

# Ontario Mental Health Reporting System: Case Mix System for Classification of In-Patient Psychiatry and SCIPP Weighted Patient Days Resource Materials and Frequently Asked Questions, 2011–2012

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## Who We Are

Established in 1994, CIHI is an independent, not-for-profit corporation that provides essential information on Canada's health system and the health of Canadians. Funded by federal, provincial and territorial governments, we are guided by a Board of Directors made up of health leaders across the country.

## Our Vision

To help improve Canada's health system and the well-being of Canadians by being a leading source of unbiased, credible and comparable information that will enable health leaders to make better-informed decisions.



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## Introduction

The Canadian Institute for Health Information (CIHI) maintains and updates the System for Classification of In-Patient Psychiatry (SCIPP) grouping and weighting methodologies on behalf of Ontario's Ministry of Health and Long-Term Care (MOHLTC). CIHI also produces SCIPP Weighted Patient Day (SWPD) reports on a quarterly basis for Ontario facilities that have designated adult inpatient mental health care beds and that submit data to the Ontario Mental Health Reporting System (OHMRS). SWPD reports are used by participating facilities for the following purposes:

1. To review completeness of OMHRS data;
2. To measure patient acuity; and
3. To inform resource usage.

Following the release of the SWPD reports, the OMHRS and Case Mix teams frequently receive questions regarding how SWPD reports are produced and how to interpret the facility- and patient-level SWPD information provided in these reports. This document is intended to address the most frequently asked questions received from OHMRS clients relating to SCIPP grouping and weighting of OMHRS data.

## Reference Materials for SCIPP and SWPD

Several Case Mix documents and education products that describe the SCIPP and SWPD methodologies are available as general reference materials:

### Documents

***System for Classification of In-Patient Psychiatry (SCIPP) Grouping Methodology: Flowcharts and SAS Code, OMHRS Version, 2011–2012***

The SCIPP grouping methodology may be used to support facility-, regional- or provincial-/territorial-level service planning and analysis of resource utilization in facility-based mental health care. This product includes SAS program code and detailed flowcharts (program diagrams), as well as the Case Mix Index values for 2011–2012 and test data in comma-separated value (CSV) format.

This product is available on OMHRS Operational Reports (formerly known as eOMHRS) and to CIHI Core Plan subscribers at <https://secure.cihi.ca/estore/productSeries.htm?pc=PCC322>.

***OHMRS Interpreting SWPD Reports, 2010–2011***

This document is available to facilitate understanding of facility-specific and comparative SWPD reports. The next update for this document will occur in March 2012 for 2012–2013.

This document is available through OMHRS Operational Reports (formerly known as eOMHRS) and is also available on CIHI's Case Mix web page at [www.cihi.ca/CIHI-ext-portal/internet/EN/TabbedContent/standards+and+data+submission/standards/case+mix/cihi010690](http://www.cihi.ca/CIHI-ext-portal/internet/EN/TabbedContent/standards+and+data+submission/standards/case+mix/cihi010690).

## Education

### **OMHRS–SCIPP Methodology and SCIPP Weighted Patient Day (SWPD) Report Interpretation (full-day workshop)**

This workshop explores the SCIPP grouping methodology and how the SWPD indicators are derived. CIHI's experts will explain how OMHRS assessments are grouped and how administrative and clinical data is ultimately used to produce SWPD reports.

Details on registration and dates for this workshop for CIHI Core Plan subscribers can be found at <https://learning.cihi.ca/>.

### **OMHRS–SCIPP Methodology and SCIPP Weighted Patient Day (SWPD) Report Interpretation (1.5-hour self-study course)**

This self-study course will explore the SCIPP grouping methodology and how the SWPD indicators are derived. The way OMHRS assessments are grouped and how administrative and clinical data is used to ultimately produce SWPD reports will be explained.

This product is available to CIHI Core Plan subscribers at <https://learning.cihi.ca/>.

