

***Hospital e-Scorecard Report 2008: Emergency Department
Care***
System Integration and Change Technical Summary

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1. Overview

This *SIC Technical Summary* presents additional details of the methodology and results not provided in *Hospital e-Scorecard Report 2008: Emergency Department Care*. The Emergency Department Care System Integration and Change (SIC) quadrant reports on indicators that assess efforts made by Ontario hospitals to evaluate the use of clinical information technology, dissemination of information, coordination of care, support of human resources, use of standardized protocols, promotion of a healthy work environment, management of ambulatory care clinics, and patient safety practices. This is the second year that the SIC Survey has been administered online.

Unlike the other three quadrants, there are few accepted standard measures in the areas captured by the SIC indicators. While some hospitals collect measures of employee skills and training, few measures of human capital and organizational learning are available through existing administrative databases. Available measures are also often unusable because variations in data coding create difficulties in comparing performance across organizations. Thus, the indicators used in the SIC quadrant of *Hospital e-Scorecard Report 2008: Emergency Department Care* were derived from the *2008 SIC survey*.

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

2. Methodology

The following sections describe the methodology used to identify indicators for *Hospital e-Scorecard Report 2008: Emergency Department Care*, including the modification of the survey instrument, redevelopment of the indicators, the data collection process, a detailed description of how each indicator was constructed and the modified performance allocation method. There are five SIC indicators presented in *Hospital e-Scorecard Report 2008: Emergency Department Care*.

After the multi-sector survey, consisting of 67 questions was entered into the survey tool, validation, skip logic, and workflow design were developed using the online software. In November 2007, three web-based demonstrations were conducted with approximately 85 hospitals in attendance. These web-based demonstrations included an online demonstration of how to navigate through the survey, discussion on frequently asked questions and an overview of the glossary of terms.

A pilot survey consisting of the SIC questions were conducted with eleven participating hospitals to receive feedback on question format and the online tool. The final survey was sent to Ontario hospitals via email in December 2007. Participant satisfaction, ease of use, and data quality were assessed by various qualitative and quantitative feedback methods.

Survey Redevelopment

As per initial discussions with the Ontario Ministry of Health and Long Term Care and the Ontario Hospital Association, a condensed version of the SIC Survey was carried out in order to address specific areas.

Indicators proposed for the 2008 SIC survey fell into one of the following four categories:

1. Quality improvement (including the availability and use of clinical information technology)
2. Patient safety
3. Received extensive media attention in *Hospital Report 2007*
4. New indicator in Hospital Report 2007 (which allow for comparison in Hospital e-Scorecard Report 2008)

Also, the following question was added to the 2008 Survey: What are your top three patient safety or quality improvement initiatives? This question was asked in order to gauge hospital's key patient safety priorities.

It is important to note that there is no difference in methodology with the shortened version of the survey.

Describing the Survey Process

The survey was administered in December 2007. A total of 102 Emergency Department Care hospitals completed and returned the surveys for a participation rate of approximately 81.6% from all ED hospitals. Hospitals were asked to complete one survey for the entire corporation.

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

Hospitals were given approximately six weeks to complete the survey. One month after the initial distribution of surveys, reminder notices were sent to hospitals that had not yet completed the survey. Emergency Department Care responses, by hospital type, are presented below.

Table 2.1: ED SIC Surveys Completed

	Completed Surveys	Surveys Not Returned/ Non-participating	Total
Teaching	17	1	18
Community	59	4	63

Small	26	18	44
All ED Hospitals	102	23	125

Data Quality and Verification

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

CIHI analysts performed data quality checks on the completed surveys to ensure that all mandatory questions were answered and that skip logic, validation and question masking were performed correctly by the online survey. CIHI followed-up with seven hospitals via email and asked the Hospital e-Scorecard Report main contact to complete the missing questions in a hard copy document. Analysts then entered this data into the populated database. Two analysts then developed SAS code for the indicator calculations independently of each other and compared results. Once the SIC indicator scores were produced, random manual checks of hospitals' scores were done by examining the original surveys to ensure a high level of reliability.

