

Hospital Report 2007: Rehabilitation
System Integration & Change Technical Summary

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Overview

Hospital Report 2007: Rehabilitation includes System Integration and Change (SIC) indicators in addition to the more traditional areas of performance assessment. SIC indicators assess efforts made by Ontario hospitals to evaluate integration of care, client-centred care, best practices, coordination of care across the continuum, organizational commitment to staff development, and a healthy work environment. The *SIC Technical Summary* presents additional details of the methodology and results not provided in *Hospital Report 2007: Rehabilitation*.

Unlike the other three quadrants, there are few accepted standard measures in the areas captured by the SIC indicators. While some hospitals collect measures of employee skills and training, few measures of human capital and organizational learning are available through existing administrative databases. Available measures are also often unusable because variations in data coding create difficulties in comparing performance across organizations. Thus, the indicators used in the SIC quadrant of *Hospital Report 2007: Rehabilitation* were derived from the *2007 SIC survey*.

For each SIC indicator, this *SIC Technical Summary* provides a description of the calculations used to arrive at indicator values and performance categories for participating hospitals. In addition, data on the distribution of scores for each indicator are provided for the province as a whole.

Methodology

The following sections describe the methodology used to identify indicators for *Hospital Report 2007: Rehabilitation*, including the modification of the survey instrument, redevelopment of the indicators, the data collection process, a detailed description of how each indicator was constructed, and the modified performance allocation method. There are eleven SIC indicators presented in *Hospital Report 2007: Rehabilitation*.

Development of the 2007 Online System Integration and Change Survey

In 2005, Hospital Reports subscribed to an online survey tool to create two electronic surveys for the SIC quadrant. The first, a Board Governance Survey, was sent to Board Chairs for Acute Care hospitals in November 2005, and the second was an online version of the Acute Care SIC Survey: Healthy Workplace Environment section. Hospital Report contacts volunteered to pilot test the online survey and to act in an advisory capacity for the development and pilot testing process. A total of 22 hospitals completed the online Healthy Workplace Environment survey. Results from the pilot test showed a strong desire on the part of hospitals for an online survey process, but participants provided detailed requirements for development and implementation of a product with more functionality.

A thorough review of software products was conducted and an online vendor was chosen. The online survey software that was chosen provided the most flexibility and ability to customize the survey.

After the multi-sector survey, consisting of 102 questions, was entered into the survey tool, validation, skip logic, and workflow design were developed using the online software. A web-based demonstration and a sample pilot survey consisting of the SIC questions were conducted with eleven participating hospitals to receive feedback on question format and the online tool. The final survey was sent out to Ontario hospitals via email in December 2006. Participant

satisfaction, ease of use, and data quality were assessed by various qualitative and quantitative feedback methods.

Compared to previous years' manual data entry process, the online tool eliminated the need to create a MS Access database for data entry and validation, hire and train staff for a six-week data entry period, and perform significant manual quality checks and follow-up calls to hospitals. The online tool effectively reduced the administrative costs such as mailing and printing.

Survey Redevelopment

During the 2005 data verification process, Hospital Report contacts indicated that the SIC survey was lengthy and cumbersome, and that some of the questions were unclear. Over the year, CIHI worked with the HRRRC researchers and principle investigators to streamline and restructure the survey sections and questions. The objectives were to reduce the number of questions.

Questions were considered for removal if they met one of the following criteria:

1. Questions not being used in an indicator calculation
2. Questions with potential problems with interpretation as indicated by low response rates and frequently asked questions from respondents
3. Response rates for specific questions were the same year after year
4. Questions that were being addressed in another section

Other changes were made to improve the survey such as clarification on questions and customizing questions to appropriate sectors/respondents. The 2007 SIC survey included 102 questions and nine sections. The assigned sections that all hospitals participating in the *Hospital Report 2007: Rehabilitation SIC survey* includes:

- Management of Human Resources
- Investments in Information Technology
- Use and Dissemination of Information for Clinical Decision Making
- Use and Dissemination of Information for Quality Improvement
- Healthy Work Environment
- Rehabilitation
- Patient Safety

Describing the Survey Process

In general, the SIC survey was sent to participating Ontario hospitals (regardless of which hospital was participating in which sector) in mid-December 2006. A total of 103 hospitals completed and returned the surveys for a response rate of approximately 84%. 56 rehabilitation hospitals completed the survey. Hospitals were asked to complete one survey for the entire corporation.

A web-based survey was distributed via email to the Hospital Report contact at each organization. The Hospital Report contact disseminated the sections of the survey (via the custom-designed workflow) to the person in the organization who possesses the most knowledge about topics covered in that section. At the end of each section, one individual was required to sign-off on a statement of accuracy. This statement required hospital personnel to confirm that their responses were accurate and reflected the current operating circumstances.

Hospitals were given approximately six weeks to complete the survey. One month after the initial distribution of surveys, reminder notices were sent to hospitals that had not yet completed the

survey. Three hospitals did not return surveys. Responses, by hospital type, are presented below.

