

Urgent Care Centres Calgary Zone Review and Recommendations

December 2013

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1. EXECUTIVE SUMMARY

Background

Physician, Nurse Practitioners (NP) and public reaction to the implementation of the proposed service change related to the withdrawal of NPs from Urgent Care Centres (UCCs) in the Calgary Zone prompted this review. As a result, the Community, Rural and Mental Health – Calgary Zone portfolio undertook an initial operational comparative analysis of Alberta Health Services (AHS) urgent care services to identify potential areas for improvement. The roles and mix of physicians and AHS staff in UCCs were specifically examined. The reduction of NP resources at Airdrie and Cochrane UCCs was recommended as a 2013/14 cost savings initiative.

Scope

In order to better understand the concerns raised and issues at some of the Calgary Zone UCCs, a comparative analysis of UCCs in Calgary and Edmonton zones was undertaken. This review included data from six UCCs: Airdrie Health Centre, Cochrane Health Centre, Health First Strathcona, Okotoks Health and Wellness Centre, Sheldon M. Chumir Health Centre, and South Calgary Health Centre. While the review compared Calgary Zone and Edmonton Zone UCCs the recommendations pertain specifically to Calgary Zone UCCs.

Findings

Matching the varied and often complex needs of UCC patients with the right combination of health professionals (staff mix) with the appropriate knowledge and skills (competencies) in a cost effective service delivery model has been identified as the main issue/challenge:

- Patient acuity in Calgary and Edmonton Zone UCCs is distributed across all CTAS categories. Approximately 5 per cent of UCC patients from 2010-2013 are CTAS 1 or 2, and approximately 29 per cent of UCC patients are CTAS 3. These CTAS 1-3 patients indicate significant acuity, and require appropriately experienced and skilled practitioners to effectively manage acute and emergency care. The remaining 66 per cent of patients were in the lower acuity categories of CTAS 4 and 5.
- The experience in some AHS UCCs (e.g. Health First Strathcona in Edmonton) supports the use of NPs in the delivery of healthcare in a UCC setting. The literature review suggests improved length of stay (LOS) and decreased wait times in a joint Physician-NP UCC model. General findings demonstrate equal outcomes for patients in CTAS, 3, 4 and 5 as those seen by a physician. The majority of the UCC models that have NPs see patients at CTAS levels 3, 4 and 5.
- Caring for high acuity patients in a UCC is within the scope of practice of both physicians and NPs in general; however, the experience and skill set of the specific physicians and NPs currently working in the Calgary UCCs is variable. In some circumstances, some individual practitioners within the team are challenged in their ability to care for higher acuity patients.
- For the physician workforce, casual work or infrequent shifts in UCC does not provide the necessary experience to maintain competence and confidence to deal with more complex and/or acutely ill patients; this is particularly evident for family physicians who work very few shifts in a month.
- It has proven difficult to find sufficient numbers of NPs with the knowledge, skills and experience to care for UCC patients in Calgary. While many of the NPs currently working in specialized acute care settings have the required expertise, their limited numbers make it challenging to recruit sufficient numbers to UCC now and in the foreseeable future.
- A blended model of physicians and NPs with appropriate triage protocols is feasible in a UCC setting; however, this model will be difficult to support in the Calgary Zone, at the present time, due to the following factors:

- The current mix of individuals (both physicians and NPs) working in Calgary Zone UCCs cannot safely and effectively care for the significant numbers of CTAS 1, 2 and 3 patients.
 - There are currently only about 300 NPs in Alberta, and this presents significant challenges to ensure consistent, reliable staffing to support a sustainable, standardized UCC model that optimizes a collaborative practice model of physicians and NPs across the Calgary Zone. Other services, such as Family Care Centres (FCCs) and Primary Care Networks (PCNs), require NPs for effective and safe program implementation and are competing for this scarce resource of trained and qualified NPs.
- There is a need for increased public awareness regarding the role of urgent care within the broader service continuum and where to access the “right care, at the right time, in the right place”.
 - Located as a retrofit to an existing building, the Airdrie UCC lacks sufficient treatment space which can be suboptimal for patient flow and timely service.

Recommended plan:

- It is necessary to proceed in a timely way to ensure safe, effective and efficient care to the communities as quickly as possible.
- It will take significant time and resources to complete all the necessary actions.
- There are many competing primary care demands within the Zones that need to be met.

In order to establish a viable collaborative practice model inclusive of physicians and NPs that is safe, effective, efficient and sustainable the following need to be completed:

- Development of a consistent physician, NP and support staff model
- Role clarity for physicians and NPs
- Optimization of physician and NP skill sets
- Optimization of physician and NP scheduling
- The application of a consistent team based model of care across all hours of operation
- Reallocation of work amongst team members
- Establishment of new work routines
- Enhanced team effectiveness
- Re-direction of patients to appropriate care environments and associated adjustments to patterns of practice
- Resolution of funding and remuneration issues

Recommendations

Site Specific Recommendations:

- 1) Conduct an infrastructure review of the **Airdrie UCC**, to improve physical space and patient flow by Spring 2014.
- 2) Conduct an administrative review of the **Airdrie's UCC**, incorporating frontline input to improve workplace culture and work processes by Spring 2014. This will include an open discussion with physicians, NPs and other staff to determine how all practitioners can contribute to the overall success of the UCC and the health system.
- 3) Ensure interim processes are developed and deployed to support physicians, NPs and other staff as the care model evolves.
- 4) For **Okotoks UCC** and **South Calgary UCC**, continue to track patient utilization and adjust hours and staffing levels as indicated to ensure UCC services match community need as South Health Campus becomes fully operational.

