

Population and Segmentation Profile – Renfrew Youth Ages 12 to 25 Aug 2015

Objectives of Document:

- Develop a better understanding of the client population.
 - Develop a better understanding of the variation and segmentation within this population
 - Help support a population/client perspective for the project.
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Highlights

- The rate for ED usage for Renfrew youth with a Mental Health/Substance Use Crisis is high when compared to other jurisdictions.
- The majority of Renfrew County youth seek emergency room services within Renfrew County
- Mental Health and Addiction (MH/A) based visits represent around 4% of all ED visits
- Approximately 15% of MH/A ED visits arrive by ambulance.
- The majority of MH/A ED Visits have a CTAS level of 3 (Urgent/Potentially Serious)
- Mood and Anxiety disorders are the main reasons a Renfrew County youth will present at an ED for a MH/A issue.
- The majority of youth are discharged home (77%) and 17% are admitted as inpatients within the facility. (A higher percentage when compared to Champlain where 15% are admitted as inpatients)

Data Source & Methodology:

The data presented in this report has been retrieved from Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, unless otherwise noted.

Categorizing Mental Health: Tables/charts associated with MH/A visits utilized a common definition of mental health/substance use related ICD-10 codes as Main Diagnosis derived from [Care for Children and Youth with Mental Disorders, CIHI. May 2015](#) . See Appendix A for details.

Data Note: The numbers presented in this report are only identifying an ED visit where the **Main Diagnosis** is a MH/A diagnosis. If another issue at an ED visit takes precedence but there is an underlying MH/A issue, this is not captured in this report. Therefore, the counts presented in this report are likely an undercount of all ED visits where MH/A were an issue and/or secondary diagnosis.



Current Understanding of the Population:

There are over 17,000 youth (ages 12 to 25) residing in Renfrew County. Of these youth 4,388 are between the ages of 12 to 15, while the majority (12,881) are in the older age category of 16 to 25. The largest numbers of youth reside in the Pembroke and Petawawa areas.

Population Estimates for Renfrew County, Ages 12 to 25. 2013				
Data Source: Pop Est Summary, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, extracted Wednesday, July 22, 2015				
Report: Population Estimates, County Level				
Prepared by: Champlain Pathways to Better Care (Alice Hutton), Royal Ottawa				
	Calendar Year	2013		
		Age	12 to 15	16 to 25
Municipality				
Admaston/Bromley		152	327	479
Arnprior		319	985	1,304
Bonnechere Valley		157	417	574
Brudenell, Lyndoch Etc		68	133	201
Deep River		161	495	656
Greater Madawaska		83	207	290
Head, Clara & Maria		7	12	19
Horton		126	325	451
Killaloe, Hagarty & Rich		110	239	349
Laurentian Hills		120	352	472
Laurentian Valley		487	1,154	1,641
Madawaska Valley		178	425	603
Mcnab/Braeside		363	920	1,283
North Algona Wilber.		115	279	394
Pembroke		555	1,937	2,492
Petawawa		704	2,918	3,622
Pikwakanagan		24	55	79
Renfrew		303	883	1,186
Whitewater Region		356	818	1,174
Total		4,388	12,881	17,269



Emergency Room Usage by Renfrew Youth

The majority of emergency room visits for youth (ages 12 to 25) residing in Renfrew County were to one of the five Renfrew County hospitals (94.5% of visits in 2013-14, 95.2% of visits in 2014-15), with over one third (36.6% in 2013-14, 36.0% in 2014-15) of visits being made to the Pembroke Regional Hospital.