Table 1.1: Rehabilitation SIC Surveys Completed

	Completed Surveys	Surveys Not Returned/ Non-participating	Total
Freestanding Rehabilitation facilities	11	1	12
Rehabilitation hospitals with Acute Care	45	1	46
All Rehabilitation Hospitals	56	2	58

Data Quality

The indicators for this quadrant are based on hospital survey data that are inevitably subject to a "social desirability bias". That is, consciously or unconsciously, respondents may answer questions in a way that puts their organization in the best possible light. To counteract this bias, an effort was made to construct survey questions that focused on specific behaviours rather than attitudes. Despite this focus, opportunities remained for varying interpretations, and some degree of interpretation may still be reflected in answers to many of the questions.

CIHI analysts performed data quality checks on the completed surveys to ensure that all mandatory questions were answered and that skip logic, validation and question masking were performed correctly by the online survey. We found two causes for follow-up which affected ten hospitals. The first technical issue was that if there was a midterm change in participation status in a sector, there was a possibility that some sector-specific questions were not shown to the respondents, and therefore were left unanswered. The other technical issue was that the custom-built validation on one of the questions did not catch all possible answer choices, leaving impossible responses. We followed-up with the ten hospitals via email and asked the Hospital Report contact to complete the effected questions in a Word document. Analysts then entered this data into the populated database. Two analysts then developed SAS code for the indicator calculations independently of each other and compared results. Once the SIC indicator scores were produced, random manual checks of hospitals' scores were done by examining the original surveys to ensure a high level of reliability.

Developing the Indicators

The nine SIC indicators used in *Hospital Report 2007: Rehabilitation* are:

1. Healthy Work Environment
2. Interdisciplinary Integration of Care
3. Evidence of Client-Centred Care
4. Best Practices
5. Coordination and Continuity of Care Across the Continuum
6. Evidence of Organizational Client-Centredness
7. Organizational Commitment to Staff Development

The Healthy Work Environment indicator is a corporate-level indicator, while the remaining indicators are specific to rehabilitation. The Coordination and Continuity of Care Across the Continuum indicator is presented for the following RCG groups in the Executive Report: All RCGs; Total Stroke; Total Orthopaedic Conditions. The Coordination and Continuity of Care Across the Continuum indicator for Post Hip Fracture and Post Hip and Knee Replacement groups are available via the e-Scorecard only. Despite the different RCG categories, the method of indicator calculation remains constant.

Once the surveys were completed, the process of confirming the questions to be used in the SIC indicator calculations for *Hospital Report 2007: Rehabilitation* began. Response distributions were calculated for each question in the *2007 SIC survey*. Hospital-specific data for all Rehabilitation SIC indicators are available to hospitals in the e-Scorecard.

During the 2007 survey redevelopment process, modifications were made to *Hospital Report 2007: Rehabilitation* indicators such as recalculation and reweighing of indicators, and adding new or deleting survey indicator questions. Therefore, please note that caution should be taken when comparing indicator results with previous years. Please see Appendix A for list of indicator changes.

Comparability of Indicator Results

No changes were made to two of the existing indicators, therefore, year-over-year comparisons can be made in specific areas for the following indicators: Coordination and Continuity of Care Across the Continuum and Evidence of Organizational Client-Centeredness. For the other indicators, please review the indicator descriptions to identify the changes. Caution should be taken when comparing the indicators with previous report's results due to the changes in the calculation of indicator questions and weights.

Scoring of the Indicator

A detailed description of the questions used and points allocated in the construction of each of the seven indicators is provided below. To calculate the indicator score, each question must be multiplied by the specified weighting. For example:

Hospital A received 18 points for Question **X** out of a possible total of 25 points. To calculate the contribution of this question to the indicator score, divide hospital A's score (18) by the total possible points (25) and multiply by the specified weighting for Question **X** (23%). Therefore, hospital A received 16.56% of the total indicator score for question **X**.

The weights for each question are provided in tables at the end of each indicator. The weighted scores are then summed for each question to get the overall score for that component of the indicator. For example:

Component Score =

$$\left\{ \left(\frac{HospitalQuestionScore}{MaximumQuestionScore} \times QuestionWeight \right) + \left(\frac{HospitalQuestionScore}{MaximumQuestionScore} \times QuestionWeight \right) + \dots \right\}$$

The overall indicator score is calculated by summing the scores for each component. When a question is not applicable to a hospital, the question is removed from the denominator for that component.

Indicator 1: Healthy Work Environment

The Healthy Work Environment indicator was designed to measure the extent to which hospitals have mechanisms in place to support and promote a healthy work environment and thereby contribute to employee's physical, social, mental and emotional well-being. Eleven questions from section 5 were used to calculate this indicator.

This year, the Healthy Work Environment indicator is calculated across all sectors.

Note: Hospitals who participated in multiple sectors would have the same Healthy Work Environment score across all sectors. However, the provincial average and performance allocation for that indicator would vary because it is based on participating hospitals within that sector only.

Component 1: Healthy Workplace Policy/Plan (30%)

Section 5, Question 31a:

Organizations were asked about their workplace policy/plan. Three points were given to organizations that had a policy/plan that extended beyond policies mandated by health and safety legislation. The total point allocation for this question was 3 points.

