Capital District Emergency Services Council

"CDESC"

Quarterly Report

Quarter 2 of 2014-2015

With focus on the Emergency Department of Dartmouth General and the Collaborative Emergency Centres of the Tri Facilities

Capital Health
A different today. A better tomorrow.

IWK Health Centre

DALHOUSIE UNIVERSITY
Inspiring Minds

EHS
Emergency Health Services

Introduction

Emergency Medicine is the medical specialty dedicated to the diagnosis and treatment of unforeseen illness and injury. It includes the initial evaluation, diagnosis, treatment, and disposition of any patient requiring expeditious medical, surgical, or psychiatric care <1>. Thus, the operationalization of "Integrated Networks of Emergency Care" is inherently interdisciplinary and interdependent upon multiple in-hospital and Health System wide structures and processes.

In alignment with the CDHA/IWK/EHSNS commitment to patient safety and with the Better Care Sooner standards (as well as with recommended national ED quality reporting guidelines) this quarterly report focuses on Key Process Indicators, and outcomes when available, to help drive the CQI imperative and to improve care to the patients and populations that we serve.

Emergency Medicine	**Unforeseen** **Unscheduled**	**Predictable** **Schedulable**
CTAS 1, 2, 3	• Often described as "real" emergencies 97% of fixed costs of ED to meet population burden of acute illness and injury<4> • Does include exacerbations of chronic problems	• "avoidable" CTAS 3 (ED as safety net) - frail elderly with no acute event or problem - partial diagnosis requiring further work up - chronic condition requiring follow up or has predictable clinical course
CTAS 4, 5	• ***DO NOT*** cause ED overcrowding<2,3> • Very low marginal cost to see in ED<4,5> • 9/10 most common successful lawsuits in EM	• "inappropriate" ED visits (ED as gate keeper) - Medication refill - "sick note" for work or school - Queue jumping to see specialist

1. ACEP definition of Emergency Medicine: http://www.acep.org/Content.aspx?id=29164
2. MYTH: Emergency room overcrowding is caused by non-urgent cases - October 2009 Canadian Health Research Foundation Myth Buster of the year series
3. The Effect of Low-Complexity Patients on Emergency Department Waiting Times Schull MJ, Kiss A, Szalai JP. Ann Emerg Med. 2007 Mar;49(3):257-64, 264.e1. Acad Emerg
4. **THE COSTS OF VISITS TO EMERGENCY DEPARTMENTS** ROBERT M. W ILLIAMS , M.D., .PhD (N Engl J Med 1996;334:642-6.)
5. Emergency Medical Care: 3 Myths Debunked, Huffington Post. Leigh Vinocur, M.D. Director of Strategic Initiatives at the University of Maryland School Medicine.

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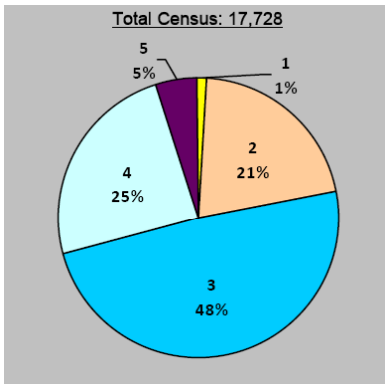
Demand

Census – Halifax Infirmary ED

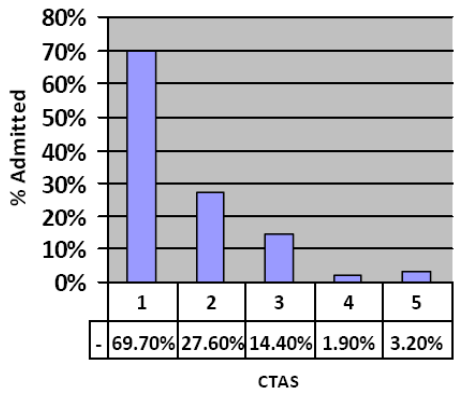
Reporting Date: April 1 – June 30, 2014

Context :

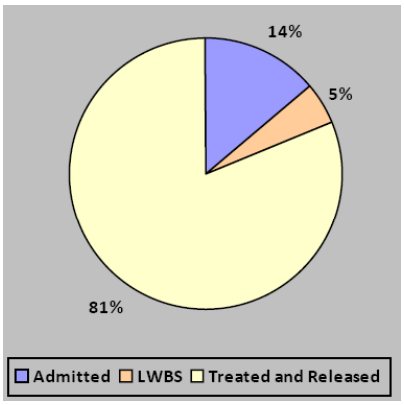
Emergency Departments are designed to meet the unscheduled (from life threatening to relatively minor) health care needs of the population. The 5 level CTAS score is used to differentiate acuity (1 being severe and time dependent) though it is only a surrogate marker for the complexity of care. Left Without Being Seen (LWBS) is a reflection of decreased access secondary to wait times (target 2-3%). Percentage admitted national benchmark is 16-18% for CTAS 3s.



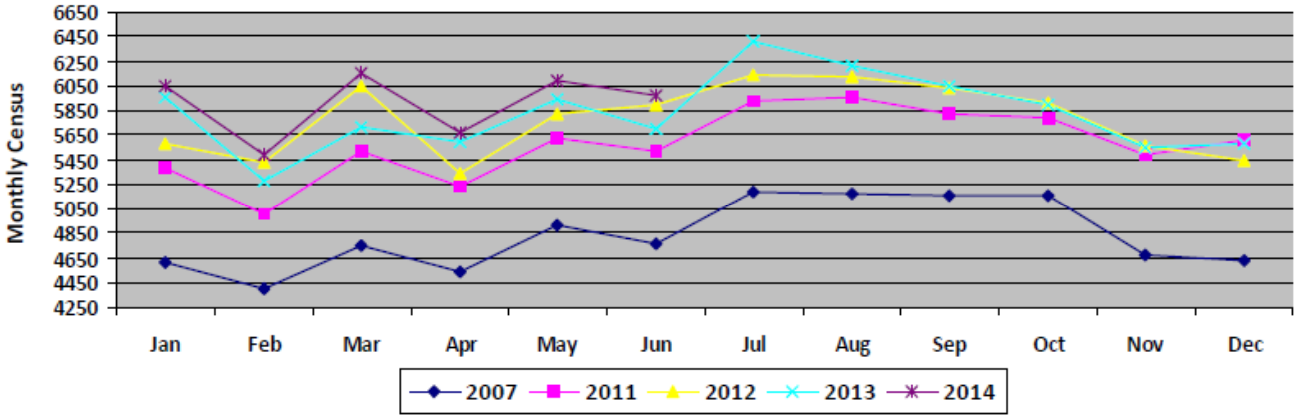
CTAS Distribution



Percentage Admits



Discharge Distribution



Analysis:

ED Census stays above that of previous years, CTAS 3 continuing to represent our largest CTAS category.

Sam Campbell, Site Chief, HI ED

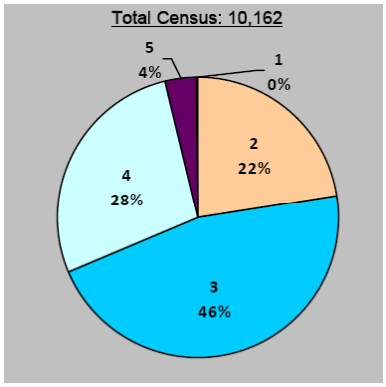
Demand

Census – Dartmouth General ED

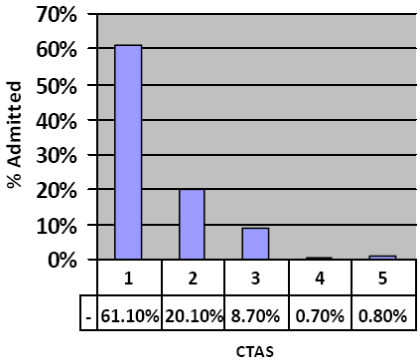
Reporting Date: April 1 to June 30, 2014

Context:

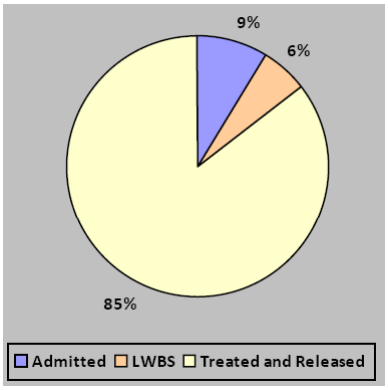
Emergency Departments are designed to meet the unscheduled (from life threatening to relatively minor) health care needs of the population. The 5 level CTAS score is used to differentiate acuity (1 being severe and time dependent) though it is only a surrogate marker for the complexity of care. Left Without Being Seen (LWBS) is a reflection of decreased access secondary to wait times (target 2-3%). Percentage admitted national benchmark is 16-18% for CTAS 3s.



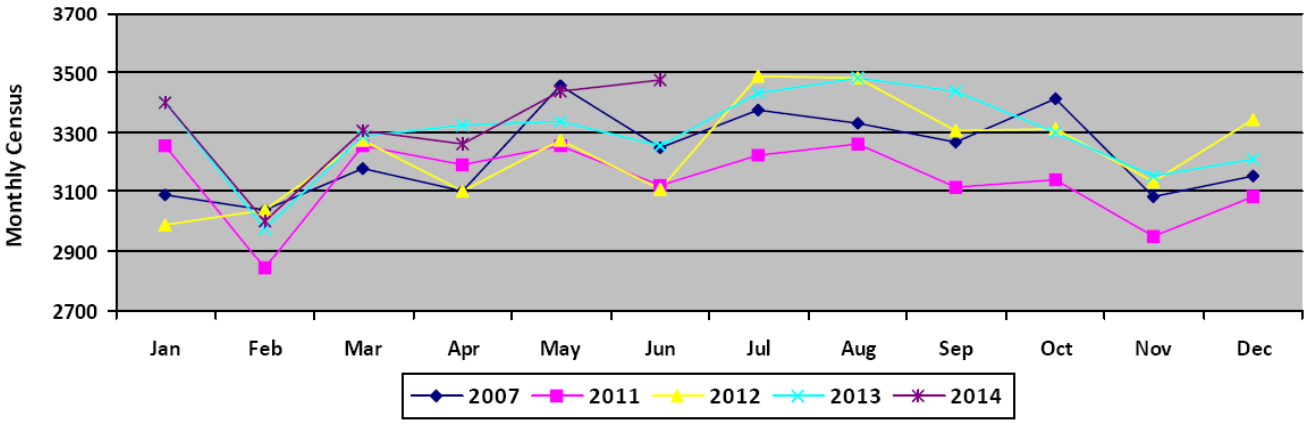
CTAS Distribution



Percentage Admitted



Discharge Distribution



Analysis:

Patient volumes continue to rise and for this quarter was significantly more than previous years. Acuity levels are stable with the majority of patients being higher acuity patients (CTAS level 2/3).

Ravi Parkash, Site Chief, DGH ED

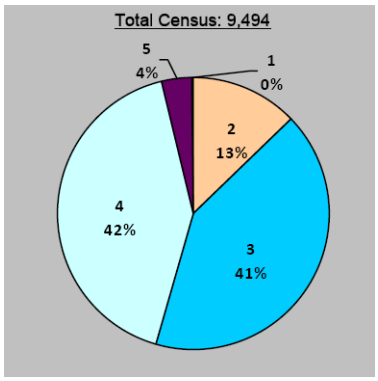
Demand

Census – Cobequid Community ED

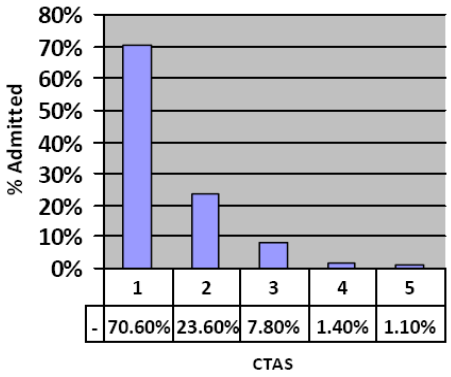
Reporting Date: April 1 to June 30, 2014

Context:

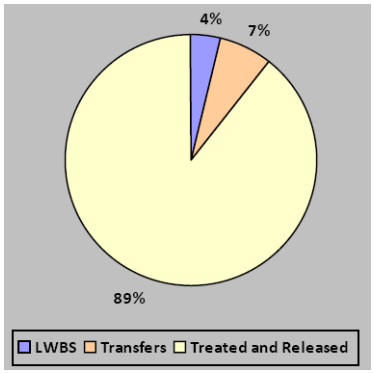
Emergency Departments are designed to meet the unscheduled (from life threatening to relatively minor) health care needs of the population. The 5 level CTAS score is used to differentiate acuity (1 being severe and time dependent) though it is only a surrogate marker for the complexity of care. Left Without Being Seen (LWBS) is a reflection of decreased access secondary to wait times (target 2-3%). Percentage transferred is used as a surrogate for admits for CCHC.