- 5) At **Sheldon M. Chumir UCC**, optimize hours of service to ensure UCC services match community need.

Calgary Zone Recommendations:

- 6) Development of a consistent physician staffing model for Calgary Zone UCCs by Spring 2014, with implementation Fall 2014. The model will be based on:
 - a) recruiting physicians with required competencies;
 - b) supporting optimal physician skill set development and experience by requiring a minimum number of monthly shifts for all physicians working in UCCs; and,
 - c) agreeing on a fair and consistent funding model, including income guarantees, if and where appropriate;
 - d) ensuring dedicated physician leadership FTEs at all sites.
- 7) Adjustment of the Airdrie and Cochrane UCC staffing models to ensure a consistent collaborative practice model for all hours of operation by Fall 2014.
- 8) Establishment of a working group by Winter 2014 to explore a “right fit” Physician-NP UCC care model for urgent care. Issues that will need to be addressed include: appropriate skill levels of all practitioners, consistency in team composition across all hours of operation, and UCC funding.
- 9) Establishment and maintenance of a staffing model that makes full use of each practitioner’s scope of practice and ensures no professional is working beyond scope by Fall 2014. Service delivery models will be reviewed periodically
- 10) Development of a public education campaign to promote the optimal use of community based health care services by Spring 2014.
- 11) Development of clear performance measures provincially for UCCs in keeping with AHS strategic priorities to support continuous quality improvement by Spring 2014.
- 12) Engagement of physicians, NPs and other staff to develop consistent clinical protocols and guidelines by Fall 2014.
- 13) In partnership with other members of the service continuum, develop robust processes and procedures to ensure the transfer of health information between UCCs and primary care, emergency departments and other health services, including the development of an information technology (IT) strategy.
- 14) Assessment of service delivery variations between the north and south areas of the city of Calgary and development of a feasible plan to address potential inequities by Fall 2014

2. URGENT CARE CENTRE SERVICES

An UCC is a health service option that provides an intermediate level of service between family physician offices, medical clinics and emergency departments (EDs). The formal Alberta definition of urgent care states that “urgent care services are provided in medical care facilities and receive unscheduled patients who are seeking immediate attention for injuries and illness that may require human and technical resources that are more intensive than are available in typical physician offices or advanced ambulatory care centers”.

Calgary Zone - Rural Urgent Care

There are three large rural communities in close proximity to the city of Calgary: Airdrie, Cochrane and Okotoks. These communities share similar demographics, population growth and commuter patterns. These communities are primarily comprised of young families with children; each community has experienced substantial growth, which is projected to continue. A significant percentage of the adult population commutes daily to Calgary. All three communities are within 30 km of the city and do not have a hospital.

Calgary Zone - Urban Urgent Care

The South Calgary UCC was developed in partnership with the South of Anderson Road physicians, prior to the implementation of PCNs. By the fall of 2005, physicians were recruited to work in the UCC.

The Sheldon M. Chumir UCC was designed to operate as a free standing 24/7 Emergency Department staffed with Emergency Physicians, but full operational funding was not available to implement this vision. Service delivery was modelled after the 8th and 8th Clinic in downtown Calgary, which originally began as an after-hours clinic to support homeless and disadvantaged populations. Presently the Sheldon M. Chumir UCC operates 24/7. The site receives a large number of ambulances arriving consistently throughout the 24 hour period. It has been identified that there are 18.5% secondary transfers as a result of the ambulance activity.

Edmonton Zone

Health First Strathcona has operated an after-hours clinic since February 2004. The clinic was officially designated by Alberta Health as an UCC on May 1, 2008. The UCC operates an extended evening shift (1730h to 2400h) that is currently staffed by one physician, two NPs, registered nurses, licensed practical nurse/orthopaedic technician and reception clerks. There is one site physician lead and a group of physicians who each work approximately 1-2 shifts per month. The staffing model is consistent across all hours of operation and the team functions in a Physician-NP collaborative practice model. Health First Strathcona urgent care service will move from currently leased space to a new facility in 2014 and is intended to offer 24/7 access to urgent care services at that time.

East Edmonton urgent care services currently operate from 1700h to 2230h Monday to Friday and from 1500h to 2230h on weekends. In November 2012, the urgent care service portion of the family care clinic opened to the public. At this time, the urgent care service is not at full staffing complement and utilization activity has not stabilized; thus, for the purpose of this review, East Edmonton data was not analyzed.

