

***Hospital Report 2007: Acute Care***  
**Patient Satisfaction Technical Summary**

**Marcus Loreti**  
**Joanne Tse**  
**Michael A. Murray**

## Table of Contents

Overview.....	3
Methodology.....	3
<i>Summary</i> .....	3
<i>Early Development of the Picker Acute Care Survey</i> .....	3
<i>Pilot Study and Validation of the Measuring the Patients' Experience Survey in Canada</i> .....	4
<i>Translation</i> .....	5
Describing the Survey Process.....	5
<i>Sampling Plan</i> .....	5
<i>Mailing of Questionnaires</i> .....	6
<i>Inclusion/Exclusion Criteria</i> .....	6
Developing the Indicators.....	8
<i>The Four Indicators reported in Hospital Report 2007: Acute Care</i> .....	8
<i>The Eight Picker-based Indicators</i> .....	12
<i>The Two Functional Indicators</i> .....	15
<i>Calculating the Indicator Scores</i> .....	17
Risk-Adjustment.....	17
<i>Risk-Adjustment Procedure</i> .....	18
<i>Risk-adjustment for Sex-Disaggregated Patient Satisfaction Results</i> .....	20
<i>Missing Values for Predictors Used in Risk-Adjustment</i> .....	20
<i>Descriptive Statistics for Predictors Used in Risk-Adjustment</i> .....	20
<i>Patient-response Statistics</i> .....	20
<i>Proxy-response Statistics</i> .....	21
Weighting.....	23
<i>Hospital Unit Weights</i> .....	23
<i>Corporation Weights</i> .....	23
Response Rates.....	24
Hospital-Specific Analysis: Assessing Relative Performance.....	24
<i>Confidence Intervals and the Allocation Bias</i> .....	26
<i>Statistics Provided for Hospital Comparisons with Provincial Results</i> .....	27
Summary of Results.....	32
Appendix A: Questionnaire Items.....	34
References.....	39

## Overview

---

Patient Satisfaction monitors the patient's perceptions of the hospital care they received. *Hospital Report '99* was the first report that allowed for province-wide comparisons among Ontario hospitals in terms of levels of patient satisfaction. *Hospital Report 2001, 2002, 2003, 2005, 2006* then built on these province-wide comparisons and presented levels of patient satisfaction for each participating Ontario hospital. *Hospital Report 2007: Acute Care* builds on the substantial research documenting what is important to patients, how patients evaluate care, and how to measure this. Even though there are generally no standards for levels of satisfaction that are desired or necessary in Canadian hospitals, knowledge gained from patient satisfaction surveys can set a direction for quality improvement in hospitals for outcomes that are important to patients.

This year's patient satisfaction results reflect data from April 1, 2005 to March 31, 2006. There will be no half data years reported in this year's report. Results are provided online in the e-Scorecard and in the executive summary report available at [www.hospitalreport.ca](http://www.hospitalreport.ca).

## Methodology

---

### **Summary**

Approximately 145,400 individuals from participating hospitals in Ontario were sampled for the 2005-2006 Patient Satisfaction analysis. Patients discharged between April 2005 and March 2006 who met the inclusion criteria were included in the sample. Nearly 48% of the sampled individuals returned their questionnaires.

*Since Hospital Report 2005, Hospital Report 2007: Acute Care* is employing a modified version of the Picker Acute Care Survey, which has been extensively used in the United States and Europe<sup>1</sup>. The Picker Acute Care Survey has been altered, pilot tested and validated for a Canadian population.

The patient satisfaction analysis in this year's report is the result of the combined efforts of the 87 participating Ontario hospital corporations, the Ontario Hospital Association (OHA), the National Research Corporation (NRC+Picker Canada), The University of Toronto, and the Canadian Institute for Health Information (CIHI). The participating Ontario hospitals provided the requisite discharge information to NRC+Picker Canada. NRC+Picker Canada received this information and was responsible for mailing the surveys to the sampled patients and collecting the questionnaires once returned. They also built the dataset that was sent to CIHI, where the patient satisfaction analysis was performed and the report was produced. Previous indicators and methodology from past reports were provided by the University of Toronto to conduct the patient satisfaction analysis. OHA coordinated all survey activities, enlisted hospitals, and acted as the interface between the hospitals and the survey process.

### **Early Development of the Picker Acute Care Survey**

The NRC+Picker Canada's 'Measuring the Patient's Experience' survey is an adaptation of the Picker Acute Care Survey that was developed in the United States in the 1980s with the intent of identifying salient aspects of a patients' hospital care. In the development of this tool, focus groups consisting of recently discharged inpatients and/or their family members, as well as groups of nurses, physicians, and other health care professionals, were presented with a list of statements related to experiences or facets of care and were asked to assess their importance<sup>2</sup>. The items that the focus group members agreed were unimportant were omitted, and the rest, along with a number of demographic and administrative items of interest, were crafted into interview questions.

Pilot studies were launched. A sample of 401 patients discharged from 14 US hospitals were interviewed in 1987/1988, and a telephone survey of 6455 patients discharged from 62 sites was conducted in 1989<sup>3,4</sup>. Following these initial studies, a task force consisting of chief executive officers from a variety of hospitals (and hospital types) was created to help refine the interview, and the feasibility of a written questionnaire based on the interview was assessed. Ambiguous questions and those deemed irrelevant were altered or removed, and questions in areas that were inadequately represented were added.

Seven dimensions of care addressed by the interview emerged from the revision. They were:

1. Respect for patients' values, preferences, and needs
2. Coordination of care
3. Information and education
4. Physical comfort
5. Emotional comfort
6. Involvement of family and friends
7. Transition and community

An eighth dimension, Access to Care, was later included among the dimensions of care.

Resulting from the above-mentioned and subsequent studies was a pencil-and-paper survey that had been assessed for content, criterion, and discriminant validity<sup>5</sup>.

### ***Pilot Study and Validation of the Measuring the Patients' Experience Survey in Canada***

The NRC and the OHA jointly reviewed and modified the Picker Acute Care Survey to make it suitable for use on a Canadian population. A task force of health care experts from across Canada was recruited to comment on the content of the questionnaire, and on the face validity of its items. As a result, some items had to be added, and others had to undergo re-wording before the survey was seen as being fit for a Canadian population.

Seven corporations (including 13 hospitals) participated in the pilot study of modified Picker Acute Care survey. Among these were 10 Ontario hospitals, representing four corporations, and three British Columbia hospitals, each representing their own corporation. All analyses in the pilot study were performed at a corporation level.

Patients aged 18 years and older who were discharged between August and September 2002 were eligible to be sampled for the pilot study. Sample sizes were determined based on a return target of 300 cases per corporation. The sample was randomly drawn and selected individuals were mailed a survey. There were no follow-up mailings to those who did not respond to the first survey. This differs from how the data collection for this year's analysis was carried out, where a second survey was mailed if the first was not returned within three weeks of the original mailing date. The corporation response rates ranged from 21% to 37%, with an average of return rate of 31%<sup>1</sup>. These response rates were expected to be lower than those of the data collection for this year's analysis since there was only one wave of questionnaire mailings.

As an initial step in the validation process, the data belonging to each health system was compared to data collected in the United States (where the survey had already been validated). Response rates for each item were compared to the corresponding US rates to get a sense of how Canadian response patterns resembled American response patterns.

Corporations with returns in excess of 300 underwent a multi-trait psychometric analysis. Survey items were grouped into the appropriate dimensions, and their scores were summed to build the dimension scales. Assumptions of reliability and validity are based on the analysis of these scale scores.

Four analyses were conducted to assess reliability and validity. These analyses were for internal consistency reliability, item internal consistency reliability, item discriminant validity, and criterion-related validity<sup>1</sup>. For the most part, all the correlations involved in assessing these reliabilities and validities were deemed adequate or good. Further, the Cronbach's alpha coefficients and inter-item correlations (both measures of internal consistency) were similar to those calculated in US analyses.

## ***Translation***

The questionnaire was translated into French for hospitals that serve a more French-speaking population. A bilingual survey was sent to patients surveyed from these hospitals, including a question asking the respondent what language they speak primarily at home. There were not enough French-respondent surveys returned for reliability and validity assessments. However, there were enough to compare response patterns between French and English patients, where no significant differences were identified.

# **Describing the Survey Process**

---

## ***Sampling Plan***

Each participating hospital corporation and NRC+Picker collaboratively established a sampling plan. Deciding factors influencing the agreed-upon sampling plan included budget, achieving reasonable response rates, and which groups (units, programs, sites, etc.) within the corporation were of primary interest. A minimum of 100 valid survey responses is required for a hospital's results to be displayed in the publicly released

summary report. In order to meet this cutoff, some small hospitals used simple random sampling techniques in selecting a sample. Some of the larger hospitals adopted stratified surveying techniques, enabling them to survey proportionately from various units and program areas.

