

Hospital Report 2003: Complex Continuing Care System Integration and Change Technical Report

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System Integration and Change

Overview

The System Integration and Change (SIC) quadrant reports on innovations and investments are thought to be key efforts by Ontario hospitals to continually improve the quality of their complex continuing care (CCC) services and become more specialized within the spectrum of continuing care. The indicators for SIC measure the initiatives undertaken by hospitals to improve the quality and client-centredness of care they provide to patients, integrate their services with other aspects of the health care system, use information and technology to support decision-making and planning, and ensure that staff have the skills and supports they need. The *Complex Continuing Care Technical Report* presents additional details of the methodology and results not provided in *Hospital Report 2003: Complex Continuing Care*.

Unlike the other three quadrants, there are no standard data sources or appropriate standard measures to provide a basis for these indicators. Therefore, the SIC indicators were derived from hospital management survey data specifically collected for the Report. The design of the survey was based on a review of literature and consultation with stakeholders and experts. The survey respondents were hospital management personnel, in consultation with senior clinical staff, as required.

For each System Integration and Change indicator, this *Complex Continuing Care Technical Report* provides a detailed 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 2003: Complex Continuing Care*, including modification of the SIC survey, redevelopment of the indicators, the data collection process, and a detailed description of how each indicator was constructed. There are eight indicators of System Integration and Change presented in *Hospital Report 2003: Complex Continuing Care*.

1. Redevelopment of the System Integration and Change Survey

Several complementary approaches were used to identify *Hospital Report 2001: Complex Continuing Care* SIC survey items considered for revision or deletion when redeveloping the survey for 2003. In addition, new questions were added to the survey.

First, the response distributions for each 2001 survey question were examined. Any that had 90% or more of the responses falling within a single response option were considered suspect or unhelpful in developing indicators of innovation and change. Second, a response validation process was conducted with hospitals, wherein hospitals were sent a copy of their responses to those items in the 2001 survey that were used to calculate the nine SIC indicators. The hospitals were asked to indicate whether or not these responses were accurate *at the time of original completion of the survey*. Results were tabulated by tallying, for each question, the number of hospitals that indicated that they thought they should have responded differently on the 2001 survey. This helped to identify a small number of questions that may have been more subject to misinterpretation than others, and should be considered for revision.

Third, responses to open-ended questions in the 2001 survey were reviewed and considered in the development of new closed-ended response options for the 2003 survey. Fourth, feedback was obtained on the 2001 survey items at a meeting of the CCC Advisory Panel for System Integration and Change in September 2002. Prior to that meeting, the Panel members received the draft 2003 CCC SIC survey and a feedback survey. Each Panel member was asked to rate a selection of the proposed survey questions, using a four point Likert-type scale, on each of the following four dimensions: (a) the clarity of the question/statement, (b) the clarity of the response options, (c) the ease of obtaining the information needed to respond, and (d) the expected quality of data to be obtained. The results of this feedback were used to direct discussions at the Advisory Panel meeting and in a post-Panel teleconference. Refer to Appendix C of *Hospital Report 2003: Complex Continuing Care* for the list of Advisory Panel members.

In attendance at this meeting were six of the original Panel members plus three new members. The new Panel members were selected from the participating hospitals' nomination lists from which the 2001 Advisory Panel originated. Advisory Panel members came from geographically diverse parts of Ontario, from hospitals of different sizes and had a variety of expertise relating to hospital and CCC management. The Panel members provided feedback on the clarity and interpretation of 2001 survey items and draft 2003 survey items, which was integral to the redesign of the SIC survey. This included recommendations on the following: (a) development of new questions; (b) omission/revision of specific response items; (c) concept definitions (e.g. practice protocols, skills/competencies descriptions); and (d) differentiation between questions that are specific to CCC services versus corporate-level questions.

In addition to revising the 2001 questions, the research teams for Complex Continuing Care and Rehabilitation collaborated to develop a single integrated SIC survey for both sectors. The objectives of developing an integrated survey were twofold: 1) to avoid burdening hospitals with two separate surveys, and 2) to decrease the potential of duplication of items. Further to these reasons, many hospitals have common management for both CCC and Rehabilitation programs, which also lends to completing one survey. To develop the joint survey tool, the Rehabilitation team adopted applicable questions from the existing and revised 2001 CCC survey questions. The CCC team also adopted the Rehabilitation team's newly developed questions pertaining to issues such as client-/patient-centred care. Extensive editing, revising, and formatting of the survey was completed by both research teams together.

Furthermore, in collaboration with the *Hospital Report* research teams for the acute care and emergency department care sectors, a number of survey items that address corporate-level issues (such as information technology and human resources practices) were pulled out of all sector-specific SIC surveys. For acute care hospitals with CCC services, these questions were included in a separate corporate-level survey, thus further reducing survey burden. For freestanding CCC hospitals, these questions were incorporated into the CCC SIC survey. The corporate survey questions covered the following topics:

1. Human Resources
2. Use of Information Technology
3. Evidence of Corporate Support for the Development and Use of Standardized Protocols/Guidelines
4. Ethical Considerations
5. Patient/Family Information and Education
6. Relationships with External Agencies
7. Nurse Integration and Management

Copies of the integrated Complex Continuing Care and Rehabilitation SIC survey and the Corporate SIC survey can be accessed on the *Hospital Report* web site, www.hospitalreport.ca.

2. Description of the 2003 System Integration and Change Survey

The 2003 SIC survey for Complex Continuing Care (and Rehabilitation) contained nine sections in total, which covered the following topics:

1. Evidence-Based Practice
2. Relationships with Patients and Families
3. Standardized Admission and Discharge Criteria
4. Patient/Family Perspectives
5. Staff and Students in Rehabilitation*
6. Specialized Skills for Complex Continuing Care
7. Linkages/Relationships Across the Care Continuum
8. Use of Information and Information Technology
9. Management of Complex Continuing Care/Rehabilitation Patients

The survey included 51 questions in total. Seventeen (17) of these questions were specific to Rehabilitation only, therefore 34 questions pertained to CCC. Twenty-nine (29) of the 34 CCC questions were used in the scoring of indicators. The time period about which hospitals were asked was March 31, 2001 to April 1, 2002. Note that the survey for freestanding hospitals included both corporate and CCC-specific questions, with 84 questions total. Throughout this document, SIC questions for freestanding hospitals will be preceded by **FS**.

3. Survey Process

On November 1, 2002, the SIC survey for CCC was couriered to the 67 hospital corporations in Ontario that initially agreed to participate in this quadrant. The surveys were addressed to a designated contact person identified in the *Hospital Report* sign-up process. Hospitals with CCC services located at multiple sites were provided with separate surveys in order to respond separately for each site. Hospitals that requested to complete one survey for multiple sites were permitted to do so. This was allowed in order to acknowledge that some of the multi-site hospitals have been under a corporate merger longer than others, and consider themselves sufficiently integrated to complete one survey.

Instructions enclosed with the survey asked that the most appropriate person in the organization (with the necessary information or expertise) respond to the questions related to their expertise. Also enclosed with the survey was a list of suggested personnel to complete each section of the survey. For example, recommended to complete the section entitled “Evidence-Based Practice” included the following: Patient Care Manager, Chief Nursing Officer (CNO), Clinical Nurse Specialist, and Professional Practice Leader. At the end of each survey section, the individual completing the section 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 normal operating circumstances during the specified time period. Hospitals were requested to return their completed surveys by December 6, 2002.

Contact information for the *Hospital Report* research team was provided to hospital personnel in case they had any questions regarding the survey. From November 4, 2002 until December 20, 2002, the CCC research team fielded queries from the hospitals regarding survey content and process. Common questions concerned the specified timeframe of the survey questions and clarifications regarding specific response

* Only applicable to *Hospital Report 2003: Rehabilitation*

items. Follow-up calls were conducted between December 20, 2002 and the end of February 2003 to resolve any problems of contradictory, unclear, or missing responses on surveys, and to contact hospitals that had not yet returned their surveys. The follow-up for missing data included telephone calls with corresponding e-mail documentation to hospitals' designated contact person for CCC. The research teams for the CCC and Rehabilitation *Hospital Reports* consulted with each other throughout the process and achieved consensus on query responses, in order to ensure consistency when responding to hospitals' queries.

4. Data Quality

The indicators for this 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 so that they focused on specific activities or behaviours, as opposed to attitudes or beliefs.

Survey data were entered into a Microsoft™ Access database. To ensure high quality transcription of the data to computer from the paper response forms, a process of double data entry was undertaken. This involved entering raw data on at least two separate occasions, and comparing differences in the data files. Any differences were subsequently reconciled with the source data. This process continued until there were no discrepancies between databases.

5. Indicator Development

Review of Indicator Development for Hospital Report 2001

Most of the SIC indicators for the current Report are based on the indicators originally developed for this quadrant in *Hospital Report 2001: Complex Continuing Care*. The process of developing the 2001 indicators is detailed in that Report. In brief, the process began with a review of numerous documents dating back to 1993 from task forces, commissions, and working groups that had reviewed the role of CCC in Ontario. From these documents, broad categories or domains for SIC indicators were identified. An Advisory Panel was constituted to advise the research team on the identification of a set of potential indicators. At a meeting in February 2001, using a Nominal Group Technique, Panel members suggested more than 50 indicator themes in four broad indicator domains: Care Processes, Information Use, Vertical and Horizontal Integration, and Human Resources. Following this meeting, each Panel member completed a survey to select and rank by priority the five most relevant indicator ideas in each domain, from the indicator ideas generated at the meeting. Twenty priority indicators were identified based on the analysis of that survey.

The 2001 CCC SIC survey was developed to operationalize measurement of the priority indicators. The survey was developed through a process of subject area expert consultation and review of the survey tool that had been used for the Acute Care Hospital Reports in previous years. After analysis of the 2001 survey data, nine indicators were developed for the 2001 *Report*. These indicators were based on the priority assigned by the Advisory Panel, and the quality of the survey response data. Because the 2001 Report was system-level only, the majority of these indicators were calculated to reflect the proportion of hospitals meeting the condition of the measure (prevalence measures). The system-level results presented hospital comparisons based on peer groups and Ontario Hospital Association geographic regions.

