

Context

- In October 2024, the Ontario Ministry of Health [announced the appointment of Dr. Jane Philpott](#) as the chair of the Primary Care Action Team, with a mandate to connect every person in the province to primary care within five years.(1)
- While Ontario reports the highest rates of access to a regular primary-care clinician among Canadian provinces and territories (with 90.6% of Ontarians reporting this [according to the Canadian Institute for Health Information](#)), the mandate calls for ensuring that 100% of residents in the province have access to quality, team-based care – including on weekends and after hours.(2)
- Expanding interprofessional primary-care teams is one of many different approaches for improving primary-care access and attachment (PC-AA).

Questions

- What is known from the best-available research evidence about different approaches for improving PC-AA (including about their benefits and potential harms, costs and cost-effectiveness, likely adaptations required, and stakeholders' views and experiences)?
- What lessons can be drawn about different approaches for improving PC-AA based on the experiences in Canadian provincial and territorial (P/T) health systems, and from health systems internationally?

High-level summary of key findings

We organized our findings using the framework depicted in Box 2 and described in further detail in the 'Framework' section below.

Rapid Evidence Synthesis

Approaches for improving primary-care access and attachment

20 December 2025

[MHF product code: RES 130]

Box 1: Evidence and other types of information

+ Global evidence drawn upon



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

- Forms of domestic evidence used (🇨🇦 = Canadian)



Qualitative insights



Evaluation

+ Other types of information used



Jurisdictional scan (13 countries: DE, DK, EE, ES, FI, FR, IT, NL, NO, NZ, SI, UK, US) and all Canadian provinces and territories

* Additional notable features



Prepared in 30 business days using an 'all hands on deck' approach

Box 2: Framework for improving PC-AA

1. Facilitate the entry of people onto patient lists (or panels, registries, or rosters).
2. Establish additional 'entry points' for PC-AA.
3. Leverage solutions that enable primary-care clinicians to enrol more people on their patient list.
4. Coordinate the expansion of interprofessional primary-care teams.
5. Better match less intensive care models to preferences and needs
6. Support regional care networks or geographic centres to increase PC-AA.
7. Establish transitional solutions to facilitate access as attachment efforts ramp up.
8. Establish hybrid attachment models that respond to seasonal shifts.
9. Improve the supply and distribution of primary-care clinicians.

Key findings from highly relevant evidence documents

- We identified 13 evidence syntheses, 32 single studies and five protocols relevant to the research question, of which we deemed 34 evidence documents to be highly relevant. **The ‘solutions’ being found helpful tended to align to approaches 1, 2, 3, 4, and 6 in Box 2.**
- Telephone outreach programs (part of **approach 1**) have reportedly been used to facilitate the registration of newly attached people to see their primary-care clinician in a timely manner.
- Additional effective entry points for PC-AA (**approach 2**) have included transitional-care clinics led by hospitals that supplement care for patients with complex medical conditions, as well as community health programs, specifically ones focused on underserved populations and/or people with no established primary-care clinician.
- A centralized electronic medical record (EMR) system, an advanced access model, and virtual care (**approach 3**) have been used to enrol more patients in a cost-effective way, especially those requiring specialty care and those living in rural and remote regions, with reported patient and clinician satisfaction.
- Implementation of interprofessional primary-care teams (**approach 4**) that involve using nurse practitioners as ‘co-managers’ of patient care and opening new primary-care facilities have shown positive effects on facilitating PC-AA.
- Manageable patient list sizes (part of **approach 6**) that take into account clinician, patient, and practice characteristics, as well as healthcare utilization trends and costs, can improve patient attachment without compromising care quality.
- Centralized waiting lists (also part of **approach 6**) are an effective approach to increase attachment; however, even with financial incentives for clinicians, difficulty attaching vulnerable patients may remain an issue.

Box 3: Approach and supporting materials

We identified evidence addressing the question by searching [Health Systems Evidence](#) and [PubMed](#). All searches were conducted on 31 March 2025, and the search strategies used are included in Appendix 1. We searched for full evidence syntheses (or synthesis-derived products such as overviews of evidence syntheses), single studies and protocols relevant to the research questions. We also conducted a jurisdictional scan of primary-care access and attachment approaches of all Canadian provincial and territorial (P/T) health systems, and several international jurisdictions (Denmark, Estonia, Finland, France, Germany, Italy, Netherlands, New Zealand, Norway, Slovenia, Spain, United Kingdom, and United States). Where information is not available in English, French, Chinese, Portuguese, or Spanish, we attempted to use site-specific translation functions or Google Translate.

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 synthesis 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 evidence syntheses focused on clinical interventions, so not all criteria apply to syntheses pertaining to delivery, financial, or governance arrangements within health systems or implementation strategies.

In contrast to our rapid evidence profiles, which provide an overview and insights from relevant documents, this rapid evidence synthesis provides a more in-depth understanding of the evidence. This rapid evidence synthesis was prepared in a 30-business-day timeline.

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 (Appendix 4)
- 5) details from the jurisdictional scan of other countries (Appendix 5)
- 6) evidence documents that were excluded in the final stages of review (Appendix 6).

- No specific solutions were identified from highly relevant evidence documents to better match less intensive care models to preferences and needs (**approach 5**), establish transitional solutions to facilitate access as attachment efforts ramp up (**approach 7**), establish hybrid attachment models that respond to seasonal shifts (**approach 8**), or improve the supply and distribution of primary-care clinicians (**approach 9**).

Key findings from the jurisdictional scan of Canadian P/T and international health systems

- We conducted a jurisdictional scan of approaches used for improving PC-AA in all Canadian provinces and territories (P/Ts), as well as at a national level in Denmark, Estonia, Finland, France, Germany, Italy, Netherlands, New Zealand, Norway, Slovenia, Spain, U.K., and the U.S. **The ‘solutions’ being used in Canadian P/Ts tended to align to approaches 2, 3, 4, 5, 6, 7, and 9, and internationally tended to align to approaches 2, 3, 4, 5, 6, and 9.**
- Our Canadian jurisdictional scan identified nurse practitioner–led clinics centred around partnerships in Ontario as a frequently used strategy for additional ‘entry points’ for PC-AA (**approach 2**), specifically in rural and remote areas.
- The introduction of interprofessional primary-care teams (**approach 4**) have been used to improve access and attachment in a few provinces (e.g., Manitoba, Ontario, Nova Scotia), and significant investments have been made by federal and provincial governments to increase the number of these teams.
- Virtual-care models to better match people who need less intensive care (**approach 5**) have been implemented in several provinces to allow unattached people to access immediate virtual primary-care.
- Digital patient-attachment systems, such as centralized waiting lists (**approach 6**), have been used to connect unattached people to primary-care clinicians.
- Transitional solutions (**approach 7**) identified in some Canadian P/Ts (B.C., Ontario, Quebec) to facilitate access include the use of attachment coordinators and digital registries to direct people to appropriate care while they wait for attachment.
- To increase supply and distribution of primary-care clinicians (**approach 9**), several provinces have implemented transition assessment programs for internationally trained physicians to help integrate them into provincial health systems more efficiently, and one province dedicated additional funding to support their health human resource (HHR) plan.
- Internationally, additional ‘entry points’ for primary-care access (**approach 2**) included community pharmacies (Finland, France, Spain, U.K.), integrated community care (Netherlands), and the creation of new clinics (Slovenia); however, no evidence on the impact of these approaches was identified.
- Remuneration mechanisms to incentivize primary-care clinicians to optimize patient list size (**approach 3**) was implemented in three jurisdictions (Norway, Netherlands, New Zealand) and was found to increase accessibility of services for patients, including those with greater needs.
- In other select jurisdictions (e.g., Estonia, Italy, Norway), legislative reforms have been implemented alongside payment changes to move primary-care towards a more team-based approach, with Estonia reporting unequal access to services for people not registered to interprofessional teams (part of **approach 4**).
 - Payment changes for team-based care were often included in these reforms and were designed to secure physician buy-in and permit the compensation of other types of primary-care clinicians.
- Interprofessional sharing of patient lists (part of **approach 4**) in one jurisdiction (Spain) improved patient and clinician satisfaction.
- Virtual care models for patient data-sharing have been developed in four jurisdictions (Norway, New Zealand, Spain, Netherlands) (**approach 5**); however, no evidence on its impact was reported.
- Technology was also commonly used across countries to improve data access (e.g., identification of unattached individuals – part of **approach 6**), and to reduce wait times for appointments (e.g., telemedicine, scheduling, electronic health record systems) and improve care coordination (part of **approach 3**).
- Nearly every international jurisdiction had a primary concern surrounding the increase of supply and distribution of primary-care clinicians (**approach 9**) but no evidence of the impacts on access and attachment were reported.

