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Evaluation of an interprofessional primary healthcare team as a new model of primary care in Quebec: a protocol for a type 2 effectiveness-implementation hybrid study

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ABSTRACT

Introduction One family medicine group (FMG) in Quebec has commenced a 5-year pilot project, which is herein referred to as the *Archimède* model, to implement a patient-centred model based on interprofessional care and the optimal use of healthcare providers' practice scopes. A research project will be conducted to: (1) assess this model's effect on the FMG's operational performance, and its users' resource utilisation at the public health system level; (2) investigate its optimisation with respect to professional roles, interprofessional teamwork and patient-centredness and (3) document users' experience with the model. The aim of this article is to describe the protocol that will be used for this research.

Methods and analysis A hybrid implementation approach (type 2 model) will be used. We will collect both quantitative and qualitative data. Regarding the quantitative dimension, and because this is a single-unit intervention study, we will use either or both synthetic control methods and one-sample generalised linear models for analyses at the FMG level. To evaluate the broader impact of *Archimède* on the public health system, we will use mixed-effects models and propensity score matching methods. Regarding the qualitative research dimension, using an interpretative descriptive approach, we will document users' experience and identify the factors that optimise professional scopes of practice, collaborative practices and patient-centredness. We will conduct individual in-depth semistructured interviews with healthcare providers, administrative staff, stakeholders involved in the *Archimède* model implementation and patients.

Ethics and dissemination This study was approved by the Ethics Committee of the Sectoral Research in Population Health and Primary Care of the Centre intégré universitaire de santé et de services sociaux de la Capitale-Nationale (#2019-1503). The results of the investigation will be presented to the stakeholders involved in the advisory committees and at several scientific conferences. Manuscripts will be submitted to peer-reviewed journals.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ The measure of efficiency with respect to operational performance at the family medicine group (FMG) level and the use of health network resources (eg, emergency room visits) by Archimède users is a strength.
⇒ The study's inclusion of the analysis of the interrelations between the microlevels, mesolevels and macrolevels to better identify the elements that facilitate or hinder the deployment of the Archimède model and the optimisation of professional roles and interprofessional collaboration is a strength.
⇒ The possible lack of generalisation associated with studying only one FMG will be mitigated by the use of a methodology to quantitatively assess the performance of the FMG, and an in-depth exploration of the influences of the implementation context on the deployment of the project.
⇒ The potential limitations of the type 2 effectiveness-implementation hybrid study will be mitigated by the involvement of multiple actors on the advisory committee (eg, able to be rapidly updated about the results; ability to intervene directly to make necessary adjustments).

INTRODUCTION

Context of the study

Primary care, which is patients' first point of contact with the healthcare system,[1] provides early care for health problems, chronic disease management and preventive services. Various models of interprofessional primary care are being created to address human resource shortages in health systems, control healthcare costs and reduce overuse of emergency departments visits.[2–4] These models are also designed to address the biopsychosocial needs of patients and improve access, continuity and quality of care.[5–9] Various

effects of these models have been reported for patients, for example, improved access and reduced stigma, especially for individuals with mental health problems[6 10 11]; enhanced chronic disease management[12]; better treatment adherence and follow-up[7 13 14]; and improvement in symptoms or functioning.[10 13] Various positive impacts on providers have also been reported, including: upskilling,[7 11 15] better job satisfaction[7 8] and redistribution of workloads.[8] However, although some organisational and cost–savings benefits by ensuring more efficient practices have been reported,[7] limited documentation of the cost-effectiveness of such models has been carried out.

In the early 2000s, in response to inconsistent primary care access, Canadian provinces and territories began developing various initiatives,[16 17] one of these being the creation of interprofessional primary care teams. The access to these teams remained for the most part centred on the family physician (FP). In Quebec, these teams are called Groupes de médecine familiale (family medicine groups (FMGs)), within some of which physicians, nurses and other health and social services professionals collaborate to deliver healthcare based on contractual agreements with the provincial government.[16] In Quebec, some patients have a family doctor and others do not. Those who do have a FP must be registered with one physician and ideally attend this clinic. However, if they are unable to get an appointment with their FP, these patients can go to a walk-in clinic. Patients who do not have FPs have to use walk-in clinics only. Although the FMGs are private clinics (although financed within Quebec's public insurance system), they have direct collaborative links with the Centres intégré universitaire de santé et de services sociaux (CIUSSS); many of the professionals who work in the FMGs are employees of the CIUSSS. The Ministry for Health and Social Services (MSSS) establishes the rules for the distribution of professional and administrative resources.

