NRS eReports

Report Interpretation Guidelines

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About CIHI

The Canadian Institute for Health Information (CIHI) is an independent, not-for-profit organization that provides essential information on Canada's health systems and the health of Canadians.

We provide comparable and actionable data and information that are used to accelerate improvements in health care, health system performance and population health across Canada. Our stakeholders use our broad range of health system databases, measurements and standards, together with our evidence-based reports and analyses, in their decision-making processes. We protect the privacy of Canadians by ensuring the confidentiality and integrity of the health care information we provide.

About the NRS

The National Rehabilitation Reporting System (NRS) was developed by CIHI in 2001 to support data collection by hospitals for inpatient rehabilitation clients who are mainly age 18 and older. The rehabilitation services are provided in specialized rehabilitation hospitals and in general hospitals within rehabilitation units, programs or designated rehabilitation beds. At the end of 2015–2016, there were more than 481,000 pairs of admission and discharge records (i.e., complete episodes) in the NRS database, submitted by more than 100 hospitals in 9 provinces and covering a range of health conditions including strokes, orthopedic conditions and amputations.

For additional information on the NRS or for additional NRS publications, please write to nrs@cihi.ca or visit the NRS page on CIHI's website at www.cihi.ca/nrs.

These guidelines outline the general format and content of reports that can be created in the NRS eReports environment. With the help of this guide, facilities can enhance the use of their created reports for policy development and decision-making in rehabilitation. The Report Interpretation Guidelines include

- Data submission details;

- Detailed descriptions of available reports;

- Descriptions of NRS attributes and metrics (indicators); and

- Information on how to get further help with NRS eReports.

In this guide,

- The term "facilities" refers to rehabilitation facilities or rehabilitation units participating in the NRS.

- NRS data elements are generally identified by name and/or number (e.g., data element 19A Admission Class). Refer to the most recent version of the *NRS Rehabilitation Minimum Data Set Manual* for complete information on the individual data elements in the NRS.

- The term "assessment" is used interchangeably with "record" to refer to the individual set of information collected at admission, discharge or follow-up for a unique client's episode of care. A complete admission and discharge assessment/record pair constitutes a rehabilitation "episode."

- The term "FIM® instrument assessment" is used to refer specifically to information collected with only the FIM® instrument. See Appendix B for a glossary of terms commonly used in the NRS.

Feedback on this guide is welcome and can be directed to the NRS team at nrs@cihi.ca.

A note about rounding

By default, mean, median and percentage values in NRS eReports are rounded to the nearest single decimal place. Due to rounding of values, an indicator's individual percentage value may not exactly add up to the total percentage at the bottom of the column, but it is generally within 1% to 2% of the total percentage.

A note about 0 versus null percentages

You may encounter instances in which a percentage metric is displayed as 0 (i.e., 0.0%) and other instances in which no percentage is shown at all for a particular level of attribute (i.e., there is an empty cell in the table). The former indicates that the numerator in the percentage calculation is 0 or blank but that there is a non-0 value for the denominator. Alternatively, if there is no denominator value, then the resulting percentage will be shown as a blank space (i.e., a null value) rather than a 0.

For example, if Clients Reporting Improved Health Status, Count was 0 but Clients Followed-Up, Count was not 0, then the value calculated for Clients Reporting Improved Health Status, Percent will be 0.0%. If, however, the value for Clients Followed-Up, Count was also 0, the calculated percentage will be a null value and will be displayed as a blank cell or a cell with a dashed line.

1   Data submission and reporting

1.1   Population of reference

The data contained in the NRS eReports database relates primarily to adults (age 18 and older) with physical and/or cognitive impairments and functional limitations who have received inpatient rehabilitation services from participating facilities across Canada. At the time of printing, participation in the NRS remains voluntary for all provinces and territories except Ontario. As such, it cannot be stated that the data in the NRS is representative of all inpatient rehabilitation activity in Canada. Participating facilities submit data to CIHI on a quarterly basis. NRS eReports generated during a particular reporting quarter include data from all records that were successfully submitted prior to the corresponding quarterly deadline. The data contained within these eReports is aggregate data from a specific time period, as chosen by the user at the time of report creation.

1.2   Data quality in the NRS

Data quality is an important component of the NRS and is addressed by CIHI primarily through the following mechanisms:

- Clinical training sessions with online testing requirements;
- Documentation of the NRS data elements and guidelines for coding;
- Logical and sequential checks built into vendor software and during data processing at CIHI;
- The NRS Data Submission eLearning module (available online at learning.cihi.ca);
- Submission/error reports generated within 2 days of data submission;

- Client support for clinical coding and data submission;

- Ongoing monitoring of data submissions by CIHI's NRS team; and

- NRS Data Quality documentation, including an annual assessment of data quality in the NRS data set (publicly available at www.cihi.ca/nrs), as well as the annual NRS Data Quality Report for Provinces/Territories, directed to the deputy minister of health for each province and territory.

Facilities are encouraged to promote internal data quality with regard to the NRS through in-house training and retesting, regular data quality checks and ongoing communication with the NRS team at CIHI.

1.3   Submission timelines

The table below shows timelines for submitting data to CIHI for the NRS. Dates are consistent from year to year.

Note: If a deadline date falls on a weekend or holiday, records submitted by the deadline will be processed the next working day. The data cut is typically taken the morning of the next working day following a date that falls on a weekend or holiday. Any records submitted by the deadline date will be processed prior to taking the data cut.

Table 1   NRS submission timelines

Quarter	Reporting period	Submission deadline*	NRS eReports data updated[†]
1	April 1 to June 30	July 31	Approximately 4–5 weeks after the data submission deadline
2	July 1 to September 30	October 31	
3	October 1 to December 31	January 31	
4	January 1 to March 31	April 30	

Note

* The NRS quarterly data cut is taken 2 weeks after the data submission deadline. This additional time between the submission deadline and the data cut allows facilities to submit corrections for records that were submitted by the submission deadline but were rejected due to errors.

† This date may vary slightly according to CIHI's internal production schedule.

1.4   Data submission options

Facilities have 2 options for submitting NRS records.

Option 1

Submit all records for the quarter in which they occur. For example, if a client is admitted in Q3 and is discharged in Q4, the admission assessment is completed and submitted in Q3, and the discharge assessment is completed and submitted in Q4. Facilities using this method may consequently have "open" records, meaning that an admission record is submitted in one quarter but the corresponding discharge record has not yet been submitted. This option will also include complete admission and discharge records for clients who were admitted and discharged within the same quarter.

Implications for reporting

Facilities that submit under Option 1 are able to generate reports that contain up-to-date (to the latest reporting quarter) admission data. However, any reports including data that requires complete records (both admission and discharge data submitted) — for example, Length of Stay and Service Interruptions — will be generated using only the complete records that have been submitted.

Option 2

Submit admission and discharge records together in the quarter in which the discharge occurred. For example, if there was an admission in Q3 and the person was discharged in Q4, both the admission record for Q3 and discharge record for Q4 would be submitted in Q4.

Note: To ensure a valid submission, the admission records must be submitted and accepted prior to submitting the discharge records. Assessments that occur in different quarters must be submitted in separate files at the time of submission, as submission files are coded according to the quarter in which corresponding assessment records occurred.

Implications for reporting

Facilities using Option 2 will not have any open admission records (i.e., they will have both an admission and corresponding discharge record). A drawback to using Option 2 is the inability to view up-to-date admission-related data, instead having to wait until the corresponding discharges occur.

Implications for all facilities regardless of option chosen

The use of 2 different methods by facilities may result in different populations being included in Admissions Profile and Outcomes at Discharge reports. The former will include admissions with or without complete discharge records for facilities choosing to submit under Option 1, whereas they will include only admissions with complete discharge records for facilities choosing Option 2.

Note: There may be provincial mandates regarding which NRS submission option must be used. We strongly encourage facilities to use the submission method that follows their provincial submission mandate.

Discrepancies in total numbers reported

Reported client numbers may vary between different generated reports, depending on whether a facility is submitting data under Option 1 or Option 2. Refer to the Data submission options section to review these options.

The total numbers in the various reports may differ between indicators due to missing data. For example, if a discharge FIM® instrument assessment is not completed for a client due to an (Un)planned discharge (19A Admission Class = 4) or other reason, that record is excluded from the calculation of all Function Score indicators (which require both complete admission **and** discharge FIM® instrument scores), other than those in Admissions Profile reports. (Admissions Profile reports are based on data provided at admission only and may therefore include records that end up not being included in some Outcomes at Discharge reports.) Therefore, the total N value for any column reporting Function Scores may be less than the total N values reported for other indicators such as Discharge Destination or Average Onset Days, where complete Function Scores are not required. Similarly, for applicable indicators, records containing Unknown and Missing values are excluded from the indicator calculations. See Chapter 6 for further detail on inclusions and exclusions for the various metric calculations.

Note: Unknown and Missing values are excluded from calculations but they are **included** in the denominator for percentage calculations. For this reason, the total column percentage may be less than 100%. The difference between the reported total percentage and 100% may represent the percentage of records that are Unknown or Not applicable for a given indicator.

1.5   Definition of a complete record

The NRS accepts only complete and error-free records into the database. A complete record has all of the mandatory data elements coded and has passed through all edit checks when processed at CIHI. Edit specifications at the data collection level and at the data processing level detect missing or incorrect data elements. Records that have been rejected as a result of missing mandatory data elements or errors are not considered complete and are not

accepted into the database. Facilities can check the status of their submission files in the submission reports on the secure Operational Reports page of CIHI's website. Facilities must correct any errors and resubmit these records for inclusion in the database.

For more information or advanced troubleshooting of records submitted to the NRS, see the record-level Rehabilitation Patient Group (RPG) Reports or the Verification Audit Reports (VAR) (available within NRS Operational Reports). To request information on either of these reports, please email nrs@cihi.ca.

Admission records

The definition of a complete admission record will vary depending on the coding of data element 19A Admission Class. Refer to the *NRS Rehabilitation Minimum Data Set Manual*, sections 3 and 4, for more details on the coding of this data element.

If 19A = 1 (Initial rehabilitation), 2 (Short stay), 3 (Readmission) or 5 (Continuing rehabilitation), then completed FIM® instrument and CIHI assessments are mandatory on the admission assessment, as are several other data elements.

If 19A = 4 ([Un]planned discharge without assessment), then the following mandatory elements are the minimum required for the record to be accepted as complete:

4	Chart Number
5	Health Care Number
6	Province/Territory Issuing Health Care Number
7	Sex
8	Birth Date (9 Estimated Birth Date, if applicable)
21	Admission Date
30	Discharge Date
34	Rehabilitation Client Group
80	Most Responsible Health Condition
81	Pre-Admit Comorbid Health Conditions
83	Transfer or Death Health Condition (if client transferred or died)

Note: Data elements reported in addition to the minimum requirements will be included in the quarterly report indicators where applicable. Note, however, that in many reports, (Un)planned discharges are excluded as fewer admission and discharge data elements are required.

Discharge records

The definition of a complete discharge record will vary depending on the coding of data element 31 Reason for Discharge.

If 31 = 1 (Service goals met and discharged to community) or 2 (Service goals met and referral/transfer to other unit/facility), then completed FIM® instrument and CIHI assessments are mandatory on the discharge assessment, as are several other data elements.

If 31 = 3 (Service goals not met), then the following mandatory elements are the minimum required for the record to be accepted as complete:

  30 Discharge Date

  32 Referred To

  33A Referred to Province/Territory

  33B Referred to Facility Number (if 32 is a facility)

  83 Transfer or Death Health Condition (if client transferred or died)

If 31 = 4 (Facility/agency withdrew services), 5 (Client withdrew), 6 (Client no longer eligible), 7 (Client moved) or 8 (Client deceased), then the following mandatory elements are the minimum required for the record to be accepted as complete:

  30 Discharge Date

  83 Transfer or Death Health Condition (if client transferred or died)

Note: Data elements reported in addition to the minimum requirements will be included in the quarterly report indicators where applicable.

2 NRS Quick Indicators Reports

For a list of available reports and where to find them, refer to Appendix A.

For a complete list of all terms used in NRS eReports, refer to Appendix B.

2.1 Overview

Quick Indicators Reports are the quickest and simplest type of report to generate. They are at-a glance reports of several admission, discharge and follow-up indicators. There are 10 Quick Indicators Reports available — 9 default to graph format and 1 defaults to grid format. All 9 graphs have identical properties, each reporting on a different indicator. The 10th report displays a grid containing 3 data quality indicators. Reports are organized to present information at the facility, peer and national levels. Peer groups are based on facility type (general or specialty). Users are prompted only for facility name/number in order to generate the report. Data can be shown for any of the most recent 6 fiscal years (or partial years). The first 9 reports also permit drilling from discharge fiscal year to discharge fiscal quarter. Each Quick Indicators Report is briefly described below.

1. **Average Days Waiting for Admission Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average days waiting for admission by RCG at the facility, peer and national levels.

2. **Average Admission Total Function Score Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average admission Total Function Score for each RCG at the facility, peer and national levels.

3. **Average Discharge Total Function Score Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average discharge Total Function Score for each RCG at the facility, peer and national levels.

4. **Average Change in Total Function Score Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the percentage change in Total Function Score for each RCG at the facility, peer and national levels. Note that this indicator can be calculated only for clients who have complete admission and discharge Total Function Scores.

5. **Average Days Waiting for Discharge Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average days waiting for discharge for each RCG at the facility, peer and national levels.

6. **Average Length of Stay (LOS) Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average LOS for each RCG at the facility, peer and national levels.

7. **Average Length of Stay (LOS) Efficiency Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average LOS efficiency for each RCG at the facility, peer and national levels. Note that this indicator can be calculated only for clients that have complete admission and discharge Total Function Scores.

8. **Percent Discharged Home Who Were Home Prior to Admission Across Rehabilitation** Client Groups (RCGs)

   This graph-formatted report illustrates the percentage of clients discharged home who were home prior to admission for each RCG at the facility, peer and national levels.

9. **Average Follow-Up Total Function Score Across Rehabilitation Client Groups (RCGs)**

   This graph-formatted report illustrates the average follow-up Total Function Score for each RCG at the facility, peer and national levels.

10. **Data Quality Indicators**

   3 data quality indicators are provided in this grid-formatted (i.e., table) Quick Indicators Report. There are columns indicating facility, peer and national values. The indicators are expressed both as the number of records used in the calculation (N) and as percentages. The 3 indicators included in this report are a subset of the indicators in the NRS Data Quality Report for Provinces/Territories, which is completed on an annual basis and sent to the deputy minister of health of each province and territory in an effort to raise awareness of and highlight data quality issues. If the report does not show data for one or more of these indicators, it is because the facility does not have any data to show:

   - Unknown Date Ready for Admission
   - Unknown Health Care Number
   - Unknown Referred to Facility Number

Figure 1   Example of a graph-formatted Quick Indicators Report

Figure 2   Example of the Data Quality Indicators report

Prompt screen

For all NRS Quick Indicators Reports, the user will be presented with a prompt for Facility only. The prompt has the following instructions and an answer to the prompt is required:

Select Your Facility*(required)

Select the facility for which you would like to run the report. This report allows only 1 selection.

The Facility prompt will

- Offer rehabilitation facilities, by name and number, that have submitted data to the NRS;
- Allow only 1 choice;
- Have search capabilities; and
- Sort facility names alphabetically.

Page-By axis

The Page-By axis at the top of each Quick Indicators Report will contain the following Page-By labels, each displaying 1 value:

- Facility
- Facility Type
- Fiscal Year (or Fiscal Quarter, if you have already drilled from year to quarter)

Additional functionality

All of the different Quick Indicators Reports share the following functionality:

1. Once a report has been run, users are able to choose the Fiscal Year Page-By to display the given report for any of the 6 given fiscal years. Since the most recent fiscal year may still be in progress, it will effectively contain year-to-date data for the most recent fiscal year. The first 9 reports also permit drilling from fiscal year to fiscal quarter, so that users may view quarterly data.

2. Peer grouping is based on the facility type (general or specialty) defined for that facility for that fiscal year. Designation of general or specialty is chosen by each facility and submitted as part of its Facility Profile.

3. Users are able to save or export any Quick Indicators Reports.

4. The filter details will be displayed above the report by default.

2.2 Attributes and metrics available in NRS Quick Indicators Reports

The attributes that are available in the different NRS Quick Indicators Reports are listed in Table 4. For attribute definitions, inclusion/exclusion criteria and interpretation considerations, refer to Section 5.2.

The metrics that are available in the different NRS Quick Indicators Reports are listed in Table 7. For metric definitions, inclusion/exclusion criteria and interpretation considerations, refer to Section 6.2.

3 NRS Comparative Reports

For a list of available reports and where to find them, refer to Appendix A.

For a complete list of all terms used in NRS eReports, refer to Appendix B.

3.1 Overview

Comparative Reports allow more flexibility than Quick Indicators Reports but require slightly more time and effort to build, at least initially. They provide a comprehensive set of NRS indicators at the facility, peer and national levels for the 6 most recent fiscal years.

NRS Comparative Reports are divided into 4 categories:

1. Admissions Profile
2. Outcomes at Discharge
3. Outcomes at Follow-Up
4. Resource Utilization

Each category includes up to 7 different types of reports that can be generated (e.g., Age at Admission, Functional Status at Discharge, Follow-Up Living Setting). You can select options for various factors including peer group, Rehabilitation Client Group (RCG) and reporting period. Reports can be viewed as tables or graphs, or both. **Each of these 4 categories of Comparative Reports will be described in one of the following sections**.

Prompt screen

For all NRS Comparative Reports, the user is presented with a single prompt page offering a number of choices that allow the user to customize the contents of the resulting report. The prompt page contains a combination of the following choices:

- Facility — allows you to select your facility name/number

- Fiscal Year(s) — allows you to choose the year(s) included in the report

- Rehabilitation Client Group — allows you to select RCGs that you are interested in (if no choice is made, the data will reflect all RCGs)

- Peer Group — allows 3 different ways to select a peer group for comparisons

    – Peer Group prompts — there are 3 prompts to define peer groups: by facility type, number of beds or facility name. The user is encouraged to choose a peer group by selecting options within these 3 prompts. Each of the 3 Peer Group prompts is detailed below.

  Note: Defining a peer group is optional. The default for Peer Group is All Facilities; as such, an aggregated value for all facilities will be displayed if no peer group is designated.

Define peer group based on facility type

Define the peer group by either general or specialty facility type.

Define peer group based on number of beds

Define the peer group by the number of rehabilitation beds.

This prompt

- Offers beds broken down in groups:
    – 1–10
    – 11–20
    – 21–30
    – 31–40
    – 41–50
    – 51–75
    – 76–100
    – 101–200
    – >200
- Allows multiple choices

Define peer group based on facility name

Define the peer group by choosing one or more facilities by name or number. If more than one facility is chosen, values displayed in the Peer column of the report will reflect either a total or an average across all of the chosen facilities, depending on the metric being considered.

This prompt

- Offers facilities participating in the NRS by name and number;
- Sorts facilities alphabetically by name; and
- Allows multiple choices.

Page-By axis

The Page-By axis at the top of each Comparative Report may contain any number of Page-By labels, or none at all. Most commonly, RCG is listed in the Page-By axis, but you can choose any of the attributes or metrics included in your report to be shown in the Page-By axis. See Section 7.1 for more information about the Page-By axis.

Additional functionality

All of the Comparative Reports share the following functionality:

1. Data in reports is available for the most recent 6 fiscal years. Since the most recent fiscal year may still be in progress, that year will effectively contain year-to-date data only.

2. Users choose the method for creating peer groups for comparisons. Peer grouping is based on facility type (general or specialty) **or** number of beds **or** facility name(s)/number(s).

3. Users can drill into the data, such as from fiscal year to fiscal quarter.

4. Users are able to save or export any Comparative Report.

5. Filter details describing the data that was chosen for the report will be displayed above the report by default.

3.2   Attributes and metrics available in NRS Comparative Reports

The attributes that are available in the different NRS Comparative Reports are listed in Table 4. For attribute definitions, inclusion/exclusion criteria and interpretation considerations, refer to Section 5.2.

The metrics that are available in the different NRS Comparative Reports are listed in Table 7. For metric definitions, inclusion/exclusion criteria and interpretation considerations, refer to Section 6.2.

3.3   Admissions Profile Comparative Reports

The following section describes the contents of the Admissions Profile sub-folder. This folder contains 7 reports. These reports include summary data for clients admitted during the chosen reporting period and allow for peer and national comparisons. For more information about the attributes and metrics contained in these reports, refer to chapters 5 and 6, respectively.

1. **Admission by Referral Source**

   View admission counts and percentages for a defined reporting period by the referral source.

2. **Admission by Rehabilitation Client Group**

   View admission counts and percentages for a defined reporting period by RCG.

3. **Admission by Admission Class**

   View admission counts and percentages for a defined reporting period by admission class.

4. **Admission by Pre-Hospital Living Arrangements**

   View admission counts and percentages for a defined reporting period by pre-hospital living arrangements.

5. **Admission by Pre-Hospital Living Setting**

   View admission counts and percentages for a defined reporting period by pre-hospital living setting.

6. **Age at Admission to Facility**

   View admission counts and percentages for a defined reporting period by age at the time of admission. By default, data is shown by age group and sex.

7. **Functional Status at Admission to Facility**

   View functional status indicators of clients admitted during the defined reporting period. Indicators include Total Function Score and CIHI Cognitive Score.

3.4 Outcomes at Discharge Comparative Reports

The following section describes the contents of the Outcomes at Discharge folder. There are 5 Outcomes at Discharge Comparative Reports available in this folder. These reports include summary data for clients discharged during the chosen reporting period and allow for peer and national comparisons. For more information about the attributes and metrics contained in these reports, refer to chapters 5 and 6, respectively.

Data included in Outcomes at Discharge Comparative Reports is based on episodes that contain complete admission and discharge assessments.

1. **Client Demographics**

   View demographic indicators for clients discharged during the defined reporting period. Indicators include number of clients, average age, percentage of males versus females, number of clients for whom a complete FIM® instrument assessment and/or a CIHI Cognitive assessment were conducted, number of clients with service interruptions and number of service interruptions, and average admission body weight and body mass index (BMI) values.

2. **Functional Status at Admission and Discharge From Facility**

   View functional status indicators of clients discharged during the defined reporting period. Both functional status at time of admission and time of discharge, as well as the change between them, are included in this report.

3. **Clinical Outcomes at Discharge**

   View clinical outcome indicators for clients discharged during the defined reporting period. Indicators include counts and percentages of clients reporting improvements in health status and improvement/worsening of pain, and clients achieving service goals.

