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Virtual care use in Canada: Variation across sociodemographic and health-related factors



by Kristyn Frank and Danielle Bader

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Virtual care use in Canada: Variation across sociodemographic and health-related factors

by Kristyn Frank  and Danielle Bader 

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ABSTRACT

Background

The COVID-19 pandemic changed how Canadians accessed health care, increasing their use of virtual services. While virtual care use decreased after the pandemic lockdowns, it continues to play an important role in health care delivery. More information is needed about variations in virtual care use by sociodemographic and health characteristics.

Data and methods

Data from the 2023 Canadian Social Survey – Quality of Life, Virtual Health Care and Trust were used. Descriptive statistics estimated the types of health care appointments individuals had in the past 12 months, access to virtual care, the types of health care providers consulted virtually, and the reasons individuals declined virtual appointments. Multivariate analyses examined whether sociodemographic and health characteristics were associated with patients' virtual care use.

Results

Over half of patients (57.5%) had in-person appointments only, 5.3% had virtual appointments only, and over one-third (37.2%) had both types of appointments. Of individuals who sought or were offered virtual care, 78.5% had a virtual appointment. Most virtual care users consulted a family doctor, general practitioner, or nurse practitioner only (62.1%). Higher education, not having a regular health care provider, and multimorbidity were positively associated with virtual care use. Greater comfort with in-person appointments was the most common reason for declining virtual care.

Interpretation

While many individuals in Canada accessed virtual care, only a small proportion had virtual appointments only. Virtual care use varied by some sociodemographic and health factors, such as education and multimorbidity. Technological barriers were not a common reason for declining virtual appointments.

Keywords

health equity, health services accessibility, telemedicine, virtual health care

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What is already known on this subject?

- In Canada, the use of virtual health care services increased substantially during the COVID-19 pandemic, accounting for 61% of all COVID-19-related health care visits and 54% of other health care visits in April 2020.
- Virtual care use decreased after the pandemic lockdowns in 2020 but remains higher than pre-pandemic levels.
- Sociodemographic and health factors such as age, gender, marital status, income, geography, and disability status are associated with inequalities in access to health care services, but less is known about their role in access to virtual care.

What does this study add?

- Of individuals who had health care appointments in the past 12 months, 5% had virtual appointments only and more than half had in-person appointments only. Over one-third had both virtual and in-person appointments.
- Higher education levels, not having a regular health care provider, and multimorbidity were positively associated with virtual care use.
- Fewer than 1 in 10 patients declined a virtual appointment; among those who did, greater comfort with in-person appointments was the most common reason for doing so.

The COVID-19 pandemic changed how Canadians accessed health care,¹ substantially increasing their use of virtual services. In 2019, 2% to 11% of patient services were virtual, depending on the province.² During the pandemic lockdowns in April 2020, virtual visits accounted for 61% of all COVID-19-related health care visits and 54% of other health care visits.³ Virtual care was considered an innovative way of maintaining access to care while decreasing the risk of infection during the pandemic,^{4,5} and provinces facilitated the expansion of virtual services by modifying or creating new billing codes.⁶

Virtual care use decreased following the initial lockdowns in 2020^{2,7} but continued playing an important role in health care delivery.⁸ Although some provinces moved back to prioritizing in-person care and changed the reimbursement of virtual appointments,⁹ virtual care use remains higher than pre-pandemic levels.¹⁰ In 2020, the first year of the pandemic, physicians in Canada provided 32% of their services virtually, with family doctors providing 42% and medical specialists providing 23% of their services virtually.¹¹ In 2023, one-third of Canadians reported receiving primary care virtually.¹²

Despite the benefits of virtual care use, questions have been raised about how this shift in care may worsen existing health inequalities.^{4,7,13} The role of social determinants of health, such as age, gender, marital status, income, geography, and disability status, has been established in the literature on access to health care.^{4,14} Drawing from this literature, the digital health care equity framework identifies patient, community, health system, and information technology characteristics as factors that can create inequities in accessing virtual care.^{5,15} A key component is the “digital divide,” which can create barriers to health care

through differences in digital skills and unequal technology access.^{5,7,13,14}

Technological challenges, including digital literacy and access to a reliable Internet connection, can prevent individuals from using virtual care^{16,17} and are identified as “super social determinants of health” because they intersect with factors such as income, education, and age.^{18,19} Previous research indicates older age, ethnic minority status, and lower income and education levels are associated with lower use of virtual care.^{7,14} Canadian research has also found cognitive or physical impairments can cause additional barriers to accessing virtual services.⁷ Additionally, patients with lower incomes and poorer health and those who are recent immigrants have reported being less comfortable with virtual care.²⁰ However, there are inconsistent findings when examining the relationship between multimorbidity and patients’ interest in virtual care.^{21,22}

The main objective of this study is to provide recent information on virtual care use in Canada and whether it varies by sociodemographic and health-related characteristics. This study contributes to the literature because patients’ sociodemographic characteristics, such as racialized status and education level, are not typically collected by clinicians.⁴ Several aspects of virtual care use are investigated, including the type of health care appointments patients had in the past 12 months (in-person only, virtual only, or both) and whether this differs by sociodemographic and health factors. Among those who sought or were offered virtual care in the past 12 months, the likelihood of having a virtual appointment and variation across sociodemographic and health factors are examined. The types of health care providers whom patients consulted virtually and reasons for declining virtual appointments are also investigated.

