

Patients Discharged from Emergency Department or Urgent Care Centre within 4hrs

Name and Definition

Full Name	Emergency Department Length of Stay: Percent of patients treated and discharged from the Emergency department within 4 hours.	
Short Name	Patients Discharged from Emergency Department or Urgent Care Centre within 4hrs	
Definition	The Emergency Department or Urgent Care Centre (ED/UCC) length of stay (LOS) is the total time from the first documented time after arrival at emergency, whether triage or registration to the time the patient is discharged (leave the ED/UCC).	
Domain	Health Services Delivery	
Dimension		
Acceptability	Efficiency	Appropriateness
No	No	No
Effectiveness	Accessibility	Safety
No	Yes	No
Category of Measure	Strategic	
Type of Measure	Output Measure	
Other Comments / Notes		

Context

Business Context	AHS Strategic Direction 2010-2012 AHS 2010 -2015 Health Plan: Improving Health for All Albertans Becoming the Best: Alberta's 5-Year Health Action Plan 2011-2015 Health Plan 2010-2013 Ministry Business Plan 2011-2014 Ministry Business Plan
Rationale	<p>Patients treated in an Emergency Department or Urgent Care Centre (ED/UCC) should be assessed and treated in a timely fashion. The length of stay in Emergency Department (ED LOS) is used to assess the timeliness of care delivery.</p> <p>Patients who are treated and then discharged from ED/UCC will typically have a distinctly shorter stay than patients subsequently admitted to hospital relating to complexity, admission processes and other factors. Therefore ED LOS is measured distinctly for these groups. Other discharge categories are also separated due to dissimilar ED LOS. These include left without being seen, left against medical advice, or death.</p> <p>Alberta is taking action to reduce wait times throughout the health system. Goal 1 of Alberta's 5-Year Health Action Plan is improved quality, safety and access for patients to acute care services [that] will be demonstrated by lower wait times across the province. The target length of stay in emergency departments is:</p> <p style="padding-left: 40px;">Four hours for patients not needing admission to hospital, Eight hours for patients needing admission to hospital,</p> <p>This performance measure is used to track progress toward reducing wait times for emergency department services and achieving these wait time targets.</p>
Notes for Interpretation	<p>Variation in complexity of patients, site capacity limitations and access to other Interpretation primary care options (urgent care centres, family physicians, walk-in clinics) in a community vary significantly and can contribute to significant variation in demand for Emergency and Urgent Care services.</p> <p>Some emergency departments use a ticketing system that patients pull on arrival; this is not what is used as the start time. The triage date and time or registration date and time we capture may between 1 to 30 minutes after a patient walks in the door.</p> <p>The same methodology is applied at all sites in calculating the Emergency Department or Urgent Care Centre LOS.</p>

Performance Measure Definition

Organizational Strategy	<p>Develop and implement initiatives for hospital-wide improvement of patient flow by decreasing length of stay as identified in Transformational Improvement Programs (TIP) #2: Improving Access & Reducing Wait Time.</p> <p>Work with primary care, Emergency Medical Services (EMS) and Health Link to increase the number and availability of community-based services such as physician clinics and urgent care centres (who provide expanded hours that provide care for less serious emergencies).</p> <p>Establish an Emergency Clinical Network Development of contingency plans for surge periods of patient demand.</p>
Benchmark Comparisons	For those discharged from Emergency, a target of 90% of patients having ED LOS of less than 4 hours has been set by 2015 as per Alberta's 5-year Health Action Plan 2010-2015.
Cited References	<p>ED Quality Indicator Report: http://www.caep.ca/template.asp?id=4DCA2D0014A4408FACB06DC5CCOE81_D3#Cjem</p> <p>Becoming the ,Best: Alberta's 5-year Health Action Plan 2010-2015: http://www.albertahealthservices.ca/3201 .asp</p>