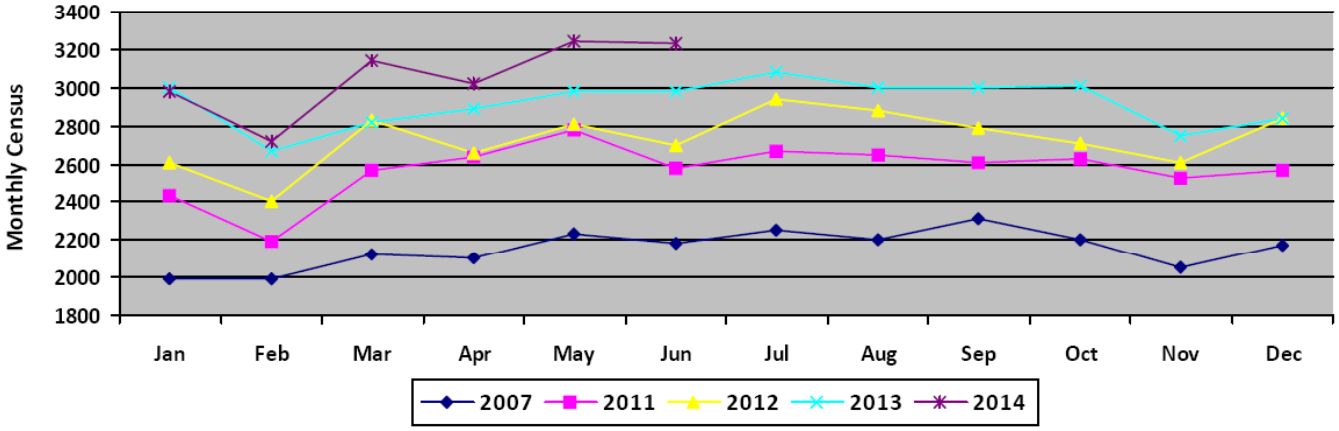
CTAS Distribution



Percentage Transferred



Discharge Distribution



Analysis:

Patient registrations continue to increase at CCHC but the LWBS rate has maintained at 4%. The transfer rate remains stable at 7%. Acuity was slightly less with 53% of visits being in CTAS 1,2 or 3 category, in contrast to 57% in first quarter 2014.

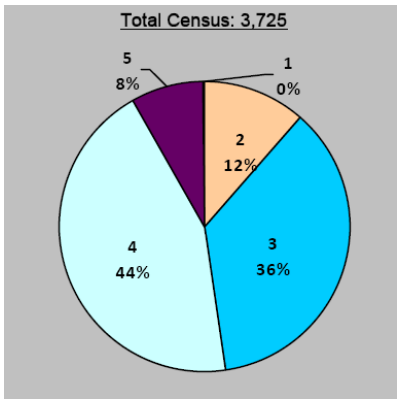
Mike Clory, Site Chief, CCHC ED

Demand

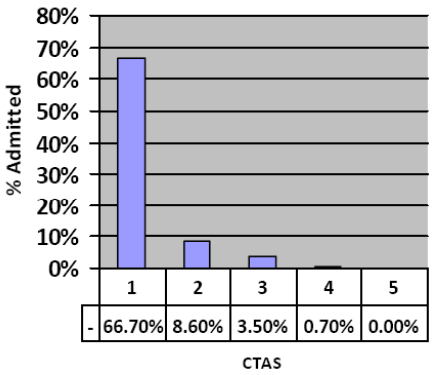
Census –Hants Community Hospital ED Reporting Date: April 1 to June 30, 2014

Context:

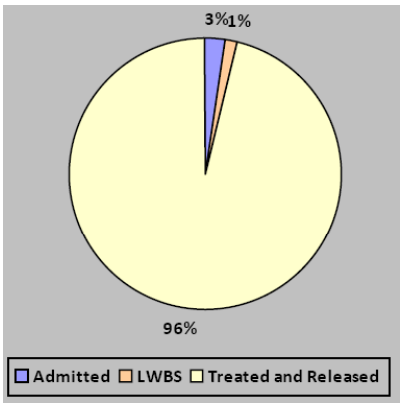
Emergency Departments are designed to meet the unscheduled (from life threatening to relatively minor) health care needs of the population. The 5 level CTAS score is used to differentiate acuity (1 being severe and time dependent) though it is only a surrogate marker for the complexity of care. Left Without Being Seen (LWBS) is a reflection of decreased access secondary to wait times (target 2-3%).



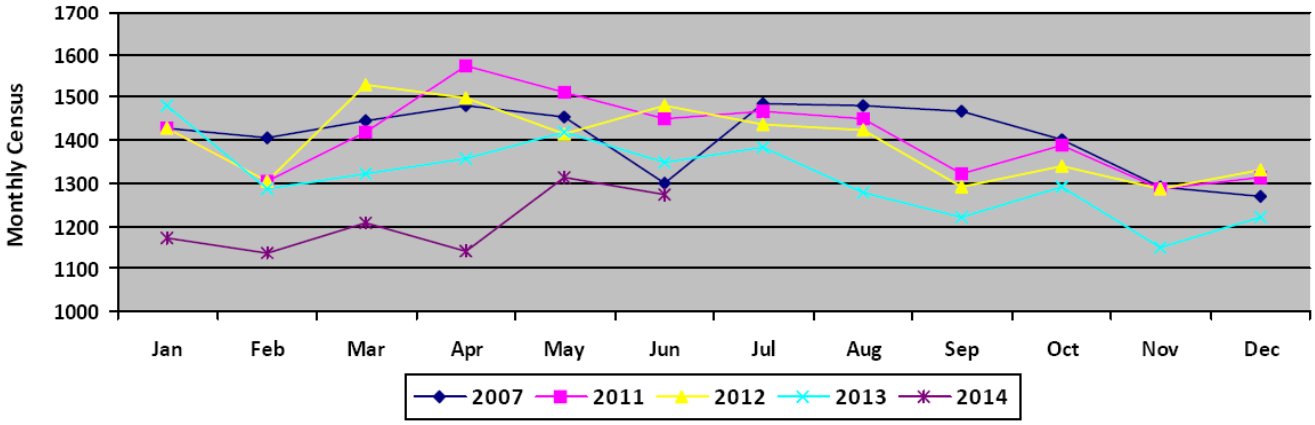
CTAS Distribution



Percentage Transferred



Discharge Distribution



Analysis:

Hants' monthly census has been inclining to previous levels. No evidence of increased visits in neighbouring ED sites. Plan – continue to monitor daily census. LWBS rates have been dramatically declining due to triage driven protocols.

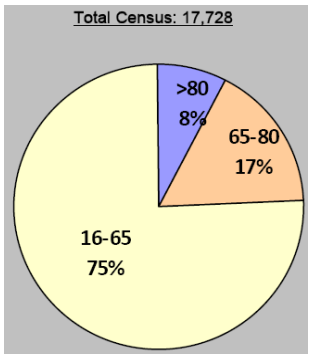
Tanya Penney, Health Services Manager, HCH ED

Demand

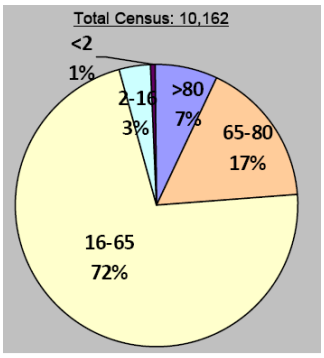
Emergency Department Demographics – Halifax Infirmary / Dartmouth General / Cobequid Community / Hants Community

Context:

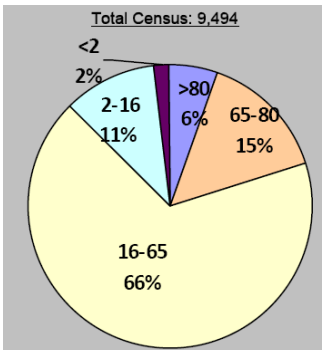
The complexity of patients presenting to the Emergency Department is a function of CTAS, age, presenting complaint, and many other factors. This data looks at the percentage of census in the following age groups (IWK excluded at this time): < 2 yrs, 2-16 yrs, 16-65 yrs, 65-80 yrs, and > 80 yrs.



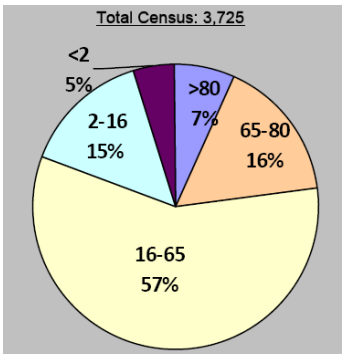
Halifax Infirmary
ED Distribution



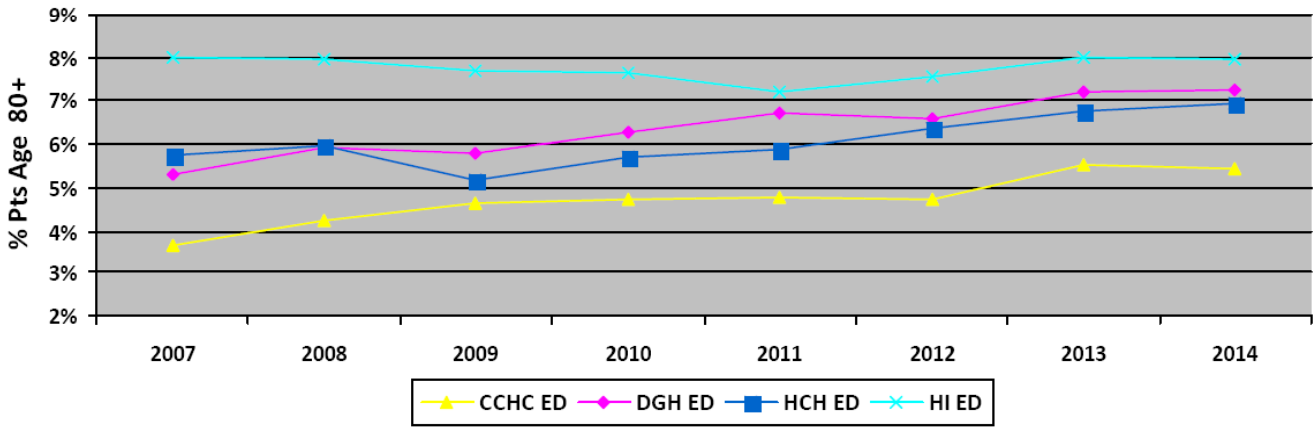
Dartmouth General
ED Distribution



Cobequid Community
ED Distribution



Hants Community
ED Distribution



Analysis:

The volumes of patients are up significantly in the district and the proportion presenting to the Emergency Department over 80 years of age has risen slowly.

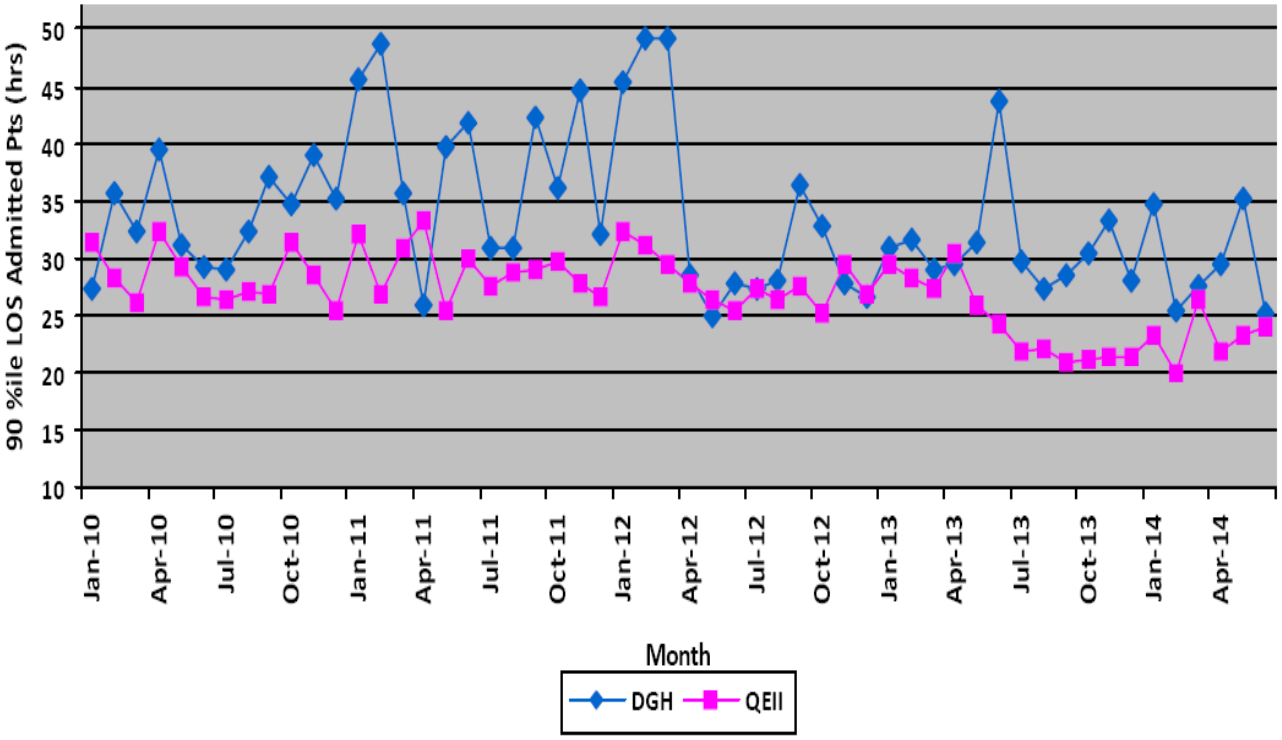
David Petrie, District Chief, Capital Health

Flow and Network Integration

ED Length of Stay (LOS) for Admitted Patients

Context:

ED LOS of admitted patients (i.e. "ED boarding") has been recognized as the main cause of overcrowding in the ED. Overcrowding is the term used to describe access block. Access block as manifested by increased patient wait times, increased ambulance offload times, and increased LWBS rates is associated with increased adverse outcomes, increased mortality (in a dose/response relationship), and increased costs to the system overall.



Analysis:

The 90th percentile performance for the Halifax Infirmary is 24 hours. Dartmouth General remains approximately 25 hours. The current national target recommended by CAEP is 12 hours.

