

*Hospital Report 2005: Acute Care*

**Patient Satisfaction Technical Summary**

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## Overview

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Over time, Canadian hospitals have used a wide variety of patient satisfaction questionnaires, some standardized and some “home grown”, with varying amounts of surveying being done. *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, and 2003* then built on these province-wide comparisons and presented levels of patient satisfaction for each participating Ontario hospital. This year, *Hospital Report 2005: 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.

Important Note: In order to provide more timely information, in addition to the analysis of 2003-2004 data, analyses were run on all of the available 2004-2005 patient satisfaction data that had been received by mid-March 2005. Hospital level results for the 2004-2005 data are reported to serve as a general indication of how hospitals have been doing more recently. While the information is more timely, it is not complete. For this reason, performance allocations and the more detailed data breakdowns in this document will be reserved for the 2003-2004 data only.

In addition, as in previous Acute Care reports, a Women’s Health section is integrated into *Hospital Report 2005: Acute Care*. This section includes all indicators in the Patient Satisfaction quadrant stratified by sex<sup>1</sup>. Sex-stratified data and analyses are provided at a provincial level in the Executive Report, and at a hospital and aggregate levels (i.e. peer group, regional and provincial) in the E-Scorecard.

## Methodology

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### **Summary**

Approximately 138,000 individuals from participating hospitals in Ontario were sampled for the 2003/2004 Patient Satisfaction analysis. Patients discharged between April 2003 and March 2004 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,

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<sup>1</sup> Sex is biological maleness and femaleness. Gender is made up of multiple dimensions, and reflects the interaction of sex with other economic, cultural, environmental, social characteristics (e.g., age, income, ethnicity, social support), as well as roles ascribed to the sexes, and relations between the sexes. Because of the limited availability of other gender-related variables in routinely collected hospital data, the analysis is limited to sex. Pursuing gender-based analysis is an important long-term goal.

were eligible for inclusion in the sample. Nearly 49% of the sampled individuals returned their questionnaires.

The latest cut of the 2004/2005 patient satisfaction data that was available for the Hospital Report 2005: Acute care analysis included approximately 113,000 individuals from participating hospitals in Ontario, discharged between April 2004 and March 2005. Nearly 42% of the sampled individuals returned their questionnaires.

Hospital Report 2005: Acute Care is employing a different patient satisfaction-surveying tool from previous years. Where Hospital Reports '99, 2001, 2002 and 2003 used the Standardized Hospital Patient Satisfaction Survey (SHoPSS), Hospital Report 2005 is using 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 98 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 the NRC. The NRC 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. The University of Toronto provided the indicators and methodology for the patient satisfaction analysis. The 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**

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### ***Sampling Plan***

A sampling plan was collaboratively established by each participating hospital corporation and the NRC. 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 2005: Acute Care*, data was collected for all 12 months of both the 2003-2004 and 2004-2005 fiscal years (though in 2004-2005, not all hospitals had submitted all of their data before the dataset was closed to the project). 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.

A total of 138,370 surveys were sent in 2003-2004, yielding 67,298 returns (nearly 49%). Of these, 55,307 (approx. 82% of all valid returns, and 40% of all surveys) met all inclusion criteria, and are included in the analysis. By the time CIHI received the 2004-2005 dataset in mid-March 2005, a total of 112,980 surveys had been sent for this year, yielding 47,206 returns (nearly 42%). Of these, 38,956 (approx. 82.5% of all valid returns, and 34.5% of all surveys) were returned and met all inclusion criteria.

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

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, paediatric 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 paediatric 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 two hospitals most affected by this exclusion criterion are the Hospital for Sick Children and the Children's Hospital of Eastern Ontario (CHEO). All of the data from the Hospital for Sick Children and CHEO (including any records they had for patients aged 18+) have been set aside, along with all of the other valid paediatric records from the other participating hospitals, for analysis specific to paediatric cases (see Paediatric analysis section, p.39).

Surveys that were returned, but that did not have a single valid response, were treated as non-responses and dropped from the analysis. 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.

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).

## **Developing the Indicators**

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Thirty-nine of the 53 Acute Care survey questions were combined to form four indicators for the publicly released Summary Report, as well as eight Picker-based indicators and two functional indicator to be released exclusively on the private acute care 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 used in Hospital Report 2005: Acute Care***

1. **Overall Assessment:** 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 2005: Acute Care indicators are based.

#### **1. Overall Impressions**

##### **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 avez 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?  
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)?

## **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. Involvement of Family**

### **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?  
Aviez-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***

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.

