## RESEARCH

**BMC Primary Care** 



# Organizational innovations related to Primary Care Access Points (GAP) for unattached patients in Quebec: a multi-case qualitative study

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## Abstract

**Background** Being attached to a primary care (PC) provider is at the core of a strong primary health care system. Centralized waiting lists (CWL) for unattached patients have been implemented in eight provinces of Canada to support the attachment process. In Quebec, the Ministry of Health mandated the implementation of Primary Care Access Points (GAP) across the province to help unattached patients navigate the health system while awaiting attachment through the CWL. Several local health territories developed complementary innovations to the GAP to respond to local population needs. This paper aims to describe five organizational innovations implemented locally.

**Methods** This multi-case qualitative study was conducted in four local health territories in the province of Quebec. Fifty-two semi-structured interviews with healthcare managers, nurses, physicians, other health professionals and administrative staff were conducted between April 2023 and April 2024. An interview guide was developed based on existing frameworks on the implementation of innovations and the evaluation of the GAP. Thematic analysis was conducted using NVivo software. Inductive and deductive approaches were used to develop relevant codes and themes. Logic models were built to describe the organizational innovations.

**Results** Five organizational innovations are described. First, a **multidisciplinary clinic** aimed at responding to patients with mental health issues was implemented. Second, a **nurse clinic** was implemented to provide temporary care for patients with unstable chronic illnesses. The third innovation is a **mobile proximity clinic** where unattached GAP patients are first evaluated by a paramedic before receiving care from a nurse. Fourth, a **pharmacist trajectory** was implemented to increase engagement of community pharmacists to respond to GAP patients. The last innovation is a **decentralized GAP** offering in-person nursing care to unattached GAP patients.

**Conclusions** Descriptions of these five innovations are key to inform other territories and provinces on ways to improve access for unattached patients while they are waiting to be attached. The introduction of the GAP and the

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organizational innovations, suggests a transition where access to PC services does not rely solely on attachment status.

Keywords Primary Care Access Points, Primary care, Organizational innovations, Access, Unattached patients

### Background

Worldwide, the best-performing healthcare systems rely on strong, integrated primary care (PC) systems [1–3]. Access to PC is key to a well-performing healthcare system [4]. Access challenges lead to poor health outcomes such as higher mortality, sub-optimal chronic illnesses management, less effective health promotion activities and preventive healthcare, and inappropriate use of emergency department services (i.e. for non-urgent needs) leading to higher cost for healthcare systems [5– 9]. Despite the recent addition of health equity as a fifth aim to the Quintuple Aim for Health Care Improvement Framework [10], access to PC remains an important source of health inequity in the world in general, and in Canada and Quebec in particular [11–13].

A key concept of a high-performing PC system is having a regular primary care provider (family physician or nurse practitioner) with whom the patient develops a longitudinal relationship. Being attached to a PC provider who adopts a team-based and patient-oriented approach is one of the pillars of the Patient-Centered Medical Home, a family practice vision promoting accessible, comprehensive, and continuous care for patients [14]. Studies have shown that patients affiliated with a PC provider benefit from more preventive care, have better health outcomes, and use the emergency department less frequently [15–18].

Despite the documented benefits of attachment, in the most recent Commonwealth Fund International Health Policy Survey of the General Population, Canada ranked 9th out of 11 countries, with over 17% of patients without a regular provider [19]. Important disparities also exist between provinces in Canada. For example, about 15% of patients are unattached in Ontario and 22% in Quebec [19]. Attachment to a PC provider or practice is an important problem in Canada and a priority for the population. A recent pan-Canadian engagement consultation offering patients the opportunity to express their views on the PC system also identified attachment and access to a multidisciplinary team as one of the pillars for improving the healthcare system [20].

Canada was the first country to set up centralized waiting lists (CWL) for unattached patients to foster attachment and, ultimately, access to PC [21, 22]. Basically, a CWL is a single place where requests for attachment to a PC professional are recorded and from which the match must be made according to the local availability of resources [23]. Eight provinces in Canada implemented CWL between 1998 and 2016 [22]. Other countries, such as France, have considered implementing such lists to reduce the consequences of inequitable access to PC across the population.

