

Mental health status of Albertan youth

Child and Youth Data Laboratory (CYDL)

Report for Experiences of Albertan Youth Project

Key findings

This report is an overview of 66,792 Albertan youth (12 to 24 years) who received services for mental health conditions in 2008/09. 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.

The relationships between mental health status and age, gender, region of residence, socio-economic status, educational achievement, and health service use were considered. The cross-ministry service use of youth who received services for mental health conditions was also studied.

- 11% of Albertan youth received services for mental health conditions in 2008/09.
- *Mood/anxiety* and *behavioural* disorders were the most common mental health conditions, with *mood/anxiety* conditions generally more common in females and *behavioural* conditions more common in males. The percentage of youth with mental health conditions increased with age for females, but was stable across age for males.
- There was little effect of region of residence or socio-economic status on mental health status.
- The rate of mental health conditions was higher for youth who performed below educational expectations, who visited physicians five or more times, who visited emergency rooms, or who were hospitalized (youth with *schizophrenia/psychoses* were particularly likely to be hospitalized).
- Youth who received maltreatment-related intervention services, were charged with an offence, were involved in corrections, were enrolled in a part-time post-secondary program, or received income support were more likely to have received services for a mental health condition than youth who did not have these ministry service involvements.



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Context

Good mental health is a cornerstone of overall health, and the mental health status of youth has recently become a major focus of social programs and policy. Specifying exactly what is meant by mental health is difficult, and consequently definitions vary widely. Interpretation of findings related to the mental health of youth, including those in this report, must give careful consideration to how mental health was measured.

Personal and societal costs of mental health issues in youth are high. According to Waddell et al. (2005), 14% of Canadians aged 4 to 17 years are affected by mental health disorders that are serious enough to cause distress or impairment at home, school, and in the community¹. Youth with untreated mental health disorders have been found to have elevated rates of use of services such as health care, justice and corrections, special education programs, foster care, and income support².

Youth who report lower levels of satisfaction with and control over their lives, reduced sense of belonging, or impaired relationships have a lower level of mental health.³ Aboriginal youth living off reserves are less likely than the overall population of youth to report having good or excellent mental health, while immigrants are more likely to report this than the overall population.³ More than two thirds of sexual minority youth do not feel a sense of belonging to their school community. Youth living in low income situations (who are more likely than the overall population to be Aboriginal, immigrant, or homeless youth) are more stressed than youth not living in low income.³

Children who are resilient to mental health problems tend to have strong learning abilities, good social skills, long-term support from one or more adults, feelings of competency, and positive beliefs about their purpose in the world, and cohesive families and communities¹.

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

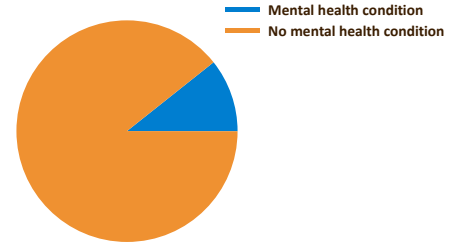
Mental health status of Albertan youth

Mental health status (Table 1)

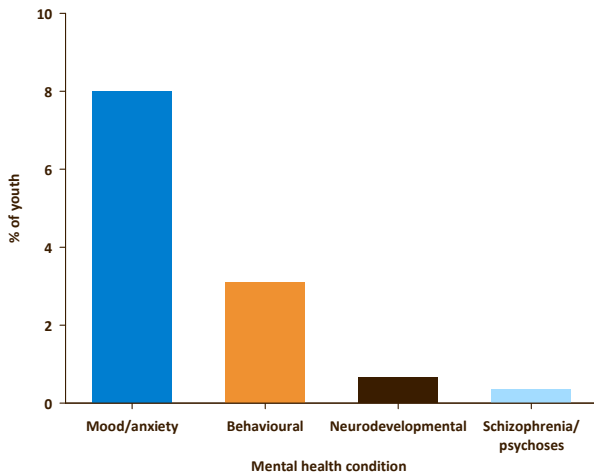
Mental health data were analyzed for all youth (aged 12 to 24 years) who were registered with the Alberta Health Care Insurance Plan for the duration of 2008/09.

- In 2008/09, there were 66,792 youth who received services for one or more mental health conditions. This represents 11% of Albertan youth.

Percent with a mental health condition
Albertan youth aged 12 to 24



Percent with a mental health condition by type of condition
Albertan youth aged 12 to 24



Mental health conditions (Table 1)

See table below for example conditions for mental health categories and *Definitions and Notes* (p. 20) for a description of coding.

- Mood/anxiety* conditions were the most common mental health diagnoses in Albertan youth, affecting 8% of Albertan youth.