## **SARS-Adjustment**

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A crisis like the SARS outbreak, forcing hospitals to adopt stringent protocols concerning elective surgeries, housekeeping, visitations, etc., will likely have a negative effect on a hospital's patient satisfaction scores for the affected time periods. In running the analysis for patient satisfaction indicators, and in assigning performance allocations, we are not interested in erroneously labeling a hospital as being "below average". It is a concern that failure to acknowledge and address biases caused by SARS might entice some hospitals to adjust or halt surveying during similar future events. In order to make it an easy decision for hospitals to continue surveying year-round, no matter what the special circumstances, we have decided to address this issue by applying a 'SARS adjustment' to all Ontario hospitals. Although select hospitals in the Toronto area were most affected by SARS, other Ontario hospitals that decided to impose the same SARS-related protocols (even though they may not have had a single SARS case) may also have seen their satisfaction scores drop during that time period. The SARS adjustment methodology is as follows:

For each corporation:

- 1) Calculate mean indicator scores for each of the 'SARS months'. These were April, May, June and July 2003.
- 2) Calculate the mean indicator scores, along with standard deviations and 90% confidence intervals, for all of the non-SARS months' data. This includes data for the periods Oct 2002 – March 2003, and August 2003 – March 2005.
- 3) Compare each of the SARS-months means to the mean of the non-SARS months. If the SARS-month mean falls below the 90% confidence interval

built around the non-SARS mean, then that SARS-month mean is 'bumped' to one standard deviation below the non-SARS month mean. The patient-level records are adjusted accordingly to achieve this.

## **Risk-Adjustment**

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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 (in this case their original score after the SARS-adjustment). 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 is 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 (Women’s Health) Patient Satisfaction Results***

The Patient Satisfaction Women’s Health 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 1a: FY 2003/2004

<b>Predictor</b>	<b>Frequency</b>	<b>Percent</b>	<b>Default substitution for missing values</b>
Proxy Question	1836	3.32%	A proxy response
Age	0	0%	N/A
Gender	15	0.03%	Female
Self-assessed health	1387	2.51%	The mode for all other patients from the same corporation
Past Hospitalizations in previous 6 months	1269	2.29%	One stay in past 6 months (i.e. the “Only this time” response)

Table 1b: FY 2004/2005

<b>Predictor</b>	<b>Frequency</b>	<b>Percent</b>	<b>Default substitution for missing values</b>
Proxy Question	1177	3.02%	A proxy response
Age	0	0%	N/A
Gender	0	0%	Female
Self-assessed health	971	2.49%	The mode for all other patients from the same corporation
Past Hospitalizations in previous 6 months	863	2.22%	One stay in past 6 months (i.e. the “Only this time” response)

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

Table 2a: Descriptive Statistics for Proxy Question FY 2003/2004

	<b>Frequency</b>	<b>Percent</b>
Patient response	46044	83.25%
Proxy response	9263	16.75%

Table 2b: Descriptive Statistics for Proxy Question FY 2004/2005

	<b>Frequency</b>	<b>Percent</b>
Patient response	32325	82.98%
Proxy response	6631	17.02%

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

Table 3a: Descriptive Statistics for Age FY 2003/2004

<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>Std Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>
46044	18	100	61.4166	16.4248	-0.4875	-0.4706

Table 3b: Descriptive Statistics for Age FY 2004/2005

<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>Std Dev.</b>	<b>Skewness</b>	<b>Kurtosis</b>
32325	18	103	62.4362	16.0489	-0.5423	-0.3009

Table 4a: Descriptive Statistics for Gender FY 2003/2004

	<b>Frequency</b>	<b>Percent</b>
Female	24729	53.71%
Male	21315	46.29%

Table 4b: Descriptive Statistics for Gender FY 2004/2005

	<b>Frequency</b>	<b>Percent</b>
Female	16878	52.21%
Male	15447	47.79%

Table 5a: Descriptive Statistics for Self-Assessed Health FY 2003/2004

	<b>Frequency</b>	<b>Percent</b>
Poor	2690	5.84%
Fair	9880	21.46%
Good	17033	36.99%
Very Good	12292	26.70%
Excellent	4149	9.01%

Table 5b: Descriptive Statistics for Self-Assessed Health FY 2004/2005

	Frequency	Percent
Poor	1901	5.88%
Fair	7333	22.69%
Good	12197	37.73%
Very Good	8241	25.49%
Excellent	2653	8.21%

Table 6a: Descriptive Statistics for number of Hospital Stays in the Past Six Months FY 2003/2004

	Frequency	Percent
Only this time	32445	70.47%
This time and one other time	8667	18.82%
This time and more than one other time	4932	10.71%

Table 6b: Descriptive Statistics for number of Hospital Stays in the Past Six Months FY 2004/2005

	Frequency	Percent
Only this time	22864	70.73%
This time and one other time	6041	18.69%
This time and more than one other time	3420	10.58%

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

Table 7a: Descriptive Statistics for Age FY 2003/2004

N	Min.	Max.	Mean	Std Dev.	Skewness	Kurtosis
9263	18	104	72.1637	14.9590	-1.1550	1.5431

Table 7b: Descriptive Statistics for Age FY 2004/2005

N	Min.	Max.	Mean	Std Dev.	Skewness	Kurtosis
6631	18	104	72.7857	14.5770	-1.2302	1.8952