Hospitals were then charged with the responsibility of sending patient data files to NRC every month. For *Hospital Report 2007: Acute Care*, data was collected for all 12 months of the 2005-2006 fiscal year. Then, according to each hospital's sampling plan, a random sample was drawn from the patient data files, and surveys were mailed.

Questionnaires were not sent to deceased patients, psychiatric patients, infants less than 10 days old, patients who did not have an overnight stay (length of stay = 0 days), women who had stillbirths, and patients with no fixed address.

### ***Mailing of Questionnaires***

Included in each patient mailing was an explanatory cover letter, a return envelope (postage-paid), and the questionnaire itself. The first mailing went out within a couple of weeks of NRC's reception of a hospital's monthly patient data file. To increase response rates, there was a second wave of mailings to patients whose first questionnaires were not returned within three weeks of the original mailing date.

In total, 146,203 surveys were sent in 2005-2006, yielding 58,950 valid returns. Of these, 56,607 (approx. 96.0% of all valid returns, and 38.7% of all surveys) met all inclusion criteria, and are included in the analysis.

### ***Inclusion/Exclusion Criteria***

Patients discharged between April 2005 and March 2006 who were not deceased, psychiatric patients, infants less than 10 days old, patients who did not have an overnight stay (length of stay = 0 days), women who had stillbirths, or patients with no fixed address, were eligible for inclusion in the sample.

Although many hospitals provided patient data files for general medicine and surgery patients only, some also included obstetrics and psychiatry records. In order to provide hospitals with comparable data, only the survey results for general medical and surgical inpatients are included in this report; psychiatry and obstetrics patients were excluded, as was done in previous years of the acute care Hospital Report. Obstetric and psychiatry exclusions have been made based on the Case Mix Group™ (CMG) reported by the hospital. In many cases, the CMG data was not included in the patient data file. Obstetric and psychiatry exclusions were also made using the NRC variables Service Indicator (which identifies the record as being either a medical, surgical, pediatric or obstetric case) and Discharge Unit (this was only useful when hospitals chose to identify the unit by name, rather than by code). It is important to note that the CMG, Service Indicator, and Discharge Unit fields were all optionally reported fields, and that they were left blank in a number of records, making it distinctly possible that some obstetric and psychiatric cases went unidentified. Though we have made every effort to positively identify and exclude obstetric and psychiatry cases, we cannot conclusively say that we have removed them all.

Surveys returned belonging to patients between the ages of 0 and 17 were excluded from the analysis. There was a great deal of variation between the hospitals with regards to reporting practices for this age group, some going so far as to decide not to survey pediatric cases at all. In order to provide hospitals with the most comparable data, only questionnaires belonging to patients 18 years old and above will be included in the analysis. Also, it has been argued that the questionnaire itself was not a suitable tool to measure satisfaction levels in patients below the age of 18.

The pediatric patient satisfaction analysis in *Hospital Report: Acute Care 2007* is the first in the series to report results collected using the National Research Corporation (NRC)+Picker's pediatric acute care questionnaire, specifically targeted to the pediatric patient experience. For more details on the pediatric acute care patient satisfaction analysis, please see the relevant technical summary documentation on the Hospital Reports website ([www.hospitalreport.ca](http://www.hospitalreport.ca)).

Surveys that were returned, but that did not have a single valid response, were treated as non-responses and dropped from the analysis. If a record had no valid responses to any of the evaluative questions on the questionnaire (i.e. only had responses to demographic-type questions), then it was seen as having insufficient data and was excluded from the subsequent analysis.

Finally, for a record to be included in the analysis, it had to have valid responses for at least half of the evaluative questions that were used to build the indicators. This amounts to 20 valid responses out of 39 evaluative questions. However, patients who responded 'No' to question 31 ("Were you every in any pain?") only had to have 18 valid responses out of 36, since three evaluative questions were part of this pain-themed skip pattern (questions 34, 35 and 36. See Appendix A for a list of the questionnaire items). Note that it is at this stage in the exclusions that the volumes were calculated to determine whether a hospital passed the 100-case volume screen.

## Developing the Indicators

---

Thirty-nine of the 53 Acute Care survey questions were combined to form four indicators for the publicly released in the report, as well as eight Picker-based indicators and two functional indicators to be released exclusively on the private Hospital Report e-Scorecard ([www.hospitalreport.ca](http://www.hospitalreport.ca)).

Expert opinion, from patient focus groups and hospital staff surveys, and discussions among team members lead to the amalgamation of NRC groupings and items into four indicators. This took place in two steps: NRC groupings were first adjusted by moving some items and combining some categories; then this reduced set of indicators was further reduced into four categories.

### ***The Four Indicators reported in Hospital Report 2007: Acute Care***

Traditionally, these four indicators were reported in previous Hospital Report executive summaries and e-Scorecard.

1. **Overall Impressions:** Patients' views of their overall hospital experience including the overall quality of care and services they received at the hospital, and their confidence in the doctors and nurses who cared for them.

#### **Survey Questions:**

1. Overall, how would you rate the care you received from your doctors?  
Dans l'ensemble, comment évalueriez-vous les soins que vous avez reçus des médecins?
2. Overall, how would you rate the care you received at the hospital?  
Dans l'ensemble, comment évalueriez-vous les soins que vous avez reçus à l'hôpital?
3. Would you recommend this hospital to your friends and family?  
Recommanderiez-vous cet hôpital aux membres de votre famille et à vos amis?
4. Did you have confidence and trust in the doctors treating you?  
Aviez-vous confiance dans les médecins qui vous ont traité?
5. Did you have confidence and trust in the nurses treating you?  
Aviez-vous confiance dans les infirmiers (ères) qui vous ont traité?

2. **Communication:** Patients' views about the amount and quality of the information and communications they received about their condition, treatment, and preparation for discharge and care at home, and whether they felt family and friends were given sufficient information.

*This indicator includes three Picker question groupings and selected other questions.*

- **Information, Communication, and Education:** Evaluates the extent to which patients were told about their condition (what they had), their status or progress (how they were doing), their prognosis (how they would likely do in the future), and their care in a way they can understand. This measure also takes into account whether patients felt they got timely, complete, and honest answers to their questions from people who worked in hospitals.

- **Continuity and Transition:** Evaluates the extent to which patients got the help, information, and support they needed to care for themselves after leaving the hospital. This includes information regarding the results and type of medical care and treatment they got, planning for ongoing care and treatment, and information about access to other support and services.
- **Involvement of Family and Friends:** Evaluates the extent to which information is shared with patients' families and friends when appropriate; the people who worked in the hospital kept families and friends informed, involved, and supported.

### Survey Questions:

1. When you had important questions to ask a doctor, did you get answers you could understand?  
Lorsque vous avez posé des questions importantes au médecin, avez-vous reçu les réponses faciles à comprendre?
2. When you had important questions to ask a nurse, did you get answers you could understand?  
Lorsque vous avez posé des questions importantes à un (e) infirmier (ère), avez-vous reçu des réponses faciles à comprendre?
3. Did a doctor or nurse explain the results of tests in a way you could understand?  
Est-ce qu'un médecin ou un(e) infirmier (ère) vous a expliqué les résultats de vos tests d'une manière facile à comprendre?
4. Did someone on the hospital staff explain the purpose of the medicines you were to take at home in a way you could understand?  
Est-ce qu'on vous a expliqué, d'une manière facile à comprendre, pourquoi vous devez prendre certains médicaments une fois de retour à la maison?
5. Did someone tell you about medication side effects to watch for when you went home?  
Est-ce qu'on vous a expliqué les effets secondaires possibles associés à ces médicaments que vous deviez surveiller une fois de retour à la maison?
6. Did they tell you what danger signals about your illness or operation to watch for after you went home?  
Est-ce qu'on vous a expliqué les symptômes possibles associés à votre maladie ou à votre opération que vous deviez surveiller une fois de retour à la maison?
7. Did they tell you when you could resume your usual activities, such as when to go back to work or drive a car?  
Est-ce qu'on vous a expliqué quand vous pourriez reprendre vos activités normales, comme retourner au travail ou conduire une voiture?
8. Did you know who to call if you needed help or had more questions after you left the hospital?  
Saviez-vous à qui vous adresser si vous aviez besoin d'aide ou aviez des questions après votre départ de l'hôpital?
9. Did your family or someone close to you have enough opportunity to talk to your doctor?  
Est-ce que votre famille ou un proche a eu suffisamment d'occasions pour parler avec votre médecin?
10. How much information about your condition or treatment was given to your family or someone close to you?  
Comment évalueriez-vous la quantité de renseignements fournie à votre famille ou à vos proches au sujet de votre état ou de vos traitements?

11. Did the doctors and nurses give your family or someone close to you all the information they needed to help you recover?  
Est-ce que les médecins et les infirmiers (ères) ont fourni les renseignements nécessaires à votre famille ou à vos proches pour qu'ils puissent vous aider à vous rétablir?
12. If you had any anxieties or fears about your condition or treatment, did a doctor discuss them with you?  
Si vous avez exprimé des préoccupations ou des craintes au sujet de votre état ou de vos traitements, est-ce qu'un médecin en a discuté avec vous?
13. If you had any anxieties or fears about your condition or treatment, did a nurse discuss them with you?  
Si vous avez exprimé des préoccupations ou des craintes au sujet de votre état ou de vos traitements, est-ce qu'un (e) infirmier (ère) en a discuté avec vous?

