



# Continuing Care Reporting System

## Privacy Impact Assessment

June 2022



Canadian Institute  
for Health Information

Institut canadien  
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The Canadian Institute for Health Information (CIHI) is pleased to publish the following privacy impact assessment in accordance with its [Privacy Impact Assessment Policy](#):

- *Continuing Care Reporting System Privacy Impact Assessment, June 2022*

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# Quick facts about the Continuing Care Reporting System

1. The Continuing Care Reporting System (CCRS) is a pan-Canadian database that captures standardized information on publicly funded continuing care services. CCRS was developed to fulfil an identified need for consistent, comparable data about continuing care services in Canada.
2. Facilities collect data in the process of providing care, and then submit data to CCRS.
3. The data captured by CCRS is used to develop accurate, timely and comparable information describing the population of residents receiving continuing care services, the services they receive and their outcomes.

## 1 Introduction

The Canadian Institute for Health Information (CIHI) collects and analyzes information on health and health care in Canada. Its mandate is to deliver comparable and actionable information to accelerate improvements in health care, health system performance and population health across the continuum of care. CIHI obtains data from hospitals and other health care facilities, long-term care homes, regional health authorities, medical practitioners and governments. This data includes information about health services provided to individuals, the health professionals who provide those services, and the cost of the health services.

The purpose of this privacy impact assessment (PIA) is to examine the privacy, confidentiality and security risks associated with the Continuing Care Reporting System (CCRS). This PIA, which replaces the 2016 version, includes both a review of the 10 privacy principles set out in the Canadian Standards Association's *Model Code for the Protection of Personal Information* and how the principles apply to the CCRS, as well as a look at the application of CIHI's [Privacy and Security Risk Management Framework](#).

The primary driver for this PIA is compliance with CIHI's [Privacy Impact Assessment Policy](#).

## 2 Background

CCRS is a pan-Canadian database that captures standardized information on continuing care services provided by public facilities as well as private facilities contracted by the government to provide care to the public. CCRS was developed to fulfil an identified need for consistent, comparable data about continuing care services in Canada. Data collection began in 2003.

CCRS captures the above information from 2 types of facilities:

- Hospitals with continuing care beds, commonly known as extended, auxiliary, chronic or complex care beds; and
- Residential care facilities, commonly known as long-term care homes or nursing homes, personal care homes or residential facilities.

In some provinces/territories, publicly funded home care programs provide services in assisted or supportive living environments that do not offer 24-hour nursing care. This activity is currently out of scope for CCRS.

Facilities collect data in the process of providing care and then submit data to CCRS. Facilities collect data at various points in time before a resident's discharge from the facility, providing CCRS with a picture of the resident's changes over time.

Data captured by CCRS is used to develop accurate, timely and comparable information describing the population of residents receiving continuing care services, the services they receive and their outcomes.

CCRS is not intended to operate indefinitely. As jurisdictions update to using the most recent data collection tools, they switch from submitting data to CCRS to submitting data to the [Integrated InterRAI Reporting System](#) (IRRS), which is designed to support the updated tools. Once all jurisdictions have transitioned to submitting to IRRS, CCRS will be decommissioned.

## 2.1 Data collection

Facilities use a standardized assessment instrument to gather comprehensive clinical information from residents. This instrument, the Resident Assessment Instrument–Minimum Data Set 2.0 (RAI-MDS 2.0), is developed by interRAI — a collaborative network of researchers in more than 35 countries committed to improving care for persons who are disabled or medically complex — and reflects rigorous research and testing to establish the reliability and validity of data elements collected. CIHI and its stakeholders selected the RAI-MDS 2.0 as the basis for CCRS data collection. The data set comprises personal identifiers, demographic information, health characteristics, administrative information, health facility identifiers and free text fields. Further information about the data included in the CCRS minimum data set can be found on [CIHI's website](#).