Redevelopment of the Indicators

For this year's SIC quadrant for CCC, indicators are reported at the level of individual hospital corporations. Accordingly, the indicator scores are based on index or scale-type measures to provide a more detailed gradation of hospital performance. This type of indicator can encompass a range of related information in a summary format, which can be more useful for comparison among hospitals or within a hospital, over time.

At the September 2002 Advisory Panel meeting (described earlier) the Panel members were involved in redevelopment of the indicators, as well as survey redevelopment. At this meeting, the Panel members reviewed the proposed scoring models that the research team had developed to evolve the 2001 prevalence indicators into interval scores. The discussion was focused on principles and overall fairness of the scoring models, and how various components of each indicator might be weighted.

After the 2003 CCC SIC surveys were returned and preliminary analysis completed, the Advisory Panel reconvened in May 2003 to review the redeveloped (and three new) indicators, and to advise the research team on the scoring and weighting of indicator components. In preparation for this meeting, the Panel members were sent information on the survey items that comprised each indicator or its components. In a survey, they were asked to indicate the relative weight they would attach to each of an indicator's components. This was accomplished by having the Panel members divide a horizontal line of standard length into segments, and assigning each component to a segment of the line. The length of a line segment represented the weight they would attach to the indicator component. The results of this weighting survey were summarized and presented at the May 2003 Advisory Panel meeting. Panel members discussed any weighting discrepancies apparent in the results of the weighting survey, and achieved consensus regarding the component weighting for each indicator. Panel members who could not attend the May 2003 meeting had the opportunity, via a post-meeting teleconference, to discuss the indicator weighting and item scoring recommendations derived at the meeting, and to provide any further input.

The following is a list of the current System Integration and Change indicators, by domain.

Domain	Indicator(s)
A) Improving Processes of Care	1. Evidence-Based Practice 2. Client-Centred Care 3. Organizational Client-Centredness
B) Integration of Care	4. Use of Standardized Admission and Discharge Criteria 5. Relationships between Complex Continuing Care Providers and External Agencies
C) Information Use and Technology	6. Use of RAI-Minimum Data Set in Quality Improvement and in Clinical and Utilization Management Applications
D) Human Resources	7. Use of Staff Skills/Competencies Descriptions Specific to Complex Continuing Care 8. Staff Relations, Support, and Safety

Considerations in Redevelopment of Indicators, by Domain

Due to the considerable revision and modification of the survey and indicator definitions for the current Report compared to *Hospital Report 2001: Complex Continuing Care*, it was not possible to trend these data over time. However, where possible, comparisons between the results in the two reports were described. The following is a description of the modifications made to the indicators in *Hospital Report 2001: Complex Continuing Care* for the current Report.

A) Improving Processes of Care

The foci of indicators identified for this domain remain consistent with those from *Hospital Report 2001: Complex Continuing Care*: (a) standardization of care processes to conform with best practice evidence where available, and (b) patient-/client-centredness of care.

Modifications: In the 2001 Report, the indicator concepts for evidence-based practice were presented in two separate indicators: “prevalence of use of clinical practice guidelines/protocols in the delivery of care to most or all patients”, and “prevalence of monitoring and reporting back to clinical staff about variance in practice from procedures recommended in a protocol/ guideline”. For this year’s Report, these same concepts were aggregated into one score-based indicator called evidence-based practice. In the 2001 survey, hospitals were asked about protocols/guidelines as one concept, and in the 2003 survey, protocols and guidelines were clearly differentiated, with distinct definitions of each.

Client-centredness of care was previously represented in the indicator: “prevalence of use of printed information to inform patients/families of their rights and opportunities to participate in all aspects of care”. In the current Report, two score-based indicators were used to reflect client-centredness in CCC services. The 2001 survey question asking hospitals about printed information was divided into two questions in this year’s survey, separating out issues of providing information to patients/families on their rights and responsibilities, from that regarding specific services and opportunities available to them. Only the latter question was included in a CCC client-centredness indicator this year, because the question pertaining to rights/responsibilities was asked at the hospital corporation level rather than at the level of CCC services. The remaining questions in these new client-centredness indicators were based on newly developed questions.

B) Integration of Care

As in the 2001 Report, this year’s integration of care indicators focus on hospitals’: (a) use of standardized admission and discharge criteria, and (b) involvement in system-wide pathways, networks, and other collaborative initiatives with Community Care Access Centres (CCACs) and other external agencies.

Modifications: The 2001 indicator measuring use of admission and discharge criteria was modified to include questions regarding development of the criteria, and was changed from prevalence to a score-based measure. In *Hospital Report 2001: Complex Continuing Care*, the indicator “Relationships between CCC Services and External Agencies” focused only on linkages with CCACs. This year’s questions examined relationships with additional external care providers such as acute care hospitals, community support service agencies, mental health agencies, long-term care facilities, cancer centers, and other CCC/rehabilitation providers. Joint initiatives that were considered to be corporate in nature were included in the corporate-level survey. A question pertaining to staff roles was also added to this indicator.

C) Information Use and Technology

Only one indicator is included in this domain for this year's Report: the use of RAI-MDS 2.0 data to support quality improvement and clinical and administrative decision-making. The reason for only including one indicator in this domain is due to incomplete responses to several of the questions on the corporate SIC survey pertaining to information use and technology, specifically with respect to CCC services. The questions used for the MDS indicator were included in the CCC program-specific SIC survey.

Modifications: This indicator was already score-based in the 2001 Report. For this year's Report, more weight was assigned to the "applications" of MDS data (as opposed to reporting and dissemination) in the indicator. The SIC survey questions pertaining to use of MDS-QI data for quality improvement initiatives, and for clinical and administrative applications were significantly revised from the 2001 survey.

D) Human Resources

The focus of indicators identified for this domain include recognition of specialized skill sets in CCC, commitment to staff development and training, use of recruitment and retention strategies, expression of the value hospitals place on employees' work, and evidence of a safe environment.

Modifications: The indicator measuring skills/competencies descriptions was changed from a prevalence measure to a scored measure. The second human resources indicator - staff relations, support, and safety - is new to the Report, and is based on survey questions evaluating employee feedback, continuing education, staff supports, and safe work environment at the hospital corporation level.

6. Detailed Description of the Indicator Calculations

Indicator 1: Evidence-based Practice

Indicator 1 was constructed to reflect the extent to which hospitals use and integrate one selected practice protocol (Component 1), and the number of clinical issues/conditions for which hospitals have practice guidelines or protocols (Component 2).

Indicator Summary:

Component	Question	Total Possible Raw Points	Weight	Overall Weight	
Component 1: Extent of Practice Protocol Use and Integration (depth of use)	Q2	The extent to which practice protocols and guidelines are used in decision-making for patient care (selected protocol)	4	70%	50%
	Q5b	Whether and how adherence and/or exception to protocol use in patient care is recorded by staff	1.5		
	Q6	Whether and how frequently the hospital reports back to clinical staff regarding adherence and/or exception to protocol use	1.5	30%	
Component 2: Number of Clinical Issues with Protocols (breadth of use)	Q2	The extent to which practice protocols and guidelines are used in decision-making for patient care (six highest scoring protocols)	24	n/a	50%

Component 1: Extent of Practice Protocol Use and Integration (depth of use)

The scores from Component 1 are based on one clinical issue/condition with a practice protocol that hospitals were asked to select (from Question 2), to form their responses for Questions 5a to 6, regarding recording and reporting adherence/exception to practice protocols. This selected protocol was used to score Questions 2, 5b, and 6 in Component 1. If no protocol was selected, the Component 1 score was based only on the highest scoring clinical issue/condition listed in Question 2 (scoring described below).

Question 2: Hospitals were asked about 13 clinical issues or conditions that are important in complex continuing care:

- Use of physical restraints
- Use of anti-psychotic drugs
- Wound or ulcer care/preventative skin care
- Management of behaviours
- Management of pneumonia
- Management of pain
- Prevention and management of falls
- Management of incontinence
- Management of urinary tract infection
- Detection and management of delirium

- Management of sleep problems
- Management of diabetes
- Management of dysphagia (including decision to use/remove feeding tube)

For each clinical issue or condition, hospitals were asked to check one of six response options that most accurately described the extent to which practice guidelines or practice protocols were developed and used between April 1, 2001 and March 31, 2002. Points were allocated for each of these response options:

Response Option	Points Allocated
(a) Clinical issue present but no practice guideline or protocol existed for this clinical issue	0
(b) Practice guideline was available for this clinical issue to assist decision-making	1
(c) Practice protocol for this clinical issue was in development	2
(d) Practice protocol was applied to decision-making in the care of some (1-74%) eligible patients	3
(e) Practice protocol was applied to decision-making in the care of most (75%+) eligible patients	4

In the event that a clinical issue or condition was not applicable to the complex continuing care patient population cared for at a particular hospital, a “not applicable” response option was available. Question 2 also included a column which asked hospitals the date of most recent review/revision of the practice protocol or guideline. The total point allocation for Question 2 (for the selected practice protocol in Component 1) was 4 points. This score was weighted as 70% of the Component 1 score. The remaining 30% of the points for Component 1 were derived from Questions 5b and 6.

Question 5b: In Question 5a, hospitals were asked if clinical staff in CCC were required to record adherence or exception to practice from those recommended in practice protocols (response options: yes or no). In Question 5b, hospitals were asked *how* clinical staff recorded adherence or exception to the protocol. The following response options allowed hospitals to indicate if adherence or exceptions were recorded:

Response Option	Points Allocated
(a) On paper, in the progress notes	0.5
(b) On paper, in the patients’ permanent care plan document (e.g. not Kardex) or on a special protocol-related form	1.5
(c) Electronically (e.g. on a special on-line protocol-related form or part of on-line care plan documentation)	1.5

Hospitals could check any response option(s) that applied. The total point allocation for this question was 1.5 points (maximum points attained with either of the last two response options).

