

Hospital e-Scorecard Report 2008: Rehabilitation

Client Perspectives Technical Summary

This technical document has been updated by Linda Choy and Doreen MacNeil for Hospital e-Scorecard Report 2008. Acknowledgement is given to Leslie Soever, Cheryl Cott, Christina Porcellato, Carey Levinton, Adalsteinn Brown and Jeanette Tyas, the original contributors of the technical document.

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Client Perspectives

Overview

Hospital e-Scorecard Report 2008: Rehabilitation is comprised of four quadrants, including the Client Perspectives quadrant. This quadrant describes clients' perceptions of the care they received during inpatient rehabilitation. The Rehabilitation Client Perspectives Technical Summary presents detailed information regarding the methodology for the Client Perspectives quadrant of *Hospital e-Scorecard Report 2008: Rehabilitation*.

Similar to last year's report, a Women's Health section is integrated into the Rehabilitation Report. This section includes all indicators in the Client Perspectives quadrant stratified by sex at a hospital level in the e-Scorecard.

A key component in assessing rehabilitation performance is the client's perspective. Inclusion of clients' perspectives is integral to a client-centred approach, where clients' evaluations of experiences of the dimensions of care that matter most are considered. These dimensions include wishes to be treated with respect and dignity, to have their concerns listened to, to be part of the team when setting and evaluating treatment goals, and getting emotional support if it is needed. The Client Perspectives of Rehabilitation Services Questionnaire (CPRSQ) was developed to assess clients' perspectives. The CPRSQ consists of the Client-Centred Rehabilitation Questionnaire (CCRQ) plus items that address overall quality, from the Patient Judgements of Hospital Quality Questionnaire (PJHQQ). The PJHQQ was recommended for use as a measure of satisfaction with nursing care for the *Hospital Report Series in Hospital Report 2001: Preliminary Studies: Nursing*¹. The CPRSQ is available on the Hospital Report website at www.hospitalreport.ca.

Methodology

Data Sources

Clients' perspectives regarding the quality of care they received while participating in rehabilitation in designated inpatient rehabilitation beds were obtained through the CPRSQ that was administered on behalf of participating hospitals by the NRC+Picker Canada. Details outlining the development of the CCRQ are available in *Hospital Report 2003: Rehabilitation*, which is available at www.hospitalreport.ca.

Hospital Participation

Data were collected from 40 hospital corporations (45 sites) across Ontario with adult clients of varying ages and diagnoses who were discharged from designated inpatient rehabilitation beds between April 1, 2006 and March 31, 2007. A sample size of less than 30 per hospital was considered too small for relative performance assessment. For

the Client-Centred Education indicator, three of the 40 hospital corporations had sample sizes that were smaller than 30. For the Evaluation of Outcomes from the Client's Perspective, Family Involvement, Emotional Support, Continuity & Transition, and Physical Comfort indicators two of the 40 hospital corporations had sample sizes smaller than 30. For both the Client Participation in Decision-Making & Goal Setting and the Overall Quality of Care indicators, only one of the 40 hospital corporations had sample sizes that were smaller than 30. For hospital corporations that did not meet the sample size requirement of 30 for a given indicator, performance relative to other hospitals could not be assessed for that indicator. Therefore, some hospitals were not given a performance classification rating for some indicators.

Site-specific results are available to the respective corporations in the *Hospital e-Scorecard Report 2008*. In addition, data by sex (indicators and components) are provided at the corporate level in the e-Scorecard. Small samples precluded the inclusion of the site level sex stratified data.

Survey Process

Data collection occurred from April 1, 2006 to March 31, 2007. Participating hospitals submitted a data file to NRC+Picker Canada with a list of eligible clients (discharged from their hospital's designated inpatient rehabilitation beds during the above time period). The sample plan was agreed upon by NRC+Picker Canada and the hospital to be the best sampling strategy for their particular hospital. Sampling strategies varied, with some hospitals sampling 100% of their clients throughout the entire timeframe, and others sampling various proportions of their clients for select months. In situations where various proportions of clients were sampled, the clients were randomly selected.

Selected clients were mailed a package containing the CPRSQ and a standardized introductory letter about the survey process. The letter was signed by the Chief Executive Officer (CEO) or someone in a similar position at the hospital where the respondent had been a client. Each letter also had the logo of the organization placed in the upper left hand corner of the letter so that when clients received a questionnaire, the logo was visible through the envelope window along with their name and address. Three weeks after their initial mailing, all clients who had not returned a questionnaire or who had not requested to be removed from the survey list were sent another questionnaire.