Section 5, Question 31b:

This question asked if the organization's healthy workplace policy/plan was based on an employee needs assessment. Organizations with an informal assessment process in place to evaluate employee needs, attitudes and preferences in regard to healthy workplace programs were given 1 point and 2 points were assigned to organizations with a formal assessment. The total point allocation for this question was 2 points.

Component 2: Accountability & Responsibility (10%)

Section 5, Question 32a:

This question asked if accountability and responsibility for healthy workplace initiatives were formally assigned within the organization. Organizations were given 3 points if accountability and responsibility were formally assigned. The total point allocation for this question was 3 points.

Section 5, Question 32b:

Based on question 32a, if accountability and responsibility for healthy workplace initiatives were formally assigned within the organization, organizations were then asked to specify which group was accountable and responsible for healthy workplace initiatives. Organizations that chose senior management received 1 point. If accountability and responsibility were shared broadly throughout the organization, organizations were given 2 points. The total point allocation for this question was 3 points.

Component 3: Assessment, Analysis, & Improvement (20%)

Section 5, Question 33a:

Organizations were asked if there were processes in place to assess and analyze the organization's approach to healthy workplace issues. Three points were given if there were ongoing processes in place. The total point allocation for this question was 3 points.

Section 5, Question 33b:

Organizations were asked to identify which of the following outcomes associated with developing a healthy workplace were collected and analyzed within the organization. There were 11 outcomes provided in the question. Organizations who indicated there was an informal process

received 1 point and those with a formal process received 2 points. The total point allocation for this question was 22 points.

Section 5, Question 33c:

This question asks organizations how they disseminated information about the outcomes associated with their healthy workplace policy/programs. For each of the 4 groups, organizations received 1 point if an internal written report was circulated about key highlights. If either a verbal presentation and discussion of results occurred or results were reviewed beyond the initial verbal presentation for a specific initiative, organizations received 3 points. The total point allocation for this question was 16 points.

Component 4: Key Dimensions (40%)

Section 5, Question 35:

Organizations were asked about 7 processes in place to support a positive psychosocial environment. Hospitals with a process in place to encourage the participation of front-line employees in decision-making and overall control of their jobs were given 2 points for an informal process and 4 points for a formal process. Additionally, hospitals with a process in place to create innovative schedules, hours of work and job sharing arrangements to meet the needs of work settings is allocated 2 points for an informal process and 4 points for a formal process. Hospitals received 1 point for an informal process and 2 points for a formal process for the 5 other processes in place. The total point allocation for this question was 18 points.

Section 5, Question 36a:

This question asked if there were one or more healthy lifestyle programs offered by your organization. If organizations answered yes, they received 3 points. The total point allocation for this question was 3 points.

Section 5, Question 36b:

Based on question 36a, if an organization indicated there was a healthy lifestyle program offered, they were asked which of the healthy lifestyle program(s) included any of the 4 components (e.g. formal approach to education and skill development, assessment of behaviour change, monitoring/evaluation of utilization of programs, long term planning). 1 point is allocated to each of the 4 components. The total point allocation for this question was 4 points.

Section 5, Question 36c:

Organizations were asked if their program(s) were developed (or lack thereof) based on an employee needs assessment. If an organization identified yes, they were given 3 points. The total point allocation for this question was 3 points. If organizations answered in Q36a='NO' and Q36c='YES', then Q36 was removed from the component and the key dimensions component was composed of Q35 only.

Table 1.2: Healthy Work Environment Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Healthy Workplace Plan/Policy (30%)		
Section 5, Question 31a	3	30%
Section 5, Question 31b	2	
Component 2: Accountability & Responsibility (10%)		
Section 5, Question 32a	3	10%
Section 5, Question 32b	3	
Component 3: Assessment, Analysis, and Improvement (20%)		
Section 5, Question 33a	3	20%
Section 5, Question 33b	22	
Section 5, Question 33c	16	
Component 4: Key Dimensions (40%)		
Section 5, Question 35	18	27%
Section 5, Question 36a	3	13%
Section 5, Question 36b	4	
Section 5, Question 36c	3	
Total Score		100%

Indicator 2: Interdisciplinary Integration of Care

The Interdisciplinary Integration of Care indicator was designed to reflect the amount of interdisciplinary integration that is occurring in designated inpatient rehabilitation in Ontario hospitals. This indicator is comprised of eight questions from section 5 and one question from section 1.

Component 1: Patient Care and Team Function (60%)

Good teamwork in healthcare contributes to interdisciplinary integration of care for clients. Health care teams meet for two main reasons: 1) to discuss patient care issues (Q. 48, and 49a and b); and 2) to discuss team function issues (Q. 50, 48, 51, 52). Both types of meetings are important for effective teamwork.

Section 7, Question 48:

The first column in this question asks which groups attend multidisciplinary rounds to discuss patient care issues. 1 point is allocated for each group that attends. The maximum number of points for this part of the question is 6.

Section 7, Question 49a:

This question asks whether the organization has a formal process for documenting patient-related goals. 2 points are given if the organization has a formal process, and 0 point is given if a formal process does not exist. The maximum number of points for this question is 2.

Section 7, Question 49b:

This question asks whether the organization uses formal tools for the process of documenting and monitoring patient-related goals. 1 point is given if the organization has a formal process, and 0 point is given if a formal process does not exist. The maximum number of points for this question is 1.