**3. Consideration:** Patients' views about whether they are treated with respect, dignity, and courtesy.

*This indicator includes two Picker question groupings.*

- **Courtesy:** Measures a patient's impression of whether people who worked in the hospital treated patients with consideration, politeness and good manners.
- **Respect:** Evaluates the extent to which patients felt: they were recognized and treated as individuals; they were treated with dignity and respect; their autonomy and preferences were respected. This measure also takes into account whether patients were involved in decisions about their care and around any communication or sharing of information about themselves and their care, when they desired it.

**Survey Questions:**

1. Did you have enough say about your treatment?  
Avez-vous pu participer, autant que vous vouliez, aux discussions concernant votre traitement?
2. Did you feel like you were treated with respect and dignity while you were in the hospital?  
Aviez-vous le sentiment d'être traité (e) avec respect et dignité durant votre séjour à l'hôpital?
3. How would you rate the courtesy of the staff who admitted you?  
Comment évalueriez-vous la courtoisie du personnel qui a procédé à votre admission?
4. How would you rate the courtesy of your doctors?  
Comment évalueriez-vous la courtoisie des médecins à votre égard?
5. How would you rate the courtesy of your nurses?  
Comment évalueriez-vous la courtoisie de vos infirmiers (ères)?

**4. Responsiveness:** Patients' assessments of the extent to which they got the care they needed in hospital and how coordinated and integrated that care was when it was delivered.

*This indicator includes three Picker question groupings, and selected other questions.*

- **Access to Care:** Evaluates the extent to which patients felt they could speak to or get help from people who worked in the hospital when they needed it; and whether they felt they could get the care and services they needed.
- **Coordination and Integration of Care:** Evaluates the extent to which patients felt that people who worked in the hospital worked together as a team to ensure that care, services, and information reached those who needed it at the right time, and to make sure that there were smooth transitions among different places and services within the hospital.
- **Physical Comfort:** Evaluates the extent to which patients felt they got care, relief, and support for the discomfort, pain, suffering, and limits on their activities of daily living during their hospital stay.

**Survey Questions:**

1. How would you rate the availability of your doctors?  
Comment évalueriez-vous la disponibilité des médecins?
2. How would you rate the availability of your nurses?  
Comment évalueriez-vous la disponibilité de vos infirmiers(ères)?
3. While you were in the hospital, were you able to get all the services you needed?  
Pendant votre séjour à l'hôpital, avez-vous pu recevoir tous les services dont vous aviez besoin?
4. How organized was the admission process?  
Est-ce que les formalités d'admission étaient bien structurées?
5. Do you feel you had to wait an unnecessarily long time to go to your room?  
Avez-vous attendu trop longtemps avant d'être conduit (e) à votre chambre?
6. Was there one particular doctor in charge of your care in the hospital?  
Est-ce qu'un médecin en particulier était responsable de vos soins durant votre séjour à l'hôpital?
7. Sometimes in the hospital, one doctor or nurse will say one thing and another will say something quite different. Did this happen to you?  
Il arrive parfois, dans un hôpital, qu'un médecin ou un (e) infirmier (ère) vous dise une chose et qu'une autre personne vous dise autre chose de très différent. Est-ce que cela vous est arrivé?
8. Were your scheduled tests and procedures performed on time?  
Vos tests et interventions ont-ils eu lieu aux heures prévues?
9. When you needed help getting to the bathroom, did you get the help in time?  
Lorsque vous aviez besoin d'aide pour aller aux toilettes, l'avez-vous eu à temps?
10. How many minutes after you used the call button did it usually take before you got the help you needed?  
Combien de minutes après que vous avez appuyé sur le bouton d'appel, avez-vous habituellement obtenu l'aide dont vous aviez besoin?
11. In general, after you used the call button, was the time you waited for help reasonable?  
Dans l'ensemble, une fois que vous avez appuyé sur le bouton d'appel, diriez-vous que l'attente était raisonnable?
12. How many minutes after you requested pain medicine did it usually take before you got it?  
Habituellement, combien de temps s'écoulait entre la demande et l'administration des médicaments?

13. Do you think that the hospital staff did everything they could to help control your pain?  
Pensez-vous que le personnel a fait tout ce qu'il pouvait pour aider à maîtriser votre douleur?
14. Overall, how much pain medicine did you get?  
Dans l'ensemble, comment évalueriez-vous la quantité de médicaments que vous avez reçus?
15. How would you rate how well the doctors and nurses worked together?  
Comment évalueriez-vous l'esprit de collaboration entre les médecins et le personnel infirmier?
16. Was it easy for you to find someone on the hospital staff to talk to about your concerns?  
Vous était-il facile de trouver un membre du personnel hospitalier à qui parler de vos préoccupations?

### ***The Eight Picker-based Indicators***

These Picker-based indicators are only available in the e-Scorecard. These are the indicators from which the four broader *Hospital Report 2007: Acute Care* indicators are based.

#### **1. Overall Satisfaction**

##### **Survey Questions:**

1. Overall, how would you rate the care you received from your doctors?  
Dans l'ensemble, comment évalueriez-vous les soins que vous avez reçus des médecins?
2. Overall, how would you rate the care you received at the hospital?  
Dans l'ensemble, comment évalueriez-vous les soins que vous avez reçus à l'hôpital?
3. Would you recommend this hospital to your friends and family?  
Recommanderiez-vous cet hôpital aux membres de votre famille et à vos amis?

#### **2. Coordination of Care and Access**

##### **Survey Questions:**

1. How organized was the admission process?  
Est-ce que les formalités d'admission étaient bien structurées?
2. Do you feel you had to wait an unnecessarily long time to go to your room?  
Avez-vous attendu trop longtemps avant d'être conduit (e) à votre chambre?
3. Was there one particular doctor in charge of your care in the hospital?  
Est-ce qu'un médecin en particulier était responsable de vos soins durant votre séjour à l'hôpital?
4. Sometimes in the hospital, one doctor or nurse will say one thing and another will say something quite different. Did this happen to you?  
Il arrive parfois, dans un hôpital, qu'un médecin ou un (e) infirmier (ère) vous dise une chose et qu'une autre personne vous dise autre chose de très différent. Est-ce que cela vous est arrivé?
5. Were your scheduled tests and procedures performed on time?  
Vos tests et interventions ont-ils eu lieu aux heures prévues?
6. How would you rate how well the doctors and nurses worked together?  
Comment évalueriez-vous l'esprit de collaboration entre les médecins et le personnel infirmier?

7. How would you rate the availability of your doctors?  
Comment évalueriez-vous la disponibilité des médecins?
8. How would you rate the availability of your nurses?  
Comment évalueriez-vous la disponibilité de vos infirmiers(ères)?
9. While you were in the hospital, were you able to get all the services you needed?  
Pendant votre séjour à l'hôpital, avez-vous pu recevoir tous les services dont vous aviez besoin?

### 3. Physical Comfort

#### Survey Questions:

1. When you needed help getting to the bathroom, did you get the help in time?  
Lorsque vous aviez besoin d'aide pour aller aux toilettes, l'avez-vous eu à temps?
2. How many minutes after you used the call button did it usually take before you got the help you needed?  
Combien de minutes après que vous avez appuyé sur le bouton d'appel, avez-vous habituellement obtenu l'aide dont vous aviez besoin?
3. In general, after you used the call button, was the time you waited for help reasonable?  
Dans l'ensemble, une fois que vous aviez appuyé sur le bouton d'appel, diriez-vous que l'attente était raisonnable?
4. How many minutes after you requested pain medicine did it usually take before you got it?  
Habituellement, combien de temps s'écoulait entre la demande et l'administration des médicaments?
5. Do you think that the hospital staff did everything they could to help control your pain?  
Pensez-vous que le personnel a fait tout ce qu'il pouvait pour aider à maîtriser votre douleur?
6. Overall, how much pain medicine did you get?  
Dans l'ensemble, comment évalueriez-vous la quantité de médicaments que vous avez reçus?

### 4. Respect for Patient Preferences and Courtesy

#### Survey Questions:

1. Did you have enough say about your treatment?  
Avez-vous pu participer, autant que vous vouliez, aux discussions concernant votre traitement?
2. Did you feel like you were treated with respect and dignity while you were in the hospital?  
Avez-vous le sentiment d'être traité (e) avec respect et dignité durant votre séjour à l'hôpital?
3. How would you rate the courtesy of the staff who admitted you?  
Comment évalueriez-vous la courtoisie du personnel qui a procédé à votre admission?
4. How would you rate the courtesy of your doctors?  
Comment évalueriez-vous la courtoisie des médecins à votre égard?
5. How would you rate the courtesy of your nurses?  
Comment évalueriez-vous la courtoisie de vos infirmiers (ères)?

