RESEARCH PAPER

Patients Living with Social Vulnerabilities Experience Reduced Access at Team-Based Primary Healthcare Clinics

Expérience d'accès réduit aux équipes cliniques de première ligne chez les personnes aux prises avec des vulnérabilités sociales

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Abstract

Objective: This study aims to explore differences in access to care as experienced by patients registered in team-based primary healthcare clinics according to their social vulnerability profile.

Method: A total of 1,562 patients from four team-based primary healthcare clinics completed an e-survey conducted between June and November 2021. The social vulnerability index was used to compare the experiences.

Results: Patients with low vulnerability consulted at emergency rooms three times more often because their family physician was not available ($p = 0.006$) than patients with no vulnerability. Lack of continuity was reported two times more often by patients with low vulnerability related to team members not knowing their recent medical history ($p = 0.006$) and by patients with high vulnerability related to no one being in charge of their file ($p = 0.023$). Both vulnerable groups reported receiving contradictory information more often than patients with no vulnerability.

Conclusion: Patients with high vulnerability experienced more access difficulties related to continuity, interprofessional collaboration and communication with providers.

Résumé

Objectif : Cette étude a pour objectif d'explorer les différences d'accès aux soins vécues par les patients inscrits dans une équipe clinique de première ligne, selon leur profil de vulnérabilité sociale.

Méthode : Au total, 1 562 patients de quatre équipes cliniques de première ligne ont répondu à un sondage en ligne entre juin et novembre 2021. L'indice de vulnérabilité sociale a été utilisé pour comparer les expériences.

Résultats : Les patients à faible vulnérabilité ont consulté trois fois plus souvent aux urgences, parce que leur médecin de famille n'était pas disponible ($p = 0{,}006$), que les patients sans vulnérabilité. Le manque de continuité a été rapporté deux fois plus souvent par les patients à faible vulnérabilité parce que les membres de l'équipe ne connaissaient pas leurs antécédents médicaux récents ($p = 0{,}006$) et par les patients à forte vulnérabilité en raison de l'absence de prise en charge de leur dossier ($p = 0{,}023$). Les patients des deux groupes de vulnérabilité ont déclaré avoir reçu des informations contradictoires plus souvent que les patients sans vulnérabilité.

Conclusion : Les patients à forte vulnérabilité ont plus de difficultés d'accès liées à la continuité, à la collaboration interprofessionnelle et à la communication avec les prestataires de services.

Introduction

Access to primary healthcare is an essential element in reducing health inequities (CSDH 2008). Timely access is defined as patients being able to access care when they need medical

attention (Katz et al. 2017; Schoen et al. 2007). Lack of timely access to a primary healthcare provider is an important weakness frequently reported in various countries, including Canada. Lack of timely access has several negative effects on the healthcare system, such as increased emergency room (ER) use for non-urgent care needs (Kaplan et al. 2015; Schoen et al. 2004; Senn et al. 2019), increased unmet care needs, more inappropriate treatment and deteriorated health status (Bowen 2012; Haggerty et al. 2008, 2020; Harris et al. 2004; Harris 2012; Khandor et al. 2011; Lévesque et al. 2012; McCusker et al. 2017).

In line with the core elements of value-based healthcare, improving timely access requires the development of equitable interventions and arrangements centred on patients' needs (Gilmore et al. 2019; Richard et al. 2016; Smith et al. 2020). From a patient perspective, the experience of access to care is defined as a process with steps such as perceiving the need for care, seeking and obtaining care and benefiting from the services received (Lévesque et al. 2013). Multiple barriers to accessing care exist at different stages of this process, and certain population groups are disproportionately more likely to experience them (Corscadden et al. 2018; Haggerty et al. 2020).

Inequitable healthcare occurs when access varies by social characteristics rather than need (Haggerty et al. 2020; Lévesque et al. 2013). Social determinants of health – such as living conditions related to poverty, isolation, age, discrimination and the ability to speak the official languages (Nundy et al. 2022; Raphael et al. 2020; Seale et al. 2022) – have been associated with greater negative impacts on the experience of access to healthcare (Clark and Preto 2018; Nundy et al. 2022; Patrick et al. 2018; Raphael et al. 2020; Seale et al. 2022). The presence of one or more of these determinants creates vulnerabilities from the patient's perspective to access care (Haggerty et al. 2020). Low income and immigration status contribute more often to barriers to accessing primary healthcare (Corscadden et al. 2018; Davis and Ballreich 2014; de Looper and Lafortune 2009; Osborn et al. 2016; Schoen et al. 2010). When barriers to accessing care accumulate and interact, the use of urgent care for general access and for primary care increases (Cheung et al. 2012; Haggerty et al. 2020; Macinko et al. 2016; Shippee et al. 2012). Using a social vulnerability index that includes personal and social characteristics (e.g., financial, immigration status, social support) shown to impact the ability to access care may be relevant to explore the multiple barriers of accessing healthcare services (Haggerty et al. 2020).