Technical Specifications

Metric	1. Minutes 2. Percent
Preferred Display Format	1. 9,999 2. 99%
Numerator	<p>1. Length of Stay will be captured in minutes between Start Time and End Time where the Start Time is the earliest of either the ED Triage Time or the ED Visit (Registered) Time as recorded on the ED record and the End Time of the ED visit is recorded as discharge time on the ED record.</p> <p>2. Count of all valid records with a length of stay less than 4 hours.</p> <p>Valid records are defined by the inclusion and exclusion criteria for the numerator below.</p>
Inclusion Criteria for Numerator	<p>Include Emergency visits and Urgent Care Centre visits for discharged patients. Criteria for</p> <p>Emergency Visits: National Ambulatory Care Reporting System (NACRS): Abstract_Type = E Includes visits with MIS Primary (MISPRIME) codes of •713100000 -Emergency •713102000 -General Emergency •713104000 -Observation •713106000 -Trauma AND •Scheduled ED Visit (SCHEDULED_ED) = N or blank</p> <p>Alberta Ambulatory Care Report System (AACRS): Abstract_Type = E Includes visits with MIS 'Primary (MISPRIME) codes of •71310-Emergency •7131020 -General Emergency •7131025 -Hospital Urgent Care Centre •7131040 -Interim Emergency Assessment •7131060 -Trauma Emergency</p> <p>Urgent Care Visits: NACRS:Abstract_Type = U Includes visits with an MIS Primary (MISPRIME) code of •713102500 -Urgent Care Centre •715130000-Community Urgent Care •715140000 -Community Advance Ambulatory Care AACRS:Abstract_Type = U</p> <p>Includes visits with an MIS Primary (MISPRIME) code of 71513 -Community Urgent Care</p> <p>Disposition: Include discharged patients based on disposition code. Those patients identified in this group represent those who have completed a typical course of care. See Appendix 1 for system specific disposition codes. Disposition =1: Discharged Home Disposition =8: Transferred to another acute care facility</p>

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Disposition =9: Transferred to another non-acute care facility
 Disposition =12: Intra facility transfer to day surgery
 Disposition =14: Intra-facility transfer to clinic
 Disposition =15: Discharged to place of residence (Institution for example, Nursing or Retirement Home or Chronic Care; Private Dwelling with Home Care, VON, Meals on Wheels, etc.; or Jail).

Exclusion Criteria for Numerator	<p>Exclude patients with an unknown ED discharge time:</p> <p>NACRS: A discharge time of 9999 is used to indicate a time that is unknown. Therefore, cases with this time recorded should not be used to calculate the LOS.</p> <p>AACRS: A discharge time of 2359 can be used to indicate a time was unknown. Therefore, cases with this time recorded should not be used to calculate LOS</p> <p>Exclude patients where the calculated time becomes negative reflecting an error.</p> <p>Exclude patients where the calculated time is greater than 7 days (168 hours) reflecting a likely data error.</p> <p>Discharged patients do not include patients who left without being seen, left against medical advice, died either before or during the visit or were admitted as an inpatient to the same facility.</p>
Data Source(s) for Numerator	<p>Data is collected by Coding Specialists in Health Information Management utilizing for Numerator Data Source(s) coding and abstracting software, and by Service Even/Service Log applications. Monthly data extracts which are provided to Data Integration, Measurement and Reporting (DIMR) from each facility are processed and loaded into an AHS database. For visits prior to March 31st, 2010 data is collected using the ACCRS. For visits after April 1st, 2010 data is collected using the NACRS.</p> <p>The Emergency Department Information System (EDIS) and Regional Emergency Department Information System (REDIS) sources are transactional Emergency Department information systems as defined in the Technical Notes.</p>
Refresh Rate for Numerator	Monthly
Data Steward for Numerator	Health Information Management (HIM) and Emergency Departments
Denominator	<ol style="list-style-type: none"> 1. No denominator for number of minutes. 2. Count of all valid records for percent calculation
Inclusion Criteria for Denominator	Same as numerator.
Exclusion Criteria for Denominator	Same as numerator.
Data Source(s) for Denominator	Same as numerator.
Refresh Rate for Denominator	Same as numerator.
Data Steward for Denominator	Same as numerator.
Technical Notes	<p>Data Sources:</p> <p>Alberta Ambulatory Care Reporting System format (AACRS) Includes data up to March 31, 2010 when AACRS is replaced by NACRS. AHSDRRFLAT.Ambulatory_view CPIRUP Server (temporary until data is available in the DIMR Data Repository) AHS_Ambulatory.</p> <p>National Ambulatory Care Reporting System format (NACRS) Will also include data prior to NACRS implementation with AACRS values mapped to NACRS values. AHSDRRFLAT.NACRS_View or AHSDRR3NF.NACRS_View</p> <p>Transactional Emergency Department Information Systems CDR9 Server (temporary until data is available in the DIMR Data Repository) has_tgt.EDIS_Visits</p>

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has_tgt.REDIS_Visits

Data Source Selection: For the 9 urban sites the Emergency Department 'Information System (ED IS) and Regional Emergency Department Information System (REDIS) sources are used. For the other sites, AACRS is used up to March 31, 2010. From April 1, 2010 forward, NACRS is used.

