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System Integration and Change

Overview

*Hospital Report 2005: Rehabilitation* is comprised of four quadrants, including the System Integration and Change quadrant. This quadrant focuses on the changes and investments that hospitals need to make in order to continually improve delivery of adult inpatient rehabilitation and support quality improvement. The Rehabilitation System Integration and Change Technical Summary presents detailed information regarding the methodology for the System Integration and Change quadrant of *Hospital Report 2005: Rehabilitation.*

Methodology

Indicator Development

Development of indicators for this quadrant involved three main steps. The initial step was to conduct a literature review. Articles were selected that described or discussed global measures of rehabilitation outcomes or processes, or articles that provided a conceptual review of performance measurement issues specific to rehabilitation. The second step involved interviews with key informants regarding specific topics, to define subsequent steps and gather additional information sources. The third step in indicator development involved input from an Advisory Panel. Panel members were chosen through a nomination process. All hospitals in Ontario were invited to nominate clinicians and/or administrators to the Advisory Panel according to listed criteria. Selection of Panel members was based on related experience and a mix of the following factors: clinicians and administrators, small rehabilitation units and large rehabilitation centres, geographic diversity, and experience developing indicators.

The process of indicator identification and development began with the preliminary study conducted for *Hospital Report 2001.* Since the release of *Hospital Report 2003: Rehabilitation* one new indicator has been developed (Healthy Work Environment) and three indicators have undergone significant revisions (Interdisciplinary Integration of Care, Best Practices, Coordination & Continuity of Care Across the Continuum).

The Healthy Work Environment indicator is a corporate-level indicator. The Healthy Work Environment indicator questions were sent to all participating hospitals. These hospitals included freestanding rehabilitation/complex continuing care hospitals and acute care hospitals with or without designated rehabilitation beds. 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 employees’ physical, social, mental, and emotional well-being. Several mechanisms, including a healthy workplace policy/plan, a healthy and safe physical environment, a positive psychosocial environment, and an environment promoting healthy lifestyles support and promote a healthy work environment.
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. 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. The Coordination and Continuity of Care Across the Continuum indicator was designed to reflect the degree of coordination and continuity evident for patients who are discharged from inpatient rehabilitation settings.

A total of eight indicators comprise the System Integration and Change quadrant. They are:

- Healthy Work Environment
- Interdisciplinary Integration of Care
- Evidence of Client-Centred Care
- Best Practices
- Coordination and Continuity of Care Across the Continuum
- Use of Admission and Discharge Criteria
- Evidence of Organizational Client-Centredness
- Organizational Commitment to Staff Development

**Questionnaire Development**

The indicators for the System Integration and Change quadrant are operationalized in the System Integration and Change Questionnaire. The full questionnaire is available on the Hospital Report website: [www.hospitalreport.ca](http://www.hospitalreport.ca) The System Integration and Change survey process addresses issues relevant to rehabilitation, as well as issues of a corporate nature. Due to some areas of overlap with the Complex Continuing Care sector, an integrated System Integration and Change Survey was developed for these two sectors. This involved collaboration between researchers from the Complex Continuing Care and Rehabilitation sectors. This resulted in integration for the following two indicators: Interdisciplinary Integration of Care and Evidence of Client-Centred Care. To address issues of a corporate nature, there was further integration with all sectors involved in the Hospital Report process.

In July 2004, the questionnaire development was at a stage where further Advisory Panel input was required for the following indicators: Healthy Work Environment; Interdisciplinary Integration of Care; Best Practices; and Coordination and Continuity of Care Across the Continuum. The SIC Rehabilitation Advisory Panel was reconvened via teleconference on July 13 and August 11, 2004. Topics discussed during the July 13, 2004 teleconference included: NRS data submission; peer groups; and weekend coverage. Input provided by the Advisory Panel during this teleconference was utilized by the researchers for further questionnaire development. Prior to the August 11, 2004 Advisory Panel teleconference, panelists were mailed the revised questionnaire as well as a pre-panel feedback form. Panelists were asked to evaluate various questions. Each question was evaluated by at least three and a maximum of five different panelists.
Evaluations included rating each question according to the following:
1) The clarity of the question/statement;
2) The clarity of the response options;
3) The ease of obtaining the information; and
4) The quality of the data obtained through the question.