4. **Discharge Destination**

   View discharge counts and percentages by discharge destination for the defined reporting period.

5. **Length of Stay and Service Interruptions**

   View length of stay and service interruption information for clients discharged during the defined reporting period. Indicators include average onset days, service interruption days, days waiting for admission and discharge, length of stay excluding interruption days, active rehab length of stay, length of stay efficiency and active rehab length of stay efficiency.

3.5 Outcomes at Follow-Up Comparative Reports

The following section describes the contents of the Outcomes at Follow-Up sub-folder. This folder contains 5 reports. These reports provide summary socio-demographic and client function data for the 80- to 180-day period following discharge from a rehabilitation facility into the community (can include clients discharged to long-term care). Completion of the follow-up assessment is optional; facilities can choose to submit follow-up data on all clients or on only some clients, or can choose to not submit any follow-up data. The reports in this folder provide summary data only for clients that received follow-up assessments during the chosen reporting period. Data is provided at the facility, peer and national levels. For more information about the attributes and metrics contained in these reports, refer to chapters 5 and 6, respectively.

1. **Follow-Up Living Arrangements**

   View living arrangements for clients who received follow-up during the defined reporting period.

2. **Follow-Up Living Setting**

   View living settings for clients who received follow-up during the defined reporting period.

3. **Client Follow-Up Count**

   View maintenance and rehospitalization indicators for clients who received follow-up during the defined reporting period. Indicators include clients hospitalized since discharge, clients maintaining function score gains and clients maintaining general health status.

4. **Functional Status at Follow-Up**

   View functional status indicators for clients who received follow-up during the defined reporting period. Functional status at time of admission and time of discharge are also included in this report for comparison purposes.

5. **Clients Achieving Partial or Full Community Reintegration**

   View community reintegration indicators (Reintegration to Normal Living Index or RNLI) for clients who received follow-up during the defined reporting period.

3.6   Resource Utilization Comparative Reports

The following section describes the contents of the Resource Utilization sub-folder. This folder contains 7 reports.

1. **Rehabilitation Patient Group (RPG) Patient Days Report**

   View information on patient days based on rehabilitation patient groups at the facility, peer and national levels for the desired reporting period.

2. **Rehabilitation Patient Group (RPG) Patient Days Report — Most Recently Completed Reporting Fiscal Quarter**

   View information on patient days based on rehabilitation patient groups at the facility, peer and national levels for the most recently completed fiscal quarter.

3. **Rehabilitation Patient Group (RPG) Case Mix Report — Original Methodology**

   View information on LOS and Case Mix Index (CMI) based on rehabilitation patient groups at the facility, peer and national levels for the reporting period, using the RPG cost weights and LOS trim points in effect during the fiscal year in which the client was discharged.

4. **Rehabilitation Patient Group (RPG) Case Mix Report — Current Methodology**

   View information on LOS and CMI based on rehabilitation patient groups at the facility, peer and national levels for the reporting period, using the current RPG cost weights and LOS trim points. This report allows for historical trending of CMI.

5. **Function Status Gain by RPG**

   View the LOS and LOS efficiency indicators, as well as functional changes from admission to discharge at the facility, peer and national levels by RPG for the reporting period.

6. **Regional Case Mix Report — Original Methodology**

   View case mix indicators for the provincial health regions, based on rehabilitation cost weights and LOS trim point values originally in use during the chosen fiscal year.

7. **Regional Case Mix Report — Current Methodology**

   View case mix indicators for the provincial health regions, based on current rehabilitation cost weights and LOS trim point values.

Reports 1 to 4 are RPG Patient Days and CMI reports. These reports provide information on RPGs at a facility level for the reporting period selected for each of the indicators below. If a facility had no clients who were allocated to a particular RPG during the report period, the row for that RPG will contain 0s.

Report 5 is Functional Status Gain by RPG. This report examines the changes from admission to discharge in average Total Function Score and Function Score domain scores, as well as CIHI Cognitive scores for each RCG subgroup. The domain scores further divide the Motor Function and Cognitive Function subscales into more comparable groups.

The report includes records with complete admission and discharge pairs. The various Function Score domains and CIHI Cognitive scales that appear in this report are indicated below:

Table 2   Data elements in Function Scores (FIM® instrument) and CIHI Cognitive Scale

Origin	Sub-scale/domain	Data elements included	Score range
FIM®	Self-Care Function	Eating, Grooming, Bathing, Dressing Upper and Lower Body, Toileting	6 to 42
FIM®	Sphincter Function	Bladder Management, Bowel Management	2 to 14
FIM®	Transfer Function	Bed/Chair, Toilet, Tub/Shower	3 to 21
FIM®	Locomotion Function	Locomotion, Stairs	2 to 14
FIM®	Motor Function Score	All FIM® instrument motor elements	13 to 91
FIM®	Communication Function	Expression, Comprehension	2 to 14
FIM®	Social Cognition Function	Social Interaction, Problem-Solving, Memory	3 to 21
FIM®	Cognitive Function Score	All FIM® instrument cognitive elements	5 to 35
FIM®	Total Function Score	All FIM® instrument elements	18 to 126
CIHI	CIHI Cognitive Score	All CIHI Cognitive elements	7 to 30

Reports 6 and 7 are case mix reports that show CMIs grouped by health region rather than by RPG or by Facility, Peer and All groups. These reports may be of more interest to health regions and provincial ministries of health than to users at individual facilities.

For further details on the methodologies used in these reports, facilities are directed to the RPG grouping methodology document available from CIHI's website, at www.cihi.ca/casemix.

4 NRS Analytical Reports

For a list of available reports and where to find them, refer to Appendix A.

For a complete list of all terms used in NRS eReports, refer to Appendix B.

4.1 Overview

Analytical Reports are build-your-own reports that allow even greater flexibility than Quick Indicators Reports or Comparative Reports, but they require a bit more time and effort to produce. As with Comparative Reports, Analytical Reports are divided into 4 major categories. Unlike Comparative Reports, however, Analytical Reports allow you to display data based on **any available metrics and attributes**.

Each Analytical Report will prompt you for Facility (or Facilities), Fiscal Year(s) and RCG(s), and then will allow you to select your desired metrics and attributes. You will be prompted with a list of attributes and metrics associated with admissions, discharges, follow-ups or resource utilization to display on the report. Half of the Analytical Reports will also allow you to select a peer group using the same 3 prompts that are available in the Comparative Reports.

The 4 types of Analytical Reports that can be built are the following:

1. **Admissions Profile**

   Analyze admission indicators including client characteristics, age, sex and functional status at admission.

2. **Outcomes at Discharge**

   Analyze discharge indicators including client characteristics, age, sex, outcomes at discharge, and functional status at admission and discharge. Wait times, LOS, service interruption and rehabilitation intensity data is also available for analysis.

3. **Outcomes at Follow-Up**

   Analyze follow-up indicators including client characteristics, age, sex and functional status at admission, discharge and follow-up. Other indicators such as LOS and service interruptions are also available for analysis.

4. **Resource Utilization**

   Analyze resource utilization and CMIs by Rehabilitation Group and RPG.

These 4 folders contain 2 types of Analytical Reports. One report type permits selection of a single facility and an associated peer group, as in the NRS Comparative Reports. This type of report will display data at the Facility, Peer and All levels. The second report type does not permit selection of a peer group. However, it does allow you to select multiple facilities in the Facility prompt, rather than just 1. Users are then able to view data for several individual facilities on a single report. This may be useful, for instance, to users who submit data to the NRS as different subdivided facilities with different facility names and numbers, or to regional health authorities that wish to view all of their facilities in the same report.

Note: Defining a peer group is optional. The default for Peer Group is All Facilities; as such, an aggregated value for All Facilities will be displayed if no peer group is designated.

Example of an NRS Analytical Report

The following report illustrates a sample Outcomes at Discharge Analytical Report.

In the example below, the user has selected the desired facility and fiscal year, and decided to display RCG attributes in the grid. The user has also selected the Clients Discharged count, Total Function Score at Admission mean and Total Function Score at Discharge mean metrics to display. The user has limited the results to fiscal years 2014–2015 and 2015–2016, and Rehabilitation Client Groups to Brain Dysfunction and Stroke.

Table 3   Sample grid-formatted Outcomes at Discharge Analytical Report

Discharge fiscal year	Facility	Rehab Client Group (RCG)	Metrics	Clients discharged (COUNT)	Total Function Score at Admission (AVG)	Total Function Score at Discharge (AVG)
2015–2016	Rehab Facility 123	Stroke		56	73.1	96.7
		Brain Dysfunction		14	69.8	94.8
2014–2015	Rehab Facility 123	Stroke		98	77.6	100.5
		Brain Dysfunction		15	78.3	97.3

4.2 Attributes and metrics available in NRS Analytical Reports

The attributes that are available in the different NRS Analytical Reports are listed in Table 4. For attribute definitions, inclusion/exclusion criteria and interpretation considerations, refer to Section 5.2.

The metrics that are available in the different NRS Analytical Reports are listed in Table 7. For metric definitions, inclusion/exclusion criteria and interpretation considerations, refer to Section 6.2.

5 NRS attributes

5.1 Overview

Attributes allow for the presentation of data by categories. They are added to reports to allow data to be summarized at varying levels of detail. For example, the attribute Sex might be added to a report to allow data from male and female clients to be shown separately. The attributes that appear in a particular report depend on the purpose of the report. A report designed to show client data as it relates to age, for instance, will necessarily include an age-related attribute, such as Admission Age Group. In the NRS Quick Indicators Reports and NRS Comparative Reports, the attributes that are present in each report are pre-selected by CIHI. In NRS Analytical Reports, however, users have the freedom to decide which attributes are included in each report.

Attributes are typically displayed in the rows or Page-By axis of NRS eReports and are also sometimes used as selection prompts (e.g., RCG prompt). That is, some of the attributes that can be displayed in the report are also used to select which data is used in that report. For example, a user could use the Bed Grouping attribute to choose only to include data from small facilities in the report.

Available attributes vary depending on report type. Table 4 lists the attributes that are available in the various NRS eReports. Definitions, descriptions and interpretation considerations for each attribute are presented in Section 5.2.

Table 4   Availability of attributes across NRS eReports

Attribute	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Admission Age Group	—	AP 6	All
Admission Class	—	AP 3	AP
ASIA Impairment Scale	—	—	AP
Body Mass Index (BMI) Group at Admission	—	—	All
Discharge Destination	—	OD 4	OD, OF
Facility	All	All	All
Facility Program Type	—	—	All
Facility Type	All	All	All
Fiscal Year	All	All	All
Follow-Up Living Arrangements	—	OF 1	OF
Follow-Up Living Setting	—	OF 2	OF
Most Responsible Health Condition ICD-10-CA Chapter	—	—	AP, OD
Number of Beds	—	All	All
Post-Discharge Living Arrangements	—	—	OD
Pre-Hospital Living Arrangements	—	AP 4	AP
Pre-Hospital Living Setting	—	AP 5	AP
Primary Reason for Waiting for Discharge	—	—	OD
Referral Source	—	AP 1	AP, OD
Rehabilitation Client Group (RCG)	QI 1–9	AP, OD, OF	All
Rehabilitation Group (RG)	—	RU 1–5	All
Rehabilitation Patient Group (RPG)	—	RU 1–5	All
Sex	—	AP 6	All

Notes
Report numbers are shown for Quick Indicators Reports and Comparative Reports.
Report subtypes are abbreviated as follows: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up; RU = Resource Utilization.
ICD-10-CA: International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Canada.

5.2   NRS attribute definitions

This section provides a description of attributes found in various NRS eReports and indicates the reports in which each can be found. Attributes are listed in alphabetical order.

Admission Age Group

Available in

- NRS Comparative Reports > Admissions Profile > 6. Age at Admission to Facility

- All NRS Analytical Reports

Age groupings defined by the NRS. This allows data to be grouped by age range, rather than presenting data for each individual age. Data included in each age group is based on age at admission, calculated by subtracting element 8 Birth Date from element 21 Admission Date.

Interpretation considerations: Admission records include a data element to indicate whether a client's birth date has been estimated (9 Birth Date Estimated). Since all NRS admission records are included in the calculation of age indicators, the accuracy of the values provided may vary depending on the number of records submitted for which the date of birth has been estimated. Additionally, the methodology for calculation of age rounds down to conform to the methodologies used in other CIHI databases.

Admission Class

Available in

- NRS Comparative Reports > Admissions Profile > 3. Admission by Admission Class

- NRS Analytical Reports > Admissions Profile

Describes the distribution of clients in the various admission categories, based on the response coded for element 19 Admission Class.

> Initial rehabilitation (19A = 1) refers to the first rehabilitation admission to a rehabilitation facility or unit for the specific RCG.

> Short stay (19A = 2) refers to a pre-planned rehabilitation stay of 4 to 10 days or unexpected discharges within the same time frame.

> Readmission (19A = 3) occurs when the client has already received rehabilitation for the specific RCG at some point in the past and has been readmitted for the same RCG, directly from the community or another facility where no rehabilitation was received for the RCG.

(Un)planned discharge without assessment (19A = 4) includes episodes for which the LOS is 3 days or less (including the admission date). This group may also include planned discharges in 3 days or less. For clients coded as (Un)planned discharge, no corresponding discharge record is submitted to the NRS.

Continuing rehabilitation (19A = 5) refers to clients who are transferred directly from another rehabilitation facility or from a different level of rehabilitation within the same facility, for the same RCG.

ASIA Impairment Scale

Available in

- NRS Analytical Reports > Admissions Profile

Describes the distribution of clients in the various ASIA Impairment Scale categories, based on the response coded for element 38 ASIA Impairment (Modified Frankel Scale). The ASIA Impairment Scale describes the degree of motor and sensory involvement at admission to rehabilitation for traumatic and non-traumatic spinal cord injury.

1	A — Complete impairment
2	B — Incomplete (sensory preserved)
3	C — Incomplete (motor non-functional)
4	D — Incomplete (motor functional)
5	E — Normal

Body Mass Index (BMI) Group at Admission

Available in

- All NRS Analytical Reports

Describes the distribution of clients based on their calculated BMI value on admission. BMI is calculated by dividing the client's admission body weight (in kilograms) by the squared value of the client's height (in metres) — that is, kg/m^2. BMI values are grouped into 4 standard categories: underweight (<18.5), normal (18.5–24.9), overweight (25–30) and obese (>30). A fifth category (unable to calculate) is used in the NRS eReports to capture clients for whom a BMI could not be calculated, because of a missing height (element 40A) or weight (element 40B) value, for instance.

Interpretation considerations: BMI values are calculated for clients who have height and weight (elements 40A and 40B) data available, regardless of the accuracy of the values coded for these elements. As such, some clients may have BMI values that seem unreasonable or unlikely. This may be due to various measurement or coding issues (e.g., submitting a weight measured in pounds instead of kilograms, height measured in inches rather than centimetres).

Discharge Destination

Available in

- NRS Comparative Reports > Outcomes at Discharge > 4. Discharge Destination
- NRS Analytical Reports > Outcomes at Discharge

Describes the number and percentage distribution of various post-discharge destinations based on all discharge records submitted. This indicator is derived from 3 data elements that must be completed on the discharge assessment: 15 Post-Discharge Living Setting, 32 Referred To and 31 Reason for Discharge.

Table 5   Values for data elements 15, 32 and 31

15 Post-Discharge Living Setting	32 Referred To	31 Reason for Discharge
1 Home without health services	02 Inpatient acute unit, same facility	1 Goals met, discharged to community
2 Home with paid health services	03 Inpatient acute unit, different facility	2 Goals met, transfer to other unit/facility
3 Boarding house	04 Rehabilitation unit, same facility	3 Goals not met
4 Assisted living	05 Rehabilitation unit, different facility	4 Facility/agency withdrew services
5 Residential care	06 Ambulatory care service	5 Client withdrew
6 Shelter	07 Private practice	6 Client no longer eligible (funding)
7 Public place	08 Drug dependency service	7 Client moved
8 Other	09 Community services	8 Client deceased
9 Acute care	10 Residential care facility	—
50 Not available, temporarily	11 Legal service	—
-70 Asked, unknown	12 Educational agency	—
—	13 Home care agency	—
—	97 Other	—

15 Post-Discharge Living Setting	32 Referred To	31 Reason for Discharge
—	-50 Not available, temporarily	—
—	-70 Asked, unknown	—
—	-90 Not applicable	—

Codes from the 3 elements above have been grouped together to form the following categories for Discharge Destination:

Home without services: Post-Discharge Living Setting = 1

Home with services: Post-Discharge Living Setting = 2

Other community: Post-Discharge Living Setting = 3, 4, 6, 7

Residential care: Post-Discharge Living Setting = 5

Acute care: Post-Discharge Living Setting = 9 or Referred To = 02, 03

Expired: Reason for Discharge = 8

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) for elements 15 and 32 are included in the denominator for percentage calculations.

Facility

Available in

- All NRS eReports

A unique name and 5-digit identifier used by an organization to submit data to the NRS.

An NRS facility may represent

- An entire organization that provides rehabilitation (e.g., residential care facility, nursing home); or

- A unit or number of beds designated for rehabilitation within a larger organization (e.g., complex rehabilitation unit).

The name is based on the official name of the organization as listed in CIHI's Organization Index, and may not exactly match the facility and site names as submitted in the NRS Facility Profile record.

Facility Program Type

Available in

- All NRS Analytical Reports

The type of program as defined by the rehabilitation facility/unit.

Facility Type

Available in

- All NRS eReports

Describes the facility as general or specialty based on facility self-assessment of the nature of the services, the type of hospital the service is located in, the provincial or regional designation and/or the self-assignment of the facility.

Fiscal Year

Available in

- All NRS eReports

Fiscal year in which the client is admitted, discharged or followed up, depending on the report being generated.

Follow-Up Living Arrangements

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 1. Follow-Up Living Arrangements
- NRS Analytical Reports > Outcomes at Follow-Up

Describes the distribution of various living arrangements on discharge, based on the coding option for element 76 Follow-Up Living Arrangements. The coding options for this element are as follows (clinicians should code all that apply):

1	Living with spouse/partner
2	Living with family (includes extended)
3	Living with non-family, unpaid (includes friends)
4	Living with paid attendant
5	Living alone
6	Living in facility (includes all levels of care except acute)

7   Other

-50   Not available, temporarily

-70   Asked, unknown

For reporting purposes, the coding options have been grouped as follows:

Living with family/friends (unpaid) = code 1 or 2 or 3 (excluding code 4)

Living with family/friends/paid attendant = code 1 or 2 or 3 **and** 4

Living with paid attendant only = code 4 only

Living alone = code 5

Living in facility, nursing home = code 6

Other = code 7

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations. It is possible for a client to be coded with more than one living arrangement (e.g., living with spouse **and** family), but each client is counted only once in the calculation of N and percentages.

Follow-Up Living Setting

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 2. Follow-Up Living Setting

- NRS Analytical Reports > Outcomes at Follow-Up

Describes the distribution of various living environments on follow-up, based on the response choice for element 77 Follow-Up Living Setting. The coding options for this data element are as follows (clinicians should code 1 option only):

1   Home (private house or apartment) without health services

2   Home (private house or apartment) with paid health services (e.g., home care/support, formal or informal, private or publicly funded)

3   Boarding house (includes rented room)

4   Assisted living (includes group home, retirement home, supervised living setting)

5   Residential care (long-term care facility, convalescent care, nursing home)

6   Shelter (includes night shelter, refuges, hostels for homeless)

7   Public place (includes residing in the street, parks and other public spaces)

8   Other

-50   Not available, temporarily

-70   Asked, unknown

For reporting purposes, the coding options have been grouped as follows:

Home (private, without services) = code 1

Home (private, with services) = code 2

Boarding house = code 3

Assisted living = code 4

Residential care = code 5

Shelter = code 6

Public place = code 7

Other = code 8

Unlike in the Follow-Up Living Arrangements data element, each client can be coded into only 1 living setting and therefore appears only once in the calculation.

Inclusions/exclusions: Coding options -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations.

Interpretation considerations: This indicator, along with Follow-Up Living Arrangements, provides information on the home environment at the time of follow-up and can be compared with the post-discharge environment indicators in the measurement of outcomes.

Most Responsible Health Condition ICD-10-CA Chapter

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

Describes the distribution of clients by etiological diagnoses at admission, based on the response choice for data element 80 Most Responsible Health Condition ICD-10-CA.

For reporting purposes, the response choices have been grouped by ICD-10-CA chapter codes. For further granularity, the indicator can be drilled down to the level of ICD-10-CA rubric or to the level of the individual ICD-10-CA codes.

Number of Beds

Available in

- All NRS Comparative Reports and NRS Analytical Reports

The number of rehabilitation beds in operation at the facility, as defined by the facility. For NRS eReporting purposes, numbers of beds are grouped as follows: 0–10, 11–20, 21–30, 31–40, 41–50, 51–75, 76–100, 101–200 and >200.

Post-Discharge Living Arrangements

Available in

- NRS Analytical Reports > Outcomes at Discharge

Describes the distribution of clients discharged to various living arrangements, based on the response choice for data element 13 Post-Discharge Living Arrangements. The response choices for this element are as follows (clinicians must code all that apply):

1	Living with spouse/partner
2	Living with family (includes extended)
3	Living with non-family, unpaid (includes friends)
4	Living with paid attendant
5	Living alone
6	Living in facility (includes all levels of care except acute)
7	Other
8	Living arrangement(s) is/are transitional or temporary
9	Living in acute care
-50	Not available, temporarily
-70	Asked, unknown

Pre-Hospital Living Arrangements

Available in

- NRS Comparative Reports > Admissions Profile > 4. Admission by Pre-Hospital Living Arrangements

- NRS Analytical Reports > Admissions Profile

Describes the distribution of clients admitted from various living arrangements, based on the response choice for data element 12 Pre-Hospital Living Arrangements. The response choices for this element are as follows (clinicians must code all that apply):

1	Living with spouse/partner
2	Living with family (includes extended)
3	Living with non-family, unpaid (includes friends)
4	Living with paid attendant
5	Living alone
6	Living in facility (includes all levels of care except acute)
7	Other
-50	Not available, temporarily
-70	Asked, unknown

For reporting purposes, the response choices have been grouped as follows:

Living with family/friends (unpaid) = code 1 or 2 or 3 (excluding code 4)

Living with family/friends/paid attendant = code 1 or 2 or 3 **and** 4

Living with paid attendant only = code 4 only

Living alone = code 5

Living in facility, nursing home = code 6

Other = code 7

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations. It is possible for a client to be coded with more than one living arrangement (e.g., living with spouse **and** family), but each client is counted only once in the calculation of N and percentages. This indicator, along with Admission by Pre-Hospital Living Setting, provides information on the home environment prior to admission and can be compared with the post-discharge environment in the measurement of outcomes.