## Frequently Asked Questions

### **What is the System for Classification of In-Patient Psychiatry (SCIPP) grouping methodology?**

The SCIPP grouping methodology is used to categorize assessment data submitted by participating organizations to the Ontario Mental Health Reporting System (OMHRS). Participating organizations in Ontario include general hospitals with designated adult inpatient mental health beds and specialty psychiatric hospitals. Assessments are categorized into specific groups based on similar clinical and resource utilization characteristics. Applying the SCIPP grouping methodology provides an estimate, or sample, of the resources used by each group, which can be used for planning, resource allocation, data quality and funding purposes.

### **What are SCIPP categories?**

There are nine SCIPP categories based on mental health diagnoses. Each category is associated with a specific set of SCIPP groups; there are 49 SCIPP groups in the nine categories combined. SCIPP categories 1 to 7 are ordered in a clinical hierarchy from most to least resource intensive. Mental health diagnoses are used as an organizing principle for these first seven SCIPP categories. The Ungroupable and Not Mental Health categories are not part of the clinical hierarchy and are used only in specific situations when the other categories do not apply.

### **What are the three steps used to assign SCIPP groups to OMHRS assessments?**

A SCIPP group is assigned to any given assessment using the following three-step approach:

1. Calculate SCIPP indicators.
2. Determine SCIPP categories.
3. Select the appropriate SCIPP group within the category.

### **How are SCIPP indicators calculated for OMHRS assessments?**

In step 1 of the SCIPP grouping methodology, 22 SCIPP indicators are calculated for each OMHRS assessment. The indicators are derived using clinical assessment data for later use in steps 2 and 3 of the methodology. SCIPP indicators are created using information collected from the MDS-MH form. You may notice that some of the SCIPP indicators look similar to OMHRS outcome scale indicators; please note that most of them are derived using different algorithms. Several temporary variables are also used to derive the SCIPP indicators; these variables are also derived for each assessment using clinical information collected on the MDS-MH form. For details on calculating SCIPP indicators, please refer to pages 14 to 37 of the SCIPP grouping methodology flowcharts, 2011 version.

### **How are SCIPP categories determined for OMHRS assessments?**

To determine which SCIPP category an assessment qualifies for, the diagnoses reported in Section Q1 of the MDS-MH form are considered in a specific order. Up to three diagnoses can be recorded in this section, but only one SCIPP category will be assigned. The diagnoses are examined in a specific order per the SCIPP hierarchy, regardless of the level of importance to which the diagnosis is coded; thus the most important diagnosis is not always the one used to decide on the qualifying SCIPP category. For details on the order of SCIPP category assignment, please refer to pages 38 and 39 of the SCIPP grouping methodology flowcharts, 2011 version.

### **Why are the days of stay at the time of assessment so important for SCIPP grouping?**

Research data shows that resource intensity changes during the course of an inpatient mental health stay, especially for schizophrenia and mood disorder patients. To better estimate resource use over time, the resource intensity of a typical OMHRS episode can be divided into three phases: the admission phase, the post-admission phase and the long-term phase. All OMHRS assessments will be assigned three weighting SCIPP group values, one corresponding to each phase, regardless of when the assessment occurred.

### **What is the admission phase?**

The admission phase is defined as the first five days of stay. The admission phase is typically associated with higher resource use for Category 1 (Schizophrenia) and Category 3 (Mood Disorders) SCIPP groups. This is based on the original research study conducted by interRAI.

### **What is the post-admission phase?**

The post-admission phase is defined as days 6 to 730 of the stay.

### **What is the long-term phase?**

The long-term phase is defined as days 731 and beyond of the stay.

### **What is the SCIPP\_1\_TO\_5 group?**

The SCIPP\_1\_TO\_5 group is used to weight patient days 1 to 5.

### **What is the SCIPP\_6\_TO\_730 group?**

The SCIPP\_6\_TO\_730 group is used to weight patient days 6 through 730.

### **What is the SCIPP\_731\_PLUS group?**

The SCIPP\_731\_PLUS group is used to weight patient days 731 and beyond.

### **What is the SCIPP clinical group?**

A SCIPP clinical group is assigned to each assessment, giving the point-in-time SCIPP group for the assessment based on the assessment reference date. Although the SCIPP clinical group is not used for weighting, it provides a snapshot of the resource use and clinical characteristics of the patient at the time of the assessment.

