginalized communities. 4) “Resilient communities and new alliances”: the report calls for asset-based community development, co-design, and community-led and place-based approaches. 5) “Workforce capacity and capability”: the report describes core competencies for integrated care as “relational.” It calls for flexible and pragmatic leadership to enable interprofessional, innovative ways of working. 6) “System wide governance and leadership”: the report calls for network governance to address complex inter-relationships, and suggests global mechanisms for public health governance.

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				<p>7) “Digital solutions”: the report calls for entrenching gains in digital health and ensuring consistency of data collection across countries with respect to COVID-19.</p> <p>8) “Aligned payment systems”: the report notes that research has previously found integrated care is possible without integrated funding. New funding mechanisms have been developed during the pandemic as ‘one-time fixes’, but few of these have addressed long-term care or other vulnerable populations. The report calls for streamlined supply chains for equipment and medications.</p> <p>9) “Transparency of progress, results and impact”: the report notes the need for data from community health and social care in order to effectively measure progress towards the Quadruple Aim or Value-based Health and Care.</p>
An inter-sectoral rehabilitation care pathway for COVID-19 patients is described (6)	<p><i>Publication date:</i> 2020</p> <p><i>Jurisdiction studied:</i> United Kingdom</p> <p><i>Methods used:</i> case description/short communication</p>	Leeds Teaching Hospital Trust provides secondary and tertiary services to a regional population of 2.5 million.	n/a	The Leeds Teaching Hospital Trust developed a multidisciplinary rehabilitation care pathway for COVID-19 patients, which links hospital, rehabilitation and primary-care services. Patients may be referred either from hospital or primary care. A clinician designated as pathway co-ordinator facilitates the coordination of care through the pathway. A multidisciplinary rehabilitation team provides complex care and consultative advice. This team in turn has access to hospital-based specialists and can transfer care to hospital as needed. The authors suggest this care pathway may have broad utility across health systems.
The authors describe a regional and inter-sectoral effort to coordinate specialized geriatric COVID-19 care (7)	<p><i>Publication date:</i> 2020</p> <p><i>Jurisdiction studied:</i> France</p> <p><i>Methods used:</i> case description</p>	n/a	n/a	<p>An existing regional geriatrics team comprised of three geriatricians and other specialist physicians was developed into a geriatric assessment and coordination unit. There were three objectives of this effort: 1) to promote infection-control information and encourage screening regionally; 2) to identify the appropriate level of care for individual elderly patients, facilitate use of a COVID-10 care pathway, and direct COVID-negative patients to other appropriate resources; and 3) to coordinate across sectors and professionals.</p> <p>The unit offers telephone consultation to nursing homes, primary-care providers, and smaller hospitals. Smaller “relay teams” of a geriatrician, palliative-care physician, and hygienist were also established in local hospitals. Decision-support criteria were developed collaboratively. Care pathways were developed including a dedicated COVID-19 palliative-care unit with special measures in place to allow family visitation.</p> <p>This system was implemented within four working days. A total of 235 calls were received in the first 16 days. Of those, 189 related to determining the appropriate level of care. In-home support was facilitated for 34 patients, and symptom management in nursing homes for another 83.</p>
The role of integrated mental and community physical healthcare trusts in responding to the COVID-19 pandemic in the U.K. (8)	<p><i>Publication date:</i> 2020</p> <p><i>Jurisdiction studied:</i> United Kingdom</p> <p><i>Methods used:</i> commentary</p>	n/a	Specialist mental health services in the United Kingdom had recently begun to incorporate physical healthcare. This editorial discusses two specialist mental health trusts: the Cambridgeshire and	With respect to physical health, the trusts focused on supporting discharge from hospital and care in the community. A “Discharge to Assess” team was scaled up to support bed availability in hospital. A principle-based approach was adopted to accepting referrals, wherein referrals would be accepted where intervention would prevent deterioration or life-threatening circumstances. This approach was supported by staff redeployment to more urgent areas of care. In one trust, joint governance between the National Health Service and the local health authority facilitated collaboration with public-health authorities, as these operate under local health authorities.

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			Peterborough NHS Foundation Trust, which serves predominantly rural patients, and in addition to mental health care offers inpatient and community rehabilitation and physical health specialist teams; and Oxleas NHS Foundation Trust, an urban trust offering inpatient and community mental health services, “step-down” and community physical health services, and social care.	According to the editorial authors, benefits of integrated mental and physical healthcare during the pandemic have included: availability of physical healthcare staff to consult with and provide relevant supports to mental health programs; mental health supports made available to all staff including a supportive telephone line and guidance for managers on supporting employee well-being; and a larger number of staff overall to facilitate redeployment.
An approach to support skilled nursing facilities in managing COVID-19, including through collaboration with hospitals and public health (10)	<p><i>Publication date:</i> 2020</p> <p><i>Jurisdiction studied:</i> Seattle, WA, United States</p> <p><i>Methods used:</i> framework description</p>	A network of 16 skilled nursing facilities (SNFs) across Washington	The paper provides a three-stage framework for responding to COVID-19 within SNFs. The first phase focuses on communication among SNFs in the network, preparing PPE and testing protocols, and planning for a surge. The second phase includes surveillance and isolation, expansion of testing, and staff education. Most relevant to integrated care, the surge phase includes a “Drop Team” of physicians, registered nurses, and infectious-disease specialists deployed to the facility within 24 hours. This team triages patients, expedites testing, and coordinates with public-health authorities.	Lessons learned in implementing this framework included: the need for a centralized command centre to monitor surge situations, staffing needs, and supply chains, and to coordinate with public health; and the need for a telemedicine readiness assessment early on to avoid technology-related delays in implementing supports.