In 2017, the Saint-Vallier FMG in Quebec City, situated within the CIUSSS-Capitale Nationale (CN) territory, commenced a 5-year pilot project, titled *Archimède*.[18] Threatened with closure in 2015 due to the retirement of its physicians and the difficulties of medical recruitment in this district, in which it has not always been easy to recruit healthcare personnel, the pilot project enabled the FMG to maintain its activities, and to continue to meet the complex and diversified needs of the population. Due to the COVID-19 pandemic, which necessitated significant changes in both how services could be provided and staff availability, the pilot project period was extended by 2 years. This project, which was developed in collaboration with relevant stakeholders (eg, MSSS, CIUSSS-CN), seeks to implement a patient-centred model based on interprofessional care and the optimal use of healthcare providers' scopes of practice.

This model differs from the practices in many medical clinics in the sense that access is not automatically through a FP. Composed of several health and social services professionals, the Archimède model works on the principle of the inverted pyramid. That is, there are more nurses (primary healthcare nurse practitioners (PHCNPs) and registered nurses (RNs)) than physicians, and the clinic relies on the optimisation of professional roles through the close collaborations between health and social professionals.

The *Archimède* project is anticipated to improve access to primary care and, given the lower remuneration associated with the services provided by nurses and other health and social services professionals compared with that of physicians, to reduce costs. Also, arising partly from a more efficient allocation of patients across the various professions within the clinic, the improved access is anticipated to reduce hospital utilisation (eg, emergency department visits), thus contributing to health system efficiency and improved population health outcomes.[1 2]

The aim of the protocol presented in this article is to evaluate the implementation of this new model of primary care. Our investigation seeks to identify areas of improvement, formulate recommendations to improve the model's functioning, ensure its utility to stakeholders, and foster its sustainability and potential for scaling up. Specifically, this study seeks to determine whether the *Archimède* model is efficient regarding patient and clinic outcomes and teamwork (eg, role optimisation) in relation to the resources invested. Our objectives are: (1) to evaluate the impact of the *Archimède* model on operational performance at the FMG level as well as user resource utilisation at the public health system level; (2) to identify the factors that foster or impede the optimisation of professional roles, interprofessional teamwork and patient-centredness and (3) to document users' experience with the *Archimède* model.

Setting

The St-Vallier FMG is in Quebec City's Saint-Sauveur district. This neighbourhood has one of the highest rates of demographic fragility within the CIUSSS-CN territory.[19] Although the FMG serves a very broad clientele, a large proportion of its consultations are conducted with users with chronic health problems or in vulnerable psychosocial situations. The clinic's clientele is also characterised by a significant number of immigrants and political refugees. Regarding the FMG's human resources, there are currently 27 employees, including 6 FPs, 4 PHCNPs, 1 mental health nurse practitioner, 5 RNs, 6 health and social services professionals (social worker, nutritionist, physiotherapist, kinesiologist, psychologist, respiratory therapist) and 5 administrative staff. All services are free of charge for the clinic's clients. Several elements have been put in place to ensure the deployment and operation of the *Archimède* model. The use of the right professional according to patients' health needs is facilitated by the use of referral pathways by administrative personnel. The electronic medical record is used to facilitate communication between professionals during the management of common patients. The project manager, middle and senior managers of CIUSSS-CN provide

ongoing support to professionals to enhance interprofessional collaboration through training, personalised coaching and frequent meetings. Visual aids for clarifying the roles of each are available for professionals. The treatment of service users with complex problems is also facilitated by joint consultations between professionals, or dyads, for example, between RNs and PHCNPs. The team also contributes to facilitating access to various outreach services, including in community resources and the various services offered by the CIUSSS-CN.