Despite being essential to support quality improvement efforts at both the clinic and policy levels, vulnerable patient-reported experience and outcome measures (PREMs and PROMs) have not yet been sufficiently documented (Horne and Manion 2019; Sutherland 2019; Wong et al. 2019). The objective of this study is to explore the different access experiences of patients registered at team-based primary healthcare clinics according to their social vulnerability profiles.

Methods

Design and setting

This study is based on a cross-sectional e-survey hosted on a web platform (https://www.surveymonkey.com/) that was conducted between June and November 2021 in four team-based primary healthcare clinics in Quebec. These clinics are groups of primary healthcare professionals, including family physicians, nurse practitioners, nurses, social workers and pharmacists, among others, who can be consulted by all registered patients. The size of the clinics varied. Clinic A had 17 physicians for 8,200 registered patients, Clinics B and D had 10 physicians for approximately 7,700 registered patients and Clinic C had 14 physicians for 8,800 registered patients.

Content of the patient e-survey on access

The e-survey of 52 items covered various access features on four main dimensions, including the pre-booking and the appointment booking process (actions taken before and while booking an appointment), access to the clinic (reaching the clinic, obtaining healthcare or advice, opening hours, reasons to consult elsewhere) and care continuity (communication with team members, interprofessional collaboration). Most of the questions were developed based on existing questionnaires to document these four dimensions of access (Appendix 1, available online at longwoods.com/content/27091).

The organizational accommodation questionnaire (Haggerty and Lévesque 2017) and the generic measure of continuity of care questionnaire (Haggerty et al. 2012) were shortened to assess access, continuity, comprehensiveness, responsiveness and perceived outcomes of care received. We supplemented the questionnaire by mapping questions from the GP [general practitioner] patient survey (NHS 2020) to assess the pre-booking and booking experience, the Primary Care Assessment Survey (PCAS) (Safran et al. 1998) and the Patients' Insights and Views of Teamwork (PIVOT) (Henry et al. 2014). We also used existing questions from the social vulnerability index (SVI) developed by Haggerty et al. (2020, 2023) based on social support, perceived financial status, education, language spoken at home as a proxy for limited language proficiency and new arrivals.

Data collection

The questionnaire was distributed electronically by a secretary at each clinic to registered patients with an e-mail address who had consulted at the clinic within the past month. All patients over 18 years were invited to participate in the study. Respondents were asked to complete the anonymous questionnaire on a voluntary basis. The research team prepared an e-mail message for the secretary to invite patients to participate in the e-survey. The self-administered questionnaire took approximately 20 minutes to complete.

Analysis

We performed descriptive analyses to summarize participant characteristics (gender, years as a patient at the clinic, etc.) and response frequencies (% valid). The SVI composite score was calculated based on a maximum score of four (very vulnerable). Table 1 presents the indicators of the SVI index, which is generated by the sum of all four indicators.

TABLE 1. Social vulnerability index

Indicators	Vulnerability codification
Social support	1 = 0–2 persons 0 = 3–6 persons
Perceived financial situation	1 = Poor to very tight 0 = Tight to very comfortable
Education	1 = No high school diploma 0 = High school diploma and higher
Languages spoken at home	1 = Does not speak French or English 0 = Speaks French or English

We performed Kruskal–Wallis tests to assess whether the socio-demographic characteristics of the study groups differed based on the clinical context. We used logistic regression models to explore associations between vulnerability groups and features of the four dimensions of the patient experience. Three groups were created based on the SVI index: no vulnerability (SVI score = 0), low vulnerability (SVI score = 1) and high vulnerability (SVI score = 2–4). The categories were determined based on observations from Haggerty et al. (2020), who showed that the presence of at least two social vulnerabilities was associated with experiencing access issues. Multivariate regression models were adjusted for any imbalances in socio-demographic characteristics. Odds ratios (ORs) with 95% confidence intervals (CIs) were generated. The Bonferroni criterion was applied to assess the significance level; any result with a p value <0.002 (0.10/48 tests, considering the exploratory nature of the study) were considered significant. We used IBM SPSS (IBM SPSS Statistics for Windows, Version 26.0, released 2019) for all analyses. Incomplete responses were excluded from the analysis.