Panelists were also encouraged to provide written comments/suggestions with respect to each question. These evaluations were returned to the researchers prior to the August 11, 2004 Advisory Panel teleconference so that an analysis of the data could be completed prior to the teleconference.

The results of the pre-panel feedback form regarding ‘Clarity’ and ‘Availability’ along with the descriptive data/comments were utilized by the researchers to further refine the questionnaire and decide which questions required further discussion at the August 11, 2004 teleconference.

The objectives of the August 11, 2004 Advisory Panel teleconference were as follows:
1) To clarify wording of problematic questions; and
2) To finalize weighting of questions/components for select indicators.

The full questionnaire is available on the Hospital Report website:
www.hospitalreport.ca

Survey Process/Hospital Participation

On September 8, 2004, the System Integration and Change Questionnaire was couriered to 48 hospital corporations that had agreed to participate in this quadrant. Forty-five hospital corporations (47 sites) responded yielding a response rate of 93.8%. The questionnaire was distributed to participating hospitals with instructions to base their responses on current practices. However, there were a few questions that referred to the time frame between April 1, 2003 and March 31, 2004.

The questionnaires were addressed to a contact person that hospitals had identified during the signup process. To help ensure submission of high quality data, instructions enclosed with the questionnaire asked that individual questionnaire sections be completed by the person in the hospital who possessed the most knowledge about the topic covered in that section. Hospitals were requested to return their completed questionnaires no later than October 4, 2004.

Hospitals were provided with contact information if they had any questions regarding the System Integration and Change Questionnaire. Queries were fielded from September 9, 2004 to December 11, 2004. Follow-up telephone calls to those hospitals that had not returned questionnaires were made during December 2004 to maximize response to the questionnaire.

Site-specific results are available in the e-scorecard to corporations which chose to respond by site. However, site-specific results are not included in any public reports. Only corporate-level results are publicly-reported.
Data Quality

The indicators for the System Integration and Change Quadrant were based on hospital survey data that are subject to a “social desirability bias”. This means that those responding to survey questions may either consciously or unconsciously answer questions in a way that makes their hospital appear favourable. To attempt to minimize this bias, survey questions were constructed to focus on specific activities or behaviours, as opposed to attitudes or beliefs. To maximize data quality, an extensive follow-up procedure was conducted for missing, unclear, and contradictory data. This follow-up included telephone calls, with corresponding electronic-mail documentation, with the rehabilitation contact person at the hospital. Based on the follow-up telephone and electronic-mail communications, missing data were entered into the questionnaires. Unclear entries on the questionnaire were clarified as well. Sometimes responses were contradictory to the instructions provided or contradictory to responses provided in previous questions. In such cases, follow-up was made to ensure no contradictory responses existed and the data provided were accurate. Due to this extensive follow-up procedure, members of the research team are very confident that the data are of high quality.

Survey data were then entered into a Microsoft Access database. To further ensure high quality data, a process of double data entry was undertaken. This process involved entering raw data on at least two occasions and comparing differences in datafiles. Any differences were subsequently reconciled with the source data. This process continued until there were no discrepancies between databases.

Peer or Comparison Groups for System-Level Analysis

Several options for defining peer or comparison groups were investigated. Hospital characteristics considered for peer grouping included number of designated inpatient rehabilitation beds, average length of stay, presence of self-defined service delivery model, and Rehabilitation Client Group (RCG).

Definition of peer groups using the following variables was attempted through cluster analysis: number of designated rehabilitation beds, average length of stay, service delivery model, and Rehabilitation Client Group (RCG). Analysis by service delivery model divided the hospitals into two groups, hospitals offering specialty service delivery and hospitals not offering specialty service delivery. The two major RCG groups, as self-reported by hospitals in the System Integration and Change (SIC) Questionnaire were Stroke and Orthopaedic Conditions. Classification by other RCGs resulted in peer groups too small for statistically meaningful intra-group comparisons.