Question 6: In Question 6, hospitals were asked how often information about adherence and exception to the practice protocol was reported back to CCC clinical staff between April 1, 2001 and March 31, 2002. Response options and point allocations included:

Response Option	Points Allocated
(a) Protocol adherence or exceptions <i>were not</i> reported back to clinical staff	0
(b) Protocol adherence or exceptions were reported back to clinical staff <i>once</i>	0.5
(c) Protocol adherence or exceptions were reported back to clinical staff at least <i>twice</i> (for different time periods)	1.5

Hospitals could check one response option only. The total point allocation for Question 6 was 1.5 points.

The total point allocation for Questions 5b and 6 was 3 points. This score was weighted as 30% of the Component 1 score. The Component 1 score (Question 2 score [for the selected practice protocol] + Question 5b/6 score) was weighted as 50% of the final Indicator 1 score.

Component 2: Number of Clinical Issues with Protocols (breadth of use)

Component 2 represents the score for the number of clinical issues/conditions for which hospitals have practice guidelines or protocols. Component 2 is entirely based on Question 2, which as described above, asked hospitals the extent to which practice guidelines or practice protocols were developed and used. The six highest scoring practice guidelines/protocols assigned points in Component 2, excluding the selected protocol from Component 1. The scoring for Question 2 is the same as in Component 1: for each of the 13 clinical issues or conditions, hospitals were asked to check one of six response options that most accurately described the extent to which practice guidelines or practice protocols were developed and used between April 1, 2001 and March 31, 2002. Response options and point allocations included:

Response Option	Points Allocated
(a) Clinical issue present but no practice guideline or protocol existed for this clinical issue	0
(b) Practice guideline was available for this clinical issue to assist decision-making	1
(c) Practice protocol for this clinical issue was in development	2
(d) Practice protocol was applied to decision-making in the care of some (1-74%) eligible patients	3
(e) Practice protocol was applied to decision-making in the care of most (75%+) eligible patients	4

In the event that a clinical issue/condition was not applicable to the complex continuing care patient population cared for at a particular hospital, a “not applicable” response option was available. Hospitals could check one response option only. The total point allocation for Question 2 in Component 2 was 24 points. This score was weighted as the remaining 50% of the final Indicator 1 score.

Indicator 2: Client-Centred Care

Client-Centred Care refers to an approach to the delivery of care that reflects the needs of individuals and groups patients/clients. At the service level, client-centred care is an approach to care that strives to incorporate the clients' perspectives into the provision of services. This indicator includes six questions from the Complex Continuing Care System Integration and Change survey. These questions address the following topics: patient and family information/education; patient and family involvement in care; and emotional support for patients/families.

Indicator Summary:

Question	Total Possible Raw Points	Overall Weight
Q8 FS 15 Printed information for patients/families regarding patient services/opportunities	10	6%
Q9 FS 16 Educational activities customized to patients'/families' needs	8	17%
Q10 FS 17 Processes to involve families in patient care	8	11%
Q11 FS 18 Family involvement in goal setting, care planning, discharge planning	9	11%
Q12 FS 19 Patient involvement in decision-making	18	33%
Q13 FS 20 Emotional support for patients/families	13.5	22%

Question 8 (FS 15): Hospitals were asked if their complex continuing care services provided printed information to patients and families regarding the availability of various services or opportunities between April 1, 2001 and March 31, 2002. The listed services or opportunities included:

- Services that support wellness, improvement, and quality of life (e.g. recreation)
- Social, spiritual, and community activities
- Patient advocate/ombudsperson
- Taking part or refusing to take part in research or clinical trials
- Services within the hospital that are relevant to their condition
- Services in the community that are relevant to their condition
- How to report a complaint or commendation

For each of these services/opportunities, hospitals could indicate that printed information was:

Response Option	Points Allocated
(a) Provided as part of the admission package	1
(b) Readily accessible within CCC and/or Rehabilitation services	1

In the survey, the term readily accessible was defined as: "on display and available at information desk, nursing station, or posted by bedside". For each listed service or opportunity, a maximum of two points were given (hospitals could check any response option(s) that applied). If printed information was not provided to patients and families on a particular service or opportunity, a response option was available to indicate so. Points were given for a maximum of five of the seven listed services/opportunities. The total

point allocation for this question was 10 points. This score was weighted as 6% of the final Client-Centred Care indicator score.

Question 9 (FS 16): This question asked hospitals how their complex continuing care services customized their educational activities to the individual needs of each patients/families between April 1, 2001 and March 31, 2002. The following processes were listed: assessment of each patient/family to determine their information needs; assessment of each patient/family to identify when they are ready for education (readiness-to-learn); reassessment of information needs and readiness-to-learn over time; evaluation of the outcome of patient/family education (patient/family learning was evaluated after information was provided). For each of these processes, hospitals could indicate one of the following:

Response Option	Points Allocated
(a) This process was not performed within complex continuing care services	0
(b) There was an informal process	1
(c) There was a formal process	2

An informal process was defined in the survey as a “process that occurred but was not specified in a written guideline, policy, and/or procedure. There is documentation of the process in the health record”. A formal process was defined as a “process that has been formally addressed by the organization and guidelines, policies, and/or procedures exist. There is documentation of the process in the health record”. Having a formal process in place is believed to reflect a greater commitment by hospitals to establishing client- (or patient-) centred care. The total point allocation for this question was 8 points. This score was weighted as 17% of the final indicator score.

Question 10 (FS 17): Hospitals were asked how families were involved in patient care within their complex continuing care services between April 1, 2001 and March 31, 2002. The following two processes were listed: process for patients to direct the degree of family involvement or non-involvement in the care process; and process to assess family expectations and capacity to be involved in the patients’ care in hospital and after discharge (if discharge is applicable). For each of these processes hospitals could indicate one of the following:

Response Option	Points Allocated
(a) This process was not performed within complex continuing care services	0
(b) There was an informal process	1
(c) There was a formal process	2

As in Question 9 (FS 16), an informal process was defined in the survey as a “process that occurred but was not specified in a written guideline, policy, and/or procedure. There is documentation of the process in the health record”. A formal process was defined as a “process that has been formally addressed by the organization and guidelines, policies, and/or procedures exist. There is documentation of the process in the health record”. The total point allocation for this question was 4 points. This score was weighted as 11% of the final indicator score.

Question 11 (FS 18): This question asked hospitals how families were involved in care processes within complex continuing care services between April 1, 2001 and March 31, 2002. The processes were listed as:

- Setting of patient goals
- Patient care planning and therapy planning
- Discharge planning

For each of these processes, the following response options were given: one-to-one meetings with any member of the health care team; designated staff person to meet with families; and team meetings. Hospitals could check any response option(s) that applied. One point was given for each response option checked. The total point allocation for this question was 9 points. This score was weighted as 11% of the final Client-Centred Care indicator score.

Question 12 (FS 19): Hospitals were also asked which processes were in place within their complex continuing care services to incorporate patient input into decision-making about care, goals, treatment, and discharge planning between April 1, 2001 and March 31, 2002. The processes listed were:

- (a) Informing every patient regarding treatment options, risks, benefits
- (b) Substitute decision-maker named when indicated
- (c) One-to-one meetings between professionals from the multidisciplinary team and the patient to elicit patient input into care, goals, treatment, and discharge decisions
- (d) Team meetings between professionals from the multidisciplinary team and the patient to elicit patient input into care, goals, treatment, and discharge decisions
- (e) Choice routinely provided to patients regarding multidisciplinary meetings (one-to-one or with the team)
- (f) Goal-setting for each patient based on agreement between the patient and the multidisciplinary team
- (g) Evaluation by the multidisciplinary team of progress toward goal achievement
- (h) Evaluation by the patient of progress toward goal achievement
- (i) Designation of contact person from the multidisciplinary team for each patient to address patients' questions and concerns about care, goals, treatment, and discharge decisions
- (j) Establishment of discharge date (where relevant) involves patient input
- (k) Process for resolution of disagreements between the patient and the multidisciplinary team regarding care, goals, treatment, and discharge decisions

For each of these processes, hospitals could check one of the following response options: this process was not performed within CCC and/or Rehabilitation services; there was an informal process; or there was a formal process. An informal process was defined in the survey as a "process that occurred but was not specified in a written guideline, policy, and/or procedure. There is documentation of the process in the health record". A formal process was defined as a "process that has been formally addressed by the organization and guidelines, policies, and/or procedures exist. There is documentation of the process in the health record". Point allocation for this question is as follows: No points were given for any responses checked for options (a) informing every patient regarding treatment options, risks, benefits; (b) substitute decision-maker named when indicated; and (g) evaluation by the multidisciplinary team of progress toward goal achievement. The first two of these processes are legislated and therefore are considered a bare minimum for hospitals to involve patients in decision-making processes. Response option (g) was not scored because this practice was also considered to be a minimum for involving patients in decision-making. The remaining response options received points as follows:

Response Option	Points Allocated
(a) This process was not performed within complex continuing care services	0
(b) There was an informal process	1
(c) There was a formal process	2

If hospitals checked under response option (h) evaluation by the patient of progress toward goal achievement, they received two points for informal process and four points for formal process. This response option was considered by the Complex Continuing Care and Rehabilitation Advisory Panels to be a key issue in client-centred care and was therefore assigned more weight. The total point allocation for this question was 18 points. This score was weighted as 33% of the final indicator score.