Ethics approval

This study was approved by the Research Ethics Committee of the Centre de recherche – Hôpital Charles-Le Moyne of the CISSS de la Montérégie-Centre (MP-04-2020-410). Participants were provided with information on the study, and they consented to participate before completing the survey.

Results

The participation rate was estimated based on the number of patients who received an invitation from the clinic secretary to participate in the study. The sample consisted of 322/2,012 respondents from Clinic A (16%), 779/3,387 respondents from Clinic B (23%), 180/718 respondents from Clinic C (25%) and 281/3,451 respondents from Clinic D (8%).

Of the 1,562 patients who responded to the e-survey, 60% had been patients at their clinic for more than five years, 70% were women, 58% were 50 years or older and 99% spoke one of the two official languages at home. On the SVI, 14% of the respondents had a low vulnerability score (SVI = 1, n = 189) and 2% had a high vulnerability score (SVI = 2 to 4, n = 32). The overall SVI varied between 0 and 3, with a median of 0. Results of comparisons of the characteristics of the respondents showed significant differences among the clinics in three socio-demographic components – gender, age and self-perceived health status (all $p < 0.001$) – that were included in the adjusted models. Table 2 presents the socio-demographic characteristics of the respondents.

The pre-booking experience

Overall, 82% of the respondents (95% confidence interval [CI: 79.5, 83.4]) had booked an appointment within the past 12 months, and almost two-thirds (64%; 61.0%, 65.9%) were worried about their health. The main actions taken by the respondents before booking an appointment were to search for information online (34%; 31.3%, 36.0%), to take no action to get information or advice (32%; 30.2%, 34.9%), to try to self-treat by taking medications they already had at home (25%; 22.6%, 26.9%) and to talk to a pharmacist (22%; 20.1%, 24.3%). The two actions related to the use of the emergency room (ER) were the least reported by respondents: using the 24/7 dedicated line to consult a nurse for non-urgent health problems (triage, referrals to appropriate resources to avoid overuse of the ER) (8%; 7.0%, 9.8%) and going to the ER before making an appointment (5%; 3.7%, 5.8%). The group with low vulnerability reported worrying about their health less often than the group with no vulnerability (adjusted odds ratio [OR] = 0.70; 95% CI: [0.50, 0.99]; p = 0.045). However, after correcting for multiple tests, no features of the pre-booking experience were associated with the vulnerability groups.

Booking experience

Overall, nearly half of the respondents were given a choice of time or day to book an appointment at their clinic (47%; 44.4%, 49.4%), 33% (30.8%, 35.5%) were not given a choice and only 5% (3.8%, 5.9%) were given a choice of the type of professional they wanted to see. Nevertheless, more than 80% (81.5%, 85.2%) of the respondents were satisfied with the appointment they obtained and reported a good booking experience. The booking experience was not significantly associated with the vulnerability groups after applying the Bonferroni correction. Table 3 (available online at longwoods.com/content/27091) presents the pre-booking and booking experiences of the three groups.

Access to the clinic experience

Overall, a large proportion of the respondents reported good opening hours for appointments (79%; 77.2%, 81.4%), 89% (87.5%, 91.0%) did not regularly have difficulty obtaining care due to lack of availability of their physician and 84% (81.5%, 85.6%) received the health services

TABLE 2. Socio-demographic characteristics of respondents, *n* (%)