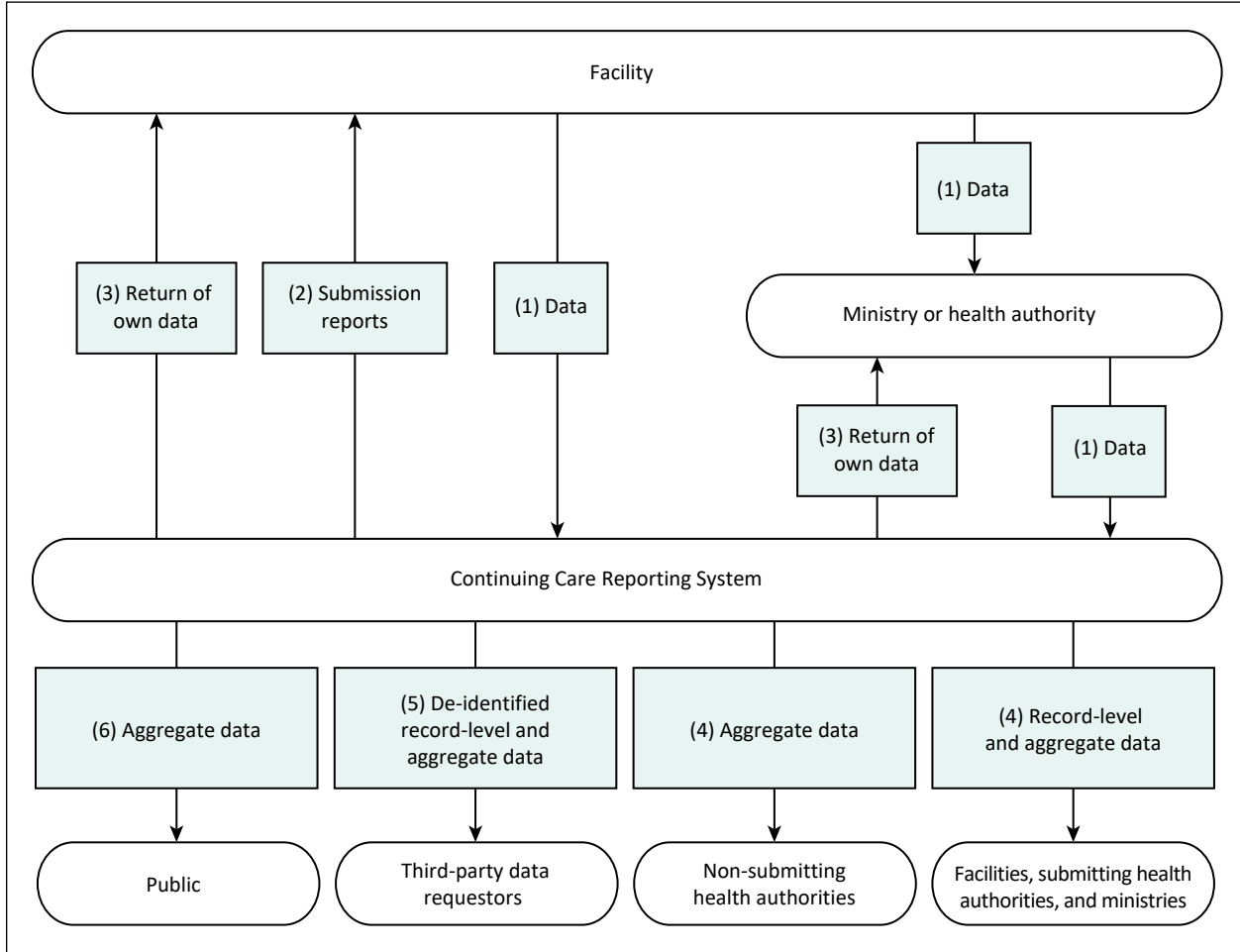
## 2.2 Data flows

CCRS data flows are as follows:

1. The facility submits records to CCRS. In some cases, the records flow via a ministry or regional health authority.
2. CCRS makes available submission reports to help the facility correct errors in the records (e.g., missing data elements).
3. A copy of the records as accepted by CCRS, as well as certain reports that include personal health information, are available to the facility and the ministry.
4. Via CCRS eReports, CIHI provides record-level and aggregate data to facilities and regional health authorities that submit data to CCRS and to the ministry. CIHI provides aggregate data to non-submitting health authorities.
5. CCRS discloses de-identified record-level and aggregate data to third-party data requestors.
6. CCRS releases aggregate data to the public.