### 5. Information and Education

**Survey Questions:**

1. When you had important questions to ask a doctor, did you get answers you could understand?  
Lorsque vous avez posé des questions importantes au médecin, avez-vous reçu les réponses faciles à comprendre?
2. When you had important questions to ask a nurse, did you get answers you could understand?  
Lorsque vous avez posé des questions importantes à un (e) infirmier (ère), avez-vous reçu des réponses faciles à comprendre?
3. Did a doctor or nurse explain the results of tests in a way you could understand?  
Est-ce qu'un médecin ou un(e) infirmier (ère) vous a expliqué les résultats de vos tests d'une manière facile à comprendre?

**6. Continuity and Transition**

**Survey Questions:**

1. Did someone on the hospital staff explain the purpose of the medicines you were to take at home in a way you could understand?  
Est-ce qu'on vous a expliqué, d'une manière facile à comprendre, pourquoi vous deviez prendre certains médicaments une fois de retour à la maison?
2. Did someone tell you about medication side effects to watch for when you went home?  
Est-ce qu'on vous a expliqué les effets secondaires possibles associés à ces médicaments que vous deviez surveiller une fois de retour à la maison?
3. Did they tell you what danger signals about your illness or operation to watch for after you went home?  
Est-ce qu'on vous a expliqué les symptômes possibles associés à votre maladie ou à votre opération que vous deviez surveiller une fois de retour à la maison?
4. Did they tell you when you could resume your usual activities, such as when to go back to work or drive a car?  
Est-ce qu'on vous a expliqué quand vous pourriez reprendre vos activités normales, comme retourner au travail ou conduire une voiture?
5. Did you know who to call if you needed help or had more questions after you left the hospital?  
Saviez-vous à qui vous adresser si vous aviez besoin d'aide ou aviez des questions après votre départ de l'hôpital?

**7. Family Involvement**

**Survey Questions:**

1. Did your family or someone close to you have enough opportunity to talk to your doctor?  
Est-ce que votre famille ou un proche a eu suffisamment d'occasions pour parler avec votre médecin?
2. How much information about your condition or treatment was given to your family or someone close to you?  
Comment évalueriez-vous la quantité de renseignements fournie à votre famille ou à vos proches au sujet de votre état ou de vos traitements?
3. Did the doctors and nurses give your family or someone close to you all the information they needed to help you recover?  
Est-ce que les médecins et les infirmiers (ères) ont fourni les renseignements nécessaires à votre famille ou à vos proches pour qu'ils puissent vous aider à vous rétablir?

## 8. Emotional Support

### Survey Questions:

1. If you had any anxieties or fears about your condition or treatment, did a doctor discuss them with you?  
Si vous avez exprimé des préoccupations ou des craintes au sujet de votre état ou de vos traitements, est-ce qu'un médecin en a discuté avec vous?
2. If you had any anxieties or fears about your condition or treatment, did a nurse discuss them with you?  
Si vous avez exprimé des préoccupations ou des craintes au sujet de votre état ou de vos traitements, est-ce qu'un (e) infirmier (ère) en a discuté avec vous?
3. Did you have confidence and trust in the doctors treating you?  
Aviez-vous confiance dans les médecins qui vous ont traité?
4. Did you have confidence and trust in the nurses treating you?  
Aviez-vous confiance dans les infirmiers (ères) qui vous ont traité?
5. Was it easy for you to find someone on the hospital staff to talk to about your concerns?  
Vous était-il facile de trouver un membre du personnel hospitalier à qui parler de vos préoccupations?

## The Two Functional Indicators

These indicators, available only in the e-Scorecard, are assessments of the quality of the care received from health care providers

### 1. Physician Care

#### Survey Questions:

1. When you had important questions to ask a doctor, did you get answers you could understand?  
Lorsque vous avez posé des questions importantes au médecin, avez-vous reçu les réponses faciles à comprendre?
2. If you had any anxieties or fears about your condition or treatment, did a doctor discuss them with you?  
Si vous avez exprimé des préoccupations ou des craintes au sujet de votre état ou de vos traitements, est-ce qu'un médecin en a discuté avec vous?
3. Did you have confidence and trust in the doctors treating you?  
Aviez-vous confiance dans les médecins qui vous ont traité?
4. How would you rate the courtesy of your doctors?  
Comment évalueriez-vous la courtoisie des médecins à votre égard?
5. How would you rate the availability of your doctors?  
Comment évalueriez-vous la disponibilité des médecins?
6. Overall, how would you rate the care you received from your doctors?  
Dans l'ensemble, comment évalueriez-vous les soins que vous avez reçus des médecins?
7. Did your family or someone close to you have enough opportunity to talk to your doctor?  
Est-ce que votre famille ou un proche a eu suffisamment d'occasions pour parler avec votre médecin?

## **2. Nursing Care**

### **Survey Questions:**

1. When you had important questions to ask a nurse, did you get answers you could understand?  
Lorsque vous avez posé des questions importantes à un (e) infirmier (ère), avez-vous reçu des réponses faciles à comprendre?
2. If you had any anxieties or fears about your condition or treatment, did a nurse discuss them with you?  
Si vous avez exprimé des préoccupations ou des craintes au sujet de votre état ou de vos traitements, est-ce qu'un (e) infirmier (ère) en a discuté avec vous?
3. Did you have confidence and trust in the nurses treating you?  
Avez-vous confiance dans les infirmiers (ères) qui vous ont traité?
4. How would you rate the courtesy of your nurses?  
Comment évalueriez-vous la courtoisie de vos infirmiers (ères)?
5. How would you rate the availability of your nurses?  
Comment évalueriez-vous la disponibilité de vos infirmiers(ères)?

## **Calculating the Indicator Scores**

Each question within an indicator carries equal weighting in the calculation of the indicator score. Indicator scores are calculated at the patient-level, where a patient has valid, score-able responses for at least half of the items belonging to that indicator.

A variety of response scales were used in the patient satisfaction questionnaire. Some questions employed a Likert-type scale with five response choices: “Poor”, “Fair”, “Good”, “Very Good”, “Excellent”. These were assigned the following scores: Poor = 0, Fair = 25, Good = 50, Very Good = 75, Excellent = 100.

Other questions used a three point scale with responses resembling: “Yes, Always”, “Yes, Sometimes”, “No”. These were assigned the following scores: “Yes, Always” = 100, “Yes, Sometimes” = 50, “No” = 0. A number of these questions had a fourth, and sometimes a fifth, viable selection. For example, the question “Did someone tell you about medication side effects to watch for when you went home?” had the response options “No medicines at home” and “Didn’t need explanation”. These were both acceptable responses to the question, but neither was assigned a score.

There were also questions using three-point scoring schemes with responses similar to those outlined above, but where the awarding of points was reversed. For example, the question “Did the doctors talk in front of you as if you weren’t there?” would be scored: “Yes, often” = 0, “Yes, Sometimes” = 50, “No” = 100.

The question “If you had to wait to go to your room, did someone from the hospital explain the reason for the delay?” was scored: Yes = 100, No = 0, “Didn’t have to wait” receives no score. The questions “Was there one particular doctor in charge of your care in the hospital?” and “Did you know who to call if you needed help or had more questions after you left the hospital?” were scored: Yes = 100, No = 0, Not sure = 0.

The questions “How much information about your condition or treatment was given to your family or someone close to you?” and “Overall, how much pain medicine did you get?” were scored: “Not enough” = 0, “Too much” = 0, “Right Amount” = 100. The former also had the response options “No family or friends involved” and “Family didn’t want or need information”, neither of which received a score.

The question “How organized was the admission process?” was scored: “Not organized at all” = 0, “Somewhat Organized” = 50, “Very Organized” = 100.

For a full listing of the questionnaire’s items and related scoring, see Appendix A.

## **Risk-Adjustment**

---

In comparing hospitals on the quality of their patient care, it is important to take into account differences in patient characteristics that may vary systematically among

hospitals. In clinical research this is called risk-adjustment, where patient scores are adjusted to remove pre-existing influences. This issue is particularly important because certain groups of patients tend to systematically report lower levels of satisfaction than other groups. If a hospital tends to serve a disproportionate number of such patients, it may be unfairly reported as having lower patient satisfaction, when in fact, satisfaction may be comparable to another hospital with higher satisfaction scores that simply serves a different population. Therefore, to improve hospital comparability, a statistical technique called hierarchical modeling was used to control for possible differences in pre-existing patient characteristics. Hierarchical modeling is a way of looking at outcomes, in this case patient satisfaction scores, and their relationships to particular factors that can be used to predict them. Hierarchical models differ from multivariate regression models (used in past years of the Hospital Report) in that they take into account the fact that the data are nested into distinct groups (in this case, patients nested into hospital corporations). Hierarchical models allow the hospital corporation's effect on the resulting model to vary from hospital to hospital, essentially treating the corporation itself as a risk-adjustment variable. As in previous *Reports*, five different factors, or predictor variables, were used at some stage of the risk-adjustment.

