

June 20, 2013

# Highlights of 2011–2012 Emergency Department Visits and Inpatient Hospitalizations

## Background

This summary contains key information on 2011–2012 emergency department (ED) visits and inpatient hospitalizations in Canada, which is now available through CIHI's Quick Stats. The data sources are the 2011–2012 National Ambulatory Care Reporting System (NACRS), the 2011–2012 Hospital Morbidity Database (HMDB) and the 2011–2012 Ontario Mental Health Reporting System (OMHRS).

The ambulatory care statistics provided in the NACRS Quick Stats include ED visits and median time spent in the ED by age group, sex, triage level, visit disposition and main problem. They are available according to the fiscal year of patient registration, from 2003–2004 onward, by province and territory. For 2011–2012, NACRS included 9.1 million ED visits from participating facilities in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Nova Scotia, Prince Edward Island and Yukon, representing approximately 56% of overall ED visits in Canada.

The inpatient hospitalization statistics include inpatient hospitalizations, average length of stay (ALOS) and surgical discharges. This data is available from 1995–1996 onward by province and territory. For 2011–2012, there were more than 2.8 million inpatient hospitalizations in Canada.

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## Highlights

### Emergency Department Visits

In 2011–2012, there were approximately 16.2 million ED visits in Canada. Of these, 9.1 million were reported to NACRS (56% of all ED visits in Canada). Six facilities in B.C., three in Saskatchewan and four in Nova Scotia reported all of their ED visits to CIHI, which resulted in a 5% increase in coverage from 2010–2011 (Table 1). Alberta, Ontario and Yukon continued to submit comprehensive ED data from all facilities in 2011–2012. In the past three years, overall coverage in NACRS has increased from 36% in 2009–2010 to 56% in 2011–2012.

Triage level categorizes patients according to the type and severity of their initial presenting signs and symptoms. In NACRS, the Canadian Triage Acuity Scale (CTAS) is used to determine triage level for ED visits. This scale was developed by the Canadian Association of Emergency Physicians, and it is applicable to all patients seen in an ED. In 2011–2012, the overall proportion of urgent/emergent cases captured in NACRS was slightly greater than that of less-urgent/non-urgent cases (52.1% versus 45.6%) (Figure 1).

The total time spent in the ED is the time elapsed from the patient's registration to the time he or she physically leaves the ED. In 2011–2012, the overall age-standardized median for total time spent in the ED for NACRS facilities was 2.4 hours (Table 2). Nine out of 10 patients spent 7.4 hours or less in the ED.

The total time spent in the ED can vary with the complexity of the case. Table 3 illustrates the age-standardized total time spent in the ED for both complex and minor/uncomplicated visits. The median times spent in the ED for complex and minor/uncomplicated visits were 3.5 and 1.6 hours, respectively. Nine out of 10 of the complex ED visits captured in NACRS spent 10.5 hours or less in the ED. In comparison, 9 out of 10 minor/uncomplicated cases spent 4.2 hours or less in the ED in 2011–2012.

### Inpatient Hospitalizations

Similar to recent years, Canadian acute care hospitals had more than 2.8 million inpatient hospitalizations in 2011–2012. The number of hospitalizations steadily declined from 1995–1996 to 2002–2003 by an average of 2.2% per fiscal year. This number remained relatively stable from 2003–2004 to 2009–2010, but it increased an average of 1.5% from 2009–2010 to 2011–2012.

After adjusting for differences in age, sex and population growth across jurisdictions, Saskatchewan and New Brunswick had the highest rates of hospitalization among the provinces in 2011–2012 (10,609 and 9,796 per 100,000 population, respectively), while Ontario, B.C. and Quebec continued to have the lowest rates (7,038, 7,433 and 7,476 per 100,000 population, respectively). The adjusted hospitalization rates of all three territories were higher than those seen in the provinces, ranging from 11,772 per 100,000 population in Yukon to 14,056 per 100,000 population in Nunavut (Table 4).