METHOD AND ANALYSIS

Conceptual framework

This study is based on two frameworks: the *Quadruple Aim* framework,[20] which is the Canadian framework used for healthcare transformation research[21]; and the optimisation of professional scopes of practice.[22] The Quadruple Aim framework is designed to foster change in healthcare systems through the achievement of four goals: improved population health outcomes; improved care and patient experience; improved provider satisfaction; and lower costs/better value.[20 21] Recently, a fifth aim has been added that recognises health equity as an important outcome to reduce health disparities and address social determinants of health.[23 24] In primary care, the development of interprofessional teams is a key factor in improving quality to achieve these goals.[2]

Regarding the optimisation of professional scopes of practice, the Canadian Academy of Health Sciences (CAHS) identified factors of influence at the microlevels, mesolevels and macrolevels.[22] Microlevel factors include professional hierarchies, professional cultures and communication among healthcare professionals. Mesolevel factors include communication across multiple care settings, professional protectionism, accountability and availability of evidence. Macrolevel factors include legislation/regulations, payment models, educational needs/requirements and healthcare professional accountability.

Design

The research on evidence-based interventions frequently favours a stepwise approach; one of the limitations of this approach is the significant time lag between the development of the interventions and its implementation in the field.[25] To address this issue, we are using a hybrid implementation approach, specifically the type 2 model, which permits simultaneous testing or piloting of implementation strategies during an effectiveness trial.[25] Specifically in this investigation, we will collect both quantitative and qualitative data to assess the effectiveness and implementation of the Archimède model, consistent with our specific objectives. See table 1 for an overview of the type of data to be collected for the different outcomes. The overall data collection process (March 2023–February 2025) is presented in figure 1.

It is relevant to note that an advisory committee was established at the beginning of the development of the project, the objectives of which are to better understand the broader implementation context, monitor the progress of the research project, discuss methodological and fieldwork aspects and the emerging findings, and develop strategies for knowledge transfer to maximise the impact in the healthcare system. This committee is composed of members of the research team, and representatives from the management of the St-Vallier FMG, a user partner, and stakeholders from the CIUSSS-CN and the MSSS.

Quantitative approach

Our quantitative approach aims to evaluate the impact of the *Archimède* model on operational performance at the FMG level as well as user resource utilisation at the public health system level. In so doing, we will document the lower costs/better value dimension of the Quadruple aim.

Because this is a single-unit intervention study, to quantitatively assess the performance of the *Archimède* model at the FMG level, we will use either or both synthetic control methods[26 27] and one-sample generalised linear models. See table 2 for a non-exhaustive list of outcomes (eg, number of patient visits and

Table 1 Overview of targeted outcomes and data types

Type of outcomes	Framework	Target population	Data type
Effectiveness	Quadruple aim: improved population health outcomes	Patients	Quantitative Qualitative
	Quadruple aim: improved care and patient experience	Patients	Qualitative
	Quadruple aim: improved provider satisfaction	FMG' employees (healthcare providers and administrative staff)	Qualitative
Implementation	Optimisation of scopes of practice	FMG' employees (healthcare providers and administrative staff) Managers	Qualitative
	Quadruple aim: lower costs/better value	FMG/public health system	Quantitative

FMG, family medicine group.