Despite extensive analyses, we were unable to identify meaningful peer groups. The main limitation to this process was small group size. Consequently, results are presented at a provincial level, by Ontario Hospital Association (OHA) Region, as well as at a hospital-specific level. The reader is cautioned when interpreting regional variations as some regions, particularly OHA Region 1 (North), have relatively small sample sizes.
Data Analysis

All analyses were performed using SAS Version 8.0.

Detailed Description of the Indicators for System Integration and Change

The System Integration and Change quadrant is comprised of 8 indicators derived from the System Integration and Change Questionnaire. A detailed description of each indicator in Hospital Report 2005: Rehabilitation is provided below. This includes a description of each indicator, the indicator components, and the calculations performed on each indicator. The point allocation for each item included in the indicator is presented. In order to calculate the indicator score, each question must be multiplied by the specific weighting. For example:

Question 3: A hospital received 20 points out of a possible 25 points. To calculate the contribution of this question to the indicator score divide the hospital’s score (20) by the maximum point allocation (25) and multiply by the weighting for the question (30.0%). In this example, the hospital received 24.0% of the total indicator score for this question.

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 and Use of Admission and Discharge Criteria indicators are presented for the following RCG groups in the Executive Report: All RCGs; Total Stroke; and Total Orthopaedic Conditions. In the e-scorecard, these same two indicators are also presented for Post Hip Fracture and Post Hip and Knee Replacement. Despite the different RCG categories, the method of indicator calculation remains constant.

**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 employees’ physical, social, mental, and emotional well-being. This indicator is comprised of components of six questions from the System Integration and Change Questionnaire, all of which receive various points and then weighting in the calculation of a final indicator score.

*Healthy Workplace Policy/Plan*

The existence of a healthy workplace policy or plan (Q. 1a, 1b, 1c), which is a formal, written document that provides the context for consistent direction in all parts of the organization regarding employee health and well-being, is critical for providing a healthy work environment. This component attributed to 30% of the overall indicator score.
Accountability & Responsibility
The extent and to whom hospitals assign accountability and responsibility for their healthy workplace policy or plan (Q. 2a, 2b) demonstrates how hospitals perceive the importance of a healthy work environment. This component attributed to 10% of the overall indicator score.

Assessment, Analysis, & Improvement
Ongoing assessment and analysis of healthy workplace issues with improvement processes based on assessment and analyses (Q. 3a, 3b) is an integral component of maintaining and improving work environments. This component measures the extent to which hospitals are engaging in these activities and comprised 20% of the overall indicator score.

Key Dimensions
Key dimensions of a healthy work environment include a healthy and safe physical environment (Q. 4); a positive psychosocial environment (Q. 5); and an environment that promotes healthy lifestyles (Q. 6a, 6b, 6c). These key dimensions are interdependent and reinforce one another. This component attributed to 40% of the overall indicator score.

Table 1 summarizes the possible points and weighting for the Healthy Work Environment indicator.

Table 1. Healthy Work Environment Indicator Summary

<table>
<thead>
<tr>
<th>Component</th>
<th>Question Number</th>
<th>Possible Points</th>
<th>Question Weighting</th>
<th>Component Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy Workplace Policy/Plan</td>
<td>1a, 1b, 1c</td>
<td>(3) (2) (6)</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Accountability &amp; Responsibility</td>
<td>2a, 2b</td>
<td>(3) (3)</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Assessment, Analysis, &amp; Improvement</td>
<td>3a, 3b</td>
<td>(3) (14)</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Key Dimensions</td>
<td>4</td>
<td>(6)</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>(15)</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6a, 6b, 6c</td>
<td>(3) (4) (3)</td>
<td>10%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Indicator1 Formula: \([\frac{(Q.1a + Q.1b + \text{Sum of Q.1c})}{11} \times 30\% + \frac{(Q.2a + \text{Sum of Q.2b})}{6} \times 10\% + \frac{(Q.3a + \text{Sum of Q.3b})}{17} \times 20\% + \frac{\text{Sum of Q.4}}{6} \times 6\% + \frac{\text{Sum of Q.5}}{15} \times 24\% + \frac{Q.6a + (\text{Sum of Q.6b}) + Q.6c}{10} \times 10\%}\) = Healthy Work Environment Indicator Score
**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 components of nine questions from the System Integration and Change Questionnaire, all of which receive various points and then weighting in the calculation of a final indicator score.