As reported in previous years, while the territories had the highest adjusted hospitalization rates across Canada (Table 4), they reported the lowest adjusted ALOS values (Table 5). This may be partly due to the practice of transferring patients with severe conditions outside of the jurisdiction for treatment. In 2011–2012, the adjusted ALOS of the territories ranged from 3.6 days in Nunavut to 6.1 days in Yukon. Nunavut has seen a large decrease (42.9%) in adjusted ALOS since 1995–1996, while there has been an increase in Yukon (27.1%) and the Northwest Territories (9.3%) over this 16-year period. For the provinces, P.E.I. and Manitoba had the highest adjusted ALOS (8.7 and 8.6 days, respectively) and Ontario and Saskatchewan had the lowest (6.4 and 6.6 days, respectively).

### Additional Information

For more information, please go to CIHI's website ([www.cihi.ca](http://www.cihi.ca)), click on "Quick Stats," select "Interactive Data" under "Type" and "Hospital Care" under "Topic," then select the DAD/HMDB or NACRS statistics.

In addition to the interactive data, two tables in PDF format are available on CIHI's website ([www.cihi.ca](http://www.cihi.ca)). They can be accessed by clicking on "Quick Stats," selecting "Pre-Formatted Table" under "Type" and "Hospital Care" under "Topic" and then selecting the NACRS statistics. These tables present the 2010–2011 and 2011–2012 NACRS ED visits by province, sex and five-year age groups.

### NACRS Emergency Department Visits

**Table 1: Number of ED Facilities and ED Coverage in NACRS, 2010–2011 and 2011–2012**

| Province/Territory* | Number of ED Facilities Submitting to NACRS, 2010–2011 | Estimated <sup>†</sup> ED Coverage in NACRS, 2010–2011 | Number of ED Facilities Submitting to NACRS, 2011–2012 | Estimated <sup>†</sup> ED Coverage in NACRS, 2011–2012 |
|---------------------|--|--|--|--|
| <b>B.C.</b>         | 0  | 0%   | 6  | 16%  |
| <b>Alta.</b>        | 108  | 100%   | 107 <sup>‡</sup>                                       | 100%   |
| <b>Sask.</b>        | 1  | 2%   | 3  | 24%  |
| <b>Man.</b>         | 8  | 44%  | 8  | 45%  |
| <b>Ont.</b>         | 179  | 100%   | 176 <sup>‡</sup>                                       | 100%   |
| <b>Que.</b>         | 0  | 0%   | 0  | 0%   |
| <b>N.B.</b>         | 0  | 0%   | 0  | 0%   |
| <b>N.S.</b>         | 4  | 13%  | 8  | 40%  |
| <b>P.E.I.</b>       | 1  | 26%  | 1  | 27%  |
| <b>N.L.</b>         | 0  | 0%   | 0  | 0%   |
| <b>Y.T.</b>         | 1  | 100%   | 1  | 100%   |
| <b>N.W.T.</b>       | 0  | 0%   | 0  | 0%   |
| <b>Nun.</b>         | 0  | 0%   | 0  | 0%   |
| <b>Total</b>        | <b>302</b>   | <b>51%</b>   | <b>312</b>   | <b>56%</b>   |

#### Notes

\* The province/territory where the hospital is located.

† NACRS ED coverage is based on total estimated ED visits in Canada in 2010–2011.