	Total respondents (1,562), *n* (%)	Clinic A 322 (21)	Clinic B 779 (50)	Clinic C 180 (11)	Clinic D 281 (18)	*p* value
Patient of the clinic for						
≥5 years	944 (60)	192 (60)	473 (61)	105 (58)	174 (62)	
1–5 years	574 (37)	111 (35)	185 (37)	74 (41)	104 (37)	0.740
<1 year	42 (3)	19 (6)	19 (2)	1 (1)	1 (1)	
Sex						
Female	955 (70)	204 (73)	442 (66)	102 (66)	207 (81)	<0.001
Age group						
≥65 years	409 (30)	96 (34)	213 (32)	39 (25)	61 (24)	
50–64 years	387 (28)	80 (28)	209 (31)	42 (27)	56 (22)	
35–49 years	325 (24)	56 (20)	152 (23)	36 (23)	81 (32)	<0.001
18–34 years	240 (17)	50 (18)	99 (15)	38 (25)	53 (21)	
<18 years	12 (1)	2 (1)	4 (1)	0	6 (2)	
Self-perceived health status						
Excellent	75 (5)	12 (4)	40 (6)	5 (3)	18 (7)	
Very good	346 (25)	57 (20)	174 (26)	30 (19)	85 (33)	
Good	666 (49)	139 (49)	337 (50)	75 (48)	115 (45)	<0.001
Fair	234 (17)	61 (22)	103 (15)	38 (24)	32 (13)	
Bad	49 (4)	15 (5)	20 (3)	8 (5)	6 (2)	
Social vulnerability index						
Median, min, max	0, 0, 3	0, 0, 2	0, 0, 3	0, 0, 2	0, 0, 2	
Components						
Language spoken at home						
French or English	1,356 (99)	276 (97)	669 (99)	155 (99)	256 (100)	
Other language only	10 (1)	7 (3)	2 (1)	1 (1)	0	
Self-perceived financial status						
Comfortable	724 (53)	134 (48)	376 (56)	66 (42)	148 (59)	
Moderate	407 (30)	102 (36)	185 (28)	53 (34)	67 (27)	
Poor to tight	227 (17)	45 (16)	107 (16)	37 (24)	18 (15)	
Highest education level						
Post-secondary	979 (72)	187 (67)	480 (72)	109 (70)	203 (80)	
High school	288 (21)	69 (25)	144 (22)	36 (23)	39 (15)	
Less than high school	95 (7)	25 (9)	47 (7)	10 (7)	13 (5)	
Number of persons for social support						
5–6 persons	908 (67)	180 (64)	438 (65)	94 (60)	196 (77)	
3–4 persons	383 (28)	85 (30)	198 (30)	49 (31)	51 (20)	
0–2 persons	69 (5)	15 (5)	34 (5)	13 (8)	7 (3)	
Median, min, max	5, 0, 6	5, 0, 6	5, 0, 6	5, 0, 6	5, 1, 6	

they needed at their clinic. However, 31% (28.9%, 33.9%) felt abandoned by the healthcare system and 37% (34.2%, 39.4%) reported that it was not easy to obtain healthcare or advice from the clinic. Feeling abandoned by the health system was reported two times more often by respondents from the high-vulnerability group (adjusted OR = 2.3; 95% CI: [1.1, 4.8]; $p = 0.033$). The low-vulnerability group reported consulting at the ER because their family physician was not available three times more often than the group with no vulnerability (adjusted OR = 3.2; 95% CI: [1.4, 7.2]; $p = 0.006$). The same group also reported consulting at the ER almost three times more frequently because the next appointment was too far away (adjusted OR = 2.6; 95% CI: [1.1, 6.0;] $p = 0.023$). The access to the clinic experience was not significantly associated with the vulnerability groups after applying the Bonferroni correction. Table 4 (available online at longwoods.com/content/27091) presents the access to the clinic experience of the three study groups.

Care continuity experience

Overall, about 80% (81.5%, 85.2%) of the respondents did not report having the impression that no one was in charge of their file, receiving contradictory information, experiencing team members not being aware of decisions made by another professional on the team or experiencing team members not having access to test results. Also, about 72% (69.3%, 74.3%) did not report having to repeat information that should have been in their file or experiencing team members not knowing their recent medical history. However, 45% (41.1%, 48.0%) of the respondents reported that team members were not at all or were only sometimes aware of their case, and 37% (33.7%, 39.5%) did not receive any information on how the clinic team works. The results of comparisons of the three vulnerability groups showed that patients with high vulnerability reported that no one was in charge of their file more than twice as often as the no-vulnerability group (adjusted OR = 2.5; 95% CI: [1.1, 5.7]; $p = 0.023$), whereas those in the low-vulnerability group reported that team members did not know their recent medical history (adjusted OR = 1.7; 95% CI: [1.2, 2.5]; $p = 0.006$). Patients from both groups reported having significantly more difficulties in their experiences of continuity related to receiving contradictory information than patients from the no-vulnerability group, and this increased gradually with the vulnerability level. The continuity experience was not significantly associated with the vulnerability groups after applying the Bonferroni correction. Table 5 (available online at longwoods.com/content/27091) presents the continuity of care experiences of the three study groups.

