

February 2013



Analysis in Brief

Wait Times for Priority Procedures in Canada, 2013

Canadians are no stranger to health care waits. In fact, Canadian patients report longer waits for specialist appointments and elective surgical procedures than patients in other countries. In a 2010 Commonwealth Fund Survey of 11 countries, Canada had the highest proportion (25%) of patients reporting a wait of four months or more for elective surgery. This proportion is similar to that for the United Kingdom (21%) but much higher than for Germany (almost 0%) and the United States (7%).¹

Governments and regional health systems across the country are committed to ensuring timely access to health care for Canadians. They have recognized this challenge and have been working to make improvements in this area. In 2004, first ministers identified wait time reduction as a top priority in the *10-Year Plan to Strengthen Health Care*.^{i, 2, 3} The plan established strategic investments in five priority clinical areas: cancer, heart, diagnostic imaging, joint replacement and sight restoration.

At the onset of the plan, provinces were at different stages on their own paths to measuring and reporting wait times. Improvements in measuring and reporting wait times in a consistent way across all provinces now allow the Canadian Institute for Health Information (CIHI) to report pan-Canadian trends for five out of eight priority procedures. Persistent challenges in measuring and reporting on coronary artery bypass graft surgery (CABG) and diagnostic imaging procedures continue to impede progress to comprehensive reporting on the priority areas.

Types of Care

Our Vision

Better data. Better decisions.
Healthier Canadians.

Our Mandate

To lead the development and maintenance of comprehensive and integrated health information that enables sound policy and effective health system management that improve health and health care.

Our Values

Respect, Integrity, Collaboration,
Excellence, Innovation

i. In the companion agreement, *Asymmetrical Federalism That Respects Quebec's Jurisdiction*, it was noted that Quebec would apply its own wait time reduction plan in accordance with the objectives, standards and criteria established by the relevant Quebec authorities.

Federal Identity Program

Production of this report is made possible by financial contributions from Health Canada and provincial and territorial governments. The views expressed herein do not necessarily represent the views of Health Canada or any provincial or territorial government.

Over the course of the 10-Year Plan, provinces have also made strong efforts to reduce wait times and to increase the number of procedures completed within recommended time frames. In the early years of the plan, substantial reductions in wait times were observed. Provinces appeared to be approaching the target of treating 90% of patients within recommended time frames. Indeed, by 2010, the recommended time frame was being met for 90% of Canadians receiving radiation therapy and for about 80% of those receiving other priority procedures. However, in more recent years, progress has slowed, as provinces appear to have more difficulty achieving gains as they approach the targets.

Despite this plateauing of progress in reaching the benchmarks, more than 538,000 Canadians received priority surgical procedures in 2012, an increase of about 21,000 over the previous year. The data suggests that the demand for procedures like joint replacements is rising at a rate that is outpacing the ability of health systems to keep up.

In general, data from 2012 shows no improvement in wait times for key procedures in Canada. With the end of the 10-Year Plan drawing near, challenges still exist in achieving comprehensive reporting on wait times in priority areas and in treating 90% of patients within recommended time frames.

Reporting and Measurement: Advances and Persistent Challenges

Three-Year Trends in Percentage Meeting Benchmark

This year, for the first time ever, we are able to examine three-year pan-Canadian trends for hip and knee replacements, hip fracture repair, cataract surgery and radiation therapy. This is a result of every province having reported comparable measures since 2010.

In prior years, three-year trends were defined as a difference of at least 10 percentage points over three years (for example, 2012 results compared with those for 2010). As the number of reporting years increases, our confidence in the data increases and we are less likely to see variation in the data that is caused by reporting irregularities. For this reason, we have refined the criterion for substantial three-year change in this year's report from 10 percentage points to 5. The new 5-percentage-point definition is a more sensitive measure of change.

Diagnostic Imaging

In general, the reporting of diagnostic imaging data has improved over time, though it continues to be the area with the fewest provinces reporting. Coverage increased from three provinces in 2008 to six provinces in 2011. For the most recent year, however, only five provinces were able to submit data (Saskatchewan is undergoing a change to a new registry system).