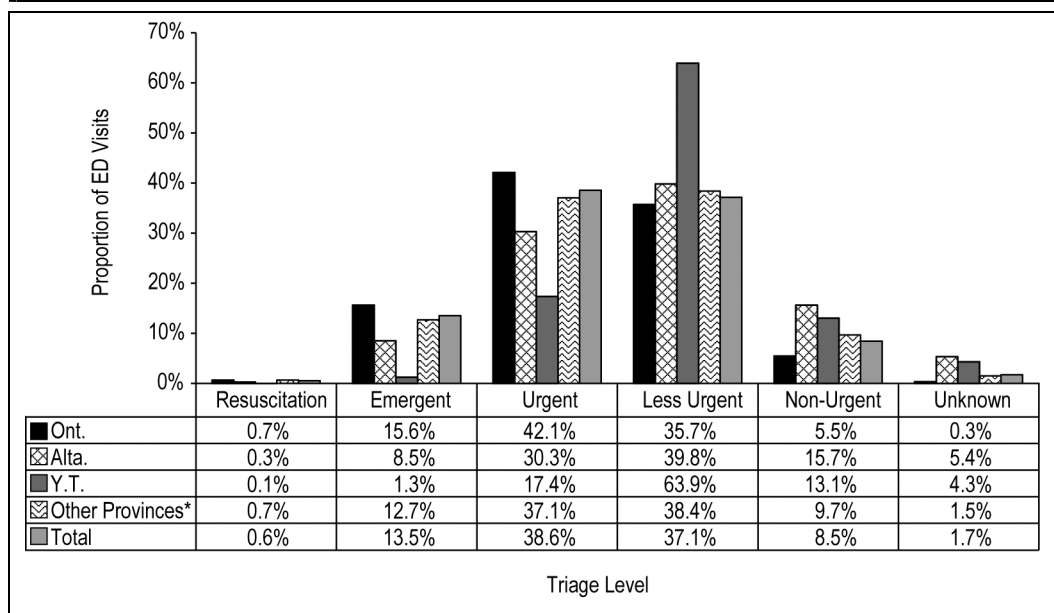
‡ The drop in the number of facilities from the previous fiscal year is due to facility closures or mergers.

#### Source

National Ambulatory Care Reporting System, 2010–2011 and 2011–2012, Canadian Institute for Health Information.

## Highlights

**Figure 1: Percentage of ED Visits by Triage Level, Participating Provinces/Territories, 2011–2012**



### Notes

\* The figures reported for Other Provinces include data from British Columbia, Saskatchewan, Manitoba, Nova Scotia and Prince Edward Island. This data is representative of only the facilities that submitted to NACRS in 2011–2012, as not all facilities from these provinces are captured in the NACRS database. Given this, comparisons involving these other provinces should be made with caution.

### Coverage

In 2011–2012, NACRS included all EDs in Alberta, Ontario and Yukon, six in B.C., three in Saskatchewan, eight in Manitoba, eight in Nova Scotia and one in P.E.I.

### Source

National Ambulatory Care Reporting System, 2011–2012, Canadian Institute for Health Information.

**Table 2: Age-Standardized\* Total Time Spent in ED, Participating Provinces/Territories, 2011–2012**

| Province/Territory <sup>†</sup>    | Median (Hours) | 75th Percentile (Hours) | 90th Percentile (Hours) |
|------------------------------------|----------------|-------------------------|-------------------------|
| <b>Alta.</b>                       | 2.0            | 3.7                     | 6.5                     |
| <b>Ont.</b>                        | 2.5            | 4.4                     | 7.5                     |
| <b>Y.T.</b>                        | 1.4            | 2.3                     | 3.6                     |
| <b>Other Provinces<sup>‡</sup></b> | 2.9            | 5.3                     | 9.3                     |
| <b>Total</b>                       | <b>2.4</b>     | <b>4.3</b>              | <b>7.4</b>              |

### Notes

\* Figures were standardized using the 2011–2012 NACRS ED population.

† The province/territory where the hospital is located.

‡ The figures reported for Other Provinces include data from British Columbia, Saskatchewan, Manitoba, Nova Scotia and Prince Edward Island. This data is representative of only the facilities that submitted to NACRS in 2011–2012, as not all facilities from these provinces are captured in the NACRS database. Given this, comparisons involving these other provinces should be made with caution.

### Coverage

In 2011–2012, NACRS included all EDs in Alberta, Ontario and Yukon, six in B.C., three in Saskatchewan, eight in Manitoba, eight in Nova Scotia and one in P.E.I.

### Source

National Ambulatory Care Reporting System, 2011–2012, Canadian Institute for Health Information.

