

Making the Cut: Reporting on Hospital Performance in Ontario

R by *Rena Menaker*

Recently, The Fraser Institute released a ground-breaking study: *Hospital Report Card: Ontario 2006*. The goal of the report card is to contribute to the improvement of Ontario's acute care hospitals by providing directly to patients and to the general public detailed and objective measurements of their performance. This report is the first in Canada to provide patients with comparable, hospital-specific performance measurements. The report card and all of the information in it is available on our web sites: www.fraserinstitute.ca and www.hospitalreportcards.ca.

Background

In Canada, individuals can research any problems they have with their automo-

biles or home stereos from information willingly supplied by consumers, the manufacturers, and industry experts. Yet when it comes to health care, consumers are left with remarkably little information about where the best services are available (Esmail, 2003).

Hospital report cards can help remedy the situation. They provide a set of consistent performance measurements to rank the services in question. They measure specific hospital practices, such as performance with respect to access to care, the quality of care delivered, or friendliness towards patients.

Outside of Canada, hospital report cards have had a number of measurable impacts on performance and the quality of patient care. The first and most notable example is the *New York State Cardiac Surgery Report*. Following the publication of the New York hospital performance report, Hannen *et al.*



Rena Menaker (renam@fraserinstitute.ca) is a Health Policy Analyst with The Fraser Institute. She has an MSc in Physiology from the University of Toronto and a BSc in Physiology from McGill University. Her most recent project is The Fraser Institute's Hospital Report Card: Ontario 2006, an annual ranking of the performance of acute care hospitals in Ontario.



Hospital Report Card

(1994) reported a 41 percent decline in the risk-adjusted mortality rate of coronary artery bypass graft in patients. Pennsylvania and New Jersey experienced a similar overall trend following the publication of their report cards (Pennsylvania's Health Care Cost Containment Council, 2006; New Jersey Department of Health and Senior Services, 1997).

The Fraser Institute's Hospital Report Card

The Fraser Institute's *Hospital Report Card: Ontario 2006* is composed of 50 measures of patient safety and inpatient quality events that were developed by the US Department of Health and Human Services' Agency for Healthcare Research and Quality (AHRQ). These indicators are currently used to measure hospital performance in over a dozen US states including New York, California, Texas, and Colorado, and most recently in Canada by the Manitoba Centre for Health Policy to measure hospital performance in that province (Bruce *et al.*, 2006). AHRQ's quality indicators measure the quality of care inside hospitals (such as death due to a stroke), while their patient safety indicators focus on preventable complications that can be acquired while in hospital, as well as adverse events following surgeries, childbirth, and procedures (such as a foreign body left inside a patient during a procedure).

The Fraser Institute's *Hospital Report Card* analyzes over 8.5 million patient records purchased from the Canadian Institute for Health Information, the federal government's health data agency. The records cover virtually every acute care patient who had an overnight hospital stay in Ontario from 1997 to 2005. The records are risk-adjusted in the report to account

Table 1: Average Rank of the Hospital Mortality Index for Ontario's Acute Care Hospitals

Hospitals	1997/00 (Rank)	2002/05 (Rank)	Change (Rank)
Hospital 50	15	1	5
Hospital 10	2	2	33
William Osler Health Centre—Brampton site	17	3	10
Ottawa Hospital (The)/l'Hôpital d'Ottawa—Total	20	4	11
Stratford General Hospital	1	5	48
Hospital 97	36	6	6
Ottawa Hospital (The)/l'Hôpital d'Ottawa—general site	4	7	40
Rouge Valley Health System—Ajax and Pickering site	18	8	16
Timmins and District General Hospital	3	9	43
Hospital 169 Withdrawn	61	10	1
St. Joseph's Health Care System—Hamilton	12	11	27
Hospital 62	8	12	34
Mount Sinai Hospital	14	13	23
London Health Sciences Centre—University, Victoria South and Children's Hospital of Western Ontario sites	10	14	32
Rouge Valley Health System—Total	19	15	19
Cambridge Memorial Hospital	7	16	36
Rouge Valley Health System—Centenary Health Centre site	23	17	18
St. Thomas-Elgin General Hospital	43	18	8
Hospital 77	—	19	—
Sunnybrook and Women's College Health Sciences Centre	26	20	15
Thunder Bay Regional Health Sciences Centre	16	21	25
Hamilton Health Sciences—Total	33	22	12
Hospital 59	—	23	—
Hospital 29	—	24	—
William Osler Health Centre—Total	21	25	22
Hospital 109	—	26	—
Hospital 80	—	27	—
Hospital 79	—	28	—
Hospital 55	—	29	—
Hospital 67	11	30	35
Hospital 71	32	31	20
Hospital 104	47	32	9
Windsor Hospital—Windsor Metropolitan General site	—	33	—
Hamilton Health Sciences—Henderson Hospital site	27	34	26
Windsor Regional Hospital—Total	62	35	2