A. Urgent Care Centre Visits per Year and per Day

Urgent Care Centre Visits per Year and Average Visits per Day

Facility Name	Fiscal Year	UC Visits/Year	Average UC Visits/Day	Average Growth Rate
Airdrie Urgent Care Centre 0800 to 2200	2010/11	28,155	77	+4.2%
	2011/12	27,688	76	
	2012/13*	29,429	81	
Cochrane Urgent Care Centre 0800-2200	2010/11	1,934**	-	+11.8%
	2011/12	18,721	51	
	2012/13*	21,227	58	
Health First Strathcona 1730-0100	2010/11	16,691	46	+0.7%
	2011/12	16,768	46	
	2012/13*	16,928	46	
Okotoks Urgent Care Centre 0800-2200	2010/11	29,667	81	+1.2%
	2011/12	29,927	82	
	2012/13*	30,362	83	
Sheldon M. Chumir Urgent Care Centre 24 hours	2010/11	52,724	144	+1.6%
	2011/12	53,478	147	
	2012/13*	54,449	149	
South Calgary Urgent Care Centre 0800-2200	2010/11	48,126	132	+2.9%
	2011/12	49,686	136	
	2012/13*	51,040	140	

Source: Data Integration, Measurement and Reporting 2010 – 2012
 * 2012/13 visits have been projected by Business Advisory Services using data from Data Integration, Measurement and Reporting data from April 2012 – January 2013
 ** Cochrane Urgent Care Centre opened in February 2011

B. Urgent Care Centre Visits per Hour per Year

Urgent Care Centre Visits per Hour per Year

Facility Name	Fiscal Year	0700-1459 Hrs.	1500-2259 Hrs.	2300-0659 Hrs.
Airdrie Urgent Care Centre	2011/12	51%	49%	-
Cochrane Urgent Care Centre	2011/12	53%	47%	-
Health First Strathcona	2011/12	*	89%	11%
Okotoks Urgent Care Centre	2011/12	54%	46%	
Sheldon M. Chumir Urgent Care Centre	2011/12	49%	39%	12%
South Calgary Urgent Care Centre	2011/12	51%	49%	-

Source: Data Integration, Measurement and Reporting 2011-2012
 *Health First Strathcona operating hours are from 1730 to 0100 with staff working until 0145

Across all sites, initial opening hours consistently experience highest patient volumes. Sheldon M. Chumir UCC sees 12% of its patients during the overnight period (an average of 18 patients between 2300h-0659h).

C. Triage and Acuity Scores

The Canadian Triage and Acuity Scale (CTAS) has five acuity levels – Resuscitative, Emergent, Urgent, Less Urgent and Non Urgent, numbered 1 to 5 respectively. Further information on CTAS definitions can be found in [Appendix 1: Canadian Triage and Acuity Scale Definitions](#). All urgent care sites are reporting increases to high acuity levels CTAS 1-3 from 2010/11 to 2012/13.

Canadian Triage and Acuity Scale Breakdown of Visits: Urgent Care Centre Provincial Review

Facility Name	Fiscal Year	CTAS Levels											
		1		2		3		4		5		Value=9*** Unknown	
		#	%	#	%	#	%	#	%	#	%	#	%
Airdrie Urgent Care Centre	2010/11	4	0.01	1,242	4.4	6,399	22.7	16,230	57.6	3,187	7.8	1,093	3.9
	2011/12	14	0.05	1,999	7.2	7,547	27.3	15,778	57.0	1,441	5.2	909	3.3
	2012/13*	19	0.07	2,009	8.1	7,721	31.3	13,257	53.7	775	3.1	891	3.6
Cochrane Urgent Care Centre	2010/11**	0	0	102	5.3	576	29.8	962	49.7	255	13.2	39	2.0
	2011/12	4	0.02	1,200	6.4	4,375	23.4	10,352	55.3	2,757	14.7	33	0.2
	2012/13*	15	0.08	1,191	6.7	4,204	23.6	9,749	54.8	2,611	14.7	26	0.1
Health First Strathcona	2010/11	12	0.07	790	5	5647	34	8452	51	1636	10	-	-
	2011/12	9	0.06	755	5	5904	37	7848	49	1586	10	-	-
	2012/13*	13	0.09	562	4	5031	36	6860	50	1318	10	-	-
Okotoks Urgent Care Centre	2010/11	2	0.01	936	3.2	6,402	21.6	19,842	66.9	2,043	6.9	442	1.5
	2011/12	4	0.01	993	3.3	6,157	20.6	20,460	68.4	2,039	6.8	274	0.8
	2012/13*	3	0.01	825	3.2	5,754	22.6	17,574	69.0	1,155	4.5	143	0.6
Sheldon M. Chumir Urgent Care Centre	2010/11	3	0.01	2,497	4.7	16,536	31.4	31,646	60.0	2,039	3.9	3	0.01
	2011/12	2	0	3,192	6.0	17,267	32.3	30,558	57.1	2,456	4.6	3	0.01
	2012/13*	14	0.03	2,691	5.9	14,242	31.2	25,059	54.9	3,635	8.0	7	0.01
South Calgary Urgent Care Centre	2010/11	10	0.02	2,542	5.3	14,069	29.2	28,930	60.1	2,574	5.3	1	0
	2011/12	6	0.01	2,583	5.2	14,794	29.8	30,630	61.6	1,673	3.4	0	0
	2012/13*	16	0.04	2,699	6.3	13,193	30.8	25,264	59.0	1,618	3.8	0	0

Source: Data Integration, Measurement and Reporting 2010 – 2013

*2012/13 data is for the period April 2012-January 2013

** Cochrane Urgent Care Centre opened in February 2011

*** When a CTAS level is not recorded a value of 9 (unknown) is subsequently assigned to the patient. Given this occurrence, the sum of percentages of patients seen at that site with CTAS levels 1 through 5 may not total to 100%.