## Primary Care Access Points (GAP) for unattached patients awaiting attachment

Although the CWL was implemented in Quebec almost 15 years ago, the number of unattached patients registered on the CWL has greatly increased in the last few years, reaching 1.55 million patients in 2024 [24]. The large proportion of unattached patients, combined with cohorts of family physicians retiring, has led to long wait times for attachment to a family physician or nurse practitioner [25, 26]. While awaiting attachment, it is difficult for unattached patients to navigate the healthcare system, but above all to access PC often exclusive to attached patients.

In response, the province created a novel organizational structure complementary to the CWL, aimed at fostering access to PC for unattached patients. After a pilot project implemented in a rural local health territory of the province, the Ministry of Health in Quebec mandated, in 2022, the implementation of Primary Care Access Points (Guichet d'accès à la première ligne; GAP) in the 18 local health territories of the province. These are an organizational innovation to improve the utilization of health system resources by orienting unattached patients registered on the CWL to various primary care services based on their needs [27]. Figure 1 presents the GAP's main components. To access GAP services, patients must be registered on the CWL, where they will be linked to the local GAP where they live. The GAP is currently accessible by two main entry points (a phone line or a web form). Patients indicate their health need using a form (filled on the phone by administrative staff or online by the patient) and are called back later by an administrative staff or a nurse, oriented toward community trajectories, or suggested to rely on self-care advice. Depending on their need, they will be assessed by a nurse. Therefore, they will be oriented to the most relevant professional or service available to meet their need. This process aims to ensure that appointment slots with a family physician are reserved for patients who require this type of consultation and that the expertise of other types of professionals is maximized.

Implementation of the GAP across the province was mandated without specific guidelines regarding organizational structure or population needs. Several local health territories developed complementary innovations to the





Fig. 1 GAP main components and related organizational innovations

GAP to respond to local population needs. These innovations were managed by the same Direction as the GAP and were either included in the GAP structure or implemented in parallel with a direct link to the GAP. This study **aims** to describe five organizational innovations implemented locally to help meet the needs of unattached patients using a logic model framework. Given the potential of organizational innovations to improve access to primary care, this study provides an evidence base for achieving this goal.

## Methods

#### Study setting

This study took place in Quebec, the second most populous province in Canada, with a population of 9 million inhabitants. In Quebec, the main organizational model for delivering PC services is Family medicine groups (FMGs). In the province, there are about 360 FMGs characterized by collaboration among multiple health professionals (typically, family physicians and nurses with social workers and occasionally pharmacists) working in interdisciplinary teams. FMGs were implemented in 2002 to improve access to PC. Before the GAP was implemented, most FMGs delivered services only to their attached patients (i.e. patients formally attached to a family physician practicing in an FMG). As the number of people on the CWL was growing, Quebec's Ministry of Health introduced in June 2022 a new form of attachment, which we label "attachment to an FMG," which means that patients are attached to an FMG team rather than being attached to an individual family physician. This new form of attachment entails a temporary status for patients awaiting attachment to a family physician. Of the 2.9 million inhabitants (32%) who were unattached in Quebec in 2024 [24], just over 1.5 million were registered on the CWL and awaiting attachment to a family physician as of April 30, 2024, including 913,000 patients attached to an FMG [24]. Despite being attached to an FMG, these patients are required to contact the GAP instead of the FMG when they have a healthcare need.

This study builds on a longitudinal case study design [28]. We define a case as a local health territory. This study covers four local health territories, which are responsible for 2.2 million inhabitants [29].

## **Data collection**

Data were collected through virtual individual semistructured interviews. The interview guide's main themes were developed iteratively and built on two existing conceptual frameworks, the Damschroder Consolidated Framework for Implementation Research [30, 31] and an implementation evaluation framework developed and shared by decision-makers involved in the process of developing and implementing GAPs [27]. The interview guide covered questions inspired by the Damschroder Framework on the innovation itself, the outer setting, the inner setting, individuals involved, and the implementation process. The latter was complementary as it included specific questions nested in Damschroder's categories, such as IT tools and specific processes composing the GAP. Four main themes were discussed: (1) the roles and responsibilities of the participants within the GAP, (2) key events in the implementation, (3) challenges, barriers, and facilitators to implementation, and (4) recommendations for future similar innovations. The interview guide is presented in Supplementary material 1.

