#### Corrections involvement among Albertan youth Child and Youth Data Laboratory (CYDL) Report for Experiences of Albertan Youth Project

#### **Key findings**

This report is an overview of 5,178 Albertan youth (2% of youth aged 12 to 17 years) who were involved in corrections in 2008/09. Youth with corrections involvement have appeared before the Court or a Justice of the Peace for an offence charge and have been remanded in custody or placed under pre-trial supervision in the community awaiting further court dates, or have been found guilty and sentenced to a community disposition (in which the sentence is served in the community) or custody (in which the sentence is served in a young offender facility).

Type of corrections involvement and Aboriginal status of youth involved in corrections were considered, along with age, gender, region of residence, socio-economic status, educational achievement, and health service use. Youth involved in corrections were compared to youth not involved in corrections. The crossministry service use of youth involved in corrections was also studied.

- 1.7% of Albertan youth were involved in corrections in 2008/09; 18% of these were in custody at some point in the year.
- Youth involved in corrections were primarily older teenagers who were male. One in four youth involved in corrections was Aboriginal.
- Compared to youth not involved in corrections, youth involved in corrections were more likely to live in the lowest socio-economic status neighbourhoods, to perform below educational expectations, to receive services for a mental health condition, to visit an emergency room, to be hospitalized, or to receive maltreatment-related intervention services. All of these effects were larger for youth in custody than for youth with community sentences or pre-trial supervision.
- Aboriginal youth involved in corrections were more likely than non-Aboriginal youth involved in corrections to live in rural regions or the lowest socio-economic status neighbourhoods, to visit emergency rooms, to be hospitalized, or to receive maltreatment-related intervention services. They were less likely to meet or exceed educational expectations.



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#### Context

A small minority of youth in Alberta becomes involved in corrections. Understanding the factors associated with corrections involvement, or the lack thereof, can inform policies and programs whose aim is to reduce the risk that youth will find themselves in the corrections system.

Known risk factors for youth involvement in the corrections system by Canadian youth are male gender, older age (corrections involvement is more common for older youth than younger), low socio-economic status, poor school engagement, and presence of a mental health condition, notably depression, anxiety or substance abuse disorder.<sup>1,2</sup>

Aboriginal ethnicity is also associated with risk for corrections involvement. Aboriginal youth made up 6% of the population of 12 to 17 year olds in Alberta in 2006.<sup>4</sup> However, as shown in this report and others, the proportion of Aboriginal youth in corrections is much greater than 6%.<sup>4</sup> This over-representation may be at least partially due to risks associated with lower socio-economic status (there are lower levels of parental education, higher unemployment rates, and a greater proportion of lone parent families among the Aboriginal population than the non-Aboriginal population).<sup>3,4</sup>

Protective factors, associated with youth who are not involved in corrections, include high socio-economic status, remaining in school, absence of substance use issues, and achieving good academic standing.<sup>1,2</sup>

#### The project

The current project, **Experiences of Albertan Youth**, is focused on basic understanding of the experiences of Albertan youth within and across ministries, as they relate to key indicators (age, gender, socio-economic status, educational achievement, and mental health status). It is the first project in a planned series that will link and analyze administrative data on children and youth in Alberta to inform policy, programs, and research.

#### List of reports for the project

Socio-economic status of Albertan youth Educational experiences of Albertan youth Mental health status of Albertan youth Family Support for Children with Disabilities services received by Albertan youth Maltreatment-related investigations among Albertan youth Maltreatment-related intervention services received by Albertan youth Physician visits by Albertan youth

Emergency room visits by Albertan youth Hospitalizations of Albertan youth Offence charges among Albertan youth Corrections involvement among Albertan youth Post-secondary students in Alberta Income support among Albertan youth Educational experiences of Albertan youth with income support activity Least advantaged and most advantaged Albertan youth



#### Type of corrections involvement (Table 1)

This and the following analyses consider youth (aged 12 to 17 years) living in Alberta in 2008/09. See *Definitions and Notes* (p. 20).

• 5,178 (1.7%) of Albertan youth were involved with corrections in 2008/09.





