McMaster University | Health Forum

Rapid Evidence Profile

Structural features, processes associated with, and improvements that have resulted from the establishment of primary-care networks

20 December 2025

[MHF product code: REP 81]

Context

- Health-system leaders in Ontario continue to prioritize strengthening primary care.
- In November 2022, the Ontario Ministry of Health (MoH) released *Ontario Health Teams: The Path Forward*, which committed the ministry and Ontario Health to support greater primary-care involvement on OHTs, including more consistency in how they are involved in OHT decision-making.(1)
- The aim of PCNs as initially described by the MoH is to ensure OHTs have a mechanism to:
  - to organize the local primary-care sector in OHT planning and provide a voice in OHT decision-making
  - to serve as a vehicle to support OHTs in the implementation of local and provincial priorities.(2)
- More recently, PCNs have been provided with guidance about their five proposed functions:
  - connects primary care within the OHT
  - brings primary-care voice in OHT decision-making
  - supports clinical change and population-health management approaches
  - facilitates access to clinical and digital supports and improvements for primary care
  - supports local health human resource (HHR) planning.(2)
- PCNs have also been identified as a key enabler of improving primary-care access and attachment.(3)
- While PCNs show promise, there are currently no widely accepted structural features and operating processes that can be used to classify them or focus development and implementation supports.(4)
- This rapid evidence profile (REP) describes what is known from the best-available research evidence and from the experiences and lessons learned in Canadian and international jurisdictions about the key structural features and operating processes of PCNs, and whether these features and processes can improve equity-centred quadruple-aim metrics (or what Ontario Health calls the quintuple aim).

Box 1: Evidence and other types of information

+ Global evidence drawn upon

Evidence syntheses selected based on relevance, quality, and recency of search

+ Forms of domestic evidence used (🍁 = Canadian)

Evaluation

Qualitative insights

+ Other types of information used

Jurisdictional scan (12 countries: DE, DK, EE, ES, FI, FR, IT, NL, NO, NZ, SI, and UK) and Canadian provinces and territories

***Additional notable features**

Prepared in six business days using an 'all hands on deck' approach

Questions

This REP sought to address three separate but related questions:

1) What are the key structural features of PCNs (organized by governance, financial, and delivery arrangements) and how do they relate to other features of system transformation (particularly by OHT building block (5))?
2) What processes are being used to attract and retain PCN members (both generally and by funding model) and to prioritize areas for and to achieve collective impact (e.g., COVID prevention and treatment, increasing access and attachment)?
3) What improvements have been shown in process measures (e.g., proportion of primary-care clinicians who are members) and in equity-centred quadruple-aim metrics (i.e., outcomes)?

Box 2: Approach and supporting materials

We identified evidence addressing the question by searching PubMed and Health Systems Evidence. All searches were conducted on 9 August 2024 and 8 September 2025. We searched for full evidence syntheses (or synthesis-derived products such as overviews of evidence syntheses) and single studies. The search strategies used are included in Appendix 1. We also searched for jurisdictional experiences from all Canadian provinces and territories and from 12 countries (Denmark, Estonia, Finland, France, Germany, Italy, Netherlands, New Zealand, Norway, Slovenia, Spain, and the United Kingdom) by reviewing relevant government and stakeholder websites. In contrast to synthesis methods that provide an in-depth understanding of the evidence, this profile focuses on providing an overview and key insights from relevant documents.

We appraised the methodological quality of evidence syntheses that were deemed to be highly relevant using the first version of the AMSTAR tool. AMSTAR rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality, medium-quality evidence syntheses are those with scores between four and seven, and low-quality evidence syntheses are those with scores less than four. The AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to evidence syntheses pertaining to delivery, financial, or governance arrangements within health systems or implementation strategies.

A separate appendix document includes:

1. methodological details (Appendix 1)
2. details about each identified evidence synthesis (Appendix 2)
3. details about each identified single study (Appendix 3)
4. details from the jurisdictional scan of Canadian provinces and territories (P/T) (Appendix 4)
5. details from the jurisdictional scan of other countries (Appendix 5)
6. documents that were excluded in the final stages of review (Appendix 6).

This rapid evidence profile was prepared in the equivalent of six days of a 'full-court press' by all involved staff.