## Highlights

Table 3: Age-Standardized\* Total Time Spent in ED by Type of Visit, Participating Provinces/Territories, 2011–2012

| Province/Territory <sup>†</sup> | Type of Visit<br>(Complex <sup>‡</sup> Versus<br>Minor/Uncomplicated <sup>§</sup> ) | Median<br>(Hours) | 75th Percentile<br>(Hours) | 90th Percentile<br>(Hours) |
|---------------------------------|---|-------------------|----------------------------|----------------------------|
|                                 |   |                   |                            |                            |
| <b>Alta.</b>                    | Complex   | 3.4               | 5.8                        | 9.9                        |
|                                 | Minor/Uncomplicated   | 1.5               | 2.5                        | 3.9                        |
| <b>Ont.</b>                     | Complex   | 3.4               | 5.9                        | 10.2                       |
|                                 | Minor/Uncomplicated   | 1.7               | 2.7                        | 4.1                        |
| <b>Y.T.</b>                     | Complex   | 2.4               | 4.0                        | 6.1                        |
|                                 | Minor/Uncomplicated   | 1.2               | 1.9                        | 2.9                        |
| <b>Other Provinces**</b>        | Complex   | 4.2               | 7.4                        | 14.3                       |
|                                 | Minor/Uncomplicated   | 2.1               | 3.6                        | 5.6                        |
| <b>Total</b>                    | Complex   | <b>3.5</b>        | <b>6.0</b>                 | <b>10.5</b>                |
|                                 | Minor/Uncomplicated   | <b>1.6</b>        | <b>2.8</b>                 | <b>4.2</b>                 |

### Notes

\* Figures were standardized using the 2011–2012 NACRS ED population.

† The province/territory where the hospital is located.

‡ Complex cases include admitted patients with any triage level, as well as non-admitted patients with a triage level of *resuscitation*, *emergent* or *urgent* and a visit disposition of *discharged home*, *transferred*, *death* or *intra-facility transfer*.

§ Minor/uncomplicated cases include non-admitted patients with a triage level of *less urgent* or *non-urgent* and a visit disposition of *discharged home*, *transferred*, *death* or *intra-facility transfer*.

\*\* The figures reported for Other Provinces include data from British Columbia, Saskatchewan, Manitoba, Nova Scotia and Prince Edward Island. This data is representative of only the facilities that submitted to NACRS in 2011–2012, as not all facilities from these provinces are captured in the NACRS database. Given this, comparisons involving these other provinces should be made with caution.

### Coverage

In 2011–2012, NACRS included all EDs in Alberta, Ontario and Yukon, six in B.C., three in Saskatchewan, eight in Manitoba, eight in Nova Scotia and one in P.E.I.

### Source

National Ambulatory Care Reporting System, 2011–2012, Canadian Institute for Health Information.

## Acute Inpatient Hospitalizations in Canada

**Table 4: Age–Sex-Standardized\* Acute Inpatient Hospitalization Rates (per 100,000 Population), Canada, 1995–1996 and 2011–2012**

| Province/Territory <sup>†</sup> | 1995–1996     | 2011–2012    | 1-Year Percentage Change <sup>‡</sup> | 16-Year Percentage Change <sup>§</sup> |
|---------------------------------|---------------|--------------|---------------------------------------|--|
| <b>B.C.</b>                     | 10,817        | 7,433        | 0.77                                  | -31.29                                 |
| <b>Alta.</b>                    | 11,507        | 8,573        | 2.24                                  | -25.50                                 |
| <b>Sask.</b>                    | 14,764        | 10,609       | -2.64                                 | -28.14                                 |
| <b>Man.</b>                     | 11,743        | 8,683        | -1.53                                 | -26.06                                 |
| <b>Ont.</b>                     | 10,466        | 7,038        | 1.16                                  | -32.76                                 |
| <b>Que.</b>                     | 10,696        | 7,476        | 0.03                                  | -30.10                                 |
| <b>N.B.</b>                     | 15,268        | 9,796        | -0.61                                 | -35.84                                 |
| <b>N.S.</b>                     | 12,033        | 7,728        | -0.50                                 | -35.78                                 |
| <b>P.E.I.</b>                   | 14,697        | 9,765        | -1.63                                 | -33.56                                 |
| <b>N.L.</b>                     | 13,347        | 9,193        | 0.39                                  | -31.12                                 |
| <b>Y.T.</b>                     | 11,758        | 11,772       | 4.09                                  | 0.12                                   |
| <b>N.W.T.</b>                   | 20,434        | 13,751       | -4.53                                 | -32.70                                 |
| <b>Nun.</b>                     | 9,914         | 14,056       | -5.59                                 | 41.78                                  |
| <b>Canada</b>                   | <b>11,131</b> | <b>7,672</b> | <b>0.49</b>                           | <b>-31.08</b>                          |

### Notes

\* Figures were standardized using the 2001–2002 post-censal Canadian population.