#### Type of corrections involvement (Table 1)

- 5,060 (98%) youth involved in corrections received a community sentence or pre-trial supervision and 941 (18%) youth involved in corrections were in custody for part of 2008/09.
- Most youth who were in custody also had a community sentence or pre-trial supervision in 2008/09 (823 youth). All custodial sentences are comprised of two parts: a custodial portion and a community portion. Therefore most of the youth in custody should be in 'custody and community' as well.

#### Type of corrections involvement by Aboriginal status (Table 2)

The Aboriginal status of youth not involved in corrections was unavailable for this project.

- Among all youth in corrections in 2008/09, 24% were Aboriginal (not shown in graph).
- 40% of youth in custody were Aboriginal while 24% of youth who received a community sentence or pre-trial supervision were Aboriginal.





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#### Aboriginal status by age (Table 4)

## **Type of corrections involvement by age** (Table 3)

- 68% of youth in custody were 16 to 17 years old, compared to 63% of youth with a community sentence or pre-trial supervision who were in this age group.
- For youth not involved in corrections, the proportions of youth in each age group (12 to 13, 14 to 15, and 16 to 17) were similar.

Aboriginal status of youth involved in corrections by age Albertan youth aged 12 to17



- Aboriginal youth involved in corrections were slightly younger than non-Aboriginal youth involved in corrections.
- The majority of youth involved in corrections were 16 to 17 years old (60% of Aboriginal and 64% of non-Aboriginal youth).



## **Type of corrections involvement by gender** (Table 5)

- Youth involved in corrections were predominantly male (69% of youth).
- 80% of youth in custody and 69% of youth with a community sentence or pre-trial supervision were male.



#### Aboriginal status by gender (Table 6)



• 66% of Aboriginal youth involved in corrections were male while 70% of non-Aboriginal youth involved in corrections were male.

80

60

40

20

n

Custody

% of youth



region of residence (Table 7)

- Among youth in custody, 68% lived in large centres (Edmonton or Calgary) compared to 63% of youth with a community sentence or pre-trial supervision and 62% of youth not involved in corrections.
  - About 20% of youth in all groups lived in rural areas.

#### Aboriginal status by region of residence (Table 8)

Community

Type of corrections involvement

Not involved in corrections

- 50% of Aboriginal youth involved in corrections lived in large centres (Edmonton or Calgary) whereas 66% of non-Aboriginal youth involved in corrections lived in large centres.
- Twice as many Aboriginal youth (35%) than non-Aboriginal youth (17%) involved in corrections lived in rural regions.

Aboriginal status of youth involved in corrections by region of residence Albertan youth aged 12 to 17





Type of corrections involvement by socio-economic status (SES)



#### Aboriginal status by socio-economic status (Table 10)

- 48% of Aboriginal youth involved in corrections lived in the lowest socio-economics status neighbourhoods, compared to 32% of non-Aboriginal youth involved in corrections.
- 7% of Aboriginal youth involved in corrections lived in the highest socio-economic status neighbourhoods, compared to 14% of non-Aboriginal youth involved in corrections.



# Type of corrections involvement by socio-economic status (Table 9)

Socio-economic status captures the social and material environments in which youth live. Only the highest and lowest socio-economic status groups are shown in this and the following analysis. See *Definitions and Notes* (p. 20).

 Almost half of youth in custody lived in the lowest socio-economic status neighbourhoods (44%) compared to 36% of youth with a community sentence or pre-trial supervision and 23% of youth not involved in corrections.





# Type of corrections involvement by educational achievement (Table 11)

This and the following analysis are limited to youth who were enrolled in the K-12 education system in Alberta in 2008/09. See *Definitions and Notes* (p. 20).

 39% of youth with a community sentence or pretrial supervision were meeting or achieving above educational expectations, compared to 13% of youth in custody and 83% of youth not involved in corrections.



# Aboriginal status by educational achievement (Table 12)

Aboriginal status was determined by Justice and Solicitor General records only. Comparisons between Aboriginal and non-Aboriginal students should be interpreted with caution, because no data were available for students who attended schools on First Nations reserves.

 17% of Aboriginal youth involved in corrections were meeting or achieving above educational expectations compared to 43% of non-Aboriginal youth involved in corrections.