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Describes coordinated outreach within an integrated Veterans health care organization (11)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> Los Angeles, California, United States <i>Methods used:</i> Letter to the Editor	The Veterans Affairs Greater Los Angeles Healthcare System (VAGLAHS) includes hospitals, clinics, and long-term care facilities	n/a	COVID-19 outbreaks occurred in two long-term care facility (LTCF) wards. One ward was converted to a COVID-19 recovery unit. Universal testing and isolation of infected residents was used to control the outbreak. The VAGLAHS then engaged in proactive outreach to 25 community-based LTCFs, and responded to the needs of less well-resourced facilities by: offering twice-daily, real-time telephone consultation regarding COVID-19 cases in those homes; deploying registered nurses to perform surveillance screening and train staff on specimen collection; deploying staff trained in infection control to review practices; and housing hospitalized Veterans from community LTCFs in the VAGLAHS recovery unit if the community facility was unable to support them following hospitalization.
How partnerships between academic institutions and community organizations were leveraged to meet the needs of the Latino community in Newark, New Jersey during COVID-19 (12)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> Newark, NJ, United States <i>Methods used:</i> case description	The Latino community comprises a quarter of the population of Newark, New Jersey and faces health and social disparities including those related to migration and socioeconomic status-	A partnership between a community service organization and a student-run, medical school-based initiative partnered to address community needs. This included use of student volunteers as virtual patient navigators, translation and social media dissemination of public-health information, and partnering with law students and lawyers to translate legal information.	During COVID-19, members of the Latino community in Newark, New Jersey faced disproportionate barriers to COVID-19 testing and care, including lack of access to primary care, lack of access to transportation to testing centres, lack of translation of public-health information, unstable employment and income, and distrust of federal health programs among those who are undocumented. Recent changes to immigration law also discouraged use of social services among people seeking immigration status. Community members trusted the social-service organization leading the initiative and were more willing to contact this agency than government-based programs. The agency was able to match community members experiencing COVID-19 symptoms with student navigators to provide social support and daily symptom monitoring, along with connections to appropriate healthcare.
Describes priorities for information technology across an integrated delivery system in New York during COVID-19 (13)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> New York, New York, United States <i>Methods used:</i> commentary	New York City's public hospital system, Health+, includes acute-care hospitals, long-term care facilities, a home-care agency, and ambulatory clinics, and serves over 1.1 million patients	n/a	Health+ completed the roll-out of a shared electronic health record system the day that the first COVID-19 case was identified in New York City. Informatics leadership was integrated across the system, and regular communication was established with key clinical areas to identify system needs in real time. Five priorities were identified for information technology: 1) improving staff efficiency: included use of note templates, automatic population of note fields, and development of standardized language for issues such as medical futility, along with technology that could automatically update vital sign measurements; 2) standardizing clinical workup: developing pre-established order sets based on best evidence; 3) informatics: creating dashboards for key statistics at a system, rather than hospital, level, which were co-designed by clinicians; 4) improving the patient experience: using video applications to connect patients to family and loved ones while maintaining visitor restrictions; and 5) bridging information systems: leadership across hospital systems agreed to share information – a decision facilitated by previous removal of technical barriers (due to common use of the Epic EMR, and the Carequality framework for information-sharing across different EMR vendors), and using opt-out instead of written consent for information-sharing.
Describes the use of informatics	<i>Publication date:</i> 2020	UCHealth is an integrated health-	n/a	The UCHealth informatics team included nurses and physicians who worked with system leaders to develop workflows. This working group: implemented EHR onboarding for hundreds of