High-level summary of key findings

- We identified one evidence synthesis and 16 single studies (including one protocol) relevant to the research questions.
- We organized our findings into three sections: 1) key findings about jurisdictions for which we identified both evidence documents and experiences (from the jurisdictional scan); 2) key findings from other included evidence documents; and 3) key findings from other jurisdictions.
- Alberta and England (U.K.) both had PCN models that were identified in both the evidence documents and our jurisdictional scans.
- In Alberta**,** PCNs were formed voluntarily by family physicians, the Ministry of Health (MoH) and Alberta Health Services (AHS) under an agreement and a three-tiered governance structure, which consisted of local physician leads, five PCN Zone Committees, and a PCN Provincial Committee.
  - Alberta is currently undergoing a shift from a centralized model to four provincial health agencies, which may lead to governance changes for PCNs and related committees.
- England's (U.K.) PCN model establishes a Directed Enhanced Services (DES) contract agreement across all practices in each PCN where practices are incentivized to join by being offered funding to operationalize new services and establish additional roles for staff that work across the network.

    - Each PCN identifies a local clinician to be the clinical director (CD), who is required to work collaboratively with other CDs within the integrated care system.
    - Clinical commissioning groups (CCGs) also play a role in mediating between practices.
- Early evidence on PCNs in England have reportedly shown operational success in leadership and managerial structures, integrated care, new staffing roles, financial efficiencies, and relationship building. Some identified limitations of the PCN model in England include relatively rigid rules dictating the ways that PCNs can spend funds, a 'top down' organizational model that can limit flexibility and innovation, and challenges of patients continuing care with their preferred general practitioner.
- In terms of key findings from other included evidence documents, we identified one medium-quality evidence synthesis and five single studies that described qualitative insights from the introduction of PCNs in Australia and Singapore, and one protocol about a hub-and-spoke model in Kenya.
    - Related to structural features, the evidence documents described that PCNs were either established by government or through public-private partnerships, and were operationalized by establishing committees and, in one case a community of practice; however, specific information about the structural features was limited.
    - Related to processes for attracting and retaining members, there were variations in the way members were recruited (e.g., initiatives led by government, non-governmental organizations, private organizations, or mixed approaches) and retained (e.g., legal contracts that contained information on roles and responsibilities and PCN goals and vision, ongoing communication through meetings and virtual communication channels).
    - Also related to processes, and in particular how PCNs focused on prioritizing areas to achieve collective impact, the evidence documents described PCNs being organized around a variety of shared goals (e.g., quality improvement, reducing health inequities, and improving access to services and health outcomes).
    - With respect to improvements shown as a result of PCNs, the evidence documents seldomly described outcomes related to PCNs; however, some of the single studies instead described possible antecedents. Such studies indicated that interpersonal skills (e.g., developing trusting relationships), administrative support and funding, and a culture of responsibility and shared vision were enablers to achieving primary-care partnerships.
- We found some relevant experiences from five other provinces (British Columbia, Manitoba, Ontario, Quebec, and Newfoundland and Labrador)
    - With respect to PCN structures, we found that provinces have established committees (i.e., British Columbia's Primary Care Network Steering Committee, Manitoba's My Health Team Regional Network) and networks (i.e., Ontario's PCNs, Quebec's local service networks, Newfoundland and Labrador's Family Practice Networks).
    - With respect to processes, we found that provinces seldomly described how these committees and networks recruit, retain, convene, and prioritize areas for collective impact (e.g., conduct of regular meetings, additional PCN-specific management and administrative support, financial support from government).
    - We did not identify any reported outcomes across the five provinces.
- In terms of insights from other jurisdictional experiences, we only found relevant information from PCN-like entities in Denmark (health clusters), France (communautés professionelles territoriales de santé), and the Netherlands (care groups) where representatives from practices and other stakeholders (e.g., hospitals, municipalities) meet regularly to coordinate healthcare issues in a particular region.
    - While descriptions of processes and reporting on outcomes were limited in the jurisdictions, the Netherlands highlighted that they support member practices by hiring administrative staff, finding ways to pool primary-care personnel to address workforce shortages, setting up data collection and monitoring systems, and negotiating with health insurers.

