

Visit Patterns to Primary Care During the COVID-19 Pandemic in Alberta and the Role of Virtual Visits

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Goal: The objective of this study was to determine how visit patterns to family physicians were impacted by the pandemic and the role virtual visits played in delivering care.

Context

On March 15, 2020 province wide restrictions were implemented to address the COVID-19 pandemic. These restrictions had an immediate reduction in visit volumes compared to historical norms throughout the healthcare system. In response, a rapid scale up of virtual care, through the introduction of specific billing codes, provided another option for patients to connect with their family physicians. This study was designed to explore the visit patterns in primary care during the pandemic.

Design

Retrospective descriptive study, comparing weekly visits volumes to primary care from March 2020-March 2021 with 2019 volumes. Visit types were stratified by type (virtual or in-person), and by zone (South, Calgary, Central, Edmonton, or North).

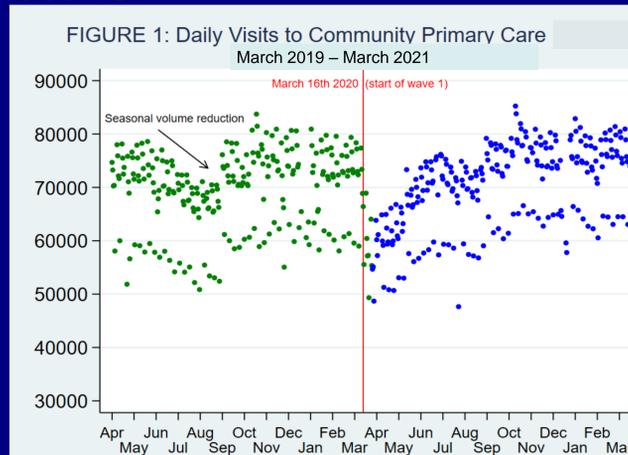
Participants

4,919 family physicians who submitted a billable claim from a primary care clinic in Alberta as of March 2020. Claims submitted by family physicians from specialty clinics (i.e. medical marijuana dispensaries, sleep clinics) were excluded.

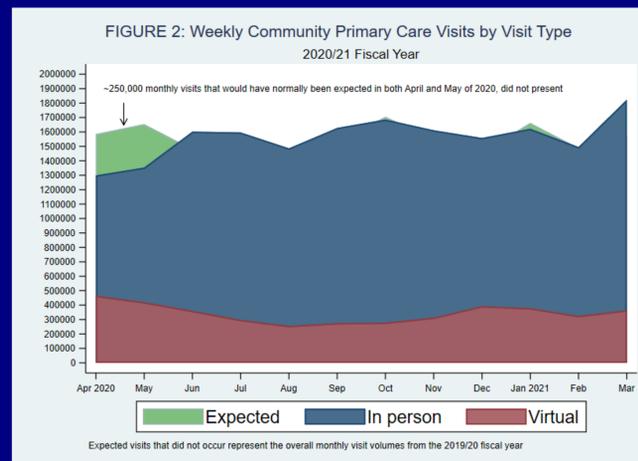
Intervention

Visits were determined using Alberta Health's Practitioner Claims database. A visit was defined as a patient who visited the same family physician on the same day in the same clinic. The following billing codes were used to identify a virtual visit: 03.01S, 03.01T, 03.03CV, 03.03FV, 03.08CV, 08.19CX, 08.19CV, 08.19CW. All other submitted claims were used to identify an in-person visit. Postal codes of the primary care clinic were used to identify the zone where care was delivered. Patient age and sex were determined from the Alberta Population Registry.

Results

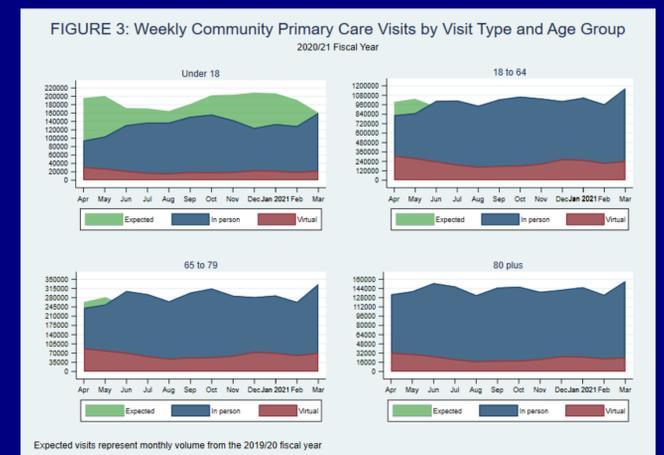


The total number of daily visits before and during the pandemic were plotted on a graph. Visits declined rapidly the day after restrictions (March 16th) were implemented and by April 3rd reached their lowest total of 48,658 daily visits, a 39% drop. From this point forward, visits volumes steadily recovered.