#### Aboriginal status by mental health status (Table 14)

 30% of Aboriginal youth involved in corrections had a mental health condition, compared to 26% of non-Aboriginal youth involved in corrections.



Mental health status refers to presence or absence of a mental health condition. Mental health conditions are defined as receipt of services related to mental health conditions; that is, receipt of services is used here as a proxy for confirmed presence of a mental health condition. See *Definitions and Notes* (p. 21).

 Mental health conditions were more common among youth in custody (35%) and youth with a community sentence or pre-trial supervision (27%) than those not involved in corrections (9%). This may be partially due to enhanced access to mental health services by youth involved in corrections.





# Aboriginal status by mental health condition (Table 14)

- The rates of mental health conditions were similar for Aboriginal and non-Aboriginal youth involved in corrections.
- Behavioural conditions were slightly more common in Aboriginal (17%) than non-Aboriginal (14%) youth.
- Schizophrenia/psychoses conditions were also more common in Aboriginal (1.1%) than non-Aboriginal (0.6%) youth involved in corrections.



# Type of corrections involvement by mental health condition (Table 13)

- *Behavioural* conditions (23%) and *mood/anxiety* conditions (22%) were equally likely among youth in custody.
- *Mood/anxiety* conditions (18%) were slightly more common than *behavioural* conditions (15%) among youth with a community sentence or pre-trial supervision.
- Note that *neurodevelopmental* conditions, including fetal alcohol spectrum disorder, were underrepresented because data from community mental health clinics were not available for this project.



# Type of corrections involvement by use of health services (Table 15)

- Youth in custody were most likely to visit an emergency room (50%) in comparison to youth receiving a community sentence or pre-trial supervision (38%) and youth not involved in corrections (22%).
- Hospitalizations were substantially more likely among youth in custody (13%) and with a community sentence or pre-trial supervision (6%) than among youth not involved in corrections (2%).



## Aboriginal status by use of health services (Table 16)

- Non-Aboriginal youth (25%) involved in corrections were more likely to have five or more physician visits than Aboriginal youth (20%) involved in corrections.
- Emergency room visits and hospitalizations were higher among Aboriginal (50%, 8%) than non-Aboriginal (35%, 5%) youth involved in corrections.



#### Type of corrections involvement by maltreatment-related intervention services (Table 17)



Youth were considered in this and the following analysis if they were registered with the Alberta Health Care Insurance Plan (AHCIP; see *Definitions and Notes*, p. 21). The effects should be interpreted with caution; they cannot be generalized to youth not registered with AHCIP. 14% of youth with corrections involvement were not registered with AHCIP.

- Youth involved in corrections were more likely to have received maltreatment-related intervention services than youth not involved in corrections.
- 37% of youth in custody also received maltreatment-related intervention services compared to 19% of youth with a community sentence or pre-trial supervision and 2% of youth with no corrections involvement.

Aboriginal status of youth involved in corrections by percentage with maltreatment-related intervention services



# Aboriginal status by maltreatment-related intervention services (Table 18)

- Aboriginal youth involved in corrections were more likely to receive maltreatment-related intervention services than non-Aboriginal youth involved in corrections.
- 31% of Aboriginal youth involved in corrections, compared to 15% of non-Aboriginal youth involved in corrections, received maltreatment-related intervention services.



#### **Tables**

## Table 1. Number and percent of youth by type of correctionsinvolvement, Albertan youth aged 12 to 17 years, 2008/09

	Type of corrections involvement*			
Number of youth	Custody	941		
	Community	5,060		
	Custody and community	823		
	Any corrections involvement	5,178		
	No corrections involvement	302,525		
	Total	307,703		
Percent of Alberta youth	Custody	0.3		
	Community	1.6		
	Custody and community	0.3		
	Any corrections involvement	1.7		
	No corrections invovlement	98.3		
	Total	100.0		
Percent of youth in corrections	Custody	18.2		
	Community	97.7		
	Both community and custody	15.9		

\*Type of corrections involvement categories are not mutually exclusive

## Table 2. Number and percent of youth involved in corrections by type of correctionsinvolvement and Aboriginal status, Albertan youth aged 12 to 17 years, 2008/09