### **What is a Case Mix Index (CMI) value?**

For each SCIPP weighting and clinical group, there is an associated cost weight called a CMI value. The CMI is a relative index, with higher CMI values indicating higher resource use. You will notice that there is a specific CMI for each SCIPP group.

The SCIPP Funding CMI values were developed by the Ontario MOHLTC Joint Planning and Policy Committee (JPPC) Mental Health Technical Working Group (MHTWG). For many case-mix systems, the average CMI is 1.0, but this is not the case for the SCIPP Funding CMI values.

### **Why are there many more CMIs for Category 1 (Schizophrenia) and Category 3 (Mood Disorders) SCIPP groups?**

There are several groups for Category 1 (Schizophrenia) and Category 3 (Mood Disorders) because, for any assessments assigned to these categories, the admission phase, post-admission phase and long-term phase weighting groups differ. For any assessments assigned to the other categories, the three weighting phase groups are assigned the same group.

### **Which SCIPP groups have the highest and lowest CMI values?**

For 2011, the highest SCIPP Funding CMI value is 1.4666 for Schizophrenia group 1\_SZPA1, while the lowest SCIPP Funding CMI value is 1.0559 for Schizophrenia group 1\_SZPCC2.

### **What is the SCIPP Weighted Patient Days (SWPD) methodology?**

The SWPD methodology is an accounting process that combines the SCIPP weighting groups, SCIPP Funding CMI values and administrative information about the patient to produce counts of the number of patient days and weighted patient days.

Each day that a person is an inpatient is referred to as a “patient day,” and each patient day is weighted using the SCIPP Funding CMI associated with the appropriate SCIPP group for that period of time. The SWPD reports summarize these measures of resource intensity at the episode, patient and facility levels for each facility that submits data to OMHRS within a given reporting period.

### **What are the two weighting rules used to weight OMHRS assessments using the SWPD methodology?**

For all SWPD reports, there are two weighting rules:

1. The information from an assessment covers all patient days until the next assessment.
2. Information from the OMHRS admission assessment applies from the date of admission until the date of the admission assessment.

### **How are SWPD events established?**

The patient’s SWPD events are set up based on the OMHRS assessments submitted within the reporting period. Information from these assessments is transformed into corresponding SWPD events by subdividing each episode into segments. The start date of each segment is the entry date, the assessment reference date or the discharge date. Patient days for each event are calculated as the event end date minus the event start date. The entry date is counted as one patient day, whereas the discharge date is not. While the discharge date is not counted as a patient day, we create a discharge event to acknowledge that discharge occurred.

### **How are short-stay episodes weighted?**

Short-stay assessments usually cover periods of care lasting less than 72 hours. For many OMHRS facilities, up to 30% of assessments are short stays. For a short-stay episode, the patient’s SWPD summary is reported as one single event called the “short-stay assessment.” In terms of weighting, if the short-stay assessment is grouped, the SCIPP group code and its CMI value will be used to weight the patient days of stay. However, if the short-stay assessment is ungroupable, the facility’s short-stay CMI values will be used to weight the stay.

In the facility SWPD report, the short-stay facility CMI is on the facility summary page as cell (24). For more information about how the facility short-stay CMI is derived, please refer to page 13 of the interpreting SWPD document.

Short-stay assessments can sometimes occur for stays related to reasons other than mental health. In these cases, the patient days for the episode are not weighted.

### **What is a weighting phase change event?**

The original research done by interRAI on adult inpatient mental health patients reported that resource use changes significantly over time for Category 1 (Schizophrenia) and Category 3 (Mood Disorders) episodes. The CMI or relative resource use is lower during the post-admission phase than the admission phase for these assessments because fewer resources are typically used during the post-admission phase for Category 1 and Category 3 episodes. Accordingly, in the SWPD methodology, data from one assessment is used to weight patient days for two SCIPP weighting phases (two SCIPP groups and CMIs) for assessments assigned to Category 1 and Category 3. For the days in the admission phase, the admission phase SCIPP group called SCIPP\_1\_TO\_5 is used. For the patient days in the post-admission phase, the post-admission phase SCIPP group called SCIPP\_6\_TO\_730 is used. To identify that there has been a change in the SCIPP group used between day 5 and day 6 (or day 730 and day 731 for long-term episodes), a weighting phase change event is created in the SWPD report.