Section 7, Question 50:

This question asks if any multidisciplinary Rehabilitation teams currently meet at least once per year to discuss issues related to team function. If any team does, 1 point is given. The maximum number of points for this question is 1.

Section 7, Question 48:

The second column in this question asks which groups attend at least one meeting per year to talk about issues relating to team function. 1 point is allocated for each group that attends. The maximum number of points for this part of the question is 6.

Section 7, Question 51:

This question asks whether there are processes in place to evaluate team function. 1 point is allocated for informal processes, and 2 points are allocated for formal processes. The maximum number of points for this question is 2.

Section 7, Question 52:

This question asks which groups receive information about evaluation of team function. 1 point is allocated for each of the four groups checked off. The maximum number of points for this question is 4.

Component 2: Resources for Professional Development and Learning (20%)

Section 1, Question 12:

The extent to which hospitals invest in staff and physician attendance at continuing education activities related to team building and leadership development (Q. 12a, b, c), is important for interdisciplinary integration of care. For those two rows (team building and leadership development), if few of the staff participated in these activities, 1 point is allocated, if some of the staff participated, 2 points are allocated, and if most of the staff participated, 3 points are allocated. This question was asked for three staff groups. The maximum number of points for this question is 18.

Component 3: Clinical Documentation (20%)

The processes that hospitals utilize for clinical documentation and the structures they have in place to evaluate and support the processes (Q. 53, 54) are key components of a successful interdisciplinary approach to care.

Section 7, Question 53:

This question asks about the processes utilized for clinical documentation. 1 point is allocated for paper-based/discipline-specific documentation, 2 points are allocated for electronic-based/discipline-specific documentation, 3 points for paper-based/integrated documentation, and 4 points for electronic-based/integrated documentation. The highest option is used in scoring. The maximum number of points for this question is 4.

Section 7, Question 54:

This question asks about the structures in place to evaluate and support processes for clinical documentation. 0.5 points are allocated for written guidelines/policies, 1 point for chart audits, 1 point for feedback regarding documentation on performance appraisals, and 1 point for workshops/orientation to documentation for new staff. More than one option can be checked. The maximum number of points for this question is 3.5.

Table 1.3: Interdisciplinary Integration of Care Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Patient Care and Team Function (60%)		
Section 7, Question 48	6	10%
Section 7, Question 49a	2	10%
Section 7, Question 49b	1	10%
Section 7, Question 50	1	10%
Section 7, Question 48	6	10%
Section 7, Question 51	2	5%
Section 7, Question 52	4	5%
Component 2: Resources for Professional Development and Learning (20%)		
Section 1, Question 12a, b, c	18	20%
Component 3: Clinical Documentation (20%)		
Section 7, Question 53	4	10%
Section 7, Question 54	3.5	10%
Total Score		100%

Indicator 3: Evidence of Client-Centred Care

The Evidence of Client-Centred Care indicator was designed to reflect the extent to which care, at the level of the individual client, is being provided in a client-centred manner. This indicator is comprised of five questions from section 7.

Component 1: Patient/Family Information and Education (28%)

Section 7, Question 55:

This question looks at the extent to which hospitals provide patients and families with printed

information on services and opportunities. 1 point is allocated for each service or opportunity where information is provided prior to admission and 1 point is allocated for each service or opportunity where information is readily accessible within the Rehabilitation services, up to a maximum of 10 points.

Section 7, Question 56:

This question looks at the extent to which hospitals customize educational activities to the individual needs of patients and/or families. 1 point is allocated for each assessment where there is an informal process, and 2 points are allocated for each assessment where there is a formal process. The maximum number of points for this question is 8.

Component 2: Family Involvement (14%)

Section 7, Question 57:

This question looks at the extent to which hospitals have processes to involve families in patient care. 1 point is allocated for each informal process, and 2 points are allocated for each formal process. The maximum number of points for this question is 4.

Component 3: Involving Patients in Decision-Making (34%)

Section 7, Question 58:

This question looks at the extent to which hospitals have processes in place to incorporate patient input into decision-making about care, goals, treatment, and discharge planning. With the exception of row E (Evaluation by the patient of progress toward goal achievement), 1 point is allocated for every informal process and 2 points are allocated for every formal process. For row E, 2 points are allocated for an informal process, and 4 points are allocated for a formal process. The maximum number of points for this question is 18.

Component 4: Emotional Support for Patients/Families (24%)

Section 7, Question 59a, b:

This question looks at the extent to which hospitals have formal processes for assessing and documenting emotional support needs and the existence of mechanisms for provision of emotional support. If the Rehabilitation services have a formal process for assessing and documenting patients' emotional support needs, then 4 points are given. If they also have a formal process for families' emotional support needs, then 2 points are allocated. This part of the question has a maximum of 6 points. For the next part of the question, 2 points are allocated for one-on-one counselling for patients, and 1 point for families. 2 points are allocated for either group counselling or peer support network/buddy system for patients, and 1 point for families. 1 point is allocated for readily available printed information for patients, and 0.5 points for families. The maximum number of points for this part of the question is 7.5. The maximum number of points for the entire question is 13.5.

