

BMJ Open Sociodemographic differences in patient experience with primary care during COVID-19: results from a cross-sectional survey in Ontario, Canada

Payal Agarwal,^{1,2} Ri Wang,³ Christopher Meaney,² Sakina Walji,^{2,4} Ali Damji,^{2,5,6} Navsheer Gill,^{2,7} Gina Yip,^{2,8} Debbie Elman,^{2,9} Tiffany Florindo,^{2,10} Susanna Fung,^{2,11} Melissa Witty,^{2,12} Thuy-Nga Pham,^{2,13} Noor Ramji,^{2,14} Tara Kiran ^{2,3,14,15}

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For numbered affiliations see end of article.

Correspondence to

Dr Tara Kiran;
tara.kiran@utoronto.ca

ABSTRACT

Purpose We sought to understand patients' care-seeking behaviours early in the pandemic, their use and views of different virtual care modalities, and whether these differed by sociodemographic factors.

Methods We conducted a multisite cross-sectional patient experience survey at 13 academic primary care teaching practices between May and June 2020. An anonymised link to an electronic survey was sent to a subset of patients with a valid email address on file; sampling was based on birth month. For each question, the proportion of respondents who selected each response was calculated, followed by a comparison by sociodemographic characteristics using χ^2 tests.

Results In total, 7532 participants responded to the survey. Most received care from their primary care clinic during the pandemic (67.7%, 5068/7482), the majority via phone (82.5%, 4195/5086). Among those who received care, 30.53% (1509/4943) stated that they delayed seeking care because of the pandemic. Most participants reported a high degree of comfort with phone (92.4%, 3824/4139), video (95.2%, 238/250) and email or messaging (91.3%, 794/870). However, those reporting difficulty making ends meet, poor or fair health and arriving in Canada in the last 10 years reported lower levels of comfort with virtual care and fewer wanted their practice to continue offering virtual options after the pandemic.

Conclusions Our study suggests that newcomers, people living with a lower income and those reporting poor or fair health have a stronger preference and comfort for in-person primary care. Further research should explore potential barriers to virtual care and how these could be addressed.

INTRODUCTION

The COVID-19 pandemic has dramatically shifted the way healthcare is delivered and experienced by patients in many developed nations. Primary care practices in Canada, the USA and elsewhere, rapidly switched to a virtual first approach—including the use of video, phone and secure messaging—to limit

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Our study included a large sample of respondents from multiple clinics across both urban and suburban communities; however, all clinics were academic practices within the Greater Toronto Area, which may limit generalisability of findings.
- ⇒ Patients were randomly sampled using birth month; however, our findings are open to selection bias because of the response rate, mode of delivery (email), and the survey being offered primarily in English.
- ⇒ Demographics of our sample confirm that we reached a diverse group of patients.
- ⇒ Survey questions were relevant to COVID-19 and informed by primary care leaders and patients.
- ⇒ Our survey reports on experience during the early phase of the pandemic and patients' comfort and preferences may have evolved since.

transmission of the SARS-CoV2 virus and conserve personal protective equipment.¹⁻⁵ A study from Ontario, Canada found that shortly after the pandemic was declared, in-office visits reduced by 79% and virtual care conducted by phone or video increased 56-fold, comprising 71% of primary care physician visits.⁶ While this approach supported immediate public health goals, its impact on access, receipt of patient-centred evidence-based care and long-term health outcomes is unclear.⁷ As health systems consider what the 'new normal' should look like, an examination of these impacts will be crucial.

This shift in care delivery has raised several concerns, including potential negative impacts on patient experience and access. Clinicians have noted anecdotally that patients with worrisome symptoms are delaying care.⁸ Some note that the switch to virtual care may make care more accessible,⁹⁻¹² while others have highlighted barriers certain populations face in accessing virtual care.¹³⁻¹⁶ Prior

studies suggest patient characteristics including older age and lower income may limit one's ability to benefit from digital health and virtual care services.^{17 18} In addition, patients may not have access to required technologies such as a phone or internet access.^{19 20} Despite this, very little literature to date is available on patient experiences during the COVID-19 pandemic and how these differ by sociodemographic characteristics. Most existing studies on patient experience during COVID-19 are from acute care, and do not stratify experience based on patient demographics.^{21–25}

We conducted a patient survey at multiple academic primary care clinics in Ontario, Canada to better understand patient experience during COVID-19. We were interested in patients' care-seeking behaviours, their use and views of different virtual care modalities and whether these differed by sociodemographic factors.