Figure 1 below illustrates CCRS dataflows.

**Figure** CCRS data flow



## 2.3 Access management and data submission

Access to CIHI’s secure applications is managed by CIHI’s Product Management and Client Experience (PMCE) department. PMCE manages access to CIHI’s secure applications using established access management system (AMS) processes for granting and revoking access.

Once authenticated through CIHI’s AMS, CCRS data providers submit to CIHI the facilities’ record-level data that is electronically captured using specialized software. The data is submitted through CIHI’s secure web-based electronic Data Submission Services (eDSS) system or server-to-server (SFTP) application.



## 3 Privacy analysis

### 3.1 Privacy and Security Risk Management Program

Privacy and security risk management (PSRM) is a formal, repeatable process for identifying, assessing, treating and monitoring risks in order to minimize the probability of such risks materializing and/or their impact should they occur. In 2015, CIHI approved its [Privacy and Security Risk Management Framework](#) and implemented the associated [Policy on Privacy and Security Risk Management](#). CIHI's chief privacy officer and chief information security officer, in collaboration with senior managers, are responsible for identifying, assessing, treating, monitoring and reviewing privacy and security risks.

Privacy and security risks may be identified from a variety of sources, including PIAs, for example. Once identified, risks are entered into the Privacy and Security Risk Register and categorized as **high**, **medium** or **low**, based on the likelihood and impact of a risk event:

- **High:** High probability of risk occurring, and/or controls and strategies are not reliable or effective;
- **Medium:** Medium probability of risk occurring, and/or controls and strategies are somewhat reliable or effective; or
- **Low:** Low probability of risk occurring, and/or reliable, effective controls and strategies exist.

The likelihood and impact of the identified risk are used to create a risk score. The risk assessment score of low, medium or high defines the seriousness of a risk. A higher risk ranking indicates a more serious threat and a greater imperative for treatment. Once an initial risk treatment is applied, the residual risk (the new calculation of the likelihood and impact of the risk, given the treatment) is assessed and compared against CIHI's privacy and security risk tolerance statement, which indicates that CIHI's privacy and security risk tolerance is low. If the risk score for the residual risk is still greater than low, additional risk treatment is necessary until the risk is low or the untreated/residual risk is accepted by CIHI's Executive Committee on behalf of the corporation.

CIHI is currently undertaking a PSRM process regarding free text fields.

There were no other privacy and security risks identified as a result of this PIA.

## 3.2 Authorities governing CCRS data

### General

CIHI adheres to its [Privacy Policy, 2010](#) and to any applicable privacy legislation and/or legal agreements.

### Privacy legislation

CIHI is a secondary data collector of health information, specifically for the planning and management of the health system, including statistical analysis and reporting. Data providers are responsible for meeting the statutory requirements in their respective jurisdictions, where applicable, at the time the data is collected.

The following provinces and territories have enacted health information–specific privacy legislation: Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta, Yukon and the Northwest Territories. Health information–specific privacy legislation authorizes facilities to disclose personal health information without patient consent for the purposes of health system use, provided that certain requirements are met. For example, CIHI is recognized as a prescribed entity under the *Personal Health Information Protection Act* of Ontario, so health information custodians in Ontario may disclose personal health information to CIHI without patient consent pursuant to Section 29 as permitted by Section 45(1) of the act.

In provinces and territories that do not currently have health information–specific privacy legislation in place, facilities are governed by public-sector legislation. This legislation authorizes facilities to disclose personal information for statistical purposes, without an individual’s consent.

### Agreements

At CIHI, CCRS data is governed by CIHI’s [Privacy Policy, 2010](#), by legislation in the jurisdictions and by data-sharing agreements with the provinces and territories. The data-sharing agreements set out the purpose, use, disclosure, retention and disposal requirements of personal health information provided to CIHI, as well as any subsequent disclosures that may be permitted. The agreements also describe the legislative authority under which personal health information is disclosed to CIHI.