ED Visits by Renfrew Youth to Ontario Hospitals Ages 12 to 25. (All Reasons for Visit)							
Data Source: Ambulatory All Visit Main Table, MOHLTC, IntelliHEALTH ONTARIO, Counts: # Visits (D-HN), extracted Wednesday, July 22, 2015							
Report: Where Renfrew Youth present at EDs By Fiscal Year							
Prepared by: Champlain Pathways to Better Care (Alice Hutton), Royal Ottawa							
Fiscal year	2013-2014			2014-2015			
	Age (yrs)	12 TO 15	16 TO 25	Total	12 TO 15	16 TO 25	Total
		# Visits	# Visits	# Visits	# Visits	# Visits	# Visits
Hospital							
Pembroke Regional Hospital Inc.		1,010	4,507	5,517	1,025	4,446	5,471
Renfrew Victoria Hospital		803	2,803	3,606	900	2,756	3,656
Deep River And District Hospital		544	1,808	2,352	559	1,820	2,379
Arnprior Regional Health		444	1,593	2,037	514	1,596	2,110
St Francis Memorial Hospital		249	584	833	252	654	906
Children's Hospital Of Eastern Ontario		164	62	226	137	61	198
Ottawa Hospital (The)-Civic Site			166	166	<5	118	120
Ottawa Hospital (The)-General Site			119	119		101	101
Queensway-Carleton Hospital		7	150	157	6	133	139
Almonte General Hospital		7	77	84	11	93	104
Carleton Place And District Mem Hospital		5	28	33	<5	22	25
Hopital Montfort			22	22	<5	27	30
Cornwall Community Hospital		<5	7	10		13	13
Kemptville District Hospital		<5	9	10		5	5
Winchester District Memorial Hospital			6	6		7	7
Glengarry Memorial Hospital			<5	<5		<5	<5
Hawkesbury And District General Hospital			<5	<5		<5	2
Outside Champlain Hospitals (In Ontario)		46	375	421	49	392	441
Total		3,282*	12,319*	15,601*	3,459*	12,246*	15,705*
MH/A Visits (Main Dx)		125	567	692	133	522	655
% of Total		3.8%	4.6%	4.4%	3.9%	4.3%	4.2%

*Totals might not equal due to rounding



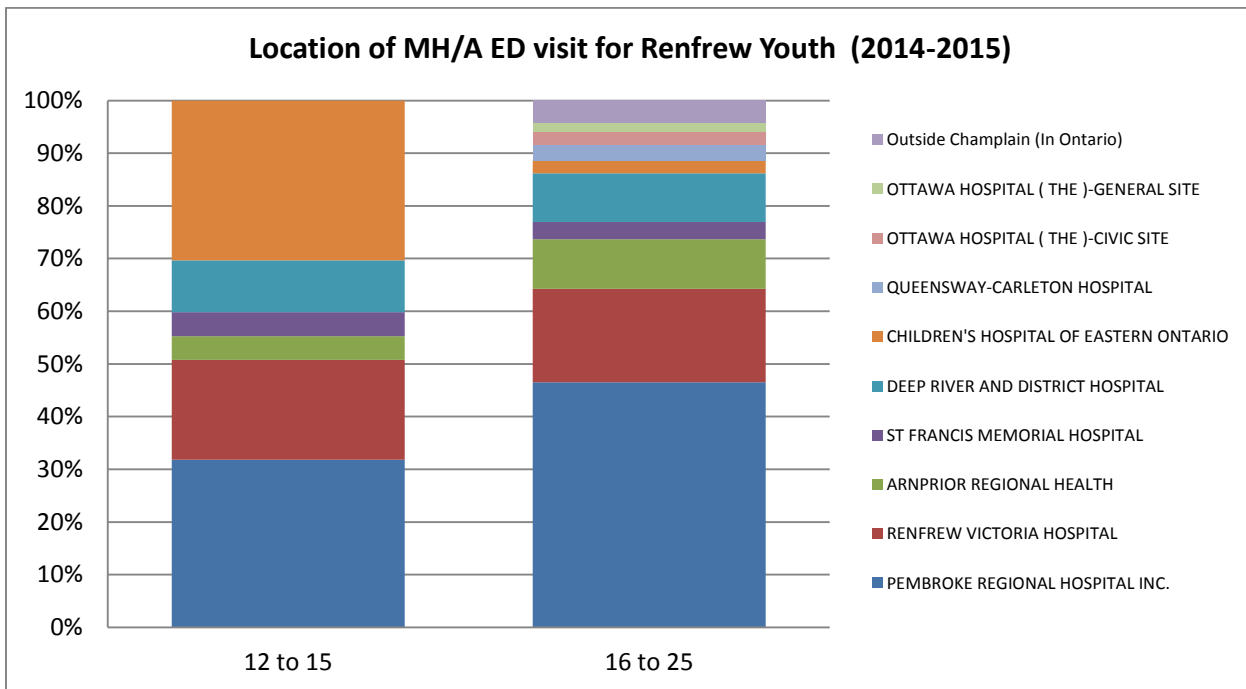
Emergency Room Usage for MH/A issues:

Emergency Room Usage by Renfrew Youth is higher than what is seen in other settings. When compared to the rates per 100,000 published by CIHI for children and youth for Champlain and Canadian rural settings, the ED visit rate for Renfrew youth is much higher.