	Aboriginal status	Type of co	rrections invo	lvement*
				Any
		Custody	Community	corrections
				involvement
Number of youth	Aboriginal in corrections	374	1,214	1,257
	Non-Aboriginal in corrections	567	3,846	3,921
	Total	941	5,060	5,178
Percent of youth in corrections	Aboriginal	39.7	24.0	24.3
	Non-Aboriginal	60.3	76.0	75.7
	Total	100.0	100.0	100.0

\*Type of corrections involvement categories are not mutually exclusive

### Table 3. Number and percent of youth by type of corrections involvement and age, Albertan youth aged 12 to 17 years, 2008/09

	Age group (years)	Type of corrections involvment*				
				Any	Not	
		Custody	Community	corrections	involved in	
				involvement	corrections	
Number of youth	12 to 13	40	273	279	95,164	
	14 to 15	265	1,602	1,639	97,752	
	16 to 17	636	3,185	3,260	109,609	
	Total	941	5,060	5,178	302,525	
Percent of youth	12 to 13	4.3	5.4	5.4	31.5	
	14 to 15	28.2	31.7	31.7	32.3	
	16 to 17	67.6	62.9	63.0	36.2	
	Total	100.0	100.0	100.0	100.0	

\*Type of corrections involvement categories are not mutually exclusive

## Table 4. Number and percent of youth involved in corrections byAboriginal status and age, Albertan youth aged 12 to 17 years, 2008/09

	Age group (years)	Aboriginal status				
		Aboriginal	Non- Aboriginal	Any corrections involvement		
Number of youth	12 to 13	92	187	279		
	14 to 15	405	1,234	1,639		
	16 to 17	760	2,500	3,260		
	Total	1,257	3,921	5,178		
Percent of youth	12 to 13	7.3	4.8	5.4		
	14 to 15	32.2	31.5	31.7		
	16 to 17	60.5	63.8	63.0		
	Total	100.0	100.0	100.0		



## Table 5. Number and percent of youth by type of corrections involvement and gender,Albertan youth aged 12 to 17 years, 2008/09

	Gender	Type of corrections involvment*				
				Any	Not	
		Custody	Community	corrections	involved in	
				involvement	corrections	
Number of youth	Female	189	1,580	1,608	147,606	
	Male	752	3,480	3,570	154,918	
	Total	941	5,060	5,178	302,524	
Percent of youth	Female	20.1	31.2	31.1	48.8	
	Male	79.9	68.8	68.9	51.2	
	Total	100.0	100.0	100.0	100.0	

\*Type of corrections involvement categories are not mutually exclusive

## Table 6. Number and percent of youth involved in corrections byAboriginal status and gender, Albertan youth aged 12 to 17 years, 2008/09

	Gender	Aboriginal status			
		Aboriginal	Non- Aboriginal	Any corrections involvement	
Number of youth	Female	428	1,180	1,608	
	Male	829	2,741	3,570	
	Total	1,257	3,921	5,178	
Percent of youth	Female	34.0	30.1	31.1	
	Male	66.0	69.9	68.9	
	Total	100.0	100.0	100.0	

## Table 7. Number and percent of youth by type of corrections involvement and region of residence, Albertan youth aged 12 to 17 years, 2008/09

	Region of residence	Ту	Type of corrections involvement*					
		Custody	Community	Any corrections involvement	Not involved in corrections			
Number of youth	Rural	178	1,045	1,076	68,706			
	Mid-sized centre	121	782	804	46,148			
	Large centre	622	3,054	3,106	186,704			
	Total	921	4,881	4,986	301,558			
Percent of youth	Rural	19.3	21.4	21.6	22.8			
	Mid-sized centre	13.1	16.0	16.1	15.3			
	Large centre	67.5	62.6	62.3	61.9			
	Total	100.0	100.0	100.0	100.0			

\*Type of corrections involvement categories are not mutually exclusive

Table 8. Number and percent of youth involved in corrections by Aboriginal status andregion of residence, Albertan youth aged 12 to 17 years, 2008/09

	Region of residence	A	boriginal statu	S
		Aboriginal	Non- Aboriginal	Any corrections involvement
Number of youth	Rural	417	659	1,076
	Mid-sized centre	177	627	804
	Large centre	588	2,518	3,106
	Total	1,182	3,804	4,986
Percent of youth	Rural	35.3	17.3	21.6
	Mid-sized centre	15.0	16.5	16.1
	Large centre	49.7	66.2	62.3
	Total	100.0	100.0	100.0