Data and methods

Data from the 2023 Canadian Social Survey – Quality of Life, Virtual Health Care and Trust (CSS-QLVHCT) were used. This survey collected information about the delivery of virtual care, quality of life, and financial well-being for individuals in Canada from July 14 to September 7, 2023. The CSS-QLVHCT has a cross-sectional design with a stratified two-stage sample. The first stage sampled 20,000 dwellings that were selected probabilistically. This sample was then stratified by province and the expected number of household members aged 15 or older. At the second stage, one person from each household was selected randomly.

The CSS-QLVHCT used a multi-mode data collection strategy: respondents were able to respond via telephone interview or self-respond online through an electronic questionnaire. Telephone interviews were conducted by professional interviewers who received survey training. Participation was voluntary. The response rate was 51.7%.

The CSS-QLVHCT sample included non-institutionalized individuals aged 15 or older who lived off reserve in the 10 provinces. The survey did not include residents of Yukon, the Northwest Territories, and Nunavut; residents of reserves; and full-time residents of institutions. The total sample size was 9,288 individuals. However, the samples used for different parts of the analysis varied.

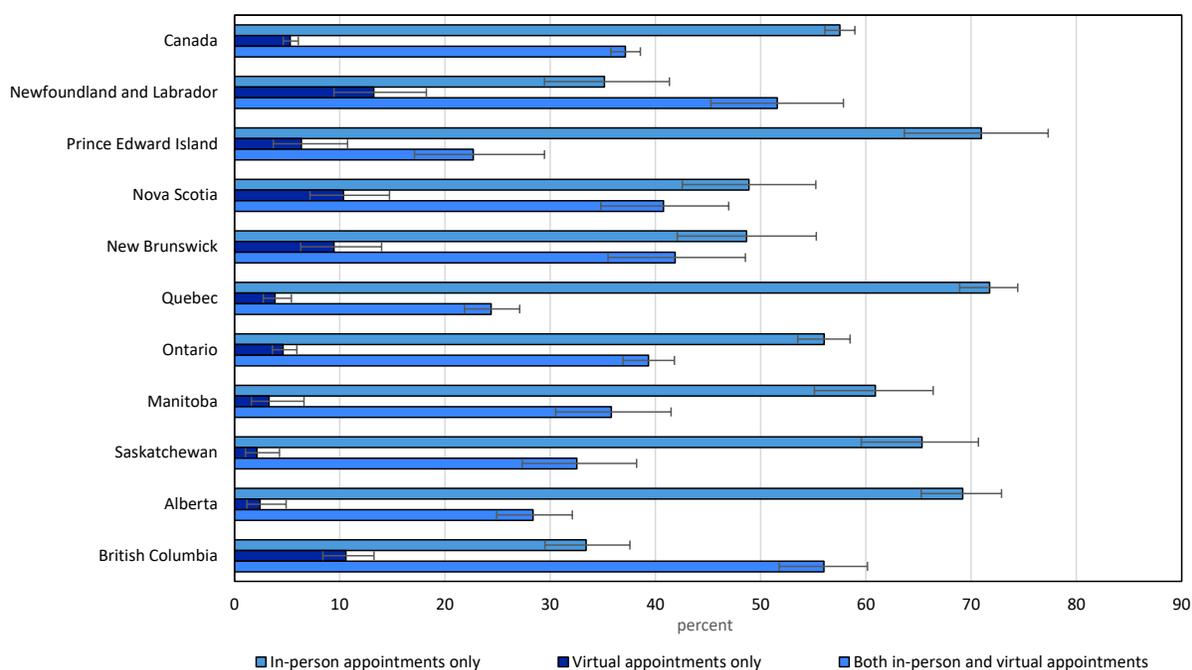
To determine the types of health care appointments individuals had, the sample was restricted to individuals who had any in-person or virtual appointments during the past 12 months (n = 7,685). To measure whether individuals accessed virtual care, the sample was restricted to those who sought or were offered a virtual appointment in the past 12 months (n = 4,032). To examine the types of health care providers who were consulted virtually, the sample included only individuals who had a virtual appointment in the past 12 months (n = 3,410). Lastly, to determine patients’ reasons for not accessing virtual services, the sample was restricted to individuals who declined a virtual appointment in the past 12 months (n = 302).

Measures

Sociodemographic and health characteristics

Age was divided into seven groups (15 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, 65 to 74, and 75 or older). Gender was categorized as men+ or women+. Men+ includes boys and men, and some non-binary persons, while women+ includes girls and women, and some non-binary persons. Two categories were created for sexual orientation: heterosexual; and lesbian, gay, bisexual, or sexual orientation not elsewhere classified. Respondents’ marital status was categorized as married or in a common-law relationship; single (never married); and separated, divorced, or widowed.

Chart 1
Percentage of individuals who had in-person appointments only, virtual appointments only, or both in-person and virtual appointments in the past 12 months, Canada, 2023



Source: Canadian Social Survey – Quality of Life, Virtual Health Care and Trust, 2023.