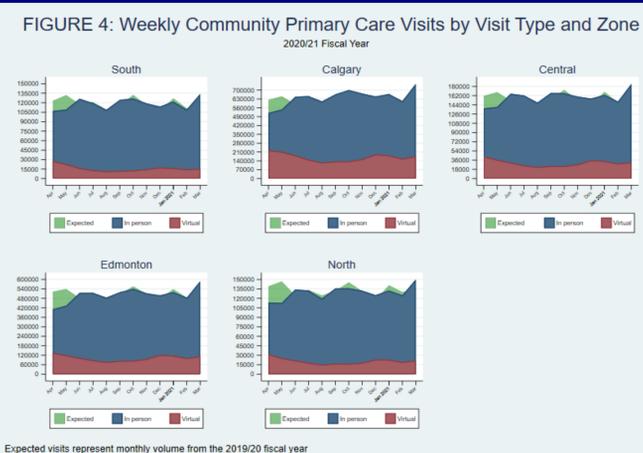
Weekly visits volumes in 2020 and 2021 were compared to the monthly visit volumes in 2019. Visit volumes steadily recovered before stabilizing in early July.

The shift to virtual care occurred rapidly following the introduction of new billing codes, with virtual visit volumes peaking at 36.6% in May 2020. By October, virtual visit volumes stabilized at ~20%.



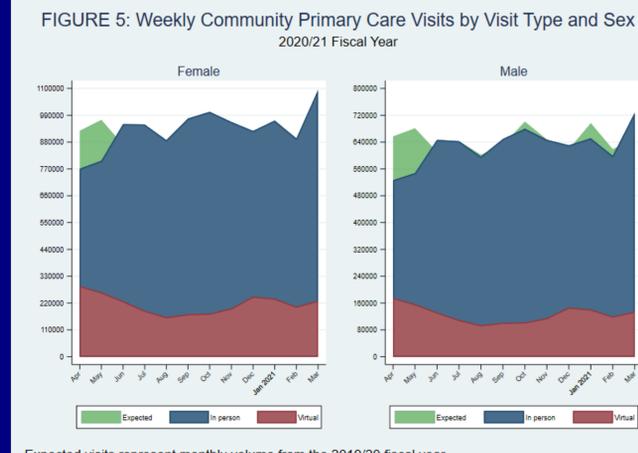
Patients under the age of 18 experienced the largest reductions in overall visits, whereas patients over the age of 80 years experienced little change in visit volumes.

During peak virtual care usage in late April, all age groups utilized virtual care at a rate of approximately 35%, except for those 80+ years of age where adoption was slightly lower at ~25%. As of October 2020, usage stabilized at 15% in all age groups.



At the end of April all zones experienced a ~20% reduction in visits compared to 2019 volumes. Except for the Calgary zone, all other zones experienced a decrease in visits volumes in October 2020 and January 2021.

Physicians in the Calgary zone delivered virtual care more than the four other zones, with the highest peak ~45% in April.



Both males and females experienced an immediate reduction in visit volumes compared to 2019, followed by a gradual return to normal levels by July. Male patients experienced a reduction in visit volumes in October and again in January 2021. Both males and females used virtual care at the same rate.

Conclusion

The COVID-19 pandemic had an initial impact on visit volumes (April – June 2020) to family physicians practicing in Alberta. This decrease in visit volumes occurred despite the implementation of virtual visit billing codes. However, the visit volumes recovered to near 2019 volumes by July 2020.

Our study suggests patients under the age of 18 years avoided seeking primary care.

Once the new virtual visit billing codes were implemented, they were rapidly used throughout the province, with the greatest uptake occurring in the Calgary Zone. By the end of March 2021, 20% of all primary care visits were delivered virtually.

Research ethics was obtained from HREB3 at the University of Alberta (Pro00107781)

Questions? Comments?
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