## Table 9. Number and percent of youth by type of corrections involvement and socio-economic status (SES), Albertan youth aged 12 to 17 years, 2008/09

	Socio-economic status	Type of corrections involvement*				
				Any	Not	
		Custody	Community	corrections	involved in	
				involvement	corrections	
Number of youth	Lowest SES	399	1,713	1,752	68,312	
	Low middle	148	800	819	37,778	
	Middle	199	1,052	1,068	75,358	
	High middle	103	678	697	54,289	
	Highest SES	60	581	591	60,645	
	Total	909	4,824	4,927	296,382	
Percent of youth	Lowest SES	43.9	35.5	35.6	23.0	
	Low middle	16.3	16.6	16.6	12.7	
	Middle	21.9	21.8	21.7	25.4	
	High middle	11.3	14.1	14.1	18.3	
	Highest SES	6.6	12.0	12.0	20.5	
	Total	100.0	100.0	100.0	100.0	

 $^{*}\mbox{Type}$  of corrections involvement categories are not mutually exclusive

	Socio-economic status	Al	ooriginal stat	us
		Aboriginal	Non- Aboriginal	Any corrections involvement
Number of youth	Lowest SES	550	1,202	1,752
	Low middle	178	641	819
	Middle	233	835	1,068
	High middle	113	584	697
	Highest SES	77	514	591
	Total	1,151	3,776	4,927
Percent of youth	Lowest SES	47.8	31.8	35.6
	Low middle	15.5	17.0	16.6
	Middle	20.2	22.1	21.7
	High middle	9.8	15.5	14.1
	Highest SES	6.7	13.6	12.0
	Total	100.0	100.0	100.0

### Table 10. Number and percent of youth involved in corrections by Aboriginal status and socio-economic status (SES), Albertan youth aged 12 to 17 years, 2008/09

## Table 11. Number and percent of youth by type of corrections involvement and educational achievement, Albertan youth aged 12 to 17 years, 2008/09

	Educational achievement	Type of corrections involvement*			
				Any	Not
		Custody	Community	corrections	involved in
				involvement	corrections
Number of youth	Below expectations	564	2,364	2,418	40,294
	Meeting/above expectations	82	1,489	1,504	192,660
	Total	646	3,853	3,922	232,954
Percent of youth	Below expectations	87.3	61.4	61.7	17.3
	Meeting/above expectations	12.7	38.6	38.3	82.7
	Total	100.0	100.0	100.0	100.0

\*Type of corrections involvement categories are not mutually exclusive

## Table 12. Number and percent of youth involved in corrections by Aboriginal status and educational achievement, Albertan youth aged 12 to 17 years, 2008/09

	Educational achievement	Aboriginal status		
		Aboriginal	Non- Aboriginal	Any corrections involvement
Number of youth	Below expectations	599	1,819	2,418
	Meeting/above expectations	125	1,379	1,504
	Total	724	3,198	3,922
Percent of youth	Below expectations	82.7	56.9	61.7
	Meeting/above expectations	17.3	43.1	38.3
	Total	100.0	100.0	100.0



## Table 13. Number and percent of youth by type of corrections involvement and mental health condition, Albertan youth aged 12 to 17 years, 2008/09

	Mental health condition*	Type of corrections involvement**			nt**
				Any	Not
		Custody	Community	corrections	involved in
				involvement	corrections
Number of youth	Mood/anxiety	184	762	779	14,998
	Behavioural	196	621	646	9,321
	Neurodevelopmental	12	54	60	3,251
	Schizophrenia/psychoses	12	28	32	872
	Any condition	298	1,146	1,183	24,259
	No condition	550	3,115	3,177	248,231
	Total	848	4,261	4,360	272,490
Percent of youth	Mood/anxiety	21.7	17.9	17.9	5.5
	Behavioural	23.1	14.6	14.8	3.4
	Neurodevelopmental	1.4	1.3	1.4	1.2
	Schizophrenia/psychoses	1.4	0.7	0.7	0.3
	Any condition	35.1	26.9	27.1	8.9
	No condition	64.9	73.1	72.9	91.1
	Total	100.0	100.0	100.0	100.0