Question 13 (FS 20): This question addresses the issue of emotional support for patients/families. Patients and families in complex continuing care should feel that their emotional needs and concerns are being addressed, that their wishes and decisions are being respected, and that they are being treated with dignity. Effective emotional support conveys a sense of genuine caring and concern for the patients’/families’ needs. It includes expressing a positive affect, acknowledging the patients’/families’ feelings, and providing useful information. Hospitals were asked about emotional support for patients and families in two parts. Part 1 asked about assessment and documentation whereby hospitals could check whether or not there was a formal process for assessing and documenting emotional support needs for (a) patients and (b) families. A formal process was defined in the survey as a “process that has been formally addressed by the organization and guidelines, policies, and/or procedures exist. There is documentation of the process in the health record”. Part 2 of Question 13 (FS 20) asked about the availability of emotional support mechanisms. The response options were: professionals trained in emotional support counseling provided one-to-one counseling; professionals trained in emotional support counseling provided group counseling; patients/families linked with a peer support network and/or a formal buddy system; and printed information on how to access emotional support services was readily available. Part 2 was also asked in terms of (a) patients and (b) families. Hospitals could check any response option(s) that applied. Points were allocated as follows:

Part	Response Option	Points	
		Patients	Families
<i>Part 1</i>	Formal Process for assessing and documenting emotional support needs	4	2
<i>Part 2</i>	Professionals trained in emotional support counseling provided one-to-one counseling	2	1
	Professionals trained in emotional support counseling provided group counseling	2	1
	Patients/families linked with a peer support network and/or formal buddy system	2	1
	Printed information on how to access emotional support services was readily available	1	0.5

The total point allocation for this question was 13.5 points. This score was weighted as the remaining 22% of the final indicator score.

Indicator 3: Organizational Client-Centredness

This indicator examines client-centredness from the perspective of the organization as a whole. Organizational client-centredness refers to the hospital-wide processes put in place to facilitate the involvement of patients in care. This indicator addresses eliciting and disseminating patient/family feedback (from the Complex Continuing Care System Integration and Change survey) and staff roles that reflect client-centredness (from the Corporate System Integration and Change survey). Note that the term *Corp* (in the indicator summary) refers to a question found in the corporate survey.

Indicator Summary:

Component	Question			Total Possible Raw Points	Overall Weight
Eliciting Patient/Family Feedback	Q20	FS	Mechanisms in place to elicit patient/family feedback	5	50%
Dissemination of Feedback Results	Q21	FS	Strategies used to disseminate patient/family feedback results	16.5	20%
	Q22	FS	Additional strategies used to disseminate patient/family feedback results	1	10%
Staff Roles	Corp Q4	FS	Staff roles that reflect client-centredness	4	20%

Question 20 (FS 27): Hospitals were asked about various mechanisms that were in place to elicit patient/family feedback about their complex continuing care services between April 1, 2001 and March 31, 2002. Points were given for the following response options:

Response Option	Points Allocated
(a) Patient/family satisfaction survey(s)	2 points for 1 or more checks
(b) Focus group(s) with patients/families	
(c) Patient/family council(s)	3 points for 1 or more checks
(d) Patient/family involvement in services planning	

Hospitals could check any response option(s) that applied. If no processes were in place to elicit patient/family feedback, a response option was available to indicate so. Note that in the survey, involvement in services planning was defined as: “patients and/or families were members of a committee (other than family councils) with a mandate to evaluate and make recommendations regarding complex continuing care services”. The total point allocation for this question was 5 points. This question was weighted as 50% of the final Organizational Client-Centredness indicator score.

Question 21 (FS 28): This question asked hospitals which strategies were used within their complex continuing care services to disseminate patient/family feedback results between April 1, 2001 and March 31, 2002. The following groups were listed:

- The board
- Senior management team
- Physicians with hospital privileges
- Managers at the program/department level
- Managers at the patient care level/unit
- Nurses (RNs, RPNs) at the program/department/patient care unit level
- Other patient care staff at the program/department/patient care unit level
- Staff committee/task force focused on quality
- Other hospital staff
- Community at large
- Current or former patients and their patients

For each of these groups, the following response options and point allocations were available:

Response Option	Points Allocated
(a) Patient/family feedback results not shared with specified group	0
(b) Written reports were circulated but not presented to this group	0.5
(c) Results were presented and discussed with this group (and written report made available)	1
(d) Specific and relevant results were reviewed beyond the initial presentation	1

Hospitals could check all responses that applied. The total points were capped at 1.5 points per group listed. The total point allocation for this question was 16.5 points. This question was weighted as 20% of the final Organizational Client-Centredness indicator score.

Question 22 (FS 29): This question asked hospitals about additional strategies used to disseminate patient/family feedback results. The following response options were listed:

- Results posted on hospital website
- Results posted on bulletin board in hospital
- Results posted in newsletter/electronic mail

Hospitals could check any response option that applied. One point was given for any one or more of these additional dissemination strategies. The total point allocation for this question was 1 point. This question was weighted as 10% of the final indicator score.

Question 4 (FS 33): This question was found in the Corporate System Integration and Change survey. Hospitals were asked whether several staff roles existed within their organization between April 1, 2001 and March 31, 2002. Points were given for the following roles which reflect client-centred care:

- Designated staff who addresses equity issues (e.g. gender, religion, language) relevant to patients and families
- Designated contact person assigned to each patient and family
- Patient advocate/ombuds-person

Hospitals could choose one of the following response options for each staff role:

Response Option	Points Allocated
(a) This staff role did not exist	0
(b) This staff role was introduced after March 31, 2002	1
(c) This staff role existed between April 1, 2001 and March 31, 2002	2

The total point allocation for this question was 4 points for any of the three roles. This score was weighted as 20% of the final Organizational Client-Centredness indicator score.

Indicator 4: Use of Standardized Admission and Discharge Criteria

Standardized admission and discharge criteria are documented descriptions of specific criteria that qualify patients for admission to and discharge from specific complex continuing care services. The criteria themselves are objective statements about measurable patient attributes. In the System Integration and Change survey, standardized admission and discharge criteria were assessed in terms of extent of use and consultation in development. Hospitals were asked about criteria regarding multiple CCC programs/patient types including Complex Medical, Reactivation, Palliative Care and Mental Health/Cognitive Support. It is important to note that hospitals varied with regard to the number of programs/patient types they served in CCC. The scoring methods for this indicator are based on the principle that the use of the 'innovation' of standardized admission/discharge criteria for any program/patient type is good. Use in multiple CCC programs/patient types (where applicable) served by the hospital is even better. This indicator is based on four questions from the Complex Continuing Care System Integration and Change survey.

Indicator Summary:

Component	Question	Total Possible Raw Points	Weighting	Overall Weight	
Component 1: Standardized Admission Criteria	Q15 FS 22	The extent to which standardized admission criteria are used	2	Weighted according to the number of program/patient types indicated in response	33%
	Q16 FS 23	Types of stakeholders formally consulted in development of standardized admission criteria	4		25%
Component 2: Standardized Discharge Criteria	Q17 FS 24	The extent to which standardized discharge criteria are used	2	Weighted according to the number of program/patient types indicated in response	25%
	Q18 FS 25	Types of stakeholders formally consulted in development of standardized discharge criteria	4.5		17%

Component 1: Standardized Admission Criteria

Question 15 (FS 22): Hospitals were surveyed about the extent to which they use standardized admission criteria in determining which patients are appropriate to admit to the following common kinds of complex continuing care programs: Complex Medical, Reactivation, Palliative Care, and Mental Health/Cognitive Support. Hospitals were also allowed to specify other kinds of complex continuing care programs or special patient groups that they serve, and indicate their use of admission criteria for them. Possible response options included that standardized admission criteria (between April 1, 2001 and March 31, 2002):

Response Option	Points Allocated
(a) Did not exist for this program/patient type	0
(b) Were under development and implemented after the specified time period	0.5
(c) Were applied to <i>some</i> (1-74%) patients admitted to this program/patient type	1
(d) Applied to <i>most</i> (75%+) patients admitted to this program/patient type	2

Hospitals could check one response option only. The total point allocation was 2 points per program/patient type. This question was weighted as 33%.

Question 16 (FS 23): This question asked hospitals which stakeholders were formally consulted in the development of standardized admission criteria. For each of the four listed complex continuing care programs/patient types (same as above), the response options included consultations with:

Response Option	Points Allocated
(a) Representatives of other levels of care within our organization	0.5
(b) Other organizations that refer patients to our CCC services	2
(c) Other CCC providers in catchment area	1
(d) Patients and families	0.5

In addition, hospitals were allowed to specify one other stakeholder, and indicate the consultation with them for each program/patient type. Hospitals could check any response option(s) that applied. The total point allocation was 4 points per program/patient type. This question was weighted as 25%. For each program, the maximum combined points for Questions 15 and 16 (FS 22 and 23) was 6 points per program/patient type.

Scoring System:

a) Highest scoring program

A scoring system was developed to take into account the differences among hospitals regarding the number of programs/patient types that they serve in complex continuing care. For Questions 15 and 16 (FS 22 and 23), each selected program/patient type (i.e. programs that were not checked as N/A) was scored based on the scoring and weighting described above. If hospitals indicated that they only had one program/patient type, this program's score (for Questions 15 and 16 (FS 22 and 23) combined) was worth 100% of the Component 1 (standardized admission criteria) score. For hospitals with multiple programs/patient types, the highest scoring program represented 50% of the Component 1 score (the "interim score"). Note: This score was capped at 3 points of a possible 6, for the highest scoring program. The remaining points were obtained by scoring the next highest scoring programs.

b) Remaining programs

For hospitals with greater than one program/patient type, the remaining 50% of the Component 1 score was derived from the next highest scoring programs from Questions 15 and 16 (FS 22 and 23) combined, up to a maximum of four programs total. The scoring for the remaining programs proceeded as follows:

1. The next highest scoring program was selected (“program score”), based on Questions 15 and 16 (FS 22 and 23) combined scores
2. The “interim score” (defined above) was subtracted from the maximum possible number of points available for Questions 15 and 16 (FS 22 and 23) combined (6 points). This represents the “remainder score”, which is the number of points hospitals had available after receiving points for their highest scoring program.
3. (“Program score”/6) multiplied by the “remainder” was added to the “interim score”. This became the new interim score.
4. Steps 1 through 3 were repeated until the score equaled six, or until a maximum of four programs/patient types were incorporated.