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

Developing the Indicators

The five SIC indicators used in *Hospital e-Scorecard Report 2008: Emergency Department Care* are:

1. Use of Standardized Protocols
2. Internal Coordination of Care
3. Clinical Data Collection and Dissemination
4. Use of Clinical Information Technology
5. Healthy Work Environment

Once the surveys were completed, the process of confirming the questions to be used in the SIC indicator calculations for *Hospital e-Scorecard Report 2008: Emergency Department Care* began. Response distributions were calculated for each question in the *2008 SIC survey*. Hospital-specific data for all ED SIC indicators are available to hospitals in the e-Scorecard.

During the 2008 survey redevelopment process, there were no major modifications to the methodology or reweighting of indicators. However, please take caution when comparing indicator results with previous years. For questions related to the survey redevelopment, please contact the Hospital Reports SIC team at sicsurvey@cihi.ca.

Scoring of the Indicator

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

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

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

Component Score =

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

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

3. Detailed Description of the Indicator Calculations

Indicator 1: Use of Standardized Protocols

The Use of Standardized Protocols indicator was constructed to reflect the extent to which EDs are developing and using clinical practice guidelines and medical directives in a broad range of relatively common conditions. It has two components and is based on two questions from section 6.

Table 3.1: Use of Standardized Protocols Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Clinical Practice Guidelines Development and Use (47.1%)		
Section 6, Question 19	32	47.1%
Component 2: Medical Directives Development and Use (52.9%)		
Section 6, Question 20	8	52.9%
Total Score		100%

Component 1: Clinical Practice Guidelines Development and Use (47.1%)

Component 1: Section 6, Question 19

EDs were asked to indicate the extent to which 12 clinical practice guidelines (listed below) were developed and in use in the ED at the time of the survey.

Items used for scoring: Asthma/COPD, Stroke, Pneumonia, Chest Pain, Acute myocardial infarction, Febrile infant, Ankle trauma, Domestic violence, Croup, Hip fracture, Head injury, Deep vein thrombosis		
Response	Points	Total Point Allocation
No guidelines exist	0 points	32 points (4*8)
Guidelines are being developed and will be implemented within the next 6 months	1 point	
Guidelines are developed and few (< 25%) patients are cared for using the guideline	2 points	
Guidelines are developed and some (25-74%) patients are cared for using the guideline	3 points	
Guidelines are developed and most (75 + %) patients are cared for using the guideline	4 points	
Maximum points for each item <i>Multiple options can be selected for each item</i>	4 points	
Note: To account for EDs that did not have a given service or have volumes to support a given guideline, researchers chose to calculate the score for <u>based on the top eight guidelines</u> for which the EDs had points; this represents just over 66% of the selected conditions. As such, the total point allocation for Question 19 was 32 points.		

Component 2: Medical Directives Development and Use (52.9%)

Component 2: Section 6, Question 20

EDs were asked to indicate the extent to which 6 medical directives were developed and in use in the ED at the time of the survey.

Items used for scoring: Asthma, Fever, Chest pain, Anaphylactic shock reaction, Wound care, Extremity injury		
Response	Points	Total Point Allocation
No medical directives exist	0 points	8 points (2*4)
A medical directive is being developed and will be implemented within the next six months	1 point	
A medical directive is developed and implemented	2 points	
Maximum points for each item <i>Only one option can be selected</i>	2 points	
Note: To account for EDs that did not have a given service or have volumes to support a given medical directive, researchers chose to calculate the score <u>based on the top 4 medical directives</u> for which EDs had points; this represents 66% of the selected conditions. Therefore, the total point allocation for Question 20 was 8 points.		

The following is an example of how the overall Indicator 1 score was calculated for Hospital X.

Example Step 1:

For Question 19, choosing the top 8 points assigned to the clinical conditions presented in the question, Hospital X received 24 points out of a possible total 32 points. To calculate the contribution of this question to the indicator score, divide the hospital's score (24) by the total possible points (32) and then multiply by the specified weighting (47.1%). The result is 0.353.

Example Step 2:

For Question 20, choosing the top 4 points assigned to the clinical conditions presented in the question, Hospital X received 4 points out of a possible total 8 points. To calculate the contribution of this question to the indicator score, divide the hospital's score (4) by the total possible points (8) and then multiply by the specified weighting (52.9%). The result is 0.265.

Example Step 3:

To calculate Hospital X's Indicator 1 score, add the results from the component questions and multiply by 10 $\{(0.353 + 0.265) \times 10\}$. The result is 6.18 out of a maximum indicator score of 10.

