

# Ontario Stroke Report Card, 2016/17: Central Local Health Integration Network

● Exemplary performance<sup>1</sup> ■ Acceptable performance<sup>2</sup> ▲ Poor performance<sup>3</sup> □ Data not available or benchmark not available

| Indicator No.     | Care Continuum Category                | Indicator <sup>4</sup>   | LHIN FY 2016/17 (2015/16) | Variance Within LHIN <sup>5</sup> (Min–Max) | Provincial Benchmark <sup>6</sup> | High Performers <sup>7</sup>               |             |
|-------------------|--|--|---------------------------|---|-----------------------------------|--|-------------|
|                   |  |  |                           |   |                                   | Sub-LHIN/Facility                          | LHIN        |
| 1 ▲               | Public awareness and patient education | Proportion of stroke/TIA patients who arrived at the ED by ambulance.  | 57.3% (57.2%)             | 47.8 - 64.4%                                | 65.9%                             | Essex Sub-LHIN                             | 1, 11       |
| 2 ●               | Prevention of stroke                   | Annual age- and sex-adjusted inpatient admission rate for stroke/TIA (per 1,000 population).   | 1.1 (1.1)                 | 1.1 - 1.7                                   | 1.2                               | Oakville Sub-LHIN                          | 6, 8, 7, 11 |
| 3 <sup>§</sup> □  | Prevention of stroke                   | Risk-adjusted stroke/TIA mortality rate at 30 days (per 100 patients).   | 13.4 (12.1)               | 9.2 - 22.7                                  | -                                 | -  | 7           |
| 4 ■               | Prevention of stroke                   | Proportion of ischemic stroke/TIA inpatients aged 65 and older with atrial fibrillation who filled a prescription for anticoagulant therapy within 90 days of discharge from acute care. | 73.4% (74.8%)             | 61.5 - 83.3%                                | 85.5%                             | Southeast Mississauga Sub-LHIN             | None        |
| 5 ■               | Prevention of stroke                   | Proportion of ischemic stroke inpatients who received carotid imaging.   | 80.5% (81.9%)             | 72.4 - 91.3%                                | 92.4%                             | Bluewater Health, Sarnia                   | 5           |
| 6 ■               | Acute stroke management                | Median door-to-needle time among patients who received acute thrombolytic therapy (tPA) (minutes). Target <sup>8</sup> : 30 minutes  | 44.0 (36.0)               | 44.0 - 44.0                                 | 33.0                              | The Ottawa Hospital, Civic                 | 11          |
| 7 <sup>§</sup> ▲  | Acute stroke management                | Proportion of ischemic stroke patients who received acute thrombolytic therapy (tPA). Target <sup>8</sup> : >12%   | 11.1% (10.6%)             | 8.5 - 13.8%                                 | 17.7%                             | Ottawa East Sub-LHIN                       | 11, 10      |
| 8 <sup>§</sup> ▲  | Acute stroke management                | Proportion of stroke/TIA patients treated on a stroke unit <sup>9</sup> at any time during their inpatient stay. Target <sup>8</sup> : >75%  | 45.4% (47.7%)             | 12.2 - 65.8%                                | 80.6%                             | Urban Guelph Sub-LHIN                      | 3, 10       |
| 9 ■               | Prevention of stroke                   | Proportion of ischemic stroke/TIA patients discharged from the ED and referred to secondary prevention services.   | 82.5% (82.0%)             | 46.2 - 94.9%                                | 95.1%                             | Hamilton Health Sciences Corp., Juravinski | None        |
| 10 <sup>§</sup> ▲ | Acute stroke management                | Proportion of ALC days to total length of stay in acute care.  | 41.0% (29.6%)             | 11.6 - 55.5%                                | 8.2%                              | Bluewater Health, Sarnia                   | None        |
| 11 <sup>§</sup> ■ | Acute stroke management                | Proportion of acute stroke (excluding TIA) patients discharged from acute care and admitted to inpatient rehabilitation. Target <sup>8</sup> : >30%                                      | 35.8% (34.0%)             | 23.0 - 46.3%                                | 47.8%                             | Chatham-Kent Sub-LHIN                      | 1           |
| 12 <sup>§</sup> □ | Stroke rehabilitation                  | Proportion of acute stroke (excluding TIA) patients with mild disability (AlphaFIM > 80) discharged home.  | 70.1% (72.8%)             | 56.7 - 77.7%                                | -                                 | -  | 14, 3       |
| 13 <sup>§</sup> ■ | Stroke rehabilitation                  | Median number of days between stroke (excluding TIA) onset and admission to stroke inpatient rehabilitation.   | 7.0 (6.0)                 | 6.0 - 8.0                                   | 5.0                               | Pembroke Regional Hospital                 | None        |
| 14 <sup>§</sup> ▲ | Stroke rehabilitation                  | Median number of minutes per day of direct therapy received by inpatient stroke rehabilitation patients. Target <sup>8</sup> : 180 minutes/day   | 23.8 (26.5)               | 14.1 - 32.5                                 | 101.7                             | West Park Healthcare Centre                | None        |
| 15 <sup>§</sup> ■ | Stroke rehabilitation                  | Proportion of inpatient stroke rehabilitation patients achieving RPG active length of stay target.   | 70.2% (59.5%)             | 64.7 - 71.6%                                | 85.4%                             | Providence Healthcare                      | 3           |
| 16 ▲              | Stroke rehabilitation                  | Median FIM efficiency for moderate stroke in inpatient rehabilitation.   | 1.0 (1.0)                 | 0.9 - 1.4                                   | 1.6                               | Grand River Hospital Corp., Freeport       | 3, 12       |
| 17 ▲              | Stroke rehabilitation                  | Mean number of CCAC visits provided to stroke patients on discharge from inpatient acute care or inpatient rehabilitation in 2015/16–2016/17.  | 6.3 (8.3)                 | -   | 12.4                              | Waterloo Wellington CCAC                   | 3, 10       |
| 18 <sup>§</sup> ■ | Stroke rehabilitation                  | Proportion of patients admitted to inpatient rehabilitation with severe stroke (RPG 1100 or 1110).   | 45.6% (46.4%)             | 11.1 - 53.5%                                | 58.7%                             | Lakeridge Health, Oshawa                   | 3           |
| 19 <sup>§</sup> ▲ | Reintegration                          | Proportion of stroke/TIA patients discharged from acute care to LTC/CCC (excluding patients originating from LTC/CCC).   | 8.4% (7.4%)               | 3.7 - 16.1%                                 | 1.9%                              | Urban Guelph Sub-LHIN                      | None        |
| 20 <sup>§</sup> □ | Reintegration                          | Age- and sex-adjusted readmission rate at 30 days for patients with stroke/TIA for all diagnoses (per 100 patients). Target <sup>8</sup> : 10.0  | 7.9 (7.8)                 | 4.7 - 17.0                                  | -                                 | -  | 10, 6       |