Pre-Hospital Living Setting

Available in

- NRS Comparative Reports > Admissions Profile > 5. Admission by Pre-Hospital Setting

- NRS Analytical Reports > Admissions Profile

Describes the distribution of clients admitted from various living environments, based on the response choice for data element 14 Pre-Hospital Living Setting. The response choices for this data element are as follows (clinicians must code 1 option only):

1	Home (private house or apartment) without health services
2	Home (private house or apartment) with paid health services (formal or informal, private or publicly funded)
3	Boarding house (includes rented room)
4	Assisted living (includes group home, retirement home, supervised living setting)
5	Residential care (long-term care facility, convalescent care, nursing home)
6	Shelter (includes night shelter, refuges, hostels for homeless)
7	Public place (includes residing in the street, parks and other public spaces)
8	Other
-50	Not available, temporarily
-70	Asked, unknown

For reporting purposes, the response choices have been grouped as follows:

Home (private, without services) = code 1

Home (private, with services) = code 2

Boarding house = code 3

Assisted living = code 4

Residential care = code 5

Shelter = code 6

Public place = code 7

Other = code 8

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations.

Interpretation considerations: This indicator, along with Admission by Pre-Hospital Living Arrangements, provides information on the home environment prior to admission and can be compared with the post-discharge environment in the measurement of outcomes.

Primary Reason for Waiting for Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

Describes the distribution of clients by primary reason waiting to be discharged from a facility/agency, based on the response choice for data element 90A Primary Reason for Waiting for Discharge. The response choices for this data element are as follows:

Location

1.1	Assisted-living/supportive housing
1.2	Residential care (LTC/nursing home)
1.3	Complex continuing care/chronic care
1.4	Acute care
1.5	Transitional care/convalescent care
1.6	Boarding house/rooming house
1.7	Inpatient mental health care
1.8	Palliative care
1.9	Other location

Services

2.1	Facility-based ambulatory care
2.2	Private-pay therapy/nursing/personal support
2.3	Addiction services
2.4	Community services (includes transportation)
2.5	Home care
2.6	Other services

Home Modifications/Equipment

3.1	Home modifications
3.2	Equipment (e.g., power wheelchair)
3.3	Other home modifications/equipment

Personal

4.1	Informal support
4.2	Other personal
-70	Unknown

Inclusions/exclusions: Response code -70 (Unknown) is included in the denominator for percentage calculations.

Referral Source

Available in

- NRS Comparative Reports > Admissions Profile > 1. Admission by Referral Source

- NRS Analytical Reports > Admissions Profile

- NRS Analytical Reports > Outcomes at Discharge

Describes the general sources of client referral to rehabilitation, based on the response coded for element 22 Referral Source. The coding options for this element are as follows:

01	Self/family
02	Inpatient acute unit, same facility
03	Inpatient acute unit, different facility
04	Rehabilitation unit, same facility
05	Rehabilitation unit, different facility (specialty or general facility)
06	Ambulatory care service (facility-based)
07	Private practice (primary care services, e.g., MD, PT)
08	Drug dependency service
09	Community services (including public health, transportation services)
10	Residential care facility (includes long-term care, continuing care, nursing home)
11	Legal service (police, parole officer, court)
12	Educational agency
13	Home care agency
97	Other (includes rehabilitation outreach services)
-50	Not available, temporarily
-70	Asked, unknown

For reporting purposes, the responses have been grouped into categories as follows:

Acute care, inpatient: Referral Source = 02, 03

Other rehab, inpatient: Referral Source = 04, 05, 97

Long-term care: Referral Source = 10

Home/community: Referral Source = 01, 06 to 09, 11 to 13

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations. Excludes (Un)planned discharge records.

Rehabilitation Client Group

Available in

- All NRS Quick Indicators except the Data Quality Indicators Report
- All NRS Comparative Reports except Resource Utilization reports
- All NRS Analytical Reports

Within the NRS, a client is categorized into 1 of 17 health condition groups, known as Rehabilitation Client Groups (RCGs). The RCG selected for a particular client is based on the condition that best describes the primary reason for the client's admission to the inpatient rehabilitation unit or facility (e.g., stroke or limb amputation). Some RCGs are further divided into subgroups in order to facilitate more specific analysis of groups that contain large numbers of rehabilitation clients (e.g., left- and right-sided strokes). Most NRS eReports outline only the 17 major groups, though the NRS Analytical Reports allow for drilling down to the more specific level of RCG subgroup. The 17 major RCG groups are as follows:

1	Stroke
2	Brain Dysfunction
3	Neurological Conditions
4	Spinal Cord Dysfunction
5	Amputation of Limb
6	Arthritis
7	Pain Syndromes
8	Orthopedic Conditions
9	Cardiac
10	Pulmonary
11	Burns
12	Congenital Deformities
13	Other Disabling Impairments
14	Major Multiple Trauma
15	Developmental Disabilities
16	Debility
17	Medically Complex

Rehabilitation Group

Available in

- NRS Comparative Reports > Resource Utilization Reports
- All NRS Analytical Reports

A type of categorization representing the highest level of diagnostic classification for clinically similar patients and used in the RPG case-mix grouping methodology for the NRS.

Rehabilitation Patient Group

Available in

- NRS Comparative Reports > Resource Utilization Reports
- All NRS Analytical Reports

The NRS includes a case-mix grouping methodology known as the Rehabilitation Patient Group (RPG) methodology. It was developed by the Rehabilitation Technical Working Group of Ontario's Joint Policy and Planning Committee (JPPC) using NRS data for Ontario facilities. The JPPC — a joint partnership of the Ontario Hospital Association and the Ontario Ministry of Health and Long-Term Care (MOHLTC) — released a summary report in October 2006 based on Ontario data titled *Evaluation and Selection of a Grouper and Weighting Methodology for Adult Inpatient Rehabilitation Care*. The RPGs have cost weights associated with them and explain variance in LOS and other NRS variables of interest to a greater extent than the Functional Independence Measure–Function Related Groups (FIM-FRGs) and other methodologies based on the FIM® instrument. They represent a natural transition to a Canadian grouping methodology for inpatient rehabilitation.

There are 83 RPGs, which are stratified from 21 Rehabilitation Groups (RGs). Placement into a specific RG depends on the coded RCG for each patient, and assignment into a specific RPG is further based on Motor Function and Cognitive Function Scores at Admission and age. These factors are used to report client data in more clinically homogeneous groups for better comparability. For further details on the specific RPG algorithms, please consult CIHI's Rehabilitation Patient Group (RPG) Grouping Methodology and Weights document, available from CIHI's website at www.cihi.ca/casemix.

Each Rehabilitation Group has at least one RPG. The lower RPG numbers for a given RG are made up of clients who generally have lower Function Scores on admission (based on the FIM® instrument). In certain levels of the classification of selected RGs, client age is also used as a grouping factor. Conversely, the higher RPG numbers for a given RG are made up of a group of clients who have higher Function Scores at admission. As above, age is again used

at certain levels as a grouping factor. For example, within the Stroke RG, there are 7 RPGs (1100 to 1160). The first 2 RPG digits indicate the Stroke RG. The last 2 RPG digits represent the specific RPG. Clients grouped in the lower 2 RPGs (1100, 1110) will have lower Admission Function Scores compared with stroke clients in the higher RPGs, and these 2 RPGs are differentiated solely by the client's age. The higher-numbered RPGs (1160, 1150) will include clients with higher admission scores, relative to the other Stroke RPGs. RGs with less variation in age and Function Scores at admission will have fewer RPGs.

Groupings and naming conventions for the various RPG levels are presented in Table 6, which follows.

Inclusions/exclusions: RPG calculation requires completion of elements 8 Birth Date, 34 RCG and 41 to 58 (the FIM® instrument on the admission assessment).

Interpretation considerations: The RPG indicators in the NRS Comparative Reports and NRS Analytical Reports are designed to differentiate between groups of clients with the same rehabilitation diagnosis (RCG and RG). The RPG grouping method attempts to level the playing field by categorizing RGs (and RCGs) into homogeneous groups based on age and FIM® instrument Motor Function and Cognitive Function Scores at admission. This grouping makes comparisons between peer groups somewhat more meaningful, and may be used to support other findings in the Comparative Reports. For example, if a facility with a longer average LOS compared with that of its peer group is noted to admit a high proportion of stroke clients in the 1100, 1110 and 1120 RPGs (i.e., clients who use relatively more resources based on the RPG methodology), this information may help to partially account for the longer average LOS for that facility.

For further details on these RPG methodologies, please consult CIHI's Rehabilitation Patient Group (RPG) Grouping Methodology and Weights document, available from CIHI's website at www.cihi.ca/casemix.

Table 6   Rehabilitation Patient Groups

RG (and associated RG numeric code)	RCG codes included in RG	RPG levels
Stroke (11)	1.1, 1.2, 1.3, 1.4, 1.5, 1.9	1100 to 1160
Traumatic Brain Injury (12)	2.2, 2.21, 2.22	1200 to 1250
Non-Traumatic Brain Injury (13)	2.1, 2.11, 2.12, 2.9	1300 to 1330
Neurological (14)	3.1, 3.2, 3.3, 3.4, 3.5, 3.8, 3.9	1400 to 1430
Traumatic Spinal Cord Injury (15)	4.2, 4.21, 4.211, 4.212, 4.22, 4.2211, 4.2212, 4.2221, 4.2222, 4.23	1500 to 1530
Non-Traumatic Spinal Cord Injury (16)	4.1, 4.11, 4.111, 4.112, 4.12, 4.1211, 4.1212, 4.1221, 4.1222, 4.13	1600 to 1640
Amputation, Non–Lower Extremity (17)	5.1, 5.2, 5.9	1700 to 1710
Amputation, Lower Extremity (18)	5.3, 5.4, 5.5, 5.6, 5.7	1800 to 1830
Osteoarthritis (19)	6.2	1900 to 1910
Rheumatoid Arthritis and Other Arthritis (20)	6.1, 6.9	2000 to 2010
Pain (21)	7.1, 7.2, 7.3, 7.9	2100 to 2110
Fractures of Lower Extremity (22)	8.1, 8.11, 8.12, 8.2, 8.3	2200 to 2250
Replacement of Lower Extremity (23)	8.5, 8.51, 8.52, 8.53, 8.54, 8.6, 8.61, 8.62, 8.63, 8.64, 8.7, 8.71, 8.72, 8.73, 8.74	2300 to 2350
Other Orthopedic (24)	8.9	2400 to 2440
Cardiac (25)	9.1	2500 to 2540
Pulmonary (26)	10.1, 10.9	2600 to 2630
Burns (27)	11.1	2700
Major Multiple Trauma, Other Multiple Trauma and Major Multiple Fracture (28)	14.9, 8.4	2800 to 2840
Major Multiple Trauma, With Brain or Spinal Cord Injury (29)	14.1, 14.2, 14.3	2900 to 2920
Ventilator-Dependent Respiratory Disorders (30)	17.51	3000
Other Disabilities (31)	12.1, 12.9, 13.1, 15.1, 16.1, 17.1, 17.2, 17.31, 17.32, 17.4, 17.52, 17.6, 17.7, 17.8, 17.9	3100 to 3140

Sex

Available in

- NRS Comparative Reports > Admissions Profile > 6. Age at Admission to Facility

- All NRS Analytical Reports

Describes the biological sex of a client. Permits grouping of clients by sex. In Comparative Reports, includes male and female. In Analytical Reports, also includes category Other where applicable.

6   NRS metrics

6.1   Overview

In response to feedback from a consultation process on health information needs, CIHI launched a collaborative project on health indicators. The purpose of the project was to identify which measures could and should be used to report on the health of Canadians and the health system, and then to compile and disseminate the information widely.[1]

An indicator can be defined as "a measurement tool, screen or flag that is used as a guide to monitor, evaluate and improve the quality of client care, clinical support services and organizational functions that affect outcomes."[2] In the NRS eReports, each indicator is associated with one or more "metrics." This term refers to the numerical data, such as percentages (%), counts (N) or a variety of statistics (e.g., average [mean], median, standard deviation) that summarize each of the demographic, clinical and administrative indicators available in the NRS eReports.

Some of the metrics listed in the NRS eReports have been derived from 2 or more NRS data elements. For example, Length of Stay is calculated using Admission Date, Discharge Date, Service Interruption Start Date and Service Interruption End Date. The metric definitions included in this document identify the NRS data elements that are used in the calculation. For further information on coding and interpretation of individual data elements, refer to the most recent version of the NRS Rehabilitation Minimum Data Set Manual.

Table 7 lists the metrics that are available for the various NRS eReports. Definitions, descriptions and interpretation considerations for each metric are listed in Section 6.2.

Table 7   Availability of metrics across NRS eReports

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Active Rehab Length of Stay			
Average (Mean)	—	OD 5, RU 5	OD, OF, RU
Median	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
25th Percentile	—	—	OD
75th Percentile	—	—	OD
Active Rehab Length of Stay Efficiency			
Average (Mean)	—	OD 5, RU 5	OD, OF, RU
Median	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
25th Percentile	—	—	OD
75th Percentile	—	—	OD
Admission Age			
Average (Mean)	—	OD 1	AP, OD, OF
Standard Deviation	—	—	AP, OD, OF
Minimum	—	—	AP, OD, OF
Maximum	—	—	AP, OD, OF
Body Mass Index (BMI) at Admission			
Average (Mean)	—	OD 1	AP, OD
Median	—	—	AP, OD
Standard Deviation	—	—	AP, OD
Minimum	—	—	AP, OD

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Body Mass Index (BMI) at Admission (cont'd)			
Maximum	—	—	AP, OD
25th Percentile	—	—	AP, OD
75th Percentile	—	—	AP, OD
Case Mix			
Case Mix Clients (COUNT)	—	RU 3–4	RU 1–2
Case Mix Index (AVG)	—	RU 3–4	—
Case Mix, Length of Stay (COUNT)	—	RU 3–4	RU 1–2
Cost Weight (AVG)	—	RU 3–4	RU 1–2
Non-Outlier Cases, Days (COUNT)	—	RU 3–4	RU 1–2
Non-Outlier Cases, Rehab Cost Weight (AVG)	—	RU 3–4	RU 1–2
Outlier Cases, Long Stay Clients (COUNT)	—	—	RU 1–2
Outlier Cases, Long Stay Days (COUNT)	—	RU 3–4	RU 1–2
Outlier Cases, Long Stay Rehab Cost Weight (AVG)	—	RU 3–4	RU 1–2
Outlier Cases, Short Stay Clients (COUNT)	—	—	RU 1–2
Outlier Cases, Short Stay Days (COUNT)	—	RU 3–4	RU 1–2
Outlier Cases, Short Stay Rehabilitation Cost Weight (AVG)	—	RU 3–4	RU 1–2
Weighted Cases (COUNT)	—	RU 3–4	RU 1–2
Clients Achieving Partial or Full Community Reintegration (RNLI)			
Count	—	OF 5	—
Percent	—	OF 5	—
Clients Achieving Service Goals			
Count	—	OD 3	OD, OF
Percent	—	OD 3	OD, OF

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Clients Admitted			
Count	—	AP 1–6	AP
Percent	—	AP 1–6	AP
Clients Discharged			
Count	—	OD 1, OD 4	OD
Percent	—	OD 4	OD
Clients Discharged Home Who Were Home Prior to Admission			
Count	—	—	OD
Percent	QI 8	—	OD
Clients Followed-Up			
Count	—	OF 1–2	OF
Percent	—	OF 1–2	OF
Clients Home Prior to Admission			
Count	—	—	OD
Clients Hospitalized Since Discharge			
Count	—	OF 3	OF
Percent	—	OF 3	OF
Clients Maintaining Function Score Gain			
Count	—	OF 3	OF
Percent	—	OF 3	OF
Clients Maintaining General Health Status			
Count	—	OF 3	OF
Percent	—	OF 3	OF
Clients Reporting Improved Health Status			
Count	—	OD 3	OD
Percent	—	OD 3	OD

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Clients Reporting Improvement in Pain			
Count	—	OD 3	OD
Percent	—	OD 3	OD
Clients Reporting Worsening of Pain			
Count	—	OD 3	OD
Percent	—	OD 3	OD
Clients With a Complete Admission and Discharge CIHI Cognitive Instrument Assessment			
Count	—	OD 1	OD
Clients With a Complete Discharge FIM® instrument Assessment			
Count	—	OD 1, RU 5	OD, RU
Clients With Service Interruptions			
Count	—	OD 1	OD
Data Quality Indicators			
Unknown "Referred to Facility Number"	QI 10	—	—
Unknown "Health Care Number"	QI 10	—	—
Unknown "Date Ready for Admission"	QI 10	—	—
Days Waiting for Admission			
Count	—	—	AP, OD
Average (Mean)	QI 1	OD 5	AP, OD, OF
Median	—	OD 5	AP, OD
25th Percentile	—	—	AP, OD
75th Percentile	—	—	AP, OD
Days Waiting for Discharge			
Count	—	—	OD
Average (Mean)	QI 5	OD 5	OD, OF
Median	—	OD 5	OD
25th Percentile	—	—	OD
75th Percentile	—	—	OD

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Length of Stay			
Average (Mean)	QI 6	OD 5, RU 5	OD, OF, RU
Median	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
25th Percentile	—	—	OD
75th Percentile	—	—	OD
Count	—	—	OD, RU
Length of Stay Efficiency			
Average (Mean)	QI 7	OD 5, RU 5	OD, OF, RU
Median	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Onset Days			
Average (Mean)	—	OD 5	AP, OD, OF
Median	—	OD 5	AP, OD, OF
Standard Deviation	—	—	AP, OD, OF
Minimum	—	—	AP, OD, OF
Maximum	—	—	AP, OD, OF
Patient Days			
Count of Clients	—	RU 1–2	RU 3–4
Count of Days	—	RU 1–2	RU 3–4
Post-Admit Comorbid Health Condition ICD-10-CA			
Count	—	—	OD
Pre-Admit Comorbid Health Condition ICD-10-CA			
Count	—	—	AP, OD

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Rehabilitation Intensity With an Occupational Therapist (OT)			
Average (Mean)	—	—	OD, RU
Median	—	—	OD, RU
Standard Deviation	—	—	OD, RU
Rehabilitation Intensity With a Physiotherapist (PT)			
Average (Mean)	—	—	OD, RU
Median	—	—	OD, RU
Standard Deviation	—	—	OD, RU
Rehabilitation Intensity With a Speech–Language Pathologist (SLP)			
Average (Mean)	—	—	OD, RU
Median	—	—	OD, RU
Standard Deviation	—	—	OD, RU
Rehabilitation Intensity With an Occupational Therapy Assistant (OTA)			
Average (Mean)	—	—	OD, RU
Median	—	—	OD, RU
Standard Deviation	—	—	OD, RU
Rehabilitation Intensity With a Physiotherapy Assistant (PTA)			
Average (Mean)	—	—	OD, RU
Median	—	—	OD, RU
Standard Deviation	—	—	OD, RU
Rehabilitation Intensity With a Communicative Disorders Assistant (CDA)			
Average (Mean)	—	—	OD, RU
Median	—	—	OD, RU
Standard Deviation	—	—	OD, RU
Total Rehabilitation Intensity			
Average (Mean)	—	—	OD, RU
Median	—	—	OD, RU
Standard Deviation	—	—	OD, RU

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Total Rehabilitation Intensity (cont'd)			
25th Percentile	—	—	OD, RU
75th Percentile	—	—	OD, RU
Complete Rehab Time Data Expected			
Count	—	—	OD, RU
Complete Rehab Time Data Submitted			
Count	—	—	OD, RU
Sex			
Percent	—	OD 1	—
Total Service Interruptions			
Count	—	OD 1	OD, OF
Total Service Interruption Days			
Average (Mean)	—	OD 5	OD, OF
Standard Deviation	—	—	OD, OF
Minimum	—	—	OD, OF
Maximum	—	—	OD, OF
Count	—	—	OD
Weight (kg) at Admission			
Average (Mean)	—	OD 1	AP, OD
Median	—	—	AP, OD
Standard Deviation	—	—	AP, OD
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD
25th Percentile	—	—	AP, OD
75th Percentile	—	—	AP, OD
Total Function Score at Admission			
Average (Mean)	QI 2	AP, OD, OF, RU	AP, OD, OF, RU
Median	—	AP, OD, OF	AP, OD, OF

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Total Function Score at Admission (cont'd)			
Standard Deviation	—	AP, OD, OF	AP, OD, OF
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD
Total Function Score at Discharge			
Average (Mean)	QI 3	OD, OF, RU	OD, OF, RU
Median	—	OD, OF	OD, OF
Standard Deviation	—	OD, OF	OD, OF
Minimum	—	—	OD
Maximum	—	—	OD
Total Function Score at Follow-Up			
Average (Mean)	QI 9	OF	OF
Median	—	OF	OF
Standard Deviation	—	OF	OF
Total Function Score Change			
Average (Mean)	QI 4	OD, RU	OD, RU
Median	—	—	OD, RU
Standard Deviation	—	OD	OD
Minimum	—	—	OD
Maximum	—	—	OD
Percent	—	OD	OD
Percent, Standard Deviation	—	OD	OD
Motor Function Score at Admission			
Average (Mean)	—	AP, OD, OF	AP, OD, OF
Median	—	AP, OD, OF	AP, OD, OF
Standard Deviation	—	AP, OD, OF	AP, OD, OF
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Motor Function Score at Discharge			
Average (Mean)	—	OD, OF	OD, OF
Median	—	OD, OF	OD, OF
Standard Deviation	—	OD, OF	OD, OF
Minimum	—	—	OD
Maximum	—	—	OD
Motor Function Score at Follow-Up			
Average (Mean)	—	OF	OF
Median	—	OF	OF
Standard Deviation	—	OF	OF
Motor Function Score Change			
Average (Mean)	—	OD	OD
Median	—	—	OD
Standard Deviation	—	OD	OD
Minimum	—	—	OD
Maximum	—	—	OD
Cognitive Function Score at Admission			
Average (Mean)	—	AP, OD, OF	AP, OD, OF
Median	—	AP, OD, OF	AP, OD, OF
Standard Deviation	—	AP, OD, OF	AP, OD, OF
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD
Cognitive Function Score at Discharge			
Average (Mean)	—	OD, OF	OD, OF
Median	—	OD, OF	OD, OF
Standard Deviation	—	OD, OF	OD, OF
Minimum	—	—	OD
Maximum	—	—	OD

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Cognitive Function Score at Follow-Up			
Average (Mean)	—	OF	OF
Median	—	OF	OF
Standard Deviation	—	OF	OF
Cognitive Function Score Change			
Average (Mean)	—	OD	OD
Median	—	—	OD
Standard Deviation	—	OD	OD
Minimum	—	—	OD
Maximum	—	—	OD
CIHI Cognitive Score at Admission			
Average (Mean)	—	AP, OD, OF	AP, OD, OF
Median	—	AP, OD, OF	AP, OD, OF
Standard Deviation	—	AP, OD, OF	AP, OD, OF
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD
CIHI Cognitive Score at Discharge			
Average (Mean)	—	OD, OF	OD, OF
Median	—	OD, OF	OD, OF
Standard Deviation	—	OD, OF	OD, OF
Minimum	—	—	OD
Maximum	—	—	OD
CIHI Cognitive Score at Follow-Up			
Average (Mean)	—	OF	OF
Median	—	OF	OF
Standard Deviation	—	OF	OF

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
CIHI Cognitive Score Change			
Average (Mean)	—	OD	OD
Median	—	—	OD
Standard Deviation	—	OD	OD
Minimum	—	—	OD
Maximum	—	—	OD
Percent	—	OD	OD
Percent, Standard Deviation	—	OD	OD
Self-Care Function Score at Admission			
Average (Mean)	—	—	AP, OD
Standard Deviation	—	—	AP, OD
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD
Self-Care Function Score at Discharge			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Self-Care Function Score Change			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Sphincter Function Score at Admission			
Average (Mean)	—	—	AP, OD
Standard Deviation	—	—	AP, OD
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Sphincter Function Score at Discharge			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Sphincter Function Score Change			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Transfer Function Score at Admission			
Average (Mean)	—	—	AP, OD
Standard Deviation	—	—	AP, OD
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD
Transfer Function Score at Discharge			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Transfer Function Score Change			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Locomotion Function Score at Admission			
Average (Mean)	—	—	AP, OD
Standard Deviation	—	—	AP, OD
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD
Locomotion Function Score at Discharge			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Locomotion Function Score Change			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Communication Function Score at Admission			
Average (Mean)	—	—	AP, OD
Standard Deviation	—	—	AP, OD
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD
Communication Function Score at Discharge			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD

Metric	NRS Quick Indicators Reports	NRS Comparative Reports	NRS Analytical Reports
Communication Function Score Change			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Social Cognition Function Score at Admission			
Average (Mean)	—	—	AP, OD
Standard Deviation	—	—	AP, OD
Minimum	—	—	AP, OD
Maximum	—	—	AP, OD
Social Cognition Function Score at Discharge			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD
Social Cognition Function Score Change			
Average (Mean)	—	—	OD
Standard Deviation	—	—	OD
Minimum	—	—	OD
Maximum	—	—	OD

Notes
Report numbers are shown for Quick Indicators Reports and Comparative Reports.
Report sub-types abbreviations: AP = Admissions Profile; OD = Outcomes at Discharge; OF = Outcomes at Follow-Up;
RU = Resource Utilization.