David Petrie, District Chief, CDHA

Flow and Network Integration

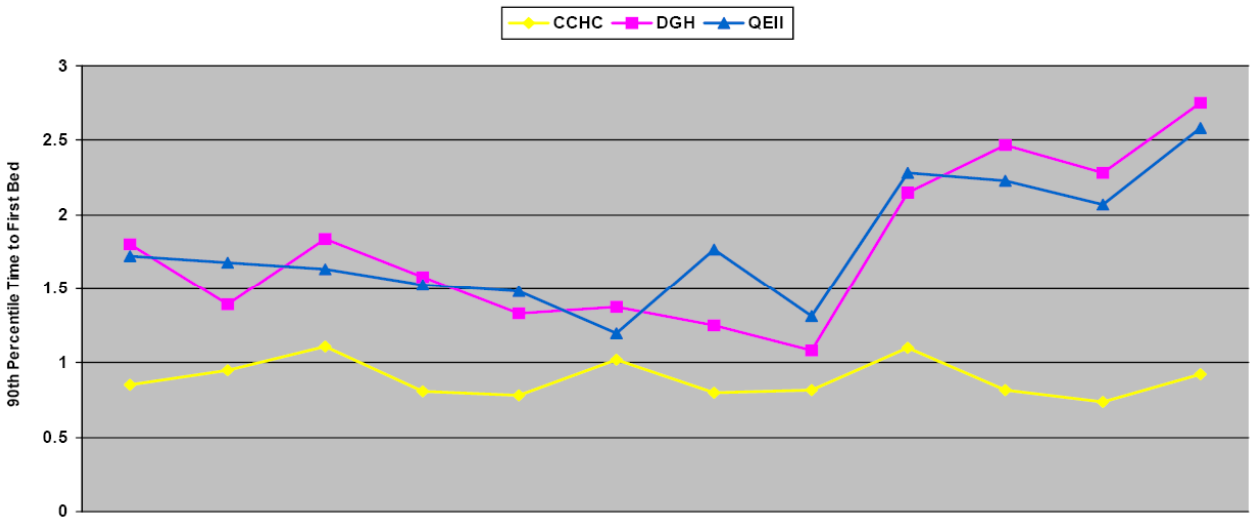
Ambulance Offload / Transition

Context:

Ambulance offload times are another Key Process Indicator which has implications both to the individual patient (i.e. wait times to see an MD), and to the community (i.e. turn around times for the ambulance to get back to the streets and available to the community for the next 911 emergency call.

Because of rising ambulance offload times in the past (due to ED access block) a transition team has been in place to assume the observation of care in the "ambulance hallway" prior to the placement of the patient in an ED bed (to allow the EHSNS crew to return to service). This off load team was discontinued on April 1, 2014.

Reporting Period from: Jul 01, 2013 to: Jun 30, 2014



	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
CCHC	0.85	0.95	1.11	0.81	0.78	1.02	0.8	0.82	1.1	0.82	0.74	0.92
DGH	1.8	1.39	1.84	1.58	1.33	1.38	1.25	1.08	2.15	2.47	2.28	2.75
QEII	1.72	1.68	1.63	1.53	1.48	1.2	1.77	1.31	2.28	2.23	2.07	2.58

90th Percentile Time to Bed (hr)

CCHC	212	188	206	207	189	250	242	192	269	231	238	250
DGH	546	605	569	543	506	576	590	547	639	586	594	537
QEII	1388	1294	1305	1337	1291	1332	1444	1264	1372	1283	1390	1279

Ambulance Volume

Analysis:

After a prolonged period of improved ambulance offload times there is a disturbing increase in the 90th percentile performance likely secondary to the discontinuation of the offload/transition teams at the Dartmouth General and Halifax Infirmary and the increase in patient volumes.

David Petrie, District Chief, CDHA

Flow and Network Integration

Matching Capacity with Demand:

Context:

Ambulance smoothing has occurred in the central region for Quarter 4 2012 based on the relative surge capacity at each ED site. This table shows the percentage of time that the HI and DGH were on then escalating levels of capacity (Red being the highest surge level). CCHC is also part of this network. The surge levels are determined by 5 criteria and are measured real time so the status changes dynamically. If an ambulance patient does not meet exclusion criteria (CTAS 1 and 2 previously determined trip destination criteria for major trauma, stroke, STEMI, or have had recent admit to hospital) then patients may be rerouted from a Red ED to a Green ED.

QEII	DGH	%
GREEN	GREEN	25.26%
GREEN	YELLOW	14.29%
YELLOW	GREEN	14.01%
YELLOW	YELLOW	8.34%
GREEN	ORANGE	7.24%
GREEN	RED	6.52%
YELLOW	RED	5.13%
ORANGE	GREEN	4.57%
YELLOW	ORANGE	4.32%
ORANGE	YELLOW	3.25%
ORANGE	RED	3.02%
ORANGE	ORANGE	2.01%
RED	GREEN	0.66%
RED	YELLOW	0.58%
RED	ORANGE	0.40%
RED	RED	0.40%

Analysis:

During Quarter 4, 2014, Dartmouth General Red / Halifax Infirmary Green occurred 6.52% of the time and Halifax Infirmary Red / Dartmouth General Green occurred 0.66% of the time (ie: The Dartmouth General is 10 times more likely to be on a trip diversion status.) Ambulance smoothing may occur during these times. Cobequid Community Health Centre may receive CTAS 3, 4 or 5 ambulances during these Red times up until 15:00.

David Petrie, District Chief, CDHA

Flow and Network Integration

Pod of Initial Destination at the Halifax Infirmary ED / RAU

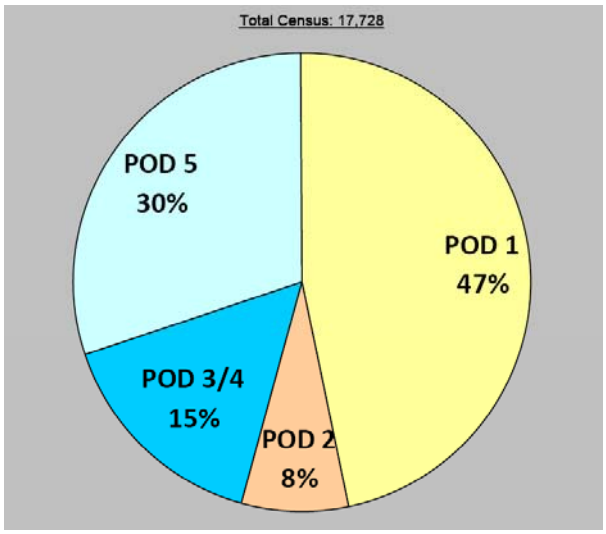
Context:

Internal flow within an ED needs to optimize available space/capacity to meet the volume/CTAS demands of the presenting patients**.**

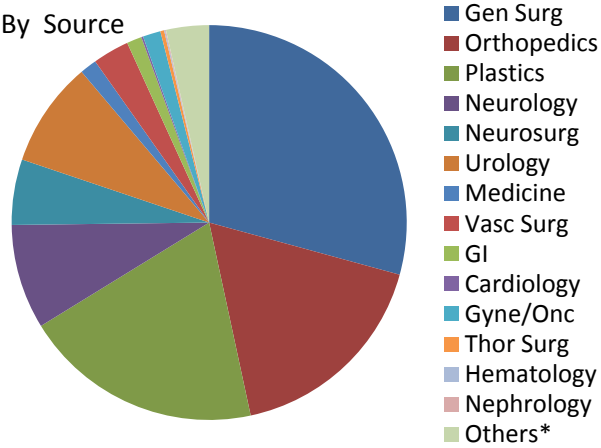
The HI ED has innovated (chair centric Pod 1, fast track/paramedic assisted pod 5) to meet the needs of this demand. The Rapid Assessment Unit is another aspect of the ED which has evolved to meet the needs of transferred patients and referred patients from our own ED. This allows expedited consultations to specific services and frees up bed time to see the next Emergency patient in the waiting room or ambulance hallway.

HI ED- POD Utilization

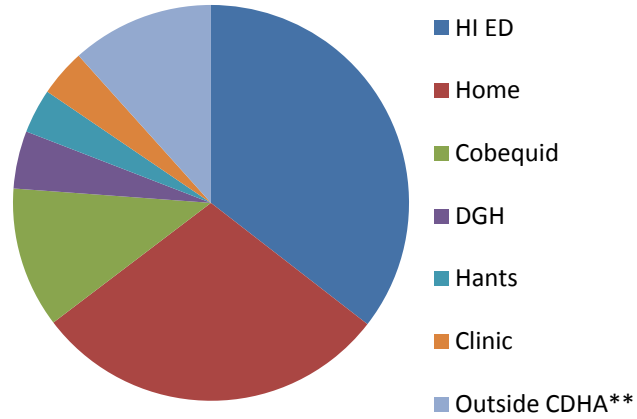
- Initial Location POD 1-2-3-4-5 or Psych
- Psych and Intake A part of Pod 1
- Intake B Part of Pod 5
- No Left Without Being Seen Counted



Volume By Source



Volume By Origin



Analysis:

The distribution of patients between pods is stable from the previous report. 23% of patients are seen in bed-centred pods. Although this demonstrates the efficiency of the chair centric pods, this means that sicker patients are being managed in a less intensive care environment. This paradigm, designed to improve flow by conserving bed space, does expose patients to the risk of less intensive nursing care.

Sam Campbell, Site Chief, QEII ED

Flow and Network Integration

Clinical Decision Unit (CDU) Utilization

Context:

The Clinical Decision Unit is a virtual unit embedded within the physical space of the ED which facilitates observation and rechecks by the Emergency Physician. The purpose is twofold; to improve the transfer of care with more explicit ordering and documentation clinical care pathways, and to try and reduce admissions for patients that potentially may "turn around" with 6 – 24 hours of treatment and observation.

Site	CDU patients	CDU Patients Admitted	Percentage CDU Admitted	Total Site Patient Volume	Percentage Total Patients CDU	Median Length of Stay CDU Non Admitted patients (hr)
HI ED	285	62	21.8%	17729	1.6%	16.40
DGH ED	473	93	19.7%	10162	4.7%	15.41
CCHC ED	3	0	0.0%	9494	0.0%	10.58

Analysis:

The benchmark for Clinical Decision Unit use in the province of Ontario is 4 – 5 %. Unfortunately, documentation of its use has not been very good at the Halifax Infirmary or the Cobequid Community Health Centre; but is approximately at the expected rate at the Dartmouth General.

Clinical Decision Units has been shown to reduce Emergency Department length of Stay, reduce admission rates with no increase in Emergency Department revisit rates in a recent Academic Emergency Paper.

David Petrie, District Chief, CDHA

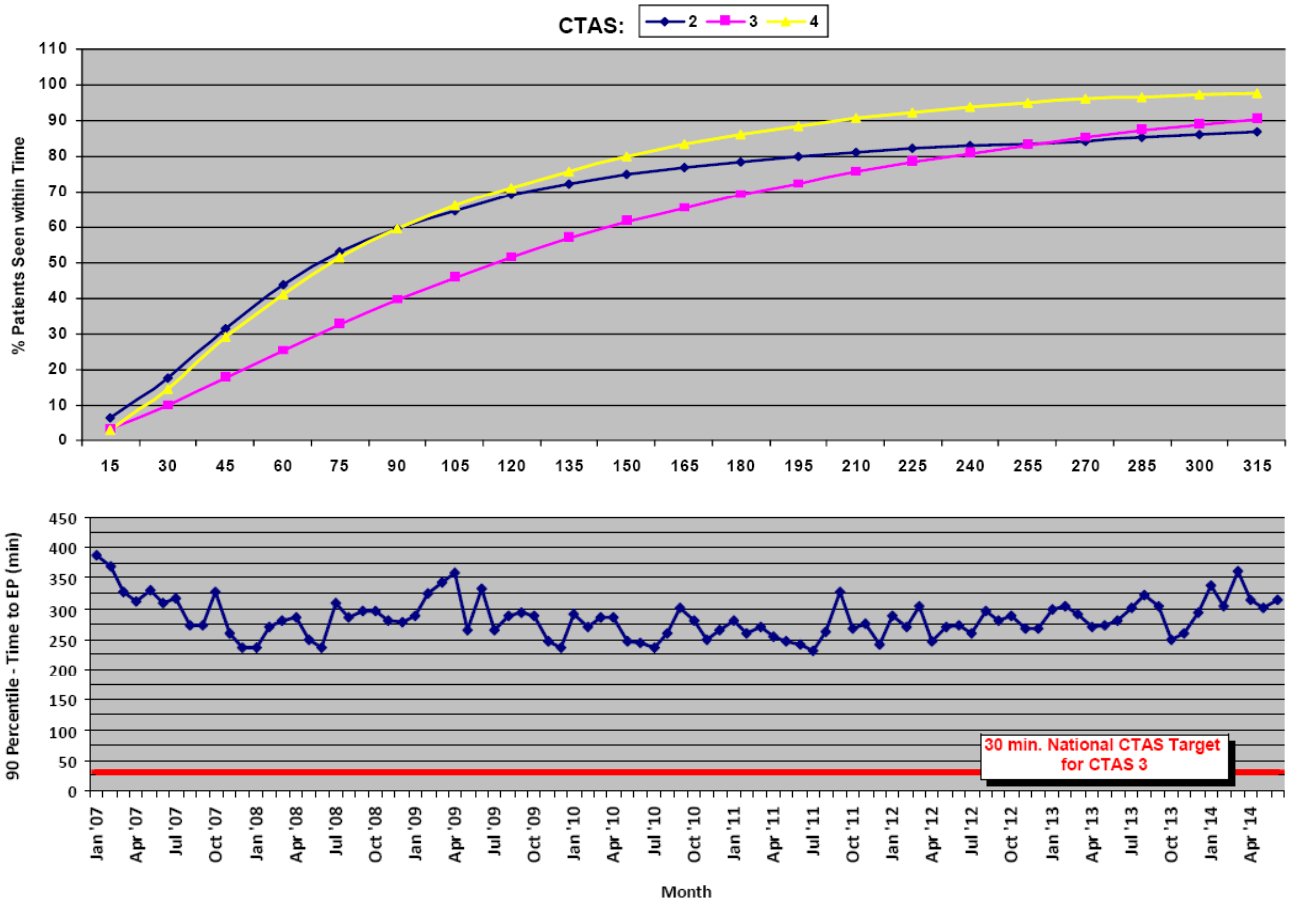
Patient Experience

Wait Times – HI ED

Context: One of the main ways ED access block manifests itself is in patient wait times (time from registration to time to see MD). Wait times have been shown to be associated with adverse outcomes in a dose response curve that suggests causation.