Table 1
Multinomial regression results, likelihood of having had virtual appointments only or both in-person and virtual appointments compared with in-person appointments only, individuals who had a health care appointment in the past 12 months, 2023

	Type of appointment					
	Virtual appointments only			Both virtual and in-person appointments		
	Coefficient (log odds)	95% confidence interval		Coefficient (log odds)	95% confidence interval	
		from	to		from	to
Age group						
15 to 24†	...	...	...	...	...	...
25 to 34	0.18	-0.68	1.04	0.04	-0.32	0.40
35 to 44	0.42	-0.41	1.25	0.26	-0.10	0.62
45 to 54	0.13	-0.73	0.99	0.19	-0.17	0.54
55 to 64	0.06	-0.81	0.93	-0.10	-0.45	0.25
65 to 74	-0.03	-0.96	0.90	-0.27	-0.65	0.12
75 or older	-0.50	-1.59	0.58	-0.53 *	-0.95	-0.11
Gender						
Men+†	...	...	...	...	...	...
Women+	-0.03	-0.35	0.29	0.29 ***	0.15	0.43
Marital status						
Married or in a common-law relationship†	...	...	...	...	...	...
Single (never married)	-0.05	-0.59	0.48	-0.06	-0.27	0.16
Separated, divorced, or widowed	-0.16	-0.57	0.25	-0.18 *	-0.35	-0.01
Immigrant status						
Non-immigrant (born in Canada)†	...	...	...	...	...	...
Immigrant or non-permanent resident	-0.09	-0.50	0.33	0.03	-0.18	0.23
Population group						
Non-racialized, non-Indigenous†	...	...	...	...	...	...
South Asian	0.03	-0.61	0.67	-0.04	-0.40	0.31
Chinese	-0.74 *	-1.41	-0.07	-0.02	-0.36	0.32
Black	-0.37	-2.26	1.52	0.04	-0.41	0.50
Filipino	-0.63	-7.17	5.91	-1.05 ***	-1.53	-0.58
Arab	0.27	-2.44	2.97	-0.31	-0.96	0.33
Latin American	-0.10	-3.84	3.64	-0.50	-1.03	0.03
Southeast Asian	-0.61	-11.21	9.99	-0.62	-1.30	0.07
Other racialized groups	-1.42	-8.10	5.26	-0.06	-0.49	0.37
Indigenous	-0.25	-1.07	0.57	-0.01	-0.48	0.45
Education level						
High school diploma or less†	...	...	...	...	...	...
Trades certificate, college or CEGEP diploma, or university certificate below a bachelor's degree	0.38	-0.01	0.78	0.26 **	0.10	0.43
University degree	0.66 **	0.25	1.07	0.52 ***	0.34	0.70
Sexual orientation						
Heterosexual†	...	...	...	...	...	...
LGB+	0.50	-0.18	1.18	0.15	-0.19	0.49
Urban or rural status						
Urban†	...	...	...	...	...	...
Rural	-0.44 *	-0.86	-0.03	-0.17	-0.35	0.01
Province						
Ontario†	...	...	...	...	...	...
Newfoundland and Labrador	1.49 ***	0.96	2.02	0.76 ***	0.43	1.09
Prince Edward Island	-0.15	-0.90	0.61	-0.78 ***	-1.18	-0.37
Nova Scotia	0.91 **	0.36	1.46	0.11	-0.20	0.42
New Brunswick	0.82 **	0.24	1.39	0.18	-0.13	0.50
Quebec	-0.59 *	-1.07	-0.10	-0.70 ***	-0.89	-0.51
Manitoba	-0.37	-1.22	0.49	-0.17	-0.46	0.12
Saskatchewan	-0.93	-2.58	0.72	-0.32 *	-0.60	-0.03
Alberta	-0.88 *	-1.69	-0.08	-0.55 ***	-0.76	-0.33
British Columbia	1.38 ***	0.97	1.80	0.95 ***	0.72	1.19
Ability to meet household needs (financial well-being)						
Easy or very easy†	...	...	...	...	...	...
Difficult or very difficult	0.23	-0.12	0.59	0.16	-0.01	0.33
Neither easy nor difficult	-0.13	-0.47	0.21	0.00	-0.16	0.17
Main activity						
Paid work†	...	...	...	...	...	...
Retired	-0.21	-0.68	0.25	0.06	-0.16	0.28
Other (not in paid work or retired)	-0.38	-0.85	0.09	0.01	-0.18	0.20
Disability status						
Does not identify as a person with a disability†	...	...	...	...	...	...
Identifies as a person with a disability	-0.16	-0.77	0.44	0.22 *	0.02	0.42
Has a regular health care provider						
Yes†	...	...	...	...	...	...
No	0.72 ***	0.38	1.07	-0.23 *	-0.45	-0.02
Number of chronic conditions						
None†	...	...	...	...	...	...
One	0.21	-0.12	0.55	0.63 ***	0.45	0.80
Two or more	0.46 *	0.07	0.85	0.92 ***	0.74	1.11

... not applicable

† reference category for predictor variables

* significantly different from reference category (p < 0.05)

** significantly different from reference category (p < 0.01)

*** significantly different from reference category (p < 0.001)

Notes: The reference category for type of appointment in the multinomial model is in-person appointments only. LGB+: lesbian, gay, bisexual, or sexual orientation not elsewhere classified.