Indicator 2: Internal Coordination of Care

The Internal Coordination of Care indicator was constructed to reflect the degree to which EDs are engaging in different strategies that facilitate the internal coordination of care. It has three components and is based on three questions from section 6 and one question from section 1.

Table 3.2: Internal Coordination of Care Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Patient Flow Strategy Development and Use (33.7%)		
Section 6, Question 23	12	33.7%
Component 2: Internal Coordination Communication (36.5%)		
Section 6, Question 24a	3	36.5%
Component 3: Existence of Different Staff Roles to Promote Internal Care Coordination (29.8%)		
Section 1, Question 1 and Section 6, Question 23	6	29.8%
Total Score		100%

Component 1: Patient Flow Strategy Development and Use (33.7%)

Component 1: Section 6, Question 23

EDs were asked to indicate the extent to which different strategies to address patient flow issues had been developed or were in use at the time of the survey’s distribution.

Items used for scoring: <ul style="list-style-type: none"> • Clinical decision units or observation medicine beds/units • Rapid admission units/teams • Rapid discharge or quick response teams • Medical outpatient follow-up clinics/early intervention clinics • Bed allocation policies • Designated ED discharge planner/patient flow coordinator 		
Response	Points	Total Point Allocation
This strategy has not been considered	0 points	12 points (2*6)
This strategy has been considered and subsequently determined to be not applicable	0 points	
This strategy is in development	1 points	
This strategy is being used	2 points	
Maximum points for each item <i>Only one option can be selected</i>	2 points	
<p>Note: The total point allocation for Question 23 was converted to a score out of 10. However, if a hospital selected “This strategy has been considered and subsequently determined to be not applicable”, the denominator was adjusted and was out of 8 instead of 12. If more than 50% of items were identified as “not applicable”, then the question was removed from the indicator calculation altogether and its weight was redistributed proportionally among the other questions that make up the indicator.</p>		

Component 2: Internal Coordination Communication (36.5%)

Component 2: Section 6, Question 24a

EDs were asked if their organization currently had a committee and to what extent they discussed the following issues.

Issue used for scoring: <ul style="list-style-type: none"> • Development of policies and procedures regarding coordination of patient flow across programs within the hospital 		
Response	Points	Total Point Allocation
No such committee exists for this issue	0 points	3 points
Ad hoc meetings were held to address specific issues/concerns	1 point	
A committee exists to address specific issues/concerns	3 point	
Maximum points for each item <i>Only one option can be selected</i>	3 points	

Component 3: Existence of Different Staff Roles to Promote Internal Care Coordination (29.8%)

Component 3: Section 1, Question 1 and Section 6, Question 23

In Question 1, organizations were asked to identify which staff roles existed at the time of the survey distribution within their organization.

Part A - Section 1, Question1: Roles used for scoring: Case manager , Social worker	Points	Total Point Allocation For Question Part 1
This staff role does not exist	0 point	4 points (2 * 2)
This staff role is under development	1 point	
This is a permanent role	2 points	
Maximum points for each item <i>Only one option can be selected</i>	2 points	
Part B - Section 6, Question 23: Item used for scoring: Designated ED discharge planner/patient flow coordinator	Points	Total Point Allocation For Question Part 2
This strategy has not been considered	0 points	2 points (2 * 1)
This strategy has been considered and subsequently determined to be not applicable	0 points	
This strategy is in development	1 points	
This strategy is being used	2 points	
Maximum points for each item <i>Only one option can be selected</i>	2 points	
Total Point Allocation for component 3 is 6 points (4 + 2)		
Note: If in either question, the role/strategy was reviewed and determined to be not applicable, the item for which it was checked was eliminated from scoring.		

Indicator 3: Clinical Data Collection and Dissemination

The Clinical Data Collection and Dissemination indicator was constructed to reflect the extent to which EDs are collecting and disseminating clinical outcomes and appropriateness data. It has four components and is based on three questions from section 6 and one question from section 1.

Table 3.3: Clinical Data Collection and Dissemination Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Clinical Data Collection (37.5%)		
Section 6, Question 21	60	37.5%
Component 2: Clinical Data Dissemination (21.2%)		
Section 6, Question 22	24	21.2%
Component 3: Communication About Data Use and Dissemination (23.4%)		
Section 6, Question 24a	9	23.4%
Component 4: Existence of Staff Roles to Facilitate Data Use and Dissemination (17.9%)		
Section 1, Question 1	6	17.9%
Total Score		100%

Component 1: Clinical Data Collection (37.5%)

Component 1: Section 6, Question 21

EDs were asked whether and how they currently collect data to improve care delivery processes.