Component 2: Standardized Discharge Criteria

Question 17 (FS 24): Hospitals were also surveyed about the extent to which they use standardized discharge criteria in determining which patients are appropriate to discharge from the following common kinds of complex continuing care programs: Complex Medical; Reactivation; Palliative Care; and Mental Health/Cognitive Support. In addition, hospitals were allowed to specify other kinds of complex continuing care programs or special patient groups that they serve, and indicate their use of discharge criteria for them. Possible response options included that standardized discharge criteria (between April 1, 2001 and March 31, 2002):

Response Option	Points Allocated
(a) Did not exist for this program/patient type	0
(b) Were under development and implemented after the specified time period	0.5
(c) Were applied to <i>some</i> (1-74%) patients discharged from this program/patient type	1
(d) Were applied to <i>most</i> (75%+) patients discharged from this program/patient type	2

Hospitals could check one response option only. The total point allocation was 2 points per program/patient type. This question was weighted as 25%.

Question 18 (FS 25): This question asked hospitals, which stakeholders were formally consulted in the development of standardized discharge criteria. For each of the four listed complex continuing care programs/patient types (same as above), the response options included consultations with:

Response Option	Points Allocated
(a) Representatives of other levels of care within our organization	0.5
(b) Other organizations to which our CCC services refer/discharge patients	2
(c) Other CCC providers in catchment area	1
(d) Patients and families	1

Hospitals could check any response option(s) that applied. Note that the consultation with patients and families is worth more in Question 18 (25) compared to Question 16 (23) (admission criteria) because it was considered that patient/family input is critical at the time of discharge. The total point allocation was 4.5 points per program/patient type. This question was weighted as 17%. For each program, the maximum combined points for Questions 17 and 18 (FS 24 and 25) was 6.5 points per program/patient type.

Scoring System:

a) Highest scoring program

For Questions 17 and 18 (FS 24 and 25), each selected program/patient type (i.e. programs that were not checked as N/A) was scored based on the scoring and weighting described above. If hospitals indicated that they only had one program/patient type, this program's score (for Questions 17 and 18 (FS 24 and 25) combined) was weighted as 100% of the Component 2 (standardized discharge criteria) score. For hospitals with multiple programs/patient types, the highest scoring program represented 50% of the Component 2 score (the "interim score"). Note: This score was capped at 3.25 points of a possible 6.5, for the highest scoring program. The remaining points were obtained by scoring the next highest scoring programs.

b) Remaining programs

For hospitals with greater than one program/patient type, the remaining 50% of the Component 2 score was derived from the next highest scoring programs from Questions 17 and 18 (FS 24 and 25) combined, up to a maximum of four programs total. The scoring for the remaining program is as follows:

1. The next highest scoring program was selected ("program score"), based on Questions 17 (24) and 18 (25) combined
2. The "interim score" (defined above) was subtracted from the maximum possible number of points available Questions 17 and 18 (FS 24 and 25) combined (6.5). This represents the "remainder score", which is the number of points hospitals had available after receiving points for their highest scoring program.
3. ("Program score"/6.5) multiplied by the "remainder" was added to the "interim score". This became the new interim score.
4. Steps 1 through 3 were repeated until the score equaled 6.5, or until a maximum of four programs/patient types were incorporated.

The total scores for Component 1 (standardized admission criteria) and Component 2 (standardized discharge criteria) were combined to obtain the final indicator score.

Indicator 5:

Relationships between Complex Continuing Care Providers and External Agencies

This indicator is based on responses to two questions in the Complex Continuing Care System Integration and Change survey and two questions in the Corporate System Integration and Change survey. These questions asked hospitals about joint initiatives, external consultations regarding practice protocols, and staff roles that cross organizational boundaries. Note that the term *Corp* (in the indicator summary) refers to a question found in the corporate survey.

Indicator Summary:

Question			Total Possible Raw Points	Overall Weight
Q35	FS 61	Participation in CCC-specific joint initiatives with other service providers	20	35%
Corp Q28	FS 60	Participation in corporate-level joint initiatives with other service providers	8	25%
Q7	FS 7	Joint development of practice protocols with other levels of care	5	30%
Corp Q4	FS 33	The existence of a staff role that facilitates linkages with the community	1	10%

Question 35 (FS 61): Fifteen different initiatives (specific to CCC services) were listed in this question. Hospitals were asked to indicate which initiatives their complex continuing care services were jointly engaged in with the following service providers: acute care hospitals; CCACs; community support service agencies; mental health agencies; LTC facilities; cancer centres; other CCC/Rehabilitation providers. Points were given for the following initiatives:

Response Option	Points Allocated
(a) Looking at utilization management issues in the hospital	
(b) Looking at care planning in the hospital and determining appropriate patient discharge criteria	
(c) Evaluating outcomes	
(d) Evaluating appropriateness of discharge	
(e) Implementing pain and symptom management initiatives (palliative and non-palliative)	1 point for 1 check under any service provider
(f) Patient/family education	
(g) Clinical information flow between health care providers	2 points for 2+ checks under any service providers
(h) Community staff represented (i.e. formal members) on a hospital standing committee on patient care and/or discharge planning	
(i) Cross training hospital and community partner staff	
(j) Providing community partner staff with desk/office space, computer, phone, and/or email on your organization's property	

This method of scoring emphasizes collaboration with *any* external agencies, rather than the number of agencies collaborated with for each initiative. Due to overlap of topics in different indicators, three response options were not included in the scoring of this question: 1) Developing standardized protocols that span patient care in the hospital and the community; 2) Planning and carrying out education sessions for community partner staff and hospital staff; and 3) Community staff also employed by your organization.

Two response options were considered by the CCC Advisory Panel to be difficult for small community hospitals to achieve due to potential restrictions beyond their control: 1) Creating/implementing joint manager/director services; and 2) Research. Checking these two responses was not required to obtain maximum points on this question. The total point allocation question for this question was 20 points. This score was weighted as 35% of the final Relationships with External Agencies indicator score.

Question 28 (FS 60): Similar to Question 35 (60), this question asked hospitals about joint initiatives with service providers. These joint initiatives are corporate in nature, and not specific to complex continuing care services. Question 28 (60) asked hospitals if they were engaged in joint initiatives with other acute care hospitals; CCACs; community support service agencies; mental health agencies; LTC facilities; cancer centres. The four listed joint initiatives were:

Response Option	Points Allocated
(a) Joint-fundraising campaigns	1 point for 1 check under any service provider
(b) Cross-board representation	
(c) Joint executive committee meetings	2 points for 2+ checks under any service providers
(d) Shared web site listing employment opportunities	

Hospitals could check any response option(s) that applied. The total point allocation for this question was 8 points. This score was weighted as 25% of the final indicator score.

Question 7 (FS 7): Hospitals were asked to select a practice protocol from Question 2 to base their responses to several questions. Question 7 asked hospitals if the selected protocol was developed jointly and included aspects of care with other levels of care between April 1, 2001 and March 31, 2002. The levels of care listed as response options included:

Response Option	Points Allocated
(a) Acute care within your organization	0
(b) Acute care external to your organization	1
(c) Complex continuing care within your organization	0
(d) Complex continuing care external to your organization	1
(e) Rehabilitation within your organization	0
(f) Rehabilitation external to your organization	1
(g) CCAC or ambulatory care providers within your organization	0
(h) CCAC or ambulatory care providers external to your organization	1
(i) Long-term care within your organization	0
(j) Long-term care external to your organization	1

Hospitals could check any response option(s) that applied. The total point allocation for Question 7 was 5 points. Since this indicator focuses on relationships with external agencies, no points were given to consultations within a hospital's own organization. This score was weighted as 30% of the final Relationships with External Agencies indicator score.

Question 4 (FS 33): This question is found in the Corporate System Integration and Change survey. Hospitals were asked whether several staff roles existed within their organization between April 1, 2001 and March 31, 2002. For this indicator, points were given for the following staff role: "Clinical staff or physician whose role at your organization involves working at another hospital or agency (crosses organizational boundaries)". Hospitals were given 0.5 points if they indicated that the role was introduced after March 31, 2002, or is under development, and 1 point if the role was a permanent role and existed between April 1, 2001 and March 31, 2002. No points were given if the staff role did not exist during the

specified time period. The total point allocation for this question was 1 point. This score was weighted as 10% of the final indicator score.

Indicator 6:

Use of RAI-Minimum Data Set in Quality Improvement and in Clinical and Utilization Management Applications

This indicator is derived from eight questions in the Complex Continuing Care System Integration and Change survey. These questions asked hospitals about MDS Quality Indicators (MDS-QI), Resource Utilization Groups (RUG-III), and clinical/administrative applications of MDS. The questions were grouped and weighted into the following components: MDS reporting - level of reporting detail; MDS reporting - dissemination; and applications of MDS.

Indicator Summary:

Component	Question	Total Possible Raw Points	Overall Weight
Component 1: MDS Reporting: Level of Reporting Detail	Q36 FS 64	Source of MDS-Quality Indicator (QI) reports	0.5
	Q37 FS 65	Reporting level of MDS-QI reports	1
	Q41 FS 69	Source of Resource Utilization Groups-III (RUG-III) reports	1
Component 2: MDS Reporting: Dissemination	Q38 FS 66	Dissemination of MDS-QI report results	1.5
Component 3: Applications of MDS Data in Decision-Making	Q39 FS 67	Application of MDS-QIs to quality improvement	1
	Q40 FS 68	Example of applying MDS-QIs to quality improvement	1
	Q42 FS 70	Use of RUG-III reports	1
	Q43 FS 71	Clinical and administrative applications of RAI-MDS Data	3

Component 1: MDS Reporting: Level of Reporting Detail

Question 36 (FS 64): This question asked hospitals about the source(s) from which they obtained MDS-QI reports during the period April 1, 2001 to March 31, 2002. Response options and point allocations were as follows:

Response Option	Points Allocated
(a) MDS-QI calculations/reports from Canadian Institute for Health Information (CIHI)	0
(b) MDS-QI calculations/reports generated internally at your hospital by an analyst	0.5
(c) MDS-QI calculations/reports generated directly from your MDS vendor software	0.5
(d) External data analysis service used to calculate/report MDS-QIs	0.5

Hospitals could check any response option(s) that applied. The total point allocation for this question was 0.5 points. All hospitals that submitted RAI-MDS 2.0 data to CIHI during the fiscal year 2001/02 received one system-level and one facility-level MDS-QI report, based on that data from CIHI during the calendar period referred to in the question. Hospitals were given 0.5 points if they had obtained one or more MDS-QI reports other than the ones provided by CIHI, since this indicates a specific initiative on the part of the hospital to use MDS for this application.