Table 8a: Descriptive Statistics for Gender FY 2003/2004

	Frequency	Percent
Female	4568	49.31%
Male	4695	50.69%

Table 8b: Descriptive Statistics for Gender FY 2004/2005

	Frequency	Percent
Female	3272	49.34%
Male	3359	50.66%

Table 9a: Descriptive Statistics for Self-Assessed Health FY 2003/2004

	Frequency	Percent
Poor	2068	22.33%
Fair	2984	32.21%
Good	2899	31.30%
Very Good	1009	10.89%
Excellent	303	3.27%

Table 9b: Descriptive Statistics for Self-Assessed Health FY 2004/2005

	Frequency	Percent
Poor	1455	21.94%
Fair	2199	33.16%
Good	2065	31.14%
Very Good	714	10.77%
Excellent	198	2.99%

Table 10a: Descriptive Statistics for number of Hospital Stays in the Past 6 Months FY 2003/2004

	Frequency	Percent
Only this time	5335	57.59%
This time and one other time	2029	21.90%
This time and more than one other time	1899	20.50%

Table 10b: Descriptive Statistics for number of Hospital Stays in the Past 6 Months FY 2004/2005

	Frequency	Percent
Only this time	3863	58.26%
This time and one other time	1508	22.74%
This time and more than one other time	1260	19.00%

## Weighting

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### *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 SARS adjustment, 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 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 2003-2004 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. At the time that the analysis was run, the 2004-2005 DAD had not yet been closed, and was therefore not available to provide accurate discharge volumes for the 2004-2005 fiscal year. In calculating

weights to apply to the 2004-2005 patient satisfaction data, the 2003-2004 DAD discharge volumes were used as a reasonable alternative.

## **Response Rates**

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For the 2003/2004 fiscal year, the overall response rate was 48.6%. Males had a response rate of 48.4% while females had a response rate of 48.8%. The mean hospital response rate was 50.1%, and the median response rate was 49.6%. The lowest response rate for a given hospital corporation was 35.7%.

For the 2004/2005 fiscal year, the overall response rate was 41.8%. Males had a response rate of 41.9% while females had a response rate of 41.7%. The mean hospital response rate was 44.1%, and the median response rate was 44.5%. The lowest response rate for a given hospital corporation was 12.4%.

## **Hospital-Specific Analysis: Assessing Relative Performance**

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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):

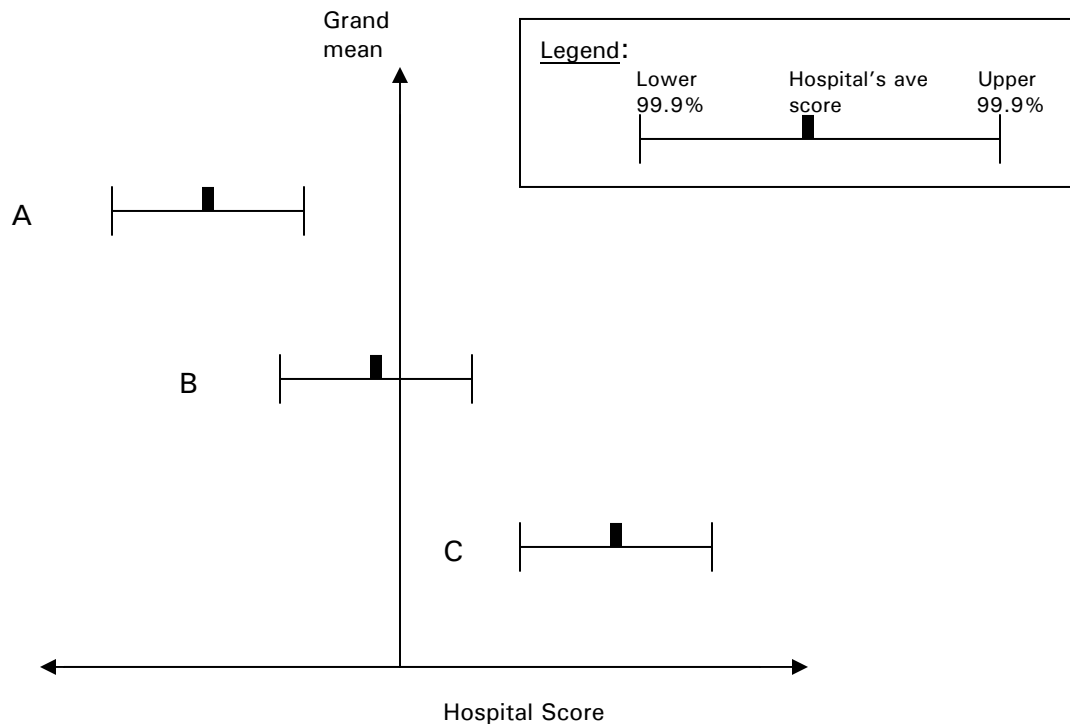
- "Above average" performance allocations were given to hospitals with indicator scores that were significantly statistically above the grand mean, using the 99.9% CI. This means that the lower bound of the confidence interval was higher than the grand mean.
- "Provincial Average" performance allocations 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.