- Across all of the evidence documents and jurisdictional scans, two points are particularly noteworthy: 1) if solutions targeted a specific population or group of people, they were most often based in rural and remote areas; and 2) information about the use of approaches among equity-deserving groups was very limited.

Framework to organize what we looked for

To organize what we looked for, we used a framework that we had co-developed with Ontario Health Teams (OHTs) in preparing a peer profile on improving PC-AA.(3) Additional details about how these approaches are being operationalized in Ontario can be found in the peer profile.

- **Approaches for improving PC-AA**
 1. **Facilitate the entry of people onto patient lists** (e.g., having dedicated staff create a comprehensive EMR record for unattached people; engaging community paramedicine and community nurses to stabilize patients prior to initiating attachment).
 2. **Establish additional 'entry points' for PC-AA** (e.g., providing a dedicated role for community health centres and interdisciplinary primary-care centres; exploring partnerships with pharmacies, paramedicine, urgent care clinics in hospitals, emergency rooms and local public-health agencies).
 3. **Leverage solutions that enable primary-care clinicians to enrol more people on their patient list** (e.g., leveraging digital solutions that free-up time, EMRs to enable the provision of longitudinal care, and virtual care to promote efficiency; reducing administrative burden and/or providing administrative support to 'free up' time for patient care; implementing advanced access scheduling to promote efficiency).
 4. **Coordinate the expansion of interprofessional primary-care teams.**
 5. **Better match less intensive care models to preferences and needs** (e.g., designing a virtual-care model for younger and healthier people that, when needed, allows for patient data to be shared with in-person clinics).
 6. **Support regional care networks or geographic centres to increase PC-AA**, which is labelled 'take a 'whole OHT' approach to increasing access and attachment' in the corresponding RISE peer profile (e.g., improving data access about unattached people and about successfully attached people; consolidating primary-care waiting lists held by local practices; sharing resources across practice models to increase primary-care clinician capacity; set, and ensure that contract requirements are aligned with, attachment targets appropriate to the local context).
 7. **Establish transitional solutions to facilitate access as attachment efforts ramp up** (e.g., providing high-value services to unattached people (e.g., screening and immunization); enabling paramedicine to organize themselves locally to act as a main primary-care point of contact for unattached people; building relationships with walk-in clinics that support those with fewer or more time-limited needs).
 8. **Establish hybrid attachment models that respond to seasonal shifts** (e.g., enabling secondary attachment for college and university students, those who travel for work, or who spend season periods in smaller communities).
 9. **Improve the supply and distribution of primary-care clinicians** (e.g., undertaking HHR planning, including developing recruitment, retention, and succession plans in primary-care; identifying local people who could be prioritized for education and training opportunities).
- **Solutions to consider for prioritizing people when opening or expanding a patient list**
 - First come first serve
 - People with greater (or fewer) needs
 - People from equity-deserving groups
 - People who were identified as wanting attachment (through a proactive outreach service)
 - People who already have EMR data entered
 - People with complex conditions who have already been stabilized
 - People from a given geography (e.g., postal code)

What we found

We identified 13 evidence syntheses, 32 single studies, and five protocols relevant to the research question, of which we deemed 34 to be highly relevant (see Appendices 2 and 3 for details about each identified evidence document). The highly relevant evidence documents include 11 evidence syntheses and 23 single studies. We outline in narrative form below our key findings related to the question from highly relevant evidence documents and from our jurisdictional scans of all Canadian P/Ts and other countries. Our findings are organized and described using the categories of approaches listed in the organizing framework. Solutions to consider for prioritizing people when opening or expanding a patient list have been described throughout the descriptions of the approaches identified, as well as at the end of the jurisdictional scan section.

Key findings from highly relevant evidence sources

We identified evidence applicable to nearly all approaches of the organizing framework. No specific solutions were identified from highly relevant evidence documents to better match less intensive care models to preferences and needs (**approach 5**), establish transitional solutions to facilitate access as attachment efforts ramp up (**approach 7**), establish hybrid attachment models that respond to seasonal shifts (**approach 8**), and improve the supply and distribution of primary-care clinicians (**approach 9**). The narrative summary below describes several interventions identified in our review of highly relevant evidence documents that aim to improve PC-AA using **approaches 1, 2, 3, 4, and 6**.

Approach 1: Facilitate the entry of people onto patient lists

One study evaluated a telephone outreach program to facilitate people's access to care once they are prioritized for attachment to a primary-care clinician, and the study found that this improved patient experiences.(4) For the Quebec-based telephone outreach program, volunteer navigators called patients living in socially or materially deprived neighbourhoods who were recently assigned to a clinician from the centralized waiting list and offered them a welcome service and reminders about any registration information needed. A follow-up survey of patient participants from the pilot indicated that volunteer navigators created a positive attitude about the initial meeting with the clinician, and patients who established an attachment reported more appropriate primary-care and improved comprehensive care through referrals to other care clinicians.

Approach 2: Establish additional 'entry points' for PC-AA

We identified evidence documents that found community health services programs and transitional care clinics were effective at providing additional 'entry points' to access care for people living in underserved communities and/or people with no established primary-care clinician, with some evidence to suggest that this approach can contribute to improving patient outcomes and clinician experiences while keeping costs manageable. A medium-quality evidence synthesis found that community health programs involving local health posts and community health workers can be used to reach underserved populations and improve continuity and comprehensiveness of care.(5) One underserved population that community health centres (CHCs) can provide access for are people released from prison, who, according to an Ontario-based cohort study, were more inclined to rely on CHCs than other primary-care models.(6) Another community-based model identified by a medium-quality evidence synthesis for increasing attachment 'entry points' is the community emergency medical services (CEMS) model where older adults at risk for falls who may not be attached to primary-care are provided with at-home primary and preventive interventions through partnerships with public-health authorities and local emergency medical services (EMS) agencies to address the threat of falls.(7) The CEMS interventions have reportedly been cost-effective and led to reduced subsequent falls and EMS calls, as well as positive and interdisciplinary experiences for healthcare workers who noted minimal impact to normal workflow. Another high-quality evidence synthesis concluded that transitional care clinics (TCCs) – hospital-led, multidisciplinary clinics that supplement care for patients with complex medical conditions – can be an effective approach to improve access to care

for patients who are discharged from hospital with no established primary-care clinician.(8) Patients discharged from hospital who were serviced by TCCs were seen within 14 days after discharge by multidisciplinary teams.