Patients Who Visited the Emergency Department for Mental Disorders Among Children and Youth (5 to 24 years old), per 100,000 Population	
	2013-2014
Champlain ¹	1,415
Rural (Ontario and Alberta) ¹	1,640
Renfrew County	2,947

What Emergency Rooms Do Renfrew Youth Go For a MH/A Crisis?

In 2013-14, 81.8% and in 2014-15, 82.4% of emergency visits for youth (ages 12 to 25) with mental health and/or addiction as a main problem diagnosis were to one of the five Renfrew County hospitals.



¹ [Care for Children and Youth with Mental Disorders Data Tables, CIHI, May 2015](#)



Emergency (ED) visits for Mental Health and/or Addiction as a main problem diagnosis (MPDx) for Renfrew Youth (ages 12 to 25) (All EDs)

Data Source: Ambulatory All Visit Problem Dx and External Cause, MOHLTC, IntelliHEALTH ONTARIO, Counts: # Visits (D-HN), extracted Wednesday, July 22, 2015
 Report: Renfrew Youth (Main DX -- ED), Developed for Renfrew Integrated Crisis Response System (ICD-10 Codes and Diagnostic Categories Identified in CIHI 2015, Care for Children and Youth with Mental Health Disorders, Appendix C)
 Prepared by: Champlain Pathways to Better Care (Alice Hutton), Royal Ottawa

Fiscal Year	2013				2014			
	# Visits	% of total	# Visits	% of total	# Visits	% of total	# Visits	% of total
	12-15		16-25		12-15		16-25	
Renfrew County Hospitals								
PEMBROKE REGIONAL HOSPITAL INC.	39	31.2%	261	46.1%	42	31.6%	242	46.5%
RENFREW VICTORIA HOSPITAL	23	18.4%	89	15.7%	25	18.8%	92	17.7%
ARNPRIOR REGIONAL HEALTH	10	8.0%	51	9.0%	6	4.5%	49	9.4%
ST FRANCIS MEMORIAL HOSPITAL	9	7.2%	15	2.7%	6	4.5%	17	3.3%
DEEP RIVER AND DISTRICT HOSPITAL	8	6.4%	61	10.8%	13	9.8%	48	9.2%
Subtotal	89	71.2%	477	84.3%	92	69.2%	448	86.2%
Other Champlain Hospitals								
CHILDREN'S HOSPITAL OF EASTERN ONTARIO	35	28.0%	22	3.9%	40	30.1%	13	2.5%
QUEENSWAY-CARLETON HOSPITAL	<5		11	1.9%	0	0.0%	15	2.9%
OTTAWA HOSPITAL (THE)-CIVIC SITE			26	4.6%			13	2.5%
OTTAWA HOSPITAL (THE)-GENERAL SITE			11	1.9%			9	1.7%
Other Hospitals <5 (HOPITAL MONTFORT, ALMONTE GENERAL HOSPITAL, CARLETON PLACE AND DISTRICT MEM HOSPITAL, GLENGARRY MEMORIAL HOSPITAL, CORNWALL COMMUNITY HOSPITAL)			5	0.9%			<5	
Subtotal	35	28.8%	75	13.3%	40	30.1%	50	10.0%
Outside Champlain (In Ontario)			15	2.6%	<5		22	4.2%
Total	125		567		130		520	

*Totals might not equal due to rounding

How many of these youth Arrived by Ambulance? For full age range (12-25)

- 2013-2014 -- 100 or (15%)
- 2014-2015 – 89 or (14%)



What type of Mental Health or Substance Issue were Renfrew youth presenting at EDs?