Framework to organize what we looked for

- PCN structural features
    - Health-system arrangements
        - Governance arrangements
        - Financial arrangements

    - Delivery arrangements
  - Relation of structural features to health-system transformation building blocks adopted for OHTs in Ontario
    - Defined patient population and equity-deserving groups (who is covered and what does 'covered' mean?)
    - In-scope services (what is covered?)
    - Patient partnership and community engagement (how are patients engaged?)
    - Patient care and experience (how are patient experiences and outcomes measured and supported?)
    - Digital health and data analytics (how are data and digital solutions harnessed?)
    - Leadership, accountability, and governance (how are governance and delivery arrangements aligned and how are clinicians engaged?)
    - Funding and incentive structure (how are financial arrangements aligned?)
    - Performance measurement, quality improvement, and continuous learning, including change management (how is rapid learning and improvement supported?)
- PCN processes
  - Attracting and retaining members
  - Prioritizing areas to achieve collective impact
- Improvements shown
  - Process measures (e.g., proportion of primary-care clinicians engaged)
  - Equity-centred quadruple-aim metrics
    - Health outcomes
    - Care experiences
    - Keeping costs manageable
    - Clinician experiences
  - Other

What we found

We identified one evidence synthesis and 16 single studies relevant to the research questions. We also searched for jurisdictional experiences from all Canadian provinces and territories and from 12 countries (Denmark, Estonia, Finland, France, Germany, Italy, Netherlands, New Zealand, Norway, Slovenia, Spain, and United Kingdom (England). We summarize the key findings from the evidence documents and jurisdictional scan below by: 1) insights about jurisdictions for which we identified both evidence documents and experiences (from the jurisdictional scan); 2) insights from other included evidence documents; and 3) insights from other jurisdictions. We also used the categories in the organizing framework as a guide.

Key findings about jurisdictions for which we identified both evidence documents and experiences (from the jurisdictional scan)

Alberta's and England's PCN models were identified in both the evidence documents and our jurisdictional scans. We describe both jurisdictions in detail below.

<u>Alberta</u>

We report on insights from evidence documents and experiences from the jurisdictional scan prior to the health system shift from a centralized model to four provincial health agencies in 2024. Primary Care Alberta will be overseeing the coordination and delivery of primary health care services. Alberta Health is currently working with change-management supports to navigate the transition related to any governance changes of PCNs and related committees. For example, the PCN Provincial Committee has since been renamed the Provincial MAPS Advisory Committee.

PCN structural features

With respect to structural features, two single studies reported on PCNs in Alberta prior to 2024.(6; 7) Alberta's PCNs were formed voluntarily by family physicians, the Ministry of Health (MoH), and Alberta Health Services (AHS) under a trilateral agreement and are governed through joint ventures and collaborative councils for health-system planning. Government funding was provided to PCNs based on a capitation 'per visit' formula, and as of 2020, nearly 84% of Alberta's family physicians have signed a contract to be a member of a PCN. According to both the evidence documents and scan findings, a three-tiered governance structure was introduced in 2017 to improve accountability, leading to the establishment of a physician peer as president of the Board of Directors for each PCN, five PCN Zone Committees which serve as forums for PCNs and AHS to collaborate on standardizing primary-care services within established zones of the province, and a PCN Provincial Committee to set strategic and policy directions. PCN Zone Committees were formed by a PCN physician lead, a senior zone lead from the provincial health authority, a patient/community representative, and organizational partners of the zone. The local director who reported to the PCN provincial committee could also sit on the zone committee. The PCN Provincial Committee was made up of PCN physician leads, senior zone leads from the provincial health authority, primary healthcare representatives from the provincial health authority, and government representatives.

PCN processes

Related to processes for attracting and retaining members, a study reported that in the earlier years of the PCN model, some PCNs functioned only as a vehicle for channelling government capitation funds to members, whereas others took a more active, systems-oriented approach to planning for and delivering care. However, in the later years, through PCN Zone Councils and PCN Provincial Committee, PCNs had become more involved in broader health-system planning alongside AHS and the MoH. The level of autonomy from physicians within the committees increased 'buy in' to the model.(6)

Improvements shown

With respect to improvements shown from the PCN model in Alberta, one single study highlighted that PCNs played a critical role in the province's response to the COVID-19 pandemic. Measures of PCN performance, including indicators across domains (e.g., attachment, access, quality, governance), were established in the Auditor General's 2017 report; however, they have not been consistently operationalized across PCNs.(6) In addition to enhancing accountability, the three-tiered governance structure created a culture of maintaining practitioner autonomy, which helped to increase 'buy in' to the PCN model.