Interviews were conducted between April 2023 and April 2024 using Microsoft Teams. Multiple key stakeholders, including decision-makers, healthcare managers, health professionals (family physicians, nurses, and other health professionals), and administrative staff, involved in developing and implementing the GAP were recruited by e-mail. After each interview, two researchers filled in logbooks to document and discuss the key elements of the interview. Purposeful sampling ensured that participants were both men and women and that the variety of stakeholders was well represented [32]. Interviews were conducted until saturation [33], which means that more interviews did not add any new ideas. A total of 52 interviews were conducted in French and lasted on average 60 min. Free and informed consent was provided by all participants prior to the beginning of the interview. This study received ethical approval from all local health territories under study (MP-04-2023-716).

#### Data analysis

The audio files were transcribed, and transcriptions were analyzed using thematic analysis [34]. Thematic analysis

Table 1
Elements of logic models, adapted from Lewis and

Mitchell (2006)
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Problem addressed	Broad focus of the innovation/innovation aim
Outcome areas	Changes the innovation is trying to bring about for individuals and/or healthcare service systems
Inputs and strategies	Resources and activities needed for the innovation
Process	Service and service system characteristics that are considered necessary to bring about lasting impacts to target individuals and/or healthcare service systems
Intended impacts	Changes anticipated for individuals and/or healthcare service systems because of the innovation
Context of implementation	Contextual elements that have guided the implementation of the innovation

is useful for providing descriptions consistent with participants' perspectives. We built on both inductive and deductive coding strategies. Codes were developed iteratively given the ongoing implementation of the GAP in participating local health territories. Double coding was performed for initial interviews by the two researchers, combined with regular discussion with the team to ensure reflexivity. Analysis was conducted using NVivo12 Pro software. Grey literature provided by interview participants was also coded. These documents (i.e. Power-Points, reports) provided contextual elements for the outset of the innovation implementation (n=12).

Each innovation was described using a logic model. A logic model is a graphic depiction of a program (here, an innovation) using elements of inputs and strategies, process, intended impacts, and implementation context [35]. Logic models have previously been used to document and describe innovations in various healthcare settings, including in primary care [36, 37]. We used a logic model template based on Mitchell and Lewis' Manual to Guide the Development of Local Evaluation Plans [38] and adapted to our study aim. It is particularly well-suited for our study as it allows for synthesis of multiple data sources. Table 1 describes the elements of the logic model included in the descriptions.

#### Results

We present five locally initiated organizational innovations at different stages of development using a logic model. The descriptions of the innovations are based on the analysis of interviews and grey literature (see full list of documents in Supplementary material 2). Quotes are taken from the interviews.

## A multidisciplinary mental health team for unattached patients with mental health issues

When the GAP was first implemented, unattached patients' health needs were unknown, and mental health needs specifically were underestimated. As several patients requested mental health services from the GAP, it was found that appointments with family physicians in walk-in clinics were not adapted to the complexity of mental health needs. One participant emphasized her concerns about the concomitant issues of equity of care for such health issues in unattached patients and the comfort of FMG health professionals in treating them:

...we've always wanted these patients to be cared for with, you know, a certain equality, to be treated like everyone else, to be followed in their community like any other patient seen in their local FMG. I think it's the fact that FMGs aren't set up for that. They're not structured for that. [...] Then, people aren't always, I'll say sufficiently trained. I think they're well trained, but not everyone is equal, you know, in their level of training and comfort with this population.

These observations led to the implementation of the multidisciplinary clinic (Fig. 2) composed of health professionals specialized in mental healthcare intended to provide unattached patients with temporary biopsychosocial care for mental health issues.

After one year of operation, the multidisciplinary mental health team revised its range of services to meet the needs of the local population. Given the high demand for their services (entry points including GAPs, reorientation from emergency departments, and a local mental health program), the multidisciplinary team has put in place eligibility criteria, including having unstable mental disorders with co-morbidities. The clinic relies on a multidisciplinary team that maximizes the expertise of each professional by adopting an extended practice approach. At the entry point, the head nurse carries out an initial triage based on the information received by the GAP. The



### CONTEXT OF IMPLEMENTATION

Implemented in summer 2022 • Low proportion of unattached patients in the territory Very large area covered by the clinic • Strong inter-professional collaboration • Team members' agility and leadership patient will then have a 1-hour appointment for the initial assessment (longitudinal history related to the reason for the consultation) by a social worker or the mental health nurse practitioner, depending on the patient's need. Further appointments with other members of the team may be scheduled subsequently (if related to the initial problem for which the patient consulted) within 2-4 weeks. Multidisciplinary meetings are held every week to discuss the most complex cases, encouraging the exchange of expertise among team members. In rare and highly complex cases, such as when the patient's needs go beyond the team's expertise, a liaison mechanism with a responding psychiatrist is mobilized. The team can then benefit from the recommendations of the psychiatrist. The episode of care is closed when the health problem has been resolved or is stable. Patients must go through the GAP if they need the clinic's services again.