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

#### 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

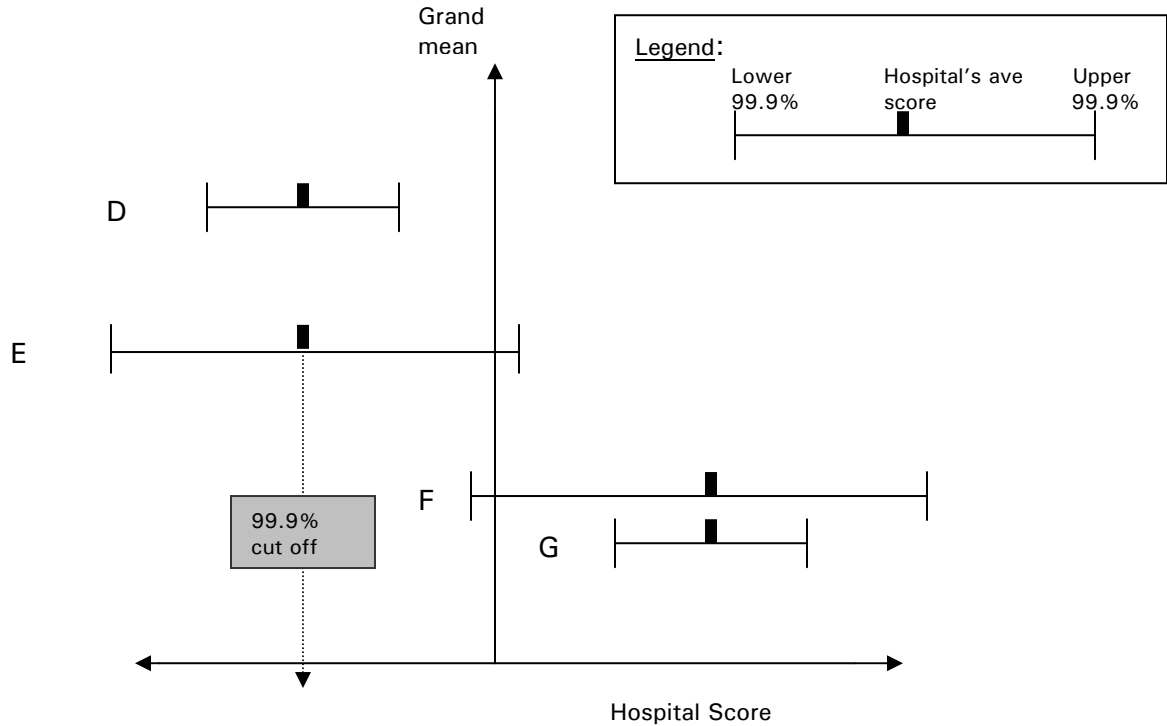
**HOSPITAL C:** The grand mean is below the lower 99.9% CI. The average indicator score for hospital C is estimated to be greater than the grand mean 999 times out of 1000.

ALLOCATION: Above average

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

**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 2003/2004 only)**

Indicator Group	Indicator	99.9% Low Cut-Off
Hospital Report Indicators	Overall Assessment	82.5103
	Responsiveness	81.0695
	Consideration	79.4657
	Communication	75.4569
Picker-based Indicators	Overall Impressions	79.1308
	Coordination of Care and Access	79.5664
	Physical Comfort	84.5440
	Respect for Patient Preferences and Courtesy	79.4657
	Information and Education	82.2983
	Continuity and Transition	68.3987
	Involvement of Family	73.3942
	Emotional Support	79.5950
Functional Indicators	Physician Care	78.0578
	Nursing Care	77.3179

## **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 12a: Overall Assessment FY 2003/2004**

	<b>All Hospitals</b>	<b>Small</b>	<b>Community</b>	<b>Teaching</b>
Valid N	87	18	59	10
Mean	84.08	89.62	83.42	85.07
Std Deviation	18.41	11.52	20.34	15.78
Minimum	76.68	84.05	76.68	81.20
25 <sup>th</sup> Percentile	83.29	88.79	82.77	84.02
Median	85.24	90.30	84.67	84.89
75 <sup>th</sup> Percentile	88.85	91.57	87.47	85.58
Maximum	94.62	94.62	91.70	88.70