Questionnaires were returned directly to a mailing facility in Windsor and were then collected and sent to NRC+Picker Canada Communications Headquarters where they were scanned into a database. All verbatim comments were scanned into the system and then were re-typed into the database.

Consent

Return of a completed survey was considered to be implied consent to participate.

Confidentiality

To ensure confidentiality, respondents were assigned identification (ID) numbers. Names were not recorded on the questionnaires. To further ensure that confidentiality was maintained, results from the questionnaires are only presented in a summary format. Although data from all clients were used in the analysis, those hospitals that had less than 30 respondents had their data suppressed in publicly-released documents. In the e-Scorecard, hospitals that had less than 5 respondents had their data suppressed. This was another measure taken to ensure confidentiality.

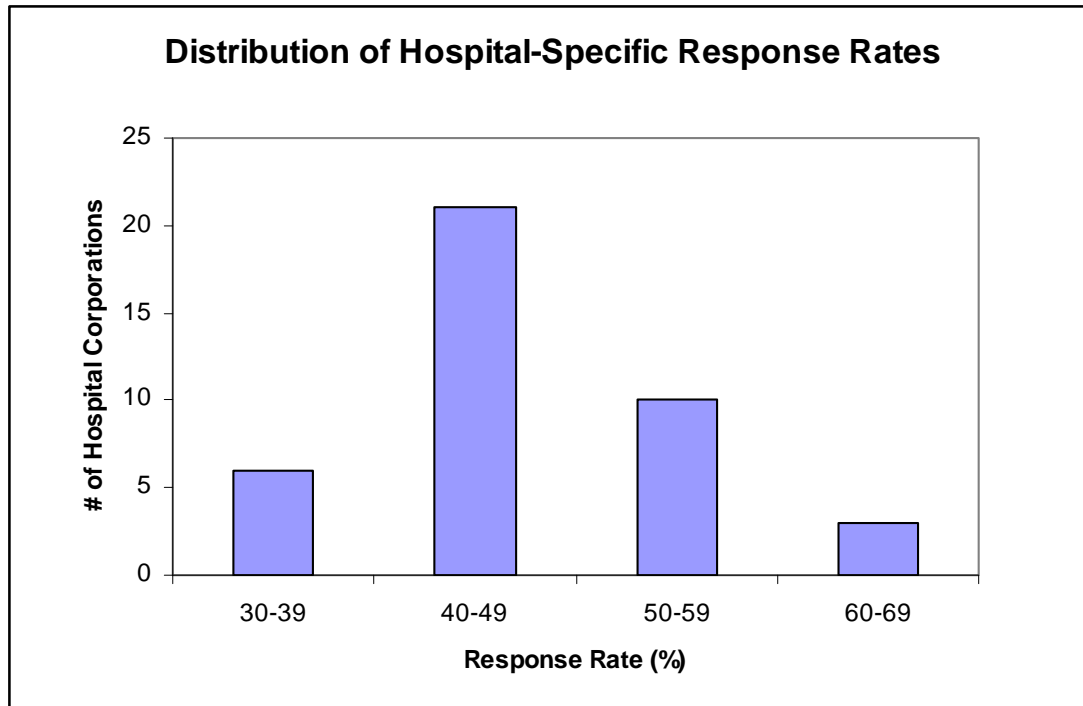
Data Analysis

All analyses were performed using SAS Version 9.1.3

Response Rates

The CPRSQ was mailed to a total of 14,336 clients (8,300 females and 6,036 males) who were identified as eligible by the 40 participating hospital corporations. Questionnaires were received from 6,803 clients. The overall response rate was 47%; the response rate from female respondents was 48%; and the response rate from male respondents was 47%. Appendix A provides details regarding the number of returned, usable surveys, for individual hospitals, at a corporate level. Figure 1 provides the same information with response rates in summary format.