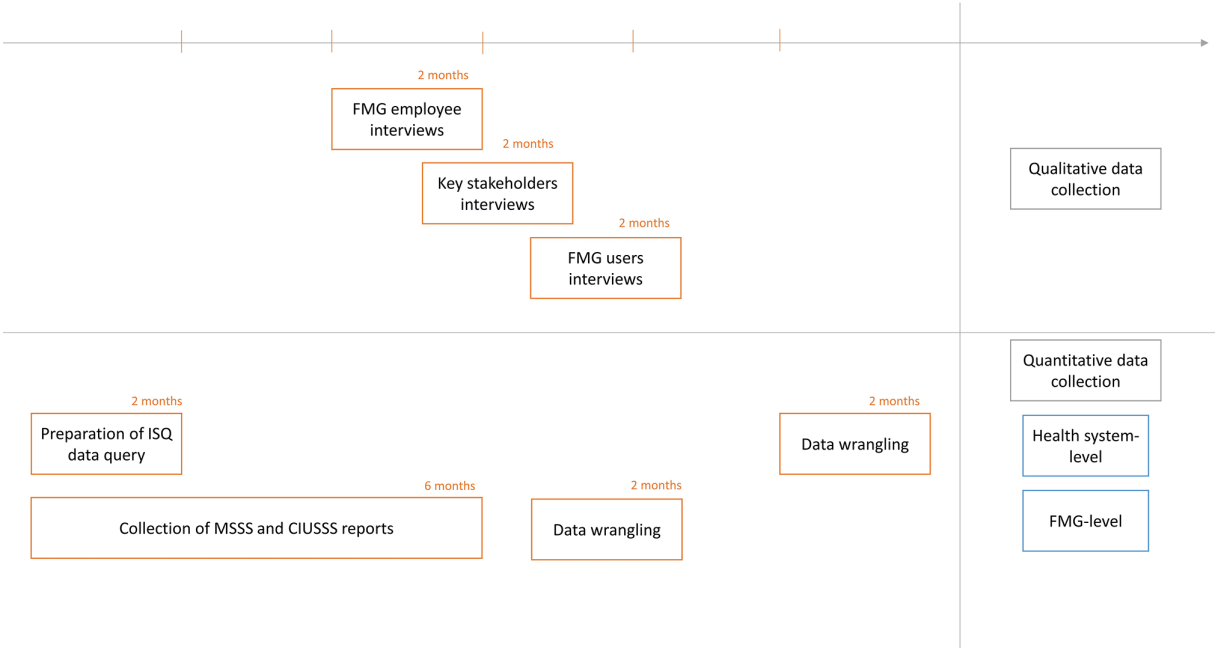

Figure 1 Data collection process over a year. CIUSSS, Centres intégré universitaire de santé et de services sociaux; FMG, family medicine group; ISQ, Institut de la Statistique du Québec; MSSS, Ministry for Health and Social Services.

vulnerability-weighted enrolments), their components and their sources. Synthetic control methods are quasi-experimental and are commonly used in the policy evaluation literature. In the case of our study, this approach will consist of constructing a control counterfactual FMG from a weighted combination of other FMGs in the Quebec City region. On the other hand, one-sample generalised linear models, which will be informed by preliminary clustering analyses (such as principal component analysis) for control FMGs' selection, will allow for testing more streamlined outcome comparison either transversally or longitudinally.

Table 2 Non-exhaustive list of FMG-level variables of interest

Variables of interest	Components	Sources
Year		
Id		
Size		MSSS's financial report of FMGs
Type	Private versus public	MSSS's financial report of FMGs
No of hours worked for each type of healthcare worker	For example, nurses, physical therapists, nutritionist, psychologists	CIUSSS's payroll report
Full-time equivalents for each type of healthcare worker	For example, nurses, physical therapists, nutritionist, psychologists	CIUSSS's payroll report
Enrolments	Total unweighted no of patient enrolments	MSSS's 8B report
Weighted enrolments	Weights include vulnerability, disadvantage, births, etc	MSSS's 8B report
No of physicians		MSSS's 8B report
Patient attendance rate		MSSS's financial report of FMGs
Visits	Subdivided into in-person visits and telemedicine. Further subdivided into visits from patients enrolled at the FMG, patients enrolled in another FMG and patients enrolled in no FMG.	MSSS's 8C report
Funding	Total amount of government funding in Canadian dollars.	MSSS's financial report of FMGs

CIUSSS, Centres intégré universitaire de santé et de services sociaux; FMG, family medicine group; MSSS, Ministry for Health and Social Services.

The database for the FMG-level analyses will be built from different operational and financial reports of all FMGs in the Quebec City region, including the St-Vallier FMG. These reports are routinely compiled by and will be provided to us by the MSSS and the CIUSSS. Although we plan to extract data from reports ranging from 2012 to 2022, these stakeholders could not confirm that every report would be available for that 10-year range. Since we need several years of preimplementation data for the synthetic control approach to be feasible, the precise choice of methods for the analyses at the FMG level will depend on how far back the data collected by the MSSS and the CIUSSS go.