Approach 3: Leverage solutions that enable primary-care clinicians to enrol more people on their patient lists

To enable primary-care clinicians to enrol more people on their patient lists, the evidence identified suggests that virtual tools such as telemedicine, centralized EMR systems, and the advanced access model can be effective for increasing attachment to care in a cost-effective way for people living in areas lacking medical infrastructure. In some cases, these virtual tools have reportedly improved experiences for both patients and clinicians after implementation. Two evidence syntheses suggested that virtual care, telemedicine, and centralized EMR systems can be used to coordinate services and provide subspecialty care, especially in rural and remote regions lacking medical infrastructure.(5; 9) A recent cross-sectional study examined the impacts of an integrated virtual care platform implemented in a Family Health Team in Petawawa, Ontario and determined that over seven months, 790 previously unattached people living in the rural community were successfully attached to a family physician, with 70% of patient appointments being completed virtually.(10) Another recent study that evaluated patient experiences with the Renfrew County Virtual Triage and Assessment Centre (VTAC) – a 24/7 hybrid care model in rural Ontario that connects unattached people to timely primary-care through virtual physician appointments, in-person visits by community paramedics, and integrated local health services – reported that most survey respondents were satisfied or very satisfied with VTAC services.(11) These findings provide insights that could guide the design of similar virtual healthcare programs.

One study based in Quebec evaluated the implementation of the advanced access model – an established scheduling model that enables patients to see their primary-care clinician in a timely manner – in 11 academic family medicine clinics and found that the model helped family medicine residents gain competencies in continuity of care, collaboration, leadership, and health advocacy. To optimize teaching of this model, the study suggested optimizing patient panels, managing continuity during absences, promoting team collaboration, and advancing immersive resident experiences.(12) Finally, a 2021 study found that an algorithm using health administrative data to classify people as attached or uncertainly attached offers a low-cost, scalable way to monitor access through formal enrolment, CHC visits, or visiting patterns, and to guide policies to address gaps in primary-care in underserved areas.(13)

Approach 4: Coordinate the expansion of interprofessional primary-care teams

Expanding patient enrolment through the creation of interprofessional primary-care teams was a suggested approach explored in several evidence documents. The addition of nurse practitioners (NPs) to primary-care teams was evaluated in three evidence syntheses and was found to positively affect PC-AA facilitation. NP-physician co-management of patient care was identified in one medium-quality evidence synthesis as a promising delivery model to help organizations meet the demand for care by reaching practice and clinical targets and adhering to recommended care guidelines.(14) Another low-quality evidence synthesis made recommendations for determining patient panel/caseload size for NPs working in community-based primary healthcare settings. The evidence synthesis recommended that patient factors (age, gender, complex chronic conditions) and organizational factors (staffing, exam rooms, rural vs. urban location) be considered when determining NP caseload size, and doing so maximizes impact on expanding patient panels and reducing wait times to expand interprofessional primary-care teams.(15) Another low-quality evidence synthesis described the Carrier Sekani Family Services (CSFS) model, which introduced satellite, NP-run clinics in rural British Columbia with family physicians providing regular care to patients through telemedicine and occasional in-person appointments, which effectively expanded primary-care capacity and access. The use of a hub-and-spoke multidisciplinary team along with effective health information technologies (e.g., seamless sharing of health information through a centralized EMR system) allowed the clinics to maximize workforce capacity and extend patient lists, thereby significantly increasing clinic visits over the course of a year while improving continuity and reducing ER reliance.(9)

Other interprofessional care teams described in the evidence were effective in increasing primary-care capacity and attachment (although there is some evidence suggesting voluntary enrolment to these teams may not help increase attachment among populations that are commonly underserved) and have shown potential in increasing targeted patient experience. These teams included Family Health Teams in Ontario, a Montreal-based family medicine group that used an integrated team approach, and interdisciplinary teams for homeless or marginally housed people in Vancouver. According to a 2020 study, implementing Family Health Teams (interdisciplinary team-based care) in Ontario led to an increase in the total primary-care services provided and a small increase in both the total number of patients seen and patients enrolled in primary-care.(16) The Montreal-based family medicine group, Clinique Indigo, funded an integrated health professional care approach that resulted in an increase in interprofessional collaboration and comprehensive, age-appropriate care for unattached people.(17) To create stability for the project, the clinic chose to use the funds allocated to physicians for offering appointments to collectively attached patients to fund the new professional services, requiring physicians to participate in the project in order to access the extra remuneration through the pooled money. Although more patients were offered services through the project, obstacles such as high turnover and absence rates, the significant reliance on family physicians for consultations, and a lack of primary-care training for many professionals in primary care caused challenges during implementation. Findings from another cross-sectional study suggested that voluntary enrolment programs do not promote the enrolment of communities who commonly experience poor primary-care access.(18) Innovative targeted patient experience approaches for improving access by these communities have been developed, such as the new interdisciplinary care team that was implemented in Vancouver to provide care to the homeless or marginally housed living in the downtown lower east side. Following implementation of the care team, more than two-thirds of patients were retained in care after enrolment and visits to a physician were associated with an overall lower hazard of death.(19)

Approach 6: Support regional care networks or geographic centres to increase PC-AA (or take a 'whole OHT' approach to increasing access and attachment)

Within the 'whole OHT' approach to increasing access and attachment, adjusted patient panel size and centralized waiting lists were the specific strategies employed in the available literature. While more research is likely needed to confidently report the impact of these strategies on access, attachment, and equity-centred quadruple-aim metrics, we provide details about what was learned from the identified evidence documents below.

We identified three evidence documents that explored the approach of adjusting patient panel sizes, generally finding that larger panel sizes are associated with decreased access and worse patient and clinician experiences, but an optimal patient panel size was not determined to support PC-AA. A high-quality evidence synthesis from 2019, and another high-quality evidence synthesis from 2020 conducted as part of the larger 2019 review, explored the association between primary-care panel size and healthcare outcomes, finding moderate-certainty evidence that adjusting panel size to account for patient case mix (e.g., age, chronic conditions) improved access.(20; 21) While customizing panel size using patient complexity reportedly improved performance, larger panel sizes (greater than the average of ~1,200 patients per full-time clinician) were modestly associated with worse care quality and access, reduced patient experience (more complaints, lower satisfaction, worse perceptions of clinician availability), and higher clinician burnout. A recent medium-quality evidence synthesis affirmed the association between larger panel sizes and reduced access and longer wait times, as well as the need for panel sizes that account for patient complexity. Specifically, to determine the optimal patient panel size for clinicians, consideration should be given to clinician-related characteristics, patient-related characteristics (i.e., age, sex, comorbidities), practice-related characteristics (e.g., hiring additional practitioners, community-based vs. hospital settings), utilization, and costs.(22) This finding is similar to the results from a low-quality evidence synthesis reported in approach 4 about NP caseload.(15) Despite these findings, none of the evidence syntheses found sufficient evidence to make firm recommendations on an optimal panel size.

