

# How Were Wait Times for Priority Procedures in Canada Impacted during the First Six Months of the COVID-19 Pandemic?

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## Abstract

In 2020, health systems across Canada responded to the COVID-19 pandemic by making rapid changes to reduce the risk of exposure for patients and staff and to allocate resources toward the treatment of COVID-19 patients. This included postponing surgical and diagnostic procedures. Data collected by the Canadian Institute for Health Information show that these interventions resulted in longer wait times across all provinces in April–September 2020 for scheduled surgical procedures, such as hip and knee replacements and cataract surgeries. The impact on wait times for cancer surgeries and diagnostic imaging varied by type of procedure and jurisdiction, while the wait times for hip fracture repair and radiation therapy were not impacted. Subsequent waves of the COVID-19 pandemic added to the initial backlog of procedures, and it will take time to assess the long-term impact of surgical and diagnostic imaging delays on patient outcomes and wait times.

## Introduction

How did shutdowns and delays in procedures affect patient wait times in the first six months of the COVID-19 pandemic? Data from the priority procedures wait-times program at the Canadian Institute for Health Information (CIHI) can help answer this question.

### CIHI's priority procedures' wait-times program

Since 2008, CIHI has been reporting on wait times for hip and knee replacements, bypass surgery, cataract surgery, radiation therapy and diagnostic imaging. The initial set of procedures, benchmark wait times and cohort definitions were established as part of the 2004 Health Accord (Government of Canada 2004). In 2013, surgical wait times for cancer of the bladder,

breast, colorectum, lung and prostate were added. The data are primarily submitted to CIHI by provincial ministries and agencies based on agreed-upon pan-Canadian standards and definitions for the period of April to September and publicly reported by CIHI the following year (CIHI 2021b).

### Procedures cancelled or delayed as part of COVID-19 mitigation efforts

The first wave of the COVID-19 pandemic in Canada led to delays in and cancellations of medical procedures as health system planners worked to reduce patient and staff exposure, as well as to reallocate beds, equipment and staff toward the treatment of COVID-19 patients (CIHI 2021d). Beginning in March 2020, most planned and non-urgent surgeries were postponed across Canada. In some provinces, a limited number of scheduled procedures continued for services such as trauma, oncology and cardiac care. Resumption of planned surgeries began in early May 2020, although the timing and the approach differed among provinces. In addition to system-initiated delays, many patients avoided or postponed care due to concerns about exposure to COVID-19 in medical settings (Czeisler et al. 2020). Overall, from March to June 2020, 47% fewer surgeries were conducted in Canada compared with the same period in 2019, creating an estimated backlog of 335,000 procedures (Dudevich and Froid 2021).

CIHI's 2021 wait-times reporting takes a closer look at how many fewer procedures were completed in the early months of the pandemic and assesses the impact on patient wait times by examining data from the April–September 2020 period and comparing those with April–September 2019 as a pre-pandemic baseline (CIHI 2021c).

## Findings

### Joint replacement and cataract surgeries

Cancellations and delays due to the COVID-19 pandemic substantially increased wait times for joint replacement and cataract surgery in 2020; collectively, only about half the number of patients receiving these three procedures were treated within benchmark time frames in April–September 2020.

Prior to the COVID-19 pandemic, wait times for these surgeries had been generally stable for several years (Figure 1). Overall, approximately 70–75% of patients were treated within benchmark time frames in 2019 (182 days for hip and knee replacement, 112 days for cataracts), with notable variations in wait times across the country (CIHI 2021a). The total volume of these procedures also decreased by over one-third relative to April–September 2019, creating an estimated backlog of 24,000 joint replacement surgeries and 86,000 cataract surgeries.