Source: Canadian Social Survey – Quality of Life, Virtual Health Care and Trust, 2023.

Immigrant status included immigrants and non-permanent residents (individuals born outside Canada), and non-immigrants (born in Canada). Population groups included South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, other racialized groups (West Asian, Korean, Japanese, multiple racialized groups, and racialized groups not identified elsewhere), Indigenous (First Nations, Métis, or Inuk), and individuals who are non-racialized and non-Indigenous. Highest level of education was grouped into high school diploma or less; trades certificate, college or CEGEP diploma, or university certificate below a bachelor’s degree; and university degree. Province of residence and rural (population under 1,000) or urban (population of at least 1,000) status were also examined.

Economic characteristics were measured by main work activity in the previous week (paid work; retired; and other activity, e.g., going to school, caring for children or others) and financial well-being. Because income information was unavailable in the CSS, financial well-being was used as a proxy, measured by a question asking respondents how difficult or easy it was for their household to meet its financial needs within the last 12 months in terms of transportation, housing, food, clothing, and other necessary expenses. Responses were grouped as difficult or very difficult, neither difficult nor easy, and easy or very easy.

Health characteristics included having a regular health care provider (yes or no), number of chronic conditions (none, one condition, or two or more conditions), and disability status

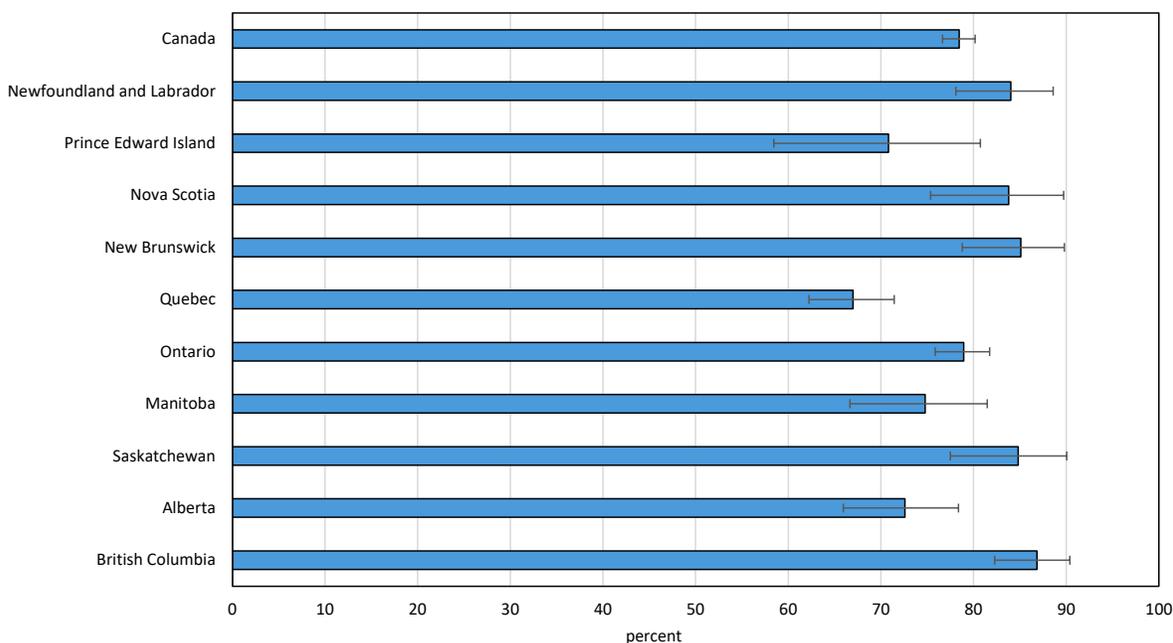
(identifies as a person with a disability or does not). To identify chronic conditions, respondents were asked, “Have you been diagnosed by a health care professional with any of the following long-term health conditions?” They were provided a list of conditions based on previous Statistics Canada health surveys (e.g., Survey on Access to Health Care and Pharmaceuticals During the Pandemic).

Virtual care use

Virtual care is any form of interaction between patients and health care providers that occurs remotely via technologies like the telephone, video conferencing, text messaging, and emailing.^{4,14} In the CSS-QLVHCT, respondents were asked whether they had any virtual care appointments, defined as “any interaction between patients and health professionals, occurring remotely, using any forms of communication or information technologies, with the aim of facilitating or maximizing the quality and effectiveness of patient care.” Therefore, services provided by patients’ regular health care providers, specialists, outpatient clinics, or on-demand clinics—including for-profit clinics—could be represented in the data.

A derived variable was created to determine the types of health care appointments respondents had in the past 12 months. Three categories were created: in-person appointments only, virtual appointments only, or both.

Chart 2
Percentage of individuals who had a virtual appointment in the past 12 months, individuals who sought or were offered a virtual appointment, Canada, 2023



Source: Canadian Social Survey – Quality of Life, Virtual Health Care and Trust, 2023.