Table 1.4: Evidence of Client-Centred Care Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Patient/Family Information and Education (28%)		
Section 7, Question 55	10	9%
Section 7, Question 56	8	19%
Component 2: Family Involvement (14%)		
Section 7, Question 57	4	14%

Question	Total Possible Points	Overall Weighting
Component 3: Involving Patients in Decision-Making (34%)		
Section 7, Question 58	18	34%
Component 4: Emotional Support for Patients/Families (24%)		
Section 7, Question 59a, b	13.5	24%
Total Score		100%

Indicator 4: Best Practices

The Best Practices indicator was designed to measure the extent to which a best practice approach, involving integrating information from patients and/or family members and individual clinical experience/expertise with the best available evidence in making decisions about the care of individual patients, is utilized. This indicator is comprised of one question from section 2 and two questions from section 7.

Component 1: Searching the Research Evidence (20%)

Section 2, Question 13:

This question looks at the extent to which hospitals have resources available for staff for decision support applications. 1 point is allocated if few of the staff had access, 2 points are allocated if some of the staff had access, and 3 points are allocated if most of the staff had access. This question was asked for three staff groups. The maximum number of points for this question is 9.

Component 2: Integration of Best Practices (40%)

Section 7, Question 60:

This question looks at the existence of processes in hospitals to integrate best practices into the services delivered (e.g. process in place for adapting practice protocols or practice guidelines). For each informal process, 1 point was given. For each formal process, 2 points were given. The maximum number of points for this question is 10.

Component 3: Organizational Infrastructures to Support Best Practices (40%)

Section 7, Question 61:

This question looks at the existence of organizational infrastructures to support best practices. For each informal process, 1 point was given. For each formal process, 2 points were given. The maximum number of points for this question is 10.

Table 1.5: Best Practices Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Searching the Research Evidence (20%)		
Section 2, Question 13a, b, c (row F)	9	20%
Component 2: Integration of Best Practices (40%)		
Section 7, Question 60	10	40%
Component 3: Organizational Infrastructure to Support Best Practices (40%)		
Section 7, Question 61	10	40%
Total Score		100%

Indicator 5: Coordination and Continuity of Care Across the Continuum

The Coordination and Continuity of Care Across the Continuum (All RCGs, Total Stroke, Total Orthopaedic Conditions, Post Hip Fracture, Post Hip Replacement, and Post Knee Replacement) indicator was designed to reflect the degree of coordination and continuity evident for patients who are discharged from inpatient rehabilitation settings. This indicator is comprised of seven questions from section 7. Please note that the post hip fracture, post hip and knee replacement indicators are reported separately in the e-Scorecard.

Component 1: Pre-admission Screening & Assessment (7.5%)

Section 7, Question 62:

This question looks at the existence of processes for screening and assessment for patients awaiting admission to inpatient rehabilitation. 1 point is allocated if rehabilitation staff/physician completes pre-admission assessments or screening assessments for some patients for any RCG, and 2 points are allocated if rehabilitation staff/physician completes pre-admission assessments or screening assessments for most patients for any RCG. The maximum number of points for this question is 2.

Component 2: Linkages Across the Continuum of Care (15%)

Section 7, Question 63:

This question looks at the extent to which hospitals are engaged in joint initiatives with other service providers regarding such entities as clinical practice guidelines. If a joint activity is performed with either acute care hospitals or other complex continuing care/rehabilitation providers, 1 point is allocated. If a joint activity is performed with either CCACs or long-term care facilities, 1 point is allocated. And 1 additional point is allocated for any other joint partnership. The maximum number of points for this question is 3.

Component 3: Follow-up After Discharge & Periodic Readmissions (77.5%)

The following questions address ongoing contact with patients discharged from rehabilitation services.

Section 7, Question 64:

This question looks at whether there is a process in place for patients to contact program staff after discharge. If there is an informal process, 1 point is allocated. If there is a formal process, 2 points are allocated. The maximum number of points for this question is 2.

Section 7, Question 65:

This question looks at whether there is a process in place for staff to make follow-up telephone contact with patients discharged. If there is an informal process, 1 point is allocated. If there is a formal process, 2 points are allocated. The maximum number of points for this question is 2.

Section 7, Question 66:

This question looks at whether there is a process in place to arrange follow-up assessment visits at the organization or at home by staff from the organization for patients discharged. If there is an informal process, 1 point is allocated. If there is a formal process, 2 points are allocated. The maximum number of points for this question is 2.

Section 7, Question 67:

This question looks at whether there is a process in place to arrange outpatient therapy or day hospital visits for patients discharged. If there is an informal process, 1 point is allocated. If there is a formal process, 2 points are allocated. The maximum number of points for this question is 2.

Section 7, Question 68:

This question looks at whether there is a process in place to enable periodic readmissions of patients back into the inpatient rehabilitation services after they have completed their inpatient rehabilitation program. If there is an informal process, 1 point is allocated. If there is a formal process, 2 points are allocated. The maximum number of points for this question is 2.