Eight of the evidence documents (one evidence synthesis and seven single studies) examined centralized waiting lists (CWLs) as an approach to incentivise enrolment of unattached people with a primary-care clinician, but this approach only improved access and attachment for non-vulnerable patients, creating concerns about equity with this approach. In

the highly relevant evidence documents included in this synthesis, patients were typically registered to be put on a CWL, and general practitioners often received an incentive payment if they attached a patient via the CWL. A medium-quality evidence synthesis reported that CWLs increased patient enrolment overall, but decreased enrolment of vulnerable patients, and lead to an increase in primary-care visits and continuity of care after attachment.(23)

The impacts of CWLs on access and attachment were reported in several studies from Quebec, where a CWL was first introduced in each local health network in 2008.(24) A five-year longitudinal cohort study reported that patient attachment from CWLs improved access and continuity of primary care for healthy people, but there are challenges in attaching patients with complex health conditions.(25) Additionally, patient attachment from CWLs resulted in 166,000 additional primary-care visits (per 100,000 population) in the first year, and an additional 43,100 primary-care visits in the second year. An older cross-sectional study found that CWLs attached an average of 54 patients per physician, and highlighted that family physicians with less than five years of practice experience and family physicians working in network walk-in clinics were more likely to increase the number of patients attached compared to physicians with over 30 years of practice and physicians in traditional family health units, respectively.(26) Additionally, family physicians in CHCs attached a significantly greater number of vulnerable patients than family physicians in traditional family health units. Another older cross-sectional study reported that over the two-year study period, 24,958 patients were attached to GPs via the CWL in Quebec, but on the last day of the study, 49,901 patients remained on the waiting lists.(24) Notably, people from materially advantaged areas and healthy people were attached sooner than people from materially disadvantaged areas and people with medical vulnerabilities, respectively. The processes of CWL registration and subsequent attachment may favour patients with material and social advantage (e.g., requirement for patients to complete and submit a CWL registration form, ability of physicians to return patients who do not respond upon contact or who do not align with the physician's practice scope). A qualitative case study investigating CWLs, known as GACOs in Quebec (GACO stands for "Guichet d'accès aux clientèles orphelines," which translates to "Access window for orphan clients" in English), reported mixed impacts on access and attachment, finding that some had high attachment rates and reduced waiting lists, but other GACOs with similar population had stagnant or growing waiting lists.(27) High-performing GACOs employed innovative communication strategies, leveraged leadership and resourcefulness, and adapted processes (e.g., pre-prioritization tools) to reduce delays and improve patient attachment outcomes. Another multi-case qualitative study identified five organizational innovations that were implemented to improve access to care for unattached people while awaiting attachment through CWLs: 1) a multidisciplinary clinic for patients with mental health illness; 2) a nurse clinic to provide care for patients with unstable chronic conditions; 3) a mobile proximity clinic for unattached people to be first evaluated by a paramedic prior to receiving care from a nurse; 4) a pharmacist trajectory; and 5) a decentralized Primary Care Access Point (GAP) that offers in-person nursing care.(28)

The majority of the evidence documents on CWL reported implementation considerations and strategies, including one low-quality evidence synthesis that found that the success of CWLs relied on thoughtful design and implementation that accounts for clinician behaviour – which is particularly important given that financial incentives or penalties have the potential to lead to 'cherry-picking' less complex patients, ignoring CWL prioritization, gaming behaviours, and inequitable access.(29) CWLs were also found to be more effective when clinicians were engaged in their design and perceived them as transparent and in alignment with their clinical values. A 2021 study of CWLs in Canadian provinces reported key considerations when designing and implementing CWLs to improve patient access and attachment in primary care, including: advertising campaigns and media coverage to increase awareness, allowing patient registration through different modalities, using prioritization tools and ensuring staff are familiar with criteria, implementing financial and resource incentives for clinicians, establishing target panel sizes, engaging clinician champions, promoting peer-to-peer supports, and enhancing capacity building.(30)

A 2018 study highlighted that CWLs were implemented in seven Canadian provinces as province-wide programs (except in British Columbia) and were often managed at the regional level with care connectors (usually nurses), and with clinician participation being mandated in Prince Edward Island and New Brunswick while remaining voluntary in other provinces.(31) Financial incentives were offered for clinicians based on patient complexity in some provinces to support primary-care attachment. Common challenges for the implementation of CWLs included clinician shortages,

difficulty attaching complex patients, and non-standardized evaluation methods across provinces. The program characteristics of CWLs and their effectiveness to facilitate attachment were highly variable between the provinces. For example, in Manitoba, CWLs attached over 80% of patients within 30 days, but the remaining unattached people were generally from rural and remote places. In contrast, in Quebec, target wait times were not met, with 350,000 unattached people still waiting on the list, especially people from vulnerable groups; and in P.E.I. wait times were six to eight months in rural areas and two to five years in urban areas after the implementation of a CWL approach.

Key findings from jurisdictional scans

As a part of the rapid evidence synthesis, we undertook a jurisdictional scan to identify approaches and solutions used to address PC-AA challenges in all Canadian P/Ts, as well as at a national level in a select group of countries, including: Denmark, Estonia, Finland, France, Germany, Italy, Netherlands, New Zealand, Norway, Slovenia, Spain, U.K., and the U.S. Details about the jurisdictional scans for each Canadian P/T can be found in Appendix 4 and scans for each country can be found in Appendix 5. Throughout the summary below, we use the term family physician to mean ‘family doctor/physician’ (FD/FP) or ‘general practitioner’ (GP) and we use the term ‘primary-care clinician’ when no specific clinician (e.g., family physician or nurse practitioner) is specified. When possible, we summarized any information identified about the impact of specific approaches on PC-AA, as well as quadruple-aim metrics.

Canadian P/Ts

As the health system in Canada is managed by provincial governments, all the relevant findings for the Canadian jurisdictional scan were identified within scans of individual P/Ts. The Government of Canada provides direct healthcare services to specific populations, including [First Nations and Inuit peoples](#), Canadian Armed Forces members, and [Veterans](#), but we did not identify any specific findings on approaches used by the Government of Canada to improve PC-AA for these populations. Additionally, findings have not been identified in Canadian P/Ts about facilitating the entry of patients onto patient lists (**approach 1**) and establishing hybrid attachment models that respond to seasonal shifts (**approach 8**), so below we focus on the approaches for which we did find experiences in P/Ts (**approaches 2, 3, 4, 5, 6, 7, and 9**). In most instances, the experiences we identified across P/Ts did not surface explicit insights about impacts on access and attachment or on quadruple-aim metrics; however, we make note of any impacts when applicable in the sections below.

Approach 2: Establishing additional ‘entry points’ for PC-AA

We found that nurse practitioner-led clinics, which benefit from their partnerships with local health services and partners, can be a useful strategy for establishing additional ‘entry points’ for PC-AA. We did not identify any findings related to the quadruple-aim metrics.

In Ontario, the [Lakehead Nurse Practitioner-Led Clinic](#) has significantly increased attachment to interprofessional primary-care in Thunder Bay and the surrounding area in partnership with local emergency medical services, primary-care partners and the Noojmawing Sookatagaing Ontario Health Team. Since opening, more than 700 people have been attached to team-based care.