Health First Strathcona sees the highest percentage of CTAS level 1-3. Okotoks reports the highest percentage of CTAS 4, and Cochrane reports the highest percentage of CTAS 5. Airdrie UCC has experienced a rapid increase in the number of high acuity patients since 2010. From 2010 – 2013, the percentage of CTAS 3 patients increased by 8.6%, CTAS 2 increased by 3.7% and CTAS 1 by 0.06%, while volumes of CTAS 4 and 5 patients have decreased by 3.9% and 4.7% respectively.

D. Urgent Care and Family Practice Sensitive Conditions

Family Practice Sensitive Conditions (FPSC) seen in Emergency Departments (EDs) and UCCs has been defined as the percent of urgent care visits for health conditions that may be appropriately managed at a family physician's office. This performance measure (see Appendix 2) was originally developed by the Health Quality Council of Alberta (HQCA) and identified as an outcome measure to detect those cases where conditions may be treated at the family physician offices, allowing for proper follow up and better patient outcomes. Provincial targets for the 2011/12 fiscal year were set at 23% of total ED/UCC visits for this performance measure; the current provincial averages are reported as 26.4% for this indicator. All six urgent care sites have higher physician sensitive conditions than the 23% AHS benchmark.

Family Practice Sensitive Conditions: Urgent Care Centre Provincial Review

Facility Name	Fiscal Year	Family Practice Sensitive Conditions	
		# of Total urgent care Visits	% of Total urgent care Visits
Airdrie Urgent Care Centre	2010/11	9,103	32.3%
	2011/12	8,061	29.1%
	2012/13*	6,261	28.3%
Cochrane Urgent Care Centre	2010/11	N/A	N/A
	2011/12	5,558	29.7%
	2012/13*	4,359	27.3%
Health First Strathcona	2010/11	6,169	37.0%
	2011/12	5,741	34.2%
	2012/13*	4,725	36.4%
Okotoks Urgent Care Centre	2010/11	11,640	39.2%
	2011/12	11,295	37.7%
	2012/13*	8,275	36.1%
Sheldon M. Chumir Urgent Care Centre	2010/11	13,963	26.5%
	2011/12	13,499	25.2%
	2012/13*	9,551	23.3%
South Calgary Urgent Care Centre	2010/11	12,103	25.1%
	2011/12	12,307	24.8%
	2012/13*	9,406	24.3%

Source: Data Integration, Measurement and Reporting 2010 – 2013
 *Source Data is from April 2012 to January 2013

The higher than expected percentage of UCC visits for health conditions that could be appropriately seen in a family physician's office requires further analysis including a review of utilization of existing primary care capacity.

E. Urgent Care: Percentage of Patients Discharged within Target Time (4 hours)

Patients discharged from an ED or UCC measures the length of time from the first documented time after arrival at the ED/UCC to the time they are discharged (all sites). The percentage of patients discharged whose length of stay in ED/UCC is less than four hours is reported. AHS Provincial Target for this measure is 84%. Patients who leave without being seen or leave against medical advice, are admitted as an inpatient to the facility, or die before or during the ED/UCC visit, are not included.

Urgent Care: Percentage of Patients Discharged within Target Time (4 hours)

Facility Name	Fiscal Year		
	2010/11	2011/2012	2012/2013*
Airdrie Urgent Care Centre	92%	92%	92%
Cochrane Urgent Care Centre*	96%	94%	89%
Health First Strathcona	97%	97%	95%
Okotoks Urgent Care Centre	97%	97%	97%
Sheldon M. Chumir Urgent Care Centre	69%	69%	68%
South Calgary Urgent Care Centre	83%	84%	88%

Source: Data Integration, Measurement and Reporting 2010 – 2013
 *Data reporting is for the period April 2012 – November 2012

F. Urgent Care Left Without Being Seen (LWBS) Rates

The ED/UCC performance measure Left without Being Seen (LWBS) refers to patients who have reported to an ED/UCC, but left before being seen by an ED/UCC physician. This performance measure is used to track progress toward reducing overcrowding (exit block) in a UCC (DIMR 2011). Time of day, complexity of patients, site capacity limitations and access to other primary care options (urgent care centers, family physicians, walk-in clinics) in a community can contribute to significant variation in demand for UCC services. The reasons for the high rates of LWBS at Airdrie, Sheldon M Chumir, and South Calgary require further review.

Urgent Care Left without Being Seen (LWBS)

Facility Name	Fiscal Year	ED LWBS (#)	ED LWBS (%)
Airdrie Urgent Care Centre	2010/11	2,338	8.3%
	2011/12	2,127	7.7%
	2012/13*	1,831	7.4%
Cochrane Urgent Care Centre	2010/11	N/A	N/A
	2011/12	534	2.9%
	2012/13*	775	4.4%
Health First Strathcona	2010/11	124	1%
	2011/12	160	1%
	2012/13*	122	1%
Okotoks Urgent Care Centre	2010/11	936	3.2%
	2011/12	836	2.8%
	2012/13*	751	3.0%
Sheldon M. Chumir Urgent Care Centre	2010/11	4,629	8.8%
	2011/12	4,351	8.1%
	2012/13*	3,994	8.7%
South Calgary Urgent Care Centre	2010/11	2,497	5.2%
	2011/12	2,430	4.9%
	2012/13*	1,551	3.6%

Source: Data Integration, Measurement and Reporting 2010–2012 *Data Source for 2012/2013 April 2012 to January 2013