In addition, to evaluate patients' service utilisation outside of the FMG, and thus better understand the broader impact of Archimède on the public health system, we will use both generalised linear mixed-effects models and propensity score matching methods[28] to compare patients enrolled in the St-Vallier clinic to those enrolled in other FMGs. The outcomes will include metrics such as number of urgent care admission events and length of hospitalisation. Confounding factors will include variables such as age, gender and pre-existing health conditions. The database for this portion of the study will be built and anonymised by the Institut de la Statistique du Québec (ISQ). A short list of some of the variables we will be querying, as well as details about the source database from which they will be extracted by the ISQ, are presented in table 3.

The data will subsequently be transferred to us via a secured remote connection service offered by the ISQ. The final database will comprise upwards of 60 variables for 14 000 randomly selected and uniquely identified patients; 3500 (25%) will be patients enrolled in the St-Vallier FMG and 10 500 (75%) will be patients enrolled in other FMGs. The experimental population sample of 3500 patients is based on the lowest number of enrollments in the St-Vallier clinic between 2018 and 2022 (3924 patients). The 25%–75% split was chosen to maximise the likelihood of successfully building synthetic control patients from weighted averages of patients enrolled in other FMGs to match the experimental group. To be included, patients will have to be over 18 years of age and will need to have been enrolled in the same single FMG between 2018 and 2022.

Qualitative approach

We will conduct the qualitative research portion of this study using an interpretive description methodology.[29] This approach is appropriate for gaining a rich understanding of service providers', stakeholders' and patients' experiences with the *Archimède* model, and their links with mesolevel and macrolevel factors that influence the optimisation of roles, interprofessional collaboration and patient-centredness. To collect this data, we will conduct individual in-depth semistructured interviews, which will be appropriate given the potentially sensitive data that participants will share, to permit us to capture deeper understanding of the subjective work and patient experience.

Population: eligibility criteria and sampling strategy

We will use a purposive sample[30] of healthcare providers (FPs, PHCNPs, RNs, various health and social services professionals), administrative staff and managers working in the St-Vallier FMG; stakeholders involved in the *Archimède* model implementation; and patients receiving services at the FMG. All employees from the St-Vallier FMG will be eligible. We will recruit up to five stakeholders who played a key role in the implementation of the *Archimède* model (eg, representatives from the MSSS, clinical advisor on

Table 3 Public health system-level example variables of interest

Variables of interest	Components	Sources database	Source database specifications
ID	Unique patient identifier provided by the ISQ	FIPA	FIPA contains information about patients covered by the public health insurance
Age		FIPA	
Gender		FIPA	
Partial postal code	First three digits	FIPA	
Urgent care admission event		BDCU	BDCU contains information about urgent care admissions
Length of hospitalisation		MED-ECHO	MED-ECHO contains information about hospitalisations
Service request event		I-CLSC	I-CLSC contains information about frontline common health and social services

A list of all available variables that the ISQ can provide can be found at: https://statistique.quebec.ca/research/#/donnees/administratives/sante.
BDCU, Banque de données commune des urgences; FIPA, Fichier d'inscription des personnes assurées; I-CLSC, Système d'information sur la clientèle et les services des CSSS-mission CLSC; ISQ, itut de la Statistique du Québec; MED-ECHO, Maintenance et exploitation des données pour l'étude de la clientèle hospitalières.

interprofessional collaboration), depending on the advisory committee's suggestions. The sample of patients will be based on the main health problems for which patients seek care, which we will determine during recruitment. We aim to include patients with health problems such as chronic diseases, mental health problems and loss of autonomy. We believe that 20 patients will be sufficient for providing rich data, although the final number will be determined by the attainment of data saturation.[31] Patients will be required to be ≥18 years old, enrolled with an FP, and considered able to provide informed consent by healthcare providers. All patients enrolled in the study will be asked to complete a sociodemographic form to provide information on their socioeconomic status.