### 3.3 Principle 1: Accountability for personal health information

CIHI's president and chief executive officer is accountable for ensuring compliance with CIHI's [Privacy Policy, 2010](#). CIHI has a chief privacy officer and general counsel, a corporate Privacy, Confidentiality and Security Committee, a Governance and Privacy Committee of its Board of Directors, and an external chief privacy advisor.

#### Organization and governance

The following table identifies key internal senior positions with responsibilities for CCRS data in terms of privacy and security risk management:

**Table** Key positions and responsibilities

Position/group	Responsibilities
Vice President, Data Strategies and Statistics	Responsible for the overall strategic direction of CCRS
Director, Specialized Care	Responsible for the overall operations and strategic business decisions of CCRS
Vice President, Data Strategies and Statistics Director, Specialized Care	Responsible for overall operations and maintenance of CCRS
Chief Information Security Officer	Responsible for the strategic direction and overall implementation of CIHI's Information Security Program
Chief Privacy Officer	Responsible for the strategic direction and overall implementation of CIHI's Privacy Program

## 3.4 Principle 2: Identifying purposes for personal health information

CIHI's mandate is to deliver comparable and actionable information to accelerate improvements in health care, health care systems' performance, and population health across the continuum of care — and this includes producing information about publicly funded continuing care services in order to support the planning and management of these services in Canada. In order to fulfil these goals, CIHI collects the following types of CCRS data for the purposes indicated.

### Personal identifiers

Examples include a health care number and a CCRS-specific patient identifier. CIHI uses this information to develop a complete picture of the care provided to the individual by linking together records describing the different types of care provided to the individual, at different times, by different facilities. In order to perform these linkages, CIHI needs to know which records pertain to the individual. Accordingly, all records must include identifying information.

### Demographic information

Examples include birthdate, postal code, sex, marital status, language, education, vocational status, and Indigenous-identifiable data. CIHI uses age (calculated using date of birth), geographic information (derived from postal code), sex, language, vocational status and Indigenous-identifiable data for demographic analysis of health care services and outcomes.

### Health characteristics

Examples include facilities' assessments of residents (e.g., resident's health, cognitive and functional status, care currently received). CIHI uses this information to evaluate the types of conditions that require continuing care, quality of care provided to the individual and costs associated with treatment.

### Administrative information

Examples include dates of admission to and discharge from a continuing care facility and information regarding transfers to and from other levels of care such as hospitals. CIHI uses this information to evaluate wait times for care and resources consumed in providing care.

## Health facility identifiers

Examples include the names/codes of the facility that provides continuing care to the individual. CIHI uses this information to compare facilities and groups of facilities.

## Free (open) text fields

Fields are designed to permit the collection of unstructured data. For example, special project fields may permit the capture of information necessary to support a project that CIHI, the provinces/territories, or health care facilities decide to undertake. Free text fields are not intended to contain personal health information; CIHI regularly evaluates the risk of a facility entering personal health information (e.g., health care number, name) into a free text field and takes steps to address this risk (e.g., checking these fields for personal health information and restricting internal and external access to such fields). Risks associated with free text fields are currently being evaluated using CIHI's Privacy and Security Risk Management Program, discussed in [Section 3.1](#).

## 3.5 Principle 3: Consent for the collection, use or disclosure of personal health information

CIHI is a secondary collector of data and does not have direct contact with patients. CIHI relies on data providers to abide by and meet their data collection, use and disclosure rules and responsibilities, including those related to consent and notification, as outlined in jurisdiction-applicable laws, regulations and policies.

## 3.6 Principle 4: Limiting collection of personal health information

CIHI is committed to the principle of data minimization. Under sections 1 and 2 of CIHI's [Privacy Policy, 2010](#), CIHI collects from data providers only the information that is reasonably required for health system uses, including statistical analysis and reporting, in support of the management, evaluation or monitoring of the health care system. Accordingly, CCRS collects only the information it requires for these purposes.

