Impact of the COVID-19 Pandemic on Health System Use in Canada

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Abstract

The Canadian Institute for Health Information has compiled health system data to investigate the impact of the COVID-19 pandemic on Canada's healthcare system. Information was aggregated from four distinct sectors of care: emergency department visits, in-patient hospital stays, physician care and home care. Across the sectors, there were two compelling themes: rapid transformation and change in human behaviour.

Introduction

In spring 2020, Canada's provinces and territories prepared for a potential surge in the number of COVID-19 patients and worked to reduce the spread of COVID-19 (CIHI 2021). In November 2020, the Canadian Institute for Health Information (CIHI) reported on the impact of COVID-19 on Canada's healthcare systems (CIHI 2020). Two overarching themes emerged from all sectors of care:

- *Rapid system transformation*: During the pandemic, the system adapted and transformed care delivery quickly. In-person care was shifted to virtual care where possible, patient care was prioritized and surgeries were shut down.
- *Change in human behaviour*: Patients themselves began accessing care differently, making different decisions about which conditions required care and/or seeking alternative modes of care.

These developments freed up resources as intended, but they may also have unintended consequences, which will be seen in the future health of Canadians.

Approach

CIHI has compiled health system data on the COVID-19 pandemic from March to June 2020 and compared it with that from March to June 2019, using the 2019 data as the pre-pandemic baseline.

Emergency departments

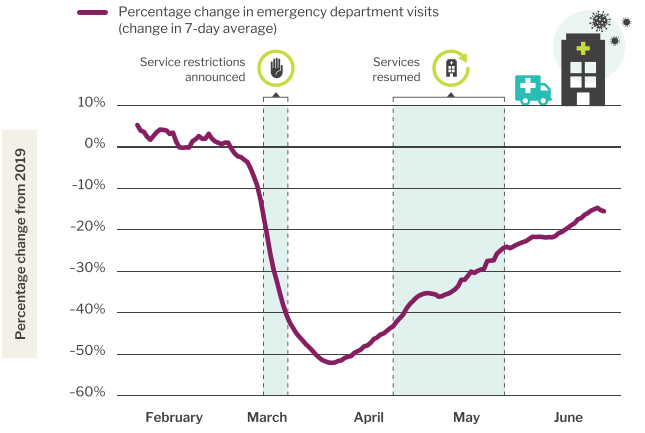
Visits to emergency departments across Canada declined by almost 25,000 a day (about half the usual number of patients) in mid-April 2020. By late June, these visits were still 16% lower than those in 2019 (see Figure 1).

Although emergency department activity declined, people with unplanned health concerns did receive care. Overall, fewer people sought care for common concerns, such as abdominal pain or colds and flu, as well as for more significant concerns, such as cardiac events and trauma. Fewer people coming to the emergency department meant lower wait times to be seen and be admitted to an in-patient bed.

In-patient care

From March to June 2020, overall surgery numbers fell by 47% compared to 2019, representing about 335,000 fewer surgeries. April had the lowest number of surgeries – a key factor in the 36% decrease in hospital admissions. Hospital admissions had rebounded to 75% of that of the previous year by June (see Figure 2).

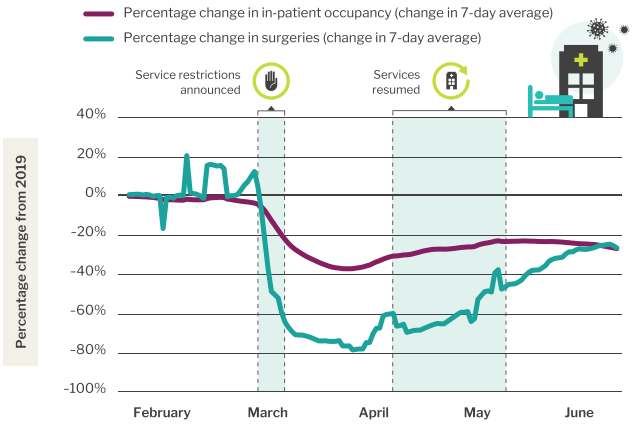
FIGURE 1.
Emergency department volumes, February to June 2020



The figure includes Quebec, Ontario, Alberta and Yukon (full data coverage) and Prince Edward Island, Nova Scotia, Manitoba, Saskatchewan and British Columbia (partial data coverage). March to June 2020 is the early pandemic period; February data are provided for context only.