### Hip fracture repair and radiation therapy

In the pre-pandemic period, Canadians typically received timely access to urgent procedures for life-threatening conditions, such as hip fracture repair and radiation therapy. During the first six months of the pandemic, most Canadians continued to receive this care within benchmark time frames, and the number of procedures done was comparable to that completed in 2019 (see Figure 1). For radiation therapy, at least 90% of patients received treatment within the 28-day benchmark in all 10 provinces in both 2019 and 2020. For hip fracture repair, the percentage of patients treated within the benchmark time frame of 48 hours remained stable in 2020 at 86%, and all provinces achieved at least 80% of patients meeting the benchmark both before and during the pandemic.

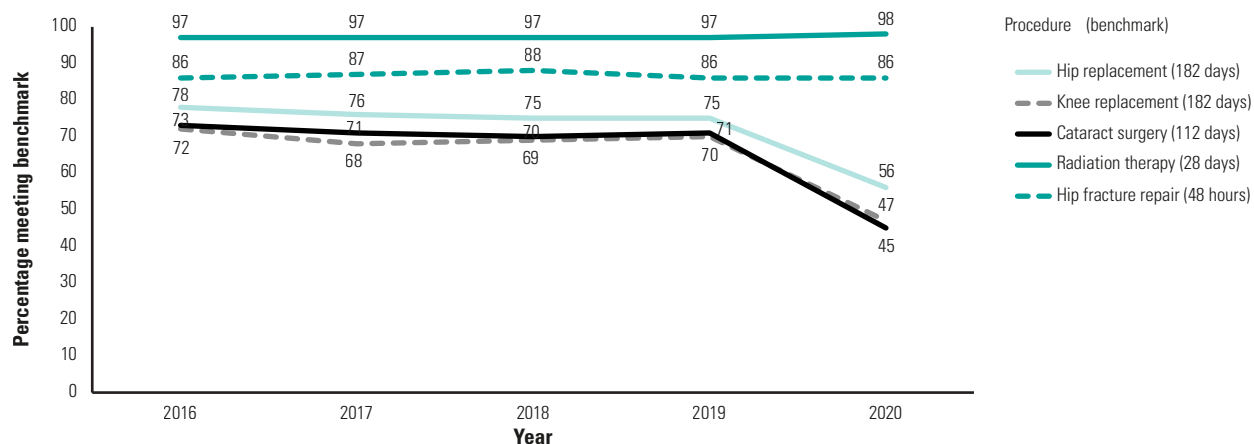
### Cancer surgery

The number of cancer surgeries decreased by about one-fifth in April–September 2020 compared with that in the same period in 2019. Despite this, median wait times decreased for breast, bladder, colorectal and lung cancer surgeries and remained stable for prostate cancer surgery. However, 90th percentile wait times increased for bladder, breast, lung and prostate cancer surgeries (see Figure 2). Due to the known risks of delaying these procedures, cancer surgeries were among the last surgeries to be delayed and the first to restart. These surgeries were prioritized based on urgency at the discretion of medical staff, whereas CIHI wait-time data do not account for urgency level (Finley et al. 2020).