6.2   NRS metric definitions

Metrics are listed in alphabetical order.

Active Rehab Length of Stay

Available in

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions

- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Follow-Up

- NRS Analytical Reports > Resource Utilization

The difference between elements 29 Date Ready for Discharge and 21 Admission Date for all records submitted. It describes the average period of time (in days) that clients are considered to be in active rehabilitation at the facility, peer and national levels. As such, service interruptions and days waiting for discharge are not included. Requires completion of element 21 on the admission assessment and elements 25A/B (Service Interruption Dates) (if applicable) and 29 on the discharge assessment.

Inclusions/exclusions: Date Ready for Discharge is mandatory to record if element 31 Reason for Discharge is coded as 1 or 2 (Goals met and client discharged/transferred); otherwise, it is optional to record. As of December 2011, Active Rehab LOS is calculated using element 30 Discharge Date in cases where the Date Ready for Discharge element is left blank. This ensures that each client for whom LOS is calculated will also have an Active Rehab LOS calculated and that the 2 indicators are based on the same number of people. (Prior to December 2011, records had been excluded from this indicator when the Date Ready for Discharge element was left blank.) Active Rehab LOS will always be less than or equal to the LOS indicator, as it removes any discharge wait time that might exist.

Interpretation considerations: This indicator can be influenced by the complexity of the cases accepted by the facility and client characteristics, as well as availability of staffing resources, among other things. Any difference between this indicator and the LOS indicator reflects days waiting for discharge from rehabilitation.

Available metrics: Average (mean), median, standard deviation, minimum, maximum, 25th percentile, 75th percentile

Active Rehab Length of Stay Efficiency

Available in

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions

- NRS Comparative Reports >Resource Utilization > 5. Functional Status Gain by RPG

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Follow-Up

- NRS Analytical Reports > Resource Utilization

The change in Total Function Score **per day** of client participation in the rehabilitation program. Calculation is based on Total Function Score Change divided by Active Rehab LOS for **each client**, averaged over the number of clients. As with the Active Rehab LOS indicator, Service Interruption Days and Days Waiting for Discharge are not included.

Inclusions/exclusions: Requires completion of elements 41 to 58 (all FIM® instrument items) on both the admission and discharge assessments, 21 Admission Date on the admission assessment, 25A/B Service Interruption Dates (if applicable) and 29 Date Ready for Discharge on the discharge assessment.

Interpretation considerations: This indicator is based on 2 other NRS indicators (Change in Total Function Score and Active Rehab LOS), both of which can be influenced by multiple factors, such as complexity of the cases accepted by the facility, client characteristics and availability of staffing resources, among other things. Care should be exercised when comparing results of this indicator with those from other facilities.

Available metrics: Average (mean), median, standard deviation, minimum, maximum, 25th percentile, 75th percentile

Admission Age

Available in

- NRS Comparative Reports > Admissions Profile > 6. Age at Admission to Facility

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics

- All NRS Analytical Reports except Resource Utilization Reports

Age at admission to the rehabilitation facility. Calculated by subtracting element 8 Birth Date from element 21 Admission Date.

Interpretation considerations: Admission records include a data element to indicate whether a client's birth date has been estimated (9 Birth Date Estimated). Since all NRS admission records are included in the calculation of age indicators, the accuracy of the values provided may vary depending on the number of records submitted for which the date of birth has been estimated. Additionally, the methodology for calculation of age rounds down to conform with other methodologies used in other CIHI databases.

Available metrics: Average (mean), standard deviation, minimum, maximum

Body Mass Index (BMI) at Admission

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics

- NRS Analytical Reports > Admissions Profile

- NRS Analytical Reports > Outcomes at Discharge

BMI is calculated by dividing the client's admission body weight (in kilograms) by the squared value of the client's height (in metres) — that is, kg/m^2. BMI values are often grouped into 4 standard categories: underweight (<18.5), normal (18.5–24.9), overweight (25–30) and obese (>30).

Inclusions/exclusions: BMI is calculated only for clients with recorded values for height (element 40A) and weight (element 40B) on admission. BMI data is available in NRS eReports only for fiscal years 2009–2010 and later due to changes in NRS coding specifications.

Interpretation considerations: BMI values are calculated for clients who have height and weight (elements 40A and 40B) data available, regardless of the accuracy of the values coded for these elements. As such, some clients may have BMI values that seem unreasonable or unlikely. This may be due to various measurement or coding issues (e.g., weight measured in pounds instead of kilograms, height measured in inches instead of centimetres).

Available metrics: Average (mean), standard deviation, minimum, maximum, 25th percentile, 75th percentile

Case Mix

Available in

- NRS Comparative Reports > Resource Utilization > RPG Case Mix Reports

- NRS Analytical Reports > Resource Utilization > RPG Case Mix Reports

Case mix metrics may be found in Current Methodology or Original Methodology Comparative Reports, or may be named as such in the Analytical Reports. Current Methodology values are based on the current rehabilitation cost weights and outlier trim points being used in the RPG Case Mix Methodology (visit www.cihi.ca/casemix for more information on values that are currently being used). Original Methodology values for a particular fiscal year are based on the rehabilitation cost weights and outlier trim points that were in effect during that fiscal year. The Current Methodology values permit users to analyze trends over time, whereas the Original Methodology values permit users to view the data that would have been seen in reports created in those fiscal years. Note that for the current fiscal year, based on the above-mentioned methodology, reports generated using the Original Methodology and the Current Methodology will be the same.

Case Mix Clients (COUNT)

The number of clients included in the RPG Case Mix Reports.

Case Mix Index (AVG)

This overall facility indicator, reported in the RPG Case Mix Reports, is calculated as the sum total number of weighted cases divided by the sum total number of complete episodes for the reporting period for the facility.

Case Mix, Length of Stay (COUNT)

The sum of the lengths of stay (number of days from element 21 Admission Date to element 30 Discharge Date) for each completed admission and discharge record pair for the clients included in the RPG Case Mix Reports. Instances in which an admission and discharge occur on the same day are assigned a length of stay value of 1 day.

Inclusions/exclusions: Case Mix, Length of Stay is different from all other lengths of stay reported in NRS eReports in that it includes Service Interruption Days, in addition to including Days Waiting for Discharge. Requires completion of element 21 Admission Date on the admission assessment and 25A/B Service Interruption Dates (if applicable) and 30 Discharge Date on the discharge assessment. In some of the RPG Case Mix Reports, (Un)planned discharges are excluded as the discharge record is not completed for these clients.

Interpretation considerations: Case Mix Length of Stay can be influenced by many factors, such as complexity of the cases accepted by the facility, number of days waiting for discharge due to delays in the discharge process and number of days accrued during service interruptions. Care should be used when this indicator is used in isolation to compare between the facility, peer and national levels.

Cost Weight (AVG)

This number is the average rehabilitation cost weight as determined by CIHI's RPG Case Mix Methodology and includes any adjustments to the weights due to short- or long-stay outliers per the methodology.

Non-Outlier Cases, Days (COUNT)

The total number of days that individual lengths of stay exceeded the short-stay trim point for a particular RPG but did not exceed the trim point that defines long-stay outliers for that RPG (i.e., were non-outlier stays), as described by CIHI's RPG Case Mix Methodology.

Non-Outlier Cases, Rehab Cost Weight (AVG)

The rehabilitation cost weight for individual lengths of stay that exceeded the short-stay trim point for a particular RPG but did not exceed the trim point that defines long-stay outliers as defined by the Ontario Joint Policy and Planning Committee Rehabilitation Patient Group Case Mix Methodology.

Outlier Cases, Long Stay Clients (COUNT)

The number of clients who had individual lengths of stay that exceeded the trim point that defines long-stay outliers for that RPG (i.e., were non-outlier stays), as defined by CIHI's RPG Case Mix Methodology.

Outlier Cases, Long Stay Days (COUNT)

The total number of days that individual lengths of stay have exceeded the trim point that defines long-stay outliers for a particular RPG, as described by CIHI's RPG Case Mix Methodology. Outlier Days may be attributed to only 1 client or represent the sum of outlier days from many clients within an RPG.

Outlier Cases, Long Stay Rehab Cost Weight (AVG)

The average rehabilitation cost weight for lengths of stay that exceeded the trim point that defines long-stay outliers for a particular RPG, as defined by CIHI's RPG Case Mix Methodology.

Outlier Cases, Short Stay Clients (COUNT)

The number of clients who had individual lengths of stay less than or equal to the short-stay trim point for a particular RPG and therefore are considered short-stay outliers as described by CIHI's RPG Case Mix Methodology.

Outlier Cases, Short Stay Days (COUNT)

The total number of days accrued for lengths of stay that were less than or equal to the short-stay trim point for a particular RPG, as described by CIHI's RPG Case Mix Methodology. Outlier days may be attributed to only 1 client or may represent the sum of outlier days from many clients within an RPG.

Outlier Cases, Short Stay Rehab Cost Weight (AVG)

The average rehabilitation cost weight for lengths of stay less than or equal to the short-stay trim point for a particular RPG, as described by CIHI's RPG Case Mix Methodology.

Weighted Cases (COUNT)

Calculated as the average cost weight, multiplied by the number of complete episodes. An episode is considered complete when both the admission and discharge records have been received by CIHI and the discharge date falls in the current reporting quarter.

Clients Achieving Partial or Full Community Reintegration (RNLI)

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 5. Clients Achieving Partial or Full Community Reintegration

The Reintegration to Normal Living Index (RNLI) measures a client's perception of his or her post-rehabilitation capabilities in terms of self-care, work, social activities and relationships, etc. This indicator calculates the number and percentage of clients who scored either 1 (Partial Integration) or 2 (Full Integration) on follow-up for each RNLI domain:

- Move around living quarters
- Move around community
- Take trips out of town
- Comfortable with how self-care needs are met
- Spend most days occupied in work activity
- Able to participate in recreational activities
- Participate in social activities

- Assume a role in family which meets self and family needs

- Comfortable with personal relationships

- Comfortable with self in the company of others

- Can deal with life events as they happen

Inclusions/exclusions: Requires completion of all RNLI domains on the follow-up assessment. Results are reported at the facility, peer and national levels.

Interpretation considerations: The scoring scale for this tool was adapted with permission from the original tool developed by S. Wood-Dauphinee.

Available metrics: Count, percent

Clients Achieving Service Goals

Available in

- NRS Comparative Reports > Outcomes at Discharge > 3. Clinical Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Follow-Up

This indicator reports on those clients at discharge who have met the rehabilitation goals set by the client and the rehabilitation team at the beginning of the rehabilitation stay. It is reported as an overall number and as a percentage of all clients.

Inclusions/exclusions: The indicator is calculated based on all discharge records with 31 Reason for Discharge coded as 1 or 2 (Goals met and client discharged/transferred). Records with Admission Class = 4 (Un)planned discharge without assessment are not included in the percentage calculation of this indicator.

Interpretation considerations: The team determines whether or not a client has met his or her rehabilitation goals at the time of discharge. These goals are ideally developed at admission and are functional and measurable. A client who has met the majority of the goals at the time of discharge can be considered to have "met" the goals. Note that meeting rehabilitation goals does not necessarily imply a return to a client's pre-injury level of function, but only that the client has progressed as anticipated by the team.

Available metrics: Count, percent

Clients Admitted

Available in

- NRS Comparative Reports > Admissions Profile > Reports 1 to 6
- NRS Analytical Reports > Admissions Profile

Clients admitted to rehabilitation in a particular reporting period.

Available metrics: Count, percent

Clients Discharged

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Comparative Reports > Outcomes at Discharge > 4. Discharge Destination
- NRS Analytical Reports > Outcomes at Discharge

Clients discharged from rehabilitation in a particular reporting period.

Inclusions/exclusions: Clients with Admission Class = 4 or Discharge Reason = 8 are excluded from this count.

Available metrics: Count, percent

Clients Discharged Home Who Were Home Prior to Admission

Available in

- NRS Quick Indicators > 8. Percent Discharged Home Who Were Home Prior to Admission Across Rehabilitation Client Groups (RCGs)
- NRS Analytical Reports > Outcomes at Discharge

This indicator looks at the percentage of clients returning home on discharge from rehabilitation who were living at home prior to admission. Requires completion of 14 Pre-Hospital Living Setting and 15 Post-Discharge Living Setting.

Inclusions/exclusions: The numerator for the percentage calculation includes all records in which both the Pre-Hospital Living Setting and the Post-Discharge Living Setting = 1 or 2 or 3 (home). The denominator is the number of discharged clients who had admission records with Pre-Hospital Living Setting = 1 or 2 or 3. Clients with Admission Class = 4 or Discharge Reason = 8 are excluded from this denominator.

Available metrics: Count, percent

Clients Home Prior to Admission

Available in

- NRS Analytical Reports > Outcomes at Discharge

This indicator looks at the count of clients who were home prior to their inpatient rehabilitation stay. Requires completion of 14 Pre-Hospital Living Setting.

Inclusions/exclusions: This metric includes all records in which clients had Pre-Hospital Living Setting = 1, 2 or 3. Clients with Admission Class = 4 or Discharge Reason = 8 are excluded from this count.

Available metrics: Count

Clients Followed Up

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 1. Follow-Up Living Arrangements
- NRS Comparative Reports > Outcomes at Follow-Up > 2. Follow-Up Living Setting
- NRS Analytical Reports > Outcomes at Follow-Up

Clients who received a follow-up assessment in a particular reporting period.

Available metrics: Count, percent

Clients Hospitalized Since Discharge

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 3. Client Follow-Up Count
- NRS Analytical Reports > Outcomes at Follow-Up

The number and percentage of follow-up clients with data element 73A Hospitalization Since Discharge = 1 (Yes), out of the total number of follow-up assessments reported.

Inclusions/exclusions: Response codes -50 (Not available) and -70 (Unknown) are included in the denominator for percentage calculations.

Interpretation considerations: This indicator describes only the proportion of rehospitalizations since discharge from rehabilitation. Although the length of stay in hospital and reason for hospitalization are collected on follow-up, these indicators are not reported at the aggregate level.

Available metrics: Count, percent

Clients Maintaining Function Score Gain

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 3. Client Follow-Up Count
- NRS Analytical Reports > Outcomes at Follow-Up

The number and percentage of clients with a Follow-Up Total Function Score equal to or greater than their Discharge Total Function Score, for all follow-up assessments reported. For details on the calculation of this indicator, see Total Function Score in the section Summary Functional Assessment Scores.

Inclusions/exclusions: Requires completion of elements 41 to 58 on both the discharge and follow-up assessments.

Interpretation considerations: These scores may give some indication of the proportion of clients maintaining their functional levels post-discharge. For facilities that choose to follow up only a specific client segment, the results may not be representative of all clients discharged from that facility.

Available metrics: Count, percent

Clients Maintaining General Health Status

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 3. Client Follow-Up Count
- NRS Analytical Reports > Outcomes at Follow-Up

The number and percentage of follow-up clients reporting the same or improved 70 General Health Status at the follow-up assessment as compared with the discharge assessment. An example of improved health status would be a report of Fair on discharge and Good at follow-up.

Inclusions/exclusions: This indicator requires completion of element 70 on both the discharge and follow-up assessments. Records with a response code of 8 (Unable to assess) for either the discharge or follow-up assessment are not included in the calculation of N. Follow-up records with element 70 = 8 (Unable to assess) are included in the denominator for percentage calculations.

Interpretation considerations: This indicator may give some indication of the proportion of clients reporting maintained or improved health status on follow-up. For facilities that choose to follow up only a specific client segment, the results may not be representative of all clients discharged from that facility.

Available metrics: Count, percent

Clients Reporting Improved Health Status

Available in

- NRS Comparative Reports > Outcomes at Discharge > 3. Clinical Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Discharge

The number and percentage of clients reporting improved 70 General Health Status on the discharge assessment compared with the admission assessment. This is one of the outcome indicators in the NRS and is based on a client-reported data element. This data element was derived from the 1996 National Population Health Survey developed by Statistics Canada. An example of improved health status would be a client who had reported his or her health status as Poor on admission, then reporting it as Good at discharge. This indicator requires completion of data element 70 on both the admission and discharge assessments.

Inclusions/exclusions: The N value excludes records with a response code of 8 (Unable to assess) on data element 70 for either the admission or discharge assessment. The denominator for the percentage calculation includes all discharge records.

Interpretation considerations: This indicator describes only those clients reporting an improvement in health status over the course of the rehabilitation stay. The balance of the percentage value represents clients who reported either no change in health status or a worsening of health status from admission to discharge, or who were unable to be assessed for that element. Additionally, the General Health Status data element is based on the client's perception of his or her overall health status rather than on a measured observation and therefore has a qualitative nature.

Available metrics: Count, percent

Clients Reporting Improvement in Pain

Available in

- NRS Comparative Reports > Outcomes at Discharge > 3. Clinical Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Discharge

The number and percentage of clients reporting pain on admission who reported either less pain or no pain on the discharge assessment, based on the results coded for elements 59A–C Impact of Pain. These elements were derived from the 1996 National Population Health Survey developed by Statistics Canada. This is one of the outcome indicators in the NRS and is based on client reporting.

The indicator is calculated based on the Pain Score: the sum of the scores from data elements 59B (Intensity of Pain/Discomfort) and 59C (Activity Limitation Due to Pain/Discomfort). The score ranges from 4 to 9, where 4 is severe pain with most activities restricted and 9 is mild pain with no activity restrictions. This indicator is calculated using all records for which Presence of Pain (59A) = Yes on admission, and where the difference between Pain Score on admission and Pain Score on discharge is positive (i.e., a smaller number on admission than on discharge).

Inclusions/exclusions: Records are excluded where 59A = Client Unable to Answer on the admission and/or discharge assessment.

Interpretation considerations: This indicator describes only those clients showing an increase in Pain Score over the course of the rehabilitation stay. Note that a higher Pain Score in this case represents less overall pain and/or fewer activities restricted by pain. The balance of the percentage value represents clients who showed either no change in Pain Score or a decrease in Pain Score from admission to discharge, or who were unable to be assessed for that element. Additionally, data element 59 Impact of Pain is based on the client's perception of the overall pain level rather than on a measured observation and therefore has a qualitative nature.

Available metrics: Count, percent

Clients Reporting Worsening of Pain

Available in

- NRS Comparative Reports > Outcomes at Discharge > 3. Clinical Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Discharge

The number and percentage of clients reporting pain on discharge who had reported no pain on the admission assessment, or those reporting a greater degree of pain on discharge than was recorded on admission. Comparison is based on the results coded for data elements 59A–C Impact of Pain. These elements were derived from the 1996 National Population Health Survey developed by Statistics Canada. This is one of the outcome indicators in the NRS and is based on client reporting.

The indicator is calculated based on Presence of Pain (59A) and on the Pain Score: the sum of the scores from data elements 59B (Intensity of Pain/Discomfort) and 59C (Activity Limitation Due to Pain/Discomfort). The Pain Score ranges from 4 to 9, where 4 is severe pain with most activities restricted and 9 is mild pain with no activity restrictions. This indicator is calculated using all records where Presence of Pain (59A) = Yes on discharge and/or where the Pain Score has decreased from admission to discharge (i.e., a larger number on admission than on discharge).

Inclusions/exclusions: Records are excluded where 59A = Client Unable to Answer on the admission and/or discharge assessment.