G. Urgent Care Beds, Treatment Spaces and Census Population

Total treatment space is more relevant in non-urban settings where access to additional acute care options is limited and travel to larger urban centres may be difficult for some patients. Non-urban UCCs absorb additional capacity from urban residents who commute to non urban sites in anticipation of shorter wait times. Average treatment space per person at non-urban UCCs is as follows:

- Airdrie Urgent Care Centre – One space per 5,079 residents
- Health First Strathcona – One space per 5,755 residents
- Cochrane Urgent Care Centre – One space per 799 residents
- Okotoks Urgent Care Centre – One space per 1,920 residents

Urgent Care Beds, Treatment Spaces and Census Population

Facility Name	Year	Census Population Served	Average Municipal Growth Rate	Beds	Chairs/Rapid Assessment /Mental Health	Total Treatment Space
Airdrie Urgent Care Centre	2010	39,822	6.7%	9	0	9
	2011	43,155				
	2012	45,711				
Cochrane Urgent Care Centre*	2010	17,580	-	17	5	22
	2011	-				
	2012	-				
Health First Strathcona**	2010	-	-	13	3	16
	2011	-				
	2012	92,403				
Okotoks Urgent Care Centre	2010	23,201	3.6%	11	2	13
	2011	23,981				
	2012	24,962				
Sheldon M. Chumir Urgent Care Centre	2010	1,071,515	2.2%	22	10	32
	2011	1,090,936				
	2012	1,120,225				
South Calgary Urgent Care Centre	2010	1,071,515	2.2%	18	18	36
	2011	1,090,936				
	2012	1,120,225				
Source: Data from respective municipality's census reports as accessed online						
*Cochrane census data not available for 2011 or 2012						
**Strathcona County census data not available for 2010 or 2011						

3. URGENT CARE CENTRE COST COMPARISON

The cost comparison of operations, along with the estimated cost per case, takes into account the direct cost assumed by AHS in urgent care operations and factors in an estimate of Fee for Service physician billing, which was provided by Alberta Health.

Urgent Care Cost per visit Fiscal Year 2011-2012

Facility Name	Direct Cost/Visit (AHS Direct)	Physician cost/visit (FFS)	Total Cost/visit Blended	Direct Cost per CACS RIW (weighted visit)
South Calgary Urgent	\$ 76.46	\$ 89.90	\$ 165.55	\$ 124.89
Cochrane Urgent Care	\$ 111.37	\$ 66.60	\$ 183.97	\$ 171.28
Okotoks Urgent Care	\$ 57.53	\$ 58.48	\$ 116.01	\$ 91.93
Sheldon M. Chumir Urgent Care	\$ 99.49	\$ 88.76	\$ 188.25	\$ 131.17
Airdrie Urgent Care	\$ 88.52	\$ 40.46	\$ 123.98	\$ 118.91
Health First Strathcona Urgent Care	\$ 115.53	\$ 37.72	\$ 153.25	\$ 220.04

CACS: Comprehensive Ambulatory Classification System; RIW: Resource Intensity Weights
 * Rescale Factor: CACS RIW multiplied by 21.920, which is the average Ambulatory Care RIW compared to the average Inpatient RIW.
 Airdrie and Cochrane also use NPs but do not have them available for all shifts due to recruitment challenges.
 First year of operation for Cochrane, expected to increase to 30,000 visits per year.
 Physician billings provided by DIMR. Physician billings for 2011-12 have been estimated based on volumes.
 Physician billings do not include shadow billing and includes GP specialty.
 Hours of operation: All sites above are 0800 to 2200 / 365, with the exception of Sheldon Chumir 24 hours / 365.
 There are differences in staff charge to the functional centre. In the 2010 review:
 * SCHC – 1.00 FTE Manager; 0.68 FTE Educator; 1.19 FTE other Clerical
 * SMCHC – 1.00 FTE Manager; 1.80 FTE Instructor; 2.37 FTE Service Aide; 0.50 FTE Clerk V
 * Okotoks – 0.80 FTE Assistant Manager; 1.00 FTE other Clerical
 * Airdrie – 0.80 FTE Assistant Manager; 0.70 FTE Educator; 1.70 FTE Nurse Practitioner
 * HFS - 0.20 FTE Director; 0.50 FTE Educator; 2.93 FTE NP; 0.25 FTE Infection Control; 0.20 FTE Unit Clerk; 0.50 FTE Stores II; 0.70 FTE Clerk IV; 1.16 FTE
 Health First Strathcona (HFS) - Excluded invoices from CML Healthcare Imaging totalling \$337,790.16 (April 2011 to March 2012).
 Health First Strathcona (HFS) - RIWs have been increased by 4.40% as an estimate to compensate for the missing DI values in the 2011-12 fiscal year.

While the current costs of the Airdrie UCC appear to be among the lowest of the UCCs reviewed, the total system costs would not be reduced if the NPs were to be phased out of the current care model. These costs would be shifted from AHS to the Physician Services Budget of Alberta Health (through fee for service payments to the physicians), and will not result in an overall cost saving to the system. In addition, if the NP resources were to be redeployed within the Calgary Zone to other high priority areas (e.g. FCCs and PCNs), there would be no overall cost reductions in the zone. The cost tables below substantiate the differences in the Physician-NP models, the overall staffing models, and the different sources of funding that support patient care activity. Neither the NP nor physician costs appear to be the sole driver of differences in total cost and cost per visit between the urgent care centres.