Table 2
Logistic regression results, likelihood of having had a virtual appointment in the last 12 months, individuals who sought or were offered virtual care, Canada, 2023

	Adjusted odds ratio	95% confidence interval	
		from	to
Age group			
15 to 24†	1.00	...	...
25 to 34	1.09	0.60	1.97
35 to 44	1.91 *	1.02	3.57
45 to 54	1.55	0.86	2.80
55 to 64	1.15	0.64	2.07
65 to 74	1.10	0.57	2.11
75 or older	0.93	0.47	1.86
Gender			
Men+†	1.00	...	...
Women+	1.21	0.96	1.53
Marital status			
Married or in a common-law relationship†	1.00	...	...
Single (never married)	0.84	0.59	1.20
Separated, divorced, or widowed	0.67 **	0.50	0.90
Immigrant status			
Non-immigrant (born in Canada)†	1.00	...	...
Immigrant or non-permanent resident	0.75	0.54	1.04
Population group			
Non-racialized, non-Indigenous†	1.00	...	...
South Asian	1.47	0.78	2.77
Chinese	2.05 *	1.08	3.88
Black	1.09	0.54	2.19
Filipino	0.42 *	0.21	0.83
Arab	1.47	0.57	3.80
Latin American	1.63	0.47	5.64
Southeast Asian	0.55	0.20	1.52
Other racialized groups	1.24	0.54	2.84
Indigenous	1.29	0.57	2.94
Education level			
High school diploma or less†	1.00	...	...
Trades certificate, college or CEGEP diploma, or university certificate below a bachelor's degree	1.32	0.99	1.75
University degree	1.80 ***	1.30	2.49
Sexual orientation			
Heterosexual†	1.00	...	...
LGB+	0.95	0.54	1.67
Urban or rural status			
Urban†	1.00	...	...
Rural	1.07	0.76	1.50
Province			
Ontario†	1.00	...	...
Newfoundland and Labrador	1.43	0.89	2.31
Prince Edward Island	0.65	0.33	1.27
Nova Scotia	1.21	0.65	2.27
New Brunswick	1.40	0.84	2.33
Quebec	0.51 ***	0.38	0.70
Manitoba	0.75	0.45	1.25
Saskatchewan	1.28	0.73	2.25
Alberta	0.66 *	0.45	0.97
British Columbia	1.85 **	1.21	2.81
Ability to meet household needs (financial well-being)			
Easy or very easy†	1.00	...	...
Difficult or very difficult	1.03	0.77	1.38
Neither easy nor difficult	1.13	0.85	1.49
Main activity			
Paid work†	1.00	...	...
Retired	1.08	0.74	1.57
Other (not in paid work or retired)	0.86	0.63	1.17
Disability status			
Does not identify as a person with a disability†	1.00	...	...
Identifies as a person with a disability	1.11	0.80	1.56
Has a regular health care provider			
Yes†	1.00	...	...
No	0.75	0.54	1.04
Number of chronic conditions			
None†	1.00	...	...
One	1.71 ***	1.30	2.26
Two or more	2.30 ***	1.67	3.18

... not applicable

† reference category for predictor variables

* significantly different from reference category (p < 0.05)

** significantly different from reference category (p < 0.01)

*** significantly different from reference category (p < 0.001)

Note: LGB+: lesbian, gay, bisexual, or sexual orientation not elsewhere classified.

Source: Canadian Social Survey – Quality of Life, Virtual Health Care and Trust, 2023.

Access to virtual care was also measured by identifying whether individuals who sought or were offered virtual care in the past 12 months had a virtual appointment during this period. While respondents who sought virtual care and those who were offered virtual services could not be distinguished, this binary measure indicates the degree to which individuals who were interested in or had the opportunity to have a virtual appointment accessed virtual care.

The type of health care provider consulted was measured with a derived variable based on a series of questions about the types of providers individuals had accessed virtually in the past 12 months. A variable was created with the following categories: family doctor, general practitioner, or nurse practitioner only; medical specialist only; other health professional only; or multiple (two or more) provider types.

Respondents who declined a virtual appointment in the past 12 months were asked about their reasons for doing so (for the last virtual appointment declined) and selected from a list of possible reasons. These reasons included the following: instructions were unclear, concerns about privacy and security, more comfortable with in-person appointments, felt that health issue required an in-person appointment, not comfortable with technology, connectivity issues, no access to required tools, and other reasons. Specific reasons represented in the “other” category were not available; thus, additional barriers encountered by respondents could not be examined further.

Analytical techniques

Descriptive statistics were used to estimate the types of health care appointments individuals had in the past 12 months, the proportion of individuals who accessed virtual care in the past 12 months, the types of health care providers consulted virtually, and the proportion of respondents who declined a virtual appointment and their reasons for doing so.

Multivariate regression models were also employed. First, a multinomial regression model was used to examine associations between sociodemographic and health characteristics and the likelihood of having virtual appointments only or both in-person and virtual appointments in the past 12 months, compared with in-person appointments only. Second, a logistic regression

model was used to determine associations between sociodemographic and health characteristics and the likelihood of having a virtual appointment in the past 12 months.