Approach 3: Leverage solutions that enable primary-care clinicians to enrol more people on their patient list

One example of a solution that was leveraged to enable more people to be enrolled on patient lists was the [Longitudinal Family Physician Payment model](#) in B.C., which supports family physicians by compensating them for time, patient interactions, and the number and complexity of patients in their practice. Through this payment model, more supports were provided for physicians to manage their patient caseloads, ultimately enhancing the clinician experience. As a

result, as of December 2023, there were approximately 5,000 physicians in [working in longitudinal primary care](#), an increase of 708 (16.5%) from December 2022.

Approach 4: Coordinate the expansion of interprofessional primary-care teams

Within Canadian P/Ts, we found that there has been widespread expansion of interprofessional primary-care teams, including the establishment of demonstration primary-care models, community-based health teams, and family medical homes to attach more residents to primary care. We also found examples within this approach of provincial governments making financial investments to increase the number of primary-care health teams within localized areas. Financial incentives have also been offered to primary-care physicians to entice them to ‘buy-in’ to team-based care. We did not identify any findings related to the impact of these solutions as part of the jurisdictional scan; however, some of these approaches were the focus of studies included in the evidence documents outlined in the evidence section of this report (e.g., Ontario Family Health Teams).

Saskatchewan has established 20 [primary-care innovation “demonstration” sites](#) with alternative primary-care models and interprofessional teams serving as sites for policy experimentation and learning. In Nova Scotia, a Health Home model has been established consisting of [96 Collaborative Family Health Teams](#) meant to ease physician workload, improve physician retention, and increase access to primary healthcare. Teams distribute responsibilities amongst team members with the goal of attaching every Nova Scotian to a Family Health Team. Similar efforts have been made in P.E.I. where the provincial government is transitioning traditional family medicine practices to team-based, collaborative, community-health models called [Patient Medical Homes](#) (PMHs) to increase PC-AA. Seventeen PMHs have already been established, with a goal of expanding to 30 across the province. Furthermore, in [March 2023](#), the Government of Yukon announced the expansion of the “Find a Primary-Care Provider” program to include nurse practitioners in an effort to give more Yukon residents access to a primary-care clinician. Yukoners must apply to be enrolled in the program. [Four integrated care teams were established in Yellowknife](#) in May 2024 where teams of clinical and non-clinical staff work together to ensure that all patients in an integrated care team will have access to a member of the team. The process to bring every resident on to a care team is ongoing and residents are notified once they have been assigned to a care team. Lastly, the [Hamilton Family Health Team](#) has worked with partners from across the Greater Hamilton Health Network Ontario Health Team to launch several initiatives, including [Health Care at Eva Rothwell Centre](#), which is a grassroots community hub that includes a new primary healthcare clinic to serve individuals and families living in poverty. The health teams collective efforts have attached more than 6,000 people to team-based primary care who did not have access previously.

In terms of financial investments, Ontario’s \$110 million investment in primary-care health teams through the [Your Health Plan](#) reportedly led to more than 328,000 people being connected to primary care. A [Primary Care Action Plan](#) has been recently outlined to connect two million more people in Ontario to a publicly funded family doctor or primary-care team within four years. Similarly, in April 2025, the [Horizon Health Network](#) (funded by the Government of New Brunswick) announced a plan to establish Family Health Teams across the province with the goal of attaching all New Brunswick residents who live in served areas with a local interprofessional healthcare team by 2029. Nine teams are currently in development with 46 existing teams undergoing improvements. Community-based interprofessional [Family Health Teams](#) have been established by the government of Newfoundland and Labrador, and in September 2024, physicians were provided with a [\\$75,000 incentive](#) to join a family health team for at least one year. Lastly, with [funding](#) from the federal government, the Northwest Territories Health and Social Services Authority (NTHSSA) collaborated with the Department of Health and Social Services and the Tlicho Community Services Agency to [launch integrated care teams](#) as part of the province’s primary healthcare reform initiative.

Approach 5: Better match less intensive care models to preferences and needs

Within this approach, virtual care models have been implemented in Canadian P/Ts to enable unattached people that require less intensive care to access immediate virtual care services, although we did not find any insights about their impacts. In Manitoba, the [MBTelehealth](#) service uses a secure link to provide videoconferencing from primary-care clinicians to users to support care coordination and community support and link users to existing services.

[VirtualCareNS](#), a virtual primary-care clinic in Nova Scotia, provides virtual primary-care access to patients on the “Need a Family Practice” Registry, and the [PEI Unaffiliated Virtual Care Program](#) provides free access to virtual care to unattached people on the [Provincial Patient Registry waitlist](#) through an online portal called Maple. [Two virtual care options](#) are available for unattached people in Newfoundland and Labrador including Teladoc, which provides virtual primary healthcare for individuals who are registered on Patient Connect NL, and Medicuro, which is a virtual health clinic for common conditions (e.g., sinus infection). In B.C., [HealthLink BC](#) offers a 24/7 phone service (8-1-1) that offers navigation services to a relevant clinician (e.g., nurse, dietician, physical therapist, pharmacist) based on the caller’s questions, from which phone-based assessment, education, and further connections to additional health services can be offered.

Approach 6: Support regional care networks or geographic centres to increase PC-AA (take a ‘whole OHT’ approach to increasing access and attachment)

Identified strategies in P/Ts focused on taking a ‘whole OHT’ approach to increasing access and attachment in Canadian P/Ts included using CWLs and registries to confirm attachment relationships and facilitate the attachment of people, as well as resource sharing through ‘shared care’ services and primary-care networks that bridge resources for primary-care clinicians to enhance coordination and improve clinician experiences.

Both [B.C.](#) and [Ontario](#) have provincial attachment systems that use a coordinated approach to connect unattached people to primary-care clinicians through centralized registries (Health Connect Registry in [B.C.](#), and Health Care Connect in [Ontario](#)), and Alberta has a [Central Patient Attachment Registry](#) (CPAR) that captures the confirmed attachment relationships between primary-care clinicians and their patients. CWLs have been implemented in several P/Ts to facilitate the attachment of people to primary-care clinicians who are accepting new patients, including [Manitoba](#), [Quebec](#), [New Brunswick](#), [Nova Scotia](#), [P.E.I.](#), [Newfoundland and Labrador](#), and [Yukon](#).

[Primary Care Networks](#) (PCNs) were implemented in Alberta to establish formal relationships between primary-care clinicians and health regions who plan and deliver services based on population needs and to integrate healthcare delivery across a continuum of care. PCNs have seen significant family physician participation and have provided 60% of primary care across the province as of 2009. In Manitoba, “My Health Teams” ([MHT](#)), a collaboration between FFS physician clinics and regional health authorities in a geographic area, jointly plan and deliver care that meets local needs. Additionally, [Shared Care](#), a mental health service in Manitoba, bridges resources and reduces physician burden through treatment collaboration between psychologists and psychiatrists who consult at different primary-care sites. Similarly, the [Shared Care Committee](#) partnership between Doctors of B.C. and the B.C. government aims to equally distribute the burden of care and support better care coordination between family and specialist physicians through several [initiatives](#), including ones for mental health, chronic care management, perinatal care, and teledermatology. Lastly, also in B.C., a collaborative structure emerged out of one of the five health authorities ([Fraser Health](#)) to place primary, acute, and community care under one leader to encourage collaboration, strengthen primary care, and integrate community services.