Question 37 (FS 65): This question asked hospitals about the level of reporting detail (the level at which MDS-QI results were reported) in any MDS-QI reports that the hospital obtained from April 1, 2001 to March 31, 2002. Response options included MDS-QI reports were reported at:

Response Option	Points Allocated
(a) Level of entire CCC services (e.g. hospital-level)	0
(b) Sub-levels within the CCC services (e.g. unit or program)	0.5
(c) Level of individual patients (e.g. whether or not patient in the numerator or denominator of the indicator)	0.5

Hospitals could check any response option(s) that applied. The total point allocation for this question was 1 point. The maximum score could be obtained by reporting both at CCC sub-levels and at the individual patient level. Obtaining MDS-QI information at the unit and/or patient level increases its utility for application to quality information, and again points to a specific initiative by the hospital to use MDS data for quality improvement.

Question 41 (FS 69): Hospitals were asked about the source(s) from which they obtained reports on the Resource Utilization Groups (RUG-III) classifications of their patients from April 1, 2001 until March 31, 2002. RUG-III is the RAI-MDS 2.0-based classification system that is being used by the Ministry of Health and Long-Term Care (MOHLTC) to weight patient days on the basis of case mix as part of the process of including complex continuing care in the Equity in Rate and Volume hospital funding formula. Response options included that RUG-III calculations/reports were:

Response Option	Points Allocated
a) From CIHI or the Joint Policy and Planning Committee	0
b) Generated internally at your hospital by an analyst	1
c) Generated directly from your MDS vendor software	1
d) Generated from external data analysis service	1

Hospitals could check any response option(s) that applied. The total point allocation for this question was 1 point. In October 2002, all hospitals that submitted RAI-MDS 2.0 data to CIHI in fiscal year 2001/02 received, from CIHI, an interim hospital-level report on their RUG-weighted patient days, and an interim

report from CIHI detailing patient-level RUG-III classification and patient days information. Hospitals received a finalized hospital-level RUG-weighted patient days report from CIHI in January 2002 and could request a final patient-level report as well. If hospitals also obtained reports or calculations using RUG-III from any of the sources other than CIHI, they were given one point to reflect the fact that they had taken the initiative to use their own RAI-MDS data, in this case to obtain RUG-III reports which may be used for utilization management applications.

Scores from Questions 36, 37, and 41 (FS 64, 65, and 69) were summed and weighted as 25% of the final RAI-MDS indicator score.

Component 2: MDS Reporting: Dissemination

Question 38 (FS 66): Hospitals were asked the extent to which MDS-QI reports were shared with various stakeholders at the hospital which included: the board or a board committee; senior management team; senior medical staff; program/department level; patient care unit level (front line managers and staff); committee looking at quality and/or utilization; patients and families. For each of the listed stakeholder groups, hospitals could report that MDS-QI reports were:

- (a) Not shared with this group
- (b) Shared in the form of written reports circulated, but not presented to this group
- (c) Presented and discussed with this group (and written report made available)
- (d) Specific and relevant results were reviewed beyond the initial presentation

Hospitals could check any response option(s) that applied. Points were assigned as follows: hospitals were given 0.5 point if MDS-QI results were presented and discussed (response option c) with three or more stakeholder groups, and 0.5 point if MDS-QI specific and relevant results were reviewed beyond the initial presentation (response option d) with three or more stakeholder groups. An additional 0.5 point was given if one of the stakeholder groups that received specific and relevant results (response option d) was patients and families. The total point allocation for this question was 1.5 points. This score was weighted as 25% of the final RAI-MDS indicator score.

Component 3: Applications of MDS Data in Decision-Making

Question 39 (FS 67): Hospitals were asked how they applied MDS-QIs to quality improvement efforts within their complex continuing care services between April 1, 2001 and March 31, 2002. Response options included that MDS-QIs were:

- Not applied in quality improvement work
- Used to identify areas for focus of quality improvement
- Used over time to track responses to quality improvement initiatives
- Used to compare our CCC services performance to comparable facilities considered to be leaders in one or more issues measured with the MDS-QIs

Hospitals could check any response option(s) that applied. Hospitals were also allowed to specify another way that MDS-QIs were applied to quality improvement efforts. Points for this question were allocated as follows: 0.5 points given for any one response option checked (excluding first response option), and one point given for two or more response options checked (excluding first response option). If hospitals specified an additional way that MDS-QIs were applied to quality improvement and this example was a) deemed reasonable and b) did not overlap with the listed response options, this response counted towards the total score for this question. The total point allocation for this question was 1 point.

Question 40 (FS 68): In this question hospitals were asked to provide an example of how their complex continuing care services applied MDS-QIs to quality improvement in one of the listed Quality Indicator Domains during the time period between April 1, 2001 and March 31, 2002. The MDS-Quality Indicator Domains were listed as follows:

- (a) Accidents
- (b) Behavioural/emotional patterns
- (c) Clinical management
- (d) Cognitive patterns
- (e) Elimination/incontinence
- (f) Infection control
- (g) Nutrition/eating
- (h) Physical functioning
- (i) Psychotropic drug use
- (j) Quality of life
- (k) Skin care

Hospitals were asked to select one of these MDS-QI domains and indicate a corresponding quality indicator. They were then requested to describe an example of a quality improvement initiative for that indicator. One point was awarded if the hospital provided a reasonable example of how they applied MDS-QIs to quality improvement efforts, based on the judgment of the research team. The total point allocation for this question was 1 point.

Question 42 (FS 70): Hospitals were asked how their complex continuing care services used the information in the RUG-III reports obtained between April 1, 2001 and March 31, 2002. Response options included that RUG-III reports were used to:

Response Option	Points Allocated
(a) Review appropriateness of current MDS coding practice	
(b) Identify patients for review of appropriateness of CCC-level of care	0.5 point for any 1 check;
(c) Help determine/plan for staffing needs	1 points for any 2+ checks
(d) Review costs of care	

Hospitals could check any response option(s) that applied. The total point allocation for this question was 1 point.

Question 43 (FS 71): This question asked hospitals about applications of MDS and how they were used in clinical or clinical/administrative processes within their complex continuing care services. The MDS applications listed were: Resident Assessment Protocols (RAPS); published MDS subscales; and any MDS item or combination(s) of items. The response options for each of these applications were divided into the categories of Clinical Decision-Making and Evaluation, and Administrative Decision-Making and Evaluation:

Clinical Decision-Making and Evaluation:

- (a) Targeting interventions to individual patients
- (b) Measuring intervention outcomes for individual patients

Administrative Decision-Making and Evaluation:

- (c) Identifying patient populations for service/program planning
- (d) Measuring outcomes of care for patient populations

Hospitals could check any response option(s) that applied. For each row, hospitals were given 0.75 points for one or more checks (under the listed types of MDS applications). The total point allocation for this question was 3 points.

Scores from Questions 39, 40, 42, and 43 (FS 67, 68, 70, 71) were summed and weighted as the remaining 50% of the final RAI-MDS indicator score.

Indicator 7:**Use of Staff Skills/Competencies Descriptions Specific to Complex Continuing Care**

This indicator is based on hospitals' responses to two questions in the Complex Continuing Care System Integration and Change survey.

Indicator Summary:

Component	Question			Total Possible Raw Points	Weighting	Overall Weight
Component 1: Application (depth of use)	Q25 (Highest scoring program)	FS 40	The use of skills/competencies descriptions in CCC	4	50%	50%
	Q26	FS 41	Application of skills/competencies descriptions	6	50%	
Component 2: Use (breadth of use)	Q25 (Remaining programs)	FS 40	The use of skills/competencies descriptions in CCC	Weighted according to the number of programs/patient types offered		50%

Question 25 (FS 40): In this question, hospitals were asked whether their complex continuing care services had developed skills/competencies descriptions for nursing and other clinical staff, specific to the care of patients with particular needs or in specific complex continuing care programs. A skills/competencies description was described in the survey as "a list of specific skills and/or qualifications that are required for particular staff types in order to provide complex continuing care to a specific group or program area...more detailed than a general job description". The question listed four generic kinds of Complex continuing care programs (Complex Medical, Reactivation, Palliative Care, and Mental Health/Cognitive Support) and for each program/patient type hospitals could respond that skills/competencies descriptions (between April 1, 2001 and March 31, 2002):

Response Option	Points Allocated
(a) Have not been developed	0
(b) Were in early stages of between the specified time period and are not yet implemented	1
(c) Were in development between the specified time period and were implemented since March 31, 2002	2
(d) Were in development and implemented in the specified time period	2
(e) Not applicable	0

Hospitals could choose one response option only. Separate responses were recorded about skills/competencies descriptions for nursing and other clinical staff for each program or patient type. Hospitals had the option of listing up to two other programs/patient types, relevant to their complex continuing care services, about which to answer the question. The total point allocation for this question was 4 points per program/patient type (2 points for nursing staff and 2 points for other clinical staff). This question was weighted as 50%.

