

Canadian Joint Replacement Registry Update

Latest CJRR annual report now available



The number of Canadians having joint replacements has increased over the past 5 years, with 130,000 surgeries now performed annually. Repeat surgeries (also known as revision surgeries) cost more than primary surgeries and require patients to stay in hospital longer. To learn more about 2017–2018 clinical information and outcomes for hip and knee replacements and revisions in Canada, visit the web page for the [Canadian Joint Replacement Registry \(CJRR\) annual report](#). You can also access the companion Quick Stats data tables with jurisdiction-specific results and annual trends there.

The Canadian Institute for Health Information (CIHI) released this report at a special session at the Canadian Orthopaedic Association's conference in Montréal, Quebec, in June 2019.

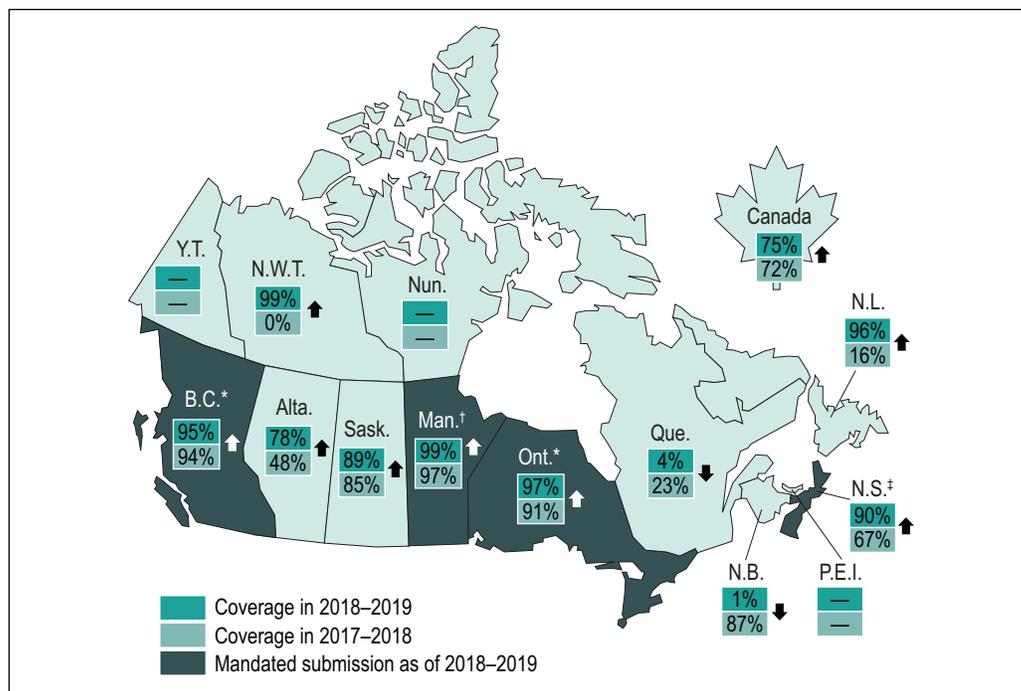
CJRR coverage, 2018–2019

Kudos to the many data providers that submitted CJRR prosthesis information in 2018–2019! National coverage has increased to 75%, up from 72% in 2017–2018.

Implementation efforts across the country this year led to changes in CJRR coverage at the jurisdiction level. For example, Nova Scotia implemented mandatory CJRR submission, which led to 90% coverage, up from 67%. Also, for the first time, some jurisdictions submitted CJRR data through the Discharge Abstract Database (DAD). For example, Newfoundland and Labrador transitioned submission of CJRR prosthesis data to the DAD, which led to 95% coverage, up from 16% the previous year.

Having more prosthesis data will enable more comprehensive analysis of these high-volume surgeries involving medical devices.

Figure CJRR coverage, 2018–2019



Notes

* Mandated in 2012.

† Mandated in 2013 (electronic).

‡ Mandated in 2018 (electronic).

— Not applicable.

Other provinces submitted voluntarily in 2018–2019.

For all jurisdictions (except Quebec), the denominator for CJRR prosthesis data coverage is based on hip and knee replacement procedures in the 2018–2019 Discharge Abstract Database and National Ambulatory Care Reporting System. For Quebec, it is based on the 2017–2018 Hospital Morbidity Database.

Implementation success stories

Nova Scotia

Submitted by Drs. Marcy Saxe-Braithwaite and Michael Dunbar, Nova Scotia Health Authority



“In 2018–2019, Nova Scotia Health Authority (NSHA) mandated submissions to CJRR, becoming the first province east of Ontario to require the registry of joint implants within the national database. Coverage has increased from 67% in 2017–2018 to 90% in 2018–2019.

“Perioperative and Information Management/Information Technology staff collaborated to enable this change at all 5 of the health authority’s joint replacement sites. The project received support from administrative and clinical leaders, and more than 30 surgeons and 100 operating room (OR) nursing staff across the province.

“New processes and technologies are now in place to capture the 4,000+ joint replacement cases expected to be performed this year. NSHA’s joint replacement sites now have access to a standardized OR information system (ORTECH) and barcode scanners. Demographics are pulled for auto-population from existing patient information systems, allowing point-of-care collection of implant details through barcode scanning by nursing staff within the OR.