Table 1: Average Rank of the Hospital Mortality Index for Ontario's Acute Care Hospitals

Hospitals	1997/00 (Rank)	2002/05 (Rank)	Change (Rank)
Ottawa Hospital (The)/ l'Hôpital d'Ottawa—Civic site	37	36	21
Hospital 7	30	37	28
Hospital 72	9	38	46
North York General Hospital—Total	56	39	7
Trillium Health Centre—Total	38	40	24
Hospital 38	—	41	—
Hospital 108	—	42	—
Hospital 76	31	43	31
William Osler Health Centre—Etobicoke General Site	22	44	38
St. Mary's General Hospital	65	45	3
Hospital 36	25	46	39
Hospital 15	53	47	14
Hospital 106	28	48	42
Hospital 8	44	49	29
Hospital 16	67	50	4
Hospital 37	34	51	37
Hospital 172 Withdrawn	29	52	44
Hospital 22	—	53	—
Hospital 25	63	54	13
Grand River Hospital Corporation— Kitchener-Waterloo Hospital site	6	55	50
Hospital 31	—	56	—
Hospital 70	24	57	47
Hospital 28	—	58	—
Hospital 43	—	59	—
Hospital 18	54	60	30
Hospital 85	68	61	17
Hospital 40	—	62	—
Hospital 175 Withdrawn	—	63	—
Hospital 96	40	64	49
Hospital 94	64	65	41
Hospital 173 Withdrawn	66	66	45

Note: Table 1 shows the average rankings for the Hospital Mortality Index over the latest three years 2002/03 to 2004/05. This is compared to the average rank in the first three years of our survey from 1997/98 to 1999/2000. The change column shows the improvement or deterioration in score between the two periods.

Sources: "1: Overview and Observations," *Hospital Report Card: Ontario 2006*, pp. 6-7. (See http://www.hospitalreportcards.ca/about/1_OHR_O&O.pdf); and calculations by the author.

for differences in patients' ages, gender, and the presence of co-morbidities.¹

Although data from all acute care hospitals in Ontario were used in the report, identification in the *Hospital Report Card* was voluntary. Of Ontario's 136 acute care facilities, 43 hospitals, representing 41 percent of the inpatient records in Ontario in the 2004/05 fiscal year, agreed to have their institution identified. Hospitals that did not consent to being identified in the report were assigned an arbitrary number. The quality and patient safety indicators for all municipalities in Ontario were also calculated, with the location of patients determined by their postal code.² This report is the most comprehensive measure of acute care hospital performance and accountability in Canada at the present time.

Key findings

A report based on more than 8.5 million patient records, shown across 50 quality and safety indicators for 136 hospitals and 138 municipalities over 8 years is not something that can be summarized in a few words.

In fact, the primary purpose of this research is to provide patients with information on specific medical procedures and conditions, and to work towards a greater understanding of the variation in the quality of hospital care both within facilities and across the entire system. It is for that reason that the report card has rates, scores, and ranks for each separate indicator.

However, we have created one summary measure of mortality based on the most important and reliable data in this study: the Hospital Mortality Index (HMI). This index has been constructed from a cross section of indicators that



measure death rates. It consists of up to nine indicators (depending on the year examined) including:

- deaths due to hip replacement surgery;
- deaths due to heart attacks (included from 2002/03 to 2004/05 only);
- deaths due to heart failure;
- deaths due to acute strokes;
- deaths due to bleeding from the esophagus, stomach, small intestine or colon;
- deaths due to hip fractures;
- deaths due to pneumonia infection;
- deaths among patients that are considered unlikely to die in the hospital;
- deaths in patients that developed complications of care during hospitalization.