There are no established pan-Canadian benchmark time frames for diagnostic imaging. Thus the percentage of procedures meeting a benchmark cannot be reported. Instead, 90th and 50th percentile waits for magnetic resonance imaging (MRI) and computerized tomography (CT) scans are discussed and presented in the interactive graphics available on CIHI's website at <http://waittimes.cihi.ca/>.

Cardiac Surgery

The comparability of wait time data for CABG surgery remains a challenge. The benchmark time frames for CABG were established based on the urgency of a patient's condition. In last year's report, we anticipated advances in our ability to report CABG by urgency level this year. However, due to clinicians' use of different urgency rating tools and variation in the way such tools are applied, we remain unable to report on CABG benchmarks by urgency level.

In past reports, we presented the proportion of patients receiving CABG surgery within the longest benchmark time frame (26 weeks). Clinicians and provinces have been clear, however, that assessing the percentage of patients receiving care within the longest benchmark does not truly reflect the experiences of patients who have different requirements for treatment—particularly for the group of patients in need of the most urgent care.

After much investigation into the underlying inconsistencies, CIHI is no longer reporting on the percentage of patients receiving CABG surgery within a certain time frame. Instead, 50th and 90th percentiles for CABG surgery wait times are presented in the interactive graphics at <http://waittimes.cihi.ca/>. A way forward will require the engagement and collaboration of provinces and clinicians; however, at this point, there is no mechanism in place to address this complex challenge.

Interactive Wait Time Graphics

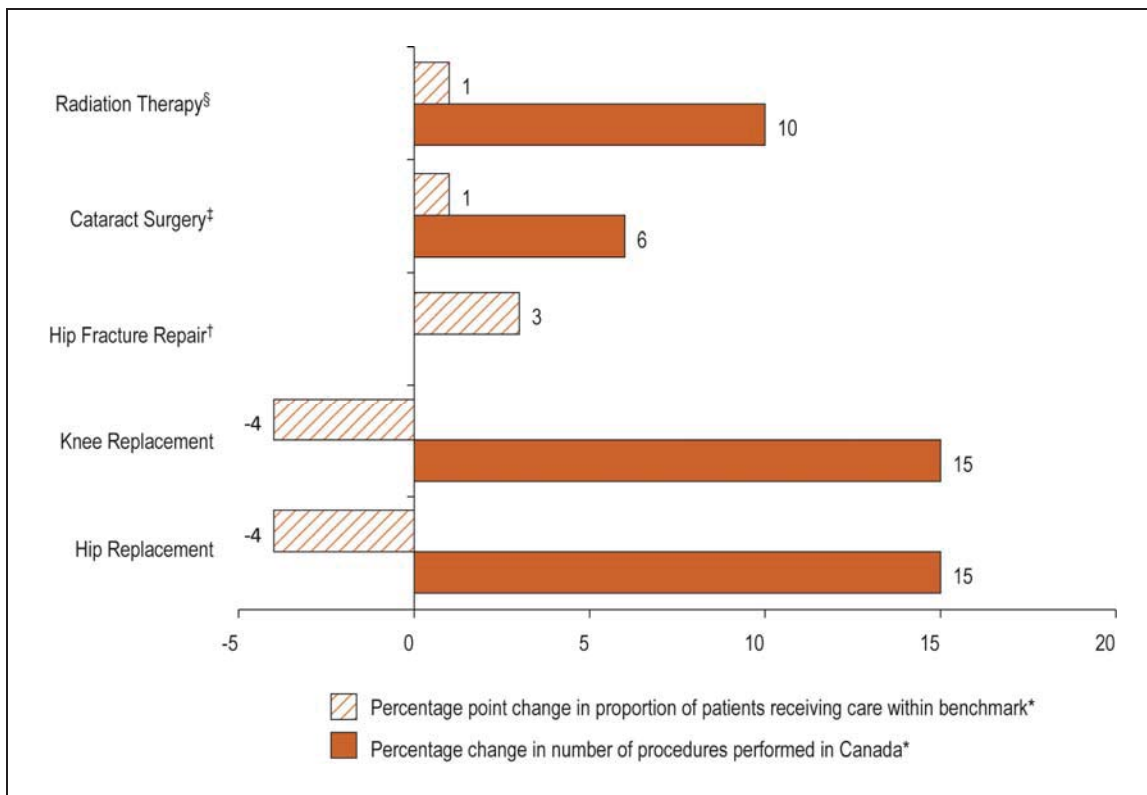
New last year, these online graphics display wait times in all priority areas over the last five years. The goal is to help Canadians better understand the progress made in tracking, reporting and reducing wait times. Wait time information, including trends from 2008 by province and priority area, is available on CIHI's website (<http://waittimes.cihi.ca/>).