Figure 1. Distribution of Hospital-Specific Response Rates



Development of the Indicators

Development of indicators to measure client perspectives of inpatient rehabilitation evolved from a series of research projects conducted by researchers at the Arthritis Community Research and Evaluation Unit (ACREU) in partnership with the Rehabilitation Program Policy Unit of the Mental Health and Rehabilitation Reform Branch, Ministry of Health and Long-Term Care. This research stemmed from recommendations made in the Provincial Rehabilitation Reference Group's *Managing the Seams Document*².

The following steps briefly outline the processes undertaken to develop the CCRQ, subsequently other items in the CPRSQ, and the indicators used in this report. Further detail can also be found in *Hospital Report 2003: Rehabilitation at www.hospitalreport.ca* and *Measuring Client-Centredness & Rehabilitation*, a working paper prepared for the Ministry of Health and Long-Term Care in Ontario.

Step 1: COMPONENTS OF CLIENT-CENTRED REHABILITATION

Identification of components of client-centred rehabilitation occurred through a review of the literature as well as focus group consultation with clients who had undergone a course

of inpatient rehabilitation for chronic disabling conditions such as arthritis, spinal cord injury, multiple sclerosis, stroke, and acquired brain injury. Eight components of client-centred rehabilitation were identified:

- Client participation in decision-making and goal-setting
- Client-centred education
- Evaluation of outcomes from the client's perspective
- Effective communication
- Family involvement
- Emotional support
- Flexibility
- Coordination and continuity of care

Step 2: REVIEW WASCANA

Components of client-centred rehabilitation and sample items, from the WASCANA, were reviewed by an advisory panel. The WASCANA is a self-report measurement tool to evaluate the multidimensional concept of client-centred care³. The advisory panel of nine members was chosen based on members' familiarity with client-centredness, their geographical location, and their area of practice, resulting in a panel comprised of administrators, academics, and clinicians with representatives from both large and small hospitals. The panel recommended that a client-centred survey for rehabilitation be developed.

Step 3: CCRQ DEVELOPMENT AND FACE VALIDITY

Items for the CCRQ were then developed by a partnership of research scientists and staff from the Arthritis Community Research and Evaluation Unit, Toronto Rehabilitation Institute, St. John's Rehabilitation Hospital and The Arthritis Society, Ontario Division (TAS-OD). Face validity, the extent to which items seem valid based on expert opinion and focus groups, was determined by a group of experts with rehabilitation and research backgrounds. Face validity was analyzed early in the development of the survey, prior to the pilot study. Further statistical testing was then performed on collected data.

Step 4: PRE-TEST WITH COGNITIVE INTERVIEWS

The CCRQ was pre-tested for clarity and relevance using cognitive interviews with 21 inpatients at St. John's Rehabilitation Hospital and Toronto Rehabilitation Institute, hospitals with inpatient rehabilitation clients. Based on these results, the questionnaire was revised and pilot tested with 1,568 clients who had been discharged from inpatient rehabilitation at these same hospitals.

Step 5: TEST-RETEST RELIABILITY

Test-retest reliability of the 33-item CCRQ was assessed by examining the pilot study data. The response rate for the pilot data was 72%, and test-retest reliability was examined on the first 144 clients who returned their surveys. These clients completed the

CCRQ a second time, ten days after completing their initial CCRQ. Test-retest reliability was conducted on questions from all domains with the exception of the ten items in the *Continuity and Transition* domain, and five items in the *Coordination* domain. These items were added subsequent to the pilot study. Item-specific test-retest reliability coefficients ranged from 0.51 to 0.81, with a mean of 0.66, indicating that test-retest reliability was acceptable.

Step 6: INTERNAL CONSISTENCY

A test for internal consistency was performed on the items that proved reliable from the test-retest procedure as well as the additional 15 items added to form the 48-item CPRSQ. Internal consistency explains how well items in a particular subscale or domain are able to ‘tap’ the same concept. High internal consistency is found in groups of questions that ‘tap’ a common experience, whereas lower internal consistency is found in a group of questions that fail to ‘tap’ a common theme. Cronbach’s alpha is a measure of internal consistency and has an ideal range, which is between 0.7 and 0.9⁴. Internal consistency should be high enough to indicate that the items have something in common, but not so high that they are asking the exact same question. When internal consistency is too high, this means that there could be too much overlap among questions and that some of the questions in the group may be unnecessary for the scoring of the subscale, which would add unnecessary burden for respondents. Conversely, low internal consistency suggests that the questions within the subscale do not have enough in common to warrant their inclusion in the same subscale.