Table 1.6: Coordination and Continuity of Care Across the Continuum Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Pre-admission Screening and Assessment (7.5%)		
Section 7, Question 62	2	7.5%
Component 2: Linkages across the Continuum of Care (15%)		
Section 7, Question 63	3	15%
Component 3: Follow-up After Discharge and Periodic Readmissions (77.5%)		
Section 7, Question 64	2	20%
Section 7, Question 65	2	35%
Section 7, Question 66	2	
Section 7, Question 67	2	15%
Section 7, Question 68	2	7.5%
Total Score		100%

Indicator 6: Evidence of Organizational Client-Centredness

The Evidence of Organizational Client-Centredness indicator was developed to reflect the extent to which hospitals implement a client-centred approach to service delivery at the system level. This indicator is comprised of one question from section 1, two questions from section 3, two questions from section 4, and two questions from section 7.

Component 1: Patient/Family Feedback (80%)

Section 7, Question 69:

This question asks about the existence of mechanisms to elicit patient/family feedback on the rehabilitation services. If either patient/family satisfaction surveys or focus groups with patients/families is checked, 2 points are allocated. If either patient/family councils or patient/family involvement in services planning committee is checked, then 3 points are allocated. The maximum number of points for this question is 5.

Section 4, Question 26:

This question asks about strategies to disseminate patient feedback. For each of the staff groups where an internal written report is circulated about key highlights, 0.5 points are allocated. For each staff group involved in verbal presentations and discussions of results, 2 points are allocated. The maximum number of points for this question is 17.5.

Section 4, Question 29b:

This question asks about dissemination strategies for Hospital Report 2006. If any of the strategies listed were checked, 1 point is allocated. The maximum number of points for this question is 1.

Component 2: Staff Roles (10%)

Section 1, Question 7:

This question asks about the existence of the following staff roles: Designated staff responsible for professional practice issues, Clinical specialist from a rehabilitation therapy profession, Designated staff who addresses equity issues, and Patient advocate/ombudsperson. 1 point is allocated for each role that is under development and 2 points are allocated for each permanent role.

Section 7, Question 58F:

This question asks about the existence of a designated contact person from a multidisciplinary team for each patient to address questions, concerns about care, goals, treatment, and discharge decisions. If there is an informal process for this role, then 1 point is allocated. If there is a formal process for this role, then 2 points are allocated. The maximum number of points for these two questions is 10.

Component 3: Ethics (10%)

Section 3, Question 16:

This question looks at the existence of structures to deal with clinical/medical ethical dilemmas. 1 point is allocated if an ethics consultation team is assembled on a case-by-case basis using internal resources, 1.5 points are allocated if ethics consultation is contracted out to external experts, and 2 points are allocated if there is a clinical ethics service staffed by clinical ethicist(s) with advanced training. The maximum number of points for this question is 3.5.

Section 3, Question 18:

This question asks about the systems in place to evaluate ethics services within hospitals. 1 point is allocated for each answer option checked. The maximum number of points for this question is 3.

Table 1.7: Evidence of Organizational Client-Centredness Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Patient/Family Feedback (80%)		
Section 7, Question 69	5	50%
Section 4, Question 26	17.5	20%
Section 4, Question 29b	1	10%
Component 2: Staff Roles (10%)		
Section 1, Question 7 (F,E,P,Q) and Section 7, Question 58 (F)	10	10%
Component 3: Ethics (10%)		
Section 3, Question 16	3.5	5%
Section 3, Question 18	3	5%
Total Score		100%

Indicator 7: Organizational Commitment to Staff Development

The Organizational Commitment to Staff Development indicator was developed to reflect the

extent to which there is organizational support for professional development, continuing education activities, and performance evaluations for staff allocated to designated inpatient rehabilitation beds. This indicator is comprised of two questions from section 1.

Component 1: Resources for Professional Development & Learning (50%)

Section 1, Question 11:

This question asks about the extent to which hospitals provide various types of continuing education or professional development support to their nurses and other patient care staff. For each staff group, 1 point is allocated for each continuing education course provided. The maximum number of points for this question is 14.

Component 2: Performance Evaluations (50%)

Section 1, Question 8:

This question asks about the frequency to which hospitals conduct performance evaluations with physicians, nurses, other patient care staff, and other hospital staff. If a staff group gets evaluated yearly or more frequently, 4 points are allocated for that staff group. If a staff group gets evaluated every two years, 2 points are allocated for that staff group. If a staff group gets evaluated less frequently than two years, 0.5 points are allocated for that staff group. The maximum number of points for this question is 16.

Bonus point: For each staff group that does formal evaluations (regardless of the frequency), an additional 0.25 points are allocated.

Table 1.8: Organizational Commitment to Staff Development Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Resources for Professional Development and Learning (50%)		
Section 1, Question 11	14	50%
Component 2: Performance Evaluations (50%)		
Section 1, Question 8	1	20%
Section 1, Question 8	16	30%
Total Score		100%

Verification

Hospitals were not sent preliminary values for the survey questions that were used in the calculations of the SIC indicators. This is because there were phone calls made and emails were sent after the surveys were received, where hospitals were given ample time to respond to any data quality issues or missing answers that were detected.

