

# **Heart Attack Mortality**

#### **Measure Definition**

The probability of dying in hospital within 30 days of being admitted for a heart attack. AHS is performing at the same level as the national average of 7.1%. This measure represents hospital deaths occurring within 30 days of first admission to a hospital with a diagnosis of acute myocardial infarction (AMI), often called a heart attack. This measure is adjusted for age, sex and other conditions.

### **Understanding this Measure**

Heart attacks are one of the leading causes of death in Canada. Breakthroughs in treatments, particularly the timing of re-opening coronary arteries for blood flow, are greatly increasing survival rates.



### How Do We Compare?

Alberta ranked 3<sup>rd</sup> best nationally out of ten provinces and better than the national rate.





# **Heart Attack Mortality – Actions**

Provincial/ Strategic Clinical Network (SCN)	<ul> <li>Implement best practice guidelines and protocols for management for Non ST segment elevation myocardial infarction (NSTEMI).</li> <li>Provincial implementation of ST-segment elevation myocardial infarction (STEMI) standardized orders sets with Cardiovascular Health and Stroke SCN.</li> </ul>
South	<ul> <li>Monitor and evaluate implementation of best practice guideline for NSTEMI.</li> </ul>
Calgary	<ul> <li>Ongoing implementation of best practice guidelines and protocols and monitoring cardiac outcomes.</li> <li>Completed the Cardiac Services Review in conjunction with the Cardiovascular Health and Stroke SCN.</li> <li>Ongoing efforts in cardiac sciences care pathways and monitoring of the mortality rates continue.</li> </ul>
Central	• With the Cardiovascular Health and Stroke SCN, Red Deer Regional Hospital Centre is supporting a pilot on the provincial STEMI referral pathway as well as developing a provincial dashboard to track mortality metrics in a more effective and accurate way.
Edmonton	<ul> <li>ED STEMI order set is currently being updated with the latest STEMI guidelines; a roll out plan to follow these revisions.</li> <li>150 patients have been enrolled in the REMCON STEMI research study; recruitment of patients to the study will continue.</li> <li>Ongoing education related to STEMI care was provided to over 300 individuals bringing the year-to-date total to 428 students and staff through a mixture of class lectures and two multi-zone symposiums.</li> <li>Supporting EMS to deliver face-to-face simulation style education sessions with front-line staff to reinforce STEMI diagnosis and care pathway is ongoing.</li> </ul>
North	<ul> <li>Work on congestive heart failure and chronic obstructive pulmonary disease pathways are underway with SCN, in partnership with Primary Care and Allied Health.</li> <li>Chart audits and specific site action plans being developed to address root causes of mortality.</li> </ul>

#### **IN SUMMARY**

Compared to the same period last year, two zones have demonstrated improvement.

Every day at AHS, cardiologists and EMS work collaboratively to diagnose patients who are in transit to the hospital. They can jump into action immediately upon the patient's arrival to the ED to initiate an appropriate treatment plan.

The decline in heart attack mortality rates is attributed to medical advances, new pharmaceuticals, and reductions in major risk factors, such as a decline in tobacco use.

#### **DID YOU KNOW**

NSTEMI (Non–ST-segment elevation myocardial infarction) occurs by developing a complete blockage of a <u>minor</u> coronary artery or a <u>partial blockage of a major</u> <u>coronary artery</u> previously affected by atherosclerosis.

**STEMI (ST-segment elevation myocardial infarction)** occurs by developing a complete blockage of a <u>major</u> coronary artery previously affected by atherosclerosis.

NSTEMI and STEMI are both commonly known as heart attack.



## **Heart Attack Mortality – Zone Details**

The probability of dying in hospital within 30 days of being admitted for a heart attack. AHS is performing at the same level as the national average of 7.1%. This measure represents hospital deaths occurring within 30 days of first admission to a hospital with a diagnosis of acute myocardial infarction (AMI), often called a heart attack. This measure is risk adjusted for age, sex and other conditions.

	2012-13	2013-14	2014-15	Q2 YTD			2015-10
Heart Attack (AMI) Mortality within 30 days				2014-15 Last Year	2015-16 Current	Trend *	2015-16 Target
Provincial	5.9%	7.2%	6.2%	6.1%	6.2%	$\checkmark$	5.9%
South Zone	5.3%	7.6%	6.4%	5.5%	7.8%	$\downarrow$	5.3%
Calgary Zone	6.4%	7.1%	4.9%	5.5%	5.9%	$\checkmark$	6.3%
Central Zone	7.3%	10.0%	7.2%	7.0%	6.1%	$\uparrow$	7.1%
Edmonton Zone	4.9%	6.2%	6.8%	6.0%	5.7%	$\uparrow$	4.9%
North Zone	8.5%	9.1%	7.2%	7.8%	9.0%	$\checkmark$	8.2%

Note: Risk adjusted rate of in-hospital death within 30 days for first admission to hospital for a heart attack diagnosis.

\* **Trend:**  $\uparrow$  Improvement  $\rightarrow$  Stability  $\downarrow$  Area requires additional focus

	2012-13			Q2 YTD	
Heart Attack Cases (Index)*		2013-14	2014-15	2014-15 Last Year	2015-16 Current
Provincial	5,337	5,475	5,408	2,725	2,700
South Zone	360	320	315	168	142
Calgary Zone	1,794	1,951	1,876	939	922
Central Zone	542	509	544	257	260
Edmonton Zone	2,283	2,334	2,304	1,175	1,183
North Zone	356	361	369	186	193

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