“The integration of ORTECH with previously existing NSHA Opnote technology makes implant data available within patients’ personal health records. This allows for a secure, searchable and patient-specific in-house database to support patient safety and quality initiatives, including recalls, case-costing and outcome monitoring.”

Ontario

Submitted by Elizabeth Chiu and Katherine Henning, University Health Network (UHN)



“UHN first implemented CJRR in 2013 after purchasing a module for electronic reporting from our vendor and the desire to align our external reporting to CIHI. At the time, the vendor’s CJRR module

was a separate database linked to the DAD by abstract ID and included a separate CIHI submission functionality. We generated DAD and CJRR separate submission files monthly. This adoption prepared us for the CJRR-DAD transition significantly as we had developed a strong working knowledge of the CJRR requirements and established a good working relationship with our internal stakeholders.

“In response to the new CJRR requirements from CIHI, our vendor integrated the CJRR functionality within the DAD module. Despite our experience with submitting CJRR, we faced a number of challenges as the new entry form to capture CJRR information was structured differently. As a consequence, we reached out to our vendor and scheduled a teleconference to get oriented to the new form and its functionality. We provided the vendor with various scenarios to prepare for the call. The education helped us tremendously and we continued to work closely with the vendor during the implementation process. We also distributed our CJRR workload to one specific coding specialist. This helped to ensure the completeness and accuracy of the CJRR information.

“In late October, with the addition of Project 60, we specialized another coding specialist to this area to help with the data recovery and provide backup when necessary. Lastly, we worked with our operating room data team to provide an extract of the CJRR information (i.e., manufacturer, model, cement, etc.) to validate the data instead of relying on the sticker chart information alone. This helped to improve the data quality.

“Overall, we found the implementation of the new CJRR to be challenging but were able to overcome the challenges by engaging with others, educating ourselves and not being afraid to reach out and ask for help.”

Data quality reminders

The quality of the prosthesis data submitted to CJRR is a critical component of this national medical device registry. Please refer to the following quality checks and tips:

- Enter personal health information in designated fields only.
- Submit both urgent and elective CJRR procedures (e.g., all hip fractures).
- Ensure the value of the extent attribute matches the corresponding intervention code for hip arthroplasty implantation prosthetic device with code 1.VA.53.^{^^}. For more information refer to the [Discharge Abstract Database Open-Year Data Quality Test Specifications, 2018–2019](#) (**applicable to DAD submitters only**).
- Ensure patients do not have multiple primary hip and knee procedures on the same side; any subsequent interventions (including total joint replacement) are captured as revisions.
- Submit information from **all** applicable stickers (e.g., submit at least two stickers if the acetabular cup and acetabular liner are replaced). Refer to the Component Information Categorization sections.
- Scan prosthesis information for more accurate and efficient capture. Avoid manually entering product information when possible.
- Enable the Automatic Identification and Mobility (AIM) code when barcode scanning. This will ensure that CIHI can appropriately extract the product numbers.
- For manual entries, enter the product and lot numbers exactly as they appear on the sticker.
- Refer to [eQuery](#) for questions related to DAD Group 20 (data element Hip/Knee Prosthesis Information) (**applicable to DAD submitters only**).

Resources to support submission via DAD

- Submitting Hip and Knee Prosthesis Information in DAD (1043E): This course is available in [CIHI's Learning Centre](#). You will learn how to accurately submit hip and knee replacement prosthesis information to the DAD using case studies. Log in and register today.
- [CJRR barcode scanning guide](#): Learn how to set up a barcode scanner and enter product and lot numbers accurately.
- [eQuery](#) FAQ: This resource is updated regularly based on your questions. Search using the data element Hip/Knee Prosthesis Information under DAD Product, or submit new questions.

Submission deadlines, 2019–2020

- Refer to the [Submission Deadlines and Refresh Dates](#) page on CIHI's website for deadlines. Depending on your submission method, search or filter by "DAD" (for CJRR data submitted through the DAD) or "CJRR" (for CJRR data submitted through the legacy CJRR electronic file system).
- Please contact your health region or ministry/department for details about reporting requirements.

Appendix: Text alternative for figure

| Jurisdiction | 2018–2019 | 2017–2018 | Increase/decrease from 2017–2018 to 2018–2019 |
|---------------------------|----------------|----------------|---|
| Canada | 75% | 72% | Increase |
| Newfoundland and Labrador | 96% | 16% | Increase |
| Prince Edward Island | Not applicable | Not applicable | Not applicable |
| Nova Scotia [‡] | 90% | 67% | Increase |
| New Brunswick | 1% | 87% | Decrease |
| Quebec | 4% | 23% | Decrease |
| Ontario* | 97% | 91% | Increase |
| Manitoba [†] | 99% | 97% | Increase |
| Saskatchewan | 90% | 85% | Increase |
| Alberta | 78% | 48% | Increase |
| British Columbia* | 95% | 94% | Increase |
| Yukon | Not applicable | Not applicable | Not applicable |
| Northwest Territories | 99% | 0% | Increase |
| Nunavut | Not applicable | Not applicable | Not applicable |

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For data-specific information:

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