Multidisciplinary team services are intended to address unattached patients' mental health issues comprehensively, i.e. considering their global health. This innovation allows for a response to the complexity of unattached patients whose health has been neglected for many years given their challenges in accessing PC services. According to participants, the team's multidisciplinary collaboration and the high level of communication among the team are key to their success. Moreover, the team places a great deal of value on the experiential knowledge of its members rather than on more formal tools because mental health problems are complex and often do not fit into boxes. The prior and iterative identification of the roles of each professional was also key to the success of the clinic.

## A nurse clinic for unattached patients with chronic illnesses

The nurse clinic for chronic illnesses (Fig. 3) is in the same local health territory as the multidisciplinary mental health team and was also implemented in the summer of 2022. Because unattached patients with a known chronic disease rarely have contact with PC, they were struggling with unstable health problems with a risk of decompensation and escalating health problems. Access barriers to PC for chronic unattached patients led to patients having multiple and complex health needs. As one participant explained, such health needs require comprehensive care that goes beyond their chronic illness:

People come to our office not just with their chronic illness, but with psychological needs, physical needs, unstable chronic illnesses, psychosocial needs, financial problems, it's heavy stuff. We set up a follow-up program. We tried to stabilize them and tell ourselves that we're a hub and we try to keep them for six to eight months, but it's not easy to let your users go. The nurse clinic for chronic illnesses was implemented with the aim of providing temporary care to unattached patients having one or more unstable chronic illness. Empowerment and autonomy of patients are at the centre of their mission.

The nurse clinic, composed of four part-time clinician nurses and one nurse practitioner, is in a local community service center (CLSC), and all team members are physically present. The decision to locate the clinic in a CLSC was taken because another chronic disease rehabilitation program already operates there, facilitating collaboration and referrals. The nurse clinic for chronic illnesses collaborates with a responding family physician outside the clinic and maintains informal partnerships with local community pharmacists. Each nurse has about 80 patients on their caseload. Because of high demand and limited staff, reasons for consultations were iteratively revised and limited to diabetes, hypertension, dyslipidemia, obesity, neurocognitive disorders (screening), and chronic obstructive pulmonary disease.

Entry points for the nurse clinic for chronic illnesses include the GAP as well as reorientation from emergency departments and medical specialists. Upon the first appointment, a 90-minute face-to-face meeting with the nurse clinician allows for a full physical exam. Follow-up appointments with a nurse are usually in-person. Virtual appointments are also possible, especially for patients with mobility problems, as the local health territory is very large and the unattached population is composed of a significant proportion of older adults. When the reason for consultation is stable, there may also be referrals to CLSC services. When the episode of care is over-in relation to the initial reason for the consultation-the patient can call the clinic back for the same reason for consultation, but they have to go through the GAP for a new problem.

In the clinic, a broader team practice is advocated by promoting the autonomy and expertise of nurses. Now that nurse practitioners are part of the team, they are almost completely autonomous and manage to mitigate as much as possible patients' need for a medical appointment. As with the nurse clinic for chronic illnesses, patients attached to an FMG are no longer eligible for the clinic's services, creating a similar iniquity in access to services. As explained by one participant:

Patients attached to a clinic, we have to return them to their attached FMG. Let me put it this way. We've done a big, big job of returning them there, but with a lot of disappointment on the part of patients because they don't get the same care. The rest of us, [the patients] are pampered. They're taken care of. They're followed up. They do a lot of follow-up, they



#### CONTEXT OF IMPLEMENTATION

Implemented in spring 2022 • A large proportion of the socio-economically disadvantaged population in the territory is unattached • Unattached patients with unstable chronic illnesses have often been dealing with health issues for many years • Nurses' autonomy and expertise are promoted

Fig. 3 Logic model of the nurse clinic for chronic illnesses

ask for a lot of value. They used to be followed rigorously, but now, when they fall into the FMGs, they're more stable when they were with us.