Question 26 (FS 41): Hospitals were asked to indicate how skills/competencies descriptions were incorporated into hiring, staff development and training, and performance appraisals within complex continuing care services between April 1, 2001 and March 31, 2002. Response options included:

- (a) Job descriptions based on skills/competencies descriptions
- (b) Interview questions formulated based on the skills/competencies descriptions
- (c) Required qualifications at the time of hire (or to be attained within the first year of employment) based on the skills/competencies descriptions
- (d) Required clinical experience based on the skills/competencies descriptions
- (e) Used to plan program orientation sessions
- (f) Used to prioritize and plan staff education programs
- (g) Used for program goal setting for training and development
- (h) Used in framing training partnerships with colleges and universities
- (i) Staff evaluations based on skills/competencies descriptions
- (j) Individual staff development goals based on skills listed in the skills/competencies descriptions

Hospitals could check any response option(s) that applied. For response options relating to hiring (a to d), hospitals were given 1 point for checking any one option, and 2 points for checking any two or more options. For response options relating to staff development and training (e to h), hospitals were given 1 point for checking any one option, and 2 points for checking any two or more options. For response options relating to performance appraisals (i and j), hospitals received 1 point for checking one option and 2 points for checking any two options. The total point allocation for this question was 6 points. The maximum points awarded for Questions 25 and 26 (FS 40 and 41) combined was 10 points per program/patient type.

Scoring System:

Component 1: Application (depth of use)

A scoring system was developed to take into account the differences among hospitals with regard to the number of programs/patient types that they serve in complex continuing care. For Question 25 (40), each selected program/patient type (i.e. programs that were not checked as "N/A") was scored based on the point

allocations described above. For each program/patient type where the response option “skills/competencies descriptions developed and implemented” had been checked off for either nursing staff or other clinical staff, then the score from Question 26 (41) was added to the Question 25 (40) score for that program. Note: the logic behind this rule is that in order to apply skills/competencies descriptions (in Question 26 [41]), a hospital needs to have them fully developed and implemented (as in the last column of Question 25 [40]). The program/patient type with the maximum combined score for these two questions was weighted as 50% of the final Skills/Competencies Descriptions indicator score. The scores from Questions 25 and 26 (FS 40 and 41) were each weighted equally, as per the indicator summary. If hospitals indicated that they only had one program/patient type, the score for that program for Questions 25 and 26 (FS 40 and 41) combined was then 100% of the final indicator score.

For hospitals with multiple programs/patient types, the highest scoring program represented 50% of the final Skills/Competencies Descriptions indicator score (the “interim score”).

Component 2: Use (breadth of use)

For hospitals with greater than one program/patient type, the remaining 50% of the final indicator score was derived from the next highest scoring programs from Question 25, up to a maximum of four programs total. Note: The “interim score” (described above) was capped at 5 points of a possible 10, for the highest scoring program. The remaining points were obtained by scoring the next highest scoring programs. The scoring for the remaining program is as follows:

1. The next highest scoring program/patient type was selected (“program score”)
2. The “interim score” (defined above) was subtracted from the maximum possible number of points available for Questions 25 and 26 (FS 40 and 41) (10 points). This represents the “remainder score”, which is the number of points hospitals had available after receiving points for their highest scoring program.
3. (“Program score”/10) multiplied by the “remainder” was added to the “interim score”. This became the new interim score.
4. Steps 1 through 3 were repeated until the score equaled 10, or until a maximum of four programs/patient types were incorporated.

Indicator 8: Staff Relations, Support, and Safety

This indicator is based on eight questions from the Corporate System Integration and Change survey and one question from the Complex Continuing Care System Integration and Change survey. These questions address the following topics: employee feedback, continuing education, staff supports, and safe work environment. It is important to note that most of the questions in this indicator are derived from corporate data. Therefore the responses to these questions may not directly reflect the complex continuing care services at a hospital, but rather the corporation as a whole. Note that the term *Corp* (in the indicator summary) refers to a question found in the corporate survey.

Indicator Summary:

Component	Question	Total Possible Raw Points	Overall Weight
Component 1: Employee Feedback	Corp FS Q5 36	Methods of obtaining employee feedback	10
	Corp FS Q6 37	Dissemination of employee feedback results to hospital stakeholders	5
	Corp FS Q7 38	Additional dissemination of employee feedback results	3
	Corp FS Q8 39	Comparison of employee feedback results with other organizations	2
Component 2: Continuing Education	Corp FS Q10 42	Supports for continuing education and professional development	30
	Corp FS Q35 61	CCC-specific joint initiatives with external service providers regarding staff training	2
Component 3: Staff Supports	Corp FS Q1 30	Recruitment/retention strategies	20
	Corp FS Q9 32	Mechanisms to provide emotional support for staff	2
Component 4: Safe Work Environment	Corp FS Q17 50	NEER rating	1

Component 1: Employee Feedback

Question 5 (FS 36): Hospitals were asked which methods were used within their organization to obtain feedback from physicians and hospital employees regarding their opinions about working in the hospital between April 1, 2001 and March 31, 2002. For each of staff group (see below), hospitals could indicate which method of obtaining feedback was used: formal surveys/questionnaires; focus groups; open forums/town hall meetings; comment cards/suggestion box; and/or other (specify). There was also a response option “feedback not obtained from this group”. The following staff groups were listed:

Response Options	Points Allocated
(a) Physicians	1 point if any 1 method checked
(b) Nurses (RNs, RPNs)	
(c) Other regulated health professionals (physical/occupational therapists, social worker, pharmacist, dietician, etc.)	2 points if any 2+ methods checked
(d) Unregulated patient care staff (physical/occupational therapy assistants, personal support workers, etc.)	
(e) Other hospital staff (non-patient care staff such as administrative staff/managers)	

Hospitals could check any option(s) that applied. The total point allocation for this question was 10 points, which represents half of the points given for the employee feedback component.

Question 6 (FS 37): This question asked hospitals how they disseminated the information about the nature of and changes made as a result of employee satisfaction findings during the time period between April 1, 2001 and March 31, 2002. The following stakeholders were listed:

- (a) The board or board committees
- (b) Senior management team
- (c) Physicians
- (d) Nurses (RNs, RPNs)
- (e) Managers at the program/department level
- (f) Front-line managers
- (g) Other regulated health professionals (physical/occupational therapist, social worker, pharmacist, dietician, etc.)
- (h) Unregulated patient care staff (physical/occupational therapy assistants, personal support workers, etc.)
- (i) Patients and families
- (j) Human resources and/or committee/task force looking at human resource issues
- (k) Committee/task force looking at quality and/or utilization
- (l) Other hospital staff (non-patient care staff such as administrative staff/managers)

For each of these stakeholders, hospitals could indicate: verbal presentation and discussion of results (e.g. in an open forum); specific and relevant results were reviewed beyond the initial presentation; and/or internal written report was circulated. Hospitals could check any response option(s) that applied. Points were assigned as follows: hospitals were given 2.5 points if employee feedback results were presented and discussed with three or more stakeholder groups, and an additional 2.5 points if employee feedback specific and relevant results were reviewed beyond the initial presentation with three or more stakeholder groups. The total point allocation for this question was 5 points.

Question 7 (FS 38): Hospitals were asked whether any additional strategies were used to disseminate employee feedback results from April 1, 2001 to March 31, 2002. Response options included:

- (a) Results were posted on hospital web site
- (b) Results were posted on bulletin board
- (c) Results were posted in newsletter/electronic mail

Hospitals could check any response option(s) that applied. One point was given for each response option checked. The total point allocation for this question was 3 points.

Question 8 (FS 39): Hospitals were also asked if they compared employee satisfaction data with that of other organizations. Hospitals could check one of the following options:

Response Options	Points Allocated
(a) No, we did not compare our employee satisfaction data	0
(b) Yes, we compared with one other organization	1
(c) Yes, we compared with two or more organizations	2

The total point allocation for this question was two points. Questions 5 to 8 (FS 36 to 39) (Component 1) were weighted as 20% of the final Staff Relations indicator score.

Component 2: Continuing Education

Question 10 (FS 42): This question asked hospitals if their organization and/or hospital foundation provided continuing education or professional development support between April 1, 2001 and March 31, 2002. Response options included:

- (a) Reimbursement of continuing education courses (full or partial)
- (b) Reimbursement of advanced education, e.g. degree (full or partial)
- (c) Bursaries/ scholarships
- (d) Paid time off to take courses
- (e) Unpaid time off to take courses
- (f) Financial reward upon completion of an educational program
- (g) On-site courses provided by hospital staff
- (h) On-site courses provided by external organizations or experts

Hospitals could specify the staff group(s) which accessed each of these types of continuing education or professional development support, including: physicians; nurses (RNs, RPNs); other regulated health professionals on staff (PT/OT, Social Worker etc.); and/or unregulated patient-care staff (physical/occupational therapy assistant, PSW etc.). Hospitals could check any response option(s) that applied. Points were assigned as follows: one point was given for each response option checked except for (a) partial reimbursement for continuing education courses (0.5 points); (b) partial reimbursement of advanced education, e.g. degree (0.5 points); and (e) unpaid time off to take courses (0.5 points). The total point allocation for this question was 30 points.

Question 35 (FS 61): Fifteen different initiatives (specific to CCC services) were listed in this question, and hospitals were asked to indicate which initiatives their complex continuing care services were jointly engaged in with the following service providers: acute care hospitals; CCACs; community support service agencies; mental health agencies; LTC facilities; cancer centres; other CCC/Rehabilitation providers. For this indicator, hospitals received points for one specific response option: planning and carrying out education sessions for community partner staff and hospital staff. Points for this response option were allocated as follows: hospitals were given one point for one check under any one listed service provider, and two points for two or more checks under any listed service providers. The total point allocation for this question was 2 points.

Questions 10 and 35 (FS 42 and 61) (Component 2) were weighted as 30% of the final Staff Relations indicator score.

Component 3: Staff Supports

Question 1 (FS 30): This question is found in the Corporate System Integration and Change survey. Hospitals were asked which recruitment/retention incentives or strategies were implemented for the specified staff groups between April 1, 2001 and March 31, 2002. The recruitment/retention strategies that counted towards this indicator were:

- (a) Flexible work arrangements
- (b) Committee designated to address issues of recruitment and retention
- (c) Committee designated to address quality of work life, including scheduling and workload issues
- (d) Recognition programs such as special awards for excellence or accomplishments
- (e) Counseling and other resources for career planning

For each of these recruitment/retention strategies, hospitals could check the following staff groups for which the strategies were implemented: nurses (RNs, RPNs); other regulated health professionals on staff (physical/occupational therapist, social worker, pharmacist, dietician, etc.); unregulated patient care staff (physical/occupational therapy assistants, personal support workers, etc.); and other hospital staff (non-patient care staff such as administrative staff/managers). Hospitals received one point for each specified

recruitment/retention strategy that existed for each of the listed staff groups. The total point allocation for this question was 20 points.