Discussion

Equitable access to primary healthcare is crucial in the move toward value-based healthcare. A greater understanding of the patient experience, particularly of patients who experience multiple intersecting health and social vulnerabilities, is essential (Horne and Manion 2019; Wong et al. 2019). Our results showed that although very few respondents went to a hospital ER before booking an appointment and a large proportion reported being satisfied with their

booking experience, fewer were satisfied with the other dimensions of access. Patients from groups with a low or high vulnerability index reported experiencing more difficulties accessing the clinic and more difficulties related to care continuity than patients from the group with no vulnerability but on different features. For instance, consulting at the ER because their family physician was perceived as not being available or because the next appointment was too far away was reported three times more often by patients in the group with a lower vulnerability index, and they were more likely to report that team members did not know their recent medical history. In contrast, respondents from the high-vulnerability group more often reported feeling abandoned by the healthcare system and that no one was in charge of their file. Both groups reported receiving contradictory information more often than the no vulnerability group, and this increased gradually with the vulnerability level.

Our results are in line with concerns already raised about equity of access to primary healthcare for patients with continuity of care needs and the necessity to guarantee an appointment with a particular provider (Dixon et al. 2006). In our study, respondents with high vulnerability did not consult more often at the ER than those with lower vulnerability, but the main reasons differed between groups; those with lower vulnerability reported that they did so because of a lack of availability of their physician. Not receiving the healthcare that they need at their clinic, experiencing aggravated health problems due to a long delay in obtaining care and experiencing a lack of availability of their physician are the barriers faced by vulnerable populations in accessing primary healthcare as identified by Corscadden et al. (2018), resulting in avoidable ER visits, unmet care needs and deteriorating health status (Bowen 2012; Haggerty et al. 2008, 2020; Harris et al. 2004; Harris 2012; Khandor et al. 2011; Lévesque et al. 2012; McCusker et al. 2017).

Overcoming these barriers is crucial for value-based healthcare systems to contribute to societal well-being (Smith et al. 2020). In Quebec, the main model of primary healthcare clinics, Family Medicine Groups (FMGs), are the result of a 2002 policy initiative to enhance access by uniting groups of physicians working closely with other primary healthcare professionals to provide services in one clinic (Breton et al. 2011). The implementation of FMGs also aimed to affiliate patients with one regular family physician (Breton et al. 2013), a policy intended to foster a continuous relationship between physicians and patients (Collège des médecins de famille du Canada 2012). Having a regular physician has been proven to improve access to primary healthcare services (Dunlop et al. 2000; Lambrew et al. 1996; Ngo Bikoko Piemeu et al. 2021) and continuity (Smithman et al. 2022) and to reduce use of the ER (McCusker et al. 2012).

Our results suggest a greater need for patients with social vulnerabilities to see their family physician to reduce ER use. However, Quebec is the only province in Canada with a policy obligating physicians to dedicate a portion of their time to locally prioritized medical activities, such as the ER or long-term care facilities (Roy et al. 2016; Nji et al. 2022). Although an association has been demonstrated between increased access and a higher

number of hours worked by physicians in their practice (Paré-Plante et al. 2018), this policy and excessive administrative duties mean that new physicians have fewer hours available to care for their registered patients, with less than one-quarter of their practice time allocated to ensuring continuity of care (Roy et al. 2016). Increasing the hours spent in primary healthcare settings according to the vulnerability level of the patient population and/or socioeconomics of the area could be a policy reform to improve patient access and continuity of care.

Successive healthcare policy reforms have been adopted in Quebec since 2002 to enhance the integration of care for patients with complex intersecting health and social needs (Katz et al. 2017; Nji et al. 2022). Despite these policy initiatives, socially vulnerable populations seem to continue to experience access inequalities due to difficulties in navigating an increasingly complex and constantly evolving healthcare system (Loignon et al. 2015; Ouimet et al. 2015). Navigation innovations designed to promote appropriate primary healthcare service utilization have been proven to be effective in reducing ER use (Enard and Ganelin 2013). Studies evaluating these innovations from the patients' perspective have highlighted the need to improve communication between providers and patients (to understand and express one's self and be heard) and to provide relational and emotional support (e.g., decision-making assistance, supportive listening), pragmatic information on existing resources and how the clinic functions and assistance in completing insurance forms, coordinating care (Viswanathan et al. 2010), finding transportation and scheduling appointments (Burns et al. 2014; Ngo Bikoko Piemeu et al. 2021). In line with these studies, our results on care continuity experiences showed that patients with a higher vulnerability index experience more difficulties related to patient–provider communication, as well as interprofessional communication and collaboration, that need to be considered when designing future navigation interventions. Navigation programs typically cost less than the savings from reduced ER visits (Enard and Ganelin 2013), and promoting this type of innovation could contribute to enhanced access and continuity for vulnerable populations.