METHODS

Study design and setting

We conducted a multisite cross-sectional survey to understand patient experiences during the COVID-19 pandemic at thirteen core teaching practices affiliated with the University of Toronto Department of Family and Community Medicine situated in the Greater Toronto Area, a large, demographically diverse metropolitan area with more than 250 different ethnicities and half of all residents being foreign-born.^{26 27} Participating practices were located in Toronto and surrounding areas including Mississauga, Markham and Barrie. Practices range in size from roughly 11 physicians serving 14000 patients to 80 physicians serving 50000 patients; some have multiple locations; one provides services in English and French. Physicians in all teaching practices are part of Family Health Organisations and formally enrol patients, have shared responsibility for after-hours care, and are paid primarily by age-adjusted and sex-adjusted capitation; 12 of the 13 sites were part of Family Health Teams that included non-physician health professionals such as nurses, nurse practitioners, social workers and dietitians.

The survey is an ongoing effort to directly inform quality improvement (QI) efforts at participating sites during COVID-19.

Study population and recruitment

A link to an open electronic patient experience survey is emailed every quarter to a subset of patients with a valid email address on file; sampling each quarter is based on birth month with all eligible patients receiving a survey in a given year. The current analysis summarises results of the first survey, which was sent to patients with a date of birth during the months of March, April or May. They were sent the survey between May and June of 2020 which corresponded with the end of the first wave of COVID-19 in the Toronto region.²⁸ Each site distributed an anonymised link to patients in the manner by which they usually communicate electronically to patients (ie, by email or

using a secure messaging service). In some cases, the email address on file may belong to a family member or caregiver to allow them the option of filling out the survey on behalf of the patient. Recruitment was done in English, with one site also doing recruitment and survey completion in French. No incentives were provided to participants.

Survey design

The survey was developed collaboratively by family physicians who had a QI leadership role at participating sites, to support QI efforts related to the COVID-19 pandemic. Where possible, questions were informed by existing surveys including the Commonwealth Fund International Health Policy Survey^{29 30} and the Ontario Primary Care Experience Survey, which was developed as part of a larger Primary Care Performance Measurement strategy to measure the performance across nine domains.^{31 32} The survey went through several iterations based on feedback from practice QI teams, a survey methodologist, a biostatistician, patient education and engagement specialists, and patient and family advisors. A paragraph at the start of the survey outlined the purpose of the survey, the reason they were being asked to participate, and highlighted that the survey was voluntary and anonymous. The final survey was prepared using Qualtrics software, a digital platform to capture experience data, and included 43 potential questions over 5 thematic domains including: (1) seeking and delaying care, (2) use and comfort with virtual care, (3) urgent care access, (4) patient-centredness and (5) patient demographic and contextual factors. Participants could end the survey at any point and were able to review previously answered questions before submission (see online supplemental file 1 for full survey).

Data collection and storage

Data collected via the electronic survey were stored in Qualtrics. All data were downloaded onto a secure research server at the University of Toronto. A script was run to remove any potentially identifying information including (1) IP addresses, (2) email addresses, (3) longitude/latitude coordinates and (4) any free-text fields (which may contain unstructured protected health information).

Statistical analysis

We performed an initial descriptive statistics analysis on the responses of all participants across all sites who answered at least one question in the survey. Surveys conducted in French were excluded from analysis. For each question, we calculated the proportion of respondents who selected each response. We then compared patient responses by sociodemographic characteristics including age, gender, education, self-reported financial issues, immigration status, primary language, self-reported health and usual primary care provider. P values were calculated using χ^2 tests and all data analysis was conducted using R V.4.0.

Patient and public involvement

Patients and families at participating clinic sites informed the survey questions and methods and have been engaged in discussions about the results and potential next steps.