## 3.7 Principle 5: Limiting use, disclosure and retention of personal health information

### Limiting use

#### Clients

CIHI limits the use of CCRS data to authorized purposes, as described in sections 2.1 and 3.4 above. These include comparative analyses within and among jurisdictions; trend analyses to assess/monitor the impact of differences in policy, practices and service delivery; and production of statistics to support planning, management and quality improvement.

#### CIHI staff

CIHI staff are permitted to access and use data on a need-to-know basis only, including for data processing and quality management, producing statistics and data files, and conducting analyses. All CIHI staff are required to sign a confidentiality agreement at the commencement of employment, and they are subsequently required to renew their commitment to privacy yearly.

Staff access to the SAS analytical environment is provided through CIHI's centralized SAS Data Access process managed through CIHI's Service Desk. This environment is a separate, secure space for analytical data files, including general use data files, where staff are required to conduct and store the outputs from their analytical work.

The general use data files are pre-processed files that are designed specifically to support internal analytical users' needs, including the removal of the original health care number (replaced with an encrypted health care number) and full date of birth and full postal code, which are replaced by a set of standard derived variables.

The process ensures that all requests for access, including access to the CCRS data, are traceable and authorized, in compliance with section 10 of CIHI's [Privacy Policy, 2010](#). The SAS Data Access system is subject to an annual audit to ensure that staff are accessing data on a need-to-know basis. [Section 3.9](#) includes additional information about how the various procedural and technical measures are deployed to prevent unauthorized access and otherwise secure the CCRS data.

## Data linkage

Data linkages are performed between the CCRS data and other CIHI data sources. While this potentially causes greater risk of identification of an individual, CIHI undertakes mitigating steps to reduce the risks (e.g., by removing patient identifiers and assigning meaningless transaction numbers).

Sections 14 to 31 of CIHI's [Privacy Policy, 2010](#) govern the linkage of records of personal health information. Pursuant to this policy, CIHI permits the linkage of personal health information under certain circumstances. Data linkage within a single data holding for CIHI's own purposes is generally permitted. Data linkage across data holdings for CIHI's own purposes and all third-party requests for data linkage are subject to an internal review and approval process. When carrying out data linkages, CIHI will generally do so using consistently encrypted health care numbers. The linked data remains subject to the use and disclosure provisions in the [Privacy Policy, 2010](#).

Criteria for approval of data linkages are set out in sections 23 and 24 of CIHI's [Privacy Policy, 2010](#), as follows:

- Section 23     The individuals whose personal health information is used for data linkage have consented to the data linkage; or
- Section 24     All of the following criteria are met:
- a. The purpose of the data linkage is consistent with CIHI's mandate;
  - b. The public benefits of the linkage significantly offset any risks to the privacy of individuals;
  - c. The results of the data linkage will not be used for any purpose that would be detrimental to the individuals that the personal health information concerns;
  - d. The data linkage is for a time-limited specific project and the linked data will be subsequently destroyed in a manner consistent with sections 28 and 29; or
  - e. The data linkage is for purposes of an approved CIHI ongoing program of work where the linked data will be retained for as long as necessary to meet the identified purposes and, when no longer required, will be destroyed in a manner consistent with sections 28 and 29; and
  - f. The data linkage has demonstrable savings over other alternatives or is the only practical alternative.

## Client linkage standard

In 2015, CIHI implemented a corporate-wide client linkage standard to be used for the linkage of records created in 2010–2011 or later, where the records include the following data elements: encrypted health care number and the province/territory that issued the health care number. For the linkage of records that do not satisfy these criteria, the linkage mechanism is determined on a case-by-case basis.

## Destruction of linked data

Section 28 of CIHI's [Privacy Policy, 2010](#) sets out the requirement that CIHI will destroy personal health information and de-identified data in a secure manner, using destruction methodologies appropriate to the format, media or device such that reconstruction is not reasonably foreseeable.