Approach 7: Establish transitional solutions to facilitate access as attachment efforts ramp up

Transitional solutions identified from Canadian P/Ts to facilitate access primarily involved attachment coordinators or navigators who use information from a digital registry service to assess the health needs of users and direct them to appropriate primary-care services while they wait to be matched to a primary-care clinician. We did not identify any findings related to the impact of these transitional solutions or the quadruple-aim metrics.

In both B.C. and Ontario, attachment coordinators from the Health Connect Registry ([B.C.](#)) and Health Care Connect ([Ontario](#)) use information entered by the user to inform people of their priority for attachment and to guide them to primary-care supports while they wait for a match. In Quebec, the digital service [Primary Care Access Point \(GAP – Guichet d'accès à la première ligne\)](#) connects residents who do not have access to a family doctor or nurse practitioner to health services by providing callbacks from health navigators to assess health needs and direct users to appropriate health services. A similar approach has been implemented in New Brunswick through [NB Health Link](#) which connects registered patients in-person, by phone, or by online appointments to a network family doctor or nurse practitioner while waiting for family doctor attachment through waiting lists.

Approach 9: Improve the supply and distribution of primary-care clinicians

To increase the supply of primary-care clinicians, we found that a few provinces have implemented practice assessment programs to assist internationally trained physicians with transitioning to practice within the provincial healthcare system, as well as dedicated funding to improve the supply and distribution of primary-care clinicians. We did not identify any findings related to the impact of these programs or the quadruple-aim metrics.

Through a partnership between the Government of Ontario, College of Physicians and Surgeons of Ontario, and Touchstone Institute, a pilot practice assessment program called [Practice Ready Ontario](#) offers a 12-week clinical field assessment to qualified internationally trained physicians in a designated Ontario community. Upon completion of the program, successful candidates are required to complete three years of service as a family physician in the province, with the aim of providing up to 100 new family physicians by the end of 2025. The [International Medical Graduate Assessment Clinic](#) in Nova Scotia was established to facilitate the entry of internationally trained medical doctors into the province's healthcare system with the aim of increasing the number of primary-care clinicians in the province. The intent of the clinic is to help doctors from other countries to move through assessments faster while ensuring that they meet standards to practice medicine in Nova Scotia. Lastly, P.E.I. launched a [one-year fellowship program to license international medicine graduates](#) (IMGs) to practice internal medicine in P.E.I. to improve the supply of primary-care clinicians in the province. This initiative is a collaboration between P.E.I.'s health authority, the College of Physicians and Surgeons of Prince Edward Island, and McMaster University (in Hamilton, Ontario), where the IMGs will study primarily at McMaster and be expected to practice in P.E.I. for at least one year following their fellowship.

Another approach to improve the supply and distribution of primary-care clinicians is dedicated funding to HHR planning. In the Northwest Territories, some of the funding from the [Government of Canada in 2024](#) went towards supporting recruitment, retention, and training of healthcare workers to align with the province's 2022 [Health and Social Services Human Resources Plan](#).

International jurisdictions

For the international jurisdictional scan of Denmark, Estonia, Finland, France, Germany, Italy, Netherlands, New Zealand, Norway, Slovenia, Spain, U.K., and the U.S., we identified jurisdictional experiences for six of the nine approaches listed in the organizing framework (**approaches 2, 3, 4, 5, 6, and 9**). Findings have not been identified from the international jurisdictional scan to facilitate the entry of people onto patient lists (**approach 1**), establish transitional solutions to facilitate access as attachment efforts ramp up (**approach 7**), and to establish hybrid attachment models that respond to seasonal shifts (**approach 8**). Additionally, no insights were identified about several categories of outcomes, including attachment, population health, and costs. Findings from Spain present the impacts of telemedicine (**approach 3**) on patient experience through improved quality of life, as well as improving patient and clinician experience with interprofessional 'micro-teams' sharing patient lists (**approach 4**). Findings about access were identified in Norway with remuneration changes (**approach 3**) and in Estonia related to the incomplete integration of

interprofessional teams into primary healthcare centres, creating unequal access to services for attached patients (**approach 4**). The summary below describes the most relevant findings.

Approaches to improve PC-AA

Approach 2: Establish additional 'entry points' for PC-AA

Three sub-approaches have been identified that establish additional 'entry points' for PC-AA, including a dedicated role for community pharmacies, integrated community care, and the creation of additional clinics. No insights about the impact of these approaches on access, attachment, and quadruple-aim metrics were identified.

Partnerships with pharmacies was identified in four countries as an approach to create additional 'entry points' for PC-AA. In [France](#), the scope of practice for pharmacists was recently expanded to prescribe some antibiotics and deliver certain treatments without a physician's prescription, offering an additional 'entry point' for certain primary-care services. Initiatives have also been undertaken in France to integrate pharmacy services into [emergency departments](#) to improve continuity of care, especially for socially vulnerable patients. However, solutions to the challenges faced in this integration process have not been successfully established. Collaboration between community pharmacies and primary-care services occur formally in the [U.K.](#) and informally in several rural regions in [Spain](#) (based on the initiative of individual clinicians), whereas in [Finland](#) this collaboration has been integrated into the interdisciplinary framework. However, in Finland, remuneration challenges have impeded the widespread integration of community pharmacies and health and social care organizations.

A community care initiative from the Netherlands ([Buurtzorg](#)) has gained international recognition for its "self-managing nurse-led teams" model that offers integrated community care in local neighbourhoods to be more accessible to patients and more responsive to local contexts. Using Buurtzorgweb [software](#) to reduce bureaucracy and increase productivity, the Buurtzorg team creates personalized care plans that support patients' self-management and holistic wishes to live at home as long as possible.

In [Slovenia](#), the Ministry of Health has incentivized the expansion of primary health care (PHC) practices to increase enrolment of non-registered individuals by offering increased funding to establish new practices located within existing community-oriented PHC centres. Creating [additional clinics in rural regions](#) has also been a priority in Slovenia to offer additional 'entry points' for PC-AA.

Approach 3: Leverage solutions that enable primary-care clinicians to enrol more people on their patient list

We identified solutions in several countries that enabled primary-care clinicians to enrol more people and reduce barriers to primary-care delivery, including remuneration changes, EMR and telemedicine solutions, and advanced scheduling software. In Norway, the adjustment to the payment model, alongside their updated recruitment strategy, have increased access (reduced wait times and an increased number of GPs across the municipalities), especially for patients with greater needs. In Spain, a telemedicine tool (TELEA) has been found to improve quality of life (patient experience) for 85% of patients surveyed in a five-year span.

Adjusting remuneration mechanisms to incentivize primary-care clinicians to optimize their patient list size was a solution implemented in Norway, Netherlands, and New Zealand. After piloting a few [different payment models](#) between 2018 and 2021, [Norway](#) implemented a fee-based model in 2023 that compensated GPs based on quality indicators and characteristics of their patients rather than on activity, and that authorized and compensated nurses for completing

certain tasks that were previously done by GPs. This change in remuneration model contributed to increased accessibility of GP services for patients with greater needs, as well as reduced wait times and an increase in the number of GPs across municipalities. The [Netherlands](#) made changes to their GP reimbursement system in 2018 to encourage GPs to expand their patient lists by compensating them for digital and after-hours care, while in [New Zealand](#), the Ministry of Health recently announced \$285 million in funding over the next three years to incentivize GPs to provide performance-based care and continue adding new patients to their patient lists.