United Kingdom (England)

PCN structural features

Related to structural features, eight single studies and our jurisdictional scan found that PCNs in England were established to reduce the reliance on inpatient hospital care and to bring a wider range of services to local populations, usually covering a patient population area between 30,000 and 50,000.(8; 9) Each PCN has a Directed Enhanced Services (DES) contract that establishes a formal agreement across all practices in the PCN and is provided with funding through the Investment and Impact Fund (IIF) to operate new services.(8) While participation in a PCN is not mandatory in England, practices that do not join PCNs lose out on significant funding. Since PCNs are not legal entities entitled to hold funds, PCN staff must be paid by: 1) employment by a single 'lead practice' that is part of the PCN; 2) employment by another legal entity (e.g., legally constituted Federation); 3) contracting for services from another entity (e.g., NHS Community Trust); or 4) contracting from an agency as an independent contractor.(10) The alternative approach of PCNs directly employing staff comes with its own risks, including performance management, administration, and administrative liabilities (e.g., sick pay).(11) According to one study, in terms of PCN staff funded through the Additional Roles Reimbursement Scheme, there are relatively rigid rules dictating the ways that PCNs can spend funds

on staff salaries, and unused funding cannot be used in other ways (e.g., employing staff outside the prescribed roles).(11) The existing funding structure of PCNs has some critiques in that PCN staff have expressed concerns that the dominance of PCN funding and attention on new roles and structures by the NHS would lead to a traditional 'top down' delivery organization rather than a flexible and adaptive model of care.(12)

Each PCN identifies a local clinician to be the clinical director (CD), who is required to work collaboratively with other CDs within the integrated care system (ICS), as part of a sustainability and transformation partnership (STP) area to improve care across the system and lead engagement with other local providers.(13) PCNs require approval from local clinical commissioning groups (CCGs) that are responsible for commissioning primary-care services and supporting the establishment of PCNs. CCGs also play a role in mediating between practices, providing managerial and administrative support, reconciling new contractual requirements with existing plans, protecting PCNs from perceived excessive expectations and demands, brokering partnerships with other clinicians, and supporting PCNs to engage at a system level with integrated care systems.(9) Within England's Long Term Plan, the English NHS is conceptualized as a series of spatial tiers—neighbourhood, place, system—with PCNs operating at the neighbourhood level; CCGs, hospitals, and local councils operating at the place level; and ICSs/STPs operating at the system level.(13)

Some additional structural features of PCNs in England include centralized human-resource management support (e.g., using a PCN triaging process to help patients be referred to allied professionals across the network), governance structures, training resources, and the use of the Quality and Outcomes Framework to measure outcomes as part of their approach to establishing accountability.(9) Pre-existing working relationships were found to facilitate the establishment of the networks, such as Neighbourhood Teams that are made up of representatives from local practices, the community trust, mental health clinicians and 'third sector' organizations.(10)

PCN processes

Related to processes for attracting and retaining members, funding from the Additional Roles Reimbursement Scheme was the main mechanism used to incentivize practices in a PCN to work together and support functioning of the network.(9; 10) The availability of staff to recruit was identified as a limiting factor for recruitment of PCN staff, as well as the lack of space for the staff and the potential isolation experienced by new staff being incorporated into teams.

One qualitative study that involved interviews with policy stakeholders engaged in PCN processes indicated that the collaboration incentivized the sharing of data, learning, and risk among practices, which they anticipated would lead to improved inter-practice communication and increased trust among practices.(13) It was also highlighted that PCN CD involvement at the ICS/STP board level provides a means for PCNs to represent the interests of general practice and to have a voice in shaping the development of the system as a whole. Changes to the standard community services contract and pharmacy contract are being planned to incentivise (non-GP) clinicians to be more involved in PCN activities. Another qualitative study that interviewed PCN leaders pointed out the need for PCN leadership to be enterprising outside of formal structures in order to make changes and to focus on more inclusive and collaborative leadership styles. Access to informatics at the local level for the purpose of quality improvement was also strongly suggested.(12)