Hospital Service Accountability Agreement indicator, 2015/16

- Data not available

§ Contributes to QBP performance

<sup>1</sup> Benchmark achieved or performance within 5% absolute/relative difference from the benchmark.

<sup>2</sup> Performance at or above the 50th percentile and greater than 5% absolute/relative difference from the benchmark.

<sup>3</sup> Performance below the 50th percentile.

<sup>4</sup> Facility-based analysis (excluding indicators 1, 2, 4, 7, 8, 11 and 19) for patients aged 18–108.

Indicators are based on CIHI data. Low rates are desired for indicators 2, 3, 6, 10, 13, 19 and 20.

<sup>5</sup> Excludes sub-LHINs or facilities with fewer than six patients.

<sup>6</sup> Top benchmark achieved between 2014/15 and 2016/17. Benchmarks were calculated using the ABC methodology (Weissman et al. J Eval Clin Pract 1999; 5(3):269–81) on sub-LHIN or facility data.

<sup>7</sup> Sub-LHIN/Facility: Highest performer among acute care institutions treating more than 100 stroke patients per year, rehabilitation facilities admitting more than 62 stroke patients per year, or sub-LHINs with at least 30 stroke patients per year. LHIN: Top two with exemplary performance.

<sup>8</sup> Targets based on international, national and provincial targets, please refer to full report for details.

<sup>9</sup> The revised definition was developed with the consensus of Ontario Stroke Network regional directors (February 2014). There were 16 stroke units in 2013/14, 21 in 2014/15, 28 in 2015/16, and 35 in 2016/17.