Interpretation considerations: This indicator describes only those clients having pain on discharge who did not have pain on admission or those showing a decrease in Pain Score over the course of the rehabilitation stay. Note that a higher Pain Score in this case represents less overall pain and/or fewer activities restricted by pain. The balance of the percentage value represents clients who showed either no change in Pain Score or an increase in Pain Score from admission to discharge, or who were unable to be assessed for that data element. Additionally, data element 59 Impact of Pain is based on the client's perception of the overall pain level rather than on a measured observation and therefore has a qualitative nature.

Available metrics: Count, percent

Clients With a Complete Admission and Discharge CIHI Cognitive Instrument Assessment

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics

- NRS Analytical Reports > Outcomes at Discharge

The total number of clients who had a CIHI Cognitive assessment at the time of discharge.

Available metrics: Count

Clients With a Complete Discharge FIM® instrument Assessment

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics

- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Resource Utilization

The total number of clients who had a FIM® instrument assessment at the time of discharge.

Available metrics: Count

Clients With Service Interruptions

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics

- NRS Analytical Reports > Outcomes at Discharge

The total number of clients who had at least one service interruption in a particular reporting period. Occurs when a client is unable to participate in the rehabilitation program due to a health condition that may or may not result in a transfer out of the rehabilitation bed or unit. Service interruptions are generally coded only when the client misses more than one day of active rehabilitation and the condition is felt to impact the client's progress in rehabilitation. This does not include weekend passes to visit family at home or temporary bed closures.

Available metrics: Count

Data Quality Indicators

Available in

- NRS Quick Indicators > 10. Data Quality Indicators Report

4 data quality indicators are provided in this grid-formatted report. Columns indicating facility, peer and national values are provided. The indicators are expressed as both the number of records used in the calculation (N) and as percentages. The 4 indicators are a subset of the indicators in the NRS Data Quality Report for Provinces/Territories, which is completed on an annual basis and sent to the deputy ministers of health of each province and territory in an effort to raise awareness of and highlight data quality issues. If the report does not show data for one or more of these indicators, it is because the facility does not have any data to show for that fiscal period. The 4 data quality indicators are described below.

Unknown Referred to Facility Number

This indicator identifies the number of episodes where Referred to Facility Number is coded as Unknown, as calculated below:

$A \div B \times 100$ (expressed as a percentage), where

A = The sum of episodes with 99999 (Unknown) coded for data element Referred to Facility Number, by facility.

B = The total number of episodes where data element Referred to Facility Number is mandatory, by facility.

Interpretation considerations: A lower rate for this indicator enhances the ability to monitor post-discharge referral patterns using NRS data.

Unknown Health Care Number

This indicator assesses the extent to which the values -50 or -70 are coded for Health Care Number, which may indicate potentially missing data. Although they are valid responses, -50 or -70 may limit the potential usefulness of related analyses. CIHI encourages participating facilities to submit health care numbers whenever possible.

The indicator is calculated as

$A \div B \times 100$ (expressed as a percentage), where

A = The sum of admission records in the reporting period with -50 (Not available) or -70 (Unknown) coded for Health Care Number.

B = The total number of admission records in the reporting period.

Interpretation considerations: In the NRS, this data element facilitates greater specificity in tracking individual records within a particular episode. Monitoring the level of unknown or unavailable information for this element is important, as Health Care Number is one of the unique client identifiers on the NRS record that allows for identification and matching of paired records.

Unknown Date Ready for Admission

This indicator identifies the percentage of admission records with data element Date Ready for Admission coded as Unknown, as calculated below:

A ÷ B × 100 (expressed as a percentage), where

A = The number of admission records for clients admitted in the reporting period with Date Ready for Admission element (20A) coded as Unknown.

B = The total number of admission records (excluding unplanned discharges) for the reporting period, by facility.

Interpretation considerations: In the NRS, this data element is used to assess the time a person waits between the determination that they are suitable and ready for inpatient rehabilitation and their actual admission. This information can be used to monitor admission patterns and referral processes. Since Date Ready for Admission is used to calculate the Days Waiting for Admission indicator for various NRS reports, CIHI encourages participating facilities to collect the data element whenever possible. NRS records with this data element coded as Unknown are excluded from calculation of the Date Ready for Admission indicator.

Available metrics: Count, percent

Days Waiting for Admission

Available in

- NRS Quick Indicators > 1. Average Days Waiting for Admission Across RCGs
- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

The number of days between 20B Date Ready for Admission and 21 Admission Date. This is one of the NRS indicators pertaining to accessibility of rehabilitation services.

Inclusions/exclusions: Excludes admission records where element 20A Date Ready for Admission Known = 0 (No).

Interpretation considerations: Due to the option of indicating that Date Ready for Admission is not known, the number of records included in this calculation may be smaller than the overall number of records included in the report. Care should be taken when interpreting this indicator as being representative of the entire inpatient rehabilitation population. The Days Waiting for Admission indicator does not provide specific reasons for delays in admission to rehabilitation. Facilities wishing to track this indicator more closely may consider independently tracking specific reasons for delays in the admission process. A median value and an average value are provided for the Days Waiting for Admission to Rehabilitation indicator. Refer to the Average Onset Days indicator for information about comparing medians and averages.

Available metrics: Count, average (mean), median, 25th percentile, 75th percentile

Days Waiting for Discharge

Available in

- NRS Quick Indicators > 5. Average Days Waiting for Discharge Across RCGs
- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

The number of days from element 29 Date Ready for Discharge to element 30 Discharge Date. The Days Waiting for Discharge indicator describes the average number of days between the date that the client is deemed ready for discharge from the rehabilitation program and the date that he or she is formally discharged.

Inclusions/exclusions: Excludes records where element 29 Date Ready for Discharge is not completed. This element is mandatory to code when data element 31 Reason for Discharge is coded as 1 or 2 (Goals met and client discharged/transferred); otherwise, it is optional to record.

Interpretation considerations: This indicator does not provide specific reasons why delays may exist in discharge from rehabilitation. Facilities wishing to track this indicator more closely may consider independently tracking specific reasons for delays in the discharge process. A median value and an average value are provided for the Days Waiting for Discharge From Rehabilitation indicator. Refer to the Average Onset Days indicator for information about comparing medians and averages.

Available metrics: Average (mean), count, median, 25th percentile, 75th percentile

Length of Stay (LOS)

Available in

- NRS Quick Indicators > 6. Average Length of Stay (LOS) Across RCGs
- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up
- NRS Analytical Reports > Resource Utilization

The number of days from element 21 Admission Date to element 30 Discharge Date, minus any Service Interruption Days (if applicable) for each completed admission and discharge record pair, averaged over all records. Admission Date is included in the count of days for Admission Class 4; for example, Discharge Date minus Admission Date must be less than 4 days (0 to 3 days for a length of stay), including the admission date.

Inclusions/exclusions: Length of Stay **excludes** Service Interruption Days but **includes** Days Waiting for Discharge. Requires completion of element 21 on the admission assessment and 25A/B Service Interruption Dates (if applicable) and 30 on the discharge assessment. Depending on the report, (Un)planned discharges may be excluded, as the discharge record is not completed. Clients admitted and discharged on the same day have an LOS of 1 day.

Interpretation considerations: Length of Stay can be influenced by many factors, such as complexity of the cases accepted by the facility and number of days waiting for discharge due to delays in the discharge process. Care should be used when this indicator is used in isolation to compare between the facility, peer and national levels.

Available metrics: Average (mean), median, standard deviation, minimum, maximum, 25th percentile, 75th percentile, count

Length of Stay Efficiency

Available in

- NRS Quick Indicators > 7. Average Length of Stay (LOS) Efficiency Across RCGs

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions

- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Follow-Up

- NRS Analytical Reports > Resource Utilization

The change in Total Function Score **per day** of client participation in the rehabilitation program. Calculation is based on Total Function Score Change divided by LOS for **each client**, averaged over the number of clients. As with the LOS indicator, Service Interruption Days are not included.

Inclusions/exclusions: Requires completion of elements 41 to 58 (all FIM® instrument items) on both the admission and discharge assessments, 21 Admission Date on the admission assessment and 25A/B Service Interruption Dates (if applicable) and 30 Discharge Date on the discharge assessment.

Interpretation considerations: The LOS Efficiency indicator is based on 2 other NRS indicators (change in Total Function Score and LOS), both of which can be influenced by multiple factors. Care should be exercised when comparing facilities' results for this indicator.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

Onset Days

Available in

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions

- NRS Analytical Reports > Admissions Profile

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Follow-Up

The number of days from element 39 Date of Onset to element 21 Admission Date. This indicator describes the average length of time (in days) between the onset of or the exacerbation of the rehabilitation condition and the date of entry into the rehabilitation program.

Inclusions/exclusions: Records where the Date of Onset is left blank are excluded (this element is not mandatory to code if 19A Admission Class = 4 [Un]planned discharge).

Interpretation considerations: Large differences between the average value and the median value for Onset Days may be due to the presence of very high values in the data set. Date of Onset for chronic conditions is sometimes erroneously coded as the date that the condition was first diagnosed, rather than the date of the most recent exacerbation. For example, if a client was admitted to rehabilitation on December 30, 2015, for treatment of an exacerbation of multiple sclerosis and the Date of Onset was coded as June 2011 (date of diagnosis) rather than December 12, 2015 (date of onset of exacerbation), then the submitted Onset Days value for that client will be extremely high and will skew the resulting average for this indicator.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

Patient Days

Available in

- NRS Comparative Reports > Resource Utilization > RPG Patient Days reports
- NRS Analytical Reports > Resource Utilization > RPG Patient Days reports

Available metrics: Count of clients, count of days

Patient Days Clients (COUNT)

The number of clients included in an RPG Patient Days Report. Generally, this is the number of clients receiving inpatient rehabilitation, or occupying rehab beds, at any time during the reporting period of interest.

Inclusions/exclusions: Clients admitted prior to April 1, 2008, who still have no discharge date recorded are excluded.

Patient Days (COUNT)

The number of days clients were in the rehabilitation bed for a particular RPG during the reporting period (e.g., fiscal quarter or year). This indicator is different than Length of Stay, which can be calculated for complete (i.e., discharged) episodes only. Patient Days are calculated for all complete episodes as well as for incomplete episodes with admission dates in 2008–2009 or later.

Calculation: For episodes that started and ended within the reporting period, all days are counted. For episodes that started prior to the start of the reporting period and ended within the reporting period, days from the start of the reporting period to the discharge date are counted.

For episodes that started within the reporting period and ended after the reporting period, only days from the admission date to the end of the reporting period are counted. For episodes that started prior to the reporting period and ended after the reporting period, all days within the reporting period are counted. Episodes that started prior to April 1, 2008, and presently remain incomplete (i.e., no discharge date present) do not accrue Patient Days. These episodes are considered to be open in error and including them in these calculations would inappropriately inflate the number of Patient Days.

Inclusions/exclusions: Includes clients admitted in the reporting period or prior to the reporting period and who continued to receive inpatient rehabilitation services in the reporting period. For incomplete episodes that started prior to April 1, 2008, Patient Days are not calculated, as described above.

Interpretation considerations: Facilities may want to use this information to make high-level comparisons with their MIS statistical data for rehabilitation activity reported to the NRS.

Post-Admit Comorbid Health Condition ICD-10-CA

Available in

- NRS Analytical Reports > Outcomes at Discharge

Health conditions that arise after admission and during the rehabilitation stay that affect the client's health/functional status and resource requirements during the rehabilitation program. This includes post-admit complications and/or comorbid conditions that delay, interrupt or compromise the effectiveness of the rehabilitation program or represent high medical risk disorders (e.g., previous cardiac arrest, pulmonary embolus, ruptured aneurysm). Includes conditions of short duration that were resolved during the stay and conditions that persist at discharge.

The number of post-admit comorbid health conditions coded at discharge from inpatient rehabilitation. A total of 15 post-admit comorbid health conditions can be coded at discharge for each client.

Inclusions/exclusions: It is mandatory to record a health condition that arises after admission and during the rehabilitation stay that affects the client's health/functional status and resource requirements during the rehabilitation program.

Interpretation considerations: This indicator reflects comorbid health conditions that arose during the patient's rehabilitation stay. There is a potential data quality issue surrounding inaccurate coding of existing comorbidities twice (at both admission and discharge). As such, some post-admit comorbidities may not be true post-admit comorbidities. Post-admit comorbidities are likely overestimated. Care should be exercised when comparing this indicator between facilities/jurisdictions.

Available metrics: Count

Pre-Admit Comorbid Health Condition ICD-10-CA

Available in

- NRS Analytical Reports > Admissions Profile

- NRS Analytical Reports > Outcomes at Discharge

Existing health conditions present at the time of rehabilitation admission that affect the client's health/functional status and resource requirements during the rehabilitation program. This includes pre-admit complications and/or comorbid conditions that delay, interrupt or compromise effectiveness of the rehabilitation program or represent disorders of high medical risk (e.g., previous cardiac arrest, pulmonary embolus, ruptured aneurysm).

The number of pre-admit comorbid health conditions coded at admission to inpatient rehabilitation. A total of 15 pre-admit comorbid health conditions can be coded at admission for each client.

Inclusions/exclusions: It is mandatory to record existing health condition(s) present at the time of admission to facility/unit that affect the client's health/functional status and resource requirements during the rehabilitation program.

Interpretation considerations: Pre-admit comorbid health conditions are meant to reflect only those that affect the client's health/functional status and resource requirements during the rehabilitation program. Chronic or other conditions that do not meet these criteria may be inappropriately captured; this may lead to over-coding of some conditions. Conversely, comorbidities may not always be coded as often as they should, for a variety of reasons. Care should be exercised when comparing this indicator between facilities/jurisdictions.

Available metrics: Count

Rehabilitation Intensity Indicators

Complete Rehab Time Data Expected

Available in

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Resource Utilization

The number of submitted discharge records in which complete rehabilitation time data (elements 91A–91F) is expected — that is, discharges from Ontario facilities where RCG = Stroke and the Admission Date is April 1, 2015, or later.

Inclusions/exclusions: Episodes with an Admission Class = 4 (Un)planned discharge without assessment do not have the option of submitting rehabilitation time data and are excluded from this indicator.

Available metrics: Count

Complete Rehab Time Data Submitted

Available in

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Resource Utilization

The number of submitted **discharge records** in which complete rehabilitation time data **is captured** for each of the data elements 91A–91F. Episodes containing 99999 or blanks for any of these 6 data elements are excluded.

Inclusions/exclusions: Episodes with an Admission Class = 4 ([Un]planned discharge without assessment) do not have the option of submitting rehabilitation time data and are excluded from this indicator. Counts are available for all RCGs and provinces, regardless of whether capture of rehabilitation time was mandatory or not.

Interpretation considerations: As this metric does not take into consideration whether the rehabilitation time coded was mandatory or not, there may be non-stroke RCGs and/or episodes from outside of Ontario represented in the count. Facilities incorrectly coding 99999 where they should be coding 0, or vice versa, will impact the accuracy of this metric.

Available metrics: Count

Rehab Intensity With an Occupational Therapist

Available in

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Resource Utilization

Calculated based on the amount of time, in minutes, that clients spent in direct/active 1:1 therapy with an occupational therapist during their rehabilitation stay (as captured in data element 91A) divided by the clients' Active Rehab Length of Stay (ALOS). The calculation is completed for **each episode of care** and then averaged over the number of NRS episodes in the sample of interest. As the calculation uses ALOS, Service Interruption Days and Days Waiting for Discharge are not included.

Inclusions/exclusions: This metric requires that complete Rehabilitation Time data be captured on discharge for an NRS episode to be included. Episodes with an Admission Class = 4 ([Un]planned discharge without assessment) do not have the option of submitting rehabilitation time data and are excluded from this indicator. Data elements 91A–91F must each contain valid, non-null responses for the episode to be included in the calculations. Episodes with 0 minutes recorded are included; episodes with blanks/nulls and 99999 (i.e., not available) are excluded.

Interpretation considerations: This metric is meant to show the amount of direct/active 1:1 therapy time, in minutes, spent with an occupational therapist per day of active rehab therapy. This measure is not meant to invalidate the time that clients spent in group therapy or with other health care providers, nor are they shown in reference to any best practice guidelines. Facilities incorrectly coding 99999 where they should be coding 0, or vice versa, may impact the accuracy of the metric. Data elements 91A–91F are mandatory only for stroke episodes in Ontario facilities; therefore, minimal data for other Rehabilitation Client Groups (RCGs) and/or provinces is expected initially.

Available metrics: Average (mean), median, standard deviation

Rehab Intensity With a Physiotherapist

Available in

- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Resource Utilization

Calculated based on the amount of time, in minutes, that clients spent in direct/active 1:1 therapy with a physiotherapist during their rehabilitation stay (as captured in data element 91B) divided by the clients' Active Rehab Length of Stay (ALOS). The calculation is completed for **each episode of care** and then averaged over the number of NRS episodes in the sample of interest. As the calculation uses ALOS, Service Interruption Days and Days Waiting for Discharge are not included.

Inclusions/exclusions: This metric requires that complete Rehabilitation Time data be captured on discharge for an NRS episode to be included. Episodes with an Admission Class = 4 ([Un]planned discharge without assessment) do not have the option of submitting rehabilitation time data and are excluded from this indicator. Data elements 91A–91F must each contain valid, non-null responses for the episode to be included in the calculations. Episodes with 0 minutes recorded are included; episodes with blanks/nulls and 99999 (i.e., not available) are excluded.

Interpretation considerations: This metric is meant to show the amount of direct/active 1:1 therapy time, in minutes, spent with a physiotherapist per day of active rehab therapy. This measure is not meant to invalidate the time that clients spent in group therapy or with other health care providers, nor are they shown in reference to any best practice guidelines. Facilities incorrectly coding 99999 where they should be coding 0, or vice versa, may impact the accuracy of the metric. Data elements 91A–91F are mandatory only for stroke episodes in Ontario facilities; therefore, minimal data for other Rehabilitation Client Groups (RCGs) and/or provinces is expected initially.

Available metrics: Average (mean), median, standard deviation

Rehab Intensity With a Speech–Language Pathologist

Available in

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Resource Utilization

Calculated based on the amount of time, in minutes, that clients spent in direct/active 1:1 therapy with a speech–language pathologist during their rehabilitation stay (as captured in data element 91C) divided by the clients' Active Rehab Length of Stay (ALOS). The calculation is completed for **each episode of care** and then averaged over the number of NRS episodes in the sample of interest. As the calculation uses ALOS, Service Interruption Days and Days Waiting for Discharge are not included.

Inclusions/exclusions: This metric requires that complete Rehabilitation Time data be captured on discharge for an NRS episode to be included. Episodes with an Admission Class = 4 ([Un]planned discharge without assessment) do not have the option of submitting rehabilitation time data and are excluded from this indicator. Data elements 91A–91F must each contain valid, non-null responses for the episode to be included in the calculations. Episodes with 0 minutes recorded are included; episodes with blanks/nulls and 99999 (i.e., not available) are excluded.

Interpretation considerations: This metric is meant to show the amount of direct/active 1:1 therapy time, in minutes, spent with a speech–language pathologist per day of active rehab therapy. This measure is not meant to invalidate the time that clients spent in group therapy or with other health care providers, nor are they shown in reference to any best practice guidelines. Facilities incorrectly coding 99999 where they should be coding 0, or vice versa, may impact the accuracy of the metric. Data elements 91A–91F are mandatory only for stroke episodes in Ontario facilities; therefore, minimal data for other Rehabilitation Client Groups (RCGs) and/or provinces is expected initially.

Available metrics: Average (mean), median, standard deviation

Rehab Intensity With an Occupational Therapist Assistant

Available in

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Resource Utilization

Calculated based on the amount of time, in minutes, that clients spent in direct/active 1:1 therapy with an occupational therapist assistant during their rehabilitation stay (as captured in data element 91D) divided by the clients' Active Rehab Length of Stay (ALOS). The calculation is completed for **each episode of care** and then averaged over the number of NRS episodes in the sample of interest. As the calculation uses ALOS, Service Interruption Days and Days Waiting for Discharge are not included.

Inclusions/exclusions: This metric requires that complete Rehabilitation Time data be captured on discharge for an NRS episode to be included. Episodes with an Admission Class = 4 (Un)planned discharge without assessment do not have the option of submitting rehabilitation time data and are excluded from this indicator. Data elements 91A–91F must each contain valid, non-null responses for the episode to be included in the calculations. Episodes with 0 minutes recorded are included; episodes with blanks/nulls and 99999 (i.e., not available) are excluded.

Interpretation considerations: This metric is meant to show the amount of direct/active 1:1 therapy time, in minutes, spent with an occupational therapist assistant per day of active rehab therapy. This measure is not meant to invalidate the time that clients spent in group therapy or with other health care providers, nor are they shown in reference to any best practice guidelines. Facilities incorrectly coding 99999 where they should be coding 0, or vice versa, may impact the accuracy of the metric. Data elements 91A–91F are mandatory only for stroke episodes in Ontario facilities; therefore, minimal data for other Rehabilitation Client Groups (RCGs) and/or provinces is expected initially.

Available metrics: Average (mean), median, standard deviation

Rehab Intensity With a Physiotherapist Assistant

Available in

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Resource Utilization

Calculated based on the amount of time, in minutes, that clients spent in direct/active 1:1 therapy with a physiotherapist assistant during their rehabilitation stay (as captured in data element 91E) divided by the clients' Active Rehab Length of Stay (ALOS). The calculation is completed for **each episode of care** and then averaged over the number of NRS episodes in the sample of interest. As the calculation uses ALOS, Service Interruption Days and Days Waiting for Discharge are not included.

Inclusions/exclusions: This metric requires that complete Rehabilitation Time data be captured on discharge for an NRS episode to be included. Episodes with an Admission Class = 4 (Un)planned discharge without assessment do not have the option of submitting rehabilitation time data and are excluded from this indicator. Data elements 91A–91F must each contain valid, non-null responses for the episode to be included in the calculations. Episodes with 0 minutes recorded are included; episodes with blanks/nulls and 99999 (i.e., not available) are excluded.

Interpretation considerations: This metric is meant to show the amount of direct/active 1:1 therapy time, in minutes, spent with a physiotherapist assistant per day of active rehab therapy. This measure is not meant to invalidate the time that clients spent in group therapy or with other health care providers, nor are they shown in reference to any best practice guidelines. Facilities incorrectly coding 99999 where they should be coding 0, or vice versa, may impact the accuracy of the metric. Data elements 91A–91F are mandatory only for stroke episodes in Ontario facilities; therefore, minimal data for other Rehabilitation Client Groups (RCGs) and/or provinces is expected initially.