In addition to the confusion this new type of attachment created amongst patients, it was detrimental to them in that they lost access to a service that was beyond what they could hope to receive in an FMG.

### Mobile clinic: enhancing access to proximity services

The mobile clinic (Fig. 4), a motorhome that travels to a different city each day of the week, was first put in place due to the high number of emergency department visits in the local health territory and reached under-served populations near their home. The aim was to serve municipalities/areas where there was a shortage of family doctors. To address this issue, the target population for



## CONTEXT OF IMPLEMENTATION

Implemented in May 2023 for all unattached GAP patients • Development of a pre-hospital practice framework with the local health territory for paramedic staff • Organization that strongly believes in the initiative the first year of the project was patients aged 65 and over without a family physician, as they are heavy users of emergency department services. Given the success of the clinic, the target population was revised and expanded to all unattached patients (0–100 years old). The mobile clinic was implemented to offer local services to unattached patients with non-urgent needs in under-serviced areas, to reduce emergency department visits for nonurgent problems, and to improve the relevance of referrals to other professionals or services to meet patients' needs.

The mobile proximity clinic stems from a partnership between the local health territory and a private paramedic company (grey literature document #10), a key element that was identified by participants as an enabling factor for the success of the clinic:

It's about being able to link the strengths of a private company and the [local health territory] in terms of supervision, trajectories, medical expertise, and having weekly project follow-up meetings with each of the [local health territory] departments present. [...] We had everyone around the table. And we were able to make very, very, very rapid progress in implementing this project.

The clinic is run by a nurse, a community paramedic, and an administrative clerk. Due to weather-related reasons, the clinic only runs from May to October and is open Monday to Friday from 8 a.m. to 4 p.m. with 15 to 17 slots per day. The success of the clinic is highly dependent on advertising strategies made to promote the clinic, such as interviews on community television, broader television coverage, publications on social media, presentations at events, open houses at the clinic, distribution of flyers, and emails sent to GAP patients.

Entry points to access the clinic include either the GAP or patients themselves. For the former, administrative staff and nurses from the GAP can book appointments for patients. For the latter, patients can make an appointment by themselves using the *Clic-santé* web platform, which is a provincial platform enabling patients to book appointments for different services (e.g. vaccination, blood test, mobile clinic). Although less used, patients also have the possibility to come to the clinic without an appointment.

When patients arrive at the mobile clinic, they are welcomed by a paramedic, who first gathers information on the problem for which the patient is consulting. This includes filling out the electronic medical record and taking vital signs. Then, the patient is assessed by the nurse, tests are carried out, and group prescriptions are used if needed. The patient can also be oriented to the appropriate professional as needed, including booking a medical appointment for the patient using the GAP's available slots. The appointment in the mobile clinic lasts on average 30 min. Care trajectories were developed in order to avoid medical appointments. For example, an on-call physician and social worker from the local health territory are available. Wi-fi instruments and having access to a remote physician on-call allow the team to assess and treat certain health problems without having to give further medical appointments.

The mobile proximity clinic has provided a point of access to receive care near unattached patients' homes in under-served areas in the territory. In nearly 20% of cases, the needs of patients were met without giving a medical appointment or orienting to another resource. Patients were also highly satisfied with the care that they received.

## Pharmacist care trajectory: benefiting from the new professional activities of community pharmacists

Many requests for GAP services that were given a medical appointment were for prescription renewals or extensions. Yet, given that supply of appointments with family physicians through the GAP were insufficient to meet the demand, regional leadership enabled the development of a pathway involving pharmacists, hence optimizing use of resources. At the same time, Bill 31, which enhanced pharmacists' scope of practice, allowing them to renew prescriptions, was adopted. Thus, in three local health territories, the pharmacist care trajectory (Fig. 5), initiated by regional leadership, mobilized the expertise of community pharmacists to better meet the needs of unattached patients. Optimizing the expertise of pharmacists in the community and better management of available medical appointment slots were the objectives of this innovation.

Strategies implemented first included pharmacists within GAP teams (the number of pharmacists and their hours/week varied across territories). Their role evolved as GAPs were implemented but included training of nurses and administrative staff about community pharmacists' roles and responsibilities, reviewing consultation requests sent by community pharmacists, and reaching out to community pharmacists to spread the GAP's mission. Second, a pharmacist working for the *Comité Régional sur les Services Pharmaceutiques* (CRSP) facilitated a climate of trust and willingness to participate among community pharmacists. Informal partnerships with community pharmacists were essential.