\*Mental health condition categories are not mutually exclusive

\*\*Type of corrections involvement categories are not mutually exclusive

	Mental health condition*	Aboriginal status		
		Aboriginal	Non- Aboriginal	Any corrections involvement
Number of youth	Mood/anxiety	201	578	779
	Behavioural	185	461	646
	Neurodevelopmental	12	48	60
	Schizophrenia/psychoses	12	20	32
	Any condition	323	860	1,183
	No condition	761	2,416	3,177
	Total	1,084	3,276	4,360
Percent of youth	Mood/anxiety	18.5	17.6	17.9
	Behavioural	17.1	14.1	14.8
	Neurodevelopmental	1.1	1.5	1.4
	Schizophrenia/psychoses	1.1	0.6	0.7
	Any condition	29.8	26.3	27.1
	No condition	70.2	73.7	72.9
	Total	100.0	100.0	100.0

### Table 14. Number and percent of youth involved in corrections by Aboriginal status and mental health condition. Albertan youth aged 12 to 17 years. 2008/09

\*Mental health condition categories are not mutually exclusive

## Table 15. Number and percent of youth by type of corrections involvement and health service use, Albertan youth aged 12 to 17 years, 2008/09

	Health service use*	Type of corrections involvement**			t**
				Any	Not
		Custody	Community	corrections	involved in
				involvement	corrections
Number of youth	One to four physician visits	396	2,170	2,215	155,251
	Five or more physician visits	217	1,198	1,223	66,638
	Emergency room visit	473	1,938	1,988	66,003
	Hospitalization	118	294	312	5,864
	Any health service	735	3,735	3,818	230,459
	No health service	206	1,325	1,360	72,066
	Total	941	5,060	5,178	302,525
Percent of youth	One to four physician visits	42.1	42.9	42.8	51.3
	Five or more physician visits	23.1	23.7	23.6	22.0
	Emergency room visit	50.3	38.3	38.4	21.8
	Hospitalization	12.5	5.8	6.0	1.9
	Any health service	78.1	73.8	73.7	76.2
	No health service	21.9	26.2	26.3	23.8
	Total	100.0	100.0	100.0	100.0

\*Health service use categories are not mutually exclusive

\*\*Type of corrections involvement categories are not mutually exclusive

	Health service use*	Aboriginal status		
		Aboriginal	Non- Aboriginal	Any corrections involvement
Number of youth	One to four physician visits	539	1,676	2,215
	Five or more physician visits	254	969	1,223
	Emergency room visit	632	1,356	1,988
	Hospitalization	103	209	312
	Any health service	949	2,869	3,818
	No health service	308	1,052	1,360
	Total	1,257	3,921	5,178
Percent of youth	One to four physician visits	42.9	42.7	42.8
	Five or more physician visits	20.2	24.7	23.6
	Emergency room visit	50.3	34.6	38.4
	Hospitalization	8.2	5.3	6.0
	Any health service	75.5	73.2	73.7
	No health service	24.5	26.8	26.3
	Total	100.0	100.0	100.0

### Table 16. Number and percent of youth involved in corrections by Aboriginal status and health service use, Albertan youth aged 12 to 17 years, 2008/09

\*Health service use categories are not mutually exclusive

## Table 17. Number and percent of youth by type of corrections involvement and cross service use, Albertan youth aged 12 to 17 years, 2008/09\*

	Cross- service use	Type of corrections involvment**			t**
				Any	Not
		Custody	Community	corrections	involved in
				involvement	corrections
Number of youth	Maltreatment-related intervention	322	813	842	5,110
	Offence charges	833	3,177	3,270	1,996
	Health registry	860	4,342	4,441	280,690
Percent of youth	Maltreatment-related intervention	37.4	18.7	19.0	1.8
	Offence charges	96.9	73.2	73.6	0.7
	Health registry	100.0	100.0	100.0	100.0

 $\label{eq:constraint} \ensuremath{^{*}\text{Only youth registered in the Alberta Health Care Insurance Plan were included in this analysis}$ 