RESULTS

The survey link was emailed to 32307 patients at 13 practices (see online supplemental file 2). 7532 patients responded to the survey (23.3% response rate). We present sociodemographic data (table 1) on the 7482 participants who answered one or more questions in the survey in English. Sixty-five per cent of respondents were female (4379/6713) and 78.3% (5159/6588) reported having a college, university or graduate degree. Nine per cent of respondents (590/6556) reported trouble making ends meet at the end of the month, while 29.0% (1928/6656) were not born in Canada (with 16.9% of these having arrived in the last 10 years). Eight per cent (553/6851) reported filling out the survey on behalf of a family member. Fifty-five surveys were completed in French.

Care-seeking during COVID-19

Of all respondents, 67.7% (5068/7482) reported they received care in some way from their primary care clinic since the start of the pandemic. Financial status and self-reported health were significantly associated with care seeking behaviours during the pandemic ($p < 0.001$); a higher proportion of patients who noted trouble making ends meet (yes: 74.8%, 441/590, no: 65.3%, 3396/5201, prefer not to answer: 68.0%, 520/765) and those with lower self-rated health (fair or poor: 76.9%, 752/978, excellent: 59.8%, 599/1002) reported receiving care during the study period. Of the 32.3% (2414/7482) of patients who did not receive care during the study period, the most commonly cited reasons were that patients had no health need (72.4%) and patients were worried about safety (9.5%).

Of the 5068 patients who reported receiving care at their primary care practice during the pandemic, 30.5% (1509/4943) stated that they delayed seeking care because of the pandemic. Gender, age, education level, financial status and self-reported health status were significantly associated with differences in seeking care ($p < 0.05$ for all); for example, a higher proportion of those with trouble making ends meet and those with lower self-rated health reported delays in seeking care (see table 2).

Use and perceptions of virtual care

Eighty-two per cent (4195/5086) of participants reported receiving care by phone, 30.5% (1553/5086) in-person, 17.4% (886/5086) via email or secure messaging and 5.1% (260/5086) via video. Age, immigration status and self-rated health were significantly associated with differences in receiving in-person care ($p < 0.05$ for all); the proportion who reported receiving in-person care was lower among those over the age of 65, those not born in

Table 1 Demographic characteristics of survey respondents (n=7482)

Demographic characteristic	Survey respondents n (%)
Age (n=6744)	
0–5 years	169 (2.51)
6–17 years	166 (2.46)
18–24 years	120 (1.78)
25–34 years	520 (7.71)
35–49 years	1412 (20.94)
50–64 years	2002 (29.69)
65–79 years	1921 (28.48)
80 years or older	434 (6.44)
Gender (n=6713)	
Woman	4379 (65.23)
Man	2221 (33.09)
Other	60 (0.89)
Prefer not to answer	53 (0.79)
Education level (n=6588)	
High school or less	1429 (21.69)
College/university	3198 (48.54)
Graduate/professional	1961 (29.77)
Trouble making ends meet (n=6556)	
Yes	590 (9.00)
No	5201 (79.33)
Don't know/prefer not to answer	765 (11.67)
Born in Canada (n=6656)	
Yes	4728 (71.03)
No	1928 (28.97)
Arrive in last 10 years (n=1856)	
Yes	326 (17.56)
No	1530 (82.44)
Preferred language (n=6678)	
English	6576 (98.47)
Non-English	102 (1.53)
Self-rated health (n=6665)	
Excellent	1002 (15.03)
Very good	2599 (38.99)
Good	2086 (31.30)
Fair/poor	978 (14.67)
Usual PCP (n=6545)	
Staff physician	4842 (73.98)
Resident physician	1217 (18.59)
Nurse practitioner	173 (2.64)
Unsure	313 (4.78)
PCP, primary care provider.	