Section 29 of CIHI's [Privacy Policy, 2010](#) further requires that for time-limited specific projects, the secure destruction of linked data will occur within 1 year after publication of the resulting analysis, or 3 years after the linkage, whichever is sooner, in a manner consistent with CIHI's *Information Destruction Standard*. For linked data resulting from an ongoing program of work, secure destruction will occur when the linked data is no longer required to meet the identified purposes in a manner consistent with CIHI's *Information Destruction Standard*. These requirements apply to data linkages both for CIHI's own purposes and for third-party data requests.

## Return of own data

A submitting facility, or regional health authority that submits to CCRS, can access secure, web-based submission reports that indicate how many records have been successfully submitted to CCRS. These reports also indicate which records were not submitted successfully, and the reason why (e.g., the records were missing information). The reports permit the facility or submitting regional health authority to identify errors in the records so that they may correct and resubmit them. In order to identify the records that contain errors, the report refers to the chart number that the facility assigns to each patient; the report does not contain health card numbers.

In addition to returning data to submitting facilities and submitting regional health authorities, Section 34 of CIHI's [Privacy Policy, 2010](#) establishes that CIHI may return records to the relevant ministry for data quality purposes and for purposes consistent with their mandate (e.g., for health services and population health management, including planning, evaluation and resource allocation) or as directed in the data-sharing agreement or other legal instrument. The return of own data is considered a use and not a disclosure.



## Limiting disclosure

CIHI provides comparative CCRS eReports to all data providers on a quarterly basis. These reports provide aggregated facility-identifiable data to enable data providers to analyze their data over time and compare themselves with other similar service providers. Facilities also receive quarterly case-mix reports, including a report containing personal health information specific to the facility's own data submissions.

Before being provided with access to CCRS eReports, organizations must sign CIHI's *Electronic Reporting Services Agreement* which, among other things,

- Restricts use of the data to non-commercial purposes limited to the organization's internal management, data quality, planning, research, analysis or evidence-based decision-support activities;
- Prohibits disclosure of the data to any third party, except in the case of the organization's own data;
- Permits publication only where all reasonable measures are employed to prevent the identification of individuals, and the data does not contain cell sizes with fewer than 5 observations; and
- Prohibits the release of health facility/organization-identifiable information unless the organization has notified CIHI prior to the disclosure in order to permit CIHI to notify the applicable ministry.

## Third-party data requests

Customized record-level and/or aggregated data from the CCRS may be requested by a variety of third parties.

CIHI administers a Third-Party Data Request Program that establishes privacy and security controls that must be met by the recipient organization. Furthermore, as set out in sections 37 to 57 of CIHI's [Privacy Policy, 2010](#), CIHI discloses health information in a manner consistent with its mandate and core functions. CIHI data disclosures are made at the highest degree of anonymity possible while still meeting the research and/or analytical purposes of the requester. This means that, whenever possible, data is aggregated. When aggregated data is not sufficiently detailed for the intended purpose, record-level de-identified data or personal health information (in limited circumstances, for example, with individual consent) may be disclosed to the recipient on a case-by-case basis, when the recipient has entered into a data protection agreement or other legally binding instrument with CIHI. Only those data elements necessary to meet the intended purpose may be disclosed.

As the preferred means of record-level data access, CIHI uses a secure access environment (SAE). CIHI's SAE is an encrypted, secure environment hosted in CIHI's data centre. Consistent with CIHI's existing policies and procedures, approved researchers, who are subject to stringent agreement terms, access data extracts that have been prepared and vetted by CIHI staff for an approved research project. Record-level data cannot be copied or removed from the SAE; only aggregate results can be extracted from the SAE. Further information about CIHI's SAE is available on [CIHI's website](#) ([Make a Request](#); [SAE Privacy Impact Assessment](#)).