Methodology to Determine Relative Performance in Hospital Report 2007: Rehabilitation

In *Hospital Report 2005*, the relative performance was assessed by comparing the hospital's indicator score with the 99% confidence interval of the provincial mean for each corresponding indicator. Unlike the method that was used in the other SIC sectors, this method identified hospitals with a score that was statistically different from the provincial mean at the significant level of 0.01 for each indicator, and assigned a performance rating corresponded to this results. However, this method could not highlight hospitals with superior performance relatively to the other hospitals and was inconsistent with other SIC sectors for Hospitals Report 2007.

A new performance allocation method was applied to Hospital Report 2007 SIC indicators to resolve this issue. This new method determines the upper and lower cut points based on the 95th percentile as above average and the 5th percentile as below average. Similar to the original method, this interval should capture roughly 90% of the indicator values. This method does not require normality and bounded the cut points within 0 to 100. This method is consistent among all sectors of the System Integration and Change quadrant.

Hospitals with a score that is the same or higher than the upper cut point are classified as “above average”, hospitals with a score that is less than the lower cut point are classified as “below average”, and hospitals with a score that is within the interval between these cut points are “average”. Using this method, approximately 90% of the hospitals would be classified as “average” and have potential opportunity for improvement and achieve higher standing.

The following table shows the cut off values correspond for each of the indicators. Hospitals with scores above or below these cut points were respectively identified as hospitals with above or below average levels of performance.

Table 1.9: Indicator cut points

Indicator	Below Average Cut-Off Point	Above Average Cut-Off Point
Healthy Work Environment	18.0	99.0
Interdisciplinary Integration of Care	47.9	91.9
Evidence of Client Centered Care Indicator	39.9	98.2
Best Practices	24.0	93.3
Coordination and Continuity of Care Across the Continuum (All RCG's)	30.0	96.3
Coordination and Continuity of Care Across the Continuum (Total Stroke)	23.8	100.0
Coordination and Continuity of Care Across the Continuum (Total Orthopaedic)	17.5	100.0
Evidence of Organizational Client-Centeredness	45.4	94.7
Organizational Commitment to Staff Development	60.7	96.3

It is important to consider the meaning and value of these cut points. The methodology used for identifying these cut points (which subsequently mark an organization as having average, or above, or below average performance in each of these areas) is reasonable, scientifically sound, and conservative. Because the range of scores that capture "average" performance on these indicators is quite large, hospitals with scores close to the upper or lower cut points can gain an increased understanding of their performance levels upon receipt of their hospitals' results.

System-Level Findings

For each of the eleven SIC indicators, the following statistics are displayed: the valid N (number of hospitals that received a score for this indicator), the mean, and the standard deviation. In addition, three percentile rankings are displayed: the 25th, 50th, (median), and 75th. Just as the median is the value above and below which 50% of cases fall, percentiles provide the same

information for different percentages of cases. For example the value in the 25th percentile is the value that 25% of hospitals scored at or below (and the value above which 75% of hospitals scored). The statistics in each indicator table are displayed for all 56 hospital corporations that returned a Rehabilitation SIC survey. Combined, these statistics provide important measures of central tendency, as well as detailed information about the dispersion of scores for each indicator.

Table 1.10: Indicator System-level findings

Indicator	N	Mean	Standard Deviation	Min.	25th Percentile	Median	75th Percentile	Max.
Healthy Work Environment	56	74.5	25.9	11.2	57.0	86.5	94.4	100
Interdisciplinary Integration of Care	56	73.1	13.4	35.6	65.8	76.0	83.2	97.8
Evidence of Client Centered Care Indicator	56	74.0	15.8	38.0	65.9	74.6	83.5	100
Best Practices	56	61.3	20.0	12.0	47.3	64.4	73.1	100
Coordination and Continuity of Care Across the Continuum (All RCG's)	56	65.4	20.1	25.0	51.3	65.0	81.9	100
Coordination and Continuity of Care Across the Continuum (Post Hip Fracture)	56	60.2	24.9	15.0	37.5	65.0	80.6	100
Coordination and Continuity of Care Across the Continuum (Post Hip and Knee Replacement)	56	64.2	24.5	15.0	41.3	66.3	82.5	100
Coordination and Continuity of Care Across the Continuum (Total Orthopaedic)	56	62.2	24.0	15.0	41.3	65.0	82.5	100
Coordination and Continuity of Care Across the Continuum (Total Stroke)	56	64.6	24.7	15.0	42.5	66.3	85.6	100
Evidence of Organizational Client-Centeredness	56	68.6	16.5	41.9	56.5	62.5	85.1	95.9
Organizational Commitment to Staff	56	79.5	11.0	47.7	72.9	81.5	88.8	100

Development								
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Table 1.11: Average Indicator Scores by LHIN