Characteristics that are most commonly used in risk-adjustment of patient satisfaction scores are age and gender<sup>6,7</sup>. Previous research has found that older patients tend to report slightly higher satisfaction than younger patients. Similarly, men tend to be slightly more satisfied with their care than women. Both of these variables were used in the risk-adjustment.

In addition, questions assessing patients' perception of the severity of their conditions were also used. Less healthy patients may systematically report different levels (higher or lower) of satisfaction than do relatively healthier patients, regardless of the quality of hospital care they received<sup>8</sup>. Thus, questions asking about self-assessed health status and the number of times the patient was hospitalized in the past six months were also used in the risk-adjustment.

Finally, a question asking if someone other than the patient had completed the survey was considered. A hospital might care for relatively more patients who were less able to complete the survey because of age, language barriers, or illness, for example. If these proxy respondents tended to give different (higher or lower) responses than actual patients, then a biased representation of the satisfaction scores for that hospital would result. A decision was made this year not to include the proxy variable in the risk-adjustment model, but rather, to divide the dataset into 'patient' responses and 'proxy' responses, and then to risk-adjust them separately.

The risk-adjustment was performed separately for each of the 14 indicators (four Hospital Report indicators, eight Picker-based indicators, two Functional indicators). The results of this analysis were then used to construct new patient satisfaction scores, removing any variation in the original scores that was attributable to the predictors used in the risk-adjustment.

### ***Risk-Adjustment Procedure***

- The patient satisfaction data was divided into two sets: one including surveys that were completed by the patients themselves; the other including surveys that were completed by someone else (i.e. by proxy).
- The model that was chosen to risk-adjust the 'patient' responses included the fixed effects of the variables age, gender, self-assessed health, number of hospital stays in the past six months, and a squared age term ( $age^2$ ). This model also included the random effects of the hospital corporation (allowing the intercept of the model to vary by corporation) and age (allowing the effect on the model of an individual's age to vary by corporation). The model that was chosen to risk-adjust the 'proxy' responses included the variables gender, self-assessed health, and number of hospital stays in the past six months. Again, this model included the random effect of the hospital corporation.
- Based on the resulting models, residual scores were calculated for each patient level record. The residual is the portion of the original score that cannot be explained or predicted by the model. The residual score is, therefore, the result of some unknown source of variation in the data. Note: a patient's 'residual' score plus their 'predicted' score adds to their original score. An individual's 'predicted' score is the score that is output when all of the patient's risk-adjustment characteristics are put into the model.
- Each patient's residual score is added to the overall mean of the 'predicted' scores to yield their risk-adjusted score.
- Before re-combining the newly risk-adjusted 'patient' and 'proxy' datasets, a 'Proxy bump' is applied. The mean patient scores for each of these datasets (patient, proxy) were calculated by approximate 10-year age bands (18-29, 30-39, etc.). The difference between the mean scores of the corresponding age bands in the two datasets was calculated and added to the 'proxy' responses to bump them to the same level as the 'patient' responses (the 'proxy' means were lower than the 'patient' means in all but one instance, where no bump was applied).
- The 'patient' and 'proxy' datasets are then combined.

Note: Missing values in the risk-adjustment variables were assigned valid responses (see Tables 1a & 1b).

## ***Risk-adjustment for Sex-Disaggregated Patient Satisfaction Results***

The Patient Satisfaction sex-disaggregated results were risk-adjusted slightly differently from those in the regular analysis. So as not to compensate for the differences between males and females, the risk-adjustment was performed on the data using the same methodology as outlined above, but without controlling for the effect of gender. As a result, variation in the data due to differences between males and females will remain intact.

All other aspects of the risk-adjustment for the sex-disaggregated results – including the separate adjustments for ‘patient’ and ‘proxy’ groups, the other covariates in the models, and the ‘proxy bump’ – are consistent with the methodologies of the regular patient satisfaction analysis.

### ***Missing Values for Predictors Used in Risk-Adjustment***

Table 1: FY 2005/2006

<b>Predictor</b>	<b>Frequency</b>	<b>Percent</b>	<b>Default substitution for missing values</b>
Proxy Question	1559	2.75%	A proxy response
Age	4	0.01%	N/A
Gender	0	0%	Female
Self-assessed health	1300	2.30%	The mode for all other patients from the same corporation
Past Hospitalizations in previous 6 months	2547	4.50%	One stay in past 6 months (i.e. the “Only this time” response)

### ***Descriptive Statistics for Predictors Used in Risk-Adjustment***

Table 2: Descriptive Statistics for Proxy Question FY 2005/2006

	<b>Frequency</b>	<b>Percent</b>
Patient response	46890	82.83%
Proxy response	9717	17.17%

### ***Patient-response Statistics***

Table 3: Descriptive Statistics for Age FY 2005/2006

<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>Std Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>
46890	18	101	63.0496	15.6616	-0.5811	-0.1779

Table 4: Descriptive Statistics for Gender FY 2005/2006

	Frequency	Percent
Female	24222	51.66%
Male	22668	48.34%

Table 5: Descriptive Statistics for Self-Assessed Health FY 2005/2006

	Frequency	Percent
Poor	2701	5.76%
Fair	10362	22.10%
Good	18098	38.60%
Very Good	12057	25.71%
Excellent	3672	7.83%

Table 6: Descriptive Statistics for number of Hospital Stays in the Past Six Months FY 2005/2006

	Frequency	Percent
Only this time	33081	70.55%
This time and one other time	8957	19.10%
This time and more than one other time	4852	10.35%

### ***Proxy-response Statistics***

Table 7: Descriptive Statistics for Age FY 2005/2006

N	Min.	Max.	Mean	Std Dev.	Skewness	Kurtosis
9717	18	101	72.8233	14.3121	-1.3185	1.9851

Table 8: Descriptive Statistics for Gender FY 2005/2006

	Frequency	Percent
Female	4661	47.97%
Male	5056	52.03%

Table 9: Descriptive Statistics for Self-Assessed Health FY 2005/2006

	Frequency	Percent
Poor	2124	21.86%
Fair	3153	32.45%
Good	3103	31.93%
Very Good	1027	10.87%
Excellent	310	3.19%

Table 10: Descriptive Statistics for number of Hospital Stays in the Past 6 Months  
FY 2005/2006

	<b>Frequency</b>	<b>Percent</b>
Only this time	5641	58.05%
This time and one other time	2197	22.61%
This time and more than one other time	1879	19.34%

## Weighting

---

### ***Hospital Unit Weights***

Not all hospital corporations adopted the same sampling strategies. While some smaller corporations may have used simple random sampling techniques, some of the larger hospital corporations may have drawn samples from units within their corporation to better reflect their particular structure (i.e. stratified sampling). Weights are necessary in hospital-specific analysis to ensure that a hospital's patient sample reflects the actual discharge pattern of the units that make up that hospital corporation.

Hospital unit weights were calculated using the patient data files that hospitals provided to NRC. The expectation was that these patient data files would yield a reasonable approximation of actual discharge patterns from a hospital. Within each hospital corporation, a weight was calculated for each unit and month by comparing the sample population to the discharge population. This means that each unit within a corporation can have as many as 12 distinct weights (one for each month of data). For every corporation/unit/month combination where it was not possible to calculate a weight, a weight of 1 was assigned.

For each hospital corporation, the goal of weighting is to make the distribution of the sampled population resemble that of the discharged population. Ideally, unit X would represent the same proportion of cases in the sample population as it does in the discharge population. If this is the case, then a weight of 1 is assigned to each case within unit X. If unit X is under-represented in the sample (i.e. it has proportionately fewer cases in the sample population than in the discharge population), then every case from that unit will receive a weight greater than one to compensate. Similarly, cases from units that are over-represented will receive weights smaller than one (but greater than zero; there are no negative weights).

These hospital unit weights were applied throughout the patient satisfaction analysis. They were applied in the risk adjustment with hierarchical models, and the calculation of hospital-specific indicator scores. These were also used, along with corporation weights, in calculating indicator scores by region (LHIN) and peer group, and in calculating province-level satisfaction scores (note: these provincial scores are not those used for the performance allocation).

### ***Corporation Weights***

A different set of weights was required (along with the hospital unit weights) for the calculation of indicator scores at the peer group, regional, and provincial level. Where above, we discussed weights for units within a corporation, here we need to consider weights for corporations within the province. In calculating broader indicator scores, we have to ensure that the size of a corporation's sample population within the entire sample is proportional to the size of its discharge population within the entire discharge population (i.e. all discharges for the participating Ontario hospitals). A corporation that is either over-represented or under-represented in the sample will see weights applied to its cases accordingly.

Discharge information from the 2005-2006 Discharge Abstract Database (DAD) was used to calculate the corporation weights. Obstetric and psychiatric cases were removed from the DAD data using CMG codes. Cases with ages 0-17 were removed, as well as any remaining cases (18 years old or above) belonging to either The Hospital for Sick Children or CHEO.

