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

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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 \( \chi^2 \) 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 who delayed care, 30.53% (1509/4943) stated that they delayed seeking care because of 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 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.8-12 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.
studies suggest patient characteristics including older age and lower income may limit one’s ability to benefit from digital health and virtual care services. In addition, patients may not have access to required technologies such as a phone or internet access. 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.

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. 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 dieticians.

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. 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 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. 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 \( \chi^2 \) 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 32 307 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); 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). 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 1 | Demographic characteristics of survey respondents (n=7482) |
|---------|----------------------------------------------------------|
| Age (n=6744) | Survey respondents n (%) |
| 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 | |
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, 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).

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**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.
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

| 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.
future care delivery planning. Similar to other recently published data,\textsuperscript{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 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 |       |       |       |       |       |
| 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) 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.
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. Without further patient experience and demographic data to understand the ongoing use of

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

| Demographics                  | Phone n (%) | Video n (%) | Email Messaging n (%) |
|-------------------------------|-------------|-------------|-----------------------|
| All                           | 3798 (74.94)| 2172 (42.86)| 2644 (52.17)          |
| Age                           |             |             |                       |
| <18 years                     | 171 (83.82) | 120 (58.82) | 117 (57.35)           |
| 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)| 1418 (48.15)| 1758 (59.69)          |
| 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) | 384 (39.92) | 468 (48.65)           |
| 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) | 195 (44.22) | 257 (58.28)           |
| 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)| 1579 (50.54)| 1890 (60.50)          |
| No                            | 1005 (77.13)| 527 (40.45) | 683 (52.42)           |
| Arrive in the last 10 years   |             |             |                       |
| Yes                           | 166 (73.78) | 89 (39.56)  | 101 (44.89)           |
| No                            | 806 (78.63) | 413 (40.29) | 554 (54.05)           |
| Preferred language            |             |             |                       |
| English                       | 3642 (83.21)| 2086 (47.66)| 2532 (57.85)          |
| Non-English                   | 52 (75.36)  | 25 (36.23)  | 29 (42.03)            |
| Self-reported health          |             |             |                       |
| Excellent                     | 519 (86.64) | 330 (55.09) | 382 (63.77)           |
| 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)| 1613 (49.80)| 1943 (59.99)          |
| 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.
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.

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Acknowledgements We wish to thank Frances Cousins, Jennifer Stulberg, Joanne Laine-Gossin, Karuna Gupta, Linda Weber, Sam Tikos and Susie Kim for their support in developing and implementing the survey at their respective teaching practices, Trish O’Brien and Kirsten Eldridge for their support with survey implementation across all sites, Danielle Martin for her feedback on our draft manuscript, and the patient partners who helped us refine the survey questions.

Contributors PA and TK conceived of and designed the study together and TK is the guarantor of the study. PA, CM, SW, AD, NG, GE, DE, TF, SF, MW, T-NP, NR and TK designed the survey. RW and CM informed and conducted the analysis. PA, RW, CM, SW, AD, NG, GE, DE, TF, SF, MW, T-NP, NR and TK helped interpret the data. PA drafted the manuscript with the support of TK and all authors critically reviewed it. All authors read and approved the final manuscript.

Funding TK is the Fidani Chair of Improvement and Innovation in Family Medicine at the University of Toronto and is supported as a Clinician Scientist by the Department of Family and Community Medicine (DFCM) at the University of Toronto and at St. Michael’s Hospital. Funds from the Fidani Chair supported PA as the Patient Experience Measurement Lead for the DFCM.

Competing interests None declared.

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.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available on reasonable request. Extra data are available on reasonable request by emailing TK at dfcm.quality@utoronto.ca

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