Results were weighted using the CSS sample weight. To account for survey design effects, bootstrap weights were used to determine variance estimates (1,000 iterations). Data were analyzed using Stata 18.

Results

Types of health care appointments accessed

Overall, in the past 12 months, most individuals had in-person appointments only (57.5%), while a small proportion (5.3%) had virtual appointments only (Chart 1). Over one-third had both in-person and virtual appointments (37.2%). Therefore, when combined, just over 4 in 10 individuals who had a health care appointment in the past 12 months accessed virtual care.

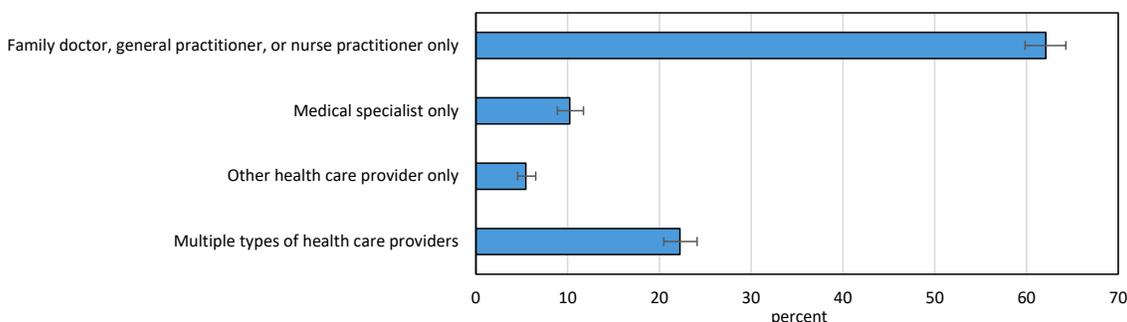
Compared with Canada overall, higher proportions of individuals from Quebec (71.8%), Prince Edward Island (71.0%), and Alberta (69.2%) had in-person appointments only. By contrast, about one-third of residents of Newfoundland and Labrador (35.2%) and British Columbia (33.4%) had in-person appointments only.

The provinces with the highest proportions of individuals who had virtual appointments only were Newfoundland and Labrador (13.2%), British Columbia (10.6%), and Nova Scotia (10.4%). Saskatchewan (2.1%), Alberta (2.4%), and Manitoba (3.3%) had the smallest proportions of those who had virtual appointments only. Among individuals who had health care appointments in the past 12 months, over half of those in British Columbia (56.0%) and Newfoundland and Labrador (51.6%) had both in-person and virtual appointments.

Sociodemographic and health-related differences in types of health care appointments

There were no statistically significant differences in type of appointment by immigrant status, sexual orientation, financial well-being, or main work activity (Table 1). However, compared with patients aged 15 to 24, those aged 75 or older

Chart 3
Types of health care providers consulted virtually, individuals who had a virtual appointment in the past 12 months, Canada, 2023



Source: Canadian Social Survey – Quality of Life, Virtual Health Care and Trust, 2023.

were less likely to have had both in-person and virtual appointments than in-person appointments only. Women were more likely than men to have had both types of appointments compared with in-person appointments only; separated, divorced, or widowed individuals were less likely than individuals who were married or in a common-law relationship to have had both in-person and virtual appointments than in-person appointments only. Compared with individuals who are non-racialized and non-Indigenous, Filipino patients were less likely to have had both types of appointments versus in-person appointments only, while Chinese patients were less likely to have had virtual appointments only than in-person appointments only.

University degree holders were more likely than their counterparts with a high school diploma or less to have had virtual appointments only versus in-person appointments only. Additionally, individuals with a postsecondary education were more likely to have had both in-person and virtual appointments versus in-person appointments only, compared with individuals with a high school diploma or less.

Rural patients were less likely than their urban counterparts to have had virtual appointments only, compared with in-person appointments only. Additionally, compared with Ontario, residents of Newfoundland and Labrador, Nova Scotia, New Brunswick, and British Columbia were more likely to have had virtual appointments only versus in-person appointments only, while this was less likely for those from Quebec and Alberta. Individuals in Newfoundland and Labrador and British Columbia were also more likely to have had both types of appointments than in-person appointments only, compared with Ontario, while this was less likely for those in Prince Edward Island, Quebec, Saskatchewan, and Alberta.

Patients with no regular health care provider were more likely than those with a regular provider to have had virtual appointments only, compared with in-person appointments only, and less likely to have had both types of appointments than in-person appointments only. Moreover, compared with individuals with no chronic conditions, those with two or more chronic conditions were more likely to have had virtual appointments only than in-person appointments only. Patients with one or more chronic conditions were also more likely to have had both types of appointments than in-person appointments only, compared with those with no chronic conditions. Individuals with a disability were also more likely than those without a disability to have had both types of appointments than in-person appointments only.

Sociodemographic and health differences in accessing virtual care

More than three-quarters of individuals who sought or were offered virtual care in the past 12 months had a virtual appointment (78.5%; Chart 2). Across provinces, most patients who sought or were offered a virtual appointment had one, ranging from 67.0% in Quebec to 86.9% in British Columbia.