**Patient Care and Team Function**
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. 7, 8, 9); and 2) to discuss team function issues (Q. 10, 11, 12a, 12b). Both types of meetings are important for effective teamwork. This component attributed to 60% of the overall indicator score.

**Resources for Professional Development & Learning**
The extent to which hospitals invest in staff and physician attendance at continuing education activities related to team building and conflict management (Q. 13), is important for interdisciplinary integration of care. This component attributed to 20% of the overall indicator score.

**Clinical Documentation**
The processes that hospitals utilize for clinical documentation and the structures they have in place to evaluate and support the processes (Q. 14, 15) are key components of a successful interdisciplinary approach to care. This component attributed to 20% of the overall indicator score.

Table 2 summarizes the possible points and weighting for the Interdisciplinary Integration of Care indicator.

<table>
<thead>
<tr>
<th>Component</th>
<th>Question Number</th>
<th>Possible Points</th>
<th>Question Weighting</th>
<th>Component Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Care and Team Function</td>
<td>7</td>
<td>6</td>
<td>10%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>2</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>1</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>1</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>6</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12a, 12b</td>
<td>(2) (3)</td>
<td>5%, 5%</td>
<td></td>
</tr>
<tr>
<td>Resources for Professional</td>
<td>13</td>
<td>15</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Development &amp; Learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Documentation</td>
<td>14</td>
<td>4</td>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>3.5</td>
<td>10%</td>
<td></td>
</tr>
</tbody>
</table>

Indicator2 Formula: 

\[\text{Interdisciplinary Integration of Care Indicator Score} = \left(\frac{\text{Sum of Q.7}}{6} \times 10\%\right) + \left(\frac{\text{Q.8/2}}{2} \times 10\%\right) + \left(\frac{\text{Q.9/1}}{1} \times 10\%\right) + \left(\frac{\text{Q.10/1}}{1} \times 10\%\right) + \left(\frac{\text{Sum of Q.11}}{6} \times 10\%\right) + \left(\frac{\text{Q.12a/2}}{2} \times 5\%\right) + \left(\frac{\text{Sum of Q.12b}}{3} \times 5\%\right) + \left(\frac{\text{Sum of Q.13}}{15} \times 20\%\right) + \left(\frac{\text{Sum of Q.14}}{4} \times 10\%\right) + \left(\frac{\text{Sum of Q.15}}{3.5} \times 10\%\right)\]

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**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 components of five questions, from the System Integration and Change Questionnaire, all of which receive various points and then weighting in the calculation of a final indicator score.

*Patient/Family Information and Education*

The extent to which hospitals provide patients and families printed information regarding various topics (Q. 16) and the extent to which hospitals customize educational activities to the individual needs of patients and/or families (Q. 17) are important components of delivering care that is centred around the client and/or family. This component attributed to 28% of the overall indicator score.

*Family Involvement*

The extent to which hospitals have processes to involve families in patient care (Q. 18) is an important component of client-centred care. This component attributed to 14% of the overall indicator score.

*Involving Patients in Decision-Making*

The extent to which hospitals have processes in place to incorporate patient input into decision-making about care, goals, treatment, and discharge planning (Q. 19) is an important component of client-centred care. This component attributed to 34% of the overall indicator score.

*Emotional Support for Patients/Families*

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 (Q. 21) are key elements of a client-centred approach to care. This component attributed to 24% of the overall indicator score.

Table 3 summarizes the possible points and weighting for the Evidence of Client-Centred Care indicator.