Question 9 (FS 32): Emotional support for staff needs, stemming from patient-related and personal issues, contributes to staff satisfaction and well-being. Hospitals were asked which emotional support mechanisms were in place for hospital staff between April 1, 2001 and March 31, 2002. Response options included:

- Printed information on how to access emotional support service available to staff
- Staff linked with peer support network and/or formal buddy system
- Trained professionals provide group counseling at the hospital
- Trained professionals provide one-to-one counseling at the hospital
- Employee assistance program (EAP) is available to staff

Hospitals could check any response option(s) that applied. Hospitals were given one point for any two responses checked and two points for any three or more responses checked. The total point allocation for this question was 2 points.

Questions 1 and 9 (FS 30 and 32) (Component 3) were weighted as 30% of the final Staff Relations indicator score.

Component 4: Safe Work Environment

Question 17 (FS 50): This question asked hospitals about the NEER Rating. The New Experimental Experience Rating (NEER) is a retrospective rating that examines WSIB claims over a three-year period. NEER provides financial incentives to improve health and safety in the workplace by serving as the measure used to determine whether a refund or surcharge will apply to WSIB premiums. Expected claim costs, which reflect the rate group average for organizations of similar size and type are compared to actual claim costs. If hospitals' expected claims to exceed actual costs, a refund is issued; if actual costs exceed expected costs, a surcharge is issued. This rating generally applies to the entire hospital. Hospitals were asked to indicate whether a surcharge was assessed or a refund was issued on the basis of hospitals' most recent NEER Rating. One point was given to hospital that had a refund issued, and no points were given if a surcharge was issued. Question 17 (FS 50) was weighted as 20% of the final Staff Relations Indicator score.

7. Calculating Multi-site Hospital Data

For hospitals that completed separate surveys for each of their hospital sites with CCC beds, the site-specific indicator scores were weighted by chronic patient days (fiscal year 2001/02) to establish an aggregated score for each hospital corporation.

8. Methods Used to Determine Relative Performance

In *Hospital Report 2003: Complex Continuing Care*, two methods were used to present relative performance: (a) three circle performance classification (to describe performance in terms of above average, average, or below average); and (b) numeric ranges.

Three Circle Performance Classification

A hospital's performance was reported as being significantly lower than or significantly higher than the average performance of Ontario CCC hospitals if its indicator value fell below or above 1.645 standard deviations from the indicator's mean for all hospitals. Given a distribution of indicator values that is approximately Normal, the interval of the mean ± 1.645 standard deviations should capture roughly 90% of the indicator values. This means that approximately 5% of hospitals were identified as having an above average level of performance (indicator values above 1.645 standard deviations) and 5% were identified as having a level of performance that is below average (indicator values below 1.645 standard deviations).

The scores for the indicators Use of Standardized Admission and Discharge Criteria and Use of Staff Skills/Competencies Descriptions Specific to Complex Continuing Care had values that clustered at the higher levels of the distribution with a smaller number of hospitals with lower values in the distribution. The log transformation was used in order to achieve a Normal distribution of values about which probability statements could be made. Refer to the table below for the cut-off points of the indicator score that delineate above average, average, and below average performance. Note that for these indicators, the outliers were not included in the transformations and were categorized *below average* since the non-Normal distributions could not entirely resolved with the transformation. (In the case of the Skills/Competencies Descriptions indicator, this was due to a bimodal distribution).

The Client-Centred Care indicator also had scores with values clustered at the higher level of the distribution with a smaller number of hospitals with lower values in the distribution. The values of this indicator were transformed by squaring them in order to achieve a Normal distribution of values about which probability statements could be made. Refer to the table below for the cut-off points of the indicator score that delineate above average, average, and below average performance.

Indicator	Transformation (if applicable)	Below Average Cut-off Point	Above Average Cut-off Point
1. Evidence-Based Practice	N/A	17.36	102.65*
2. Client-Centred Care	Squared	41.03	89.70
3. Organizational Client-Centredness	N/A	12.52	100.70*
4. Use of Standardized Admission and Discharge Criteria	Log (base e)	46.85	121.63*
5. Relationships between Complex Continuing Care Providers and External Agencies	N/A	14.16	73.23
6. Use of RAI-Minimum Data Set in Quality Improvement and in Clinical and Utilization Management Applications	N/A	10.54	95.80

Indicator	Transformation (if applicable)	Below Average Cut-off Point	Above Average Cut-off Point
7. Use of Staff Skills/Competencies Descriptions Specific to Complex Continuing Care	Log (base e)	60.76	123.70*
8. Staff Relations, Support, and Safety	N/A	30.58	87.84

It is important to consider the meaning and value of these cut points. The absence of any hard data about what a “good” score is on any of these indicators means that to some extent these cut points are arbitrary. However, 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 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. For example, from a performance improvement standpoint, a hospital achieving a score of 20 on the Evidence-Based Practice indicator, while identified as having an “average” level of performance, falls very close to the low cut point.

The performance symbols were assigned as follows:

- Filled Circle:** The hospital’s score was above the provincial average
Half-filled Circle: The hospital’s score was around the provincial average
Empty Circle: The hospital’s score was below the provincial average

Numeric Ranges

To further describe hospital performance, the hospitals’ indicator scores were categorized into numeric ranges. All but two of the indicators (Use of Standardized Admission and Discharge Criteria and Use of Staff Skills/Competencies Descriptions Specific to Complex Continuing Care) were categorized into quintiles. Hospital scores for these two indicators were categorized into tertiles due to their skewed distribution of scores. The numeric ranges vary across indicators, depending on the distribution of scores.

System-Level Findings

This section provides provincial findings for the eight indicators of System Integration and Change. In addition, the data are presented for freestanding CCC and acute hospitals (with CCC services) separately.

1. Some Statistics Provided for Hospital Comparisons with Provincial Results

For each of the eight System Integration and Change indicators several 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

*For these indicators, the raw distributions were not perfectly Normal, but approximately so. There was a high degree of variability in the scores, such that at 1.645 standard deviations, the upper cut-off value was greater than 100.

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 64 hospital corporations that returned a survey. Combined, these statistics provide important measures of central tendency, as well as detailed information about the dispersion of scores for each indicator.

2. Peer Group Differences

For the System Integration and Change indicators, comparisons between CCC in freestanding and acute hospitals are shown. These comparisons were made because of the perceived or hypothesized differences in the role and significance of CCC between these two types of hospitals. In reporting data at this level, it is important to clarify that data are provided for these different groups so that hospitals can situate themselves relative to their peers, not to facilitate comparisons between these two different groups.

Evidence-Based Practice Indicator

	All Hospitals	Freestanding Hospitals	Acute Hospitals
Valid N	64	12	52
Mean	60.00	75.64	56.40
Standard Deviation	25.92	22.61	25.48
25 th Percentile	49.4	67.95	36.05
Median	60.2	79.85	59.2
75 th Percentile	80.4	90.0	77.3

Client-Centred Care Indicator

	All Hospitals	Freestanding Hospitals	Acute Hospitals
Valid N	64	12	52
Mean	67.94	79.93	65.17
Standard Deviation	15.83	8.76	15.86
25 th Percentile	59.2	74.6	56.65
Median	70.75	80.5	68.8
75 th Percentile	77.7	85.95	74.35

Organizational Client-Centredness Indicator

	All Hospitals	Freestanding Hospitals	Acute Hospitals
Valid N	64	12	52
Mean	56.61	65.39	54.58
Standard Deviation	26.80	24.66	27.09
25 th Percentile	36.85	46.85	36.7
Median	62.2	71.85	60.9
75 th Percentile	77.0	84.25	73.25

Use of Standardized Admission and Discharge Criteria Indicator

	All Hospitals	Freestanding Hospitals	Acute Hospitals
Valid N	64	12	52
Mean	74.85	86.22	72.23
Standard Deviation	26.31	21.17	26.85
25 th Percentile	56.5	74.85	56.5
Median	82.85	98.15	75.15
75 th Percentile	98.2	99.5	97.6

Relationships Between CCC Providers and External Agencies Indicator

	All Hospitals	Freestanding Hospitals	Acute Hospitals
Valid N	64	12	52
Mean	43.69	41.73	44.14
Standard Deviation	17.96	22.41	17.00
25 th Percentile	31.5	28.3	31.5
Median	44.6	44.5	44.6
75 th Percentile	56.5	59.1	55.9

Use of RAI-Minimum Data Set in Quality Improvement and in Clinical and Utilization Management Applications Indicator

	All Hospitals	Freestanding Hospitals	Acute Hospitals
Valid N	64	12	52
Mean	53.17	63.30	50.84
Standard Deviation	25.92	23.80	26.03
25 th Percentile	28.95	45.6	25.65
Median	59.3	69.35	52.5
75 th Percentile	73.65	82.3	71.45

Use of Staff Skills/Competencies Descriptions Specific to CCC Indicator

	All Hospitals	Freestanding Hospitals	Acute Hospitals
Valid N	64	12	52
Mean	66.70	51.79	70.15
Standard Deviation	40.26	43.43	39.12
25 th Percentile	23.45	0	60.05
Median	87.5	59.35	90.6
75 th Percentile	100.0	100.0	100.0

Staff Relations, Support and Safety Indicator

	All Hospitals	Freestanding Hospitals	Acute Hospitals
Valid N	64	12	52
Mean	59.21	54.95	60.19
Standard Deviation	17.41	16.75	17.56
25 th Percentile	48.4	45.45	51.95
Median	58.6	57.95	59.1
75 th Percentile	70.65	63.1	71.6