Where CIHI has provided researchers and other approved users with access to record-level data by extracting the relevant data into files and sending the files to the users, CIHI has adopted a complete life cycle approach for record-level third-party data requests. As part of that life cycle, Privacy and Legal Services (PLS) has developed and is responsible for the ongoing compliance monitoring process whereby all data sets that are disclosed to third-party data recipients are tracked and monitored for secure destruction at the end of their life cycle. Prior to disclosing data, third-party recipients sign a data protection agreement and agree to comply with the conditions and restrictions imposed by CIHI relating to the collection, purpose, use, security, disclosure and return or disposal of data.

Data requesters are required to complete and submit a data request form. They must also sign an agreement wherein they agree to use the data for only the purpose specified. All data protection agreements with third parties specify that receiving organizations must keep record-level data strictly confidential and not disclose such data to anyone outside the organization. Moreover, CIHI imposes obligations on these third-party recipients, including

- Secure destruction requirements;
- CIHI's right to audit;
- Restriction on the publication of cell sizes less than 5; and
- Strong encryption technology that meets or exceeds CIHI's standards where mobile computing devices are used.

In addition to the ongoing compliance monitoring process, whereby all data sets that are disclosed to third-party data recipients are tracked and monitored for secure destruction at the end of their life cycle, PLS contacts third-party data recipients on an annual basis to certify that they continue to comply with their obligations as set out in the data request form and data protection agreement signed with CIHI.

As noted in [Section 3.4](#) of this PIA, CCRS contains a field for Indigenous-identifiable data. The disclosure of this identifier is governed by CIHI's *Policy on the Release and Disclosure of Indigenous-Identifiable Data*, which requires that any request for Indigenous-identifiable data at CIHI be accompanied by approvals from appropriate Indigenous authorities. For more information, see [A Path Forward: Toward Respectful Governance of First Nations, Inuit and Métis Data Housed at CIHI](#) and the [First Nations, Inuit and Métis](#) page on CIHI's website.

## Agreement with interRAI

CIHI signed a licence agreement with interRAI, a network of researchers and practitioners committed to improving care for persons who are disabled or medically complex. This licence grants CIHI an exclusive right to use interRAI's assessment instrument in Canada for the purposes of national statistical reporting. The licence agreement also commits CIHI to supply interRAI with an annual copy, in de-identified form, of the data collected using the interRAI assessment instrument — including data submitted to CCRS. Accordingly, CIHI provides interRAI with de-identified data from CCRS under a data-sharing agreement, which establishes the purposes for which interRAI may use the data (e.g., to develop assessment forms), along with interRAI's responsibilities to protect the data.

## Public release

As part of its mandate, CIHI publicly releases aggregated data only in a manner designed to minimize any risk of re-identification and residual disclosure. This generally requires a minimum of 5 observations per cell in accordance with Section 33 of CIHI's [Privacy Policy, 2010](#). Aggregated statistics and analyses are made available in publications and on [CIHI's website](#).

## Limiting retention

CCRS forms part of CIHI's data holdings and, consistent with its mandate and core functions, CIHI retains such information for as long as necessary to meet the identified purposes.

## 3.8 Principle 6: Accuracy of personal health information

CIHI has a comprehensive data quality program. Any known data quality issues will be addressed by the data provider or documented in data limitations documentation, which CIHI makes available to all users.

Similar to other CIHI data holdings, CCRS is subject to a data quality assessment on a regular basis, based on [CIHI's Information Quality Framework](#). The process of completing the framework includes numerous activities to assess the various dimensions of quality, including the accuracy of CCRS data.

## 3.9 Principle 7: Safeguards for personal health information

### CIHI's Privacy and Security Framework

CIHI has developed a [Privacy and Security Framework](#) to provide a comprehensive approach to enterprise privacy and security management. Based on best practices from across the public, private and health sectors, the framework is designed to coordinate CIHI's privacy and security policies and to provide an integrated view of the organization's information management practices. Key aspects of CIHI's system security with respect to CCRS data are highlighted below.

### System security

CIHI recognizes that information is secure only if it is secure throughout its entire life cycle: creation and collection, access, retention and storage, use, disclosure and destruction. Accordingly, CIHI has a comprehensive suite of policies that specify the necessary controls for the protection of information in both physical and electronic formats, up to and including robust encryption and secure destruction. This suite of policies and the associated standards, guidelines and operating procedures reflect best practices in privacy, information security and records management for the protection of the confidentiality, integrity and availability of CIHI's information assets.