**Table 12b: Overall Assessment FY 2004/2005**

	<b>All Hospitals</b>	<b>Small</b>	<b>Community</b>	<b>Teaching</b>
Valid N	88	17	61	10
Mean	83.99	88.78	83.30	85.15
Std Deviation	18.51	11.12	20.54	15.64
Minimum	75.67	82.87	75.67	82.98
25 <sup>th</sup> Percentile	83.47	88.70	82.62	84.25
Median	85.60	89.71	85.11	84.91
75 <sup>th</sup> Percentile	88.38	90.74	87.30	86.18
Maximum	93.00	93.00	92.63	87.75

**Table 13a: Responsiveness FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	81.69	88.27	81.61	81.31
Std Deviation	16.27	9.85	17.81	14.29
Minimum	75.26	83.44	75.26	76.43
25 <sup>th</sup> Percentile	81.31	86.81	81.22	80.17
Median	83.85	89.25	82.80	81.19
75 <sup>th</sup> Percentile	86.81	90.86	85.30	81.94
Maximum	93.69	93.69	89.60	84.39

**Table 13b: Responsiveness FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	81.64	87.80	81.47	81.53
Std Deviation	16.22	9.25	17.84	14.09
Minimum	74.18	82.86	74.18	79.42
25 <sup>th</sup> Percentile	81.42	87.22	80.66	80.20
Median	84.46	88.46	83.18	81.23
75 <sup>th</sup> Percentile	87.09	89.68	86.12	82.00
Maximum	90.90	90.90	90.86	85.73

**Table 14a: Consideration FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	80.68	87.08	80.29	81.03
Std Deviation	17.86	11.04	19.67	15.45
Minimum	73.25	82.21	73.25	75.53
25 <sup>th</sup> Percentile	80.32	86.43	79.91	79.51
Median	82.49	87.38	81.58	80.65
75 <sup>th</sup> Percentile	86.12	89.67	84.28	82.49
Maximum	91.96	91.96	88.46	84.25

**Table 14b: Consideration FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	80.63	86.05	80.16	81.24
Std Deviation	17.72	11.01	19.51	15.29
Minimum	72.96	81.13	72.96	79.05
25 <sup>th</sup> Percentile	80.17	84.96	79.84	79.71
Median	82.77	86.32	82.28	80.87
75 <sup>th</sup> Percentile	85.01	87.93	83.88	82.05
Maximum	90.89	90.89	90.35	84.06

**Table 15a: Communication FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	77.43	83.72	76.81	78.29
Std Deviation	22.51	14.68	24.84	19.39
Minimum	70.62	76.85	70.62	75.34
25 <sup>th</sup> Percentile	76.33	83.32	75.84	77.18
Median	78.50	84.87	77.72	78.29
75 <sup>th</sup> Percentile	82.52	86.42	79.60	79.00
Maximum	90.40	90.40	86.23	81.31

**Table 15b: Communication FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	77.18	82.18	76.36	78.58
Std Deviation	22.68	14.87	25.08	19.35
Minimum	69.00	75.99	69.00	74.18
25 <sup>th</sup> Percentile	76.12	81.29	75.01	76.32
Median	78.85	83.38	78.05	78.52
75 <sup>th</sup> Percentile	81.31	84.57	80.35	80.55
Maximum	88.46	88.46	84.93	83.26

**PICKER-BASED INDICATORS:**

**Table 16a: Overall Impressions FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	81.00	87.38	79.97	82.74
Std Deviation	20.70	12.89	22.83	17.73
Minimum	72.81	80.76	72.81	78.81
25 <sup>th</sup> Percentile	79.84	86.41	79.26	82.05
Median	82.63	88.07	81.35	82.49
75 <sup>th</sup> Percentile	86.78	90.17	85.13	82.77
Maximum	93.52	93.52	90.58	86.50

**Table 16b: Overall Impressions FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	80.78	86.19	79.75	82.65
Std Deviation	20.76	12.53	23.03	17.48
Minimum	71.78	79.06	71.78	79.74
25 <sup>th</sup> Percentile	79.80	85.48	78.62	81.83
Median	82.87	87.41	81.89	82.60
75 <sup>th</sup> Percentile	85.66	88.49	84.17	84.65
Maximum	91.58	91.58	91.22	85.66

**Table 17a: Coordination of Care and Access FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	80.50	87.54	80.46	80.01
Std Deviation	16.50	9.92	17.99	14.63
Minimum	74.33	82.39	74.33	75.35
25 <sup>th</sup> Percentile	80.04	85.65	80.04	79.36
Median	82.67	88.77	81.59	79.59
75 <sup>th</sup> Percentile	85.65	89.57	83.78	80.79
Maximum	92.15	92.15	88.55	83.21

**Table 17b: Coordination of Care and Access FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	80.32	86.57	80.14	80.22
Std Deviation	16.57	9.70	18.20	14.42
Minimum	72.57	82.45	72.57	78.38
25 <sup>th</sup> Percentile	80.06	85.58	80.11	79.31
Median	82.52	87.26	81.83	79.72
75 <sup>th</sup> Percentile	85.64	88.69	84.53	80.97
Maximum	90.08	90.08	89.87	85.09