Items used for scoring in the 3 listed areas are as follows:

Data on Timing Issues

- Time from triage to full nursing assessment
- Time from triage to ED Physician/Nurse Practitioner initial assessment
- Time from ordering of laboratory tests to availability of results
- Time from requesting a consult to the decision made by the consultant regarding patient disposition
- Time from decision to admit to transfer to inpatient bed
- Fractile response (e.g. the proportion of patient visits for a given triage level where the patients were seen within the CTAS time frame defined for that level)

Data on Patient Care Management Issues

- Number of patients who are registered and leave without being seen by a physician
- Number of patients who leave ED prior to the completion of treatment
- Unscheduled return visits within 48-72 hours for same/related condition
- Unscheduled return visits within 48-72 hours that result in hospitalization
- Patient & family complaints/compliments in the ED

Data on Adverse Events

- Adverse events (including medication errors, drug reactions)

Response	Points	Total Point Allocation
These data are not collected	0 points	60 points (5*12)
These data are collected and shared with a senior medical staff group/group responsible for quality of care issues in the ED	1 point	
These data are collected and compared internally across specialties and/or to past performance	2 points	
If data are collected and compared externally with other organizations, including other EDs	2 points	
Maximum points for each item	5 points	
<i>Multiple options can be selected for each item</i>		

Component 2: Clinical Data Dissemination (21.2%)

Component 2: Section 6, Question 22

EDs were asked to indicate with which groups and in what format they shared data collected for clinical quality improvement.

Groups used for scoring: <ul style="list-style-type: none"> • Board or Board committees (including committee/task force looking at utilization) • Senior management team • ED clinical leadership • Clinical leadership from programs other than ED • ED front-line staff • Front-line staff from programs other than ED. 		
Response	Points	Total Point Allocation
These data are not collected	0 points	24 points (4*6)
If an internal written report was circulated about key highlights	1 point	
Verbal presentation and discussion of results	3 points	
Maximum points for each item <i>Multiple options can be selected for each item</i>	4 points	

Component 3: Communication About Data Use and Dissemination (23.4%)

Component 3: Section 6, Question 24a

EDs were asked to what extent a committee currently exists that includes a given activity as part of its mandate.

Activities used for scoring: <ul style="list-style-type: none"> • Evaluating ED clinical outcomes • ED quality improvement initiatives • Improve data collection and data sharing capabilities across programs within the hospital Board or Board committees (including committee/task force looking at utilization) 		
Response	Points	Total Point Allocation
No such committee exists for this issue	0 points	9 points (3*3)
Ad hoc meetings were held to address specific issues/concerns	1 point	
A committee exists to address specific issues/concerns	3 points	
Maximum points for each item <i>Only one option can be selected</i>	3 points	

Component 4: Existence of Staff Roles to Facilitate Data Use and Dissemination (17.9%)

Component 4: Section 1, Question 1

Organizations were asked to identify which staff roles existed at the time of survey distribution within their organization.

Roles used for scoring: <ul style="list-style-type: none">• Decision support role• Utilization review analyst• Quality and/or risk management analyst		
Response	Points	Total Point Allocation
This role does not exist	0 points	24 points (4*6)
This is a permanent role	2 points	
Verbal presentation and discussion of results	3 points	
Maximum points for each item <i>Multiple options can be selected for each item</i>	4 points	
Note: If the role was reviewed and determined to be not applicable, the item for which it was checked was eliminated from scoring. For example, if one role was determined to be not applicable, the denominator would need to be adjusted so that the score is out of a maximum of 4 and not 6 points (2 points * 2 items, not 3). In general, the total point allocation for Question 1 was 6 points.		

Indicator 4: Use of Clinical Information Technology

The Use of Clinical Information Technology indicator was developed to reflect the extent to which EDs are using or developing an electronic tracking system, electronic records, and performing selected functions online. It has three components and is based on one question from section 6 and two questions from section 2.