**Table 3. Evidence of Client-Centred Care Indicator Summary**

<table>
<thead>
<tr>
<th>Component</th>
<th>Question Number</th>
<th>Possible Points</th>
<th>Question Weighting</th>
<th>Component Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient/Family Information and Education</td>
<td>16</td>
<td>10</td>
<td>9%</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>8</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Family Involvement</td>
<td>18</td>
<td>4</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Involving Patients in Decision-Making</td>
<td>19</td>
<td>18</td>
<td>34%</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>No Score</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Emotional Support for Patients/Families</td>
<td>21</td>
<td>13.5</td>
<td>24%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Indicator 3 Formula: \[
\frac{\text{Sum of Q.16}}{9 \times 9\%} + \frac{\text{Sum of Q.17}}{8 \times 19\%} + \frac{\text{Sum of Q.18}}{4 \times 14\%} + \\
\frac{\text{Sum of Q.19}}{18 \times 34\%} + \frac{\text{Sum of Q.21}}{13.5 \times 24\%} = \text{Evidence of Client-Centred Care Indicator Score}
\]
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 components of three questions, from the System Integration and Change Questionnaire, all of which receive various weights in the calculation of a final indicator score.

Searching the Research Evidence

The extent to which hospitals have resources available for staff and accessible to staff for searching/accessing research evidence (Q. 26) is a key component of demonstration of utilization of best practice methods. This component attributed to 20% of the overall indicator score.

Integration of Best Practices

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) (Q. 27), is a critical component of demonstration of utilization of best practice methods. This component attributed to 40% of the overall indicator score.

Organizational Infrastructures to Support Best Practices

The existence of organizational infrastructures to support best practices (Q. 28) is another component of demonstration of utilization of best practice methods. This component attributed to 40% of the overall indicator score.

Table 4 summarizes the possible points and weighting for the Best Practices indicator.

Table 4. Best Practices Indicator Summary

<table>
<thead>
<tr>
<th>Component</th>
<th>Question Number</th>
<th>Possible Points</th>
<th>Question Weighting</th>
<th>Component Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Searching the Research Evidence</td>
<td>26</td>
<td>3</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Integration of Best Practices</td>
<td>27</td>
<td>10</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Organizational Infrastructures to Support Best Practices</td>
<td>28</td>
<td>10</td>
<td>40%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Indicator 4 Formula: \[
(\text{Sum of Q.26}) / 3 \times 20\% + (\text{Sum of Q.27}) / 10 \times 40\% + (\text{Sum of Q.28}) / 10 \times 40\% = \text{Best Practices Indicator Score}
\]

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 and 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 components of seven questions, from the System Integration and Change Questionnaire all of which receive various weights in the calculation of a final indicator score.
Pre-admission Screening & Assessment (All RCGs/Total Stroke/Total Orthopaedic Conditions/Post Hip Fracture/Post Hip and Knee Replacement)
The existence of processes for screening and assessment for patients awaiting admission to inpatient rehabilitation for All RCGs (Q. 29a) is a component that demonstrates coordination and continuity of care across the continuum. This component attributed to 7.5% of the overall indicator score.

Linkages Across the Continuum of Care (All RCGs/Total Stroke/Total Orthopaedic Conditions/Post Hip Fracture/Post Hip and Knee Replacement)
The extent to which hospitals are engaged in joint initiatives with other service providers for All RCGs (Q. 30) regarding such entities as standardized protocols, is a component that demonstrates coordination and continuity of care across the continuum. This component attributed 15% of the overall indicator score.

Follow-up After Discharge & Periodic Readmissions (All RCGs/Total Stroke/Total Orthopaedic Conditions/Post Hip Fracture/Post Hip and Knee Replacement)
The extent to which hospitals are facilitating ongoing contact with patients discharged from inpatient rehabilitation and enabling re-entry into the system if necessary, for All RCGs (Q. 31a, 32aa, 33aa, 34ba, 35a), is a component that demonstrates coordination and continuity of care across the continuum. This component attributed 77.5% of the overall indicator score.

Table 5 summarizes the possible points and weighting for the Coordination and Continuity of Care Across the Continuum indicator.