Available metrics: Average (mean), median, standard deviation

Rehab Intensity With a Communicative Disorders Assistant

Available in

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Resource Utilization

Calculated based on the amount of time, in minutes, that clients spent in direct/active 1:1 therapy with a communicative disorders assistant during their rehabilitation stay (as captured in data element 91F) divided by the clients' Active Rehab Length of Stay (ALOS). The

calculation is completed for **each episode of care** and then averaged over the number of NRS episodes in the sample of interest. As the calculation uses ALOS, Service Interruption Days and Days Waiting for Discharge are not included.

Inclusions/exclusions: This metric requires that complete Rehabilitation Time data be captured on discharge for an NRS episode to be included. Episodes with an Admission Class = 4 (Un)planned discharge without assessment do not have the option of submitting rehabilitation time data and are excluded from this indicator. Data elements 91A–91F must each contain valid, non-null responses for the episode to be included in the calculations. Episodes with 0 minutes recorded are included; episodes with blanks/nulls and 99999 (i.e., not available) are excluded.

Interpretation considerations: This metric is meant to show the amount of direct/active 1:1 therapy time, in minutes, spent with a communicative disorders assistant per day of active rehab therapy. This measure is not meant to invalidate the time that clients spent in group therapy or with other health care providers, nor are they shown in reference to any best practice guidelines. Facilities incorrectly coding 99999 where they should be coding 0, or vice versa, may impact the accuracy of the metric. Data elements 91A–91F are mandatory only for stroke episodes in Ontario facilities; therefore, minimal data for other Rehabilitation Client Groups (RCGs) and/or provinces is expected initially.

Available metrics: Average (mean), median, standard deviation

Total Rehab Intensity

Available in

- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Resource Utilization

Calculated as the **total amount** of time, in minutes, that clients spent in direct/active 1:1 therapy with an occupational therapist, physiotherapist, speech–language pathologist, occupational therapy assistant, physiotherapy assistant and communicative disorders assistant during their rehabilitation stay (as captured in data elements 91A–91F), divided by their Active Rehab Length of Stay (ALOS). The calculation is completed for **each episode of care** and then averaged over the number of NRS episodes in the sample of interest. As the calculation uses ALOS, Service Interruption Days and Days Waiting for Discharge are not included.

Inclusions/exclusions: This metric requires that complete Rehabilitation Time data be captured on discharge for an NRS episode to be included. Episodes with an Admission Class = 4 (Un)planned discharge without assessment do not have the option of submitting rehabilitation time data and are excluded from this indicator. Data elements 91A–91F must each contain

valid, non-null responses for the episode to be included in the calculations. Episodes with 0 minutes recorded are included; episodes with blanks/nulls and 99999 (i.e., not available) are excluded.

Interpretation considerations: This measure is meant to show the **total amount** of direct/active 1:1 therapy time, in minutes, summed across **all** of the identified health care providers (OT, PT, SLP, OTA, PTA, CDA; data elements 91A–91F) per day of active rehab therapy. This measure is not meant to invalidate the time that clients spent in group therapy or with other health care providers, nor is it shown in reference to any best practice guidelines. Facilities incorrectly coding 99999 where they should be coding 0, or vice versa, may impact the accuracy of the metrics. Data elements 91A–91F are mandatory only for stroke episodes in Ontario facilities; therefore, minimal data for other RCGs and/or provinces is expected initially.

Available metrics: Average (mean), median, standard deviation, 25th percentile, 75th percentile

Sex

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics

Describes the percentage of total clients discharged that are male and the percentage that are female. The denominator used for the percentage calculation includes clients who have identified as Other, where applicable.

Available metrics: Percent

Total Service Interruptions

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

The total number of service interruptions experienced by clients at the facility in the given reporting period. A service interruption occurs when a client is unable to participate in the rehabilitation program due to a health condition that may or may not result in a transfer out of the rehabilitation bed or unit. Service interruptions are generally coded only when the client misses more than one day of active rehabilitation and the condition is felt to impact the client's progress in rehabilitation. This does not include weekend passes to visit family at home or temporary bed closures.

Available metrics: Count

Total Service Interruption Days

Available in

- NRS Comparative Reports > Outcomes at Discharge > 5. Length of Stay and Service Interruptions
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

The number of days occurring during service interruptions (SIs). Total SI Days is calculated by summing the number of days in each reported service interruption (the difference between 25B SI End Date and 25A SI Start Date).

Inclusions/exclusions: In some cases, the metrics associated with this indicator refer to SI Days in a given episode. For instance, SI Days (MAX) refers to the maximum number of SI Days that occurred in a client episode of care. SI Days (AVG), however, refers to the average number of SI Days per SI.

Available metrics: Average (mean), standard deviation, minimum, maximum, count

Weight (kg) at Admission

Available in

- NRS Comparative Reports > Outcomes at Discharge > 1. Client Demographics
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

A client's recorded body weight at admission, in kilograms (kg).

Inclusions/exclusions: Weight metrics are shown in NRS eReports only for fiscal years 2009–2010 and later due to changes in NRS coding specifications put in place at that time.

Available metrics: Average (mean), median, standard deviation, minimum, maximum, 25th percentile, 75th percentile

6.3 NRS Summary Functional Assessment Scores Definitions

The summary functional assessment scores below are the basic score calculations for both the FIM® instrument and CIHI Cognitive data elements. Variations of these scores appear throughout the reports.

Note: The functional assessment metrics found in the NRS eReports contain an **A, AD** or **ADF** at the end of their names. These letters have been added to help users identify the client population that is being used for the calculation of the metric.

- **A** — clients who have complete functional assessment scores on their admission records
- **AD** — clients who have complete functional assessment scores at both admission and discharge
- **ADF** — clients who have complete assessments on all admission, discharge and follow-up records

Total Function Score at Admission

Available in

- NRS Quick Indicators > 2. Average Admission Total Function Score Across RCGs
- NRS Comparative Reports > Admissions Profile > 7. Functional Status at Admission to Facility
- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up
- NRS Analytical Reports > Resource Utilization > RPG Case Mix and Functional Status

Total Function Score is the sum of the scores from the 18 FIM® instrument elements (41 to 58, inclusive, in the data set). Each element has a minimum score of 1 and a maximum score of 7, resulting in a value range of 18 to 126. This metric is the sum of the Total Function Scores for each admission record included in the report, divided by the number of admission records. Requires completion of all FIM® instrument data elements (41 to 58) on the admission assessment.

Inclusions/exclusions: The Total Function Score is calculated from records containing complete FIM® instrument codes for data elements 41 to 58, inclusive. Records without a completed FIM® instrument assessment — for example, records with Admission Class = 4 ([Un]planned discharge without assessment) — are excluded.

Interpretation considerations: Total Function Score at Admission can be compared at the facility, peer and national levels, or with the Average Discharge Function Score for that facility. Refer to the NRS Rehabilitation Minimum Data Set Manual for more detailed information on coding the various FIM® instrument elements. A more complete picture of client function can be obtained by breaking down the Total Function Score into its motor and cognitive components (see below).

Available metrics: Average (mean), median, standard deviation, minimum, maximum

Total Function Score at Discharge

Available in

- NRS Quick Indicators > 3. Average Discharge Total Function Score Across RCGs
- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Comparative Reports > Resource Utilization > 5. Functional Status Gain by RPG
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up
- NRS Analytical Reports > Resource Utilization > RPG Case Mix and Functional Status

Total Function Score is the sum of the scores from the 18 FIM® instrument elements (41 to 58, inclusive, in the data set). Each element has a minimum score of 1 and a maximum score of 7, resulting in a value range of 18 to 126. This metric is the sum of the Total Function Scores for each discharge record included in the report, divided by the number of discharge records. Requires completion of all FIM® instrument elements (41 to 58) on the discharge assessment.

Inclusions/exclusions: Total Function Score is calculated from records containing complete FIM® instrument codes for data elements 41 to 58, inclusive. Records without a completed FIM® instrument assessment — for example, records with Admission Class = 4 ([Un]planned discharge without assessment) — are excluded.

Interpretation considerations: Average Discharge Function Score can be compared at the facility, peer and national levels, or with the average Admission Function Score for that facility. The score should be considered along with indicator distributions such as Rehabilitation Client Group, Reason for Discharge, Discharge Living Setting and Arrangement to give a clearer picture of the typical discharge situation for a rehabilitation client. Refer to the NRS Rehabilitation Minimum Data Set Manual for more detailed information on coding the various FIM® instrument elements. A more complete picture of client function can be obtained by breaking down the Total Function Score into its motor and cognitive components (see below).

Available metrics: Average (mean), median, standard deviation, minimum, maximum

Total Function Score at Follow-Up

Available in

- NRS Quick Indicators > 9. Average Follow-Up Total Function Score Across RCGs

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up

- NRS Analytical Reports > Outcomes at Follow-Up

Total Function Score is the sum of the scores from the 18 FIM® instrument elements (41 to 58, inclusive, in the data set). Each element has a minimum score of 1 and a maximum score of 7, resulting in a value range of 18 to 126. This metric is the sum of the Total Function Scores for all follow-up records submitted.

Inclusions/exclusions: Total Function Score is calculated from records containing complete FIM® instrument codes for data elements 41 to 58, inclusive. Records without a completed FIM® instrument assessment — for example, records with Admission Class = 4 ([Un]planned Discharge without assessment) — are excluded. Requires completion of data elements 41 to 58 on the follow-up assessment.

Interpretation considerations: Total Function Score at Follow-Up can be compared with Total Function Score at Discharge as an aggregate outcome measurement. Refer to the *NRS Rehabilitation Minimum Data Set Manual* for more detailed information on coding the various FIM® instrument elements. A more complete picture of client function can be obtained by breaking down the Total Function Score into its motor and cognitive components (see below).

Available metrics: Average (mean), median, standard deviation

Total Function Score Change

Available in

- NRS Quick Indicators > 4. Average Change in Total Function Score Across RCGs

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Resource Utilization > RPG Case Mix and Functional Status

Describes the average change in Total Function Score from admission to discharge. This is the difference between the Admission Function Score and Discharge Function Score for each client episode, averaged for all episodes. See Total Function Score in Section 6.3, NRS Summary Functional Assessment Scores Definitions for more details on this indicator.

Inclusions/exclusions: Requires completion of all FIM® instrument elements (41 to 58) on both the admission and discharge assessments.

Interpretation considerations: Change in Function indicators are expressed as averages. A positive value indicates a score increase and a negative value indicates a score decrease.

Available metrics: Average (mean), median, standard deviation, minimum, maximum, percent, percent standard deviation

Total Function Score Change, Percent

This indicator describes the relative change in Total Function Score from admission to discharge. This is calculated for each record as the difference between Total Function Scores on admission and discharge, divided by the score on admission. This value is then averaged over all discharge records.

Inclusions/exclusions: Requires completion of elements 41 to 58 on both the admission and discharge assessments.

Interpretation considerations: The same absolute change in score among clients with low and high function scores on admission will result in a greater percentage change in function for those with low scores, compared with those with high scores. In other words, this indicator is more sensitive for low-functioning client groups than for higher-functioning groups. For example, an absolute Total Function Score improvement of 20 would result in the following percentage changes for 2 different clients:

Table 8   Percentage change calculation sample

	Admission score	Discharge score	Percentage change
Low Function score	20	40	100% (40 − 20 ÷20)
High Function score	80	100	25% (100 − 80 ÷ 80)

In this example, the percentage change value for these 2 clients would be the average of both percentage changes: 62.5% = [(25% + 100%) ÷ 2].

Note: Percentage change should be interpreted carefully. The FIM® instrument is an ordinal scale rather than an interval scale, so the difference between a score of 2 and a score of 3 on the FIM® instrument scale is not necessarily equivalent to the difference between a 4 and a 5. As such, a 100% change in a FIM® instrument score does not imply that a client has shown 100% improvement in function. The percentage change is intended to show average relative change in FIM® instrument scores only and should not be used as a measure of average improvement in client function.

Motor Function Score at Admission

Available in

- NRS Comparative Reports > Admissions Profile > 7. Functional Status at Admission to Facility

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up

- NRS Analytical Reports > Admissions Profile

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the 13 FIM® instrument elements (41 to 53, inclusive) that assess various components of motor function (self-care, sphincter control, transfers, etc.) at the time of admission. The Motor Function Score ranges from 13 to 91 and provides a score that describes a client's motor function based on the elements tested.

Inclusions/exclusions: Motor Function Score is calculated from admission records containing complete FIM® instrument Total Function Scores (i.e., both motor and cognitive components). Records without a completed FIM® instrument assessment — for example, records with Admission Class = 4 ([Un]planned discharge without assessment) — are excluded.

Interpretation considerations: The Motor Function Score isolates the motor components of the FIM® instrument and allows for a better comparison of motor function between FIM® instrument assessments.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

Motor Function Score at Discharge

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the 13 FIM® instrument elements (41 to 53, inclusive) that assess various components of motor function (self-care, sphincter control, transfers, etc.) at the time of discharge. The Motor Function Score ranges from 13 to 91 and provides a score that describes a client's motor function based on the elements tested.

Inclusions/exclusions: Motor Function Score is calculated from discharge records containing complete FIM® instrument Total Function Scores (i.e., both motor and cognitive components). Records without a completed FIM® instrument assessment — for example, records with Admission Class = 4 ([Un]planned discharge without assessment) — are excluded.

Interpretation considerations: The Motor Function Score isolates the motor components of the FIM® instrument and allows for a better comparison of motor function between FIM® instrument assessments.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

Motor Function Score at Follow-Up

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up

- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the 13 FIM® instrument elements (41 to 53, inclusive) that assess various components of motor function (self-care, sphincter control, transfers, etc.) at the time of follow-up assessment. The Motor Function Score ranges from 13 to 91 and provides a score that describes a client's motor function based on the elements tested.

Inclusions/exclusions: Motor Function Score is calculated from follow-up records containing complete FIM® instrument Total Function Scores (i.e., both motor and cognitive components). Records without a complete FIM® instrument assessment are excluded.

Interpretation considerations: The Motor Function Score isolates the motor components of the FIM® instrument and allows for a better comparison of motor function between FIM® instrument assessments.

Available metrics: Average (mean), median, standard deviation

Motor Function Score Change

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility

- NRS Analytical Reports > Outcomes at Discharge

Describes the average change in Motor Function Score from admission to discharge. This is the difference between the Admission Motor Function Score and Discharge Motor Function Score for each client episode, averaged for all episodes. See Motor Function Score in Section 6.3, NRS Summary Functional Assessment Scores Definitions for more details on this indicator.

Inclusions/exclusions: Requires completion of all FIM® instrument motor elements (41 to 53) on both the admission and discharge assessments.

Interpretation considerations: Change in Function indicators are expressed as averages. A positive value indicates a score increase and a negative value indicates a score decrease.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

Cognitive Function Score at Admission

Available in

- NRS Comparative Reports > Admissions Profile > 7. Functional Status at Admission to Facility

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up

- NRS Analytical Reports > Admissions Profile

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the 5 FIM® instrument elements (54 to 58, inclusive) that assess various components of cognitive function (communication, social interaction, problem-solving, etc.) at the time of admission. The Cognitive Function Score ranges from 5 to 35 and provides a score that describes a client's cognitive function based on the elements tested.

Inclusions/exclusions: Cognitive Function Score is calculated from admission records containing complete FIM® instrument Total Function Scores (i.e., both motor and cognitive components). Records without a complete FIM® instrument assessment — for example, records with Admission Class = 4 ([Un]planned discharge without assessment) — are excluded.

Interpretation considerations: The Cognitive Function Score isolates the cognitive components of the FIM® instrument and allows for a better comparison of cognitive function between FIM® instrument assessments.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

Cognitive Function Score at Discharge

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the 5 FIM® instrument elements (54 to 58, inclusive) that assess various components of cognitive function (communication, social interaction, problem-solving, etc.) at the time of discharge. The Cognitive Function Score ranges from 5 to 35 and provides a score that describes a client's cognitive function based on the elements tested.

Inclusions/exclusions: Cognitive Function Score is calculated from discharge records containing complete FIM® instrument Total Function Scores (i.e., both motor and cognitive components). Records without a complete FIM® instrument assessment — for example, records with Admission Class = 4 ([Un]planned discharge without assessment) — are excluded.

Interpretation considerations: The Cognitive Function Score isolates the cognitive components of the FIM® instrument and allows for a better comparison of cognitive function between FIM® instrument assessments.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

Cognitive Function Score at Follow-Up

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Outcomes at Follow-Up

This is the sum of the 5 FIM® instrument elements (54 to 58, inclusive) that assess various components of cognitive function (communication, social interaction, problem-solving, etc.) at the time of follow-up assessment. The Cognitive Function Score ranges from 5 to 35 and provides a score that describes a client's cognitive function based on the elements tested.

Inclusions/exclusions: Cognitive Function Score is calculated from follow-up records containing complete FIM® instrument Total Function Scores (i.e., both motor and cognitive components). Records without a complete FIM® instrument assessment are excluded.

Interpretation considerations: The Cognitive Function Score isolates the cognitive components of the FIM® instrument and allows for a better comparison of cognitive function between FIM® instrument assessments.

Available metrics: Average (mean), median, standard deviation

Cognitive Function Score Change

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility

- NRS Analytical Reports > Outcomes at Discharge

Describes the average change in Cognitive Function Score from admission to discharge. It is calculated as the difference between the Admission Cognitive Function Score and Discharge Cognitive Function Score for each client episode, averaged for all episodes. See Cognitive Function Score in Section 6.3, NRS Summary Functional Assessment Scores Definitions for more details on the calculation of this indicator.

Inclusions/exclusions: Requires completion of all FIM® instrument cognitive elements (54 to 58) on both the admission and discharge assessments.

Interpretation considerations: Change in Function indicators are expressed as averages. A positive value indicates a score increase and a negative value indicates a score decrease.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

CIHI Cognitive Score

This is the sum of the CIHI Cognitive elements, 64 to 69, inclusive (4 Communication elements, 1 Financial Management element and 1 Orientation element) and describes the client's level of function as it pertains to the additional cognitive elements tested in the NRS. Refer to the *NRS Rehabilitation Minimum Data Set Manual* for details on score ranges, as the scales vary between these elements. The CIHI Cognitive Score further assesses cognitive function in addition to the FIM® instrument Cognitive Function Score.

Inclusions/exclusions: Includes all records for those older than 13, where element 19A Admission Class is initial rehabilitation, continuing rehabilitation, short-stay or readmission class and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations:

- The CIHI Cognitive elements were found to be valid and reliable in the assessment of cognitive function by the National Rehabilitation Advisory Group,[3] and were also shown to improve precision of measurement of cognitive domain over the FIM® instrument Cognitive Subscale.

- Because there is a screening question to determine whether the CIHI Cognitive assessment is required, the total number of clients reported in this indicator may be less than the number reported in the FIM® instrument functional scores.

- The scoring scales for the FIM® instrument and CIHI Cognitive assessments are intentionally not identical. As such, the 2 scores cannot be compared but rather should be used together to obtain a more complete picture of a client's functional level.

- CIHI Cognitive elements with a score of 8 are recoded as 1 for the purposes of this calculation.

- Recently, Uniform Data System for Medical Rehabilitation (UDS_{MR}) completed a Rasch analysis on the CIHI Cognitive elements on a cohort of NRS stroke clients. Overall, it found these 6 elements to have very good reliability and significant inter-item correlation. However, it was noted that the Financial Management element may be measuring another construct than what it is intended to measure, and that the Orientation element may be too easy. CIHI will look into modifying the scale in the future.

CIHI Cognitive Score at Admission

Available in

- NRS Comparative Reports > Admissions Profile > 7. Functional Status at Admission to Facility
- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility
- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up
- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge
- NRS Analytical Reports > Outcomes at Follow-Up

Requires completion of all CIHI Cognitive elements (64 to 69) on the admission assessment.

Inclusions/exclusions: Includes all records for those older than 13, where element 19A Admission Class is Initial Rehabilitation, Continuing Rehabilitation, Short Stay or Readmission and element 63 Presence of Cognitive/Communication/Activity Limitations is coded as Yes and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations: CIHI Cognitive elements with a score of 8 are recoded as 1 for the purposes of this calculation. The CIHI Cognitive Score at Admission can be compared at the facility, peer and national levels, or with the CIHI Cognitive Score at Discharge for that facility.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

CIHI Cognitive Score at Discharge

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up

- NRS Analytical Reports > Outcomes at Discharge

- NRS Analytical Reports > Outcomes at Follow-Up

Requires completion of all CIHI Cognitive elements (64 to 69) on the discharge assessment.

Inclusions/exclusions: Includes all records for those older than 13, where element 19A Admission Class is Initial rehabilitation, Continuing rehabilitation, Short stay or Readmission, and element 63 Presence of Cognitive/Communication/Activity Limitations is coded as Yes and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations: CIHI Cognitive elements with a score of 8 are recoded as 1 for the purposes of this calculation. The CIHI Cognitive Score at Discharge can be compared at the facility, peer and national levels, or with the CIHI Cognitive Score at Admission for that facility. The score can be considered along with indicator distributions such as Rehabilitation Client Group, Reason for Discharge, Discharge Living Setting and Arrangement to give a clearer picture of the typical discharge situation for a rehabilitation client.

Available metrics: Average (mean), median, standard deviation, minimum, maximum

CIHI Cognitive Score at Follow-Up

Available in

- NRS Comparative Reports > Outcomes at Follow-Up > 4. Functional Status at Follow-Up

- NRS Analytical Reports > Outcomes at Follow-Up

Requires completion of all CIHI Cognitive elements (64 to 69) on the follow-up assessment.

Inclusions/exclusions: Includes all records for those older than 13, where element 19A Admission Class is Initial rehabilitation, Continuing rehabilitation, Short stay or Readmission, and element 63 Presence of Cognitive/Communication/Activity Limitations is coded as Yes and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations: CIHI Cognitive elements with a score of 8 are recoded as 1 for the purposes of this calculation. The CIHI Cognitive Score at Follow-Up can be compared at the facility, peer and national levels or with the CIHI Cognitive Score at Discharge for that facility. The score can be considered along with indicator distributions such as Rehabilitation Client Group, Reason for Discharge, Discharge Living Setting and Arrangement to give a clearer picture of the typical discharge situation for a rehabilitation client.