\*\*Type of corrections involvement categories are not mutually exclusive

### Table 18. Number and percent of youth involved in corrections by Aboriginal status and cross-service use, Albertan youth aged 12 to 17 years, 2008/09\*

	Cross-service use	Aboriginal status		
		Aboriginal	Non- Aboriginal	Any corrections involvement
Number of youth	Maltreatment-related intervention	345	497	842
	Offence charges	926	2,344	3,270
	Health registry	1,098	3,343	4,441
Percent of youth	Maltreatment-related intervention	31.4	14.9	19.0
	Offence charges	84.3	70.1	73.6
	Health registry	100.0	100.0	100.0

\*Only youth registered in the Alberta Health Care Insurance Plan were included in this analysis

#### **Definitions and notes**

- The study population for this project consisted of all Albertan youth who were registered with the Alberta Health Care Insurance Plan in 2008/09 or who received selected services from one or more of the participating ministries in 2008/09. "All Albertan youth" refers to this study population.
- The study year was fiscal year 2008/09. With the exception of Education and Enterprise and Advanced Education data, all data were for services provided between April 1, 2008 and March 31, 2009, with age determined on March 31, 2009.
  - Data for Enterprise and Advanced Education were for services provided between September 1, 2008 and June 30, 2009, with age determined on March 31, 2009.
  - Data for Education were for services provided to youth who were 12 to 19 years old on September 30, 2008. As a result, youth turning 12 between October 1, 2008 and March 31, 2009 *were not* included in the Education data but were included in other ministries' data. This resulted in the number of 12 year olds in the Education data being lower (approximately 50% lower) than that of 13 to 17 year olds.
  - Furthermore, although Education only provides services to youth who are under 20, the provision of services is defined by age at September 30. Youth who turned 20 between October 1, 2008 and March 31, 2009 *were* included in the Education data, resulting in the inclusion of 20 year olds in some analyses of Education data.
- **Cross-ministry analyses included only youth that were linked across the relevant ministries**. This means that not all youth in the project were represented in every analysis. As well, only youth with a value for a given indicator were included in analyses involving that indicator (i.e., **missing values** were excluded).
- Age, gender, and postal code (translated into Statistics Canada dissemination areas) were provided for each individual by each participating ministry. In the case of discrepancies between ministries, the most common value for an indicator was chosen. In the event of two or more most common values, the value for the indicator was chosen randomly from the most common values.
- Dissemination areas of residence were used by CYDL to determine **region of residence**. Urban areas included large centres with urban core populations greater than 100,000 (i.e., Edmonton and Calgary metropolitan areas) and mid-sized centres with urban cores greater than 10,000; all other areas were categorized as rural.
- Socio-economic status (SES) captures the social and material environments in which youth live. A youth was assigned a socio-economic status via an index based on the Statistics Canada dissemination area in which he or she resided<sup>5</sup>. Six indicators were included in the index: percent without a high school diploma, the employment ratio, average income, percent of single families, percent of persons living alone, and percent of persons separated, divorced, or widowed. Socio-economic status values fell into five quintiles. In this report, "lowest socio-economic status" refers to the lowest quintile of socio-economic status, while "highest" refers to the highest quintile.
- Educational achievement was computed by Alberta Education using age, grade, school type, special education codes, provincial achievement test scores, home education status, number of high school credits earned, number of higher level courses taken, average grade in higher level courses, possession of an Alberta Education certificate or diploma, and Alexander Rutherford scholarship eligibility. Educational achievement was categorized as *above, meeting*, or *below expectations* for a student's age and grade. An educational achievement rating was not available for 12 to 14 year old youth without scores on provincial achievement tests, for youth in 'other' schools (accredited post-secondary institutions offering high school courses for credit to adults; most youth in these schools were between 18 and 20 years), and for home-schooled high school youth with no credits.