Table 3.4: Use of Clinical Information Technology Indicator Summary

Question	Total Possible Points	Overall Weighting
Component 1: Use or Development of an Electronic Patient Tracking System (32.5%)		
Section 6, Question 18	2	32.5%
Component 2: Use of Electronic Records as a Primary Information Source (37.5%)		
Section 2, Question 4	15	37.5%
Component 3: Online Functionality of Selected Activities (30%)		
Section 2, Question 5a	7	30%
Total Score		100%

Component 1: Use or Development of an Electronic Patient Tracking System (32.5%)

Component 1: Section 6, Question 18

EDs were asked to what extent they were currently developing/using an electronic patient tracking system.

Response	Points	Total Point Allocation
The use of an electronic patient tracking system for the ED is being explored	1 point	2 points
There are collaborative efforts with other organizations to explore joint acquisition and implementation of an electronic patient tracking system	1 point	
An electronic patient tracking system in place in the ED	2 points	
An electronic patient tracking system in place and are networked to a regional tracking system	2 points	
Maximum points for each item <i>Only one option can be selected</i>	2 points	

Component 2: Use of Electronic Records as a Primary Information Source (37.5%)

Component 2: Section 2, Question 4

This question asks hospitals if they are using electronic records and data as a primary source of information.

Points were given for the use of electronic records and data in the following clinical areas: <ul style="list-style-type: none"> • Patient visit registration information (e.g. ADT system) • Diagnostic imaging reports (e.g. textual reports) • Electronic medical images (e.g. CT scans, x-rays) • Diagnostic laboratory results • Patient-based pharmacy/drug profiles • Standardized protocols for ED • Physician order entry system for ED • Nursing clinical documentation • Physician clinical documentation • Clinical documentation by other health professionals 		
Response	Points	Total Point Allocation
No electronic records/data used as the primary source of information	0 points	15 points (1.5*10)
Electronic records/data used as the primary source of information in the program area	1 point	
Electronic records/data used as the primary source of information in the program area and remote access was possible	1.5 points	
Maximum points for each item <i>Only one option can be selected</i>	1.5 points	

Component 3: Online Functionality of Selected Activities (30%)

Component 3: Section 2, Question 5a:

Organizations were asked the extent to which selected functions could be performed online by patient-care staff while in a clinical area. To answer in the affirmative, the relevant function must be implemented on computers located in the clinical area(s), patient-care staff must be trained in its use and have received relevant access codes (e.g. passwords), and at least one patient-care staff member must have used this function.

Points were given for online functionality in the following program areas: <ul style="list-style-type: none"> • Accessing archived medical records • Accessing clinical data from previous visits of a patient (e.g. obtain test or assessment data from previous visits) • Recording workload data • Ordering diagnostic tests or imaging • Ordering supplies (pharmacy or other) • Making referrals to care providers, internal to the organization • Making referrals to care providers, external to the organization 		
Response	Points	Total Point Allocation
Cannot perform online in these clinical areas	0 points	7 points (1 * 7)
Can perform online in these clinical areas	1 point	
Maximum points for each item <i>Only one option can be selected</i>	1 point	

Indicator 5: Healthy Work Environment

The Healthy Work Environment indicator was designed to measure the extent to which hospitals have mechanisms in place to support and promote a healthy work environment and thereby contribute to employee’s physical, social, mental and emotional well-being. Four components and eleven questions from section 5 were used to calculate this indicator. This year, the Healthy Work Environment indicator is calculated across all sectors. **Note:** Hospitals who participated in multiple sectors would have the same Healthy Work Environment score across all sectors. However, the provincial average and performance allocation for that indicator would vary because it is based on participating hospitals within that sector only.

Table 3.5: Healthy Work Environment Indicator Summary

Question	Possible Points	Overall Weighting
Component 1: Healthy Workplace Plan/Policy (30%)		
Section 5, Question 13a	3	30%
Section 5, Question 13b	2	
Component 2: Accountability & Responsibility (10%)		
Section 5, Question 14a	3	10%
Section 5, Question 14b	3	
Component 3: Assessment, Analysis, and Improvement (20%)		
Section 5, Question 15a	3	20%
Section 5, Question 15b	22	
Section 5, Question 15c	16	
Component 4: Key Dimensions (40%)		
Section 5, Question 16	18	27%
Section 5, Question 17a	3	13%
Section 5, Question 17b	4	
Section 5, Question 17c	3	
Total Score		100%

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

Component 1: Section 5, Question 13a

Organizations were asked if their healthy workplace policy/plan extended beyond policies mandated by health and safety legislation.