This data looks at the wait time performance curve for CTAS 2, 3, and 4s (assuming CTAS 1s get seen expeditiously and CTAS 5s have less of a time dependency).

The time targets are: CTAS 2 = 15 min, CTAS 3 = 30 min, CTAS 4 = 60 min.



Analysis:

Wait times remain considerably above the goal. This is likely to be related to the increases in census and acuity, nevertheless the return to this dysfunctional trend is concerning. Efforts to address waits continue, including working collaboratively with consultant services, matching staff coverage with patient demand, maximizing efficiencies of flow through use of non-physician providers, chair centric care, avoiding hospital admission through aggressive use of the CDU(clinical decision unit) and the RAU (rapid assessment unit).

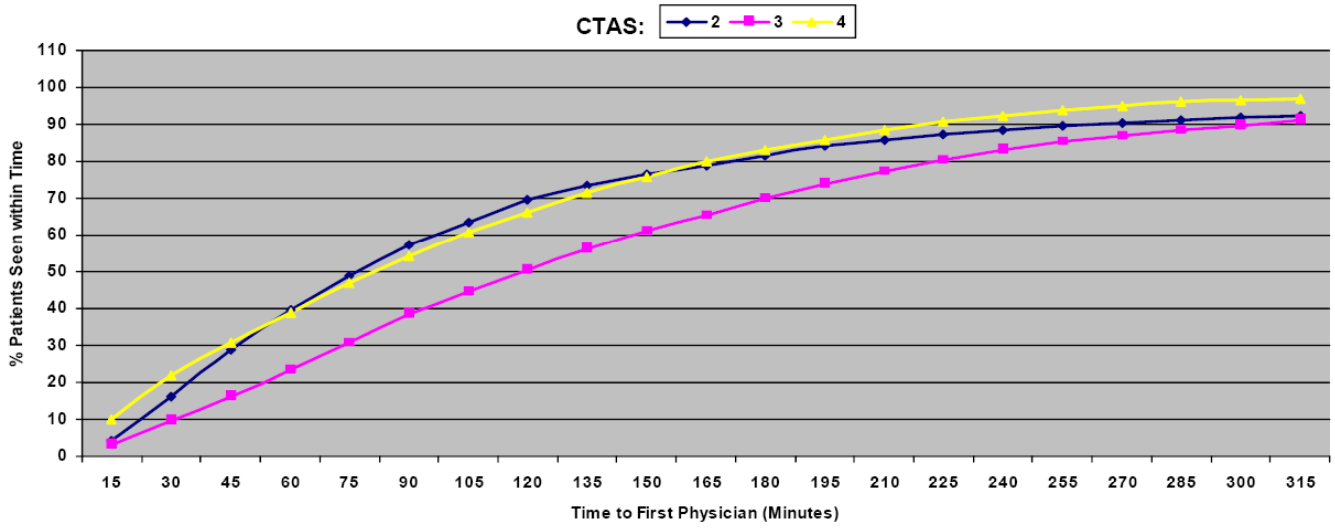
Sam Campbell, Site Chief, HI ED

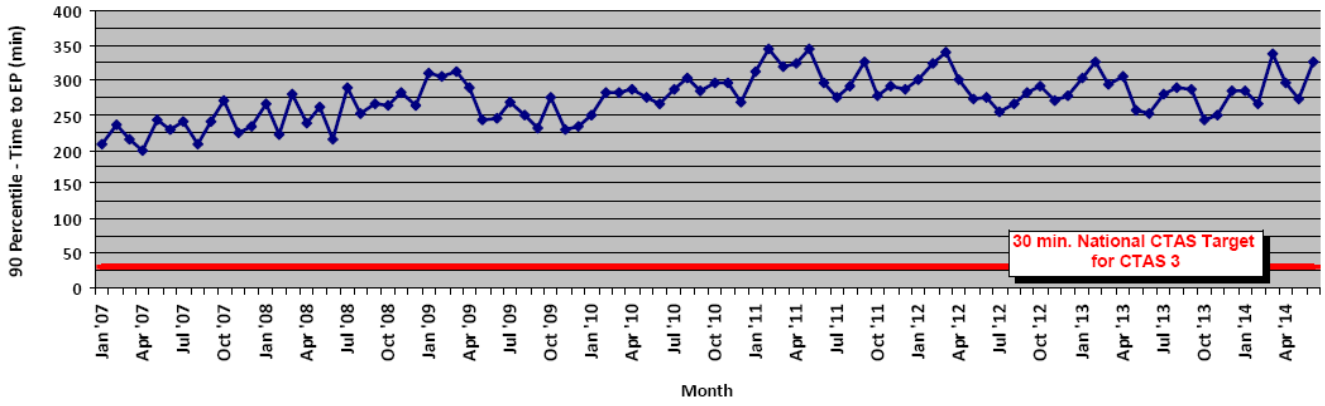
Patient Experience

Wait Times – DGH ED

Context: One of the main ways ED access block manifests itself is in patient wait times (time from registration to time to see MD). Wait times have been shown to be associated with adverse outcomes in a dose response curve that suggests causation.

This data looks at the wait time performance curve for CTAS 2, 3, and 4s (assuming CTAS 1s get seen expeditiously and CTAS 5s have less of a time dependency).





Analysis:

Capacity issues for admitted patients at DGH continues to have a negative impact on wait times for incoming ED patients. Loss of the CDHA/EHS ambulance offload team in March 2014 has also had a negative impact on wait times for those patients arriving by ambulance.

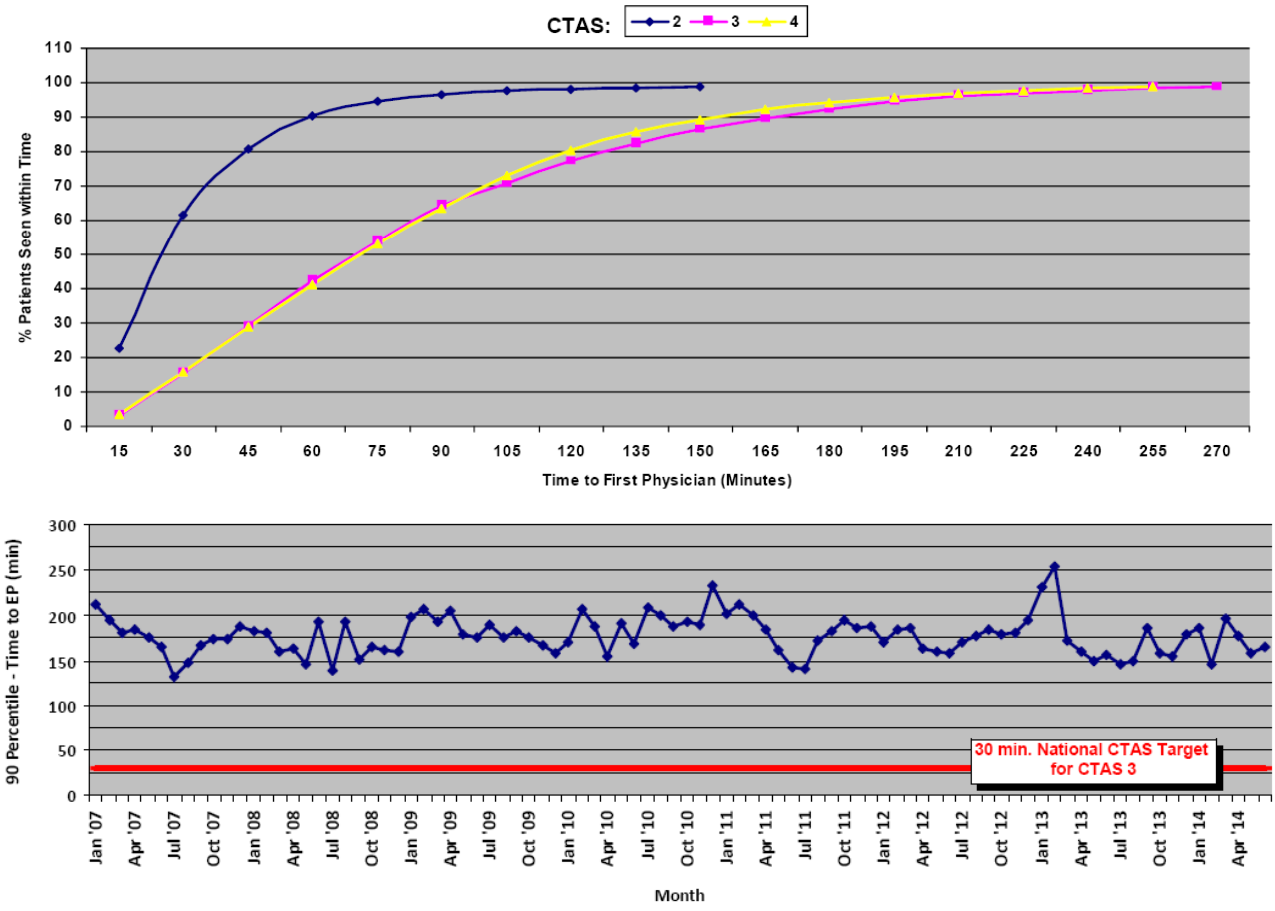
Ravi Parkash, Site Chief, DGH ED

Patient Experience

Wait Times – Cobequid ED

Context: One of the main ways ED access block manifests itself is in patient wait times (time from registration to time to see MD). Wait times have been shown to be associated with adverse outcomes in a dose response curve that suggests causation.

This data looks at the wait time performance curve for CTAS 2, 3, and 4s (assuming CTAS 1s get seen expeditiously and CTAS 5s have less of a time dependency).



Analysis:

Wait times have remained stable despite increased volumes. Care plans help deliver treatments to selected patients before EP assessments. This is not reflected in this data.

Mike Clory, Site Chief, CCHC ED

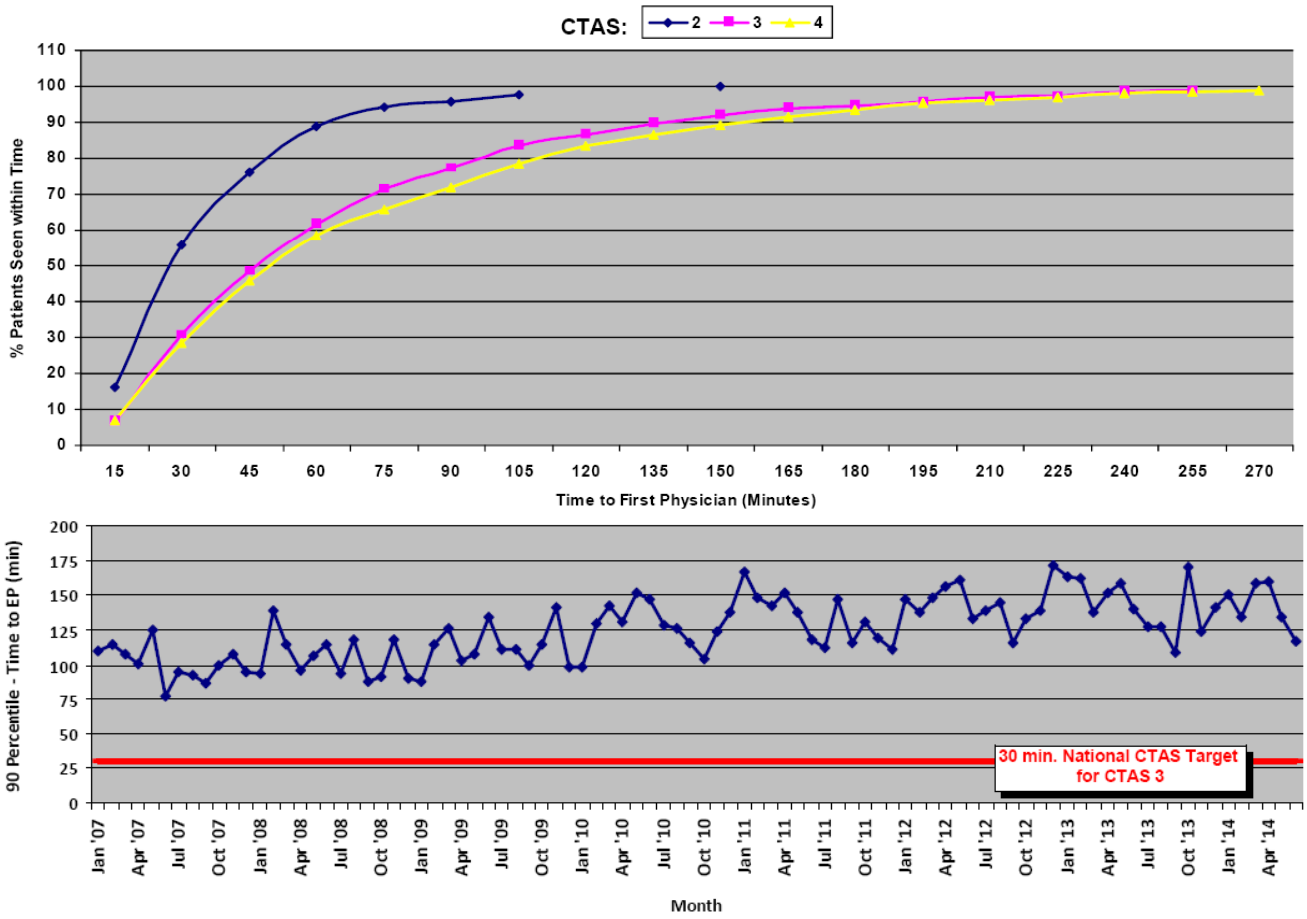
Patient Experience

Wait Times – Hants ED

Context: One of the main ways ED access block manifests itself is in patient wait times (time from registration to time to see MD). Wait times have been shown to be associated with adverse outcomes in a dose response curve that suggests causation.