Canada and those with lower self-rated health (table 3). Women, young adults, those who rate their health as fair or poor and those who reported trouble making ends

**Table 2** Proportion of respondents who received care at their primary care practice who reported that they delayed seeking care because of the pandemic, by sociodemographic characteristic

Demographics	Delayed Care n (%)	P value
All	1509 (30.53)	
Age		
<18 years	61 (29.90)	<0.01
18–34 years	158 (35.03)	
35–64 years	704 (31.44)	
65+ years	429 (26.85)	
Gender		
Woman	932 (31.65)	<0.001
Man	376 (26.07)	
Other	20 (42.55)	
Prefer not to answer	18 (46.15)	
Education		
High school or less	238 (24.74)	<0.001
College/university	637 (30.09)	
Graduate/professional	443 (33.95)	
Trouble making ends meet		
Yes	188 (42.63)	<0.001
No	928 (27.33)	
Don't know/prefer not to answer	196 (37.69)	
Born in Canada		
Yes	966 (30.92)	0.07
No	366 (28.09)	
Arrive <10 years		
Yes	66 (29.33)	0.79
No	289 (28.20)	
Preferred language		
English	1322 (30.20)	0.49
Non-English	24 (34.78)	
Self-rated health		
Excellent	153 (25.54)	<0.001
Very good	475 (28.84)	
Good	433 (30.20)	
Fair/poor	275 (36.57)	
Usual PCP		
Staff physician	976 (30.13)	0.47
Resident physician	246 (29.85)	
Nurse practitioner	45 (36.59)	
Unsure	52 (29.21)	

PCP, primary care provider.

meet reported higher rates of phone use (see [table 3](#)). Age and education level were significantly associated with differences in using email and secure messaging ($p < 0.001$ for all); those over the age of 65 (16.9%, 269/1592) and those with a high school degree or less (13.5%, 130/962)

reported less use of email and secure messaging relative to other groups.

Overall, most respondents indicated they were extremely or somewhat comfortable with the privacy and security of virtual modalities including phone (92.4%, 3824/4139), video (95.2%, 238/250) and email or secure messaging (91.3%, 794/870). Financial status, immigration status and self-reported health status were significantly associated with differences in comfort with virtual care use ($p < 0.05$ for all); those having trouble making ends meet, those not born in Canada and those rating their health as fair or poor reported lower levels of comfort with phone calls and email or secure messaging relative to other groups (see [table 4](#)).

Future preferences for virtual care

Seventy-five per cent (3798/5068), 52.2% (2644/5068) and 42.9% (2172/5068) of respondents said they wanted their practice to continue offering phone, email/secure messaging and video after the pandemic, respectively. Age, education status, financial status, immigration status and self-reported health status were significantly associated with differences in wanting ongoing use of each of the three virtual care modalities ($p < 0.05$ for all); those over age 65, those whose education was high school or less, those reporting yes or 'I don't know' when asked about difficulty making ends meet, those born outside Canada, and those in fair or poor health reported the lowest desire for the three virtual care modalities to continue after the pandemic compared with other groups (see [table 5](#)).

DISCUSSION

Our analysis of more than 7400 patient experience surveys across 13 primary care clinics during the first months of the COVID-19 pandemic found important differences in care-seeking and comfort with virtual care based on patient income, self-reported health and other demographic characteristics. Most participants received care from their primary care clinic in some way during the study period; however, almost a third who sought care reported they delayed it due to concerns about the pandemic. Patients who had trouble making ends meet and those who reported their health as fair or poor were more likely to seek care during the pandemic yet were also more likely to report they delayed seeking care. Patient generally reported a high degree of comfort with phone, video and email or secure messaging. But, those reporting 'yes' or 'don't know/prefer not to answer' when asked about difficulty making ends meet, poor or fair health and arriving in Canada in the last 10 years reported lower levels of comfort and less likely to want their practice to continue offering these virtual options.

Our results, similar to other emerging literature, suggest a complex relationship between the social determinants of health and patient comfort and preference regarding accessing care through virtual tools. A US-based study prior

Table 3 Percentage of patients who reported receiving care by phone and in person during the pandemic, by sociodemographic characteristic