Available metrics: Average (mean), median, standard deviation

CIHI Cognitive Score Change

Available in

- NRS Comparative Reports > Outcomes at Discharge > 2. Functional Status at Admission and Discharge From Facility

- NRS Analytical Reports > Outcomes at Discharge

Describes the average change in CIHI Cognitive Scores from admission to discharge for all records submitted. This is the difference between the admission CIHI Cognitive Score and discharge CIHI Cognitive Score for each client episode, averaged for all episodes. Requires completion of all CIHI Cognitive elements (64 to 69, inclusive) on both the admission and discharge assessments.

Inclusions/exclusions: Includes all records for those older than 13, where element 19A Admission Class is Initial rehabilitation, Continuing rehabilitation, Short stay or Readmission, and element 63 Presence of Cognitive/Communication/Activity Limitations is coded as Yes and element 79 Glasses/Hearing Aid Flag is coded as No or left blank.

Interpretation considerations: Change in Function indicators are expressed as averages. A positive value indicates a score increase and a negative value indicates a score decrease.

Available metrics: Average (mean), median, standard deviation, minimum, maximum, percent, percent standard deviation

Self-Care Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument motor items that assess basic activities necessary for daily personal care: Eating, Grooming, Bathing, Dressing Upper Body, Dressing Lower Body and Toileting.

Available metrics: Average (mean), standard deviation, minimum, maximum

Self-Care Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument motor items that assess basic activities necessary for daily personal care: Eating, Grooming, Bathing, Dressing Upper Body, Dressing Lower Body and Toileting.

Available metrics: Average (mean), standard deviation, minimum, maximum

Self-Care Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument motor items that assess basic activities necessary for daily personal care: Eating, Grooming, Bathing, Dressing Upper Body, Dressing Lower Body and Toileting.

Available metrics: Average (mean), standard deviation, minimum, maximum

Sphincter Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument motor items that assess sphincter control: Bladder Management and Bowel Management.

Available metrics: Average (mean), standard deviation, minimum, maximum

Sphincter Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument motor items that assess sphincter control: Bladder Management and Bowel Management.

Available metrics: Average (mean), standard deviation, minimum, maximum

Sphincter Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument motor items that assess sphincter control: Bladder Management and Bowel Management.

Available metrics: Average (mean), standard deviation, minimum, maximum

Transfer Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument motor items that assess ability to transfer from one surface to another: Bed to Chair/Wheelchair Transfer, Toilet Transfer and Tub/Shower Transfer.

Available metrics: Average (mean), standard deviation, minimum, maximum

Transfer Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument motor items that assess ability to transfer from one surface to another: Bed to Chair/Wheelchair Transfer, Toilet Transfer and Tub/Shower Transfer.

Available metrics: Average (mean), standard deviation, minimum, maximum

Transfer Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument motor items that assess ability to transfer from one surface to another: Bed to Chair/Wheelchair Transfer, Toilet Transfer and Tub/Shower Transfer.

Available metrics: Average (mean), standard deviation, minimum, maximum

Locomotion Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument motor items that assess locomotion: Walk/Wheelchair and Stairs.

Available metrics: Average (mean), standard deviation, minimum, maximum

Locomotion Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument motor items that assess locomotion: Walk/Wheelchair and Stairs.

Available metrics: Average (mean), standard deviation, minimum, maximum

Locomotion Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument motor items that assess locomotion: Walk/Wheelchair and Stairs.

Available metrics: Average (mean), standard deviation, minimum, maximum

Communication Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument cognitive items that assess communication skills: Comprehension and Expression.

Available metrics: Average (mean), standard deviation, minimum, maximum

Communication Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument cognitive items that assess communication skills: Comprehension and Expression.

Available metrics: Average (mean), standard deviation, minimum, maximum

Communication Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument cognitive items that assess communication skills: Comprehension and Expression.

Available metrics: Average (mean), standard deviation, minimum, maximum

Social Cognition Function Score at Admission

Available in

- NRS Analytical Reports > Admissions Profile
- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on admission for the FIM® instrument cognitive items that assess social and cognitive skills: Social Interaction, Problem-Solving and Memory.

Available metrics: Average (mean), standard deviation, minimum, maximum

Social Cognition Function Score at Discharge

Available in

- NRS Analytical Reports > Outcomes at Discharge

The sum of the scores on discharge for the FIM® instrument cognitive items that assess social and cognitive skills: Social Interaction, Problem-Solving and Memory.

Available metrics: Average (mean), standard deviation, minimum, maximum

Social Cognition Function Score Change

Available in

- NRS Analytical Reports > Outcomes at Discharge

The difference between the scores on discharge and admission for the FIM® instrument cognitive items that assess social and cognitive skills: Social Interaction, Problem-Solving and Memory.

Available metrics: Average (mean), standard deviation, minimum, maximum

7   Additional help with NRS eReports

7.1   MicroStrategy Help menu

The MicroStrategy application that contains the NRS eReports has a built-in Help feature. To access the Help menu, click your name link at the top right of any page and select **Help** from the drop-down menu. While this Help menu contains detailed information about all aspects of the MicroStrategy platform, please note that it is a generic MicroStrategy Help menu, so some of the information may not be applicable to NRS eReports.

7.2   FAQ

From the Resources section in the bottom-right corner of the NRS eReports launch page, you can link to a collection of Frequently Asked Questions (FAQ) and their answers. This FAQ list will grow over time as the NRS eReports system is used by more people.

7.3   CIHI's eReports educational products

CIHI produces a number of educational products to help support the use of eReports. To access these products, visit learning.cihi.ca.

7.4   Contact us

For client support, please contact the NRS team at nrs@cihi.ca or submit a question via the eQuery online tool.

Appendix A: NRS eReports folder structure

Table A1 NRS eReports folder structure

Report type	Sub-folders	Reports available	Displays data by
NRS Quick Indicators Reports	Not applicable	1. Average Days Waiting for Admission Across Rehabilitation Client Groups (RCGs) 2. Average Admission Total Function Score Across Rehabilitation Client Groups (RCGs) 3. Average Discharge Total Function Score Across Rehabilitation Client Groups (RCGs) 4. Average Change in Total Function Score Across Rehabilitation Client Groups (RCGs) 5. Average Days Waiting for Discharge Across Rehabilitation Client Groups (RCGs) 6. Average Length of Stay (LOS) Across Rehabilitation Client Groups (RCGs) 7. Average Length of Stay (LOS) Efficiency Across Rehabilitation Client Groups (RCGs) 8. Percent Discharged Home Who Were Home Prior to Admission Across Rehabilitation Client Groups (RCGs) 9. Average Follow-Up Total Function Score Across Rehabilitation Client Groups (RCGs) 10. Data Quality Indicators	Fiscal year
NRS Comparative Reports	Admissions Profile	1. Admission by Referral Source 2. Admission by Rehabilitation Client Group (RCG) 3. Admission by Admission Class 4. Admission by Pre-Hospital Living Arrangements 5. Admission by Pre-Hospital Living Setting 6. Age at Admission to Facility 7. Functional Status at Admission to Facility	Facility Fiscal year RCG Peer group

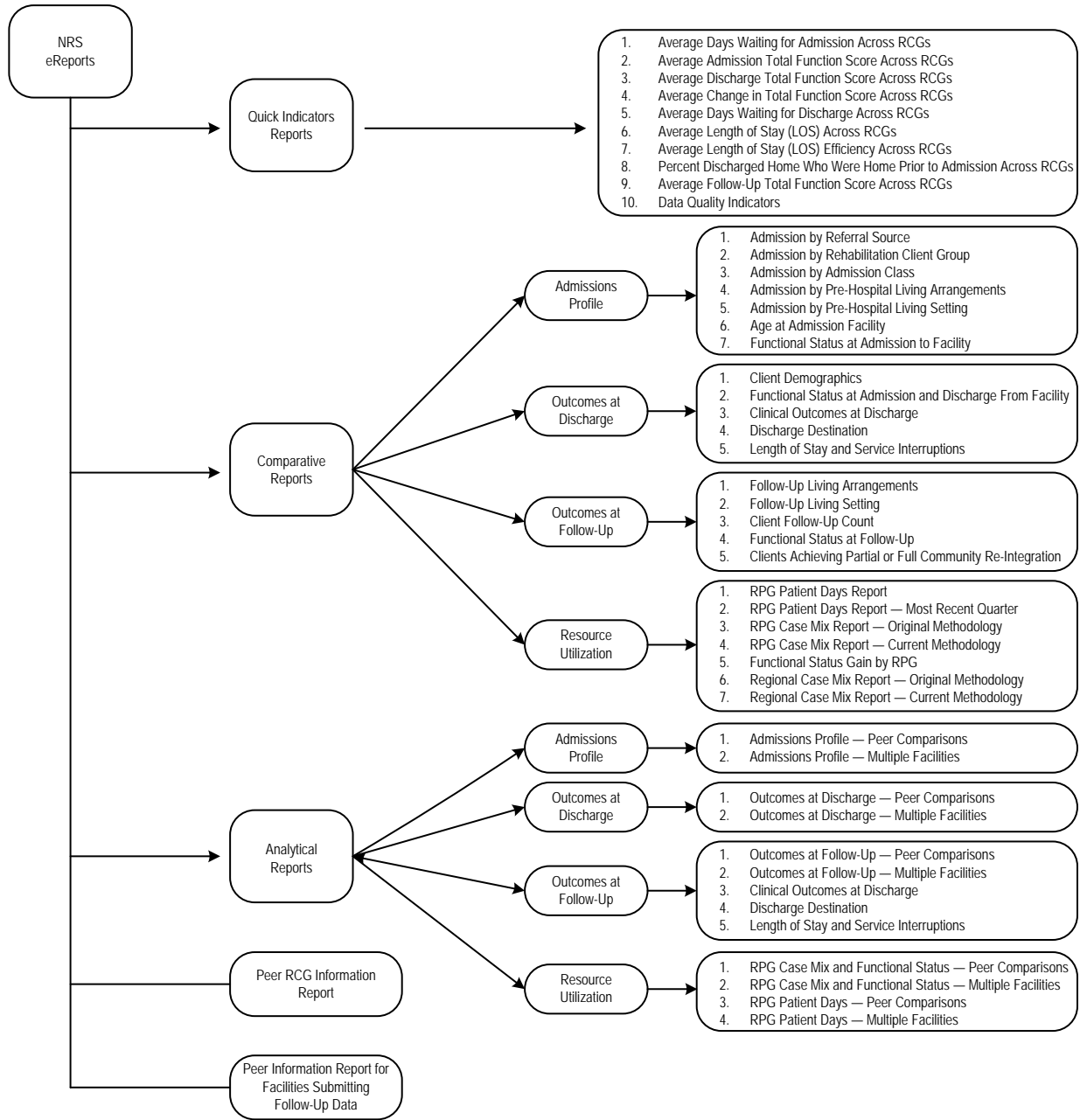| Report type	Sub-folders	Reports available	Displays data by
NRS Comparative Reports (cont'd)	Outcomes at Discharge	1. Client Demographics 2. Functional Status at Admission and Discharge From Facility 3. Clinical Outcomes at Discharge 4. Discharge Destination 5. Length of Stay and Service Interruptions	Facility Fiscal year RCG Peer group
	Outcomes at Follow-Up	1. Follow-Up Living Arrangements 2. Follow-Up Living Setting 3. Client Follow-Up Counts 4. Functional Status at Follow-Up 5. Clients Achieving Partial or Full Community Re-Integration	Facility Fiscal year RCG Peer group
	Resource Utilization	1. RPG Patient Days Report 2. RPG Patient Days Report — Most Recently Completed Fiscal Quarter 3. RPG Case Mix (CMI) Report — Original Methodology 4. RPG Case Mix (CMI) Report — Current Methodology 5. Functional Status Gain by RPG 6. Regional Case Mix Report — Original Methodology 7. Regional Case Mix Report — Current Methodology	Facility Fiscal year RPGs/RGs Peer group
NRS Analytical Reports	Admissions Profile	1. Admissions Profile — Peer Comparisons 2. Admissions Profile — Multiple Facilities	Any attributes
	Outcomes at Discharge	1. Outcomes at Discharge — Peer Comparisons 2. Outcomes at Discharge — Multiple Facilities	Any attributes
	Outcomes at Follow-Up	1. Outcomes at Follow-Up — Peer Comparisons 2. Outcomes at Follow-Up — Multiple Facilities	Any attributes
	Resource Utilization	1. RPG Case Mix and Functional Status — Peer Comparisons 2. RPG Case Mix and Functional Status — Multiple Facilities 3. RPG Patient Days — Peer Comparisons 4. RPG Patient Days — Multiple Facilities	Any attributes

Peer RCG Information Report

Peer Information Report for Facilities Submitting Follow-Up Data

Figure 3 NRS eReports folder structure and available reports

NRS eReports

Quick Indicators Reports
1. Average Days Waiting for Admission Across RCGs
2. Average Admission Total Function Score Across RCGs
3. Average Discharge Total Function Score Across RCGs
4. Average Change in Total Function Score Across RCGs
5. Average Days Waiting for Discharge Across RCGs
6. Average Length of Stay (LOS) Across RCGs
7. Average Length of Stay (LOS) Efficiency Across RCGs
8. Percent Discharged Home Who Were Home Prior to Admission Across RCGs
9. Average Follow-Up Total Function Score Across RCGs
10. Data Quality Indicators

Comparative Reports

Admissions Profile
1. Admission by Referral Source
2. Admission by Rehabilitation Client Group
3. Admission by Admission Class
4. Admission by Pre-Hospital Living Arrangements
5. Admission by Pre-Hospital Living Setting
6. Age at Admission Facility
7. Functional Status at Admission to Facility

Outcomes at Discharge
1. Client Demographics
2. Functional Status at Admission and Discharge From Facility
3. Clinical Outcomes at Discharge
4. Discharge Destination
5. Length of Stay and Service Interruptions

Outcomes at Follow-Up
1. Follow-Up Living Arrangements
2. Follow-Up Living Setting
3. Client Follow-Up Count
4. Functional Status at Follow-Up
5. Clients Achieving Partial or Full Community Re-Integration

Resource Utilization
1. RPG Patient Days Report
2. RPG Patient Days Report — Most Recent Quarter
3. RPG Case Mix Report — Original Methodology
4. RPG Case Mix Report — Current Methodology
5. Functional Status Gain by RPG
6. Regional Case Mix Report — Original Methodology
7. Regional Case Mix Report — Current Methodology

Analytical Reports

Admissions Profile
1. Admissions Profile — Peer Comparisons
2. Admissions Profile — Multiple Facilities

Outcomes at Discharge
1. Outcomes at Discharge — Peer Comparisons
2. Outcomes at Discharge — Multiple Facilities

Outcomes at Follow-Up
1. Outcomes at Follow-Up — Peer Comparisons
2. Outcomes at Follow-Up — Multiple Facilities
3. Clinical Outcomes at Discharge
4. Discharge Destination
5. Length of Stay and Service Interruptions

Resource Utilization
1. RPG Case Mix and Functional Status — Peer Comparisons
2. RPG Case Mix and Functional Status — Multiple Facilities
3. RPG Patient Days — Peer Comparisons
4. RPG Patient Days — Multiple Facilities

Peer RCG Information Report

Peer Information Report for Facilities Submitting Follow-Up Data

Appendix B: NRS glossary

Terms related to the NRS are taken from the *Rehabilitation Minimum Data Set Manual*, which is updated on a regular basis and distributed by CIHI. Refer to that manual for context-specific information related to these terms.

A

Active Rehab Length of Stay — The number of days between the date on which the client is admitted to the rehabilitation facility and the date on which the client is ready to be discharged from the rehabilitation facility. Any days on which the client could not participate in the rehabilitation program due to a health reason are excluded from the calculation (see Service Interruption).

Active Rehab Length of Stay Efficiency — The change in Total Function Score (see Total Function Score) per day of client participation in the rehabilitation program. Calculated as the change in Total Function Score from admission to discharge divided by the active rehab length of stay (see Active Rehab Length of Stay).

Admission FIM® instrument Assessment — The baseline functional assessment that is done using the FIM® instrument at the time of admission to the rehabilitation program. The FIM® instrument should be administered within 72 hours of admission.

ASIA Impairment Scale — A scale that describes the degree of motor and sensory involvement at admission to rehabilitation for traumatic and non-traumatic spinal cord injury. Developed by the American Spinal Injury Association.

Attribute — Attributes allow for the presentation of data by categories. They are added to reports to allow data to be summarized at varying levels of detail. The attributes that appear in a particular report depend on the purpose of the report. Attributes are typically displayed in the rows or page-by axis of NRS eReports, and are also sometimes used as selection prompts (e.g., RCG prompt). That is, some of the attributes that can be displayed in the report are also used to select which data is used in that report.

Average — For the purposes of the NRS, defined as the value obtained by adding all of the individual values (e.g., FIM® instrument scores, days waiting for admission) in a group and dividing that sum by the number of values in the group. Describes the arithmetic mean of a set of values and is more commonly referred to as "mean" in the NRS eReports.

B

Bathing (FIM® instrument) — Includes bathing (washing, rinsing and drying) the body from the neck down (excluding the neck and back); may be done in a tub or shower, or in bed (i.e., a sponge bath).

Bladder Management (FIM® instrument) — Includes intentional control of the urinary bladder and, if necessary, use of equipment or agents for bladder control. The functional goal of bladder management is to open the urinary sphincter only when it is needed and to keep it closed the rest of the time. For some individuals, this may require devices, drugs or assistance.

Body mass index (BMI) — A weight-to-height ratio score calculated by dividing the client's body weight (in kilograms) by the squared value of the client's height (in metres) — that is, kg/m^2. BMI values are grouped into 4 standard categories: Underweight (<18.5), Normal (18.5–24.9), Overweight (25–30) and Obese (>30). A fifth category (Unable to calculate) is used in the NRS eReports to capture clients for whom a BMI could not be calculated because of a missing height (element 40A) or weight (element 40B) value, for instance.

Bowel Management (FIM® instrument) — Includes intentional control of bowel movements and, if necessary, use of equipment or agents for bowel control. The functional goal of bowel management is to open the anal sphincter only when it is needed and to keep it closed the rest of the time.

C

Cognitive Function Score (FIM® instrument) — The sum of the scores for the 5 cognitive elements on the FIM® instrument. A higher Cognitive Function Score suggests a higher level of independent functioning in cognitive activities. See Cognitive Subscale. Can be calculated on both admission and discharge.

Cognitive Subscale (FIM® instrument) — The 5 items of the FIM® instrument related to cognitive function: Comprehension, Expression, Social Interaction, Problem-Solving and Memory.

Communication Domain (FIM® instrument) — Includes the FIM® instrument cognitive items that assess communication skills: Comprehension and Expression.

Comprehension (FIM® instrument) — Includes understanding of either auditory and/or visual communication (e.g., writing, sign language, gestures). Communication can involve simple and/or complex messages, with the scores reflected accordingly.

Continuing rehabilitation — One of the available options for coding Admission Class in the NRS. This is part of a rehabilitation inpatient stay that began in another rehabilitation unit or facility. The client was admitted directly from a rehabilitation program in another unit or facility with the same RCG (see Rehabilitation Client Group). Includes transfers to a rehabilitation unit within the same facility.

Current Methodology (Case Mix) — Case Mix metrics may be found in Current Methodology or Original Methodology Comparative Reports, or may be named as such in the Analytical Reports. Current Methodology values are based on the current rehabilitation cost weights and outlier trim points being used in the RPG Case Mix Methodology (visit www.cihi.ca/casemix for more information on values that are currently being used). Original Methodology values for a particular fiscal year are based on the rehabilitation cost weights and outlier trim points that were in effect during that fiscal year. The Current Methodology values permit users to analyze trends over time, whereas the Original Methodology values permit users to view the data that would have been seen in reports created in those fiscal years.

D

Date of Onset — The calendar date of onset of the main rehabilitation condition coded under Rehabilitation Client Group (see Rehabilitation Client Group) that precipitated the admission into rehabilitation. For acute conditions, the date of onset is the date of injury or surgery. For chronic condition (e.g., COPD), the date of onset is the date of the most recent exacerbation or functional loss that resulted in admission to the inpatient rehabilitation unit.

Date Ready for Admission — The date on which the client meets criteria for admission to the rehabilitation facility and is considered ready to start a rehabilitation program. It does not refer to the date the client is put on a waiting list if this is done prior to when the client is clinically ready for rehabilitation.

Date Ready for Discharge — The calendar date that the client is considered ready for discharge from the rehabilitation program. On this date, the client meets criteria for discharge according to the rehabilitation team and has met all or most of the rehabilitation goals set for him or her.

Days Waiting for Admission — One of the NRS indicators relating to accessibility. Defined as the number of days between the Date Ready for Admission and the Date of Admission to rehabilitation.

Discharge FIM® instrument Assessment — The assessment of the client's functional ability using the FIM® instrument at discharge. The FIM® instrument should be administered within 72 hours before discharge from the rehabilitation program.

Dressing — Lower Body (FIM® instrument) — Includes dressing and undressing below the waist, as well as applying and removing a prosthesis or orthosis when applicable. Includes all items of clothing that are typically worn. The client must use clothing that is appropriate to wear in public. Assessment starts in front of the closet or dresser drawers and includes reaching for items of clothing.

Dressing — Upper Body (FIM® instrument) — Includes dressing and undressing above the waist, as well as applying and removing a prosthesis or orthosis when applicable. Includes all items of clothing that are typically worn. The client must use clothing that is appropriate to wear in public. Assessment starts in front of the closet or dresser drawers and includes reaching for items of clothing.

Drilling — "Drilling down" refers to looking at more specific groupings of data. For example, if data is shown for a particular fiscal year, you might drill down to view the data at the level of reporting periods (i.e., quarters). "Drilling up" refers to looking at less specific, larger groupings of data. For instance, you might choose to collapse data across various age groups if age was not an important factor in your analysis. In this case, you are "drilling up" from the level of age groups. Likewise, if you were interested only in the overall number of clients requiring rehabilitation for a particular impairment, you might drill up from the level of sex (i.e., collapse data across both sexes). You could also drill up from the level of Rehabilitation Patient Group (RPG) to the higher Rehabilitation Group (RG) level.

E

Eating (FIM® instrument) — Includes using suitable utensils to scoop and bring food to the mouth, as well as chewing and swallowing, once the meal is presented in the customary manner on a table or tray. Includes all intake of nutrition over a 24-hour period, including tube feeding.

Episode — For the purposes of the NRS, an episode consists of a complete admission and a discharge record, and encompasses the entire stay in inpatient rehabilitation. The analyses in the NRS reports are based primarily on rehabilitation episodes. Exception: Clients recorded as having an (Un)planned discharge are still considered to have had a rehabilitation episode in the NRS (see [Un]planned discharge).