This data looks at the wait time performance curve for CTAS 2, 3, and 4s (assuming CTAS 1s get seen expeditiously and CTAS 5s have less of a time dependency).

The time targets are: CTAS 2 = 15 min, CTAS 3 = 30 min, CTAS 4 = 60 min.



Analysis:

Wait times within HCH exist due to:

1. *Admitted bed shortages – creates limited space.*
2. *Physician dependent (1 ERP) – limited flux.*

Initial data post triage driven protocols is promising ; downward sloping from March 2014

Tanya Penney, Health Services Manager, HCH ED

Clinical Care

Diagnostic Imaging & Lab Reporting

Context:

Through put of patients in the Emergency Department is impacted by the intensity of the work up (lab and diagnostic imaging required). Decision rules developed in the Emergency Department setting (Cat Scan Head, Cervical-Spine, Ottawa Ankle, Rule Out Deep Vein Thrombosis, Rule Out Pulmonary Emboli, etc) all impact the cost effectiveness of patient investigation.

Reporting Period from: Apr 01, 2014 to: Jun 30, 2014

DI Ordered						
Site	Pt Volume	CT Orders (%Pt Volume)	US Orders (%Pt Volume)	MRI Orders (% Pt Volume)	XR Orders (%Pt Volume)	Total Di Orders (% Pt Volume)
QEII	17729	2239 (12.6%)	934 (5.3%)	44 (0.2%)	7748 (43.7%)	10965 (61.8%)
DGH	10162	1459 (14.4%)	446 (4.4%)	1 (0.0%)	5374 (52.9%)	7280 (71.6%)
HCH	3725	5 (0.1%)	42 (1.1%)	1 (0.0%)	1129 (30.3%)	1177 (31.6%)
CCHC	9494	752 (7.9%)	215 (2.3%)	0 (0.0%)	4647 (48.9%)	5614 (59.1%)
Total	41110	4455 (10.8%)	1637 (4.0%)	46 (0.1%)	18898 (46.0%)	25036 (60.9%)

Labs Ordered			
Site	Patients with Labs Ordered	% Patients with Labs	Patient Volume
QEII	7836	44.2%	17729
DGH	5307	52.2%	10162
HCH	1064	28.6%	3725
CCHC	4230	44.6%	9494
Total	18437	44.85%	41110

Analysis:

This is raw data looking at the percentage of overall patients who receive a Cat Scan, Ultrasound, MRI (Magnetic Resonance Imaging), X-Ray or labs ordered during their assessments in the Emergency Departments. This data is not adjusted to acuity, complexity, or presenting complaint / diagnosis. There are no national benchmarks for these indications but they will allow for some comparison within the Capital Health Emergency Departments. With the Choosing Wisely campaign ramping up this may create an opportunity for improvements.

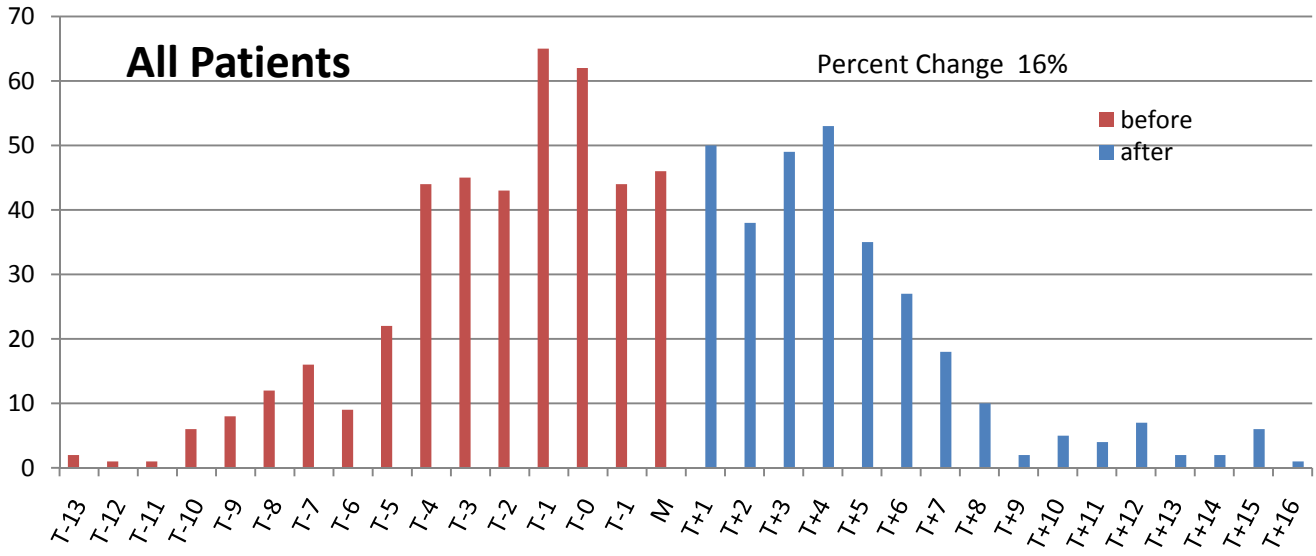
David Petrie, District Chief, CDHA

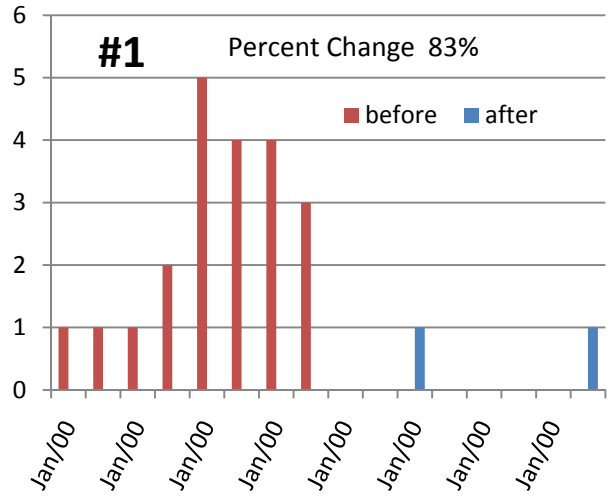
Focus

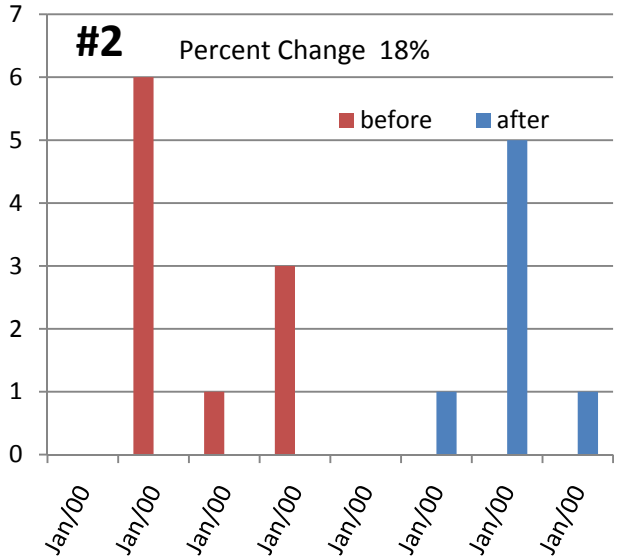
Dartmouth General Emergency Department

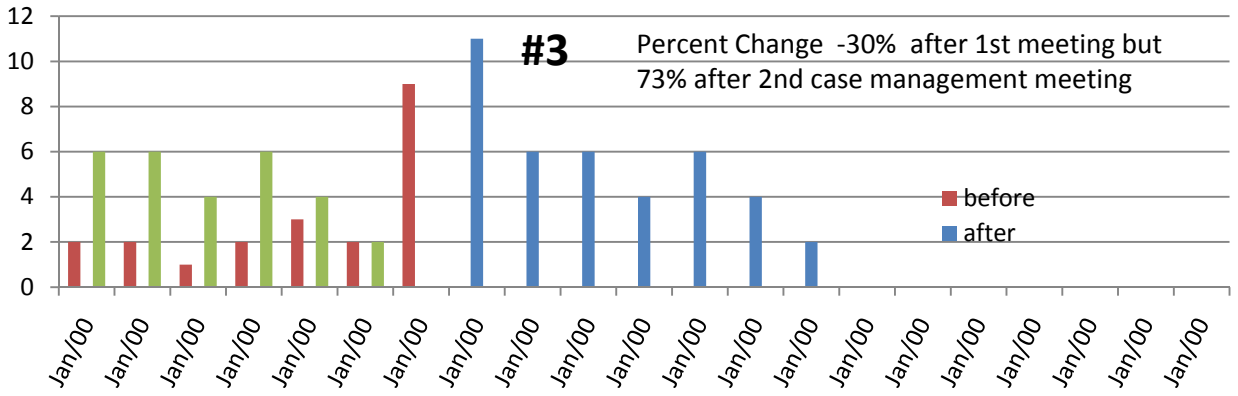
Discharge Planning Nurse Case Management

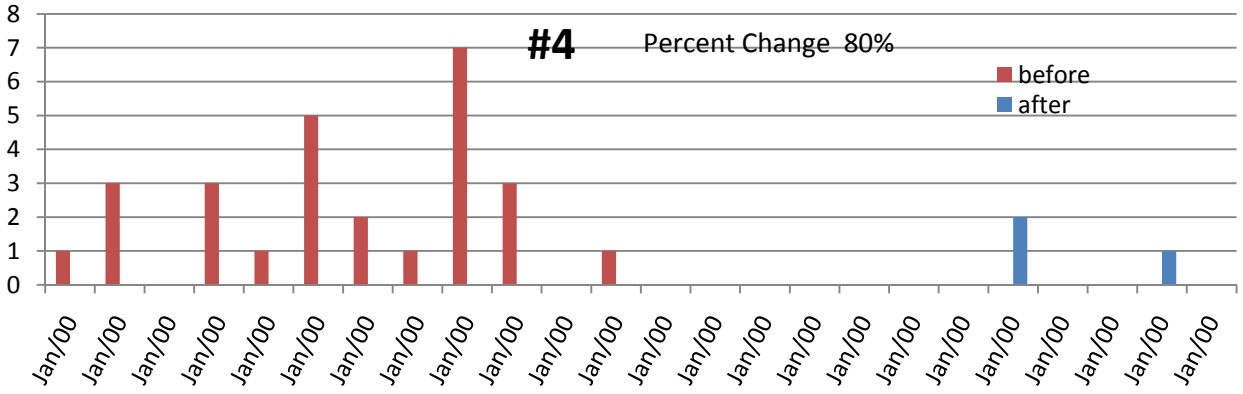
Impact of case management and Care Plan implementation on number of visits to the Emergency Department for 12 patients currently being managed by the Discharge Planning Nurses