The extent to which their role enabled the implementation and adoption of this trajectory was variable across the territories. As of April 2023, the three local health territories refer between 4% and 12% of GAP requests to community pharmacists. Among the reasons for such differences cited by participants was a reluctance of



### CONTEXT OF IMPLEMENTATION

Bill 31: increased the scope of pharmacists' practices • Differences in trajectories according to the level of involvement of GAPs and/or pharmacists by local health territory

## Fig. 5 Logic model of pharmacist care trajectory

community pharmacists to participate due to a lack of understanding of the needs of GAP patients or the GAP itself, differences in numbers of medical appointment slots available, and the extra workload of community pharmacists caused by newly authorized professional activities. The facilitating factors were communication, leadership from regional pharmacists or the GAP, outreach in community pharmacies, and training GAP staff.

Pharmacists included in the GAP teams developed and adjusted trajectories with community pharmacists to facilitate referrals. Pharmacists at the GAP were engaged in a coordination role. GAP nurses call the patient's pharmacist to explain the patient's need and send clinical notes if needed. On the other hand, community pharmacists can also refer patients to the GAP, only in cases where patients would not be able to undertake the process by themselves. Autonomy and responsibility of patients are promoted. The community pharmacist then faxes a request to the GAP, including information such as the reason for the consultation and the pharmacist's suggestions.

The pharmacist's care trajectory contributes to more equitable access to PC. One pharmacist participant explained that, with the enhanced scope of practice, the relationship of trust that can exist between a patient and their pharmacist is like that with a family doctor:

Then, the type of intervention we sometimes do for GAP patients helps to consolidate or develop this relationship a little, because you're not just giving advice or distributing or teaching, you're really taking charge, adjusting [prescriptions]. You're really going to respond to their need for which they're asking you. So, you're not necessarily, you know, at the end of the chain at that point, but you're the person who intervenes with them.

Thus, this trajectory not only optimizes pharmacists' expertise and increases access to services for unattached patients but also fosters a degree of continuity between professionals and patients, a key element in high quality primary care.

#### Decentralized GAP: in-person nursing care

In some cases, telephone assessments by the GAP limit the information (e.g. physiological measures, in-person tests and observations) that can be gathered to sufficiently assess unattached patients' needs. Additional information obtained during in-person assessments may be necessary to orient them to the right professional or service. Therefore, in the absence of an in-person assessment, these unattached patients may be more likely to receive a medical appointment with a physician. A lack of access to care near patients' homes was also observed in some areas of this territory. Given the limited number of medical appointments available and lack of PC service availability in some areas, a decentralized GAP (Fig. 6) was implemented in four CLSCs in one territory to offer rapid, in-person, non-urgent care from a nurse. It aimed to address the lack of rapid access in proximity to patients' homes, decrease the number of medical appointments given, and/or optimize the medical appointments given to patients after their visit to the decentralized GAP.

Each decentralized GAP includes an administrative staff member and a nurse. In some decentralized GAPs, a part-time physiotherapist is also available to see patients.

However, the waiting time to access this professional is long. The decentralized GAP offers care for unattached patients of all ages for various types of non-urgent health problems such as flu-like symptoms, gastroenteritis and urinary symptoms, musculoskeletal pain, dermatological and mental health problems, and sexual health.

Appointments for the decentralized GAP are mainly booked by patients themselves via the Clic-santé platform or by personnel at the GAP. Each nurse has eight to ten 45-minute appointments per day. Nurses use the Intake-Assessment-Intervention-Orientation approach during the consultation. First, the request is made by the GAP, the patient or less often the emergency department triage nurse. Then, their immediate health need is assessed, and an intervention is provided by the nurse, which could include treatment, care, and/or education. Finally, the patient is oriented to the appropriate professional, if necessary. Referral to the appropriate professional or service/sector could include, for example, a medical appointment with a physician (directly given by the decentralized GAP), transitional professional services for chronic diseases, oncology, psychosocial care, and mental health services.

Nurses use collective orders for certain conditions after receiving specific training for their use (e.g. contraception). However, significant training might be necessary to be able to meet the needs of patients of all ages. One participant stressed that, to provide care for patients aged 0-100 years with a variety of clinical needs:

That's the big issue, because you never know what you're going to get in the office, and then whether you've got the training or not, you know, so when in doubt, you make medical appointments.