Response	Points	Total Point Allocation
No	0 points	3 points
Yes	3 points	
Maximum points for each item <i>Only one option can be selected</i>	3 points	

Component 1: Section 5, Question 13b

This question asked if the organization’s healthy workplace policy/plan was based on an employee needs assessment.

Response	Points	Total Point Allocation
There was <i>no</i> assessment process in place to evaluate employee needs, attitudes and preferences in regard to healthy workplace programs	0 point	2 points
There was <i>an informal</i> assessment process in place to evaluate employee needs, attitudes and preferences in regard to healthy workplace programs	1 point	
There was <i>a formal</i> assessment process in place to evaluate employee needs, attitudes and preferences in regard to healthy workplace programs	2 points	
Maximum points for each item <i>Only one option can be selected</i>	2 points	

Component 2: Accountability & Responsibility (10%)

Component 2: Section 5, Question 14a

This question asked if accountability and responsibility for healthy workplace initiatives were formally assigned within the organization.

Response	Points	Total Point Allocation
No	0 points	3 points
Yes	3 points	
Maximum points for each item <i>Only one option can be selected</i>	3 points	

Component 2: Section 5, Question 14b

If accountability and responsibility for healthy workplace initiatives were formally assigned within the organization, they were then asked to specify which group was accountable and responsible for healthy workplace initiatives.

Response	Points	Total Point Allocation
Senior Management	1 point	3 points (2 + 1)
Accountability and responsibility were shared broadly throughout the organization	2 points	
Maximum points for each item <i>Only one option can be selected</i>	2 points	

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

Component 3: Section 5, Question 15a

Organizations were asked if there were processes in place to assess and analyze the organization's approach to healthy workplace issues.

Response	Points	Total Point Allocation
No	0 points	3 points
Yes	3 points	
Maximum points for each item <i>Only one option can be selected</i>	3 points	

Component 3: Section 5, Question 15b

Organizations were asked to identify which of the following outcomes associated with developing a healthy workplace were collected and analyzed within the organization.

Outcomes used for scoring: • All 11 Outcomes listed in question 15b		
Response	Points	Total Point Allocation
This was not analyzed	0 point	22 points (2*11)
This is analyzed informally	1 point	
This is analyzed formally	2 points	
Maximum points for each item <i>Only one option can be selected</i>	2 points	

Component 3: Section 5, Question 15c

This question asks organizations how they disseminated information about the outcomes associated with their healthy workplace policy/programs.

Groups used for scoring:		
<ul style="list-style-type: none"> • The Board or Board of Committees • Management Team • Physicians • Patient Care and other Hospital Staff 		
Response	Points	Total Point Allocation
Data not Shared with this group	0 points	16 points (4*4)
Internal written report is circulated about key highlights	1 point	
Verbal Presentation and Discussion of results (e.g. in an open forum)	3 points	
Results reviewed beyond the initial verbal presentation for a specific initiative		
Maximum points for each item <i>Multiple options can be selected for each item</i>	4 points	

Component 4: Key Dimensions (40%)

Component 4: Section 5, Question 16:

Organizations were asked about 7 processes in place to support a positive psychosocial environment.

Processes used for scoring:		Total Point Allocation
<ul style="list-style-type: none"> • Job Definition and Clarification of Work Roles • Orientation Programs • Assessment of Existing workloads and contrasting them with current staffing patterns and Patient/Client demands • Recognition of Diversity • Provide work opportunities sensitive to the needs of older workers 		
Response	Points	18 points (2*5 + 4*2)
This was not undertaken	0 points	
This was undertaken informally	1 point	
This was undertaken formally	2 points	
Maximum points for each item <i>Only one option can be selected</i>	2 points	
Processes used for scoring:		
<ul style="list-style-type: none"> • Participation of front-line employees in decision-making and overall control of their jobs • Creating innovative schedules, hours of work and job sharing arrangements to meet the needs of work settings 		
Response	Points	
This was not undertaken	0 points	
This was undertaken informally	2 points	
This was undertaken formally	4 points	
Maximum points for each item <i>Only one option can be selected</i>	4 points	

Component 4: Section 5, Question 17a

This question asked if there were one or more healthy lifestyle programs offered by the organization.