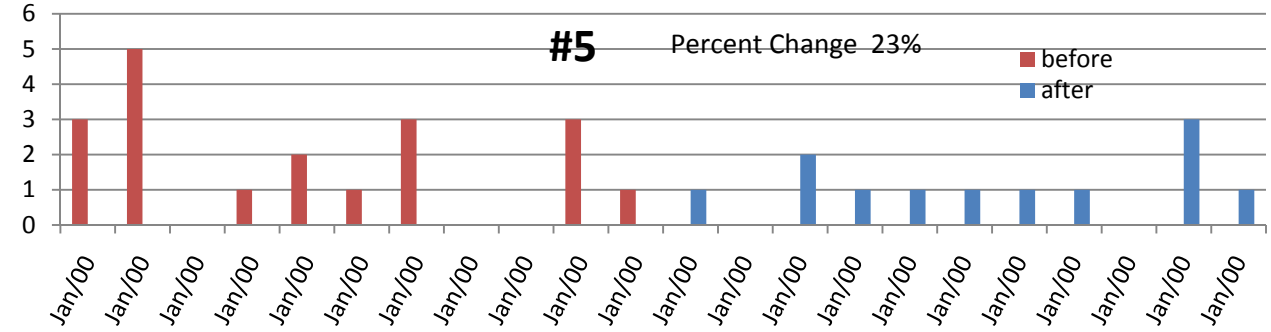


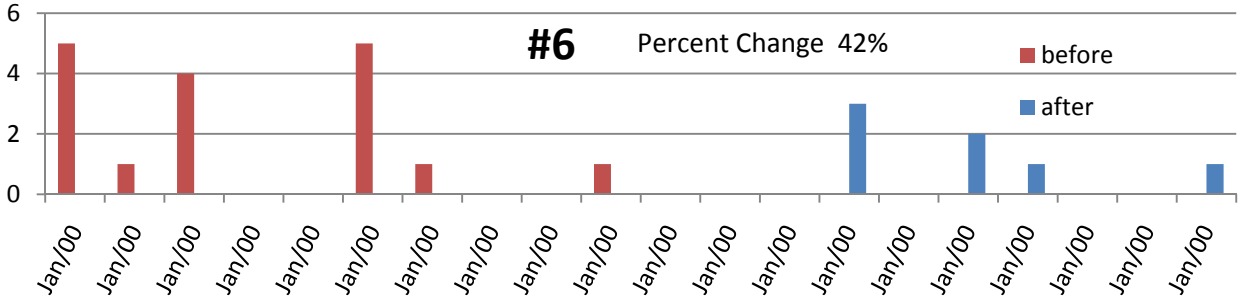


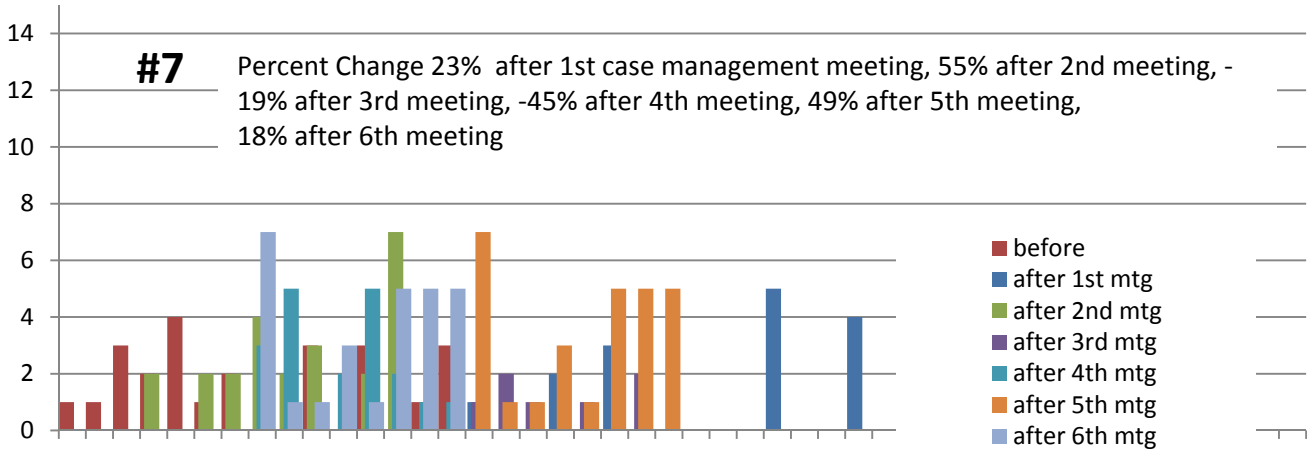


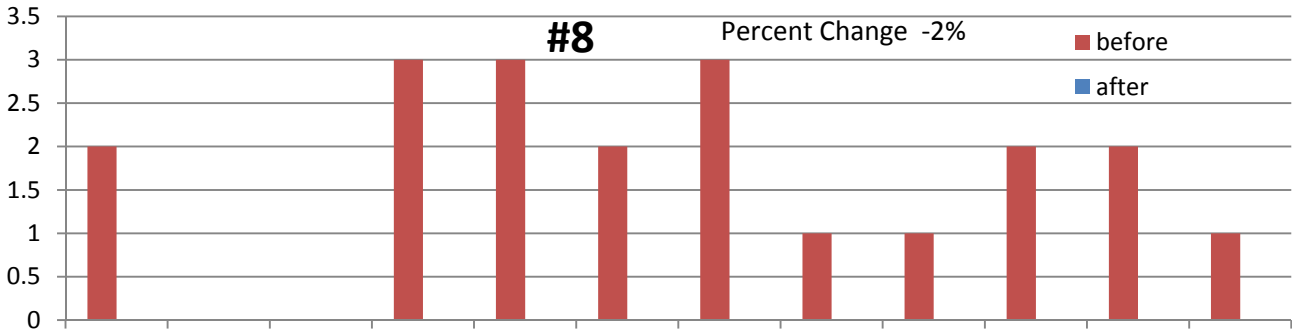

#3
Percent Change -30% after 1st meeting but
73% after 2nd case management meeting
before
after
12
10
8
6
4
2
0
Jan/00

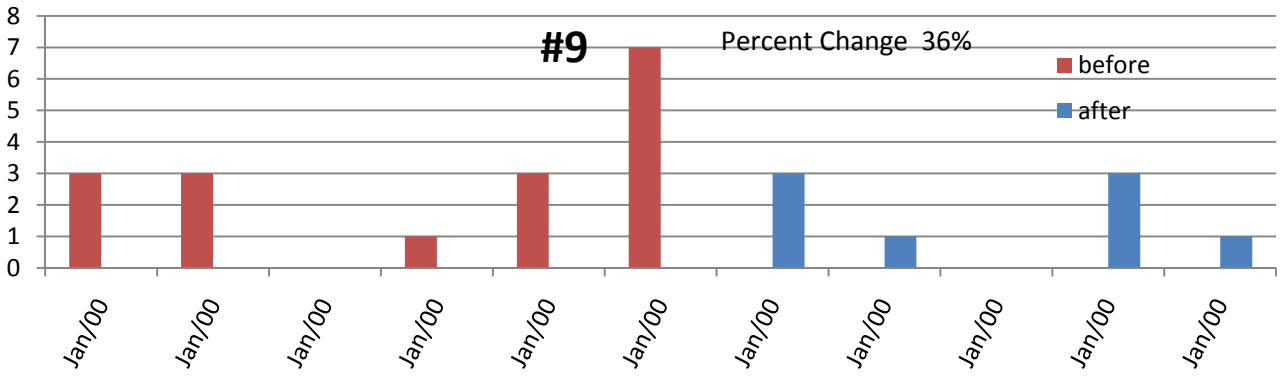

#4
Percent Change 80%
before
after
8
7
6
5
4
3
2
1
0
Jan/00

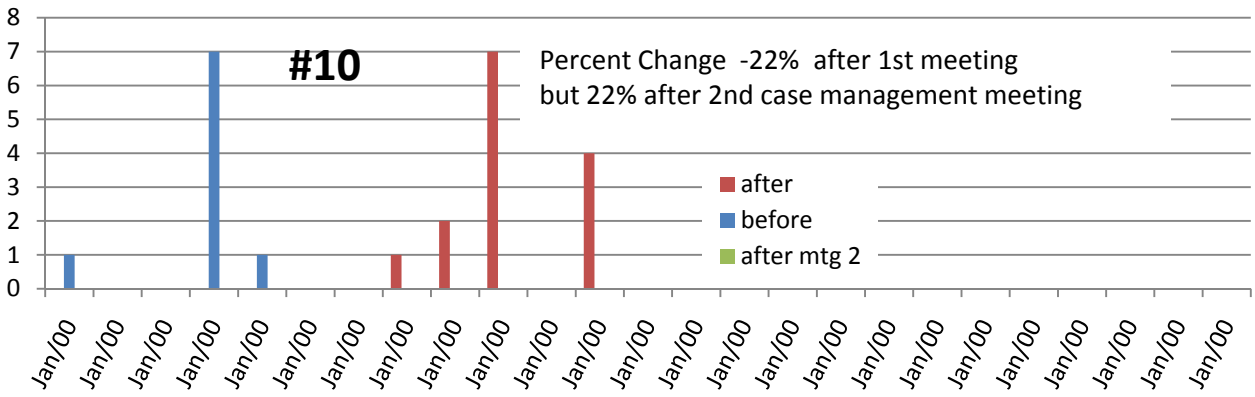

#5
Percent Change 23%
before
after
6
5
4
3
2
1
0
Jan/00

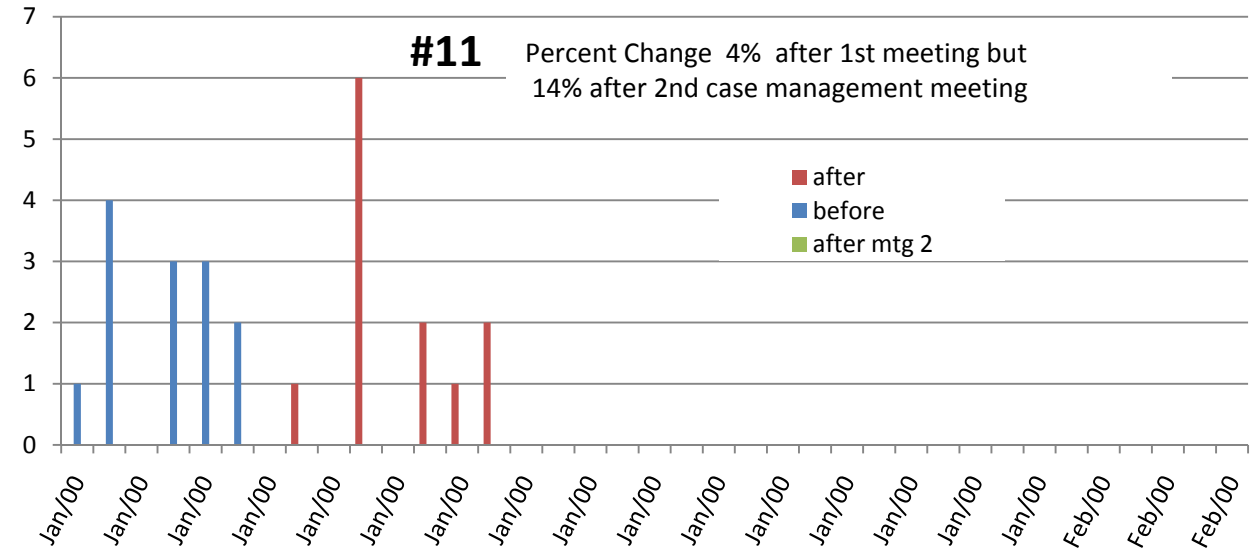

#6
Percent Change 42%
before
after
6
4
2
0
Jan/00

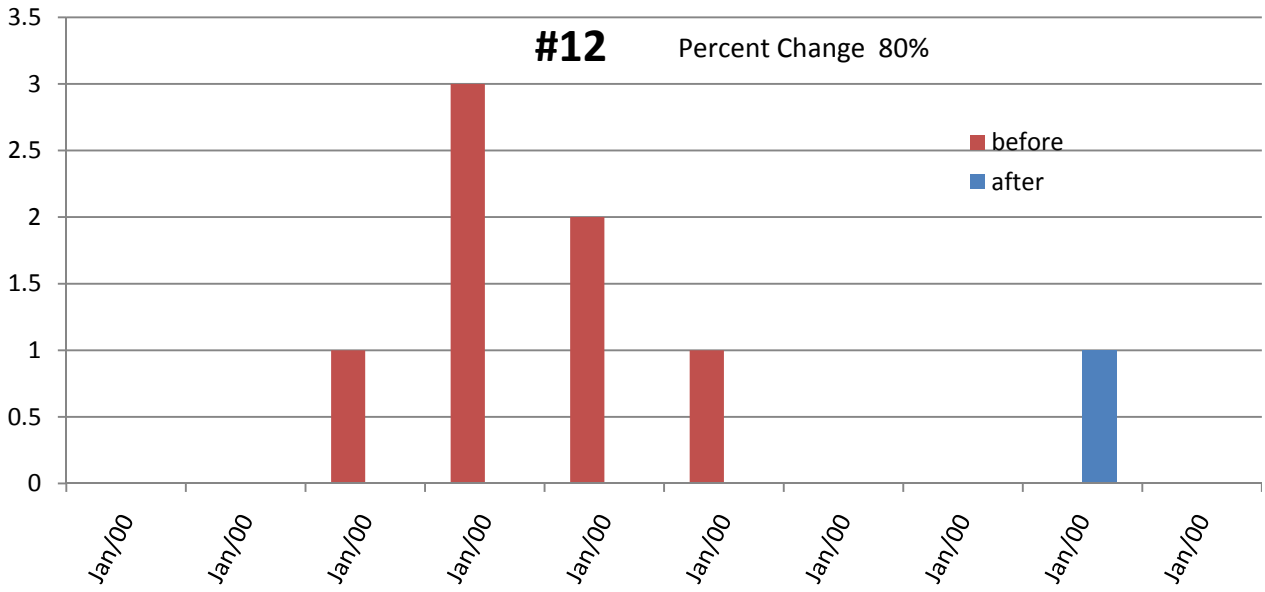

#7
Percent Change 23% after 1st case management meeting, 55% after 2nd meeting, -19% after 3rd meeting, -45% after 4th meeting, 49% after 5th meeting, 18% after 6th meeting
14
12
10
8
6
4
2
0
before
after 1st mtg
after 2nd mtg
after 3rd mtg
after 4th mtg
after 5th mtg
after 6th mtg


#8
Percent Change -2%
3.5
3
2.5
2
1.5
1
0.5
0
before
after


#9
Percent Change 36%
8
7
6
5
4
3
2
1
0
before
after
Jan/00
Jan/00
Jan/00
Jan/00
Jan/00
Jan/00
Jan/00
Jan/00
Jan/00
Jan/00
Jan/00


#10
Percent Change -22% after 1st meeting but 22% after 2nd case management meeting
8
7
6
5
4
3
2
1
0
after
before
after mtg 2
Jan/00





This is initial data as the DPN's have just begun to try to track outcomes for these patients who are being case managed. The data is promising in terms of reducing ED visits. Further longer term data will be collected to determine if the reduction in visits is sustained.