# Stroke Progress Report, 2016/17 compared to 2013/14-2015/16: Central Local Health Integration Network

● Progressing Well<sup>1</sup>   ■ Progressing<sup>2</sup>   ▲ Not Progressing<sup>3</sup>   □ Data not available

| Indicator No.     | Care Continuum Category                | Indicator <sup>4</sup>   | LHIN FY 2016/17 (Previous 3-Year Average) | Variance Within LHIN <sup>5</sup> 2016/17 (2013/14) |               | Greatest Improvement <sup>6</sup>           |            |
|-------------------|--|--|---|---|---------------|---|------------|
|                   |  |  |   | Min   | Max           | Sub-LHIN/Facility                           | LHIN       |
| 1 ▲               | Public awareness and patient education | Proportion of stroke/TIA patients who arrived at the ED by ambulance.  | 57.3% (58.5%)                             | 47.8% (51.9%)                                       | 64.4% (65.3%) | Tyendinaga, Napanee Sub-LHIN                | 11         |
| 2 ▲               | Prevention of stroke                   | Annual age- and sex-adjusted inpatient admission rate for stroke/TIA (per 1,000 population).   | 1.1 (0.9)                                 | 1.1 (1.1)   | 1.7 (1.4)     | Milton Sub-LHIN                             | None       |
| 3 <sup>§</sup> ▲  | Prevention of stroke                   | Risk-adjusted <sup>7</sup> stroke/TIA mortality rate at 30 days (per 100 patients).  | 11.9 (11.4)                               | 8.4 (8.7)   | 20.9 (16.5)   | -   | 10, 2      |
| 4 ▲               | Prevention of stroke                   | Proportion of ischemic stroke/TIA inpatients aged 65 and older with atrial fibrillation who filled a prescription for anticoagulant therapy within 90 days of discharge from acute care. | 73.4% (73.6%)                             | 61.5% (57.7%)                                       | 83.3% (87.1%) | Cochrane Sub-LHIN                           | 6, 7       |
| 5 ▲               | Prevention of stroke                   | Proportion of ischemic stroke inpatients who received carotid imaging.   | 80.5% (80.6%)                             | 72.4% (72.1%)                                       | 91.3% (84.8%) | Brockville General Hospital                 | 10, 11     |
| 6 ▲               | Acute stroke management                | Median door-to-needle time among patients who received acute thrombolytic therapy (tPA) (minutes). Target <sup>8</sup> : 30 minutes  | 44.0 (40.0)                               | 44.0 (42.5)   | 44.0 (42.5)   | Thunder Bay Regional Health Sciences Centre | 14, 1      |
| 7 <sup>§</sup> ■  | Acute stroke management                | Proportion of ischemic stroke patients who received acute thrombolytic therapy (tPA). Target <sup>8</sup> : >12%   | 11.1% (10.6%)                             | 8.5% (7.5%)   | 13.8% (14.4%) | Tyendinaga, Napanee Sub-LHIN                | 2, 1       |
| 8 <sup>§</sup> ■  | Acute stroke management                | Proportion of stroke/TIA patients treated on a stroke unit <sup>9</sup> at any time during their inpatient stay. Target <sup>8</sup> : >75%  | 45.4% (42.9%)                             | 12.2% (10.8%)                                       | 65.8% (54.5%) | Thunder Bay City Sub-LHIN                   | 14, 2      |
| 9 ●               | Prevention of stroke                   | Proportion of ischemic stroke/TIA patients discharged from the ED and referred to secondary prevention services.   | 82.5% (77.4%)                             | 46.2% (37.5%)                                       | 94.9% (90.0%) | North Bay Regional Health Centre            | 10, 1      |
| 10 <sup>§</sup> ▲ | Acute stroke management                | Proportion of ALC days to total length of stay in acute care.  | 41.0% (30.3%)                             | 11.6% (9.0%)  | 55.5% (50.3%) | Trillium Health Partners, Credit Valley     | None       |
| 11 <sup>§</sup> ■ | Acute stroke management                | Proportion of acute stroke (excluding TIA) patients discharged from acute care and admitted to inpatient rehabilitation. Target <sup>8</sup> : >30%                                      | 35.8% (33.8%)                             | 23.0% (25.0%)                                       | 46.3% (51.9%) | Timiskaming Sub-LHIN                        | None       |
| 12 <sup>§</sup> □ | Stroke rehabilitation                  | Proportion of acute stroke (excluding TIA) patients with mild disability (AlphaFIM > 80) discharged home.  | 70.1% (-)                                 | 56.7% (-)   | 77.7% (-)     | -   | -          |
| 13 <sup>§</sup> ▲ | Stroke rehabilitation                  | Median number of days between stroke (excluding TIA) onset and admission to stroke inpatient rehabilitation.   | 7.0 (6.0)                                 | 6.0 (4.0)   | 8.0 (13.0)    | Mackenzie Health                            | 4, 14      |
| 14 <sup>§</sup> □ | Stroke rehabilitation                  | Median number of minutes per day of direct therapy received by inpatient stroke rehabilitation patients. Target <sup>8</sup> : 180 minutes/day   | 23.8 (-)                                  | 14.1 (-)  | 32.5 (-)      | -   | -          |
| 15 <sup>§</sup> ■ | Stroke rehabilitation                  | Proportion of inpatient stroke rehabilitation patients achieving RPG active length of stay target.   | 70.2% (61.9%)                             | 64.7% (39.1%)                                       | 71.6% (81.6%) | Hotel Dieu Shaver                           | 5, 12      |
| 16 ▲              | Stroke rehabilitation                  | Median FIM efficiency for moderate stroke in inpatient rehabilitation.   | 1.0 (1.1)                                 | 0.9 (0.9)   | 1.4 (1.1)     | Trillium Health Partners, Credit Valley     | 5, 4, 6, 7 |
| 17 ▲              | Stroke rehabilitation                  | Mean number of CCAC visits provided to stroke patients on discharge from inpatient acute care or inpatient rehabilitation in 2015/16 - 2016/17.  | 6.3 (6.7)                                 | -   | -             | Waterloo Wellington CCAC                    | 3, 13      |
| 18 <sup>§</sup> ▲ | Stroke rehabilitation                  | Proportion of patients admitted to inpatient rehabilitation with severe stroke (RPG 1100 or 1110).   | 45.6% (51.1%)                             | 11.1% (44.3%)                                       | 53.5% (61.5%) | Grand River Hospital Corp., Freeport        | 11         |
| 19 <sup>§</sup> ▲ | Reintegration                          | Proportion of stroke/TIA patients discharged from acute care to LTC/CCC (excluding patients originating from LTC/CCC).   | 8.4% (8.3%)                               | 3.7% (4.2%)   | 16.1% (15.9%) | Perth Sub-LHIN                              | 11         |
| 20 <sup>§</sup> ■ | Reintegration                          | Age- and sex-adjusted <sup>7</sup> readmission rate at 30 days for patients with stroke/TIA for all diagnoses (per 100 patients). Target <sup>8</sup> : 10.0                             | 7.7 (8.0)                                 | 4.7 (6.6)   | 17.2 (16.3)   | -   | 12, 13     |