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within an integrated health system during COVID-19 (14)	<i>Jurisdiction studied:</i> Colorado, United States <i>Method:</i> case description	delivery system in Colorado, Wyoming and Nebraska that includes hospitals and clinics caring for over 1.9 million patients		nurses and over 1,000 additional clinical volunteers, through using tools for expedited and flexible training; developed clinical decision-making aids that changed to address best evidence and that discouraged excessive prescribing of particular in-demand medications; rolled out training and tools for telehealth; enhanced physician collaboration and consultation through asynchronous discussion groups; implemented strategies to facilitate remote communication with families, including through having dedicated nurses remotely check charts and relay information to families; and created prediction tools to facilitate decisions around life-saving treatment based on crisis standards of care.
Implementing telepsychology in an integrated care setting (15)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> United States <i>Methods used:</i> commentary	Case example of implementing telepsychology at an integrated care organization during COVID-19 Psychology trainees provide care at safety net primary-care organizations in Virginia Telepsychology sessions were conducted over phone or video	Psychology services provided remotely by supervised trainees working remotely	Facilitators of transition included a large number of funded trainees and supervisors able to dedicate time to managing the transition to telepsychology, including: establishing clinic-specific protocols; prior groundwork laid for developing remote care; use of existing training tools to orient trainees and supervisors to remote care; and in-house expertise through supervisors with experience in telepsychology. Challenges included infrastructural issues such as: access to scheduling tools; drop in mental health referrals, potentially due to overwhelmed primary-care clinicians and loss of physical presence of psychology staff as a cue; difficulty scheduling in tandem with medical visits (which is usually a strength of integrated mental health care); reduced engagement of some patients, difficulties for patients in finding a quiet private space, and variable patient comfort with or access to technology; undocumented patients' concerns about showing their location on video; and need to translate consent forms. Some patients preferred remote visits, especially those with barriers to attending in-person, and the service intends to continue to use and scale up telepsychology. The service noted that the shift to a telepsychology model, with trainees working remotely, required more dedicated time for supervision as fewer informal opportunities existed.
Role of Area Agencies on Aging in pandemic response (20)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> United States <i>Methods used:</i> commentary	n/a	Area Agencies on Aging (AAA) provide community-based social supports to enable older adults to remain in their homes.	There was a shift in resources from congregate dining and in-person programming to support meal delivery and pick-up, and telephone wellness checks. This transition was supported by new federal funding under the Families First Coronavirus Response Act and the Coronavirus Aid, Relief, and Economic Security (CARES) Act, and by pre-existing collaborations between AAAs and local health and social-service providers. Seventy-four percent of AAAs partner with a health system or hospital, and 62% partner with managed care plans or health plans. 42% have a contractual relationship with a healthcare organization, and provide case management, transition support, and nutritional support under these contracts. The commentary authors suggest that AAAs can help reduce pressure on hospitals and long-term care facilities by supporting efforts to provide outpatient care in patients' homes. They provide the example of the Council on Aging of Southwestern Ohio, an AAA which has modified its pre-existing discharge supports by switching to telephone assessment, offering seven-day a week coverage facilitated by staff and resource redeployment, developing guidance and protocols, and altering procedures, including delivering medical equipment preassembled to avoid having delivery staff enter the client's home.
Editorial describing the potential role for case management	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> United States	n/a	n/a	In this commentary, the author argues for the importance of case management in system responses to COVID-19. An influx of patients as services re-open will require a coordinated approach to triaging, risk stratification, and discharging. Given the expected increase in homelessness and use of government benefits, case managers are argued to have a role to play in helping patients navigate available supports as well as regulatory changes to benefits. Case

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in responses to COVID-19 (21)	<i>Methods used:</i> commentary			managers can play a role in identifying and reaching out to patients affected by COVID-19, offering education and supporting patient-team communication, and providing mental health support to patients, families and care teams.
Addressing social needs in the U.K. during COVID-19 (22)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> United Kingdom <i>Methods used:</i> literature review	n/a	n/a	The NHS call for volunteers has been met with enthusiasm, but the paper author notes a need for volunteer training and coordination between health and social services to ensure this response is effective. The paper also argues that eligibility for volunteer support should be based on circumstance rather than the current criteria of specific medical conditions. Rapid overhaul of regulations regarding transfers between health and social services post-discharge suggest potential for collaboration even in areas of previous intersectoral tension. The U.K. government has also stepped in with funding dedicated for social services during COVID-19, and income supports for family and carers. However, there is a need to ensure that social services are not subsequently overwhelmed by demand. Staffing, access to PPE, and financial support are identified as crucial to meeting social-care needs.
Describes how Regional Health Systems in Singapore supported seniors during COVID-19 (23)	<i>Publication date:</i> 2020 <i>Jurisdiction studied:</i> Singapore <i>Methods used:</i> letter to the editor	n/a	n/a	<p>This letter to the editor describes the strategy used by Singapore's Regional Health Systems to address COVID-19 in intermediate and long-term care, and among seniors living in the community.</p> <p>A centralized command structure, with support of the Regional Health Systems, worked with long-term care homes to facilitate PPE procurement and implementation of infection-control policies, including split-zone arrangements, physical distancing, suspension of visits, accommodation and transportation for front-line staff, and surveillance testing. Additional funding was directed towards these efforts. Meanwhile, an outreach team was convened to meet the needs of community-dwelling seniors. These supports include referrals, education, and help with errands. For seniors without access to communication technologies, in-person visits were conducted with appropriate precautions. The author suggests that the success of these measures can provide a model for other jurisdictions.</p>



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