Lori Sanderson, Health Services Manager, Dartmouth General

Focus

Tri-Facilities Quality Report

Comment on Provincial Collaborative Emergency Centre (CEC) Data

The preliminary data reported one year ago regarding a decrease in emergency room visits with the institution of the Collaborative Emergency Centres in Middle Musquodoboit and Musquodoboit Harbour appears to be supportive by one further year of data. There is also a decrease in CTAS 4 & 5 patients, with relative stability in the number of CTAS 1 – 3 visits. This indicates that the model is performing as expected with stable patients choosing to be seen more appropriately in the primary care environment.

Nighttime Model

While the number of patients seen overnight in Musquodoboit Harbour is quite small, it should be noted that 82% of patients presenting in the overnight model were successfully managed locally. As rural collaborative emergency centres continue to evolve, changes to the nighttime model are being considered at both sites.

In Musquodoboit Harbour, a re-evaluation of the requirement to send patients to the regional department if they exceed the allowable observation time is being considered.

In Middle Musquodoboit (with no nighttime ER model) nurses staff the hospital at night. A working group will be looking at offering nursing services to select patients who present in the overnight hours and who have well-developed care plans and/or pre-printed orders. The group anticipates trialing this service with palliative care patients.

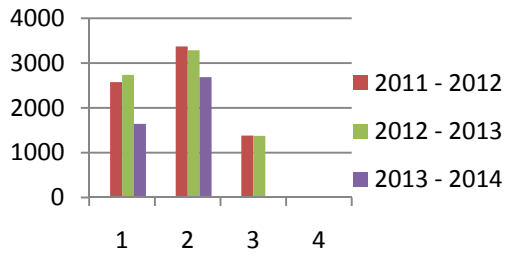
Quality Initiatives:

•Middle Musquodoboit developed an in-house solution to ensure the ordering physician in the ER received lab and diagnostic imaging reports. At present, the DI reporting process sends reports to the ER and family physician only. As the ordering doctor is seen as responsible to follow up on any ordered test, this closing of the loop was seen as an important patient safety initiative.

•Two nurse-driven quality initiatives are being rolled out at both sites. Nurses are now being trained to do simple suturing. A policy is also being developed to allow the insertion of the King LT airway to be an advanced nursing procedure.

•A resuscitation mannequin is now available in the tri-facilities. Mock codes are being performed or planned at all three sites.

Tri-facilities CEC Stats



	2011 - 2012	2012 - 2013	2013 - 2014
MVMH SITE (1)	2,574	2,738	1,642
TOMH SITE (2)	3,373	3,285	2,685
ESMH SITE (3)	1,383	1,375	1.935

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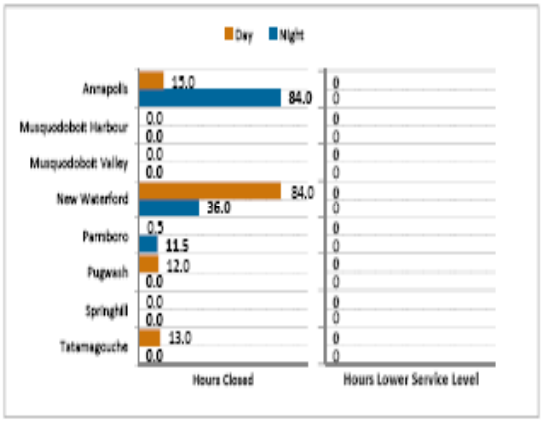
Collaborative Emergency Centre Indicators

Nova Scotia — Q3, 2013-14

Unscheduled Closures

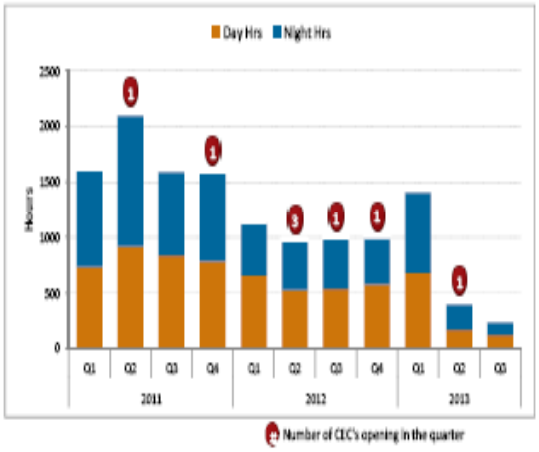
At the 8 CEC sites covered by this report, there were 254 hours of unscheduled closure (about 10.6 hrs per site per month), and no hours of operation at a reduced service level between October 1st and December 31st of 2013. About 56% of these hours were closures at night.

Hours of CEC Unscheduled Closures and Service Level Changes Oct-Dec 2013



Source : Acute and Tertiary Care, DHW, Accountability Reporting on Emergency Departments in Nova Scotia, preliminary results

Hours of CEC Unscheduled Closures (8 sites): Provincial Total

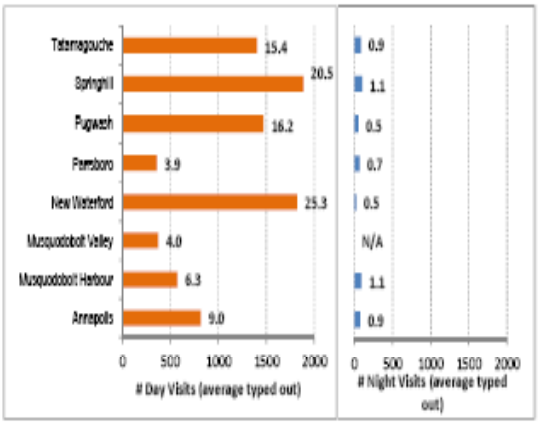


Source : Acute and Tertiary Care, DHW, Accountability Reporting on Emergency Departments in Nova Scotia, preliminary results

Patient Volumes

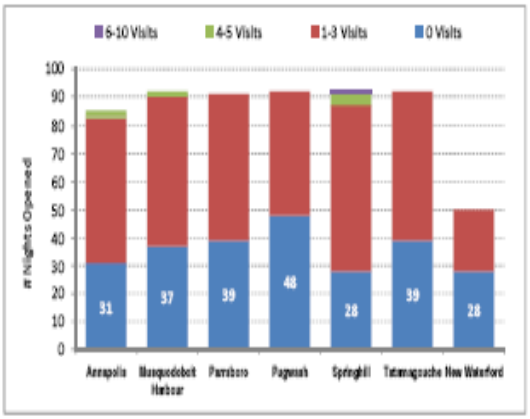
In the most recent quarter, the average number of emergency care daytime visits ranged from 3.9 to 25.3 visits per day at the CEC sites, for a total of 8702 daytime visits to the 8 sites. The average number of nighttime visits to CEC sites ranged from 0.5 visits per night at New Waterford to 1.1 visits per night at Springhill, for a total of 499 nighttime visits. Depending upon the CEC, 30% to 56% of nights had no patient visits (for 7 sites open at night).

CEC Average Emergency Care Visits per Day/Night Oct-Dec 2013



Source : Meditech

CEC Nighttime Utilization Oct-Dec 2013



Source : Meditech

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Collaborative Emergency Centre Indicators

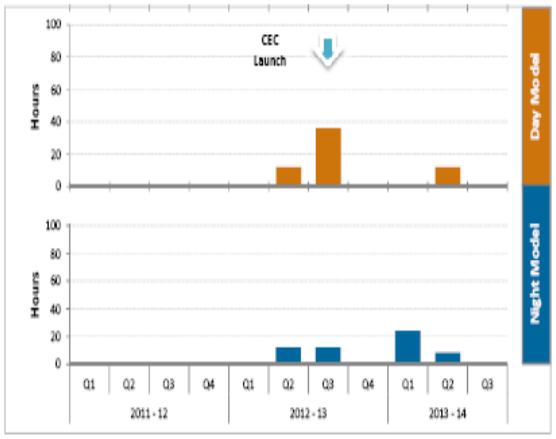
Musquodoboit Harbour — Q3, 2013-14

(Capital Health District Authority)

Unscheduled Closures

The Musquodoboit Harbour CEC opened November 20, 2012. There has been a slight increase in availability of urgent health services since the CEC opened. Unscheduled closures refer to times when emergency department (ED) services are unavailable, historically often due to physician or staff shortages. If the primary care physician covering the ED during the day were unavailable and a nurse practitioner who sees a narrower range of patients were covering the ED instead, then the ED would be operating at a reduced service level. The CEC had 0 hours of unscheduled closures, 0 hours of scheduled closures and 0 hours with reduced service level in the latest quarter.

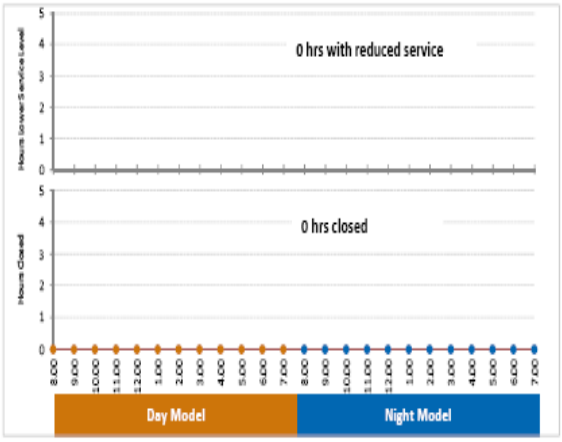
Hours of CEC* Unscheduled Closures by Day/Night



* Data before CEC launch shown as a baseline

Source : Acute and Tertiary Care, DHW, Accountability Reporting on Emergency Departments in Nova Scotia, preliminary results

CEC Unscheduled Closures & Change in Service Level: Oct-Dec 2013

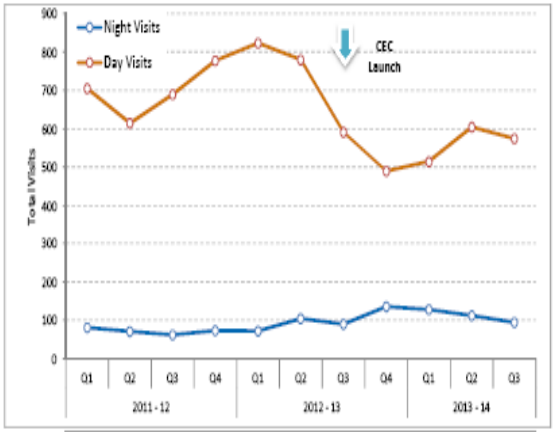


Source : Acute and Tertiary Care, DHW, Accountability Reporting on Emergency Departments in Nova Scotia, preliminary results

Patient Volumes

In the most recent quarter, there were no visitors for 40% of nights.

CEC* Emergency Care Visits per Quarter

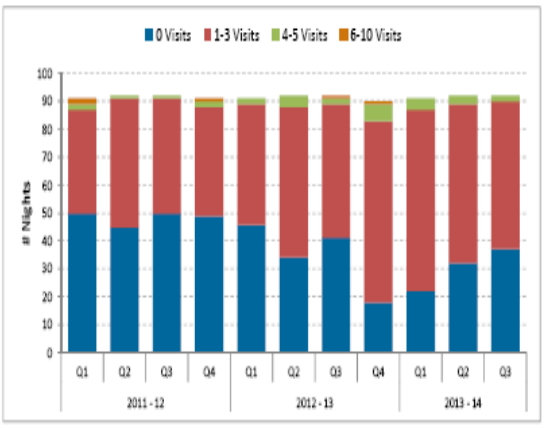


	Q1 2011-12	Q2 2011-12	Q3 2011-12	Q4 2011-12	Q1 2012-13	Q2 2012-13	Q3 2012-13	Q4 2012-13	Q1 2013-14	Q2 2013-14	Q3 2013-14
# Day Visits	705	615	689	778	823	780	591	490	515	605	575
Avg Visits/ Day	7.7	6.7	7.5	8.5	9.0	8.5	6.4	5.4	5.7	6.6	6.3
# Night Visits	81	71	62	73	72	104	90	135	128	112	94
Avg Visits/ Night	0.9	0.8	0.7	0.8	0.8	1.1	1.0	1.5	1.4	1.2	1.0

* Data before CEC launch shown as a baseline

Source : Meditech

CEC* Nighttime Utilization per Quarter



	Q1 2011-12	Q2 2011-12	Q3 2011-12	Q4 2011-12	Q1 2012-13	Q2 2012-13	Q3 2012-13	Q4 2012-13	Q1 2013-14	Q2 2013-14	Q3 2013-14
# Total Nights	91	92	92	91	91	92	92	90	91	92	92
# 0 Visit Nights	50	45	50	49	46	34	41	18	22	32	37
%age 0 Visits	55%	49%	54%	54%	51%	37%	45%	20%	24%	35%	40%

* Data before CEC launch shown as a baseline

Source : Meditech

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Collaborative Emergency Centre Indicators

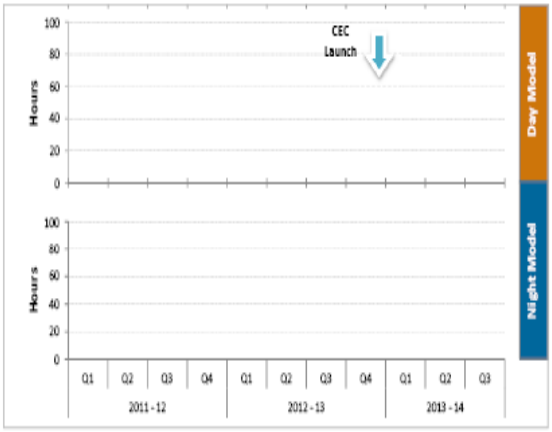
Musquodoboit Valley — Q3, 2013-14

(Capital District Health Authority)

Unscheduled Closures

The Musquodoboit Valley CEC opened March 19, 2013. Since July of 2009, due to a lack of physician resources ,the emergency department (ED) worked with a collaborative care clinic with scheduled closures from 5PM to 8AM weeknights. In developing the CEC model, the scheduled closures were extended to all nights, but at 12 hours/night. Closures refer to times when ED services are unavailable, historically often due to physician or staff shortages. If the primary care physician covering the ED during the day were unavailable and a nurse practitioner who sees a narrower range of patients were covering the ED instead, then the ED would be operating at a reduced service level. The CEC had 0 hours of unscheduled closures, 1092 hours of scheduled closures and 0 hours with reduced service level in the latest quarter.