### Table 5. Coordination and Continuity of Care Across the Continuum Indicator Summary

<table>
<thead>
<tr>
<th>Component</th>
<th>Question Number</th>
<th>Possible Points</th>
<th>Question Weighting</th>
<th>Component Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-admission Screening &amp; Assessment</td>
<td>29</td>
<td>2</td>
<td>7.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Linkages Across the Continuum of Care</td>
<td>30</td>
<td>3</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Follow-up After Discharge &amp; Periodic Readmissions</td>
<td>31</td>
<td>2</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32a, 32b, 32c</td>
<td>2 or q.33a</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>33a, 33b</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>34a, 34b</td>
<td>0.2</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>2</td>
<td>7.5%</td>
<td></td>
</tr>
</tbody>
</table>

Indicator5 Formula:  

\[
(Q.29/2 \times 7.5\%) + (Q.30/3 \times 15\%) + \left[ (Q.31/2 \times 20\%) + (Q.32a \text{ or } Q.33a/2 \times 35\%) + (Q.34b/2 \times 15\%) + (Q.35/2 \times 7.5\%) \right] = \text{Coordination and Continuity of Care Across the Continuum Indicator Score}
\]
**Indicator 6: Use of Admission and Discharge Criteria**

The Use of Admission and Discharge Criteria (All RCGs, Total Stroke, Total Orthopaedic Conditions, Post Hip Fracture, Post Hip & Knee Replacement) indicator was developed to evaluate the development and utilization of admission and discharge criteria for admission to, and discharge from, designated inpatient rehabilitation beds in Ontario. This indicator is comprised of components of four questions from the System Integration and Change Questionnaire, all of which receive various weights in the calculation of a final indicator score.

*Admission Criteria (All RCGs, Total Stroke, Total Orthopaedic Conditions, Post Hip Fracture, Post Hip and Knee Replacement)*

The extent to which hospitals use standardized admission criteria and consulted other stakeholders in their development, for All RCGs (Q. 37a, 38a), is a component that demonstrates use of admission criteria. This component attributed to 50% of the overall indicator score.

*Discharge Criteria (All RCGs, Total Stroke, Total Orthopaedic Conditions, Post Hip Fracture, Post Hip and Knee Replacement)*

The extent to which hospitals use standardized discharge criteria and consulted other stakeholders in their development, for All RCGs (Q. 39a, 40a), is a component that demonstrates use of discharge criteria. This component attributed to 50% of the overall indicator score.

Table 6 summarizes the possible points and weighting for the Use of Admission and Discharge Criteria indicator.

<table>
<thead>
<tr>
<th>Component</th>
<th>Question Number</th>
<th>Possible Points</th>
<th>Question Weighting</th>
<th>Component Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission Criteria</td>
<td>37</td>
<td>2</td>
<td>29.4%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>3.5</td>
<td>20.6%</td>
<td></td>
</tr>
<tr>
<td>Discharge Criteria</td>
<td>39</td>
<td>2</td>
<td>29.4%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>3.5</td>
<td>20.6%</td>
<td></td>
</tr>
</tbody>
</table>

Indicator 6 Formula: \((Q.37/2 \times 29.4\%) + (Q.38/3.5 \times 20.6\%) + (Q.39/2 \times 29.4\%) + (Q.40/3.5 \times 20.6\%) = \) Use of Admission and Discharge Criteria Indicator Score

**Indicator 7: 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 components of six questions from the System Integration and Change Questionnaire, all of which receive various weights in the calculation of a final indicator score.
**Patient/Family Feedback**
The existence of mechanisms to elicit patient/family feedback (Q. 41) and strategies to disseminate patient/family feedback (Q. 42, 43) are key components of an organizational commitment to a client-centred approach. This component attributed to 80% of the overall indicator score.

**Staff Roles**
The existence of staff roles such as a designated contact person assigned to each patient and family (Q. 44), is a component that demonstrates organizational commitment to a client-centred approach. This component attributed to 10% of the overall indicator score.

**Ethics**
The existence of structures to deal with clinical/medical ethical dilemmas ((Q.45) and systems in place to evaluate ethics services (Q. 46) within hospitals are components that demonstrate organizational commitment to a client-centred approach. This component attributed to 10% of the overall indicator score.

Table 7 summarizes the possible points and weighting for the Evidence of Organizational Client-Centredness indicator.