Response	Points	Total Point Allocation
No	0 points	3 points
Yes	3 points	
Maximum points for each item <i>Only one option can be selected</i>	3 points	

Component 4: Section 5, Question 17b

If an organization indicated there was a healthy lifestyle program offered, they were asked which of the healthy lifestyle program(s) included any of the 4 components.

Response	Points	Total Point Allocation
A formal approach to education and skill development that extends beyond simply providing written information	1 point	4 points (1*4)
Assessment of behaviour change among employees due to use of healthy lifestyle programs	1 point	
Monitoring/evaluation of utilization of programs	1 point	
Long term planning including allocation of financial resources	1 point	
Maximum points for each item <i>Only one option can be selected</i>	1 point	

Component 4: Section 5, Question 17c

Organizations were asked if their program(s) were developed (or lack thereof) based on an employee needs assessment.

Response	Points	Total Point Allocation
No	0 points	3 points
Yes	3 points	
Maximum points for each item <i>Only one option can be selected</i>	3 points	
N.B.: If organizations answered in Q17a='NO' and Q17c='YES', then Q17 was removed from the component and the key dimensions component was composed of Q16 only.		

4. Performance Allocation Methodology: Emergency Department Care

As in previous report, a three-point scale was used to designate performance allocations as “above average”, “average” or “below average”. This section describes the method for determining relative performance between organizations.

Determining relative performance among hospitals for the five indicators derived from the *Hospital e-Scorecard Report 2008 SIC Survey* was based on two peer groups: teaching/community hospitals and small hospitals. Peer group reporting was adopted because small hospitals face different challenges in carrying out many of the activities reported in the SIC survey. In addition, not all of these indicators apply equally to small hospitals and teaching/community hospitals. For example, it might be less meaningful for a small hospital to conduct a formal patient or employee satisfaction survey when they only have 200 discharges annually or 80 full-time staff. Small hospitals were defined as those hospitals funded using the JPPC Small Hospital Rate Model. Please refer to www.jppc.org for more information.

Hospitals were allocated into three categories: “below average”, “average”, and “above average”, determined by the position of the hospital’s indicator value relative to the mean indicator value of its peer group. These values were reviewed to ensure meaningful differences among hospitals in the three categories. The criteria used to determine relative performance in each peer group is described below.

The performance allocation method used in the Hospital e-Scorecard Report 2008 SIC indicators determines the upper and lower cut points based on the 95th percentile as above average and the 5th percentile as below average. This interval should capture roughly 90% of the indicator values. This method does not require normality and bounded the cut points within 0 to 100. This method is consistent among all sectors of the System Integration and Change quadrant.

Table 4.1 shows the cut off values correspond for each of the indicators. Hospitals with scores above or below these cut points were respectively identified as hospitals with above or below average levels of performance.

Table 4.1 Indicator Values Differentiating the Three Performance Categories in *Hospital e-Scorecard Report 2008: Emergency Department* for Teaching/Community Hospitals

Indicator	Below Average Performance Cut Off	Above Average Performance Cut Off	Total Possible Score
<i>Teaching/ Community Peer Group</i>			
Use of Standardized Protocols	52.94	100.00	100.00
Internal Coordination of Care	36.50	100.00	100.00
Clinical Data Collection and Dissemination	42.49	95.00	100.00
Use of Clinical Information Technology	21.07	84.46	100.00
Healthy Work Environment	25.00	99.51	100.00
<i>Small Hospital Peer Group</i>			
Use of Standardized Protocols	28.67	100.00	100.00
Internal Coordination of Care	0.00	69.67	100.00
Clinical Data Collection and Dissemination	15.83	73.13	100.00
Use of Clinical Information Technology	7.50	63.39	100.00
Healthy Work Environment	26.33	92.12	100.00

It is important to consider the meaning and value of these cut points. The methodology used for identifying these cut points (which subsequently mark an organization as having average, or above, or below average performance in each of these areas) is reasonable, scientifically sound, and conservative, however, the results need to be interpreted somewhat cautiously since 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 hospital's results.

From a performance improvement standpoint, a teaching/community hospital achieving a score of 22 on the Use of Clinical Information Technology indicator, while identified as having "average" level of performance, falls very close to the "below average" cut point. Moreover, 22 points on the Use of Clinical Information Technology indicator means that the teaching/community hospital has almost no clinical information accessible electronically throughout the hospital. Clearly there is opportunity for considering improvement in this area for such a hospital.