Digital solutions were also implemented in several countries, such as France and Germany, where auto-registration of all people into an EMR system was employed to support longitudinal care, access, and attachment. In 2022, a centralized, patient-controlled EMR system called [“Mon espace santé”](#) was launched in France to auto-create medical records for all citizens, including unattached people. A similar approach was taken in [Germany](#) with the launch of its electronic patient record (ePA) system in 2025. These electronic record systems ensure that all citizens (with mandatory health insurance) have an EMR profile, and users can choose to opt out or close their accounts at any time. France’s record system has a [secure messaging platform for patient-clinician communication](#) and allows users to control who can access their account data. Both countries’ record systems were developed to enhance coordination among care clinicians and allow for digital health data to be stored in one place. Additionally, as part of its Digital Health Strategy, [Spain](#) is developing a national Digital Health Record to enable data-sharing between primary care and hospital care, with expansion to include social and healthcare clinicians in the near future, to leverage solutions that support longitudinal care and ‘free up’ time for patient care, which enables primary-care clinicians to enrol more people on their patient list.

Telemedicine digital solutions were implemented in several countries to increase access and promote efficiency, enabling primary-care clinicians to enrol more people on their patient list. In [Denmark](#), [Germany](#), the [U.S.](#) (specifically for [Veterans](#), as well), and the [U.K.](#), telephone or digital services have been offered to increase accessibility to primary care and improve care efficiency. Efforts to use digital care solutions to promote longitudinal care and efficiency have been seen regionally in [Spain](#), such as in the Galicia region where a telemedicine tool (TELEA) was created during the pandemic to reduce face-to-face consultations in primary care. This tool integrates health records across PHC and hospital settings, allowing the clinical data of patients served virtually through telemedicine to be accessed in the in-person services’ electronic health record system. Of the patients surveyed, 85% during the five-year implementation of this tool reported that it improved their quality of life.

Several countries used advanced scheduling software to streamline workflows and promote efficiency, often as part of a national e-health strategy. This was observed in [Denmark](#) ([national electronic register](#) and [official e-health portal](#)), [Germany](#) ([advanced access scheduling and adjusted payment mechanisms](#)), the Castile and León regions of Spain ([Health Areas Administrative Activity Tool](#)), and Italy ([Unique Booking Centres](#)). In Norway, a [self-triage digital platform](#) monitored by GPs and nurses was [launched nationally in 2023](#) to enable scheduling of a physical or digital consultation after patients completed a questionnaire that determines the adequate time needed for a consultation. In general, these systems permit the real-time sharing of health information, appointment scheduling/agenda management, and communication channels, which allow patients and primary-care clinicians to digitally access and update schedules in real-time.

Approach 4: Coordinate the expansion of interprofessional primary-care teams

The expansion of interprofessional primary-care teams has been coordinated through mandates and incentivizes for group-based/interprofessional primary care in several countries. In Estonia, this approach was found to create unequal access to services due to 56% of the attached population being registered to primary healthcare services that do not

employ interprofessional teams. Additionally, in Spain, a specific approach where an interprofessional team shares the responsibility of a patient list was reported to improve patient and clinician satisfaction.

Primary healthcare reforms over the last 30 years in [Estonia](#) have led to a transformation from hospital-based care to multidisciplinary primary care. These reforms included mandating every family doctor to work with at least one full-time nurse, gradually increasing the [scope of practice of nurses](#) to enhance service efficiency and reduce the burden on family doctors, and using financial incentives to retain and expand the PHC workforce as well as their patient lists. To promote large-scale change and transformation, some challenges had to be addressed, including the hesitancy of some primary-care clinicians to opt in to group practices (rather than remain in more flexible solo practices) and the instability of funding for the reforms. While 44% of the population (43% of all patient lists) are attached to a PHC centre, 56% of attached patients are registered to family doctors that do not provide interprofessional primary care (referred to as extended PHC services), creating unequal access to services for these attached patients. In [Italy](#), group GP practices have been incentivized over the last 15 years to promote collaboration and sharing of resources. Given that solo practices remain dominant, efforts to promote group practices are ongoing. In the U.K., the expansion of the Additional Roles Reimbursement Scheme will help to grow interdisciplinary teams through supported salary costs to increase access to appointments. In [Slovenia](#) and [Spain](#), plans have been developed to further develop PHC teams by expanding the competencies and involvement of graduate nurses and by building community strategies that consider the local context for health outreach, respectively.

We also identified strategies that focused on the management of patient lists to coordinate the expansion of interprofessional primary-care teams in several countries. Reforms to the agreements between municipalities and GPs in [Norway](#) have been recommended by an expert committee based on a comprehensive review of primary care to make the legal organization of GP services more inclusive of group practices. The reforms to the agreements would allow GP offices to assume responsibility for patient lists, rather than the individual GPs, so that patient attachment can remain more stable even as individual practitioners leave or join the practice. A similar approach was implemented on a smaller scale at a primary-healthcare centre in Spain that adopted '[micro-teams](#),' which involve the shared management of a patient list between a family doctor, a nurse, and an administrative worker. Evaluation of the micro-team initiative suggested that the approach led to reduced bureaucracy and inefficiency, as well as high levels of clinician and patient satisfaction.

Approach 5: Better match less intensive care models to preferences and needs

We found several virtual care models that offer less intensive care for acute health needs of the population through digital triage services and 24/7 virtual care services; however, the impacts of these approaches on access, attachment, and quadruple-aim metrics were not identified.

A [digital home monitoring system](#) has been developed in Norway to allow GPs to remotely monitor the health status of patients with chronic conditions and respond accordingly if a patient's measurements are out of range or of concern. Patients' health information can be virtually accessed by their GP, the patient's hospital, and the municipality.

Similar digital solutions were identified in the Netherlands, New Zealand, and Spain but for healthy patients needing acute care. In the [Netherlands](#), this involved the development of a digital triage system that can resolve tasks that do not require a GP by assigning them to '[dokterassistants](#)' (a role in between the scope of an administrator and a nurse) who can provide services such as immunizations, Pap tests, and wound care. Likewise, in the Balearic Islands region of [Spain](#), a telemedicine service (InfoSalut Connecta) was piloted in 10 health centres to reduce the amount of in-person appointments needed. This service involved a group of previously retired physicians who fielded phone calls from

patients and addressed health concerns that did not require a GP's attention or utilized de-bureaucratization guidelines to redirect patients to the hospital when necessary. [New Zealand](#) offers a non-triage based digital solution that offers a less intensive care model with a 24/7 digital GP/NP service that will be available in 2025 to provide primary-care services to all New Zealand citizens. This is not a transitional solution to provide high-value services to unattached people; however, this 24/7 care service is expected to benefit people who are not enrolled with a primary-care clinician, people who cannot get a timely appointment, and people needing after-hours care.

Approach 6: Support regional care networks or geographic centres to increase PC-AA (or take a 'whole OHT' approach to increasing access and attachment)

We identified several strategies that support regional care networks and geographic centres to increase PC-AA, including consolidating waiting lists, facilitating the sharing of resources by reducing practice models, and incentivizing group practices to set and reach attachment targets. Specific impacts of these approaches on access, attachment, and quadruple-aim metrics were not found.