**Table 7. Evidence of Organizational Client-Centredness Indicator Summary**

<table>
<thead>
<tr>
<th>Component</th>
<th>Question Number</th>
<th>Possible Points</th>
<th>Question Weighting</th>
<th>Component Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient/Family Feedback</td>
<td>41</td>
<td>5</td>
<td>50%</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>16.5</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>1</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Staff Roles</td>
<td>44</td>
<td>10</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Ethics</td>
<td>45</td>
<td>3.5</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>46</td>
<td>3</td>
<td>5%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Formula: \[
\frac{\text{Sum of Q.41}}{5} \times 50\% + \frac{\text{Sum of Q.42}}{16.5} \times 20\% + \frac{\text{Q.43}}{10} \times 10\% + \frac{\text{Sum of Q.44}}{10} \times 10\% + \frac{\text{Sum of Q.45}}{3.5} \times 5\% + \frac{\text{Sum of Q.46}}{3} \times 5\% = \text{Evidence of Organizational Client-Centredness Indicator Score}
\]

**Indicator 8: 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 components of three questions from the System Integration and Change Questionnaire, all of which receive various weights in the calculation of a final indicator score.

**Resources for Professional Development & Learning**
The extent to which hospitals provide various types of continuing education or professional development support to their nurses, other regulated health professionals, and unregulated patient care staff (Q.51) is an important component of organizational commitment to staff development. This component attributed to 50% of the overall indicator score.
Performance Evaluations

The extent to which hospitals conduct (Q. 53) and track (Q. 52) performance evaluations that they conduct with physicians, nurses, other regulated health professionals, unregulated patient care staff, and other hospital staff are components demonstrating organizational commitment to staff development. This component attributed to 50% of the overall indicator score.

Table 8 summarizes the possible points and weighting for the Organizational Commitment to Staff Development indicator.

**Table 8. Organizational Commitment to Staff Development Indicator Summary**

<table>
<thead>
<tr>
<th>Component</th>
<th>Question Number</th>
<th>Possible Points</th>
<th>Question Weighting</th>
<th>Component Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources for Professional Development &amp; Learning</td>
<td>51</td>
<td>27</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Performance Evaluations</td>
<td>52, 53</td>
<td>1, 10</td>
<td>20%, 30%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Indicator9 Formula: \[
\text{Organizational Commitment to Staff Development Indicator Score} = \frac{(\text{Sum of Q.51})}{27 \times 50\%} + [Q.52 \times 20\%] + \frac{(\text{Sum of Q.53})}{10 \times 30\%}
\]

Assessing Relative Performance

In *Hospital Report 2005: Rehabilitation* a shaded background indicated whether the hospital’s score on that indicator reflected above average performance, average performance, or below average performance. A score of above average performance or below average performance means that the hospital’s score was statistically different than the average score for all participating hospitals. Coloured shading for performance is assigned as follows:

- dark blue - the hospital’s score reflected above average performance
- medium blue - the hospital’s score reflected average performance
- light blue - the hospital’s score reflected below average performance.

For all of the indicators a relatively higher score is better.

Relative performance was assessed by comparing the hospital’s indicator score with the 99% confidence interval of the provincial mean for each corresponding indicator.

A performance classification of above average was assigned when the hospital’s indicator score exceeded the upper bound of the 99% confidence interval of the provincial mean for each corresponding indicator.

A performance classification of below average was assigned when the hospital’s indicator score was below the lower bound of the 99% confidence interval of the provincial mean for each corresponding indicator.
A performance classification of average was assigned when the hospital indicator score fell within the 99% confidence interval of the provincial mean for each corresponding indicator.

**Identifying High Performing “Benchmark” Hospitals**

Criteria were developed to identify high-performing hospitals. Although high performing hospitals had to meet the criteria in at least two of three quadrants (System Integration and Change, Clinical Utilization and Outcomes, and Client Perspectives), the criteria for the System Integration and Change quadrant are as follows: Above average on at least 5 of 7 SIC indicators, excluding the Healthy Work Environment indicator; for the Coordination and Continuity of Care Across the Continuum and Use of Admission and Discharge Criteria indicators, the best score was considered among All RCGs, Total Stroke and Total Orthopaedic Conditions.