The decentralized GAP has addressed geographical iniquities in access to PC services in the territory where it was implemented. It provides rapid access to in-person nurse care in proximity to patients' homes and has reduced the number of medical appointments with a physician given to unattached patients, given that, as of Spring 2023, 40–70% of requests were completed without further referral.

## Discussion

With nearly 7 million unattached patients experiencing major access limitations including 2.9 million in Quebec, Canada has serious challenges to overcome before achieving a high-performing PC system [13, 24]. Primary Care Access Points (GAPs), the first of their kind in the world, were designed and implemented to support better navigation and to foster access to PC services for unattached patients without evidence or standardized guidelines. Interestingly, this lack of guidelines has given local



CONTEXT OF IMPLEMENTATION Direction's openness to innovation/alternative solutions

Fig. 6 Logic model of decentralized GAP

teams the flexibility to develop organizational innovations complementary to the GAP's initial design. Building on the analysis of over 50 interviews, this paper describes five organizational innovations that were implemented to respond to local population needs. Strong PC systems rely on accessible, coordinated, continuous, and comprehensive PC services [39, 40]. The implementation of GAPs has greatly increased the accessibility and use of PC services by unattached patients. However, other important pillars of strong PC services have not received as much attention. The described innovations complement existing GAP services by offering temporary follow-up care provided by interdisciplinary health teams (multidisciplinary mental health team and nurse clinic for chronic illnesses), in-person nursing care (mobile clinic and decentralized GAP), and PC services near patients' homes (mobile clinic, decentralized GAP, and pharmacist trajectory), optimizing the use of available medical appointments.

## **Equity challenges**

Our findings suggest that GAP innovations might have unexpectedly contributed to inequality of access to and comprehensiveness of care within the universal health system. In fact, when the GAP was first implemented, all unattached patients registered on the CWL in the territory and meeting the eligibility criteria had access to the multidisciplinary team and nurse clinic services. When attachment to an FMG was implemented by the provincial government (without flexibility), patients who were attached to an FMG could no longer access the clinic's services but rather had to rely on their attached multidisciplinary clinic (FMG). Unexpectedly, it turned out that patients who were still eligible for the multidisciplinary team and nurse clinic services ended up having, to some extent, more extensive services and faster access to a multidisciplinary PC team than attached patients. Our findings suggest that the multidisciplinary team and nurse clinic offer a wider range of services and more professionals who work in collaboration to offer short- and medium-term care. Several participants observed that some patients using these services refused to be attached to an FMG to maintain their access to the complementary services. Although this is anecdotal, and our aim was not to estimate the extent of the phenomenon, the recurrence of these comments in the interviews leads us to believe that this is an issue that needs to be addressed. Geographical disparities in access to PC services were also observed in one territory. The mobile proximity clinic and decentralized GAP were implemented to bridge the gap and offer nursing care near patients' homes. The mobile proximity clinic, by design, has made it possible to reach populations for whom access to services was limited by their remote geographical location in addition to their unattached status. The emergence of this type of innovation has significantly increased in Canada in recent years, highlighting their important role in improving access to PC services for under-served and vulnerable populations [41-43].

The success of the GAP, but above all the services offered by the documented innovations, has contributed to the existing gap between the four current categories of patients, i.e. those attached to a family physician, those attached to an FMG (but still waiting on the CWL), and those unattached, including those unattached and registered on the CWL and those completely unattached and voluntarily not registered on the CWL. In addition, to be registered on the CWL, patients must have a health insurance card and a place of residence (postal code), resulting in even greater inequity for certain vulnerable groups, including refugees, new immigrants, and children placed with child protection services. To ensure equity in access to PC services, the next step would be to transition towards universal affiliation for all patients.

#### Sustainability and scaling up of innovations

The implementation of the GAP put well-known PC challenges back on the policy agenda. It highlighted access challenges for unattached patients while providing an opportunity for leaders to monitor and measure the issues at stake. Despite the relevance of complementary local innovations, their sustainability remains uncertain and is highly dependent on local leadership and priorities. Budget sustainability is fragile and largely dependent on negotiations with the family doctors' union to encourage their participation. Also, the context of PC remains characterized by an important labor shortage–not only for family physicians but also nurses and administrative staff–and above all, an increasingly high number of unattached patients.