Over three quarters (76.4% in 2013-14, 77.6% in 2014-15) of emergency visits for youth (ages 12 to 25) with mental health and/or addiction as a main problem diagnosis were for a mood or anxiety disorder.

Emergency (ED) visits for Mental Health and/or Addiction as a main problem diagnosis (MPDx) for Renfrew Youth (ages 12 to 25) (All EDs)						
Data Source: Ambulatory All Visit Problem Dx and External Cause, MOHLTC, IntelliHEALTH ONTARIO, Counts: # Visits (D-HN), extracted Wednesday, July 22, 2015						
Report: Renfrew Youth (Main DX -- ED), Developed for Renfrew Integrated Crisis Response System (ICD-10 Codes and Diagnostic Categories Identified in CIHI 2015, Care for Children and Youth with Mental Health Disorders. Appendix C)						
Prepared by: Champlain Pathways to Better Care (Alice Hutton), Royal Ottawa						
Diagnostic Category	2013-2014			2014-2015		
	# Visits			# Visits		
	12-15	16-25	All	12-15	16-25	All
Anxiety Disorders	48	285	333	64	269	333
Mood Disorders	42	154	196	43	132	175
Substance-Related Disorder	11	75	86	8	71	79
Schizophrenic and Psychotic Disorders	<5	23	25	<5	27	30
Organic Disorders	6	10	16	5	7	12
Personality Disorders	<5	11	15	<5	8	10
Other Disorders	16	9	25	6	8	14
TOTAL	125 [†]	567	692 [†]	133 [†]	522	655 [†]

**Totals might not equal due to rounding*

What level of severity are Renfrew Youth Presenting at Champlain Hospital EDs?

Triage Level of Emergency (ED) visits at Champlain Hospitals for Mental Health and/or Addiction as a main problem diagnosis (MPDx) for Renfrew Youth (ages 12 to 25).

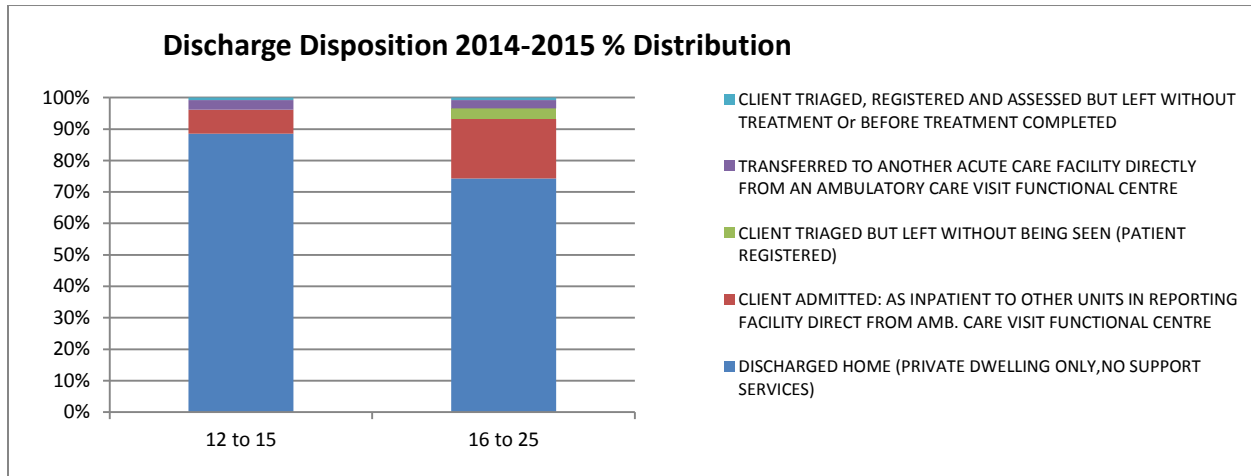
Data Source: Ambulatory All Visit Problem Dx and External Cause, MOHLTC, IntelliHEALTH ONTARIO, Counts: # Visits (D-HN), extracted Thursday, July 23, 2015
 Report: Renfrew Youth (MHA DX) By CTAS, Developed for Renfrew Integrated Crisis Response System ICD-10 Codes and Diagnostic Categories Identified in CIHI 2015, Care for Children and Youth with Mental Health Disorders. Appendix C
 Prepared by: Champlain Pathways to Better Care (Alice Hutton), Royal Ottawa