Conceptually-related items were originally grouped into domains by experts, based on relevant literature and focus groups with clients. Forty-eight items were grouped into eight domains: *Client Participation in Decision-Making and Goal-Setting*, *Client-Centred Education*, *Evaluation of Outcomes from the Client’s Perspective*, *Family Involvement*, *Emotional Support*, *Coordination*, *Continuity and Transition*, and *Physical Comfort*. Please refer to Appendix B for a list of the items and their grouping within the domains. A check of internal consistency was performed for each domain, to test if the items within the domain comprised a valid subscale. A Cronbach’s alpha value was calculated using SAS version 8.0, omitting any respondents with a missing value for any of the items within the domain. The results of this analysis indicated that the all the items in the following five domains were internally consistent: *Client Participation in Decision-Making and Goal-Setting*, *Evaluation of Outcomes from the Client’s Perspective*, *Family Involvement*, *Emotional Support*, and *Physical Comfort*. However, the *Client-Centred Education*, *Coordination*, and *Continuity and Transition* domains did not meet the internal consistency criterion.

Two items in the *Client-Centred Education* domain regarding *difficulty getting health care information* and *receiving too much information* had low correlations with the domain as a whole, and did not appear to be tapping the same concept as the rest of the questions in the domain. With the removal of the two problem items, the remaining six

Client-Centred Education items had a good standardized Cronbach's alpha (0.88) and all the items had a reasonable correlation with the total for the domain (0.65-0.72).

Within the *Coordination* domain, two items had low correlations with the domain as a whole. These items addressed *having to repeat information* and *doctors, nurses & therapists saying different things about the client's program*. These items were negatively worded and had exceptionally low correlations with the domain as a whole. With the removal of these items, the remaining items formed a potentially viable subscale with a standardized Cronbach's alpha of 0.80, but on average a low correlation with the total for each individual item (0.42-0.65). Thus, only five of the items in the *Coordination* domain achieved adequate internal consistency. Additional tests were required to assess if these remaining items would comprise a suitable domain.

The *Continuity and Transition* domain contained one item regarding *being sent home before the client felt he or she was ready* that did not pass the internal consistency test. This item was negatively worded. The remainder of the items within the *Continuity and Transition* domain showed internal consistency with a standardized Cronbach's alpha of 0.89, which is high but does not exceed the cut-off of 0.90. The correlation with the total for the remaining items ranged from 0.45 – 0.75.

The internal consistency check revealed that five of eight domains were initially internally consistent, with the exception of *Client-Centred Education*, *Coordination*, and *Continuity and Transition*. Therefore, *Client-Centred Education*, *Coordination*, and *Continuity and Transition* required further revisions. Please refer to Appendix B for a summary of the measures of internal consistency for each domain, prior to removal of problem questions.

Step 7: CONSTRUCT VALIDITY

The primary method of validity testing with the 48-item CPRSQ data was analysis of construct validity, “the extent to which a particular measure relates to other measures consistent with theoretically derived hypotheses concerning concepts or constructs being measured”⁵. Construct validity was assessed by correlating each individual item with a general measure of satisfaction. This general measure of satisfaction functions as a “gold standard” of client satisfaction. The general measure of satisfaction used was a question assessing “overall quality of care and services you received”. This item had the answer options of **Excellent, Very Good, Good, Fair, Poor, and Don't Know**. The correlation between each item on the CPRSQ and the “gold standard” item was calculated.

The level of correlation with a gold standard that is deemed appropriate for a psychometric questionnaire can vary enormously and is in part subjective. For the CPRSQ, a minimum meaningful correlation of 0.40 was chosen. The cut-off of 0.40 was based on the mean correlations for each item and served as a guideline rather than a precise test. Almost all of the items had a sufficient correlation with the “gold standard” with the exception of five items, which are indicated in Appendix B. Negatively-worded items tended to have lower correlations with the “gold standard” than positively-worded

items, likely because the “gold standard” was a positively-worded item. Items addressing *receiving too much information; having to repeat information; doctors, nurses & therapists saying different things about the client’s program; and being sent home before the client felt he or she was ready* all had low correlations with the “gold standard” and were negatively-worded.