PCN improvements

Early evidence on PCNs in England have reportedly shown operational success in areas, namely improved patient experience (more integrated care), improved clinician experiences (new staffing roles and relationship-building), and keeping per capita costs manageable (financial efficiencies).(8) Additionally, developing shared goals and objectives, positive working relationships within and between PCNS, and organizational development (e.g., staff away days, joint training events, forums for practice managers and/or clinicians across PCNs) were identified as enablers for success of the PCN model. One study that assessed the implementation of PCNs in Tower Hamlets (a borough in London, England) and reported that the PCNs improved clinical care and reduced variation in practice performance (e.g.,

improved use of data such as patient recall and peer performance indicators) after funding was provided to the networks to cover additional services and staff organizational roles needed for network management.(14) Some identified facilitators to the implementation of the Tower Hamlets PCNs included balance between a 'given structure' and network autonomy or flexibility to adopt local solutions, targeted investments, alignment of clinical and managerial priorities, strong leadership, and data-driven approaches to performance. Finally, from a patient perspective, while the reorganization of family practice in England around PCNs allowed for the 'upstream' expansion of roles in the primary-care service, one study reported that many patients have found it more challenging to get an appointment with their usual or preferred GP than in the past.(11) According to the study, clinicians are more likely to provide continuity for vulnerable patients or patients with certain conditions (e.g., chronic conditions) for which effective treatment depends on continuity, leaving others who value relational continuity with their usual GP to navigate obtaining services through another clinician in the PCN system when their request to see their preferred clinician cannot be honoured.

Key findings from other included evidence documents

We identified one medium-quality evidence synthesis that described the structural features of PCNs in low- and middle-income countries and five single studies that described early evidence of PCNs in Australia and Singapore, and one protocol about a hub-and-spoke model of Kenya's PCN.

PCN structural features

Related to structural features, a medium-quality evidence synthesis reported that most networks were either established by government or through a public-private partnership. Resource availability was linked to the type of partnership (i.e., sole or interagency approach) that was adopted. Members of the networks studied varied across settings as well, but all included a mix of clinicians and local or national government entities, and with some including non-government stakeholders such as foreign donors, faith-based organizations, or community members. Governance structures were found to be clearly defined in most cases, with many having hierarchical structures that mirrored the structure of the health system, while others introduced additional 'hub-and-spoke' structures in the networks or management contract committees explicitly responsible for network governance. Accountability mechanisms varied across networks and included: 1) independent actors responsible for monitoring network indicators in line with an agreed-upon contract; 2) annual operating plans (particularly in decentralized governance structures); and 3) hierarchical reporting (e.g., in systems where network governance mirrored health-system structures).(15)

Three single studies identified also described structural features of PCNs in Singapore.(16-18) There are two types of PCNs in Singapore, including a general practitioner-driven PCN and a regional health systems partnership PCN (i.e., geographical cluster led by a public hospital that connects with local health entities). As of August 2020, there are 10 existing PCNs in Singapore, each headed by two general practitioner leaders. PCNs are given a set of mandated ancillary services and required to maintain a chronic disease registry (which collects process and clinical outcome indicators). Each PCN is entitled to funding from the government, including reimbursements for extended consultation time, funding for additional human resources in management, and funding for PCN-related duties (e.g., developing working relationships, providing strategic and clinical leadership, spearheading quality improvement).(16-18)

Two additional single studies focused on structural features of PCNs in Australia, which are called primary health networks (PHNs) in that context.(19; 20) In 2015, 31 PHNs were established across Australia as independent, not-for-profit organizations, where each PHN closely aligned with state and territory Local Hospital Networks (LHNs) or equivalent. PHNs have skills-based boards consisting of clinical councils and community advisory committees that aim to 1) increase the efficiency and effectiveness of health services, especially for those at risk of poor health outcomes; and 2) improve coordination of care. PHNs must report on their performance using the indicators of the PHN Program Performance and Quality Framework at either six- or 12-month periods. One study described the Western Victory Primary Health Network, which is responsible for coordinating services that enhance local service integration and

improve health outcomes for 714,000 patients. The key structural components of the initiative included the establishment of a community of practice (CoP) that engaged in primary care and weekly meetings with stakeholders where the primary focus was learning and improvement during the COVID-19 pandemic.(20)