### Diagnostic imaging

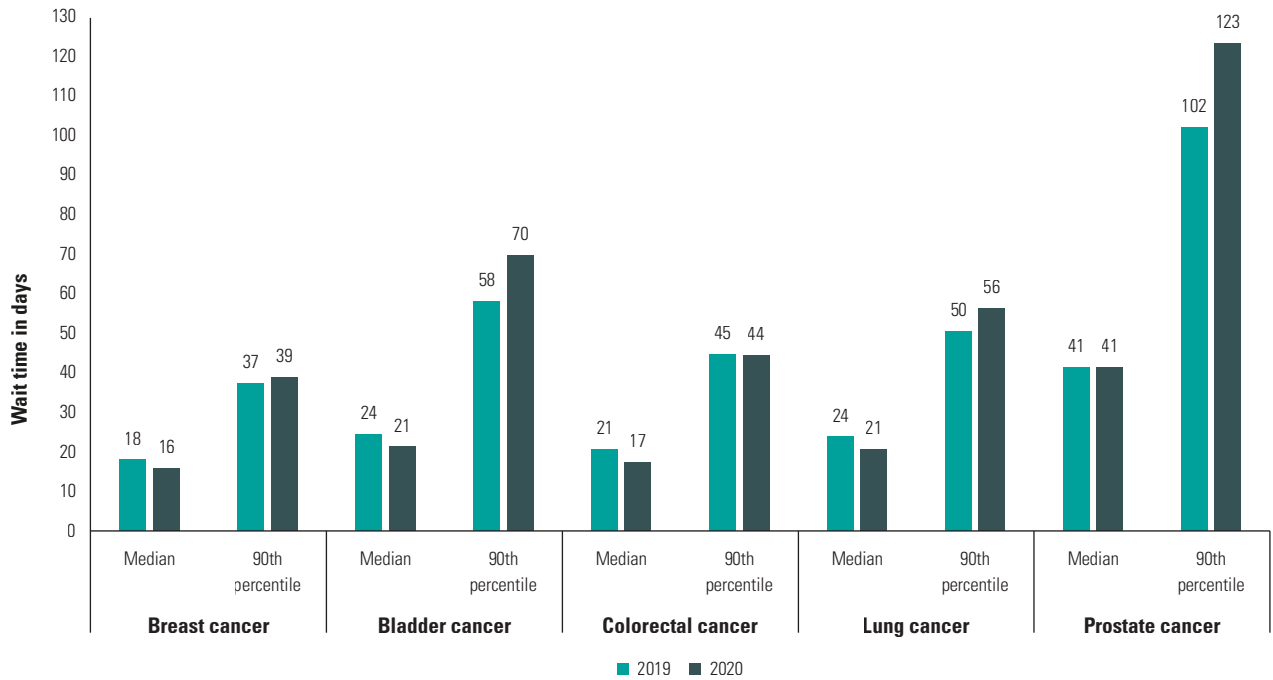
During the pandemic, wait times for diagnostic imaging varied across Canada, with wait times for magnetic resonance imaging (MRI) being higher than those for computerized tomography (CT) in each of the seven reporting provinces (see Figure 3). These patterns also existed prior to the pandemic. Compared with 2019, the median wait time for CT scan in Canada decreased from 13 days to 11 days, while the median wait time for MRI scans increased from 42 to 45 days. While many provinces made efforts to continue the most urgent diagnostic imaging scans during the pandemic, compared with that reported in 2019, the number of MRI scans decreased by over one-quarter and CT scan volumes decreased by nearly one-fifth in 2020. This reduction in access to diagnostic imaging may contribute to increased demand in other sectors of healthcare (e.g., surgical backlog), as well as poorer health outcomes in the future.

**FIGURE 1.** Percentage of patients treated within benchmark time frames in Canada, by procedure, from April to September 2016 to 2020