**Table 18a: Physical Comfort FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	86.29	92.27	86.27	85.86
Std Deviation	20.63	12.42	22.59	18.17
Minimum	78.22	86.48	78.22	80.34
25 <sup>th</sup> Percentile	85.85	91.23	84.98	83.91
Median	88.85	93.38	88.21	86.06
75 <sup>th</sup> Percentile	92.30	94.69	90.98	87.66
Maximum	99.67	99.67	95.70	89.69

**Table 18b: Physical Comfort FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	86.51	92.21	86.46	86.18
Std Deviation	20.23	11.41	22.24	17.73
Minimum	77.75	84.67	77.75	82.97
25 <sup>th</sup> Percentile	85.60	91.78	85.52	84.09
Median	89.76	92.62	89.22	85.60
75 <sup>th</sup> Percentile	92.22	93.83	91.92	88.15
Maximum	95.45	95.45	94.59	89.74

**Table 19a: Respect for Patient Preferences and Courtesy FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	80.68	87.08	80.29	81.03
Std Deviation	17.86	11.04	19.67	15.45
Minimum	73.25	82.21	73.25	75.53
25 <sup>th</sup> Percentile	80.32	86.43	79.91	79.51
Median	82.49	87.38	81.58	80.65
75 <sup>th</sup> Percentile	86.12	89.67	84.28	82.49
Maximum	91.96	91.96	88.46	84.25

**Table 19b: Respect for Patient Preferences and Courtesy FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	80.63	86.05	80.16	81.24
Std Deviation	17.72	11.01	19.51	15.29
Minimum	72.96	81.13	72.96	79.05
25 <sup>th</sup> Percentile	80.17	84.96	79.84	79.71
Median	82.77	86.32	82.28	80.87
75 <sup>th</sup> Percentile	85.01	87.93	83.88	82.05
Maximum	90.89	90.89	90.35	84.06

**Table 20a: Information and Education FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	84.27	89.03	84.01	84.44
Std Deviation	21.76	14.27	23.96	18.89
Minimum	77.40	82.41	77.40	81.26
25 <sup>th</sup> Percentile	83.52	87.99	83.20	83.28
Median	85.32	90.40	84.47	84.12
75 <sup>th</sup> Percentile	88.24	91.52	86.91	85.09
Maximum	96.85	96.85	93.01	86.86

**Table 20b: Information and Education FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	84.27	88.41	83.83	84.92
Std Deviation	21.69	13.99	24.02	18.48
Minimum	77.24	83.41	77.24	82.25
25 <sup>th</sup> Percentile	83.75	88.84	83.36	83.30
Median	85.70	89.70	85.21	84.30
75 <sup>th</sup> Percentile	88.04	90.32	86.92	86.70
Maximum	94.45	91.73	94.45	87.55

**Table 21a: Continuity and Transition FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	73.19	80.73	72.45	74.21
Std Deviation	29.14	18.89	32.03	25.32
Minimum	66.40	73.63	66.40	71.48
25 <sup>th</sup> Percentile	71.92	79.76	70.95	72.59
Median	74.15	82.22	73.27	73.25
75 <sup>th</sup> Percentile	78.90	84.28	75.48	75.87
Maximum	87.17	87.17	81.80	79.27

**Table 21b: Continuity and Transition FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	71.91	77.33	70.80	73.88
Std Deviation	29.59	20.07	32.66	25.31
Minimum	63.85	70.56	63.85	67.96
25 <sup>th</sup> Percentile	69.89	74.63	68.63	71.27
Median	73.44	78.74	72.39	73.25
75 <sup>th</sup> Percentile	76.72	79.67	75.12	76.91
Maximum	87.73	87.73	80.54	81.16

**Table 22a: Involvement of Family FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	77.25	83.98	76.49	78.34
Std Deviation	30.32	19.47	33.45	26.30
Minimum	69.22	74.88	69.22	74.94
25 <sup>th</sup> Percentile	75.81	80.95	75.37	76.08
Median	78.20	86.74	77.34	78.19
75 <sup>th</sup> Percentile	81.63	88.72	80.08	79.72
Maximum	90.67	90.67	87.26	81.00

**Table 22b: Involvement of Family FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	77.86	83.41	76.92	79.43
Std Deviation	29.84	19.14	32.96	25.68
Minimum	68.98	77.00	68.98	76.16
25 <sup>th</sup> Percentile	76.53	79.58	75.69	77.29
Median	79.16	84.93	78.47	78.65
75 <sup>th</sup> Percentile	82.61	86.02	80.43	81.75
Maximum	88.59	88.59	88.07	83.18

**Table 23a: Emotional Support FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	81.57	87.00	81.15	82.03
Std Deviation	21.27	13.80	23.47	18.36
Minimum	73.34	82.28	73.34	78.19
25 <sup>th</sup> Percentile	80.90	86.21	80.37	80.47
Median	82.94	87.36	82.07	81.74
75 <sup>th</sup> Percentile	86.21	89.90	84.52	83.94
Maximum	93.28	93.28	90.55	85.80

