

Impact of the COVID-19 Pandemic on Virtual Care: A Major Shift for Physicians and Patients

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Abstract

To reduce the spread of COVID-19 in Canada, patients receiving physician services experienced a significant shift to virtual appointments by telephone, video conference and online messaging as many physician visits moved from in-person to virtual delivery. The Canadian Institute for Health Information's analysis of the physician billing data in five provinces (Ontario, Manitoba, Saskatchewan, Alberta and British Columbia) shows that during the first year of the pandemic in 2020, up to twice as many physicians provided care virtually compared to 2019. At the same time, the rate at which patients received virtual services quadrupled. Furthermore, data from the 2021 Commonwealth Fund (CMWF) survey of older adults show that almost twice as many Canadian seniors (71%) had a virtual appointment with a doctor or healthcare provider compared to seniors in other CMWF countries (39%). Going forward, virtual care remains a significant mode of delivery and has important implications for the future of patient care and the relationships between patients and providers.

Introduction

As the pandemic emerged in Canada, governments introduced measures to limit the spread of COVID-19, including restrictions on social gatherings and recommendations for physical distancing (CIHI 2022b). These measures led to a reduction in interactions between physicians and their patients. In subsequent months, however, visits resumed, with many shifting to virtual appointments by telephone, video conference and online messaging (CIHI 2022a). Since that time, virtual care has remained as a mode of delivering patient care in Canada.

Approach

This article provides a snapshot of the results from three Canadian Institute for Health Information (CIHI) studies. Two of the studies draw from physician billing data and focus on patterns of patient access and physician uptake of virtual care. The third study provides the patient perspective from the 2021 Commonwealth Fund survey of older adults.

Services billed by physicians were compared for two periods: April 2019 to March 2020 and April 2020 to March 2021. Data on physician claims were limited to provinces where it was possible to identify virtual care visits: Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. It is not recommended to make interprovincial comparisons because the data presented have not been adjusted for interprovincial billing differences.

The Commonwealth Fund International Health Policy Survey examines the similarities and differences of access to care between Canada and 10 peer countries (Australia, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the UK and the US). The 2021 survey collected the views and experiences of people aged 65 and older and was conducted by telephone from March 2021 to June 2021. The total number of Canadian respondents was 4,484. The data were weighted for each province/territory by age, gender, education and knowledge of French/English.

Key Findings

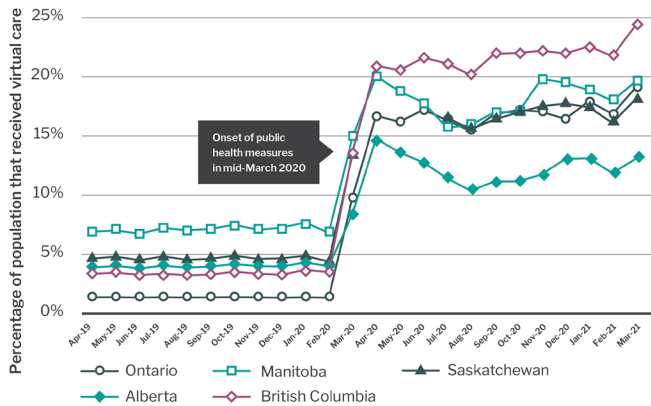
The following sections discuss the findings from the analysis of the physician billing data.

More virtual care than ever before

In 2019, virtual care accounted for 2% to 11% of the physician services that patients received, depending on the province. A year later, patients received between 24% and 42% of their services virtually. In the five provinces for which data are available, an average of 16% of the population received one or more virtual care services per month (Figure 1).

Not only did more people receive virtual care, but the volume of services also increased. Many commonly provided services moved to virtual delivery early in the pandemic. Virtual care visits averaged 244 services per 1,000 people per month during the first year of the pandemic (April 2020 to March 2021), compared with an average of 52 the year before.

FIGURE 1.
Proportion of population that received virtual care, from April 2019 to March 2021



Data for Saskatchewan are not shown; data from April 1 to June 30, 2020, are under-reported because physicians who were part of the Pandemic Physician Service Agreement (Saskatchewan Medical Association 2020) during this time did not submit claims for the services that they provided. The sudden rise in the graph coincides with the time in mid-March 2020 when public health measures were introduced and billing rules for virtual services came into effect in many provinces. Source: National Physician Database, 2019 to 2021 (open-year data), CIHI. Data reported to CIHI as of October 15, 2021.