Hospital Service Accountability Agreement indicator, 2015/16

- Data not available

§ Contributes to QBP performance

<sup>1</sup> Statistically significant improvement.

<sup>2</sup> Performance improving but not statistically significant.

<sup>3</sup> No change or performance decline.

<sup>4</sup> Facility-based analysis (excluding indicators 1, 2, 4, 7, 8, 11 and 19) for patients aged 18-108. Indicators are based on CIHI data. Low rates are desired for indicators 2, 3, 6, 10, 13, 19 and 20.

<sup>5</sup> Excludes sub-LHINs or facilities with fewer than six patients.

<sup>6</sup> Sub-LHIN/Facility: Greatest improvement from 2013/14 among acute care institutions treating more than 100 stroke patients per year, rehabilitation facilities admitting more than 62 stroke patients per year, or sub-LHINs with at least 30 stroke patients per year. LHIN: Top two with greatest statistically significant improvement from 2013/14.

<sup>7</sup> The 2013/14-2016/17 LHIN rate is used in calculating the LHIN risk-adjusted rate.

<sup>8</sup> Targets based on international, national and provincial targets, please refer to full report for details.

<sup>9</sup> The revised definition was developed with the consensus of Ontario Stroke Network regional directors (February 2014). There were 16 stroke units in 2013/14, 21 in 2014/15, 28 in 2015/16, and 35 in 2016/17.