**Table 23b: Emotional Support FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	81.69	86.77	81.21	82.34
Std Deviation	21.41	13.51	23.68	18.34
Minimum	72.79	82.50	72.79	79.37
25 <sup>th</sup> Percentile	81.38	85.32	80.98	80.88
Median	83.47	85.93	83.12	81.86
75 <sup>th</sup> Percentile	85.93	90.27	85.75	84.42
Maximum	90.97	90.97	90.83	85.92

**FUNCTIONAL INDICATORS:**

**Table 24a: Physician Care FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	80.64	85.09	80.10	81.48
Std Deviation	19.91	13.44	22.01	17.00
Minimum	74.60	80.04	74.60	78.22
25 <sup>th</sup> Percentile	79.78	82.90	79.42	80.54
Median	81.70	85.59	80.56	81.31
75 <sup>th</sup> Percentile	83.89	88.09	82.56	82.50
Maximum	89.99	89.99	87.74	83.43

**Table 24b: Physician Care FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	80.21	84.05	79.56	81.37
Std Deviation	20.15	13.01	22.25	17.19
Minimum	72.20	78.83	72.20	78.14
25 <sup>th</sup> Percentile	79.42	81.84	79.03	80.76
Median	81.29	84.78	80.63	80.96
75 <sup>th</sup> Percentile	83.43	86.52	82.65	82.78
Maximum	90.38	90.38	89.38	84.54

**Table 25a: Nursing Care FY 2003/2004**

	All Hospitals	Small	Community	Teaching
Valid N	87	18	59	10
Mean	78.62	85.49	78.43	78.47
Std Deviation	22.06	13.23	24.04	19.64
Minimum	70.35	80.14	70.35	73.09
25 <sup>th</sup> Percentile	78.05	83.85	77.50	74.56
Median	81.51	86.85	80.81	79.23
75 <sup>th</sup> Percentile	83.88	88.04	83.00	81.58
Maximum	92.84	92.84	87.41	83.57

**Table 25b: Nursing Care FY 2004/2005**

	All Hospitals	Small	Community	Teaching
Valid N	88	17	61	10
Mean	78.96	85.47	78.80	78.80
Std Deviation	21.63	12.64	23.61	19.13
Minimum	70.70	79.68	70.70	74.27
25 <sup>th</sup> Percentile	78.65	84.74	78.16	76.73
Median	81.92	85.91	81.22	78.60
75 <sup>th</sup> Percentile	84.59	87.49	83.51	81.67
Maximum	90.21	90.21	88.28	82.55

## Paediatric Data Analysis

Surveys returned belonging to patients between the ages of 0 and 17 were excluded from the analysis and set aside for a paediatric-specific 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 paediatric cases at all. In order to provide hospitals with the most comparable data, only questionnaires belonging to patients 18 years old and above were included in the regular patient satisfaction analysis, and the rest were reserved for the paediatric analysis. This includes all of the data from the Hospital for Sick Children and CHEO (including any records they had for patients aged 18+), along with all of the other valid paediatric records from the other participating hospitals.

Hospitals participating in the 2003-2004 paediatric analysis are those that had 100 valid paediatric cases. Hospitals participating in the 2004-2005 paediatric analysis are those that had 60 valid paediatric cases. The participating hospitals include:

2003-2004	Kingston General Hospital
Cambridge Memorial Hospital	London Health Sciences Centre
Children's Hospital of Eastern Ontario	Markham Stouffville Hospital
Grand River Hospital	Rouge Valley Health System
Halton Healthcare Services	Thunder Bay Regional Hospital
The Hospital for Sick Children	2004-2005
Hotel-Dieu Grace Hospital (Windsor)	Cambridge Memorial Hospital

Children's Hospital of Eastern Ontario  
Halton Healthcare Services  
The Hospital for Sick Children  
Hotel-Dieu Grace Hospital (Windsor)  
London Health Sciences Centre

Markham Stouffville Hospital  
Orillia Soldiers' Memorial Hospital  
Rouge Valley Health System  
Thunder Bay Regional Hospital

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

The data included in these analyses are the paediatric data that were excluded from the patient satisfaction analysis as outlined in the second paragraph of page 6. All other Inclusion/Exclusion criteria described in the section *Describing the Survey Process: Inclusion/Exclusion criteria* on p. 5 & 6 apply to the paediatric data.

### ***Indicators***

No unique indicators were built specifically for the paediatric analysis. The patient satisfaction indicators were used in the analysis of the paediatric data. See the section *Developing the Indicators* (p. 7) for the details.

### ***SARS-Adjustment of Paediatric Data***

Before being removed from the original patient satisfaction dataset, the paediatric records were SARS-adjusted along with the rest of data. See page 17 for details on the SARS-adjustment.