Three other items that were not negatively-worded also had low correlations with the “gold standard” (below 0.40). They were: *there was one person in charge of coordinating my care among the therapists, nurses and doctors; hospital staff told me of medication side effects to watch for when I went home; and hospital staff made referrals for homecare by nurses or visiting therapists when necessary.*

Domains scored as a whole, showed a higher average correlation (0.61) with the “gold standard” than individual items within domains, suggesting that domain scores may be more representative of client satisfaction than individual items within domains.

Step 8: CONSIDERATION OF ITEM-SPECIFIC RESPONSE RATES

Item-specific response rates of clients who responded to the questionnaire were calculated by including an invalid response or a blank question as non-response, and a selection from the Likert scale or “does not apply” as response. When calculated in this manner, response rates for individual items were overall very high and ranged from 93% to 98%. The item regarding *having one person in charge of care* had the highest number of invalid or blank values (7%), suggesting that it may have been more poorly understood than the other items.

Item-specific response rates were also calculated using an alternate method, as shown in Appendix B, by including “does not apply” as a missing value, as “does not apply” responses could not be calculated in the scoring of the questionnaire. The percentage of missing values per item, calculated this way varied enormously, from 6% for the item regarding *having adequate time for rest and sleep* to 35% for the item regarding *hospital staff providing follow-up care at the hospital when necessary*. If an item’s percentage of missing values is too high, then the integrity of the item is compromised in such a way that it might not represent the population of all clients who respond to the questionnaire, if the non-response is at all selective. Selectivity of non-response cannot necessarily be proven through calculations, but items with a high percentage of missing values are apt to selectively not include specific groups of clients and therefore compromise the integrity of sampling. If greater than 25% of the clients who completed the questionnaire had a missing value for an item, then the item was recommended for deletion or revision. The items regarding *ease of transfers between different units within the hospital, being told of medication side effects to watch for at home, hospital staff providing follow-up care at the hospital when necessary, and hospital staff providing referrals for homecare when necessary* all had an unacceptably high percentage of missing values of greater than 25%. Therefore, these items were identified as problem items.

The *Family Involvement* domain provided an exceptional case in item non-response. In general, items that have a high percentage of “does not apply” but refer to issues that the literature and expert opinion conclude should apply to almost every client, are likely to indicate a problem with the question’s structure. For example, perhaps some clients select “does not apply” in lieu of “do not understand” or “this question is unclear”. Within the *Family Involvement* domain, every item had a relatively high percentage of missing values, ranging from 14% to 25%. However, the “does not apply” option in this domain, as compared to other domains, likely represents a situation where the item truly “does not apply”, because it is known that not all the clients have or want friends or family to be involved in their care. Thus, it is expected that compared to other domains, the “does not apply” response option truly represents the situation of clients more frequently for the *Family Involvement* domain. Please refer to Appendix B for a summary of the reliability and validity of the indicators used in the scoring of *Hospital e-Scorecard Report 2008: Rehabilitation*.

Step 9: FINAL INCLUSION/EXCLUSION OF ITEMS

For inclusion in the analysis for *Hospital e-Scorecard Report 2008: Rehabilitation* items were excluded on the basis of lack of internal consistency, low correlation with the “gold standard”, and a high percentage of missing responses. The excluded items are shaded grey in Appendix B. As a result of item exclusion, each of the eight domains was either used as it initially was designed, or revised, with the exception of the *Coordination* domain, which had too few items to stand alone as a domain once question validity was assessed. The items in the *Coordination* domain could not be relocated to other domains, and will be explored further for future development of the CPRSQ.

At this stage of development 34 items of the CPRSQ comprised the eight domains/indicators:

- Client Participation in Decision-Making and Goal-Setting (six items)
- Client-Centred Education (six items)
- Evaluation of Outcomes from the Client’s Perspective (four items)
- Family Involvement (five items)
- Emotional Support (four items)
- Physical Comfort (four items)
- Continuity and Transition (five items)
- Overall Quality of Care (one item)

The specific items that are combined to create each indicator are presented in Appendix C. The questions that have been removed can be seen highlighted in grey in Appendix B.

Calculation of Indicator Scores

The indicators were scored based on the usable items from each of the following seven domains:

- Client Participation in Decision-making and Goal-setting
- Client-Centred Education

- Evaluation of Outcomes from the Client’s Perspective
- Family Involvement
- Emotional Support
- Continuity and Transition
- Physical Comfort

Each item was based on a five point Likert scale consisting of **Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree**. Each item was transformed to a 0 to 100 point scale: 0 – Strongly Disagree, 25 – Disagree, 50 – Neutral, 75 – Agree, 100 - Strongly Agree. All of the items were positively-worded, so a higher score indicates a more positive response.

