

## Stroke Mortality

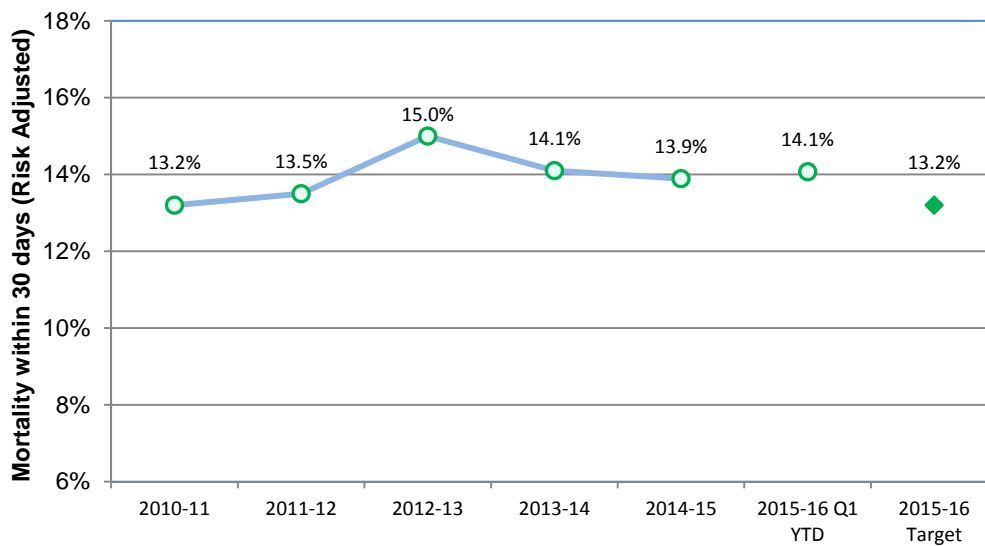
### Measure Definition

The probability of dying in hospital within 30 days for patients admitted because of stroke. This measure represents hospital deaths occurring within 30 days of first admission to a hospital with a diagnosis of stroke. This measure is adjusted for age, sex and other conditions.

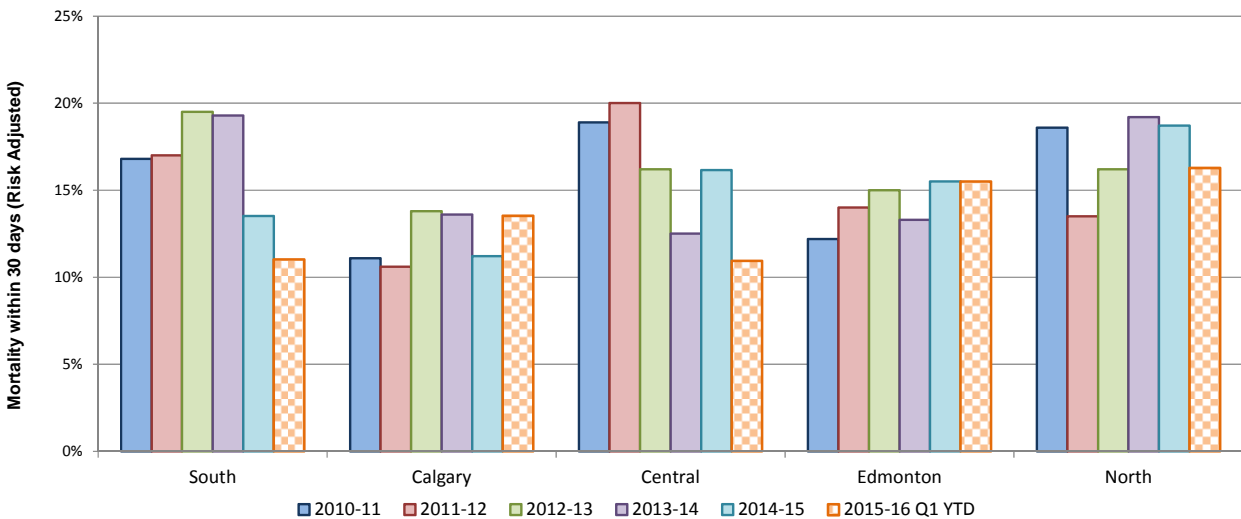
### Understanding this Measure

Stroke is a significant cause of death and disability in the Canadian population. This rate may be influenced by a number of factors, including effectiveness of emergency treatments and quality of care in hospitals.