Urgent Care Centre NP and Physician Costs

Facility Name	NP Compensation	NP Compensation Percent of Total Cost	Physician Billing	Physician Billing Percent of Total Cost	Total Cost
South Calgary Health Centre	-	0.00%	4,426,479	53.70%	8,242,692
Cochrane Community Health Centre	136,000	3.87%	1,246,912	35.52%	3,510,776
Okotoks Health and Wellness Centre	-	0.00%	1,750,082	50.34%	3,476,492
Sheldon M Chumir Centre	-	0.00%	4,746,931	46.85%	10,132,318
Airdrie Regional Health Centre	135,500	3.94%	1,120,319	32.58%	3,438,562
Health First Strathcona	340,943	13.09%	632,469	24.29%	2,603,858

Expenses by Site - Comparison Table

Facility Name	Year	Expense by Object (\$)						Physician Top Up (\$) ^{***}	Estimated Fee for Service (\$) ^{****}
		Salaries and Benefits	Drugs and Gases **	Medical and Surgical Supplies	Other Expenses	Other Contracted Services	Total		
Airdrie Urgent Care Centre	2010/11	2,015,816	72,092	88,673	91,090	24,401	2,254,714	69,545	1,111,429
	2011/12	2,023,716	80,585	118,971	95,218	28,906	2,312,418	0	1,120,319
	2012/13	2,271,899	83,003	158,021	117,013	0	2,585,290	26,059	1,190,764
Cochrane Urgent Care Centre	2010/11*	346,687	2,693	61,917	16,788	2,045	428,464	0	125,672
	2011/12	2,024,334	42,717	28,085	47,114	31,145	2,153,774	43,462	1,246,912
	2012/13	2,171,003	43,999	113,421	78,650	0	2,372,517	51,864	1,413,841
Health First Strathcona	2010/11	1,706,707	14,481	54,735	159,095	43,133	1,964,636	0	614,210
	2011/12	1,727,385	5,057	59,063	131,862	27,230	1,937,218	0	632,469
	2012/13	1,846,291	14,915	57,331	73,264	29,281	2,008,325	0	638,518
Okotoks Urgent Care Centre	2010/11	1,431,606	45,314	58,668	60,902	0	1,490,054	0	1,692,563
	2011/12	1,589,849	44,590	65,511	91,397	0	1,721,745	0	1,750,082
	2012/13	1,748,094	45,928	77,012	68,460	0	1,875,159	0	1,775,508
Sheldon M. Chumir Urgent Care Centre	2010/11	4,785,845	110,775	226,304	148,782	84,469	5,289,348	0	4,565,856
	2011/12	4,782,999	119,074	245,454	140,141	88,419	5,320,515	0	4,746,931
	2012/13	5,780,333	122,646	300,434	169,326	0	6,319,491	0	4,833,158
South Calgary Urgent Care Centre	2010/11	3,312,086	95,736	209,726	140,079	59,520	3,751,412	0	4,182,927
	2011/12	3,450,469	82,351	164,875	107,222	64,308	3,799,215	0	4,426,479
	2012/13	3,890,795	84,822	175,145	121,965	0	4,207,453	0	4,547,138

Source: Business Advisory Services

*Cochrane Urgent Care Centre Opened in February 2011

**2012/13 costs are estimate as actual costs fall under central Pharmacy

***Airdrie Physician Guarantee is \$170/hour; 2012/13 top up based on April 2012 – February 2013 results projected to 365 days for Cochrane and Airdrie

****Fee for Service billing data from DIMR for 2010/11. Estimates for 2011/12 and 2012/13 are based on volumes, adjusted for inflation in 2012/13 at a rate of 2.5%

*****Cost per case based on patient volumes from DIMR reporting 2010-2013

4. URGENT CARE CENTRE STAFF ENGAGEMENT

A. Staff Survey

Staff survey data was collected through the completion of anonymous online surveys and individual phone interviews. Common themes from the survey included:

- There is a need for increased public awareness related to what urgent care is, the types of services offered, and when it is appropriate to use urgent care.
- Urgent care is regularly used as a walk-in clinic and by physicians who refer some of their patients.
- Better integration with Primary Care Networks and all primary care physicians is needed to better allocate and utilize resources.
- Physicians who are trained in acute care medicine need to maintain permanent positions at each UCC, as physicians without acute care training or experience may be less efficient, or may have lower levels of confidence and/or skill in treating patients with higher acuity patients.
- Protocols to enable UCCs to redirect patients to the appropriate level of care would support better patient flow and increase access to those appropriately needing UCC services.
- Develop the nurse practitioner role more robustly so that all physicians and staff understand their role, skill set and scope of practice.

B. Focus Groups

Focus groups were conducted by AHS Workforce Research and Evaluation, Health Professions Strategy and Practice to understand the appropriateness of current workforce models, potential challenges and proposed workforce solutions. One focus group was held at each site and all management, physicians, NPs and staff were invited to attend. An appreciative inquiry approach was used to facilitate each group. A summary of key messages and data synthesis is detailed below.