### **What are SWPD reports?**

Information collected for OMHRS is used to produce SWPD reports. CIHI produces the SWPD reports quarterly to summarize clinical and resource characteristics of individuals and facilities. A variety of audiences may use SWPD reports, including financial and decision-support analysts, Resident Assessment Instrument (RAI) coordinators, facility administrators and management teams within health regions and ministries of health.

### **How many types of SWPD reports are there?**

There are two types of SWPD reports:

1. Facility reports summarize information for individual patients as well as for the facility.
2. Comparative reports summarize information for all OMHRS facilities.

In a facility SWPD report, the patient SWPD events are reported for every episode. The report also summarizes patient days, late patient days, CMI values and other SWPD indicators for short-stay and other episodes. An example facility SWPD report can be found in Appendix 2 of the OMHRS interpreting SWPD document.

The comparative SWPD report presents data from all OMHRS facilities by peer group. This report summarizes facility SWPD data in three sections: Section A presents summary information, Section B presents information on other episodes and Section C presents information on short-stay assessments. An example comparative SWPD report can be found in Appendix 3 of the OMHRS interpreting SWPD document.

SWPD region-level reports are also available. These reports summarize information from the other two reports for each local health integration network (LHIN) in Ontario. All reports can be accessed through OMHRS Operational Reports (formerly known as eOMHRS).

### **Are the SWPD reports cumulative throughout the fiscal year?**

Each fiscal quarter, the SWPD reports are run after the final submission deadline for a given reporting period. The reporting period is cumulative throughout the fiscal year. The SWPD quarterly report reflects assessments cumulatively from April 1 to the end of the current fiscal quarter. For example, the Q2 report covers activities from April 1 to September 30, inclusive. The Q4 report covers all activities within the fiscal year, from April 1 to March 31 of next calendar year. You may refer to the submission timelines in the *OMHRS Resource Manual—Module 2: Technical Specifications and Data Submission* for detailed submission deadlines.

### **When are SWPD reports generated?**

Each fiscal year, Q1, Q2 and Q3 SWPD reports are generated based on data cuts made following the OMHRS submission deadline (two months after the end of the quarter). Facilities should review page 1 of the SWPD report to locate the “Assessed Late PD” and the “Discharge Assumed Notice” lines. These two data quality items provide information about late assessments and missing submissions and discharges. Missing and corrected data should be submitted to OMHRS prior to the next data submission deadline. Facilities should review their SWPD reports each fiscal quarter and ensure their data is submitted and accepted prior to the data submission deadline each fiscal quarter.

The year-end SWPD report is produced based on the June 1 data cut. These reports are produced for use by the MOHLTC.

### **Is it possible to receive the quarterly SWPD report with just the data for a specific quarter within the reporting period?**

CIHI’s SWPD reports are not generated based on data for each individual quarter; rather, the reports are cumulative. Each quarterly report covers the reporting period from April 1 to the end of that fiscal quarter (that is, the reports include data from the previous quarters). The exception to this is the Q1 reports, which cover only the first fiscal quarter from April to June.

### **If my facility makes corrections, can I request a new SWPD report for that time frame to reflect the updates that were made?**

Currently, CIHI’s SWPD reports are not produced upon request.

Each quarter when SWPD reports are released after the data submission deadlines, facilities are encouraged to review their quarterly SWPD reports for any late patient days and discharge assumed records. As long as the corrections for any missing assessments/discharges are submitted and accepted into the OHMRS database by the data correction deadline, the updated information will be reflected in the following fiscal quarter’s SWPD report (for example, for Q3, if corrections from the previous quarter are submitted by February 28, the Q3 SWPD report released in March will reflect those corrections).

### **Why does CIHI’s SWPD report produce different results from those generated by my vendor’s software?**

CIHI produces the SWPD reports on behalf of Ontario’s MOHLTC. The methodology used to produce the SWPD reports for use by OMHRS facilities was developed by the Ontario JPPC MHTWG (<http://govdocs.ourontario.ca/results?creator=Ontario.+Joint+Policy+and+Planning+Committee.+Mental+Health+Technical+Working+Group>).