In France, the consolidation of primary-care waiting lists occurs at a regional-level through [Regional Health Agencies](#) that implement health policies and coordinate care networks. Additionally, in [Norway](#), switching GPs is extremely difficult due to the necessity to unenroll from one list and become unattached before being considered for another list. However, an analysis of the current GP data system suggested that changes could be made to the enrolment algorithm to minimize this challenge without needing to increase each GP's list capacity/ceiling by allowing patients to 'swap' places on GP lists without first needing to become unattached. Such changes have yet to be implemented but could support a 'whole' system approach to increasing access and attachment.

[Co-location of GPs](#) was explored as a strategy to stabilize GP attachment and accessibility in a municipality in Norway. By consolidating seven GP offices into two offices, the GP practices were able to benefit from [splitting administrative tasks and costs](#) (e.g., rent, equipment, employees, IT and telephone systems) and allowing GPs to cover for each other during short-term absences. Similarly, in Finland, coordination of equitable care services across geographic regions was promoted by moving the responsibility of organizing healthcare, social welfare, and rescue services from [308 municipalities](#) to [21 self-governing well-being service counties](#).

In the [Netherlands](#), regional coordination functions improve access to data about a GP's capacity to take on patients through a collaboration between health insurers and healthcare clinicians that makes each GP's capacity in primary care publicly available so that patients can choose their GP based on proximity and availability.

Lastly, to improve PC-AA, patient panel sizes and attachment targets must be appropriate to the local context. Compliance with access and attachment targets are incentivized for regions in [Italy](#) to continue to receive national funding for primary care after community-based primary-care systems were decreed in 2022 to address 'territorial fragmentation' and health disparities. Similarly, compliance was incentivized for patients in [New Zealand](#) with lower patient fees to access primary care if they register with both a primary health organization (PHO) and a general practice. In [Estonia](#), a draft proposal to improve access to family physicians was submitted to the government in May 2022 to offer beginner family physicians the opportunity to start with a shorter patient list to offer flexibility until a practitioner has become more well-established.

Approach 9: Improve the supply and distribution of primary-care clinicians

We found that the supply and distribution of primary-care clinicians was a top concern in nearly every international jurisdiction, but specific impacts on access, attachment, and quadruple-aim metrics were not determined. Approaches for improving the supply and distribution of primary-care clinicians varied by country and type of health system, but common themes included HHR planning, recruitment and retention strategies, training programs and incentives, and increasing the number of residency/clinical placement positions.

In terms of HHR planning, the federal government of the [Netherlands](#) enacted the cross-sectoral Integrated Care Agreement in 2023, which called for HHR planning to encourage recruitment and retention of primary-care clinicians. In [Spain](#), the La Rioja region created a human resources plan for PHC workers that targets the hiring of nursing students and aims to improve job stability, loyalty, and retention.

Financial incentives were commonly used to enhance the recruitment and retention (supply) of primary-care clinicians. In [Norway](#), a state-funded recruitment subsidy for specialty education was offered through a pilot project in specific municipalities to incentivize GPs to own a practice in regions that struggle to recruit and retain GPs. This specialty training was recognized by the Norwegian Medical Association as one of 10 measures crucial to the future and sustainability of the GP scheme. In the U.K., recruitment and retention strategies included [supporting salary costs for additional roles in interdisciplinary teams](#), [increasing the annual pension growth allowance](#), and [abolishing the lifetime allowance on pensions](#) to encourage GPs to work their existing/more hours and not retire early. Other non-financial recruitment and retention strategies used in the U.K. included increasing the number of GP practices that hold [visa sponsorship licenses](#) and extending the length of visas for out-of-country GPs that recently completed their schooling in the U.K. to remain and practice in the U.K.

A few jurisdictions specifically mentioned government changes to the amount of residency/clinical placement spots available as an approach to improve the supply and distribution of primary-care clinicians. [Denmark](#) and [New Zealand](#) increased GP training positions, and [Estonia](#) issued a residency order in 2021 to increase the number of residency positions in family medicine when all family medicine spots were filled the previous year. Additionally, the [Spanish government](#) granted 52 million euros in subsidies to public universities to increase the number of spots available in undergraduate medicine courses for the 2023–2024 teaching period, with the specific aim of improving the supply of Family and Community Medicine professionals.

Solutions to consider for prioritizing people when opening or expanding a patient list

Our Canadian jurisdictional scan revealed two provinces with prioritization considerations when opening or expanding a patient list; however, specific impacts on primary-care access, attachment, and quadruple-aim metrics were not identified. Both [B.C.](#) and [Quebec](#) prioritize people with greater healthcare needs in their registries when attaching people to primary-care clinicians (and we are aware that Ontario does this as well; however, this was not documented in the evidence documents we reviewed). Additionally, Alberta's recent [Modernizing Alberta's Primary Health Care System \(MAPS\) Initiative](#) aims to increase primary-care attachment for all Albertans, with a specific prioritization of rural and Indigenous populations.

Our international scan revealed a few considerations for prioritizing people when opening or expanding a patient list. Specific impacts on access, attachment, and quadruple-aim metrics were not identified for most of these solutions, except in Norway where the adjusted GP scheme was found to increase accessibility to GP services, especially for patients with greater needs.

Most countries tend to prioritize patients with greater healthcare needs. In [Estonia](#), [France](#), [Germany](#), and [Italy](#), patients with chronic diseases and complex health needs are prioritized in order to provide follow-up/monitoring and continuous care, and in [Finland](#), phone call triage provides an alternative to the country's first-come-first-serve model of primary care for patients with urgent needs that have to be prioritized. Two schemes were developed in New Zealand to incentive primary health organizations to register populations known to have the worst health status ([Services to Improve Access](#)) and to compensate GPs for their efforts to provide services to high needs populations, including offering low-level patient fees ([Very Low Cost Access](#)). In Norway, the GP scheme was adjusted to promote task sharing through a [fee-based model](#), which [increased accessibility to GP services](#), especially for patients with greater needs (e.g., chronic conditions, addiction and psychiatry needs, elderly people). Lastly, in the U.K., [Integrated Care Boards](#) evaluate where new infrastructure and funding can be invested to adequately support the healthcare needs of growing populations in regions with new housing developments.

Many solutions for improving PC-AA targeted patients from a given geography. In [Slovenia](#), additional rural primary-care clinics were created, and in [Estonia](#), distance-based reimbursement for family physicians has been offered since 2020 to improve rural access. Italy's [National Health Equity Program](#) was established to target seven regions with significant health disparities; however, the details of this plan were not integrated into the 'Action Plan for 2021–2027.' In [Norway](#) and [Spain](#), regions that struggle with recruitment and retention of primary-care physicians have been strategically identified so that financial incentives can be implemented to recruit more primary-care clinicians to service these regions.

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The rapid-response program through which this synthesis was prepared is funded by the Ontario Ministry of Health. The McMaster Health Forum receives both financial and in-kind support from McMaster University. The views expressed in the rapid evidence synthesis are the views of the authors and should not be taken to represent the views of the Ontario Ministry of Health or McMaster University. The authors would like to thank Angela Wang, Laila Ahmad, Yao MacLean and Liz Herr for completing the AMSTAR ratings for this rapid evidence synthesis.

ISSN 2819-5639 (online)



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