Wait Times in 2012: Key Findings

Many more joint replacement procedures are being performed, but the proportion of Canadians having surgery within the recommended time frames has not increased.

One strategy to reduce wait times is to perform more procedures. The number of joint replacements in 2012 was 15% higher than in 2010, at a cost of more than \$100 million to the health care system. However, despite increased volume and spending, the proportion of joint replacement procedures performed within the recommended 182 days (26 weeks) actually went down by 4 percentage points (from 84% to 80% for hips; from 79% to 75% for knees) (Figure 1 and Table 1).

Figure 1: Changes in the Number of Priority Procedures Performed and the Percentage Completed Within Benchmark Time Frames in Canada, 2010 to 2012*



Notes

- * Change calculated for the period April to September 2010 and April to September 2012.
 - † Newfoundland and Labrador’s 2010 hip fracture repair data was estimated; Quebec’s hip fracture repair data is not included due to methodological differences in the data.
 - ‡ The pan-Canadian benchmark specifies cataract surgery within 16 weeks (112 days) for patients who are at high risk. There is not yet consensus on a definition of “high risk,” so the benchmark is applied across all priority levels.
 - § British Columbia’s 2010 radiation therapy volume data was estimated.
- All-Canada estimates were calculated using provincially submitted surgical volumes and percentages meeting benchmark.

While these three-year all-Canada changes were not substantial according to the 5-percentage-point criterion, at least half of the provinces showed substantial three-year declines in the percentage of joint replacements completed within benchmark time frames. For hip replacements, 5 of the 10 provinces (Prince Edward Island, New Brunswick, Quebec, Manitoba and B.C.) had substantial declines. These same provinces, along with Saskatchewan and Ontario, also saw substantial declines in the percentage of knee replacements done within the benchmark (Figure 2).

Why are increased volumes not resulting in better wait times? The data suggests that demand is rising at a rate that is outpacing the ability of health systems to keep up. There are several contextual factors that may be increasing the demand for joint replacements. First, there are more people over age 65 in Canada, which is, historically, the age group most likely to need a joint replacement.⁴ That said, the pace of aging has contributed little to the increase in the demand for joint replacements. Other conditions leading to joint replacement, such as osteoarthritis and obesity, are also becoming more prevalent among the overall Canadian population.⁵ Perhaps more influential drivers of increased demand are changes in surgical practice and improvements in the prostheses used. For example, the indications for joint replacement are expanding to include younger patients.⁴ Over a 10-year period, between 1998 and 2008, the biggest increases for hip and knee replacements (66% for hips, 128% for knees up to 2005–2006) were among the age group 45 to 54.⁶

The number of joint replacements performed is determined by surgical supply or capacity. Some components of short-term supply are relatively fixed, such as the number of orthopedic surgeons. In the longer term, changes can be made in available resources and incentive systems. Through shifts in funding, hospitals can be incented to allocate more operating room time and hospital beds to joint replacements. As well, surgeons can also be given incentives to change the case mix within their practice. Newfoundland and Labrador is one of only two provinces that showed improvement over three years in meeting joint replacement benchmarks. A key driver of this improvement was increased funding for additional hip and knee replacements in 2012.⁷

Along with access to surgeons and operating rooms, joint replacement patients also need access to hospital beds for post-surgical recovery. Alberta also showed improvement in the percentage of joint replacement procedures meeting benchmarks. It did this, in part, by reducing the length of post-surgery hospital stays from five days to four. Efforts in that province opened up capacity to perform 3,000 more procedures in 2011 by freeing up beds and offsetting the costs of more procedures.⁸ Put simply, a redirection in resources is likely most effective if it is accompanied by changes in the way procedures are managed.