To our knowledge, no plans have been made to scale up these innovations. As is often the case with pilot projects in Canada [44], there is a risk that these innovations remain local and that the expertise developed by the initial team is lost over time. We believe that it may not be relevant to scale up all these innovations across the province given that they relied on local needs. However, the pharmacist care trajectory, for example, might be an interesting model to spread and scale up across the province given the new extended scope of practice of community pharmacists in Quebec [45]. The provincial long-term vision for the GAP is still uncertain, even more so for these locally-developed innovations in an ever-changing context. Efforts are needed to sustain the knowledge and expertise developed in the last 2 years to implement these inspiring innovations to improve access to PC services for unattached patients.

#### Strengths and limitations

Our multi-case design allowed for comparisons of innovations across four local health territories. The local health territories were different both in terms of population characteristics (size of unattached population, specific health needs, etc.) and GAP structures. Also, various stakeholders participated in the interviews, allowing innovations to be described according to several points of view and levels of participation in the development and implementation of these innovations.

The aim of data collection was not specifically to document innovations complementing the GAP, but this emerged as part of the interviews. Therefore, the list of innovations described in this paper is not exhaustive, and the descriptions could be more detailed. We do believe, however, that these short descriptions provide evidence on organizational innovations developed in line with local needs. Moreover, some innovations documented here pertain to specific sub-populations of unattached patients, allowing for a deeper understanding of these populations' challenges in accessing primary care, which we believe is highly relevant from an equity perspective. Also, as the innovations may have changed over time, certain characteristics specific to their evolution may not have been included in the article. Finally, we do not have the perspective of patients, a key element in improving equity in PC access. Not only do patients have a wide range of experiences interacting with healthcare services but as the principal users, they provide the perspectives needed to improve the quality of care and services. That said, their experiences using these innovations will be documented in a future stage of our research project, which aims to capture the patient experience of using GAPs.

### Conclusion

This paper described five organizational innovations complementary to the initial GAP design, a novel service which aims to support unattached patients navigating PC services. Findings are key to inform other territories and provinces of ways to improve access for unattached patients by mobilizing existing resources and health professionals' expertise.

While improving the primary healthcare system in Quebec is a challenge that has more to do with "how to do it" than with "what to do" [46], the openness shown by provincial leaders in implementing the GAP is note-worthy, as it may be indicative of a paradigm shift in the organization and delivery of PC services. Until then, attachment to a family physician remains the primary entry point to access PC services. The introduction of the GAP, but also the implementation of the aforementioned innovations, suggests a transition where access to PC services does not rely solely on attachment status.

#### Abbreviations

CLSC Centres locaux de services communautaires/local community service center

- CRSP Comité Régional sur les Services Pharmaceutiques
- CWL Centralized waiting lists
- FMG Family medicine group
- GAP Guichet d'accès à la première ligne/Primary Care Access Points
- PC Primary care

#### Supplementary Information

The online version contains supplementary material available at https://doi. org/10.1186/s12875-024-02614-y.

Supplementary Material 1

Supplementary Material 2

#### Acknowledgements

The authors thank Lisa Starr for scientific and linguistic editing. The authors also thank the participants who took part in the interviews.

#### Author contributions

MB, VD, CLL and ML conceptualized and designed the study. CLL, VD and MB contributed to data collection. VD, CLL and MB conducted the analysis and developed the logic models. MB, VD and CLL drafted the manuscript and MAS, CS, MB, ML, AM and MPP critically revised it. All authors approved the final version of the manuscript.

#### Funding

This study was peer reviewed and funded by a Canadian Institutes of Health Research Catalyst Grant (#475314) and the Fonds de Soutien à l'innovation en santé et services sociaux (#5-2-01).

#### Data availability

The datasets generated and analyzed during this study are not publicly available because of confidentiality of information but are available from the corresponding author on a reasonable request basis.

#### Declarations

#### Ethics approval and consent to participate

This study has received ethical approval from the Research Ethics Committee of the CISSS Montérégie-Centre (MP-04-2023-716).

#### **Consent for publication**

Not applicable.

#### **Competing interests**

The authors declare no competing interests.

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#### Received: 19 May 2024 / Accepted: 30 September 2024 Published online: 12 October 2024

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