Facility vendor systems are not required to produce SWPD reports. However, some have opted to include this functionality. While OMHRS provides a vendor testing process to review the quality of record submissions, CIHI does not review the methodology used by vendors to replicate SWPD reports. Accordingly, CIHI cannot comment on differences between values in CIHI’s SWPD reports and those produced through a vendor’s software. For example, without knowing how the vendor’s system produced the short-stay, other episode and total CMI values, we cannot explain why the values produced by the vendor’s software are not the same as those produced in an OMHRS quarterly SWPD report.

**How can I find out more details about the submission of SWPD events occurring after April 1?**

OMHRS submission reports show the number of assessments submitted and rejected but do not include an inventory of the assessments in the database. To get this information, facilities can either submit a data request **or** find out if there is a function in their vendor software to review the assessments submitted.

**What are late patient days?**

On page 2 of the facility SWPD report, the facility summary of late patient days is included. The “LATE Patient Days” line shows the total number of late patient days within the reporting period.

*Example*

	Short Stay Assessments (1)	Other Episodes (8)	Total (16)
Patient Days.....	8 (2)	745 (9)	753 (17)
<b>LATE Patient Days.....</b>	<b>n/a</b>	<b>15 (10)</b>	<b>15 (18)</b>
UNGROUPABLE Patient Days.....	3 (3)	2 (11)	5 (19)
SWPD.....	10.2395 (4)	933.6578 (12)	943.8973 (20)
Case Mix Index (CMI) . . . . .	1.2799 (5)	1.2532 (13)	1.2535 (21)
Days away from bed . . . . .	1 (6)	86 (14)	87 (22)
Q1q - Non Mental Health Days . . .	1 (7)	16 (15)	17 (23)
Short Stay Facility CMI = 1.2634 (24)			
Number of DISCHARGE ASSUMED (25)			
There is 1 episode that is assumed to be discharged.			

These patient days are associated with an assessment; however, the assessment was not completed within the time frame required by OMHRS data submission standards. According to OMHRS standards, there are two general rules concerning the timing of assessments that relate to late patient days:

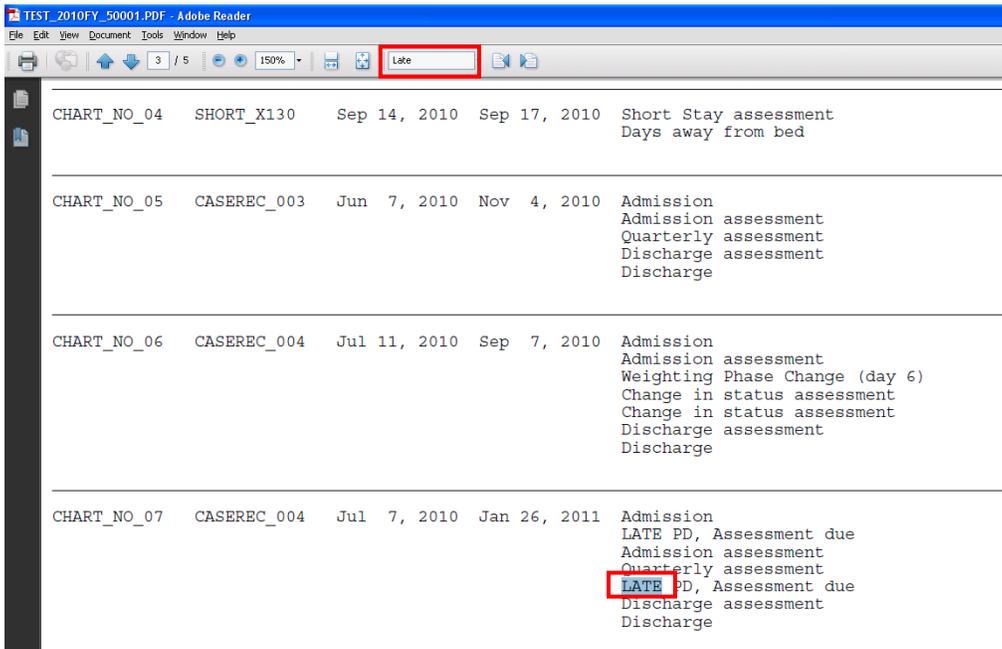
1. The admission assessment is due within three days of the entry date, that is, on day 4 of the episode.
2. For ongoing periods of care, an assessment is due within 92 days of the prior assessment.