Table 1: Overview of 2012 Wait Time Measures in Canada (April to September 2012)

	Pan-Canadian Benchmark (Days)	All-Canada 50th Percentile Wait (Days)	All-Canada 90th Percentile Wait (Days)	2012 Percentage Within Benchmark	Trending for Proportion of Patients Receiving Care Within Benchmark (2010 to 2012)
Hip Replacement	182	87	237	80	—
Knee Replacement	182	106	270	75	—
Hip Fracture Repair*	48 Hours	24 Hours	66 Hours	81	—
Cataract Surgery†	112	46	144	83	—
Radiation Therapy	28	7	19	97	—

Legend

— No substantial change in the proportion of patients receiving care within the benchmark since 2010.

Notes

* Quebec wait times for hip fracture repair are not included due to methodological differences in the data.

† The pan-Canadian benchmark specifies cataract surgery within 16 weeks (112 days) for patients who are at high risk. There is not yet consensus on a definition of “high risk,” so the benchmark is applied across all priority levels.

All-Canada estimates were calculated using the provincially submitted percentages meeting benchmark and 50th and 90th percentile waits. Change calculated for the period April to September 2010 and April to September 2012.

A trend is at least a 5-point increase or decrease in the proportion of patients receiving care within the benchmark from 2010. The proportion was considered unchanged within any difference of less than 5 points.

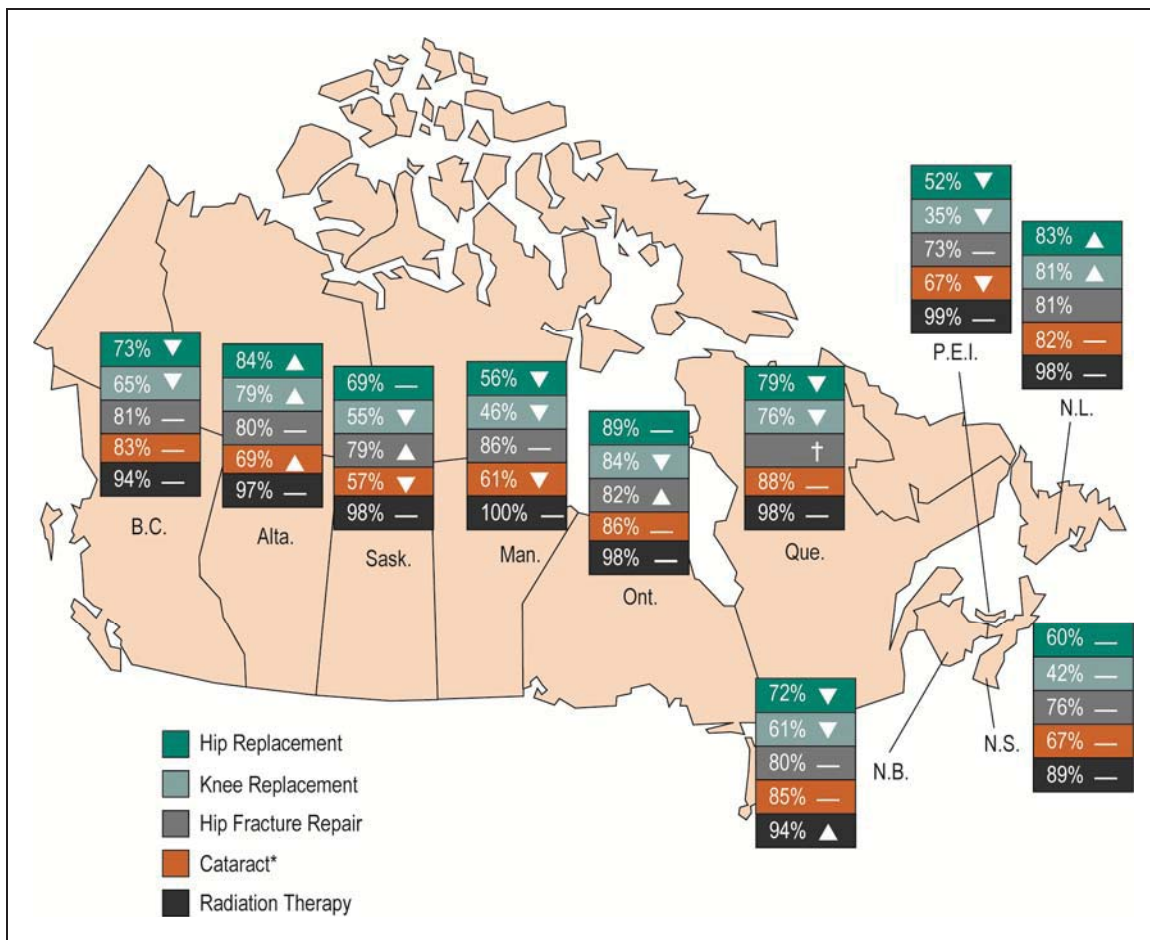
There are no pan-Canadian benchmarks for MRI and CT scans.