## Response Rates

---

For the 2005-2006 fiscal year, the overall response rate was 47.7%. Males had a response rate of 47.8% while females had a response rate of 47.6%. The mean hospital response rate was 49.2%, and the median response rate was 48.8%. The lowest response rate for a given hospital corporation was 33.0%.

## Hospital-Specific Analysis: Assessing Relative Performance

---

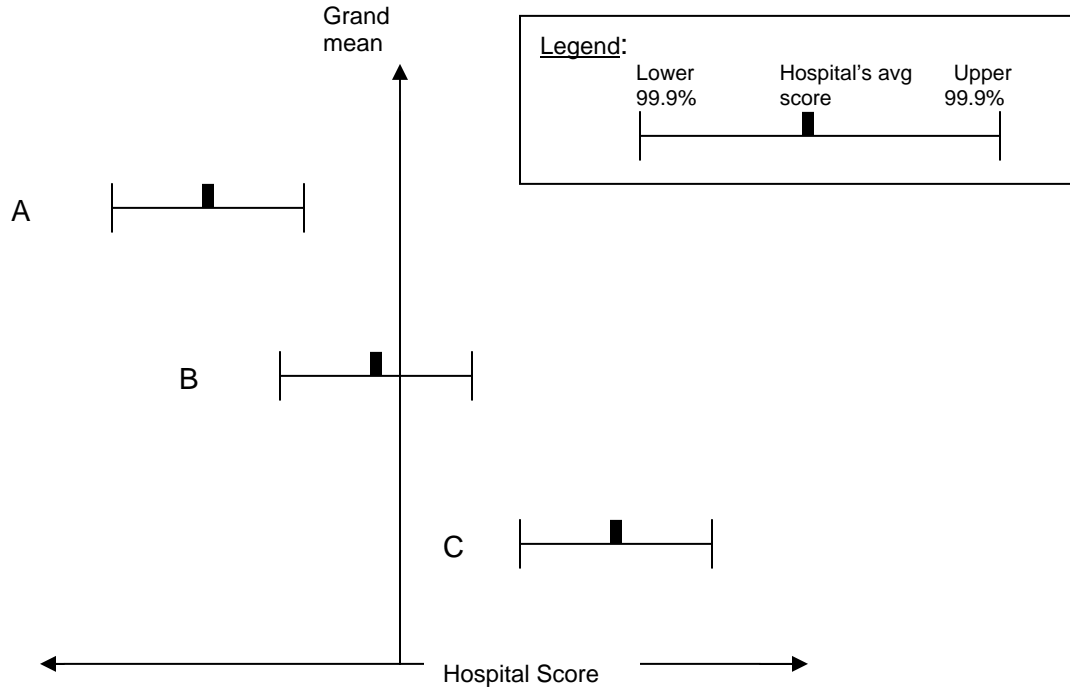
Each hospital's performance on each indicator is designated "above average", "average", or "below average". For the patient satisfaction indicators, two criteria were used to assess each hospital's performance. Statistical significance was used to assign hospitals to the above average performance category. This criterion alone, however, was insufficient when designating hospitals as having below average performance. The calculation of statistical significance relies heavily on sample size, and different hospitals in this project had dramatically different sample sizes. It was possible to find statistically significant differences from average in hospitals with a larger sample size, even though those differences were small and not substantive. A second criterion, described below, was used for assigning hospitals to the below average performance category.

A 99.9% Confidence Interval (CI) was calculated for each indicator score within each hospital. Each hospital was compared to the average indicator score for all hospitals (the grand mean otherwise known as the provincial target):

- "Above average" performance allocations were given to hospitals with indicator scores that were significantly statistically above the grand mean, using the 99.9% CI. This means that the lower bound of the confidence interval was higher than the grand mean.
- "Provincial Average" performance allocations were given to hospitals with indicator scores not significantly different from the grand mean.
- "Below average" performance allocations were given to hospitals with indicator scores both statistically significantly below the grand mean and lower than all non-significant hospital indicator scores. This means that the upper bound of the confidence interval was below the grand mean, and the hospital's indicator score was lower than the scores of all hospitals that were allocated an "average" performance.

### **Step 1: Calculate 99.9% CIs and Compare to Grand Mean**

Figure 1.1: Procedure for Determining a Hospital's Performance Category



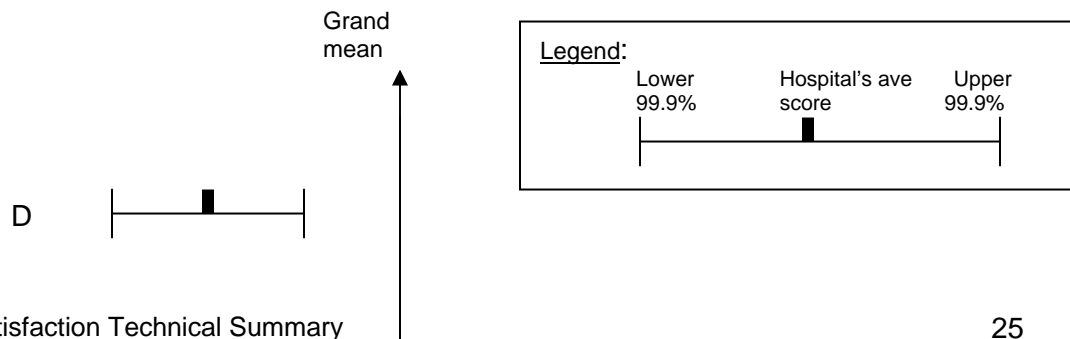
**HOSPITAL A:** The grand mean is above the upper 99.9% CI. The average indicator score for hospital A is estimated to be less than the grand mean (average of all hospital average) 999 times out of 1000.  
 ALLOCATION: Below average

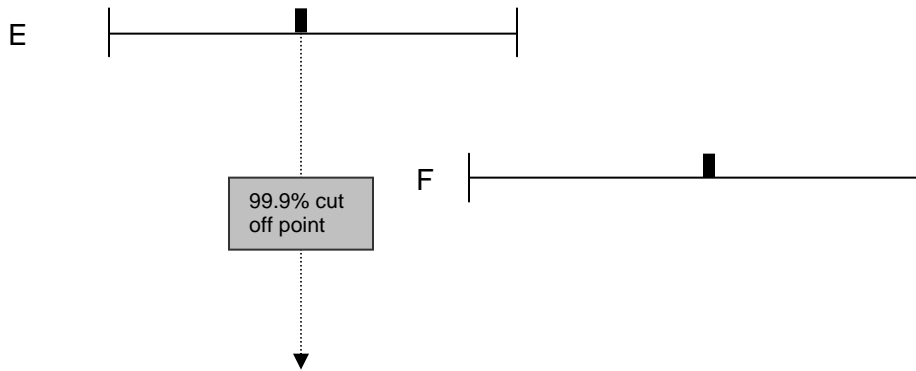
**HOSPITAL B:** The grand mean falls between the upper and lower 99.9% CI of the hospital average. The average indicator score for hospital B is estimated to not be significantly different than the grand mean 999 times out of 1000.  
 ALLOCATION: Provincial Average

**HOSPITAL C:** The grand mean is below the lower 99.9% CI. The average indicator score for hospital C is estimated to be greater than the grand mean 999 times out of 1000.  
 ALLOCATION: Above average

**Step 2: Apply Low Cut-Off Point**

Figure 1.2: Applying the Low Cut-Off Point for Performance Allocations





### **Confidence Intervals and the Allocation Bias**

The value for each patient satisfaction indicator represents the average response of patients surveyed. Hospitals that survey a greater number of patients tend to have a narrower confidence interval. This means that we are generally more confident (99.9%) that the true indicator score is within this narrow band. Conversely, hospitals that survey fewer patients would be more likely to have a wider confidence interval. Therefore, hospitals with an average score below the grand mean would be more likely to receive an allocation of "provincial average" when they have a wider confidence interval while a hospital with the same score with a narrow confidence interval would be more likely to receive an allocation of "below average". To prevent this problem, a low cut-off point was used for the "below average" allocation.

#### **99.9% Low Cut-off Point (HOSPITAL D & E)**

Hospital D has the same average score as hospital E. However, based on the allocation process previously described, hospital D would receive a lower allocation (below average) than hospital E (provincial average) due to the size of the confidence intervals. A low cut-off point is applied to prevent this bias against hospitals that have a greater sample size/narrower confidence interval.

The 99.9% low cut-off point is determined by identifying the lowest indicator score of those hospitals that received an allocation of "provincial average" (and for which the grand mean fell within the 99.9% CI). Any hospital with an average score which falls between this low cut-off point and the grand mean receives an allocation of "provincial average" irrespective of whether the upper 99.9% confidence limit falls below the "provincial average". Therefore, hospital D which has the same average score as hospital E would also receive an allocation of "provincial average".