Demographics	In person care n (%)	P value	Phone care n (%)	P value
All	1553 (30.64)		4195 (82.77)	
Age				
<18 years	102 (50.00)	<0.001	143 (70.10)	<0.001
18–34 years	181 (40.13)		404 (89.58)	
35–64 years	603 (26.93)		1922 (85.84)	
65+ years	476 (29.79)		1338 (83.73)	
Gender				
Woman	882 (29.95)	0.57	2559 (86.89)	<0.001
Man	443 (30.72)		1163 (80.65)	
Other	17 (36.17)		41 (87.23)	
Prefer not to answer	9 (23.08)		33 (84.62)	
Education level				
High school or less	303 (31.50)	0.42	787 (81.81)	<0.05
College/university	618 (29.19)		1818 (85.88)	
Graduate/professional	396 (30.34)		1109 (84.98)	
Trouble making ends meet				
Yes	122 (27.66)	0.28	396 (89.80)	<0.001
No	1047 (30.83)		2840 (83.63)	
Born in Canada				
Yes	977 (31.27)	<0.05	2630 (84.19)	0.13
No	363 (27.86)		1121 (86.03)	
Arrive <10 years				
Yes	77 (34.22)	<0.05	196 (87.11)	0.73
No	276 (26.93)		881 (85.95)	
Preferred language				
English	1326 (30.29)	0.88	3706 (84.67)	1.00
Non-English	22 (31.88)		58 (84.06)	
Self-reported health				
Excellent	221 (36.89)	<0.001	470 (78.46)	<0.001
Very good	522 (31.69)		1390 (84.40)	
Good	383 (26.71)		1222 (85.22)	
Fair/poor	220 (29.26)		673 (89.49)	
Usual PCP				
Staff physician	963 (29.73)	0.10	2750 (84.90)	0.22
Resident physician	270 (32.77)		701 (85.07)	
Nurse practitioner	46 (37.40)		97 (78.86)	
Unsure	50 (28.09)		146 (82.02)	

PCP, primary care provider.

to the pandemic found that while younger patients and those with physical disabilities were more likely to use video visits to access care, those who reported lower incomes and lived in rural populations were less likely to use this modality.³³ A recent US-based primary care study found that after care shifted to a virtual-first approach during the pandemic, a significantly smaller proportion of visits overall were with people who were low income, non-white or non-English

speakers.³⁴ However, a Canadian-based study found that similar to our participants, those with the highest care needs (older, multiple comorbidities), were more likely to access primary care during the early months of the pandemic compared with other groups.⁶

As many predict virtual care will continue to be a part of care delivery post-pandemic, this study highlights the importance of integrating patient experience data into

Table 4 Percentage of patients who reported they were comfortable with the privacy and security of using phone, video and email or secure messaging to receive care during the pandemic, by sociodemographic characteristic

Demographics	Phone n (%)	P value	Video n (%)	P value	Email Messaging n (%)	P value
All	3824 (92.39)		238 (95.20)		794 (91.26)	
Age						
<18 years	138 (96.50)	<0.05	19 (95.00)	0.60	17 (94.44)	0.43
18–34 years	371 (91.83)		28 (93.33)		90 (87.38)	
35–64 years	1800 (93.65)		104 (94.55)		383 (90.54)	
65+ years	1223 (91.41)		63 (98.44)		249 (92.57)	
Gender						
Woman	2385 (93.20)	<0.001	128 (96.97)	0.17	501 (90.60)	<0.001
Man	1077 (92.61)		75 (94.94)		219 (92.80)	
Other	40 (97.56)		4 (80.00)		15 (100.00)	
Prefer not to answer	24 (72.73)		6 (85.71)		2 (40.00)	
Education level						
High school or less	743 (94.41)	0.17	47 (92.16)	0.20	121 (93.08)	0.65
College/university	1679 (92.35)		94 (97.92)		358 (90.63)	
Graduate/professional	1032 (93.06)		66 (92.96)		250 (91.91)	
Trouble making ends meet						
Yes	354 (89.39)	<0.001	24 (92.31)	0.63	70 (85.37)	<0.001
No	2679 (94.33)		153 (96.23)		576 (93.96)	
I don't know/prefer not to answer	400 (87.53)		30 (96.77)		75 (78.12)	
Born in Canada						
Yes	2471 (93.95)	<0.001	159 (95.78)	1.00	526 (92.93)	<0.05
No	1019 (90.90)		54 (94.74)		204 (87.18)	
Arrive in the last 10 years						
Yes	176 (89.80)	0.80	7 (100.00)	1.00	34 (82.93)	0.52
No	799 (90.69)		45 (93.75)		163 (88.11)	
Preferred language						
English	3440 (92.82)	0.50	209 (95.43)	0.48	727 (91.33)	0.40
Non-English	52 (89.66)		3 (75.00)		7 (77.78)	
Self-reported health						
Excellent	455 (96.81)	<0.001	30 (93.75)	0.98	105 (95.45)	<0.05
Very good	1324 (95.25)		65 (95.59)		259 (93.50)	
Good	1131 (92.55)		72 (94.74)		235 (90.04)	
Fair/poor	579 (86.03)		42 (95.45)		133 (85.81)	
Usual PCP						
Staff physician	2575 (93.64)	<0.05	164 (96.47)	0.17	568 (92.21)	0.07
Resident physician	640 (91.30)		28 (87.50)		107 (87.70)	
Nurse practitioner	86 (88.66)		4 (100.00)		17 (89.47)	
Unsure	130 (89.04)		11 (91.67)		24 (80.00)	