Percentage of patients receiving CABG within the benchmark will no longer be reported for 2012 and onwards.

Radiation therapy is the only area where more than 90% of Canadians were treated within benchmark time frames.

Because not all delays in receiving treatment are directly related to access to care, it may not be reasonable to expect that 100% of procedures would be performed within a benchmark time frame. To date, 90% has represented a practical target. At a pan-Canadian level, this target was achieved for radiation therapy. At least 90% of patients in each province except Nova Scotia received radiation therapy within the benchmark of 28 days; at 89%, Nova Scotia is very close to the target. However, no province reached 90% for any other priority area (Figure 2).

Figure 2: Trending for the Proportion of Patients Receiving Care Within Benchmarks by Province and Priority Area, 2010 to 2012



Legend

- ▲ At least a 5-percentage-point *increase* in percentage meeting benchmark since 2010 (after rounding to nearest percent).
- ▼ At least a 5-percentage-point *decrease* in percentage meeting benchmark since 2010 (after rounding to nearest percent).
- No substantial change in percentage meeting benchmark since 2010.

Notes

* The pan-Canadian benchmark specifies cataract surgery within 16 weeks (112 days) for patients who are at high risk. There is not yet consensus on a definition of “high risk,” so the benchmark is applied across all priority levels.

† Quebec wait times for hip fracture repair are not included due to methodological differences in the data.

There are no pan-Canadian benchmarks for MRI and CT scans.

Percentage of patients receiving CABG within the benchmark will no longer be reported for 2012 and onwards.

Knee replacement patients are least likely to have their surgery within benchmark time frames.

Knee replacement patients had the longest waits and the greatest variation in waits across provinces, compared with patients waiting for other priority procedures. The percentage of patients meeting benchmarks was also lower for knee replacements than for any other priority area. While the percentage of patients treated within 182 days (26 weeks) approached 80% in 2010, it dropped to 75% in 2011 and has remained there. Among all of the priority areas, knee replacements had the widest spread between the provinces with the highest and lowest percentages, at 49 percentage points—from 35% in P.E.I. to 84% in Ontario. In three provinces, less than half of the patients received treatment within the benchmark time frame (Figure 2).

There has been little change in access to cataract surgery and hip fracture repair within benchmark time frames.

For Canada as a whole, performance in both hip fracture repair and cataract surgery has held relatively steady since 2010. For both procedures, most provinces had no improvement in the percentage performed within benchmark time frames. Alberta was the only province to show an increase in the proportion of patients receiving cataract surgery within the benchmark, while P.E.I., Manitoba and Saskatchewan saw a decline in this proportion over three years. Improvements were seen in Saskatchewan and Ontario for hip fracture repair (Figure 2).

MRI waits continue to surpass CT waits.