These results also highlight challenges associated with clinic practices for patients with social vulnerabilities. Since 2015, primary healthcare clinics have evolved toward more interprofessional practice models, including family physicians, nurse practitioners, nurses, social workers and pharmacists, among others – and local health networks connecting health and social service providers have been promoted to enhance collaboration (Nji et al. 2022). A team-based primary healthcare clinic, in which patients are cared for by an interprofessional team rather than by the family physician alone, can ensure continuity and increase access (Abou Malham et al. 2017; Gocan et al. 2014; Martin-Misener et al. 2009; Oelke et al. 2021). However, challenges have been highlighted, such as a lack of clarity on interprofessional roles (Beaulieu et al. 2006), communication gaps when coordinating sequential actions between professionals, interprofessional sensemaking and working together to understand as a team (Fox et al. 2021).

Policies are required to increase the resources available to improve interprofessional collaboration and clear guidelines, care protocols and formal and informal consultation and guidance mechanisms are needed to determine the roles, scopes of practice and contributions of each professional (Breton et al. 2022). For instance, expanding the role of nurses to address common health problems (Abou Malham et al. 2020) could improve collaboration and communication among team members who tend to operate as separate primary healthcare providers (Lancaster et al. 2015). Innovations already exist that could guide future policies, such as integrated care in team-based primary healthcare clinics with an expanded nursing practice role. A recent study that measured patient-reported experiences of access, continuity, comprehensiveness, responsiveness and outcomes of care in six of these exemplary clinics showed a significant increase in reported care experience measures on all five dimensions (Duhoux et al. 2022).

Study strengths and limitations

One strength of this study is that it contributes to the literature on patient experiences of access, particularly for patients experiencing multiple barriers to accessing primary healthcare (Corscadden et al. 2018; Gilmore et al. 2019; Horne and Manion 2019; Sutherland 2019; Wong et al. 2019). Nevertheless, certain aspects of this study may limit the generalizability of the findings. First, it was conducted in four primary healthcare clinics in Quebec, including three that are university affiliated, which have particular characteristics, notably their teaching mission. Second, the data collection tool was based on existing questionnaires (cited in Appendix 1) in order to create a comprehensive report on access. We conducted a face-validity assessment of the survey, but we did not assess the construct validity for our questionnaire, mainly because our objective was not to assess a single abstract construct. Third, we sent the questionnaire only to patients with an e-mail address in their electronic medical record. This may have contributed to the low response rate. However, the response rate is similar to rates from other PREM/PROM studies – that is, between 11% and 47% (Corscadden et al. 2018; Tyser et al. 2016; Weir et al. 2021). Although this data collection method is low cost, it may have introduced a response bias, with patients with the highest vulnerability scores being underrepresented (Langer et al. 2021; UyBico et al. 2007). Recruitment strategies recommended to reduce these biases in future research include adapting the communication modalities for recruitment and data collection to occur close to where people are and when it is convenient for them (e.g., partnering with community organizations) and offering meaningful incentives (Langer et al. 2021). Finally, we were not able to identify patients with chronic diseases with this questionnaire. Concerns have been raised for these groups of patients with continuity of care needs since the implementation of advanced access in primary healthcare settings (Ahluwalia and Offredy 2005; Dixon et al. 2006; Murray and Tantau 2000; Murray et al. 2003; Salisbury 2008). Documenting immigration status will also increase knowledge of the concerns associated with higher use of the ER

among recent immigrants (Haggerty et al. 2020) and the effects of affiliation with a provider (Lasser et al. 2006). Future research should further investigate these vulnerability issues associated with access.

Conclusion

Access to primary healthcare is at the centre of efforts to improve health and reduce health inequities. Our study points to the need to focus on efforts to address specific access barriers for patients with a high vulnerability index. Several policy levers might improve care access among patients experiencing delays or difficulties associated with receiving the health services that they need at their clinic, continuity needs, patient–provider communication and interprofessional collaboration. Overcoming these barriers by increasing resources would allow physicians in Quebec to adjust their availability according to patients' vulnerability and/or the socio-economics of the area, and policies could contribute to more rapid development of successful innovations (e.g., navigation, integrated clinics). Also, providing team-based primary healthcare practices with clear guidelines and care protocols to determine the roles and contributions of each professional is crucial for value-based healthcare systems to contribute to societal well-being.

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