Key Messages and Data Synthesis

- UCC physicians, NPs and staff, both clinical and non clinical, do a good job providing care for the people in their communities, despite increasing patient volumes and acuity.
- There is concern about patients accessing the UCC who do not require urgent care and would be best seen elsewhere. There is confusion over why patients cannot be turned away and questions whether this is AHS policy or direction coming from UCC management.
- The NP-physician model, where it is in place, is seen as fostering patient care and safety and facilitating patient flow.
- It would be preferable for all clinicians to have appropriate urgent care or emergency/acute care experience.
- Understaffing was a consistent message across all UCCs and participants expressed concern about the impact on patient safety, job satisfaction, staff turnover and poor work-life balance.
- It was suggested that there is a lack of clarity around the NP role and communication, and that education of UCC staff and physicians would improve teamwork.
- Lack of equipment and resources (no isolation rooms, patient rooms without adequate suction, dated x-ray equipment, inadequate capital funding) may negatively impact patient care and safety as well as impacting physician, NP and staff job satisfaction.
- Lack of IT integration among the UCCs and other centers (e.g. emergency departments) may affect how efficiently and effectively clinicians and staff provide patient care.
- Participants stressed the importance of consultation with UCC staff and physicians, and the populations and communities they serve before making substantive changes to UCCs.
- There is a consistent lack of public understanding about UCCs. Participants suggested that AHS communicate with Albertans about what UCCs are, when it is appropriate to go to one, when they should go elsewhere and where that should be.
- Collaborative care models and a team approach to delivering care and decision making improve patient care and job satisfaction.
- There is a need for processes to more effectively manage patient flow.

5. WORKFORCE UTILIZATION: Literature Review and Current UCC Staffing

A. Literature Review and Comments

A literature review was undertaken (see references in Appendix 3).

Nurse Practitioners:

Each jurisdiction in Canada has a number of Nurse Practitioners (NPs) working in both non urban and urban Emergency Departments (ED). Unfortunately there has been minimal evaluation in any jurisdiction of the model and patient outcomes.

Limited Canadian literature is available regarding the NP role within urgent care settings. The international literature does support the use of NPs in EDs and UCCs. The National Health Service (NHS) in England, Australia and the United States of America support the use of NPs in these models of delivery of healthcare. The models are varied with NPs in the ED Monday to Friday 0800h – 1700h, models with NPs in the ED from 0700h – 2300h, and NP provision of care 24/7. The majority of the models have NPs seeing patients with CTAS Levels 3, 4 and 5. In these models, the NPs also tend to have admitting and discharge responsibilities.

There are documented improvements in length of stay (LOS), decrease in wait times, improved patient satisfaction and decrease in patient returns to the ED to be seen again. There are also documented findings of the ability to double the typical panel of patients seen by a physician by adding an NP to the practice. The general findings demonstrate equal outcomes for patients in CTAS 3, 4 and 5 as those seen by a physician. The primary challenge in implementation of these models has been finding the right 'fit' with the team members, managing role conflicts and the appropriate skill set from the nurse practitioners. Most studies of the NP model show demonstrated benefit in patient satisfaction, comprehensiveness of care, patients' perceptions about communicating about education and selfcare in UCC.

The literature also indicates that leaders have a key role in the successful implementation of NP roles including facilitating the reallocation of work, establishing new work routines, and facilitating evolving team function and new working relationships.

Barriers to successful integration of NP roles, noted in the literature, include reimbursement mechanisms for fee for service MDs, concerns about liability issues, restricted NP scope of practice, perceptions that NPs could impede recruitment and retention of physicians, and lack of funding for NP positions.

Staff Mix:

- Some studies recommend a consensus-based framework for making decisions about staff mix developed by multi-stakeholder groups.
- There is some evidence to support non-traditional staffing models in EDs to provide safe care.
- The major demographic issue is an aging workforce with looming potential shortages of registered nurses (RNs) and other regulated nursing professionals (e.g. Licensed Practical Nurses (LPNs)).

Urgent Care Staffing FTEs

The current staffing model varies at each site. Only Airdrie, Cochrane, and Health First Strathcona maintain NP models. There is no prescribed formula to suggest appropriate staffing for urgent care, and the needs of each site will vary based on patient volume, acuity, complexity, physical space layout and workflow.

Urgent Care Staffing FTEs

Facility Name	Position FTEs (Regular Budgeted)									
	Unit Clerk	Secretary	LPN	RN	NP	Social Worker	Nurse Educator	Prof./ Technical	General Support Services	Management
Airdrie Urgent Care Centre	2.8	1.0	2.81	8.38	1.4	-	0.53	-	-	0.8
Cochrane Urgent Care Centre	2.8	-	2.8	7.64	1.4	-	0.5	-	-	1.0
Health First Strathcona	3.15	-	0	4.42	2.65		0.5	1.4	0.6	0.2
Okotoks Urgent Care Centre	2.8	-	2.9	6.48	-	-	0.53	-	-	0.8
Sheldon M. Chumir Urgent Care Centre	5.44	-	8.72	22.15	-	1.0	1.0	1.4	2.4	1.0
South Calgary Urgent Care Centre	4.0	1.0	4.2	13.36	-	-	0.68	2.8	-	1.0

Source: AHS Business Advisory Services

6. CONCLUSION

A skilled and competent urgent care team is necessary to provide a safe and efficient service that meets the needs of the patient population. A consistent physician, NP and staff workforce that is trained to care for higher acuity patients is necessary to support quality care. The model needs to fully utilize the skills and competencies of all providers and needs to be consistent during all hours of operation of the UCC.