The typical wait for an MRI in 2012 was 2.5 to 6 times longer than the typical wait for a CT scan in the five reporting provinces. No pan-Canadian benchmarks have been established for these tests.

Conclusion

More Canadians received priority procedures in 2012 than in any other year, with notable increases in joint replacement and radiation therapy. Yet the proportions receiving care within benchmark time frames have not improved since 2010. Provinces did not attain the target—90% of priority procedures—within the benchmark time frames in any priority area except radiation therapy. While all-Canada performance has held steady, more than half of the provinces experienced substantial declines in performance in two or more priority areas.

Although the 10-Year Plan and related funding is coming to a close in 2014, work continues to better track wait times and to ensure reductions in wait times. Pan-Canadian collaboration is under way to develop wait time measures for other procedures, including cancer surgery and chemotherapy. Provinces are also working toward reporting on other segments of a patient's wait, such as waits for specialist appointments and the time a hip fracture patient spends in the emergency department before being admitted to hospital. Provinces are undertaking a variety of approaches to achieve improvements in wait time performance, including Lean initiatives, central intake models, operating room utilization and wait list management.

For More Information

This Analysis in Brief is part of CIHI's ongoing program of work related to access to care, including wait times. This area was identified as a priority through consultations leading up to the development of CIHI's *Strategic Directions, 2005–2006 to 2007–2008*. Specific topics for analysis were selected based on subsequent focused consultations on priorities for better information about access to care.

Copies of this document are available free of charge in both official languages on CIHI's website, at www.cihi.ca.

Acknowledgements

CIHI would like to acknowledge and thank the many individuals and organizations that contributed to the development of this Analysis in Brief.

Production of this analysis involved many people throughout CIHI. The editorial committee consisted of Kathleen Morris, Tracy Johnson and Cheng Qian. Special thanks go to the Emerging Issues team for its contribution to this report. In addition, we would like to acknowledge the work of external consultant Jennifer Walker.

This analysis could not have been completed without the generous support and assistance of several other organizations, including access and wait time representatives from provincial ministries of health.

References

1. Schoen C, Osborn R. *Commonwealth Fund 2010 International Health Policy Survey in 11 Countries, Chartpack*. New York: Commonwealth Fund; November 18, 2011. <http://www.commonwealthfund.org/Surveys/2010/Nov/2010-International-Survey.aspx>. Accessed December 28, 2012.
2. Health Canada. A 10-Year Plan to Strengthen Health Care. Health Canada. <http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2004-fmm-rpm/index-eng.php>. Updated September 16, 2004. Accessed December 28, 2012.
3. Health Canada. Asymmetrical Federalism That Respects Quebec's Jurisdiction. Health Canada. http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2004-fmm-rpm/bg-fi_quebec-eng.php. Updated September 15, 2004. Accessed December 28, 2012.
4. Ravi B, Croxford R, Reichmann WM, Losina E, Katz JN, and Hawker GA. The changing demographics of total joint arthroplasty recipients in the United States and Ontario from 2001 to 2007. *Best Pract Res Clin Rheumatol*. 2012;26(5):637-647.
5. Arthritis Alliance of Canada. *The Impact of Arthritis in Canada: Today and over the next 30 years*. Arthritis Alliance of Canada; October 27, 2011. http://www.arthritisnetwork.ca/downloads/20111022_Impact_of_arthritis.pdf. Accessed December 28, 2012.
6. Canadian Institute for Health Information. *Health Indicators 2009*. Ottawa, ON: CIHI; May 2009. <https://secure.cihi.ca/estore/productSeries.htm?locale=en&pc=PCC140>. Accessed December 28, 2012.
7. Government of Newfoundland and Labrador. Newfoundland and Labrador Makes Significant Reductions in Wait Times. Department of Health and Community Services. <http://www.releases.gov.nl.ca/releases/2012/health/1224n01.htm>. Updated December 24, 2012. Accessed December 28, 2012.
8. Frank C. Curing lengthy wait times in the public health system. University of Manitoba Evidence Network of Canadian Health Policy. <http://umanitoba.ca/outreach/evidencenetwork/archives/4982>. Accessed December 28, 2012.