System control and audit logs are an integral component of CIHI's Information Security Program. CIHI's system control and audit logs are immutable. Analysis at CIHI is generally conducted with the use of de-identified record-level data, where the health care number has been removed or encrypted upon first receipt. In exceptional instances, staff will require access to original health care numbers. CIHI's internal *Privacy Policy and Procedures*, 2010 sets out strict controls to ensure that access is approved at the appropriate level and in the appropriate circumstances and that the principle of data minimization is adhered to at all times. CIHI logs access to data as follows:

- Access to health care numbers and patient names (rarely collected) within CIHI's operational production databases;
- Access to data files containing personal health information extracted from CIHI's operational production databases and made available to the internal analytical community on an exceptional basis; and
- Changes to permissions in access to operational production databases.

CIHI's employees are made aware of the importance of maintaining the confidentiality of personal health information and other sensitive information through the mandatory Privacy and Security Training Program and through ongoing communications about CIHI's privacy and security policies and procedures. Employees attempting to access a CIHI information system must confirm, prior to each logon attempt, their understanding that they may not access or use the computer system without CIHI's express prior authority or in excess of that authority.

CIHI is committed to safeguarding its information technology ecosystem, securing its data holdings and protecting information with administrative, physical and technical security safeguards appropriate to the sensitivity of the information. Audits are an important component of CIHI's overall Information Security Program; they are intended to ensure that best practices are being followed and to assess compliance with all information security policies, procedures and practices implemented by CIHI. Audits are used to assess, among other things, the technical compliance of information-processing systems with best practices and published architectural and security standards; CIHI's ability to safeguard its information and information-processing systems against threats and vulnerabilities; and the overall security posture of CIHI's technical infrastructure, including networks, servers, firewalls, software and applications.

An important component of CIHI's Audit Program is regular third-party vulnerability assessments and penetration tests of its infrastructure and selected applications. All recommendations resulting from third-party audits are tracked in the Corporate Action Plan Master Log of Recommendations, and action is taken accordingly.

### 3.10 Principle 8: Openness about the management of personal health information

CIHI makes information available about its privacy policies, data practices and programs relating to the management of personal health information. Specifically, CIHI's [Privacy and Security Framework](#) and [Privacy Policy, 2010](#) are available to the public on its corporate website ([cihi.ca](http://cihi.ca)).

### 3.11 Principle 9: Individual access to and amendment of personal health information

Personal health information held by CIHI is not used by CIHI to make any administrative or personal decisions affecting individuals. Requests from individuals seeking access to their personal health information will be processed in accordance with sections 60 to 63 of CIHI's [Privacy Policy, 2010](#).

### 3.12 Principle 10: Complaints about CIHI's handling of personal health information

As set out in sections 64 and 65 of CIHI's [Privacy Policy, 2010](#), questions, concerns or complaints about CIHI's handling of information are investigated by the chief privacy officer, who may direct an inquiry or complaint to the privacy commissioner of the jurisdiction of the person making the inquiry or complaint.

## 4 Conclusion

CIHI's assessment of CCRS did not identify any privacy or security risks.

This PIA will be updated or renewed in compliance with CIHI's [Privacy Impact Assessment Policy](#).

# Appendix

## Text alternative for figure

### **Figure: CCRS data flow**

CCRS data flows are as follows:

1. The facility submits records to CCRS. In some cases, the records flow via a ministry.
2. CCRS makes available submission reports to help the facility correct errors in the records (e.g., missing data elements).
3. A copy of the records as accepted by CCRS, as well as certain reports that include personal health information, are available to the facility and the ministry.
4. Via CCRS eReports, CIHI provides record-level and aggregate data to facilities that submit data to CCRS and to the ministry. CIHI provides aggregate data to health authorities.
5. CCRS discloses de-identified record-level and aggregate data to third-party data requestors.
6. CCRS releases aggregate data to the public.



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