PCP, primary care provider.

future care delivery planning. Similar to other recently published data,^{6 35 36} our data indicate phone was by far the most used modality of virtual care and overall, participants were comfortable using virtual modalities to receive care. Patients who report financial troubles and poor health, had a higher percentage reporting accessing

care (virtually and in person) during the pandemic compared with other groups; however, they reported greater concerns with the privacy and security of virtual care and less desire for virtual care to be an ongoing part of their primary care experience. This suggests that while public health measures may have pushed populations

Table 5 Preferences for ongoing uses of virtual care options after the pandemic, by sociodemographic characteristic

Demographics	Phone n (%)	P value	Video n (%)	P value	Email Messaging n (%)	P value
All	3798 (74.94)		2172 (42.86)		2644 (52.17)	
Age						
<18 years	171 (83.82)	<0.05	120 (58.82)	<0.001	117 (57.35)	<0.001
18–34 years	385 (85.37)		252 (55.88)		292 (64.75)	
35–64 years	1886 (84.23)		1206 (53.86)		1352 (60.38)	
65+ years	1291 (80.79)		549 (34.36)		834 (52.19)	
Gender						
Woman	2510 (85.23)	<0.001	1418 (48.15)	0.45	1758 (59.69)	<0.01
Man	1142 (79.20)		662 (45.91)		780 (54.09)	
Other	37 (78.72)		23 (48.94)		31 (65.96)	
Prefer not to answer	29 (74.36)		21 (53.85)		20 (51.28)	
Education level						
High school or less	770 (80.04)	<0.05	384 (39.92)	<0.001	468 (48.65)	<0.001
College/university	1777 (83.94)		993 (46.91)		1227 (57.96)	
Graduate/professional	1098 (84.14)		705 (54.02)		846 (64.83)	
Trouble making ends meet						
Yes	362 (82.09)	<0.001	195 (44.22)	<0.001	257 (58.28)	<0.001
No	2869 (84.48)		1665 (49.03)		2037 (59.98)	
I don't know/prefer not to answer	387 (74.42)		204 (39.23)		232 (44.62)	
Born in Canada						
Yes	2687 (86.01)	<0.001	1579 (50.54)	<0.001	1890 (60.50)	<0.001
No	1005 (77.13)		527 (40.45)		683 (52.42)	
Arrive in the last 10 years						
Yes	166 (73.78)	0.13	89 (39.56)	0.90	101 (44.89)	<0.05
No	806 (78.63)		413 (40.29)		554 (54.05)	
Preferred language						
English	3642 (83.21)	0.12	2086 (47.66)	0.08	2532 (57.85)	<0.05
Non-English	52 (75.36)		25 (36.23)		29 (42.03)	
Self-reported health						
Excellent	519 (86.64)	<0.01	330 (55.09)	<0.001	382 (63.77)	<0.001
Very good	1392 (84.52)		843 (51.18)		977 (59.32)	
Good	1179 (82.22)		635 (44.28)		809 (56.42)	
Fair/poor	597 (79.39)		294 (39.10)		394 (52.39)	
Usual PCP						
Staff physician	2730 (84.29)	<0.001	1613 (49.80)	<0.001	1943 (59.99)	<0.001
Resident physician	659 (79.98)		336 (40.78)		415 (50.36)	
Nurse practitioner	104 (84.55)		55 (44.72)		73 (59.35)	
Unsure	133 (74.72)		79 (44.38)		92 (51.69)	