† The province or territory of the patient at the time of discharge (numbers include residents of Canada only).

‡ Percentage change from 2010–2011 to 2011–2012.

§ Percentage change from 1995–1996 to 2011–2012.

### Coverage issues

- Two small acute care facilities in Ontario did not submit any periods of data to CIHI in 2010–2011 and 2011–2012.
- As of 2006–2007, information on adult inpatient mental health beds in Ontario is no longer included in the HMDB. Therefore, to facilitate comparisons over time at the Ontario and pan-Canadian levels, OMHRS data from 2006–2007 onward has been incorporated into acute inpatient hospitalizations.

### Sources

Hospital Morbidity Database, 1995–1996 and 2011–2012, and Ontario Mental Health Reporting System, 2011–2012, Canadian Institute for Health Information.

## Average Length of Stay for Acute Inpatient Hospitalizations in Canada

**Table 5: Age-Standardized\* Average Length of Acute Inpatient Hospital Stay (in Days), Canada, 1995–1996 and 2011–2012**

| Province/Territory <sup>†</sup> | 1995–1996  | 2011–2012  | 1-Year Percentage Change <sup>‡</sup> | 16-Year Percentage Change <sup>§</sup> |
|---------------------------------|------------|------------|---------------------------------------|--|
| <b>B.C.</b>                     | 6.6        | 7.2        | 0.00                                  | 9.09                                   |
| <b>Alta.</b>                    | 6.3        | 7.7        | -2.53                                 | 22.22                                  |
| <b>Sask.</b>                    | 6.9        | 6.6        | 1.54                                  | -4.35                                  |
| <b>Man.</b>                     | 9.4        | 8.6        | 1.18                                  | -8.51                                  |
| <b>Ont.</b>                     | 6.9        | 6.4        | -1.54                                 | -7.25                                  |
| <b>Que.</b>                     | 9.5        | 7.9        | -2.47                                 | -16.84                                 |
| <b>N.B.</b>                     | 6.9        | 7.7        | -4.94                                 | 11.59                                  |
| <b>N.S.</b>                     | 7.3        | 8.3        | -2.35                                 | 13.70                                  |
| <b>P.E.I.</b>                   | 7.8        | 8.7        | 4.82                                  | 11.54                                  |
| <b>N.L.</b>                     | 8.1        | 7.7        | -2.53                                 | -4.94                                  |
| <b>Y.T.</b>                     | 4.8        | 6.1        | 10.91                                 | 27.08                                  |
| <b>N.W.T.</b>                   | 5.4        | 5.9        | -1.67                                 | 9.26                                   |
| <b>Nun.</b>                     | 6.3        | 3.6        | 12.50                                 | -42.86                                 |
| <b>Canada</b>                   | <b>7.5</b> | <b>7.2</b> | <b>-1.37</b>                          | <b>-4.00</b>                           |

### Notes

\* The pooled number of hospitalized patients from 1995–1996 to 2005–2006 was used as a standard population.

† The province or territory where the hospital is located (numbers include non-residents of Canada).

‡ Percentage change from 2010–2011 to 2011–2012.

§ Percentage change from 1995–1996 to 2011–2012.

### Coverage issues

- Two small acute care facilities in Ontario did not submit any periods of data to CIHI in 2010–2011 and 2011–2012.
- As of 2006–2007, information on adult inpatient mental health beds in Ontario is no longer included in the HMDB. Therefore, to facilitate comparisons over time at the Ontario and pan-Canadian levels, OMHRS data from 2006–2007 onward has been incorporated into acute inpatient hospitalizations.

### Sources

Hospital Morbidity Database, 1995–1996 and 2011–2012, and Ontario Mental Health Reporting System, 2011–2012, Canadian Institute for Health Information.