Indicator scores were calculated for each client based on his or her average score for all the items in each indicator. This average was calculated by adding the total score based on the 100 point scale for all the questions in the indicator, and then dividing by the number of items in the indicator. Indicator scores were only calculated for clients who responded to all the questions items within an indicator.

The *Overall Quality of Care* indicator consisted of one item with the response options **Excellent, Very Good, Good, Fair, Poor, and Don’t Know**. The response option of “Don’t Know” was not scored nor used for further analyses. Each of the remaining response options was transformed to a 0 to 100 point scale: 0 – Poor, 25 – Fair, 50 – Good, 75 – Very Good, 100 – Excellent. A higher score indicated a more positive perception of quality of care.

Peer or Comparison Groups for System-Level Analysis

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

Number of designated inpatient rehabilitation beds and average length of stay were assessed by calculating means for each hospital corporation and site. Analysis by service delivery model divided the hospitals into two groups, hospitals offering specialty service delivery and hospitals not offering specialty service delivery. Analysis by the aforementioned characteristics, singly or in combination, failed to develop groups of hospitals that would otherwise be considered comparable. More importantly, separating 40 corporations into three or more peer groups meant that there were not enough corporations within each group to make statistically meaningful comparisons within the groups.

Definition of peer groups by Rehabilitation Client Group was attempted through cluster analysis and calculation of RCG means by hospital corporation and site. These analyses were problematic for several reasons. The two major RCG groups, as self-reported by hospitals in the System Integration and Change (SIC) survey were Stroke and

Orthopaedic Conditions. However, assignment of hospitals to “primarily Stroke clients” or “primarily Orthopaedic Conditions clients” was not possible for a majority of the hospitals. Classification by other RCGs would result in peer groups too small for statistically meaningful intra-group comparisons. In addition, although hospital self-reports of the RCG breakdown of their patients were available, the RCG of each client in the Client Perspectives dataset was not available. This was an enormous limitation, because even if it were possible to develop meaningful peer groups, we could not guarantee that the RCG distribution by corporation within the Client Perspectives dataset would be representative of hospitals’ reports as per the SIC survey.

Despite extensive analyses, we were unable to identify meaningful peer groups. The main limitation to this process was small group size. Consequently, results are presented at a provincial level, by Ontario’s Local Health Integration Networks (LHIN), as well as at a hospital-specific level.

Assessing Relative Performance

Each hospital’s performance on each indicator was designated as "above average", "average", or "below average". A score of above average performance or below average performance means that the hospital’s score was statistically different than the average score for all participating hospitals.

Relative performance was assessed by comparing the 95% confidence interval of each hospital’s indicator score with the average indicator score for all hospitals (provincial performance target) for the corresponding indicator.

A performance classification of above average was assigned when the lower bound of the hospital’s 95% confidence interval for an indicator exceeded the provincial performance target for the corresponding indicator.

A performance classification of below average had to satisfy two conditions:

- First, the higher bound of the hospital’s 95% confidence interval needed to fall below the provincial performance target for that indicator. The provincial performance target for each indicator is listed in Appendix C.
- Second, the hospital’s mean score for that indicator had to be lower than the mean score for every hospital that was rated as average for the corresponding indicator.

If the hospital met the first criterion but not the second, the hospital’s performance was classified as average.

A performance classification of average was also assigned when the provincial performance target fell within the hospital’s 95% confidence interval for that indicator.

In the e-Scorecard, a sample size of less than 30 per hospital was considered too small for relative performance assessment. For hospital corporations that did not meet the sample size requirement of 30 for a given indicator, performance relative to other hospitals could not be assessed for that indicator. However, their hospital-specific results will still be reported as long as they have 5 or more respondents for a given indicator.

Reporting Results by Sex

No performance classifications are provided for the Client Perspectives indicators stratified by sex. The e-Scorecard includes hospital-level indicator means and components by sex. The e-Scorecard also includes the difference values (F-M) and an indication of the direction (i.e. F>M or M>F) and the statistical significance of these values at a hospital level. Participating hospitals may access their own and other hospitals' difference values and the direction (i.e. F>M or M>F) and statistical significance of these differences for each indicator on a password-protected database at www.hospitalreport.ca.