A collaborative practice model inclusive of physicians, NPs and other staff is a viable model. Physicians and NPs who manage high acuity patients in the UCC must have the appropriate training, competency and experience.

The Airdrie UCC lacks sufficient treatment space and an infrastructure review to improve physical space and patient flow is required.

Finally, to ensure the optimal use of urgent care services and community based health services, further public education is required.

Appendix 1: Canadian Triage and Acuity Scale Definitions

The Canadian Triage & Acuity Scale (CTAS) is a tool that enables Emergency Departments (ED) to:

- Prioritize patient care requirements.
- Examine patient care processes, workload, and resource requirements relative to case mix and community needs.

The CTAS allows ED nurses and physicians to:

- Triage patients according to the type and severity of their presenting signs and symptoms.
- Ensure that the sickest patients are seen first when ED capacity has been exceeded due to visit rates or reduced access to other services.
- Ensure that a patient's need for care is reassessed while in the ED.

The CTAS allows ED managers to:

- Measure the case mix (volume and acuity) of patients who visit the ED.
- Determine whether the ED has an operational plan and the resources to meet patient needs
- Assess the ED's role within the hospital and health care region.

The triage level assigned using the CTAS criteria is a mandatory data element to be used in all Canadian Hospital Emergency Departments for reporting to the [Canadian Institute for Health Information](#) (Canadian Association of Emergency Physicians, 2012).

CTAS Levels

CTAS Level	Definition	Time to Physician
Level 1 Resuscitation	Conditions that are threats to life or limb (or imminent risk of deterioration) requiring immediate aggressive interventions.	Immediate
Level 2 Emergent	Conditions that are a potential threat to life, limb or function, requiring rapid medical intervention or delegated acts.	≤ 15 minutes
Level 3 Urgent	Conditions that could potentially progress to a serious problem requiring emergency intervention. May be associated with significant discomfort or affecting ability to function at work or activities of daily living.	≤ 30 minutes
Level 4 Less Urgent (Semi-urgent)	Conditions that may be related to patient age, distress, or potential for deterioration or complications would benefit from intervention or reassurance within 1 to 2 hours.	≤ 60 minutes
Level 5 Non Urgent	Conditions that may be acute but non-urgent as well as conditions which may be part of a chronic problem with or without evidence of deterioration. The investigation or interventions for some of these illnesses or injuries could be delayed or even referred to other areas of the hospital or health care system.	≤ 120 minutes

Source: Implementation Guidelines for the Canadian Emergency Department Triage and Acuity Scale (CTAS); Version: CTAS16.

Appendix 2: AHS Performance Measures Definitions

Indicator	Definition	AHS Target 2011/12
Emergency Department Indicators		
Family Practice Sensitive Conditions (% of ED Visits)	Developed by the Health Quality Council of Alberta (HQCA). This indicator measures the Percentage/Proportion of ED/UCC Visits for diseases/conditions sensitive to management at family physician offices.	23%
ED/UCC Discharges Percent within 4 hour Target	<p>Patients discharged from an Emergency Department (ED) or Urgent Care Centre (UCC) measures the length of time from the first documented time after arrival at the ED/UCC to the time they are discharged (all sites). The percentage of patients discharged whose length of stay in ED/UCC is less than four hours is reported. Patients, who leave without being seen, leave against medical advice, are admitted as an inpatient to the same facility, or die before or during the ED visit, are not included in this measure.</p> <p>Numerator: Number of discharges within 4 hours. Denominator: Total discharges with valid times.</p> <p>There are many reasons why ED/UCC length of stay may vary across sites, including complexity of patients, limitations (treatment spaces, staffing), operational efficiency and access to other primary care options (family physicians, walk-in clinics).</p>	84%
ED Admits to Hospital with 8 hour Target	<p>The total time patients spend in an Emergency Department (ED) is calculated from the first documented time after arrival at emergency until the time they enter the hospital as an inpatient (all sites). The percentage of admitted patients whose length of stay in ED is less than eight hours is reported.</p> <p>Numerator: Number of admits to same hospital within 8 hours Denominator: Total admits with valid times</p> <p>There are many reasons why length of stay may vary across sites. Examples include the complexity of patient conditions presenting to ED, capacity limitations (e.g. treatment spaces, staffing levels) as well as operational efficiency. In addition, the demand for ED services can vary significantly between sites and/or communities as a result of access to other primary care options (e.g. family physicians, walk-in clinics).</p>	65%
ED ALOS	<p>Average length of stay (hours) in the Emergency Department for patients admitted to hospital. Figures include visits with valid times from 0 to less than 7 days.</p> <p>Numerator: Time from first contact date and time to left ED date and time for admitted patients Denominator: Total ED Admitted Patients</p>	N/A
ED LWBS	<p>Number of Emergency Department (ED) visits that Left Without Being Seen (LWBS) as a percentage of total visits.</p> <p>Numerator: Number of visits LWBS Denominator: Total ED visits</p>	N/A
ED Admissions to IP service at site	<p>Percentage of Emergency Department (ED) visits admitted to the same hospital. The figures exclude transfers to another acute care facility.</p> <p>Numerator: Number of admits to same hospital Denominator: Total visits</p>	N/A

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