Recruitment strategy

Participation in the individual interviews will be voluntary for all participants. For the recruitment of healthcare providers, managers and administrative staff, we will conduct an information session at the Saint-Vallier FMG to present the study and distribute information leaflets. We will also send an email to these personnel categories with detailed information about the study to inform employees who cannot attend the meeting. Employees who are interested in participating in the interviews will be invited to contact us. In addition, we will identify key stakeholders with the help of the advisory committee and contact them directly via email or telephone. Recruitment will be facilitated by close links between the research team and the actors in the field established through other research activities. In addition, various strategies will be deployed to maximise recruitment, for example, meetings of the research team at clinic meetings, reminder emails and participation of some members of the research team on strategic committees.

For patient recruitment, we will ask healthcare providers to provide them with information leaflets. We will also leave leaflets in the waiting rooms of the FMG. These leaflets, which will inform patients about the entire study so that they have the choice to decline participation, will include a consent form and will inform patients about the $30 to compensate participants for their time. Patients will have the option to contact the research team directly or leave their contact information in an online form if they are interested in participating in the interviews.

Interviews

The interviews will be conducted in participants' preferred setting (ie, home, research centre, FMG, videoconference), although adhering as necessary to current public health guidelines. The individual interview guides, developed in collaboration with the advisory committee, capture the following elements: improved care and patient experience, and improved provider satisfaction (Quadruple aim framework); the microdimension, mesodimension and macrodimension of the optimisation of scope of practice. See table 4 for the specific interview themes. These interview guides will evolve iteratively in that analyses of the results of the first interviews will inform questions during subsequent interviews. The interviews will be audiotaped with participants' consent.

Data analysis

Our analysis of the interview data will be facilitated by using NVivo software.[32] Data from professionals will be aggregated in such a way that each group is made up of a sufficiently large number of participants to preserve their anonymity. We will follow the stages of thematic analysis: initial coding according to our predefined interview themes and those that emerge during the analysis; categorisation; consolidation of categories; linking of categories; and data integration and modelling.[33] We will analyse data in light of factors that optimise scope of practice, at the microlevels, mesolevels and macrolevels,

Table 4 Interview themes

	Themes
Employees	Work organisation and motives to work in the FMG Level of commitment to work in the FMG Experience and satisfaction with the new FMG's work organisation
	Impact of *Archimède* on professional role and workload Interdisciplinary teamwork dynamics Obstacles to the implementation of the model (micro, meso, macro)
Stakeholders	Role in the implementation process Context of emergence and the implementation process Operation of the FMG Assessment of the *Archimède* model
Patients	Reasons for seeking care and healthcare providers seen Impact of *Archimède* on care and ability to get involved in one's own care (Saint-Vallier clinic) Satisfaction with care Likes and dislikes about the FMG's work organisation Participation in care decision-making

FMG, family medicine group.

as defined by the CAHS.[22] We will give particular attention to the collaboration between healthcare providers, and collaboration between healthcare providers and administrative staff. Furthermore, we will characterise interactions between the microlevels, mesolevels and macrolevels. We will prepare comprehensive summaries of our results and discuss them with the advisory committee group to enhance our interpretation of the results. Using the subsequent findings, we will (1) formulate recommendations for optimising interprofessional collaborative and patient-centred practices and the role of healthcare providers and (2) highlight the challenges and potential viable solutions related to the sustainability of the *Archimède* project and its potential scaling up in other settings.

PATIENT AND PUBLIC INVOLVEMENT

Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. The user-partner played a key role from the very beginning of the pilot project through his participation in several meetings of the advisory committee. The governance of the project has been designed to ensure that user-partners are involved in the decision-making processes, which will allow the advisory committee to remain responsive to user concerns throughout the implementation of the project. Refer to the Methods and analysis section for further details.