PCN processes

In terms of PCN processes focused on retaining and attracting members, a medium-quality evidence synthesis described that approaches to building the network (which, in some instances, also included general approaches to staffing) varied, including: 1) government-led recruitment; 2) non-governmental organization-led recruitment; 3) private-partner recruitment; and 4) mixed approaches (i.e., a combination of government levels, non-governmental entities).(15) In Singapore, general practitioners sign a legal contract with regional health systems before joining the network, with the contract describing shared roles and responsibilities of the members and the PCN goals.(16-18) Regional health systems recruited general practitioners who were like-minded in their vision. In Singapore, two-way communication and transparency were key components to fostering a culture of communication and were considered an essential part for partnership success (e.g., via through quarterly meetings). In Australia's PHNs, they focused on building a broad coalition and network for effective knowledge mobilization through a community of practice and using virtual communication channels that engaged a range of state government and regional health service specialists, public-health experts, and other representatives from primary care.(20)

Related to prioritizing areas to achieve collective impact, a medium-quality evidence synthesis found that PCNs in low- and middle-income countries (LMICs) have been organized around a variety of shared goals, including quality improvement, reducing health inequity, improving responsiveness and access to services, achieving socio-economic stability, improving health outcomes, and improving the efficiency of health services. The degree of change expected varied between networks, with some focused on bridging gaps in access between rural/urban areas, and others focused on improving trust in local healthcare services.(15) In Australia, a single study described that PCNs actively facilitated an iterative approach to change management in primary care for managing the impacts of COVID-19, which included the collective identification of common priorities and care gaps and the establishment of a shared vision across the PHN (despite differences in funding and remuneration models, delivery models, etc.).(20)

Improvements shown

There were limited outcomes reported across the evidence documents, and more often findings related to antecedents to improvements such as partnership building. For example, the medium-quality evidence synthesis found that evaluations were sparse across the studies.(15) Within the single studies conducted in Singapore, participants perceived interpersonal skills (e.g., trusting relationships across the PCN), administrative support from the regional health system, and a culture of responsibility and shared vision among professionals and organizations as enablers for achieving integration in a primary-care partnership.(16-18) In terms of the Western Victory Primary Health Network in Australia, outcomes reported included the perceived success of the network-building process, with the study highlighting the 83 sessions held during COVID, where over half of the 220 primary-care practices (made up of approximately 700 general practitioners) in the region were represented across the sessions. The study also pointed to the establishment of new models of care, infrastructure to support ongoing knowledge mobilization, and data and change-management assets that can contribute to broader population-health goals outside of COVID-19 management as successes. This same study also briefly described patient outcomes in the region where the network was established, noting that it had the highest second-dose vaccination rates and the highest rates of anti-viral prescribing.(20)

Key findings from other jurisdictional scans

<u>Canadian provinces and territories</u>

We found some relevant information on structural features, processes, and improvements shown across five provinces other than Alberta, which was covered in the first section, including British Columbia, Manitoba, Ontario, Québec, and Newfoundland and Labrador. We did not find relevant experiences in the other Canadian provinces and territories. While some of the provinces used other terms to describe PCNs, their primary purposes aligned with our current understanding and definition of PCNs. Our findings are summarized below.

PCN structural features

In terms of structural features of PCNs, provinces described having committees and networks that provide governance and strategic direction in their respective jurisdiction. However, there was limited information on the specific details of these structural features. In British Columbia, they redesigned Primary Care Network Steering Committees (PCN SCs) in 2022, where now each committee coordinates their network of clinics. Specifically, a PCN SC includes family physicians, nurse practitioners, and community and health authority partners who collaborate to design local health services that meet the needs of populations. In Manitoba, the My Health Team (MyHT) Regional Network is a committee that has representation from each local committee (typically the fee-for-service physician lead and director of the local committee who are responsible for primary care in their community). However, no publicly available information was identified to provide additional insights.

In Ontario, PCNs are linked to OHTs' efforts to build a high-functioning primary-care system including through priorities such as primary-care access and attachment, and many OHTs have formalized governance structures consisting of family physicians, nurse practitioners, and other primary-care clinicians that oversee their PCNs, functioning as part of working groups, subcommittees, and/or clinical change-management projects. PCNs are also positioned as being part of supporting the implementation of changes to delivery arrangements, including integrated clinical pathways and population-health management approaches, as well as identifying primary-care clinicians with the ability to accept patients waiting on the Health Care Connect waitlist. PCNs in Ontario are also publicly positioned as supporting efforts that use data, digital tools, and resources to support planning for the OHT's attributed population. A peer profile describes the experiences and lessons learned from OHTs who have particularly rich insights to share about their experiences with OHTs.