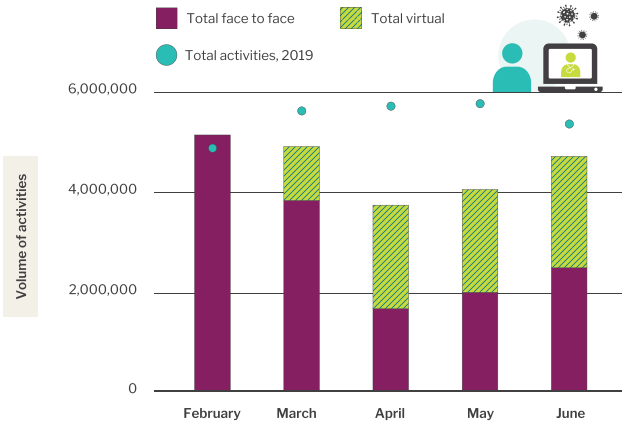
Source: National Ambulatory Care Reporting System, 2018–2019 and 2020–2021, CIHI.

FIGURE 2.
Changes in surgeries performed and hospital occupancy, February to June 2020



March to June 2020 is the early pandemic period; February data are provided for context only.
Source: Discharge Abstract Database, 2018–2019 and 2020–2021 (open-year data), CIHI.

FIGURE 3.
Activities by family physicians, February to June 2020



Only data from Ontario are presented. Services are identified as virtual using new codes created in response to the pandemic. Face-to-face services before the pandemic may include a small number of virtual care services. March to June 2020 is the early pandemic period; February data are provided for context only.
Source: National Physician Database, 2020 (open-year data), CIHI. Data reported as of October 1, 2020.

Cancellations of planned surgeries varied according to urgency. Life-saving and urgent surgeries declined the least (down by 17–21%). Procedures in this category included pacemaker insertions, bypass surgeries, cancer surgeries and fracture repairs. Surgeries for less-urgent conditions declined the most (up to an 80% decrease). By June 2020, many hospitals had started to perform more surgeries, although there are provincial variations in the approaches.

Admissions to intensive care beds were 22% lower in March to June 2020 compared to the previous year. Fewer people were admitted to intensive care units for cardiac conditions, strokes or pneumonia. However, there was a notable increase (41%) in the number of non-surgical emergency admissions for major respiratory conditions, mostly for COVID-19 patients.

Trauma caused by accidents requiring hospital care dropped by 10% compared to the previous year. Advice to stay at home likely accounts for lower rates of trauma from road accidents, falls and other injuries. Unexpectedly, admissions for unplanned health conditions such as gastrointestinal illnesses and heart problems decreased by approximately 22%. The reasons for change are not clear from the data. It may be that some people decided that their condition was not urgent enough to seek the care that they normally would have sought.

Physicians

Family physicians were able to shift quickly to virtual care with many patient visits, psychotherapy and consultations with other physicians provided virtually in April 2020 (52%), a pattern that continued in May and June. However, there was still an overall drop of 31% for these types of activities compared with the previous year (see Figure 3).

Home care

In the first few months of the COVID-19 pandemic, homecare providers temporarily changed their assessment methods to avoid close contact with clients. At the same time, some homecare clients placed their services on hold to limit contact with people outside their household. Assessments for new homecare clients declined by 25% from March to April 2020. Full assessments of those already receiving home care also declined by 44% from March to April 2020.

Before the COVID-19 pandemic, most homecare assessments were conducted in person. After March 2020, most screening assessments for hospitalized patients were completed by phone, partly in an effort to limit the number of non-essential staff in hospitals. Between April and June 2020, 72% of assessments were completed by phone; this was a 53% increase compared to the same period in 2019.

Moving Beyond the First Wave

The COVID-19 pandemic continues to challenge health systems across Canada – and all Canadians – as we collectively learn about and adapt to the pandemic. The amount of information generated and the rapidly changing knowledge about COVID-19 will take time to understand. The numbers tell us that the public health messaging about social distancing and the intentional slowdown of surgeries in the spring had a

significant impact. These changes affected Canadians' comfort with seeking care (and their care providers' comfort with providing it), but they also forced rapid health system transformation. These actions ensured that resources were available for a potential surge of COVID-19 patients, but they may also have created unintended consequences. While we know about the changes in service volumes, we do not yet have the full picture of the impact of delayed or deferred care.

CIHI will continue to monitor and report on the impact of the pandemic on the healthcare system and the unintended consequences of pandemic measures on the health of Canadians. For the full breadth of CIHI's COVID-19 reporting, please visit https://www.cihi.ca/en/covid-19-resources. HQ

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