ETHICS AND DISSEMINATION

This project respects the ethics, integrity and responsible research conduct standards defined by the Fonds de recherche du Québec (FRQS) and the CIUSSS-CN. It has received ethical approval from the regional health organisation with which the researchers are affiliated (# 2019-1503). Regarding ethical considerations specific to the participants in the interviews, we specified all their rights in accordance with the rules of the sectoral research ethics committee (CER-S) in population health and primary care (eg, the right of participants to withdraw from the study at any time and to refuse to answer certain questions; the confidentiality obligations of the researchers; the confidentiality obligations of the focus group participants). The results of the investigation will be presented to the stakeholders involved in the advisory committee and at several scientific conferences. Manuscripts will be submitted to peer-reviewed journals.

DISCUSSION

Interprofessional teams are increasingly being established throughout Canada and elsewhere to improve the access, continuity and quality of services provided to individuals living with complex health problems (eg, chronic diseases, mental health challenges and comorbidities).[6 10 15 34–36] A variety of models exist, characterised both by the organisation and degree of interprofessional collaboration, as well as the type of clients served.[37–39]

This project will advance the understanding of the effects of a team-based model of care within an FMG that is in a disadvantaged area and whose clientele presents complex biopsychosocial problems. Various interprofessional primary care models have been developed that are designed to address complex health problems in specific populations identified as vulnerable, for example, older adults,[40] individuals with HIV[41] and veterans.[42] However, these models have frequently been presented as intervention programmes composed of a predefined interprofessional continuum of care, a care manager and/or case discussions. In comparison, the *Archimède* model is based on a uniform orientation to the optimisation of professional roles (seeing the right professional at the right time), and the use of predefined pathways enacted by administrative staff when making appointments. Furthermore, in this model, referrals are made between professionals, and the continuum of care is facilitated by having an interprofessional team in the same location. Access to this interprofessional approach is also facilitated because no fee is charged. In addition, compared with other reported primary care models,[38 43 44] there is no preselection of patients, with all patients being eligible for the appropriate professional services. Our research project seeks to understand the experience of users attending a clinic based on this model to assess the relevance of this model for this population.

One of the strengths of our research includes the measure of efficiency with respect to operational performance at the FMG level and the use of health network resources (eg, emergency room visits) by *Archimède* users. This study will make an important contribution to the understanding of the efficiency of primary care models, thus responding to the need to better evaluate primary care reforms.[16 36]

The originality of our research lies in our focus on the interrelations between the microlevels, mesolevels and macrolevels to better identify the elements that facilitate or hinder the deployment of the model and the optimisation of interprofessional collaboration. Understanding the context of implementation, particularly in relation to the particularity of the dual public and private organisational structures, is an important element in this research project. That is, although the model is deployed in a private clinic, it is publicly funded. As well, some staff are paid by the public health organisation. Thus, our approach takes into account: (1) structural issues related to health policies in primary care, types of funding and resource management; (2) issues related to the organisation of the clinic (eg, dynamics of interprofessional collaboration and management practices) and (3) microlevel issues related to the subjective work experience of professionals and service users' experiences.[22] Although our research evaluates only one FMG, the findings from this study could be relevant not only in Quebec but also for other jurisdictions looking to develop interprofessional

primary care models that address the social determinants of health, and that optimise the use of health and social care providers' respective scopes of practice.

Regarding the limitations of our investigation, there is a potential lack of generalisation in studying only one FMG. Nevertheless, conducting this project will permit us to both test our methodology to quantitatively assess the performance of the FMG, and to explore in depth the influences of the implementation context on the deployment of the project. A potential limitation of the type 2 effectiveness-implementation hybrid study approach concerns the difficulties that can arise if there is a problem in the implementation of the Archimède model in the FMG clinic with respect to the optimisation of professional roles and the close collaboration of the professionals; this difficulty can compromise the effectiveness trial field.[25] In our study, the involvement of multiple actors in the advisory committee should help to mitigate this limitation by the fact that they will be informed quickly of the results along the way and by their ability to intervene directly within the team to make the necessary adjustments. A further possible limitation concerns the potential for generalisation to other areas with different demographic profiles, given that the FMG under study is in a disadvantaged area. However, it is unlikely that all patients attending the FMG are in a vulnerable situation; the use of a sociodemographic form will help to establish a socioeconomic profile of the patients interviewed.

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