The interpretation of these data and notes about suppression will accompany this database. In terms of interpretation, if this value [i.e. (F-M)] is negative, males have higher scores than females; if this value is positive, females have higher scores than males. A value of "0" is used as the benchmark as it represents true equity between women and men. Furthermore, if a hospital's 95% confidence interval around their specific value of the difference between women and men for a given indicator includes zero, then the hospital is said to have no statistically significant sex difference for that indicator (which is preferred). If a hospital's 95% confidence interval around their specific value of the difference between women and men for a given indicator does not include zero and is negative, then the hospital is said to have unequal (i.e. M>F) performance or a statistically significant sex difference, in which males have a higher score than females. If a hospital's 95% confidence interval around their specific value of the difference between women and men for a given indicator does not include zero and is positive, then the hospital is said to have unequal (F>M) performance or a statistically significant sex difference, in which females have significantly higher score than males.

Risk Adjustment

For the Client Perspectives indicators risk adjustment was undertaken for the following variables: age and sex. Since risk-adjustment did not impact performance classification, the unadjusted indicator values are presented.

APPENDIX A: Hospital Corporation Number of Returned Surveys

ID #	Hospital Corporation	# of Returned Surveys
7.00	Baycrest Centre for Geriatric Care	81
10.00	Bluewater Health	107
12.00	Bridgepoint Health	272
18.00	Chatham-Kent Health Alliance	126
29.00	Grand River Hospital	83
30.00	Grey Bruce Health Services	61
35.00	Halton Healthcare	196
36.00	Hamilton Health Sciences Corporation	116
42.00	Hôpital régional de Sudbury Regional Hospital	67
158.00	Hotel Dieu Shaver Health and Rehabilitation Centre	69
47.00	Humber River Regional Hospital	113
50.00	Joseph Brant Memorial Hospital	159
153.00	Lakeridge Health	87
77.00	Pembroke Regional Hospital	31
78.00	Penetanguishene General Hospital Inc. (The) - North Simcoe Hospital Alliance	121
80.00	Peterborough Regional Health Centre	78
82.00	Providence Continuing Care Centre	220
81.00	Providence Healthcare	264
83.00	Queensway Carleton Hospital	446
84.00	Quinte Health Care	63
90.00	Rouge Valley Health System	201
94.00	Sault Area Hospital	73
103.00	Southlake Regional Health Centre	51
105.00	St. John's Rehab Hospital	493
106.00	St. Joseph's Care Group	359
108.00	St. Joseph's Health Care London	453
109.00	St. Joseph's Health Centre Toronto	68
111.00	St. Joseph's Healthcare Hamilton	119
112.00	St. Mary's General Hospital	90
115.00	St. Thomas-Elgin General Hospital	41
161.00	Sunnybrook Health Sciences Centre	90
148.00	The Brantford General Hospital	93
120.00	The Credit Valley Hospital	160
123.00	The Ottawa Hospital	384
130.00	Toronto East General Hospital	14
131.00	Toronto Rehabilitation Institute	685
132.00	Trillium Health Centre	137
136.00	West Park Healthcare Centre	243
138.00	William Osler Health Centre	132
143.00	York Central Hospital	157
Total		6803

APPENDIX B: Summary of Development of Items of CCRQ and CPRSQ

	Questions	Negatively-Worded	Internal Consistency	% Missing Responses	Correlation With Gold Standard
Client Participation in Decision-Making and Goal Setting			0.91		
1	The program staff and I decided together what would help me			13%	0.47
2	The program staff took my individual needs into consideration when planning my care			7%	0.58
3	My treatment needs, priorities, and goals were important to the program staff			6%	0.59
4	I was encouraged to participate in setting my goals			7%	0.50
5	Treatment choices were fully explained to me			10%	0.52
6	The program staff tried to accommodate my needs when scheduling my therapy			7%	0.53
Client-Centred Education			0.81		
7	I had difficulty getting the health care information I need	✓	X	13%	0.37
8	I was given adequate information about support services in the community			15%	0.40
9	I received the information that I needed when I wanted it			9%	0.54
10	My therapy program was explained to me in a way that I could understand			6%	0.50
11	I knew who to contact if I had problems or questions during my rehabilitation program			8%	0.51
12	I know who to contact if I have problems following discharge			11%	0.42
13	I was told what to expect when I got home			11%	0.43
14	There were times when I received more information than I was ready for	✓	X	15%	0.02
Evaluation of Outcomes from the Client's Perspective			0.85		