The Hospital Mortality Index is an average of the scores of these indicators, where a score of 100 is the best. Table 1 shows the average rankings for the Hospital Mortality Index over the latest three years 2002/03 to 2004/05³. This is compared to the average rank in the first three years of our survey from 1997/98 to 1999/2000. The change column shows the improvement or deterioration in score between the two periods.⁴

Here are some of the summary observations for the Hospital Mortality Index from the table⁵:

- The top hospital in Ontario is anonymous Hospital 50. It is the fifth most improved hospital since the late 1990s and was ranked 15th in the earlier period.
- The top identified hospital is William Osler Health Centre (Brampton), in third place. It is also the 10th ranked hospital in terms of improvement over the past 8 years.

- Rounding out the top ten rankings are anonymous Hospital 50, anonymous Hospital 10, William Osler Health Centre (Brampton Site), Stratford General Hospital, anonymous Hospital 97, the Ottawa Hospital/l'Hôpital d'Ottawa (General Site), Rouge Valley Health System (Ajax and Pickering Site), Timmins and District General Hospital, the

*... this research
can provide
patients with an
understanding of
the variation in
the quality of
hospital care both
within facilities
and across the
entire system.*

Ottawa Hospital/l'Hôpital d'Ottawa (all sites, including the University of Ottawa Heart Institute), and anonymous Hospital 169 Withdrawn.

- All of the 10 bottom-ranked hospitals either did not consent to be identified in the study or withdrew after agreeing to be identified.

There is some consistency of performance in the top and bottom hospitals.

- Four of the top ten hospitals, Anonymous Hospital 10, Stratford Gen-

eral, Ottawa Hospital (General), and Timmins and District General, have sustained top performances over the entire period.

- All of the bottom ten hospitals either ranked low in the late 1990s or had inadequate data then to be ranked.
- Six of the top 20 ranked hospitals are not identified by name. By contrast, 19 of the bottom 20 hospitals are anonymous. Participating hospitals tend to have higher rankings (with an average rank of 23) and anonymous hospitals have lower rankings (with an average rank of 39).

For other findings from the 50 indicators of quality and patient safety, see the full report at the web sites listed earlier.

Conclusion

The Fraser Institute's *Hospital Report Card: Ontario 2006* provides a comprehensive measure of inpatient, acute care conditions in Ontario hospitals. This is the first edition of an annual report card for patients in Ontario. Future editions of *The Fraser Institute's Hospital Report Card* will measure the performance of acute care hospitals in other provinces as well as continuing to measure the performance of Ontario's hospitals.

Notes

¹A term used to refer to a disease or disorder that is not directly caused by another disorder but occurs at the same time.

²For example, a surgical error that occurred while treating a patient who lived in Toronto would affect the score for Toronto regardless of which hospital in Ontario actually committed the error.

³Not all institutions analyzed in this report contained the data required for calculating the Hospital Mortality Index (since not all institutions perform all procedures or treat patients with all the medical conditions that

were analyzed). Therefore, if a hospital is not listed in the HMI it is because it did not have sufficient coverage in the indicators used to calculate the HMI.

⁴For the average Hospital Mortality Index scores and changes for the municipalities in Ontario, please refer to the “Overview and Observation” portion of the report (p. 8) at: http://www.hospitalreportcards.ca/about/1_OHR_O&O.pdf.

⁵For the average Hospital Mortality Index scores and changes in average scores, please refer to the “Overview and Observation” portion of the report (p. 6) at: http://www.hospitalreportcards.ca/about/1_OHR_O&O.pdf.

References

- Bruce S., *et al.* (2006). *Application of Patient Safety Indicators in Manitoba: A First Look*. Winnipeg: Manitoba Centre for Health Policy (June).
- Esmail, Nadeem (2003). “Health Information in Hiding.” *Fraser Forum* (May): 12-13.
- Hannan, E.L., *et al.* (1994). “Improving the Outcomes of Coronary Bypass Surgery in New York State.” *Journal of the American Medical Association* 271: 761-66.
- New Jersey Department of Health and Senior Services (1997). *Cardiac Surgery in New Jersey: Technical Report*. Digital document available at <http://www.state.nj.us/health/hcsa/cabgst.htm>.
- O’Connor, G.T., *et al.* (1996). “A Regional Intervention to Improve the Hospital Mortality Associated with Coronary.” *Journal of the American Medical Association* 275: 841-46.
- Pennsylvania’s Health Care Cost Containment Council (2006). *Pennsylvania’s Guide to Coronary Artery Bypass Graft Surgery 2004*. Harrisburg: Pennsylvania’s Health Care Cost Containment Council (February). Digital document available at <http://www.phc4.org/reports/cabg/04/docs/cabg2004report.pdf>. 