Expression (FIM® instrument) — Includes clear vocal and/or non-vocal expression of language. This item includes either intelligible speech or clear expression of language using writing or a communication device. Expression of intent can involve simple and/or complex ideas, with scores reflected accordingly.

F

Facility — Refers to the site where the rehabilitation beds are grouped and represents the level at which hospitals submit data for the NRS. Often, "facility" is synonymous with "hospital." For hospitals with more than one site or location, there may be more than one NRS facility within a hospital corporation.

FIM® instrument — The functional assessment instrument included in the Uniform Data Set for Medical Rehabilitation (UDS$_{MR}$). It is composed of 18 items (13 motor items and 5 cognitive items) that are rated on a 7-level scale representing gradations from independent (7) to dependent (1) function. The FIM® instrument is a measure of disability and looks at the caregiver burden associated with the level of disability.

Follow-Up FIM® instrument Assessment — The assessment of the client's functional ability using the FIM® instrument that is collected between 80 and 180 days after discharge from the rehabilitation program.

G

General Rehabilitation Facility — A facility that provides inpatient rehabilitation services in designated units, programs or beds within a general hospital that has multiple levels of care (e.g., rehabilitation, acute care, chronic care, emergency). Rehabilitation clients receive multi-dimensional (physical, cognitive, psycho-social) diagnostic, assessment, treatment and service planning interventions.

Grooming (FIM® instrument) — Includes a minimum of 4 activities — oral care, hair grooming (combing or brushing hair), washing the hands and washing the face — and may include a fifth activity, either shaving the face or applying make-up, where applicable. Washing includes rinsing and drying.

H

Health Care Number — The client's health (insurance) number as assigned by the provincial/territorial government of residence.

I

Impact of Pain — A self-reported item describing the impact of pain on a client's daily activities. This is 1 of 2 self-reported data elements collected for the NRS.

Initial rehabilitation — One of the available options for coding Admission Class in the NRS. Describes a client's first admission to an inpatient rehabilitation facility for a particular rehabilitation condition (see Rehabilitation Client Group).

J

K

L

Length of Stay (LOS) — The number of days between the date on which the client is admitted to the rehabilitation facility and the date on which the client is discharged from the rehabilitation facility. Clients admitted and discharged on the same day have an LOS of 1 day. Any days on which the client could not participate in the rehabilitation program due to a health reason are excluded from the calculation (see Service Interruption).

Length of Stay Efficiency — The change in Total Function Score (see Total Function Score) per day of client participation in the rehabilitation program. Calculated as change in Total Function Score from admission to discharge divided by length of stay (see Length of Stay).

Locomotion Domain (FIM® instrument) — Includes the FIM® instrument motor items that assess locomotion: Walk/Wheelchair and Stairs.

Locomotion — Stairs (FIM® instrument) — Includes going up and down 12 to 14 stairs (1 flight) indoors.

Locomotion — Walk/Wheelchair (FIM® instrument) — Includes walking, once in a standing position, or if using a wheelchair, moving forward once in a seated position and on a level surface.

M

Mean — For the purposes of the NRS, defined as the value obtained by adding all of the individual values (e.g., FIM® instrument scores, days waiting for admission) in a group and dividing that sum by the number of values in the group. Describes the arithmetic mean of a set of values. Also referred to as the Average.

Median — The middle value in a group when the values are arranged in an increasing order. If there is an even number of values, the median is the average of the middle 2 values. For example, in the series 2, 5, 7, 9, 12, the value 7 is the median. Median is not calculated in

the same way as mean (or average), but it may sometimes result in the same value, as in the example shown here (see Mean and Average).

Memory (FIM® instrument) — Memory in this context includes the ability to store and retrieve information, particularly verbal and visual. The functional evidence of memory includes recognizing people frequently encountered, remembering daily routines and executing requests without being reminded.

Metrics — Refers to the numerical data, such as percentages (%), counts (N) or a variety of summary statistics (e.g., mean, median, standard deviation) that summarize each of the demographic, clinical and administrative indicators available in NRS eReports (e.g., number of clients, length of stay, Total Function Score). A full listing and description of available metrics is provided in Chapter 6.

Most Responsible Health Condition — The primary etiological diagnosis that describes the most significant condition leading to the client's rehabilitation stay. Where multiple conditions exist, it is the one health condition that is most related to the Rehabilitation Client Group and the condition that most of the resources are directed toward (see Rehabilitation Client Group).

Motor Function Score (FIM® instrument) — The sum of the scores for the 13 motor elements on the FIM® instrument. A higher Motor Function Score suggests a higher level of independent functioning in motor activities (see Motor Subscale). This can be calculated on admission and on discharge (where applicable).

Motor Subscale (FIM® instrument) — The 13 motor items of the FIM® instrument: Eating; Grooming; Bathing; Dressing — Upper Body; Dressing — Lower Body; Toileting; Bladder Management; Bowel Management; Transfers — Bed, Chair, Wheelchair; Transfers — Toilet; Transfers — Tub or Shower; Locomotion — Walk, Wheelchair; and Locomotion — Stairs.

N

National Rehabilitation Reporting System (NRS) — A primarily voluntary national health information system for adult inpatient rehabilitation services. The province of Ontario has mandated its use for all designated rehabilitation beds in that province. The NRS contains client data collected from participating adult inpatient rehabilitation facilities and programs across Canada. The NRS data elements contain information related to socio-demographic information, administrative data, health characteristics, activities and participation and therapeutic interventions. These elements are used to estimate a variety of indicators including wait times and client outcomes.

NRS Data Quality Report for Provinces/Territories — A data quality report completed on an annual basis and sent to the deputy ministers of health of each province/territory in an effort to raise awareness and highlight data quality issues.

O

Original Methodology (Case Mix) — Case Mix metrics may be found in Current Methodology or Original Methodology Comparative Reports, or may be named as such in the Analytical Reports. Current Methodology values are based on the current rehabilitation cost weights and outlier trim points being used in the RPG Case Mix Methodology (visit www.cihi.ca/casemix for more information on values that are currently being used). Original Methodology values for a particular fiscal year are based on the rehabilitation cost weights and outlier trim points that were in effect during that fiscal year. Current Methodology values permit users to analyze trends over time, whereas Original Methodology values permit users to view the data that would have been seen in reports created in those fiscal years.

P

Page-By axis — The Page-By axis appears at the top of each report grid or graph and provides a way to change the information that is displayed in the report. Using this axis, you can restrict visible grid or graph data according to a specific attribute or metric. The Page-By axis may automatically include metrics and attributes that are available in the report, or you may have to add desired metrics and attributes using the Pivot Buttons, depending on which report you have created. The metrics/attributes in the page-by axis can also be moved from the Page-By axis into the report rows or columns.

Patient Days — The number of days that a client is present in an inpatient rehabilitation bed or facility in a given time period. Calculated for both open and closed episodes of care.

Post-Admit Comorbid Health Condition ICD-10-CA — Health conditions that arise after admission and during the rehabilitation stay that affect the client's health/functional status and resource requirements during the rehabilitation program. This includes post-admit complications and/or comorbid conditions that delay, interrupt or compromise the effectiveness of the rehabilitation program or represent high medical risk disorders (e.g., previous cardiac arrest, pulmonary embolus, ruptured aneurysm). Includes conditions of short duration that were resolved during the stay and conditions that persist at discharge.

Post-Discharge Living Setting — Physical environment the client will be living in following discharge from the rehabilitation program.

Pre-Admit Comorbid Health Condition ICD-10-CA — Existing health conditions present at the time of rehabilitation admission that affect the client's health/functional status and resource requirements during the rehabilitation program. This includes pre-admit complications and/or comorbid conditions that delay, interrupt or compromise effectiveness of the rehabilitation program or represent high medical risk disorders (e.g., previous cardiac arrest, pulmonary embolus, ruptured aneurysm).

Pre-Hospital Living Setting — Physical environment the client was living in prior to his or her admission to hospital for rehabilitation (e.g., private home, residential care facility).

Primary Reason for Waiting for Discharge — The primary reason a patient waited to be discharged from a facility/agency.

Private Practice — An independent practice to which the client may be referred at time of discharge for related services following the rehabilitation episode (e.g., physician, physiotherapy clinic).

Problem-Solving (FIM® instrument) — Skills related to solving problems of daily living, including recognizing that a problem is present; making appropriate decisions; initiating steps and readjusting to changing circumstances; carrying out a sequence of events; and evaluating the solution.

Prompts — Prompts are used to dynamically modify the content of a report at run time. When creating a report, you will be prompted for information that will tell the application what kind of report to produce. For example, you might be prompted to select a particular RCG to look at or a time period on which to focus (e.g., Fiscal Year = 2016), or to select the facilities to be used for comparisons.

Q

R

Readmission — One of the available options for coding Admission Class in the NRS. The code used for a client admitted to an inpatient rehabilitation facility or unit in cases where the current admission is related to a prior admission for the same rehabilitation condition (see Rehabilitation Client Group). For example, a client who received rehabilitation for a leg amputation returns to the facility a month later with a wound on the residual limb. There is no time limit for length of time since the previous admission.

Record — For the purposes of the NRS, a record consists of the complete information collected on admission (admission record), discharge (discharge record) or follow-up (follow-up record). A completed admission and discharge record for a client constitutes a rehabilitation episode in the NRS (see Episode).

Referred to Facility Number — A unique facility number (including province number) assigned by the province/territory to which the person was referred at time of discharge from inpatient rehabilitation. Applies only to hospitals and residential care facilities.

Rehabilitation Client Group (RCG) — The condition that best describes the primary reason for the client's admission to the rehabilitation program. The rehabilitation team determines the RCG at the time of admission.

Rehabilitation Goals — The functional objectives set by the client in partnership with the rehabilitation team. These are determined shortly after admission to the rehabilitation facility and generally form the basis for activities that will be included in the rehabilitation program.

Rehabilitation Group (RG) — A type of categorization representing the highest level of diagnostic classification for clinically similar patients and used in the RPG case mix grouping methodology for the NRS. The RPG methodology was developed by Ontario's Joint Policy and Planning Committee using data from the NRS and other sources for Ontario facilities. Assignment to any of the 21 RGs is based on the Rehabilitation Client Group (RCG) code selected for each NRS record. Each patient is assigned to an RG, based on their RCG, which is combined with other variables to assign each patient to an RPG.

Rehabilitation Patient Group (RPG) — A sub-classification of Rehabilitation Groups (RGs) in inpatient rehabilitation case mix grouping methodology developed by Ontario's Joint Policy and Planning Committee using NRS data for Ontario facilities. Patients are assigned to 1 of the 83 specific RPGs based on a combination of RG, Admission Motor Function Score and/or Admission Cognitive Function Score (derived from data collected using the FIM® instrument) and/or age. Each RPG is associated with a typical cost weight, which is intended to be updated annually. See Chapter 5 for more information.

Rehabilitation Intensity (RI) — Calculated based on the total amount of time, in minutes, that clients spent in direct/active 1:1 therapy with occupational therapists, physiotherapists, speech–language pathologists, occupational therapist assistants, physiotherapist assistants and communicative disorders assistants during their rehabilitation stay (as captured in data elements 91A–91F) divided by the clients' Active Rehab Length of Stay (ALOS). (See Rehabilitation Time and Active Length of Stay.)

Rehabilitation Time (RT) — The total time (in minutes) that clients spent in direct/active therapy with occupational therapists, physiotherapists, speech–language pathologists, occupational therapist assistants, physiotherapist assistants and communicative disorders assistants during their rehabilitation stay. Direct therapy refers to individual face-to-face treatment that is guided or monitored by the health care professional for the purposes of achieving therapy goals and maximizing recovery within an individualized treatment plan.

Report —The outcome of analytical queries. The knowledge gained from reports can be used in decision-support activities. A report is created by querying a CIHI datamart containing Canadian health data (such as the NRS).

Reports can be formatted in 3 ways:

1. **Grid —** Data is displayed in a table
2. **Graph —** Data is displayed on a graph
3. **Combined grid/graph —** Data is displayed **both** in a data table and on a graph

You can switch between these 3 formats by using the View Menu or the appropriate toolbar buttons. The formatting options available in each of these formats are different and the visible toolbars and menu items will automatically update as you switch between them.

S

Self-Care Domain (FIM® instrument) — Includes the FIM® instrument motor items that assess basic activities necessary for daily personal care: Eating, Grooming, Bathing, Dressing Upper Body, Dressing Lower Body and Toileting.

Service Interruption — Occurs when a client is unable to participate in the rehabilitation program due to a health condition that may or may not result in a transfer out of the rehabilitation bed or unit. Service interruptions are generally coded only when the client misses more than one day of active rehabilitation and the condition is felt to impact the client's progress in rehabilitation. This does not include weekend passes to visit family at home or temporary bed closures.

Short stay — One of the available options for coding Admission Class in the NRS. Refers to an inpatient rehabilitation stay lasting between 4 and 10 days. 3 scenarios qualify for this coding option: the client is admitted for a brief intervention (e.g., prosthetic adjustment); the rehabilitation stay lasts only 4 to 10 days because of medical complications; or the client was discharged against medical advice. Can be coded on admission if the length of stay is expected to fall within the 4- to 10-day range, or can be recoded on discharge to reflect an unexpected change in admission status.

Social Cognitive Domain (FIM® instrument) — Includes the FIM® instrument cognitive items that assess social and cognitive skills: Social Interaction, Problem-Solving and Memory.

Social Interaction (FIM® instrument) — Includes skills related to participating and co-operating with others in therapeutic and social situations. It represents how one deals with one's own needs together with the needs of others. Participation includes socializing with others or becoming involved in group activities. Co-operation includes working or collaborating with others and following cueing, coaxing and/or directions.

Specialty Rehabilitation Facility — A facility that provides comprehensive inpatient rehabilitation services or specialized rehabilitation programs. This is often a freestanding hospital but can be a specialized unit within a larger acute or chronic care facility. In addition to interventions provided in a General Rehabilitation Facility, clients in a Specialty Rehabilitation Facility also have access to more comprehensive services such as surgical specialists, orthotics and prosthetics.

Sphincter Domain (FIM® instrument) — Includes the FIM® instrument motor items that assess sphincter control: Bladder Management and Bowel Management.

T

Toileting (FIM® instrument) — Includes 3 main tasks: adjusting clothing before using toilet, commode or bedpan; maintaining perineal hygiene; and adjusting clothing after using toilet, commode or bedpan.

Total Function Score (FIM® instrument) — The sum of the scores for all 18 elements on the FIM® instrument, ranging from 18 to 126. A higher Total Function Score suggests a higher level of independent functioning in activities of daily living and communication.

Transfer Domain (FIM® instrument) — Includes the FIM® instrument motor items that assess ability to transfer from one surface to another: Bed to Chair/Wheelchair Transfer, Toilet Transfer and Tub/Shower Transfer.

Transfers — Bed, Chair/Wheelchair (FIM® instrument) — Includes all aspects of transferring to and from a bed, chair and wheelchair (if client uses a wheelchair), or coming to or from a standing position (if walking is the typical mode of locomotion). Client moves from a supine position on the bed to a standing position and vice versa.

Transfers — Toilet (FIM® instrument) — Includes getting on and off a toilet.

Transfers — Tub or Shower (FIM® instrument) — Includes getting into and out of a tub or shower stall. Includes positioning, standing, pivot, and sitting or sliding transfer; for tub transfers, also includes lifting legs over threshold of tub.

U

(Un)planned discharge — One of the available options for coding Admission Class in the NRS. Refers to an inpatient rehabilitation stay lasting 3 days or less, including the day of admission. Includes planned and unplanned discharges. In these cases, the Admission FIM® instrument is typically not completed but can be included in the NRS record if complete.

V

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X

Y

Z

Appendix C: Notes for CIHI Portal users

This section is specific to users of the CIHI Portal ad hoc reporting product.

Introduction

Working within CIHI Portal's dynamic, web-based environment, registered users from Canada's data-submitting health care organizations — such as hospitals, regional health authorities and ministries of health — are able to explore and answer today's health care questions like never before. The inclusion of NRS data in the CIHI Portal environment means that Portal subscribers can access existing NRS eReports and/or create ad hoc NRS reports.

The NRS environment

The National Rehabilitation Reporting System was developed by CIHI in 2001 to support data collection by hospitals for inpatient rehabilitation clients who are mainly age 18 and older. The rehabilitation services are provided in specialized rehabilitation hospitals and in general hospitals within rehabilitation units, programs or designated rehabilitation beds. As of 2015–2016, there were more than 481,000 pairs of admission and discharge records (i.e., complete episodes) in the NRS database, submitted by more than 100 hospitals in 9 provinces and covering a range of health conditions including strokes, orthopedic conditions and amputations.

The inclusion of NRS data in the Portal environment provides users with access to data surrounding adult inpatient rehabilitation services. The NRS data set consists of data elements from the following major categories:

- Socio-Demographics: Information such as full date of birth, sex, living arrangements and vocational status is collected to provide valuable information on the types of patients admitted to rehabilitation programs.

- Administrative: Data is collected on wait times for admission and discharge, service interruptions, rehabilitation intensity and provider types in order to better understand accessibility to rehabilitation, factors influencing length of stay and resource utilization.

- Health Characteristics: Diagnoses and related comorbidities at admission provide information on conditions most often seen in a rehabilitation setting and conditions that may affect a patient's ability to progress in the rehabilitation program.

- Activities and Participation: This is the largest section of the data set and provides clinical data on the motor and cognitive functional abilities of rehabilitation patients. The data is collected using the 18-item FIM® instrument and 6 additional cognitive data elements developed at CIHI. Together, these provide further information on the cognitive abilities of rehabilitation patients.

The NRS data elements are presented in the Portal environment in the following format:

1. NRS Common Attributes
2. NRS Diagnosis Analysis
3. NRS Interruption Analysis
4. NRS Episode Analysis
5. NRS Procedure Analysis

Analytical Objects

Attributes/metrics

Most NRS attributes and metrics that are available in the Portal environment are described in chapters 5 and 6 of this guide. For a complete list of NRS attributes and metrics available in Portal's ad hoc environment (including object name, description and location in the Portal environment), please consult the *CIHI Portal Data Dictionary — National Rehabilitation Services (NRS)*, available on the Portal client services site.

NRS eReports

In addition to providing the ability to create ad hoc reports with NRS data, CIHI Portal also permits access to most or all of the existing NRS eReports (as described in this guide), depending on the level of access possessed by a particular user.

NRS Quick Indicators Reports

Quick Indicators Reports are the quickest and simplest type of report to generate. They are 9 "at-a-glance" reports of several admission, discharge and follow-up indicators. All 9 graphs have identical properties, each reporting on a different indicator. Reports present information based on facility, facility type (general or specialty) and desired fiscal year. Indicators are presented at the facility, peer and national (all) levels. You will be prompted only for your facility name and number in order to generate the report.

NRS Comparative Reports

Comparative Reports allow a bit more flexibility than Quick Indicator Reports but require slightly more time and effort to build, at least initially. They provide a comprehensive set of NRS indicators at the facility, peer and national (all) levels for any of the 6 most recent fiscal years.

There are 4 categories of Comparative Reports:

1. Admission Profile

2. Outcomes at Discharge

3. Outcomes at Follow-Up

4. Resource Utilization

Each category includes up to 7 different types of reports that can be generated (e.g., Age at Admission, Functional Status at Discharge, Follow-Up Living Setting). You can select options for various factors including peer group, Rehabilitation Client Group (RCG) and reporting period. In most cases, reports can be viewed as tables or graphs.

NRS Analytical Reports

Analytical Reports are build-your-own reports that allow even greater flexibility, but they require a bit more time and effort to produce than the other 2 types of reports. As with Comparative Reports, you may select one of 4 categories. Unlike Comparative Reports, however, Analytical Reports allow you to display data based on any available attributes and metrics.

eReports permissions and exclusions

If a user is part of an NRS-submitting facility and has access to the NRS eReports, the user will be able to view all NRS eReports upon logging in to CIHI Portal. If a user has access to CIHI Portal but does not have access to the NRS eReports, the user will be able to view *all but* the following *5* NRS eReports:

- NRS Quick Indicators > 10. Data Quality Indicators

- NRS Comparative Reports > Resource Utilization > 1. RPG Patient Days Report

- NRS Comparative Reports > Resource Utilization > 2. RPG Patient Days Report — Most Recently Completed Fiscal Quarter

- NRS Analytical Reports > Resource Utilization > 3. RPG Patient Days — Peer Comparisons

- NRS Analytical Reports > Resource Utilization > 4. RPG Patient Days — Multiple Facilities

Important NRS data notes

Years of data: NRS data for 2000–2001 to the present have been loaded into the datamart and are now available for ad hoc reporting in Portal. The NRS eReports within CIHI Portal permit the display of data for any of the most recent 6 fiscal years.

Open-year data: The NRS is comprised completely of open-year data, meaning that revisions to previously submitted NRS data may be made at any time.

FIM® instrument: The NRS data set contains clinical data on functional status based on the 18-item FIM® instrument. The FIM® instrument is used to measure outcomes of functional independence at admission and discharge, and optionally on follow-up after discharge. It is composed of 18 items (13 motor items and 5 cognitive items) that are rated on a 7-level scale representing gradations from independent (7) to dependent (1) function, for an overall maximum score of 126 (18 items × 7). The FIM® instrument measures disability and looks at the caregiver burden associated with the level of disability. The overall FIM® instrument score can be broken down into Motor and Cognitive subscales to provide further detail on identifying areas of functional loss.

The 18-item FIM® instrument is the property of the Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc.

Coding/classification: Diagnostic information using ICD-10-CA and Canadian Classification of Health Interventions (CCI) is available in Portal for the NRS for data years 2008–2009 and onward. This information is based on the ICD-10-CA and CCI classification systems. It is important to note that within the NRS, a pick-list of approximately 2,000 ICD-10-CA and 100 CCI codes is available for selection by NRS assessors. The different diagnosis and procedure attributes available are detailed in the *CIHI Portal Data Dictionary — National Rehabilitation Services (NRS).*

Reporting provinces/territories: There are currently 9 provinces submitting data to the NRS: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador.

For more information about the NRS or any of its data or reports, please email nrs@cihi.ca or visit www.cihi.ca/nrs.

References

1. Canadian Institute for Health Information. *National Consensus Conference on Population Health Indicators*. 1999.

2. Canadian Council on Health Services Accreditation. *A Guide to the Development and Use of Performance Indicators*. 1996.

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