#### **What About an Above Average Cut-off Point? (HOSPITAL F & G)**

Note that although a low cut-off point was applied to prevent a bias against poorer allocation of performance for hospitals with a greater sample size and narrower confidence interval, this process was not applied for above average performance. Conversely applied, this process would penalize hospitals that have a greater sample size and narrower confidence interval by lowering the performance score when in fact

the hospital is significantly above average. As a result, while both hospital F and G have the same average score, hospital G would receive an "above average" allocation, while hospital F would receive a "provincial average" allocation.

The following table represents the lower cut off points for all the indicators.

**Table 11: 99.9% Low Cut-Offs (FY 2005-2006 only)**

Indicator Group	Indicator	99.9% Low Cut-Off
Hospital Report Indicators	Overall Impressions	82.5002
	Responsiveness	79.7618
	Consideration	79.1916
	Communication	72.9218
Picker-based Indicators	Overall Satisfaction	77.3769
	Coordination of Care and Access	78.2664
	Physical Comfort	84.1449
	Respect for Patient Preferences and Courtesy	79.1916
	Information and Education	81.1921
	Continuity and Transition	67.9360
	Involvement of Family	74.0337
	Emotional Support	78.4814
Functional Indicators	Physician Care	77.9980
	Nursing Care	77.5826

## **Statistics Provided for Hospital Comparisons with Provincial Results**

Descriptive information is provided on the following pages. This will allow individual hospital corporations to be compared with the province as a whole. Included for each scale for all hospitals overall, and for hospitals by peer group, is the valid N, the grand mean, the standard deviation of the hospital averages, the median, and the range. Note: The "All Hospitals" and peer group means presented in these tables are calculated using weighted and risk-adjusted data, and they exclude data from participating hospitals that did not pass the volume screen. For these reasons, the means will not match those presented in the Executive Summary or e-Scorecard. They are presented as a useful tool for hospital comparison.

### **HOSPITAL REPORT INDICATORS:**

**Table 12: Overall Impressions FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	83.75	88.06	82.35	85.29
Std Deviation	21.26	15.41	21.78	20.88
Minimum	74.62	84.73	74.62	83.94
25 <sup>th</sup> Percentile	83.68	87.17	82.19	84.54

Median	85.29	89.51	84.73	84.95
75 <sup>th</sup> Percentile	87.98	91.75	86.88	85.67
Maximum	94.42	94.42	90.47	88.63

**Table 13: Responsiveness FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	81.12	86.81	80.53	81.49
Std Deviation	18.62	13.05	18.77	18.87
Minimum	72.87	83.41	72.87	79.81
25 <sup>th</sup> Percentile	80.82	85.91	80.34	80.82
Median	84.00	88.67	83.50	81.28
75 <sup>th</sup> Percentile	85.92	90.77	85.38	82.14
Maximum	92.28	92.28	88.40	86.50

**Table 14: Consideration FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	80.09	85.64	78.92	81.23
Std Deviation	20.57	14.85	20.79	20.68
Minimum	71.74	82.77	71.74	79.28
25 <sup>th</sup> Percentile	80.30	85.38	79.04	80.33
Median	82.41	86.60	81.66	81.20
75 <sup>th</sup> Percentile	84.62	89.18	84.04	82.17
Maximum	91.53	91.53	86.99	84.61

**Table 15: Communication FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	77.04	81.08	75.92	78.21
Std Deviation	25.85	20.13	26.08	25.99
Minimum	69.88	77.36	69.88	75.22
25 <sup>th</sup> Percentile	76.44	80.45	75.35	77.11
Median	78.61	82.60	78.24	77.62
75 <sup>th</sup> Percentile	81.32	85.46	80.19	79.64
Maximum	88.89	88.89	83.74	84.64

**PICKER-BASED INDICATORS:**

**Table 16: Overall Satisfaction FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	80.48	85.40	78.60	82.60
Std Deviation	23.98	17.26	24.46	23.65
Minimum	70.06	81.55	70.06	80.43

25 <sup>th</sup> Percentile	80.12	84.73	78.27	81.71
Median	82.35	86.81	81.50	82.46
75 <sup>th</sup> Percentile	85.76	89.51	83.79	83.27
Maximum	93.20	93.20	88.40	85.98

**Table 17: Coordination of Care and Access FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	79.79	85.64	79.34	79.96
Std Deviation	18.95	13.33	18.95	19.42
Minimum	71.79	82.07	71.79	78.44
25 <sup>th</sup> Percentile	79.79	84.95	79.27	79.79
Median	82.09	86.73	81.63	80.04
75 <sup>th</sup> Percentile	84.77	89.90	83.84	80.71
Maximum	91.52	91.52	87.93	85.34

**Table 18: Physical Comfort FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	85.81	91.59	85.09	86.34
Std Deviation	23.47	15.65	23.76	23.70
Minimum	77.64	88.77	77.64	82.72
25 <sup>th</sup> Percentile	85.24	89.98	84.21	84.20
Median	89.07	92.75	88.63	85.86
75 <sup>th</sup> Percentile	91.88	94.94	91.37	87.96
Maximum	96.05	96.05	94.52	90.32

**Table 19: Respect for Patient Preferences and Courtesy FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	80.09	85.64	78.92	81.23
Std Deviation	20.57	14.85	20.79	20.68
Minimum	71.74	82.77	71.74	79.28
25 <sup>th</sup> Percentile	80.30	85.38	79.04	80.33
Median	82.41	86.60	81.66	81.20
75 <sup>th</sup> Percentile	84.62	89.18	84.04	82.17
Maximum	91.53	91.53	86.99	84.61

**Table 20: Information and Education FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	83.89	87.78	82.88	84.93
Std Deviation	24.89	18.68	25.27	24.88
Minimum	77.80	84.49	77.80	82.49

25 <sup>th</sup> Percentile	83.54	86.71	82.70	83.33
Median	85.57	88.53	84.87	84.13
75 <sup>th</sup> Percentile	87.40	92.67	86.78	85.53
Maximum	96.55	96.55	90.18	88.80

**Table 21: Continuity and Transition FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	72.18	75.40	70.89	73.62
Std Deviation	33.39	26.60	33.47	33.88
Minimum	63.97	70.86	63.97	69.21
25 <sup>th</sup> Percentile	70.86	75.09	69.59	71.44
Median	73.90	78.47	73.28	74.01
75 <sup>th</sup> Percentile	76.88	79.48	75.92	75.55
Maximum	83.33	83.33	80.90	82.64

**Table 22: Involvement of Family FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	77.50	81.13	76.63	78.37
Std Deviation	33.96	26.57	34.21	34.28
Minimum	71.58	76.44	71.58	75.85
25 <sup>th</sup> Percentile	76.44	79.94	75.72	77.88
Median	79.52	84.05	79.33	78.23
75 <sup>th</sup> Percentile	81.52	88.23	80.69	81.46
Maximum	92.85	92.85	86.05	84.63

**Table 23: Emotional Support FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	81.35	85.73	80.21	82.53
Std Deviation	24.45	18.37	24.77	24.50
Minimum	73.02	82.43	73.02	79.81
25 <sup>th</sup> Percentile	80.98	84.37	80.10	81.16
Median	83.22	87.59	82.92	81.60
75 <sup>th</sup> Percentile	85.57	89.95	85.06	84.07
Maximum	91.61	91.61	88.65	86.51

**FUNCTIONAL INDICATORS:**

**Table 24: Physician Care FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	79.96	83.08	79.11	80.87
Std Deviation	23.02	17.93	23.25	23.15
Minimum	73.87	79.09	73.87	78.47
25 <sup>th</sup> Percentile	79.14	81.90	78.74	80.27
Median	81.10	84.38	80.58	80.86
75 <sup>th</sup> Percentile	82.90	88.16	82.04	82.43

Maximum	91.05	91.05	86.49	85.25
---------	-------	-------	-------	-------

**Table 25: Nursing Care FY 2005/2006**

	All Hospitals	Small	Community	Teaching
Valid N	86	15	60	11
Mean	78.29	84.80	77.08	79.40
Std Deviation	25.04	17.45	25.22	25.38
Minimum	68.61	81.97	68.61	75.57
25 <sup>th</sup> Percentile	77.91	84.05	77.00	76.89
Median	81.58	85.07	80.64	79.44
75 <sup>th</sup> Percentile	84.02	89.19	83.59	81.56
Maximum	90.65	90.65	87.12	83.78

### **Summary of Results**

This year, small hospitals generally continue to report higher indicator scores than larger community and teaching hospitals in all four dimensions of patient satisfaction.

The highest reported indicator was the overall impressions indicator. This measures the patients' views of their overall hospital experience, including quality of care and services they received at the hospital and their confidence in the hospital staff who cared for them. Of all the indicators, the lowest average scores across the province were related to communication. Again this year, patients continue to indicate that they are least satisfied with the amount of information and quality of communication they received about their condition, treatment and preparation for discharge and care at home. Although there is a large variation among hospitals' scores in all indicators, hospitals can continually strive and use different opportunities in improving patients' perception of the quality of care.

## Appendix A: Questionnaire Items

Questionnaire items, including Hospital Report scoring scheme.