### ***Risk-Adjustment of Paediatric Data***

The rationale for risk-adjusting (and for applying Hierarchical models to) the paediatric data is the same as it was for the traditional patient satisfaction analysis (see page 18).

Key differences in the nature of the datasets (regular patient satisfaction, paediatric patient satisfaction) made the application of the patient satisfaction risk-adjustment methodology to the paediatric data difficult. The most notable of these is the difference in the proportions of proxy respondents between the two datasets. Where in 2003-2004, approximately 17% of valid non-paediatric responses were by proxy, more than 95% of valid paediatric responses were by proxy. This being the case, there was no distinct risk-adjustments for the patient and proxy groups as there was in the regular patient satisfaction analysis.

The age and sex variables were not used risk-adjustment variables in the paediatric analysis. Although the age and sex of the patient's are known, the age and sex of the proxy respondents are not available. Any response biases that may be known to exist (e.g. male respondents or more aged respondents tend to be more satisfied) will be masked because we have no way of identifying the age or sex of the actual (proxy) respondent. Also, the number of hospital stays in the past six months was

not used as a risk-adjustment variable on account of strong statistical non-significance.

The hierarchical model that was used to risk-adjust the paediatric patient satisfaction dataset included the fixed effect of the patient's self-assessed health (or in most cases, health as assessed by the proxy respondent), and the random effect of the hospital corporation.

### ***Weighting of Paediatric Data***

Unit weights were not used for the paediatric analysis. There is a general assumption that these patients were cared for in a paediatric unit. Corporation weights for the participating hospitals were calculated specifically for the paediatric analysis. As in the regular patient satisfaction analysis, discharge information from the 2003-2004 Discharge Abstract Database (DAD) was used to calculate the corporation weights for both the 2003-2004 and 2004-2005 paediatric patient satisfaction analysis. More details on weighting can be found on pages 24 & 25.

### ***Assessing Relative Performance for Paediatric Data***

Relative performance was assessed in the same manner as in the regular patient satisfaction analysis. See the section *Hospital-Specific Analysis: Assessing Relative Performance* on page 26 for the details.

### ***Reporting Results (by sex) for Women's Health***

Provincial-level means by sex were included in the women's health section of the Executive Report. In addition, the Report included an analysis of the mean scores for women and men, the values of the differences between women and men on mean scores and the statistical significance of these differences at a provincial level. The indicator quantifying the difference between rates for women and men [i.e. (F-M)] is the value of the difference between women and men - or a value for "equity". At initial release, the E-scorecard included hospital-level risk-adjusted means and components by sex for each indicator. As the E-scorecard is updated, it will include the sex difference values [i.e. (F-M)] for each indicator and an indication of the direction (i.e. F>M or M>F) and the statistical significance of these values at a hospital level. In the interim, 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 <http://www.hospitalreport.ca/participants.html> (see Women's Health - Acute Care 2005).

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 a significantly higher score than males.

The Executive Report also indicated whether high performing hospitals have statistically significant sex differences across indicators, including those in the Patient Satisfaction quadrant.

## 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

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#	Question	Response options	Scoring
13	Overall, how would you rate the care you received from your doctors?	Poor Fair Good Very Good Excellent	0 25 50 75 100
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	100 50 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

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#	Question	Response options	Scoring
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 Didn't use call button	100 50 0 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

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#	Question	Response options	Scoring
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 no score
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 the hospital?	Poor Fair Good Very Good Excellent	0 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	

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#	Question	Response options	Scoring
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	

## Appendix B: Patient Satisfaction Advisory Panel (2002 – 2004)

Norine Martin	AED Patient Services	Carleton Place & District Memorial Hospital
Marie Pinard	Quality Analyst	The Hospital for Sick Children
Deborah Mercer-Dennie	Director, Education, Quality Support & Risk Management	Humber River Regional Hospital
Lynn Hall	Director of Patient Services	Kemptville District Hospital
Eleanor Rivoire	Vice President, Patient care Programs & CNE	Kingston General Hospital
Tena McLellan	(formerly) Director, Quality & Patient Relations	Ottawa Hospital/Hôpital d'Ottawa
Maureen Sly	Advanced Practice/Resource Nurse	Renfrew Victoria Hospital
Roy Butler	Director, Quality Evaluation & Measurement	St. Joseph's Health Care London
Sharon Vanvalkenburg	(formerly) Information Services Leader (Quality Leader)	Temiskaming Hospital
Marla Fryers	VP People Strategies & CNO	Toronto East General Hospital
Joanne Flewwelling	(formerly) Health System Manager, Emergency Services	Trillium Health Centre
Charlene Wolfe	AVP, Organizational Performance & Integration	Windsor Regional Hospital
Vanessa Burkoski	(formerly) Director, Emergency Services	Windsor Regional Hospital
Sally Hamilton	(formerly) Director, Quality Management	Thunder Bay Regional Hospital

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<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.