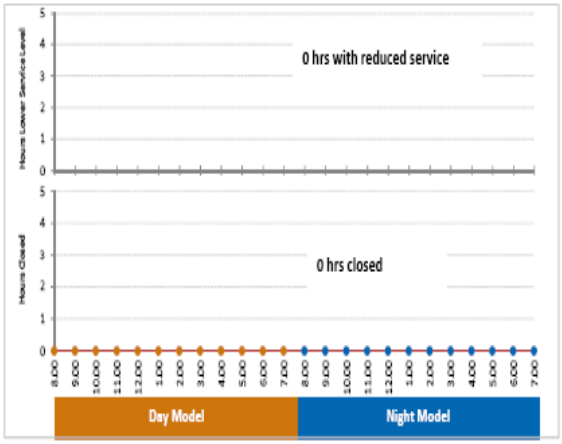
Hours of CEC* Unscheduled Closures by Day/Night



* Data before CEC launch shown as a baseline

Source : Acute and Tertiary Care, DHW, Accountability Reporting on Emergency Departments in Nova Scotia, preliminary results

CEC Unscheduled Closures & Change in Service Level: Oct-Dec 2013

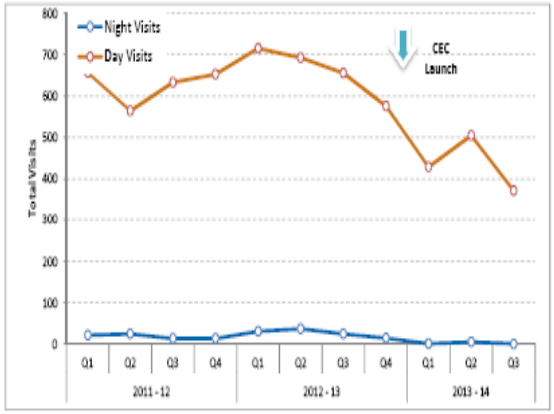


Source : Acute and Tertiary Care, DHW, Accountability Reporting on Emergency Departments in Nova Scotia, preliminary results

Patient Volumes

The volume or number of patients coming to the CEC has decreased during the day (8AM to 8PM) since the launch. At night (8PM to 8AM) there were relatively few visits due to scheduled closures on weeknights. Patient volumes should be close to zero (0). Exceptions suggest that the staff are starting a few minutes early. As expected, the nighttime non-utilization rate is 100%.

CEC* Emergency Care Visits per Quarter

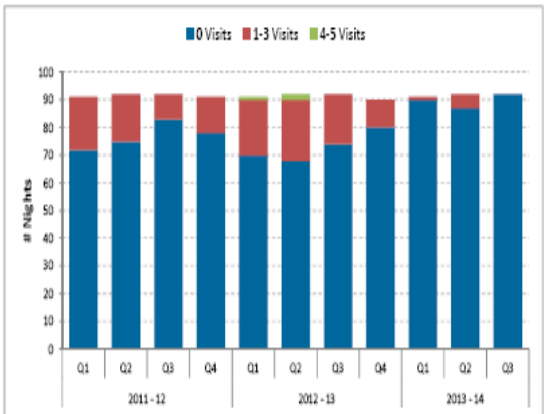


# Day Visits	657	564	633	653	715	693	656	576	429	505	6081
Avg Visits/ Day	7.2	6.1	6.9	7.2	7.9	7.5	7.1	6.4	4.7	5.5	6.7
# Night Visits	21	24	13	13	30	36	24	14	1	5	181
Avg Visits/ Night	0.2	0.3	0.1	0.1	0.3	0.4	0.3	0.2	0.0	0.1	0.2

* Data before CEC launch shown as a baseline

Source : Meditech

CEC* Nighttime Utilization per Quarter



# Total Nights	91	92	92	91	91	92	92	90	91	92	92
# 0 Visit Nights	72	75	83	78	70	68	74	80	90	87	92
%age 0 Visits	79%	82%	90%	86%	77%	74%	80%	89%	99%	95%	100%

* Data before CEC launch shown as a baseline

Source : Meditech

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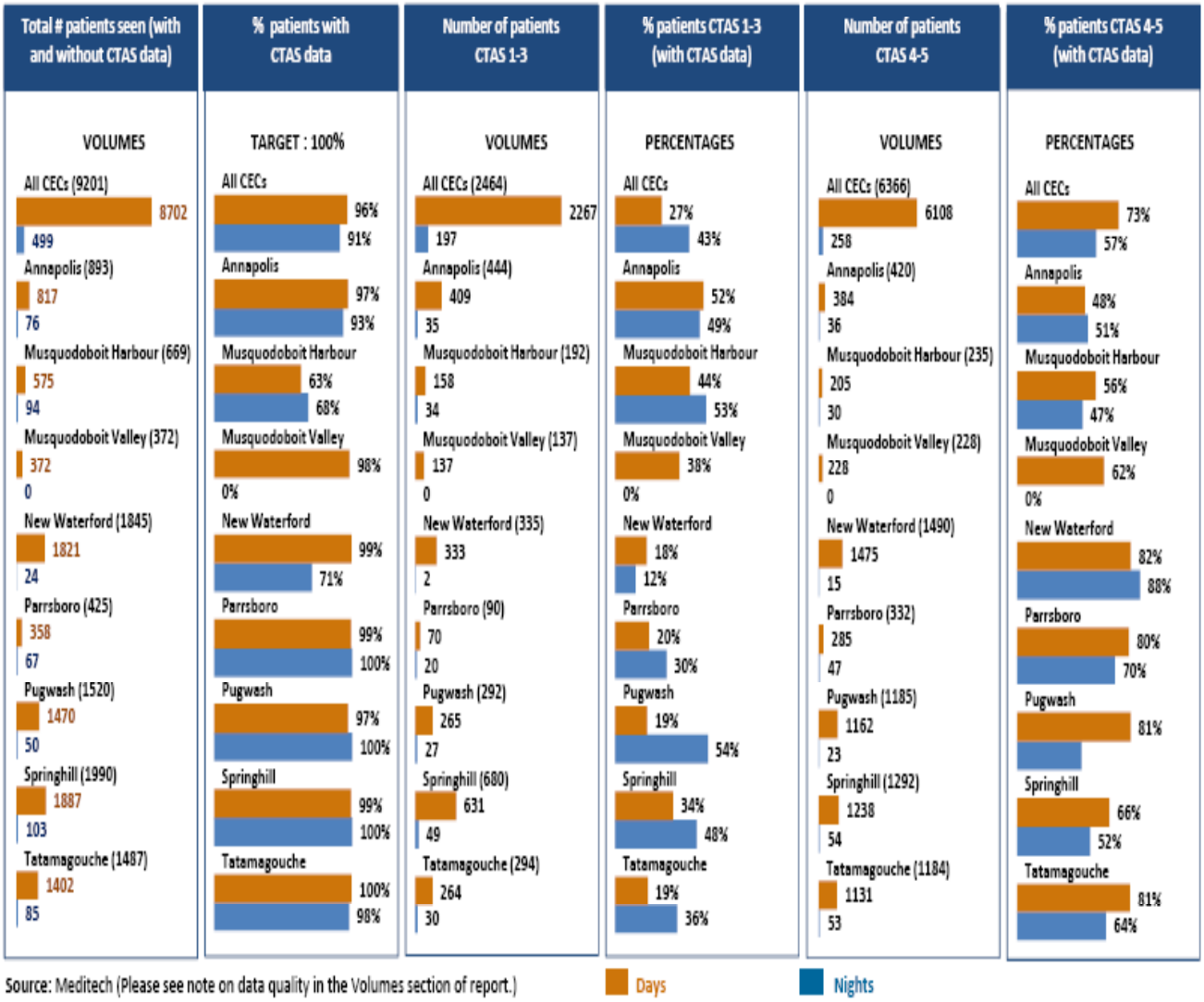
Collaborative Emergency Centre Indicators

Nova Scotia — Q3, 2013-14

Triage

Triage is the process for sorting injured people into groups based on their need for or likely benefit from immediate medical treatment. Canadian Triage Acuity Scores (CTAS) 1 to 3 are the more urgent cases while CTAS 4 to 5 may more appropriately be serviced in a primary care setting. Overall, there were 9,201 patient visits to the 8 CEC emergency departments during this period. There were over 17 times more visits during the day than for the same time period at night. The caseload at night is more complex with a greater percentage of higher acuity cases (CTAS 1-3) seen at night. There is considerable variation in the caseload between sites with Annapolis, Springhill and New Waterford seeing a greater proportion of CTAS 1-3 patients than the average for all CECs (308 CTAS 1-3 cases per quarter).

CEC Emergency Care Visits by CTAS, Day/Night Oct-Dec 2013



Source: Meditech (Please see note on data quality in the Volumes section of report.)

NOVA SCOTIA
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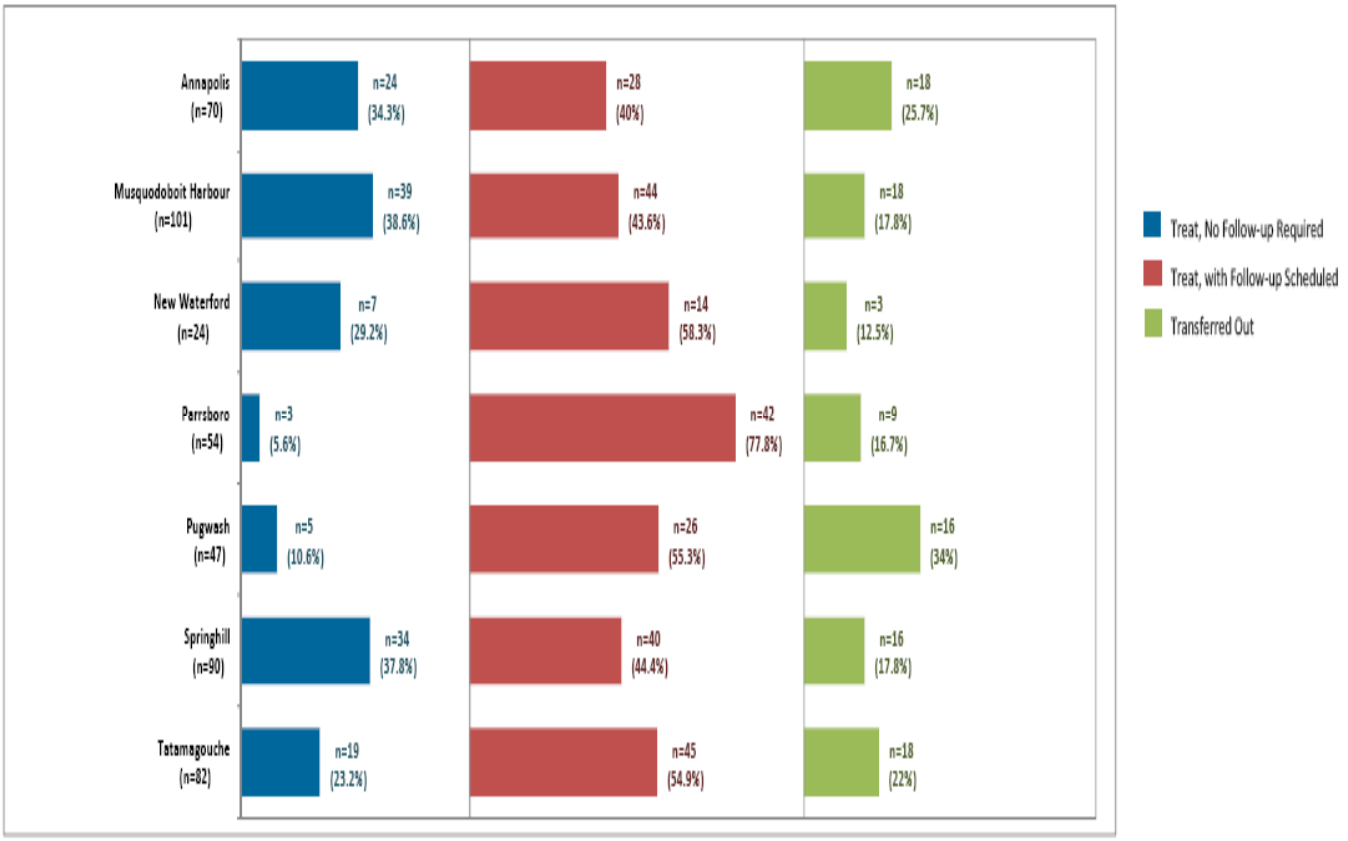
Collaborative Emergency Centre Indicators

Nova Scotia – Q3, 2013-14

Disposition (Nighttime)

Disposition refers to the patient's situation when they leave the emergency department. After they are cared for, patients will either be sent home or sent home with advice to contact their family doctor (follow-up with primary care). If a patient requires a level of care that exceeds the capabilities of the site, an ambulance will transfer the patient to the most appropriate facility. For the 7 CEC sites that offer nighttime visits, 28% of CEC patients from October to December 2013 were treated and released, 51% were treated with primary care follow-up scheduled, and 21% were transferred.

CEC Nighttime Patient Disposition Oct-Dec 2013



Source : Emergency Health Services, DHW Dashboards for January 6, 2016

Dr. Barry Giffin, CEC Physician, Tri-Facilities