If all assessments have been completed and submitted according to the OMHRS assessment timing and submission deadlines, the late patient day count should be 0. Currently, there is no penalty for late patient days; however, this may change in the future.

### How do I find patients with late patient days in my SWPD reports?

When reviewing the PDF version of the facility SWPD report, you can use the search function to find the word “Late” in the patient SWPD section of the report. In this way you can easily identify any patients with “Assessment (Late)” events.

See the following diagram for an example:



**What does the discharge assumed message mean?**

The discharge assumed notice is located on page 2 of the facility SWPD report, immediately below the facility summary table:

	Short Stay Assessments (1)	Other Episodes (8)	Total (16)
Patient Days.....	8 (2)	745 (9)	753 (17)
LATE Patient Days.....	n/a	15 (10)	15 (18)
UNGROUPABLE Patient Days.....	3 (3)	2 (11)	5 (19)
SWPD.....	10.2395 (4)	933.6578 (12)	943.8973 (20)
Case Mix Index (CMI) . . . . .	1.2799 (5)	1.2532 (13)	1.2535 (21)
Days away from bed . . . . .	1 (6)	86 (14)	87 (22)
Q1q - Non Mental Health Days . . .	1 (7)	16 (15)	17 (23)
Short Stay Facility CMI - 1.2634 (24)			
Number of DISCHARGE ASSUMED (25)			
There is 1 episode that is assumed to be discharged.			

The discharge assumed notice provides a count of the patients who are assumed to be discharged because there are missing assessment(s)/discharge event(s) within the facility SWPD report. These events are created when data was expected by CIHI but was not received for at least a quarter. This may occur when

1. The patient was discharged but a discharge record was not submitted;
2. The patient is still in the facility but an assessment was missed; or
3. The discharge assessment or an assessment for an ongoing episode was not successfully accepted by the OMHRS system.

If your facility has any patients who are assumed to be discharged, please review the SWPD facility report for discharge assumed events (see cell [25] of the interpreting SWPD document for further details).

**Are leaves of absence (LOAs) included in data element X130 Days Away From Bed?**

Yes, data element X130 includes the number of days away from the bed since the last assessment or since admission, including any service interruptions of 24 hours or more. LOAs or weekend passes of 24 hours or more are included in data element X130.

**Are short discharge assessments groupable?**

Short discharge assessments are groupable as long as all the required data elements for SCIPP group assignment are completed. Some of the data elements required for SCIPP group assignment are currently optional on the short discharge, to enable completion of the discharge assessment in situations where additional clinical information is not available.

**What is the assessment reference date (ARD) for a discharge?**

The ARD is defined as the last day of the MDS-MH assessment process. It is the designated end point for the observation period and is usually set, for a discharge assessment, on the last day the person occupied the bed. For discharge assessments, the RAI-MH is typically completed on the same day the patient is discharged, so the ARD and discharge date are generally the same. It is possible for the discharge date and the discharge assessment date to differ if the patient was discharged from a leave, service interruption or AWOL. In that case, the ARD would be the last day the patient occupied the mental health bed and the discharge date would be when the patient was finally discharged.

**What are the normalized CMI and normalized SWPD values reported in the comparative SWPD reports?**

In the SWPD comparative reports, the normalized SWPD and normalized CMI values are derived for each facility by using data from all OMHRS facilities. Normalized CMI values allow for more meaningful comparisons between facilities, as they are more easily interpreted. This is because the normalized CMI value is defined so that the average OMHRS patient has a CMI value of 1.0000. For example, the patients in a facility with a CMI of 1.0100 are using 1% more resources than the average OMHRS patient. For more information on normalized CMI and normalized SWPD values, please see pages 30 to 33 of *OHMRS Interpreting SWPD Reports, 2010–2011*.

**Questions**

If you have any questions, please send an email to [omhrs@cih.ca](mailto:omhrs@cih.ca).