PCP, primary care provider.

with the highest care needs to use virtual care, these modalities did not provide all patients with an equitable, patient-centred care experience. Further research should explore reasons behind the relative discomfort and low interest in virtual care and how barriers could be

addressed. While access to technology may be part of this problem, other factors such as health and digital literacy, and support from peers and healthcare providers may also be significant.³⁷ Without further patient experience and demographic data to understand the ongoing use of



virtual care, we risk leaving behind those who need care most.

Our study had several key strengths and limitations. Our study included a large sample of respondents from multiple clinics across both urban and suburban communities. Patients were randomly sampled using birth month. Survey questions were relevant to COVID-19 and informed by primary care leaders and patients. However, our findings are open to selection bias because of the response rate, mode of delivery, and the survey being offered primarily in English; however, demographics of our sample confirm that we reached a diverse group of patients. We found substantial differences in utilisation and perspectives of virtual care by sociodemographic characteristics, but these may be an underestimate of true differences. Our survey reports on experience during the early phase of the pandemic and patients' comfort and preferences may have evolved since then. Finally, although our sample was taken from 13 primary care practices, these were all academic practices in the Greater Toronto Area where physicians were paid by capitation which may limit the generalisability of the findings to other settings including rural or low-resource settings.

CONCLUSIONS

We found that sociodemographic characteristics impacted patients experience accessing and receiving primary care during the early months of the COVID-19 pandemic. While most patients were comfortable using virtual modalities, those having difficulty making ends meet, reporting poor or fair health, and born outside of Canada being less likely to report comfort with virtual modalities and less likely to want virtual care options to continue post-pandemic. Moving forward, clinicians and system decision-makers need to carefully consider how we integrate virtual care into practices to ensure equity in access to primary care.

Author affiliations

¹Women's College Hospital Institute for Health System Solutions and Virtual Care, Toronto, Ontario, Canada

²Department of Family and Community Medicine, Temerty Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

³MAP Centre for Urban Health Solutions, St. Michael's Hospital, Toronto, Ontario, Canada

⁴Mount Sinai Academic Family Health Team, Toronto, Ontario, Canada

⁵Credit Valley Family Health Team, Mississauga, Ontario, Canada

⁶Institute for Better Health, Trillium Health Partners, Mississauga, Ontario, Canada

⁷Department of Family and Community Medicine, Southlake Regional Health Centre, Newmarket, Ontario, Canada

⁸Department of Family and Community Medicine, Oak Valley Health Markham Stouffville Hospital, Markham, Ontario, Canada

⁹Department of Family and Community Medicine, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

¹⁰Department of Family and Community Medicine, North York General Hospital, Toronto, Ontario, Canada

¹¹Department of Family and Community Medicine, Scarborough Health Network, Scarborough, Ontario, Canada

¹²Barrie and Community Family Health Team, Barrie, Ontario, Canada

¹³South East Toronto Family Health Team, Toronto, Ontario, Canada

¹⁴Department of Family and Community Medicine, St. Michael's Hospital, Toronto, Ontario, Canada

¹⁵Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

Twitter Ali Damji @DrAliDamji and Tara Kiran @tara_kiran

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Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval This study involves human participants but the initiative was formally reviewed through the ReQUIST (Review of Quality Improvement Studies) process at Unity Health Toronto, which is overseen by the Vice-President, Care Experience and Equity and the Vice-President, Quality and Chief Information Officer. The study was deemed to neither require research ethics board approval nor written informed consent from participants (ie, the need for ethical approval was waived). The survey was developed to directly inform quality improvement (QI) efforts at participating sites during COVID-19. The initiative was formally reviewed by institutional authorities at Unity Health Toronto and deemed to neither require research ethics board approval nor written informed consent from participants.

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ORCID iD

Tara Kiran <http://orcid.org/0000-0002-2520-112X>

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