EDIS sites:

- Grey Nuns Community Hospital
- Leduc Community Hospital
- Misericordia Community Hospital
- North East Community Health Centre
- Royal Alexandra Hospital
- Sturgeon Community Hospital
- University of Alberta Hospital
- Westview Health Centre

REDIS sites:

- Alberta Children's Hospital
Foothills Medical Centre
- Peter Lougheed Centre
- Rockyview General Hospital
- Sheldon M Chumir Centre
- South Calgary Health Centre

All other sites use NACRS.

Data Linking:

Peer Group: Linking is done by matching the 3 digit institution number from the source data to the CPIRUDBA.ahsjstitutions table (temporary until institutions table is available in AHSDRRP).

Timestamp Definitions:

Start Time:

ACeS -Earliest of either the ED Triage Time or the ED Registration Visit Time
 NACRS -Earliest of either the ED Triage Time or the ED Registration Visit Time
 REDIS -Earliest of either the ED Triage Time or the ED Registration Arrival Time
 EDIS -Earliest of either the ED Triage Time or the ED Registration Arrival Time

End Time:

ACCS -Determined by linking to inpatient visit to determine when the patient left ED as recorded on the Inpatient Discharge Abstract Data (DAD) record in fields ERDEPTDATE and ERDEPTTIME
 NACRS -Left ED as recorded in fields ERDEPTDATE and ERDEPTTIME
 REDIS -Discharge date and time
 EDIS -Discharge date and time

Institution Issues:

Data for the Stollery Children's Hospital are included within the University of Alberta Hospital. Any patient less than 16 years of age (AGE_ADMIT field) at the time of the visit to the University of Alberta Hospital (INST 88044) is recoded to be a patient of the Stollery Children's Hospital (INST 88153).

Peer Group Issues:

The Coaldale Health Centre (Inst 028) peer group classification is "pending." Therefore before any grouping the "pending" status must be removed and the grouping should be changed to "Community Ambulatory Care Centre."

Calculation

1. Length of Stay will be captured in minutes between a Start Time and End Time where the Start Time is the earliest of either the ED Triage Time or the ED Visit (Registered) Time and the End Time is the valid discharge date and time.

2. "% of Discharged ED Visits ED < 4hour" is calculated by dividing the number of valid records with a length of stay of less than 4 hours (240 minutes) by the total number of valid records multiplied by 100.

Relationship to Other Indicators

Performance Measure Definition

Level of Reporting	National	No	Provincial	Yes	Zone	Yes	Site	Yes
Reporting Notes	Provincial, Zone, Site							
Frequency of Reporting	Annually	Yes	Quarterly	Yes	Monthly	Yes	Other	No
Other Reporting Frequency								
Limitations	<p>Urgent Care Centres where disposition data is not collected according the Alberta Coding Standards should be excluded from calculations. Currently a high proportion of "unknown discharge times" are being recorded (using time of 2359). 2359 was collected as a default time to March 31, 2010 under (AACRS) and now 9999 is being collected as of April 1, 2010 under NACRS.</p> <p>For sites reporting this time with high frequency the validity of the LOS time should be evaluated. If an ED or UCC discharge time of 2359 is recorded this can indicate that the time is unknown. For certain sites this time is currently being recorded at high frequency indicating that the LOS cannot be calculated for these patients. Data is affected substantially for some sites prior to March 2010. Data integrity intervention is underway at these sites. Evaluation after this date will be required.</p> <ul style="list-style-type: none"> •Data for Emergency visits is collected by Coding Specialists in Health Information Management utilizing coding and abstracting software. Month end reconciliation ensures data has been collected on all ED visits. Data for Urgent Care visits in Calgary and Edmonton is collected using Service Event and Service Log applications. •Health Information Management (HIM) is working toward a completion target of 30 days following month end for submission to AHW. •AACRS standards and guidelines have been in place since 1995. 							

Planning Documents

Reference Documents

Name	Business Planning Document URL
AHS Health Plan	http://www.albertahealthservices.ca/3238.asp
AHS Strategic Direction	http://www.albertahealthservices.ca/org/ahs-org-strategic-direction.pdf
Alberta's 5-year Health Action Plan	http://www.health.alberta.ca/documents/Becoming-the-Best-2010.pdf
ED Quality Indicator Report	http://caep.ca/
Health and Wellness Business Plan 2010-2013	http://www.finance.alberta.ca/publications/budget/budget2010/health-wellness.pdf
Health and Wellness Business Plan 2011-2014	http://www.finance.alberta.ca/publications/budget/budget2011/health-wellness.pdf