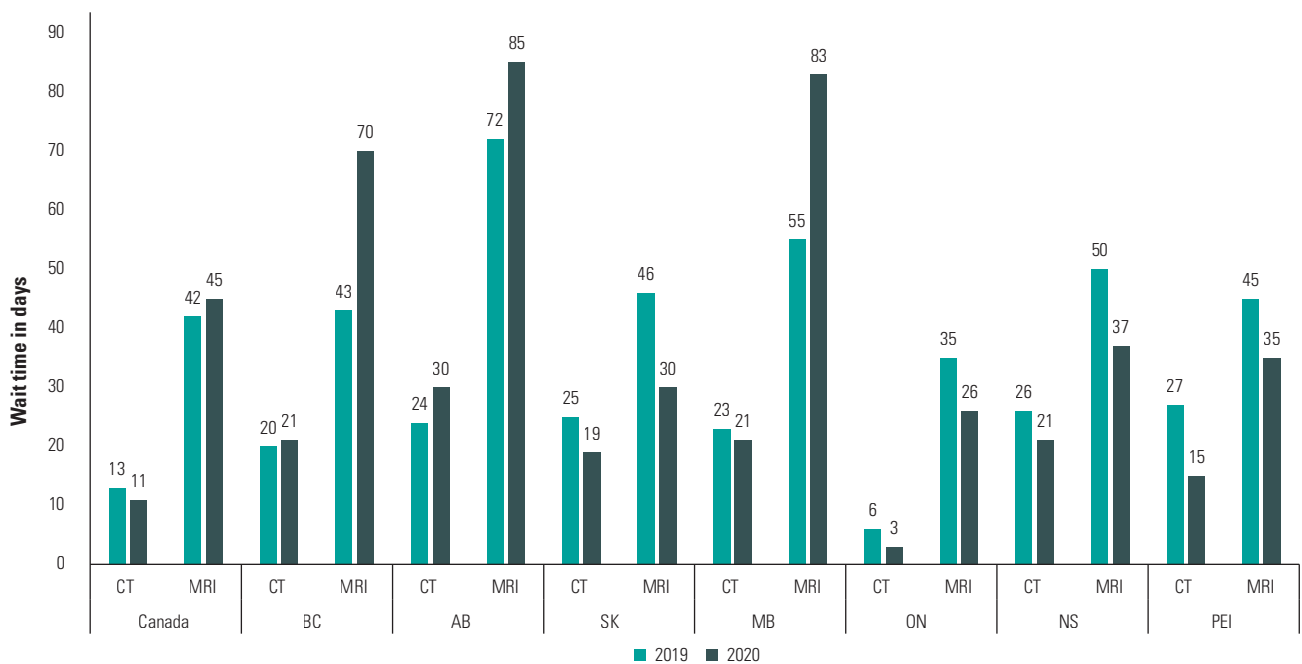
Source: Adapted from CIHI 2021a.

**FIGURE 2.**  
**Cancer surgery wait times in Canada from April to September, 2019 to 2020**



Source: Adapted from CIHI 2021a.

**FIGURE 3.**  
**CT and MRI scan wait times in Canada from April to September 2019 to 2020, by province**



Source: Adapted from CIHI 2021a.

## Conclusion

In Canada, the first six months of the COVID-19 pandemic resulted in considerably longer wait times for procedures such as joint replacement and cataract surgery, while patients continued to have a high level of access to more urgent services, such as hip fracture repair and radiation therapy. The mixed results for cancer surgery and diagnostic imaging indicate that while delays and cancellations impacted some patients, others may have had shorter wait times than they would have had prior to the COVID-19 pandemic because of increased system capacity resulting from cancellations. More data can be obtained from CIHI's interactive wait-time visualization page (see [www.cihi.ca/en/explore-wait-times-for-priority-procedures-across-canada](http://www.cihi.ca/en/explore-wait-times-for-priority-procedures-across-canada)).

Wait times for procedures during the first six months of the pandemic tell only part of the story from both the system's and the patient's perspective. From the system's perspective, changes in procedure volumes and wait times reported by CIHI are based solely on completed procedures and do not account for changes in wait-lists. For example, some procedures that were initially scheduled for the April–September 2020 period may have been rescheduled to October 2020 or later and thus not included in this analysis. Pandemic-related delays in access to preventive care, specialist consultations and presurgical testing and imaging also added to the backlog of surgeries created by cancellations during the first wave of the

pandemic (CMA 2021; Duong 2021; Laing and Johnston 2021; Simon and Regan 2021).

From the patient's perspective, it will also take time to understand exactly how system closures and patient-initiated delays for surgeries impacted peoples' health. Many patients experience distress when they wait longer (Lizaur-Utrilla et al. 2016), and extended waits for procedures such as cancer surgery are associated with poorer outcomes, including increased mortality (Hanna et al. 2020).

Subsequent waves of COVID-19 have resulted in additional delays in and cancellations of procedures in many provinces. However, lessons learned from previous waves may have allowed health system planners to use a more targeted approach in balancing the needs of surgical patients with the need to set aside space, equipment and staff time to prepare for COVID-19 surges. These methods include central prioritization of patients, maximizing operating room efficiency while maintaining additional cleaning and distancing measures and moving some consultation services to virtual care (Waddell et al. 2020). CIHI continues 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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