	Questions	Negatively- Worded	Internal Consistency	% Missing Responses	Correlation With Gold Standard
15	I was kept well-informed about my progress in areas that were important to me			7%	0.55
16	I accomplished what I expected in my rehabilitation program			8%	0.48
17	The program staff and I discussed my progress together and made changes as necessary			11%	0.53
18	I learned what I needed to know in order to manage my condition at home			9%	0.49
Family Involvement			0.90		
19	My family/friends were given the support that they needed			25%	0.50
20	My family/friends were given the information that they wanted when they needed it			23%	0.51
21	My family/friends received information to assist in providing care for me at home			25%	0.44
22	My family/friends were treated with respect			14%	0.51
23	My family/friends were involved in my rehabilitation as much as I wanted			22%	0.42
Emotional Support			0.90		
24	The program staff treated me as a person instead of just another case			6%	0.62*
25	I was treated with respect and dignity			6%	0.62*
26	My emotional needs (worries, fears, anxieties) were acknowledged and addressed			14%	0.60*
27	I felt comfortable expressing my feelings to program staff			9%	0.58
Coordination			0.79		
28	I had to repeat the same information to the different program staff	✓	X	19%	0.31
29	My therapists, nurses and doctors worked well together			7%	0.61*
30	There was one person in charge of coordinating my care among the therapists, nurses and doctors			15%	0.34

	Questions	Negatively- Worded	Internal Consistency	% Missing Responses	Correlation With Gold Standard
31	Therapists, nurses and doctors sometimes said completely different things about my therapy program	✓	X	15%	0.41
32	Most things were done in the hospital within a reasonable amount of time			7%	0.53
33	Tests and treatments in the hospital were performed on time			10%	0.48
34	Transfers between different units in the hospital were handled well			26%	0.43
Continuity and Transition			0.87		
35	I was told in advance when I would be going home			8%	0.37
36	I was sent home from the hospital before I felt ready	✓	X	13%	0.30
37	Hospital staff told me what to expect about how I might progress at home in regaining my abilities			12%	0.44
38	Hospital staff gave me understandable explanations about medicines I needed to take at home			18%	0.45
39	Hospital staff told me of medication side effects to watch for when I went home			29%	0.39
40	Before leaving the hospital, I was given adequate information about how to monitor my condition for problems and danger signals			20%	0.43
41	Hospital staff told me about which activities I could and could not do on my own at home			15%	0.40
42	Hospital staff discussed with me changes to my home that might be needed to help me after I returned from rehabilitation			20%	0.40
43	Hospital staff provided follow-up care at the hospital when necessary			35%	0.45
44	Hospital staff made referrals for homecare by nurses or visiting therapists when necessary			35%	0.32

	Questions	Negatively- Worded	Internal Consistency	% Missing Responses	Correlation With Gold Standard
	Physical Comfort		0.84		
45	My physical pain was controlled as well as possible			13%	0.46
46	My reports of pain were acknowledged by program staff			15%	0.48
47	I had adequate time for rest and sleep			6%	0.41
48	Program staff tried to ensure my comfort			6%	0.60*

APPENDIX C: Overall Statistics of CCRQ AND CPRSQ

INDICATOR	# of items	N	Provincial Performance Target	STD	25th %	MEDIAN	75th %
Client Participation in Decision-Making & Goal Setting	6	5588	76.7	3.4	73.6	77.4	79.3
Client-Centred Education	6	5335	74.0	3.2	72.0	74.2	76.0
Evaluations of Outcomes from the Client's Perspective	4	5755	73.0	3.3	70.9	73.4	75.4
Family Involvement	5	4618	74.2	2.8	71.9	74.4	76.2
Emotional Support	4	5723	78.1	3.1	76.1	78.5	80.4
Physical Comfort	4	5680	78.3	1.9	76.7	78.7	79.7
Continuity & Transition	5	4750	69.2	3.8	66.8	69.5	71.7
Overall Quality of Care	1	6467	75.6	5.4	70.9	76.7	80.1

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