Among individuals who sought or were offered virtual appointments, those aged 35 to 44 were more likely to have accessed virtual care than individuals aged 15 to 24. Separated, divorced, and widowed individuals were less likely than their counterparts who were married or in a common-law relationship to have had a virtual appointment (Table 2). Compared with individuals who are non-racialized and non-Indigenous, Chinese patients were more likely to have accessed virtual care, while Filipino patients were less likely to have done so. Education also mattered—university degree holders were more likely than those with a high school diploma or less to have had a virtual appointment. Compared with residents of Ontario, patients residing in Quebec and Alberta were less likely to have accessed virtual care, while those in British Columbia were more likely to have accessed virtual care.

Across health characteristics, having a regular care provider and disability status were not associated with the likelihood of accessing virtual care. However, patients with one or more chronic conditions were more likely to have had a virtual appointment than their counterparts with no chronic conditions.

Type of health care provider consulted virtually

Among individuals who had a virtual appointment in the past 12 months, nearly two-thirds met with a family doctor, general practitioner, or nurse practitioner only (62.1%), while about 1 in 10 consulted a medical specialist only (10.2%), and just over 2 in 10 consulted more than one type of health care provider virtually (22.2%; Chart 3). About 5% had virtual appointments with other types of health care providers only.

Reasons for declining virtual care

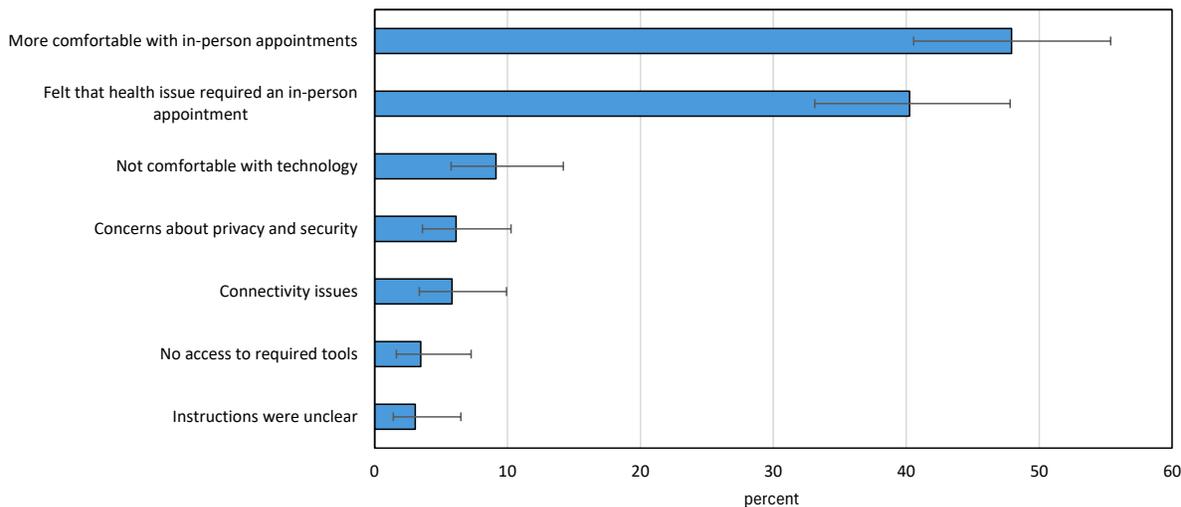
Among individuals who sought or were offered a virtual appointment in the past 12 months, just under 1 in 10 (8.9%) declined virtual care. Nearly half reported declining because they were more comfortable with in-person appointments (47.9%), while about 4 in 10 felt that their health issue required an in-person appointment (40.3%; Chart 4).

Smaller proportions of individuals who declined virtual appointments did so because they felt uneasy with or were limited by the technology required. These reasons included not being comfortable with technology (9.1%), privacy or security concerns (6.1%), connectivity issues (5.8%), and lack of access to required tools (3.5%). One-quarter (24.9%) indicated an “other” reason (not shown in chart). Because of the small sample size, these results were not disaggregated by province.

Discussion

Over half of individuals in Canada who had health care appointments in the past 12 months had in-person appointments only. This may reflect the decreased availability of virtual care following the COVID-19 pandemic lockdowns⁷ or patients’ preference for in-person visits.²³ However, a small proportion had virtual appointments only, and just over one-third had both

Chart 4
Reasons for declining a virtual appointment with a health care professional, individuals who declined a virtual appointment in the past 12 months, Canada, 2023



Note: Results do not sum to 100% because respondents could report multiple reasons for declining a virtual appointment.
Source: Canadian Social Survey – Quality of Life, Virtual Health Care and Trust, 2023.

virtual and in-person appointments, indicating that many individuals had access to virtual care and a willingness to use this service.