### Stroke Mortality - Annual



### Stroke Mortality - by Zone



## Stroke Mortality – Actions

<b>Provincial/ Strategic Clinical Network (SCN)</b>	<ul style="list-style-type: none"> <li>• Preparing for transition to operations for the stroke unit equivalent care (SUEC) at 13 primary stroke centres and early supported discharge (ESD) at 5 primary stroke centres. This initiative is part of the Stroke Action Plan – supported by the Cardiovascular Health and Stroke SCN.</li> <li>• Redesign aspects of the provincial stroke system of care to improve access to Endovascular Therapy.</li> <li>• Implement local process improvements to improve Door-to-Needle (DTN) times for tPA for acute stroke; and reduce median DTN times.</li> </ul>
<b>South</b>	<ul style="list-style-type: none"> <li>• Continued implementation, monitoring, and evaluation of Rural Stroke Action plan: ESD, SUEC and Community support of stroke patients.</li> <li>• Continue work with SCN to implement best practice in stroke care.</li> </ul>
<b>Calgary</b>	<ul style="list-style-type: none"> <li>• Continued improvement in DTN times for tPA for acute stroke; and a reduction in median DTN times.</li> <li>• Incorporate quality review of Alberta stroke strategy guidelines in the action plan including SUEC at primary stroke centres.</li> <li>• Significant increase in access to endovascular therapy for patients at Foothills Medical Centre.</li> </ul>
<b>Central</b>	<ul style="list-style-type: none"> <li>• Red Deer Regional Hospital (RDRH) attended the first Learning Collaborative (Quality Improvement Clinical Research (QuICR) Stroke Program).</li> <li>• Recent Door to Needle times (since first collaborative) are between 27 and 35 minutes. Target is 30 minutes. Education and process review of Hyperacute Stroke Algorithms for Triage and Trauma underway.</li> <li>• Interdisciplinary stroke rounds revised to support improved communication of patient status at RDRH.</li> <li>• SUEC is continuing at key rural hospitals.</li> <li>• Stroke rehabilitation services continue at SAGE, Two Hills Health Centre and Daysland Orthopedic and Active Rehabilitation (DOAR).</li> </ul>
<b>Edmonton</b>	<ul style="list-style-type: none"> <li>• Initiated process mapping of Stroke Prevention Clinic at University of Alberta.</li> <li>• Developed process for urgent TIA (Transient Ischemic Attack) imaging. Triage algorithms and ED order sets complete and ready for implementation.</li> </ul>
<b>North</b>	<ul style="list-style-type: none"> <li>• Collaborate in the Worksite Vascular Screening &amp; Early Management Demonstration Projects.</li> <li>• Engage and actively participate in the QuICR Door to Needle Initiative.</li> </ul>

### IN SUMMARY

Provincially, the Q1 year-to-date rate has improved (14.1%) when compared same period as last year (14.3%).

AHS aims to reduce median door-to-needle (DTN) time - the total time from when a patient enters the emergency room, is given a stroke diagnosis, and receives tPA - to 60 minutes or less. Administering the clot-busting drug tPA within 60 minutes of a stroke has shown to reduce mortality, reduce treatment complications, lessen disabilities and shorten inpatient hospital stays.

Protocol improvements include the emergency department immediately paging the stroke team and diagnostic imaging when the patient is triaged, ensuring the CT scanner is available for quick use, and creating visual cues for the lab to indicate the urgency of the patient's blood tests.

### DID YOU KNOW

*The **Stroke Action Plan (SAP)** addresses the quality of and access to stroke care in rural and small urban stroke centres across Alberta. SAP includes initiatives such as creating standards for **stroke unit equivalent care (SUEC)** for small rural centres and facilitating **early supported discharge (ESD)** from acute care by delivering expert stroke rehabilitation into community-based services*

***Endovascular therapy** is a stroke treatment that removes the large stroke-causing clots from the brain, and substantially improves the chance for a better outcome for patients.*

## Stroke Mortality – Zone Details

The probability of dying in hospital within 30 days for patients admitted because of stroke. This measure represents hospital deaths occurring within 30 days of first admission to a hospital with a diagnosis of stroke. This measure is risk adjusted for age, sex and other conditions.

Stroke Mortality within 30 days	2012-13	2013-14	2014-15	Q1 YTD		Trend *	2015-16 Target
				2014-15 Last Year	2015-16 Current		
<b>Provincial</b>	<b>15.0%</b>	<b>14.1%</b>	<b>13.9%</b>	<b>14.3%</b>	<b>14.1%</b>	<b>↑</b>	<b>13.2%</b>
South Zone	19.5%	19.3%	12.5%	13.6%	N/A	N/A	<b>14.8%</b>
Calgary Zone	13.8%	13.6%	11.7%	9.4%	13.5%	↓	<b>12.3%</b>
Central Zone	16.2%	12.5%	16.3%	23.2%	N/A	N/A	<b>14.3%</b>
Edmonton Zone	15.0%	13.3%	14.7%	16.1%	15.5%	↑	<b>13.3%</b>
North Zone	16.2%	19.2%	20.3%	25.0%	N/A	N/A	<b>14.5%</b>

N/A indicates statistically unreliable rates due to low volumes

**Trend:** ↑ Improvement → Stability ↓ Area requires additional focus

Stroke Cases (Index)*	2012-13	2013-14	2014-15	Q1 YTD	
				2014-15 Last Year	2015-16 Current
<b>Provincial</b>	<b>3,329</b>	<b>3,316</b>	<b>3,568</b>	<b>866</b>	<b>869</b>
South Zone	198	242	285	75	67
Calgary Zone	1,313	1,251	1,311	318	304
Central Zone	314	299	326	71	83
Edmonton Zone	1,265	1,305	1,410	349	357
North Zone	239	219	236	53	58

\*Total number of hospital stays where a first stroke was diagnosed.