The onset of the pandemic saw the number of physicians providing virtual care increase significantly. In 2020, between 79% and 90% of physicians provided one or more virtual services per month, compared to between 35% and 80% the year before.

Virtual care varied across patient age groups and physician specialty

From April 2020 to March 2021, adults aged 18 to 64 years received the highest proportion of their overall services virtually, at an average of 35%. Younger and older individuals also received a significant proportion of services virtually, both at 29%.

Family doctors provided the highest proportion of their services virtually at 42%, followed by medical specialists (23%) and surgical specialists (12%). Variation across physician specialty can be partly due to different practice patterns. Family physicians provided higher proportions of consultations and visits (approximately 82% of their services), while medical and surgical specialists provided higher proportions of procedures (approximately 37% and 44%, respectively) (CIHI 2021).

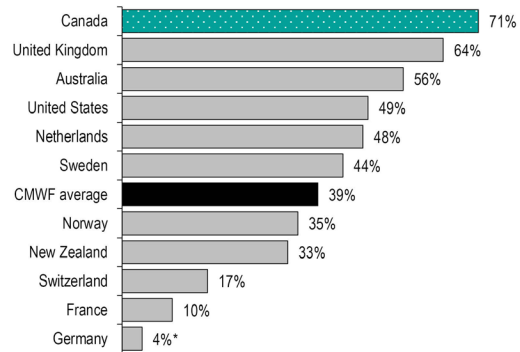
Overall, the difference in accessing virtual care across income levels was modest. Virtual care ranged from 30% for patients living in the lowest-income neighbourhoods to 34% for those in the highest-income neighbourhoods, demonstrating that patients were able to access virtual care despite income disparities.

The following section discusses the findings from the Commonwealth Fund survey data.

Canada outpaced other peer countries in adopting virtual care

Findings from the Commonwealth Fund survey showed that a larger proportion of Canadian older adults (71%) reported having had virtual appointments with doctors or healthcare providers compared to the Commonwealth Fund average (39%) (Figure 2). However, more Canadian seniors have had an appointment cancelled or postponed, compared with the Commonwealth Fund average (29% versus 19%).

FIGURE 2.
Percentage of respondents in the CMWF survey who had a telephone or video appointment with a doctor or other healthcare professional, in the past 12 months



CMWF = Commonwealth Fund.
 * The coefficient of variation is between 16.6% and 33.3%; use with caution.

Canadian seniors with higher numbers of chronic conditions and higher household incomes were more likely to have used virtual appointments. However, there were no differences in using virtual appointments between rural and urban residents. In addition, those with virtual appointments were not able to get same or next-day appointments with the doctor faster compared with those who had face-to-face appointments.

Conclusion

The findings of these studies provide baseline information on what we know about virtual service delivery over the past two years. Although the trends show a large shift to virtual care, they may not necessarily reflect the preferences of patients or physicians. Continued monitoring of how services are delivered will be important to understand the potential benefits and challenges of virtual care adoption by both patients and physicians. Critical areas of focus include impact on access to care, equitable delivery of services, costs to health systems and patients and patient outcomes. **HQ**

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approach to digital health evaluations for Canada that includes measurement.

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For more information on CIHI's virtual care program of work, please visit <https://www.cihi.ca/en/virtual-care-in-canada> or email virtualcare@cihi.ca.

References

Canadian Institute for Health Information (CIHI). 2021. National Physician Database Historical Utilization, 2010 to 2019 – Data Tables. Retrieved August 5, 2022. <<https://www.cihi.ca/sites/default/files/document/npdb-data-tables-2019-en.zip>>.

Canadian Institute for Health Information (CIHI). 2022a, April. Physician Billing Codes in Response to COVID-19. Retrieved July 7, 2022. <<https://www.cihi.ca/en/physician-billing-codes-in-response-to-covid-19>>.

Canadian Institute for Health Information (CIHI). 2022b, June 9. COVID-19 Intervention Timeline in Canada. Retrieved July 7, 2022. <<https://www.cihi.ca/en/covid-19-intervention-timeline-in-canada>>.

Saskatchewan Medical Association. 2020. Pandemic Physician Services Agreement. Retrieved September 16, 2022. <<https://www.sma.sk.ca/kaizen/content/files/Pandemic%20Physician%20Services%20Agreement%20Apr%2011%2020%20Final.pdf>>.

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