Triage Levels	Fiscal Year 2014-2015	
	12 to 15	16 to 25
RESUSCITATION/LIFE THREATENING (CTAS-1)		<5
EMERGENT/POTENTIALLY LIFE-THREATENING (CTAS-2)	22	117
URGENT/POTENTIALLY SERIOUS (CTAS-3)	84	241
LESS-URGENT/SEMI-URGENT (CTAS-4)	18	101
NON-URGENT (CTAS-5)	<5	38
UNKNOWN/UNAVAILABLE	<5	<5



How did Youth Leave the ED? (Discharge Disposition)

The majority of youth are discharged home (77%), although you are more likely to be discharged home if you are in the younger age group (12-15). A larger percentage of older youth (16-25) are admitted as inpatients within the facility. The admittance rate is a higher percentage when compared to Champlain, where 15% of youth presenting at an ED are admitted as inpatients.



Discharge Disposition of Emergency (ED) visits at Champlain Hospitals for Mental Health and/or Addiction as a main problem diagnosis (MPDx) for Renfrew Youth (ages 12 to 25).

Data Source: Ambulatory All Visit Problem Dx and External Cause, MOHLTC, IntelliHEALTH ONTARIO. Counts: # Visits (D-HN), extracted Thursday, Aug 13, 2015
 Report: Renfrew Youth (MHA DX) By CTAS, Developed for Renfrew Integrated Crisis Response System ICD-10 Codes and Diagnostic Categories Identified in CIHI 2015, Care for Children and Youth with Mental Health Disorders. Appendix C
 Prepared by: Champlain Pathways to Better Care (Alice Hutton), Royal Ottawa

Fiscal Year 2014-2015

Discharge Disposition	Count	%
Discharged home (private dwelling only, no support services)	489	77%
Client admitted: as inpatient to other units in reporting facility direct from amb. care visit functional centre	105	17%
Client triaged but left without being seen (patient registered)	17	3%
Transferred to another acute care facility directly from an ambulatory care visit functional centre	17	3%
Client triaged, registered and assessed but left without treatment or before treatment completed	5	1%



How many had their care transferred (either admitted to the hospital or transferred to another hospital)? (For full age range 12-25)

Transferred Care from an Emergency (ED) visit at a Champlain Hospital for Mental Health and/or Addiction as a main problem diagnosis (MPDx) for Renfrew Youth (ages 12 to 25).

Data Source: Ambulatory All Visit Problem Dx and External Cause, MOHLTC, IntelliHEALTH ONTARIO, Counts: # Visits (D-HN), extracted Thursday, July 23, 2015
 Report: Renfrew Youth (MHA DX) By CTAS, Developed for Renfrew Integrated Crisis Response System ICD-10 Codes and Diagnostic Categories Identified in CIHI 2015, Care for Children and Youth with Mental Health Disorders. Appendix C
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	2013-14	2014-15
ACUTE CARE TREATMENT HOSP W/O PSYCH UNIT	9	13
AMBULATORY CARE	13	9
CHILDRENS AID SOCIETY		<5
MENTAL HEALTH	86	87



Appendix A: Diagnosis Included in the ED/Hospitalization Analysis

Diagnostic Category	ICD-10-CA Codes
Organic Disorders	F00-F09, F53.1, G30, R41.3
Substance Related Disorders	F10-F19, F55, T51, Y90-Y91
Schizophrenic and Psychotic Disorders	F20-F29, R41.0
Mood Disorders	F30-F33, F34.8, F34.9, F38, F39, F53.0
Anxiety Disorders	F40-F42, F93.0-F93.2, F43.0, F43.1, F43.8, F43.9
Personality Disorders	F60-F62, F68-F69
Self-Harm	X60-X64, Y87.0
Other Disorders	F43.2, F44, F45, F48.0, F48.1, F48.8, F48.9, F53.8, F53.9, F50-F52, F54, F59, F63-F66, F70-F73, F78-F92, F93.0, F93.3, F93.8, F93.9, F94, F95, F98, F99, O99.3