LHIN	Healthy Work Environment	Interdisciplinary Integration of Care	Evidence of Client-Centred Care	Best Practices	Evidence of Organizational Client-Centredness	Organizational Commitment to Staff Development
LHIN 1 (Erie St. Clair)	84.5	61.3	67.3	57.2	70.6	74.1
LHIN 2 (South West)	71.5	73.1	70.4	64.8	65.8	74.0
LHIN 3 (Waterloo Wellington)	76.7	78.2	78.0	70.4	61.2	76.2
LHIN 4 (Hamilton Niagara Haldimand Brant)	84.7	76.1	78.6	68.4	67.8	78.6
LHIN 5 (Central West)	24.8	68.2	65.4	70.7	57.3	65.5
LHIN 6 (Mississauga Halton)	93.7	91.7	87.4	75.0	71.3	79.9
LHIN 7 (Toronto Central)	86.5	80.5	78.0	69.1	73.3	86.4
LHIN 8 (Central)	69.9	75.9	71.3	54.6	67.4	83.5
LHIN 9 (Central East)	68.9	66.4	65.7	52.9	71.9	84.8
LHIN 10 (South East)	66.1	73.5	63.5	47.3	72.9	83.6
LHIN 11 (Champlain)	76.0	72.5	79.4	60.4	78.6	78.4
LHIN 12 (North Simcoe Muskoka)	97.2	62.5	71.5	54.0	68.4	78.3
LHIN 13 (North East)	31.5	58.5	71.3	44.4	49.0	71.8
LHIN 14 (North West)	39.2	81.7	98.1	76.0	46.0	77.9
Coordination and Continuity of Care Across the Continuum						
LHIN	All RCGs	Total Stroke	Total Orthopaedic	Post Hip Fracture	Post Hip and Knee Replacement	
LHIN 1 (Erie St. Clair)	62.8	64.5	64.5	64.5	63.8	
LHIN 2 (South West)	73.5	77.0	61.8	61.8	61.8	

LHIN 3 (Waterloo Wellington)	52.8	41.3	41.3	39.4	41.3
LHIN 4 (Hamilton Niagara Haldimand Brant)	63.8	70.3	70.3	70.3	70.3
LHIN 5 (Central West)	37.5	37.5	37.5	37.5	37.5
LHIN 6 (Mississauga Halton)	82.9	85.8	82.5	82.5	82.5
LHIN 7 (Toronto Central)	64.8	57.5	55.6	57.8	68.4
LHIN 8 (Central)	57.5	50.8	55.2	55.2	67.5
LHIN 9 (Central East)	55.4	51.9	53.3	48.5	50.4
LHIN 10 (South East)	63.8	72.5	63.8	63.8	63.8
LHIN 11 (Champlain)	79.8	82.7	76.9	76.3	82.1
LHIN 12 (North Simcoe Muskoka)	49.4	53.8	53.8	53.8	53.8
LHIN 13 (North East)	77.9	80.8	77.5	52.5	52.5
LHIN 14 (North West)	91.3	100.0	96.3	78.8	96.3

Summary of Results

The results from this year's SIC survey highlight that hospitals are continually implementing a client-centred approach to service delivery at the system level. In *Hospital Report 2007* a higher proportion of hospitals are sharing more information with patients and their families.

Hospitals are also improving their commitment to staff development and quality of care. For example, hospitals strive to ensure designated staff roles in the hospital to provide quality care for patients. This year, approximately 8/10 of participating hospitals indicated they had a formal process to designate someone from the multidisciplinary team to every patient to address their questions and concerns about their care, goals, treatment and discharge decisions. Although there is considerable variation among hospitals, the results indicate that there is an increasing number of hospitals that are implementing a client-centered approach to service delivery at the system level.

The indicators of SIC provide a performance profile reflecting efforts by hospitals with Rehabilitation programs in Ontario to meet these challenges. These indicators capture four broad but key areas:

- Evaluating and supporting different processes for clinical documentation

- Providing accessible information to patients and families in promoting client-centered care
- Levels of hospital integration with other LHIN partners in joint initiatives

Overall, hospitals have made considerable improvements in the several indicators. However, there continues to be variation in performance for all indicators, indicating opportunities for improvement in targeted areas for some hospitals.

Appendix A: 2007 Methodology Changes

During the 2007 SIC survey redevelopment phase of the survey, questions were reviewed by both the HRRC researchers and CIHI staff. The methodology changed for five indicators. Wording changes were made to better clarify the questions and provide more defined answer choices. The table below indicates the major changes to the questions where the changes effected the indicator calculation and scoring.

INDICATOR NAME	<i>Hospital Report 2007 SIC Survey</i>
Interdisciplinary Integration of Care	<p>Q.52: One new group was added during redevelopment (Board of Directors). Total points=4 -----</p> <p>Q.12: Other regulated health professionals, Unregulated patient care staff and Other hospital staff were merged into Other patient care staff. Dropped Conflict management and added Leadership Development. Total points=18</p>
Best Practices	<p>Q.13: Changed point allocation. Total points=9</p>
Evidence of Organizational Client-Centredness	<p>Q.26: Senior management team, Managers at the program/department level, and Managers at the patient care/unit level were merged. Nurses, Other patient care staff, and Other hospital staff were merged. Point allocation changed too. Total points=17.5 -----</p> <p>Q.16: Point allocation changed. Total points=5</p>
Organizational Commitment to Staff Development	<p>Q.11: Dropped one support during redevelopment (Financial reward upon completion of an educational program) and merged the two support regarding on-site courses. Merged Other regulated and Unregulated patient care staff. Total points=14 -----</p> <p>Q.8: Merged Other regulated and Unregulated patient care staff. Added Yearly or more frequently as an answer choice. Total points=16</p>

Healthy Work Environment	Changed methodology to be consistent with previous year's Corporate survey
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