In Quebec, integrated health and social services centres (CISSS) and integrated university health and social services centres (CIUSSS) are considered local service networks, where they largely contribute to managing, organizing, and building relationships with their specific population area and/or partners. The networks consist of 'super-clinics,' 'family medicine groups,' general practitioners, specialists, community pharmacists, community organizations, and other allied professionals. Finally, in Newfoundland and Labrador, there are four Family Practice Networks (FPNs), which are led by family physicians that aim to improve the delivery of primary-care services in collaboration with regional health authorities. Each FPN has an executive director that is supported by an administrative assistant and staff who are responsible for developing and implementing programs based on the FPN's strategic direction.

PCN processes

With respect to processes, the provinces seldomly described how these committees and networks convene and the steps that they take to collectively identify problems, propose solutions, and implement solutions for collective impact. For example, in British Columbia: 1) PCN SCs regularly meet with local patient, family, and community representatives; 2) the Divisions of Family Practice provide management and administrative support by taking on secretariat roles for the PCN SC; and 3) health authorities are the primary conduit for financial, human resource, and other administrative reporting to the Ministry. In Ontario, joining a PCN is voluntary for primary-care clinicians, although every OHT must establish and continue to strengthen their PCN in partnership with local clinicians. Initial priorities for PCNs in the province include improving access and attachment to comprehensive primary care and helping implement chronic

disease prevention and management strategies with both focusing on equity-deserving populations. In Newfoundland and Labrador, the FPNs have undertaken collaborative initiatives to address provincial challenges, but the decision-making process for deciding on these initiatives was not reported in detail.

Improvements shown

We did not identify any reported outcomes across the five provinces (British Columbia, Manitoba, Ontario, Quebec, and Newfoundland and Labrador).

<u>Other international jurisdictions</u>

We aimed to identify any related experiences in other international jurisdictions. We did not identify any relevant information for Estonia, Finland, Germany, Italy, New Zealand, Norway, Slovenia, and Spain. We summarize the experiences of three other international jurisdictions (Denmark, France, and the Netherlands) below. Similar to Canada, each jurisdiction used different terminology to describe PCNs; however, their descriptions align with our current understanding of PCNs.

PCN structural features

We found limited information on the structural features of the PCNs in Denmark, France, and the Netherlands. In Denmark, clusters were established in 2018 by an agreement between the Organization of General Practitioners (PLO) and the Regions' Wage and Tax Board and given the status of a professional quality network, where representatives from hospitals, municipality, and general practice met regularly to discuss ways to improve quality in general practice. In 2022 when clusters became a fixed part of the health system, Denmark established 21 health clusters with the goal of providing more treatment and follow-up in the primary sector instead of in specialized hospitals. Clusters receive funds from the region based on the number of patients they have, and each cluster has an elected cluster coordinator as its official representative and a board that determines the direction of its efforts. In France, Communautés professionelles terriroriales de santé (CPTSs) bring together community healthcare professionals (independent professionals, practices, or clinics) to identify and coordinate health care issues in a particular region. Finally, In the Netherlands, care groups were introduced in 2010 and primarily composed of general practitioner individual practices that are backed by a larger organization. These care groups coordinate chronic care management as legal entities, where they are responsible for both clinical and financial aspects of care for patients with chronic disease. General practitioners involved in these care groups may own the larger organization and purchase services from various clinicians to manage chronic disease care.

PCN processes

We did not identify specific details about processes on how Denmark's clusters and France's CPTS attract and retain members or how they prioritize areas to achieve collective impact. For the Netherlands, they support their member practices by recruiting and training additional staff, providing bundled payments to incentivize care coordination, providing a pool of nurses to address workforce shortages, setting up data collection and monitoring systems, and negotiating with health insurers.

Improvements shown

We did not identify any reported outcomes across the three jurisdictions (Denmark, France, the Netherlands).

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This rapid-evidence profile was funded by the Ministry of Health in Ontario. The McMaster Health Forum receives both financial and in-kind support from McMaster University. The views expressed in the rapid synthesis are the views of the authors and should not be taken to represent the views of the Ministry of Health or McMaster University. The authors wish to thank Angela Wang and Samantha Cheng for appraising the evidence.

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