Virtual care use varied across the provinces. For individuals who had a health care appointment in the past 12 months, Newfoundland and Labrador and British Columbia had the highest proportions of patients who had virtual appointments only, and over half of the residents in these provinces had both in-person and virtual appointments. Conversely, about 7 in 10 patients in Quebec, Prince Edward Island, and Alberta had in-person appointments only. These variations may be attributable to provincial differences in the scope of virtual services available, billing models, prioritization of in-person over virtual care, or jurisdictional differences in digital infrastructure.^{10,24,25}

Consistent with research identifying education as a key factor in virtual care use,^{23,26,27} university degree holders were more likely than their counterparts with a high school diploma or less to have accessed virtual care and to have had virtual appointments only versus in-person appointments only. This may reflect the digital divide—more highly educated individuals typically have greater exposure to information and communications technology in their professional and personal lives than those with lower education levels.^{28,29} Moreover, separated, divorced, or widowed patients were less likely to have accessed virtual care than patients who were married or in a common-law relationship. This is consistent with studies showing lower virtual care use among unmarried individuals,^{30,31} which may be attributable to differing levels of social support. Spouses may, for example, provide support in navigating the health care system.³²

While rural patients were less likely than their urban counterparts to have had virtual appointments only versus in-person appointments only, there was no difference in having a

virtual appointment in the past 12 months. Therefore, while some rural communities may lack the technological infrastructure available to urban residents,^{12,16} the results align with other Canadian research, which finds similar access to virtual care between rural and urban patients.³³ This could reflect greater reliance on telephone visits among rural patients, which is a more commonly available and accessible technology.³⁴ Future research examining rural–urban differences in the modality of virtual care used and extending analysis beyond the rural–urban binary would provide more insight into this issue.

Compared with patients with a regular health care provider, those without one were more likely to have had virtual appointments only than in-person appointments only. However, they were not more or less likely to have had a virtual appointment in the past 12 months. This suggests that individuals without a regular health care provider may be more reliant on virtual consultations to meet their health care needs, supporting research that suggests virtual walk-in clinics address a care gap for these individuals.^{35,36} Given the substantial growth in for-profit virtual care services in recent years,^{35,37} these clinics may be increasingly filling the health care needs of individuals without a regular health care provider. However, there are concerns that profit-driven models of virtual care compromise quality and continuity of care by promoting unnecessary diagnostic testing, lacking access to complete patient records, and reducing communication with family doctors. These platforms also risk creating a two-tiered system whereby higher-income individuals bypass wait times while marginalized populations face longer delays.^{38,39}

Multimorbidity was also associated with a higher likelihood of accessing virtual care; this is likely connected to the higher level of care typically needed by individuals with chronic

conditions.⁴⁰ This aligns with previous research indicating that patients with comorbidities find virtual care useful for routine checkups that monitor their conditions.²² Additionally, virtual care may be preferred by individuals with limited mobility because travel is not required.

A higher proportion of individuals who used virtual care consulted a family doctor, general practitioner, or nurse practitioner only than a medical specialist only. This may reflect differences in the degree of virtual care that each type of provider can deliver. Primary care providers often provide non-urgent, routine care, which can be delivered virtually,¹² while the delivery of virtual care by medical specialists varies by specialty and typically depends on the need for visual or physical examinations.²²

Lastly, few individuals declined a virtual appointment. While previous studies identify technical challenges as a common barrier to virtual care,^{16,17} this study found that the most common reasons for declining virtual appointments were related to a preference for in-person appointments, because patients either felt more comfortable with them or had health issues requiring in-person care. However, for a small proportion of patients, being uncomfortable using the technology required for virtual appointments, privacy and security concerns, and connectivity issues were barriers to virtual care.

Strengths and limitations

This study presents new insights regarding virtual care use in Canada following the sharp rise in virtual care early in the COVID-19 pandemic. Information about associations between sociodemographic characteristics and accessing virtual care is an important contribution because many of these characteristics are not often collected by clinicians.⁴ However, individuals residing in the territories, on reserves, or in institutions were not represented.

A key limitation was the lack of data about individuals' need for health care in the past 12 months, preventing an assessment of unmet health care needs. Additionally, individuals who sought virtual care and those who were offered this service could not be separated. Therefore, differences between patients

who were interested in but unable to access virtual care (i.e., those who sought virtual care) and individuals who chose virtual services (i.e., those who were offered this option) could not be examined. Moreover, while respondents were asked whether they paid for any of their virtual appointments, this did not provide sufficient information to examine potential differences between publicly funded and privately paid services. The data also did not indicate whether virtual appointments were with patients' regular health care provider or a provider at an on-demand virtual clinic.

Finally, while income is a key factor in the digital divide,^{41,42} income data were not available and a measure of financial well-being was used instead. Although no association was found between financial well-being and virtual care use, an individual-level income measure would have been more suitable to examine this issue.

Conclusion

This study provides new information about virtual care use in Canada using population-based data. While most patients in 2023 had in-person appointments only, over one-third accessed both in-person and virtual services, indicating that many patients had access to virtual care and a willingness to use it. Higher levels of education, multimorbidity, and lack of a regular health care provider were positively associated with virtual care use. However, access did not differ by other factors identified in the digital health care equity framework, such as urban or rural status or financial well-being. Few individuals declined virtual care; among those who did, greater comfort with in-person appointments was the most common reason. Future research examining sociodemographic and health differences in patients' preferred modality of virtual care and the use of for-profit virtual clinics would be valuable.

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