#### Definitions and notes (continued)

- Mental health status was defined by the presence or absence of mental health diagnosis codes in Health's databases (Inpatient—Discharge Abstract Database, Ambulatory Care, and Practitioner Payments), or in the Family Support for Children with Disabilities Information System. Only youth who were registered with the Alberta Health Care Insurance Plan for the full fiscal year were included in the mental health analyses. Mental health service use is a proxy for presence of a mental health condition: Some youth with mental health conditions may not have accessed mental health services in Alberta during the year, and some mental health service use may have occurred for youth who did not in fact have mental health conditions.
  - **Mental health conditions** were grouped based on The Johns Hopkins ACG<sup>®</sup> Case-Mix System (version 8.2)<sup>6</sup>. Mental health conditions were *mood/anxiety* (anxiety, depression, bipolar disorder, etc.), *behavioural* (attention-deficit disorder, regulatory disorder, mental or behavioural problems due to substance use, etc.), *neurodevelopmental* (autism, fetal alcohol spectrum disorder, cerebral palsy, etc.), or *schizophrenia/psychoses* (schizophrenia, psychosis, delusional disorder, etc.). Conditions were not mutually exclusive; a youth could have a diagnosis in more than one category.
- Youth with **corrections involvement** have appeared before the Court or a Justice of the Peace for an offence charge and have been remanded in custody or placed under pre-trial supervision in the community awaiting further court dates, or have been found guilty and sentenced to a community disposition (i.e. Fine, Probation, Community Service Work, Deferred Custody) and/or custody (in which the sentence is served in a young offender facility). Youth self-identified as Aboriginal or non-Aboriginal.
- **Physician visits** reflect fee claims made by physicians when patients visit their offices. In this report, multiple claims by a given physician for a given patient on the same day were counted as a single visit.
- Emergency room visits refer to visits to emergency departments for assessment or treatment.
- Hospitalizations refer to admissions to hospital for assessment or treatment.
- New and returning Alberta residents, if they are eligible, must register for **Alberta Health Care Insurance Plan** coverage to receive insured health services. Youth in the "**health registry**" refers to all youth who are insured in Alberta. This includes any eligible youth who is a permanent resident of Alberta, living at least 183 days per year in the province. Members of the Canadian Armed Forces, Royal Canadian Mounted Police and federal penitentiary inmates are not eligible (they receive coverage from the federal government), but dependents of these non-eligible residents, who reside in Alberta, are eligible.
- Maltreatment-related interventions occur when the safety or well-being of a youth is threatened.
- Youth with **offence charges** include those charged with criminal offences or administrative offences related to criminal offences (e.g., failure to appear in court, breach of probation, etc.).

#### Data sources

Ministry	Database	Use in this report
Education	Corporate Data Warehouse (CDW)	Primary and secondary education achievement data
Health	Inpatient – Discharge Abstract Database (DAD)	Hospitalization data
Health	Ambulatory Care (ACCS)	Emergency room visit data
Health	Practitioner Payments (SESE)	Physician visit data
Health	Alberta Health Care Insurance Plan Population Registry (AHCIP registry)	Population registry
Human Services	Child Youth Information Module (CYIM)	Maltreatment and intervention data
Justice and Solicitor General	Justice Online Information Network (JOIN)	Offence data
Justice and Solicitor General	Alberta Community Offender Management System (ACOM)	Corrections data (community)
Justice and Solicitor General	Correctional Offender Management Information System (CoMIS)	Corrections data (custody)

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#### The Child and Youth Data Laboratory

The **Child and Youth Data Laboratory** (CYDL) links and analyzes administrative data from child- and youth-serving ministries in the Government of Alberta. The ministries participate in research design and provide data elements that contribute to answering research questions.

The CYDL's research provides groundbreaking opportunities to understand relationships between critical factors in the lives of children and youth in Alberta. The research results can be used to inform policy and program development and evaluation, both within and across ministries, and to inspire further research.

The CYDL is managed by the **Alberta Centre for Child, Family and Community Research** (ACCFCR). The Centre has evolved over its eight year history as a public-sector, innovative resource for evidence. The Centre develops, supports and integrates research across sectors and disciplines to provide a strong, evidence-based foundation for identifying and promoting effective public policy and service delivery to improve the well-being of children, families, and communities in Alberta, Canada, and internationally.

#### **Our partners**

This project was carried out on behalf of six ministries of the Government of Alberta. Each ministry collaborated extensively with the CYDL on this project, and their dedication to the project is gratefully acknowledged:

Enterprise and Advanced Education Education Health Human Services Aboriginal Relations Justice and Solicitor General

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