\* Indicates that the item is not part of any of the indicators

#	Question	Response options	Scoring
1*	Were you: <input type="checkbox"/> Admitted through the emergency department <input type="checkbox"/> Admitted through a planned admission by your doctor <input type="checkbox"/> Admitted unexpectedly after a day procedure or test <input type="checkbox"/> Transferred from another facility <input type="checkbox"/> Other		
2	How organized was the admission process?	Not at all organized Somewhat organized Very organized	0 50 100
3	Do you feel you had to wait an unnecessarily long time to go to your room?	Yes, definitely Yes, somewhat No	0 50 100
4*	If you had to wait to go to your room, did someone from the hospital explain the reason for the delay?	Yes No Didn't have to wait	
5	How would you rate the courtesy of the staff who admitted you?	Poor Fair Good Very Good Excellent	0 25 50 75 100
6	Was there one particular doctor in charge of your care in the hospital?	Yes No Not sure	100 0 0
7	When you had important questions to ask a doctor, did you get answers you could understand?	Yes, always Yes, sometimes No Didn't have questions	100 50 0 no score
8	If you had any anxieties or fears about your condition or treatment, did a doctor discuss them with you?	Yes, completely Yes, somewhat No Didn't have anxieties or fears	100 50 0 no score
9	Did you have confidence and trust in the doctors treating you?	Yes, always Yes, sometimes No	100 50 0
10*	Did doctors talk in front of you as if you weren't there?	Yes, often Yes, sometimes No	
11	How would you rate the courtesy of your doctors?	Poor Fair Good Very Good Excellent	0 25 50 75 100
12	How would you rate the availability of your doctors?	Poor Fair Good Very Good Excellent	0 25 50 75 100
13	Overall, how would you rate the care you received from your doctors?	Poor Fair Good Very Good	0 25 50 75

Hospital Report 2007: Acute Care

		Excellent	100
14	When you had important questions to ask a nurse, did you get answers you could understand?	Yes, always Yes, sometimes No Didn't have questions	100 50 0 no score
15	If you had any anxieties or fears about your condition or treatment, did a nurse discuss them with you?	Yes, completely Yes, somewhat No Didn't have anxieties or fears	100 50 0 no score
16	Did you have confidence and trust in the nurses treating you?	Yes, always Yes, somewhat No	100 50 0
17*	Did nurses talk in front of you as if you weren't there?	Yes, often Yes, sometimes No	
18	How would you rate the courtesy of your nurses?	Poor Fair Good Very Good Excellent	0 25 50 75 100
19	How would you rate the availability of your nurses?	Poor Fair Good Very Good Excellent	0 25 50 75 100
20	Sometimes in the hospital, one doctor or nurse will say one thing and another will say something quite different. Did this happen to you?	Yes, always Yes, sometimes No	0 50 100
21	Did you have enough say about your treatment?	Yes, definitely Yes, somewhat No	100 50 0
22	Did your family or someone close to you have enough opportunity to talk to your doctor?	Yes, definitely Yes, somewhat No No family or friends involved Family didn't want or need to talk	100 50 0 no score no score
23	How much information about your condition or treatment was given to your family or someone close to you?	Not enough Right amount Too much No family or friends involved Family didn't want or need to talk	0 100 0 no score no score
24	Was it easy for you to find someone on the hospital staff to talk to about your concerns?	Yes, definitely Yes, somewhat No Didn't want to talk/no concerns	100 50 0 no score
25	When you needed help getting to the bathroom, did you get the help in time?	Yes, always Yes, sometimes No Didn't need help	100 50 0 no score
26	How many minutes after you used the call button did it usually take before you got the help you needed?	0 minutes/right away 1-5 minutes 6-10 minutes 11-15 minutes 16-30 minutes More than 30 minutes Never used call button Never got help	100 100 75 50 25 0 no score 0
27	In general, after you used the call button, was the time you waited for help reasonable?	Yes, completely Yes, somewhat No	100 50 0

Hospital Report 2007: Acute Care

		Didn't use call button	no score
28	Did a doctor or nurse explain the results of tests in a way you could understand?	Yes, completely Yes, somewhat No No tests were done	100 50 0 no score
29	Were your scheduled tests and procedures performed on time?	Yes, always Yes, sometimes No No tests/procedures	100 50 0 no score
30	Did you feel like you were treated with respect and dignity while you were in the hospital?	Yes, always Yes, sometimes No	100 50 0
31*	Were you ever in any pain? If no, go to #37	Yes No	
32*	When you had pain, was it usually severe, moderate, or mild?	Severe Moderate Mild	
33*	Did you ever request pain medicine? If no, go to #35	Yes No	
34	How many minutes after you requested pain medicine did it usually take before you got it?	0 minutes/right away 1-5 minutes 6-10 minutes 11-15 minutes 16-30 minutes More than 30 minutes Never got medicine	100 100 75 50 25 0 0
35	Do you think that the hospital staff did everything they could to help control your pain?	Yes, definitely Yes, somewhat No	100 50 0
36	Overall, how much pain medicine did you get?	Not enough Right amount Too much	0 100 0
37	Did someone on the hospital staff explain the purpose of the medicines you were to take at home in a way you could understand?	Yes, completely Yes, somewhat No Didn't need explanation No medicines at home	100 50 0 no score no score
38	Did someone tell you about medication side effects to watch for when you went home?	Yes, completely Yes, somewhat No Didn't need explanation No medicines at home	100 50 0 no score no score
39	Did they tell you what danger signals about your illness or operation to watch for after you went home?	Yes, completely Yes, somewhat No	100 50 0
40	Did they tell you when you could resume your usual activities, such as when to go back to work or drive a car?	Yes, completely Yes, somewhat No	100 50 0
41	Did the doctors and nurses give your family or someone close to you all the information they needed to help you recover?	Yes, definitely Yes, somewhat No No family or friends involved Family didn't want or need info	100 50 0 no score no score
42	Did you know who to call if you needed help or had more questions after you left the hospital?	Yes No Not sure	100 0 0
43	While you were in the hospital, were you able to get all the services you needed?	Yes, completely Yes, somewhat No	100 50 0
44	Overall, How would you rate the care you received at	Poor	0

*Hospital Report 2007: Acute Care*

	the hospital?	Fair Good Very Good Excellent	25 50 75 100
45	How would you rate how well the doctors and nurses worked together?	Poor Fair Good Very Good Excellent	0 25 50 75 100
46	Would you recommend this hospital to your friends and family?	Yes, definitely Yes, probably No	100 50 0
47*	How would you rate the quality of the food (how it tasted, serving temperature, variety)?	Poor Fair Good Very Good Excellent	
48*	How would you rate the condition of your room and hospital environment (cleanliness, comfort, lighting, temperature)?	Poor Fair Good Very Good Excellent	
49*	In general, how would you rate your health?	Poor Fair Good Very Good Excellent	
50*	During the past month, how many days did illness or injury keep you in bed all or part of the day?	None One Day Two Days Three Days Four Days Five to Seven Days Eight to Ten Days More than Ten Days	
51*	Including this hospital stay, how many times in the last six months have you been in a hospital overnight or longer?	Only this time This time and one other time This time and more than one other time	

*Hospital Report 2007: Acute Care*

52*	What is the highest grade or level of school that you have completed?	Public school High school College, trade, or technical school University undergraduate degree Post university/graduate education	
53*	Who completed this survey?	Patient Someone else	

## REFERENCES

---

- <sup>1</sup> Validation of the Picker Acute Care Survey in Canada. OHA Acute Care Survey Validation Report, 2003.
- <sup>2</sup> Gerteis, M., Edgman-Levitan, S., Daley, J., and Delbanco, T. (1993). Introduction: Medicine and health from the patient's perspective. In Gerteis, M et al., *Through the Patient's Eyes*. Jossey-Bass, San Francisco.
- <sup>3</sup> Cleary, P., Edgman-Levitan, S., Roberts, M., Moloney, T., McMullen, W., Walker, J., & Delbanco, T. (1991). Patients evaluate their hospital care: A national survey. *Health Affairs*, 10(4), 254-267.
- <sup>4</sup> Gerteis, M. (1993). What patient really want. *Health Management Quarterly*, 15 (3), 2-6.
- <sup>5</sup> Walker, J., Hargraves, L., Veroff, D., Fowler, E., and Cleary, P. (1995). Final Report. A second national survey of patient centered care. Grant No. 93-75. The Picker Institute, Boston.
- <sup>6</sup> Tucker J and Kelley V (2000). The influence of patient socio-demographic characteristics on patient satisfaction. *Military Medicine*, 165(1):72-6.
- <sup>7</sup> Hall JA, Milburn MA, and Epstein AM (1993). A causal model of health status and satisfaction with medical care. *Medical Care*, 31(1):84-94.
- <sup>8</sup> Ren X, Kazis L, Lee A, Rogers W, and Pendergass S (1996). The relationship between functional status and satisfaction of care among patients served by the Veterans Health Administration. *Association for Health Services Research*, 16:368-9.