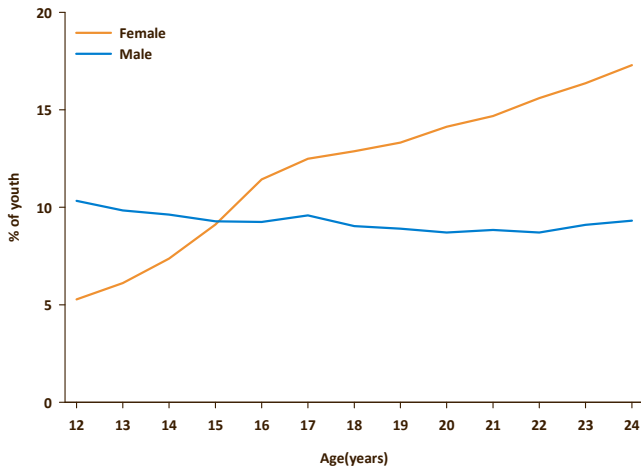
Mental health conditions, example diagnoses

Category name*	Examples
Mood/anxiety	Anxiety, depression, bipolar disorder, etc.
Behavioural	Attention-deficit disorder, regulatory disorder, mental/behavioural problems due to substance use, etc.
Neurodevelopmental	Autism, fetal alcohol spectrum disorder, cerebral palsy, etc.
Schizophrenia/psychoses	Schizophrenia, psychosis, delusional disorder, etc.

*Mental health condition categories are not mutually exclusive

Mental health status of Albertan youth

Percent with a mental health condition by age and gender
Albertan youth aged 12 to 24

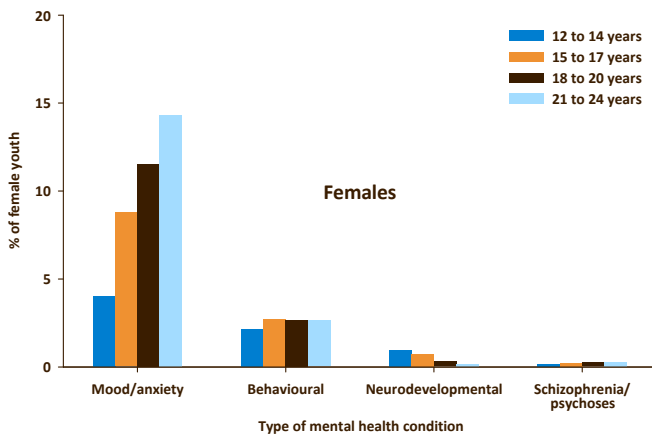


Mental health status by age and gender (Tables 2 and 3)

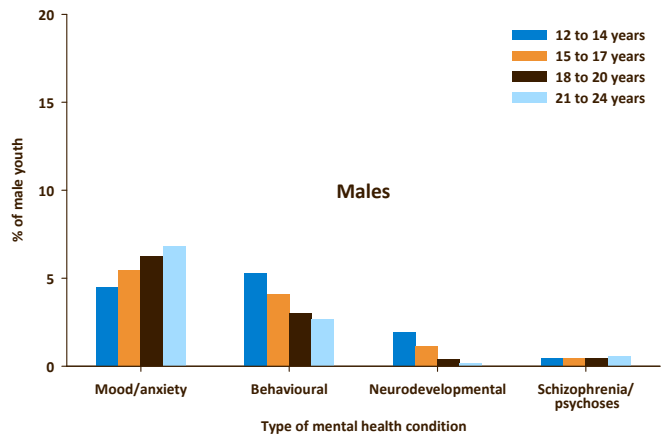
- The percentage of female youth with mental health conditions increased with age. For males, the rate was stable across age.
- Between ages 12 and 14 years, males had higher rates of mental health conditions than females.
- From age 16 on, females had higher rates of mental health conditions than males.

Mental health condition by age group and gender (Tables 4 and 5)

Percent with a mental health condition by type of condition and age group
female Albertan youth aged 12 to 24



Percent with a mental health condition by type of condition and age group
male Albertan youth aged 12 to 24



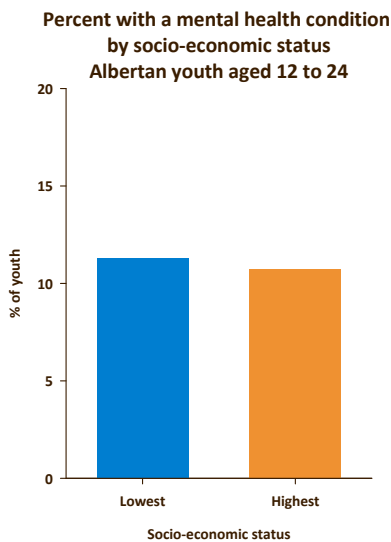
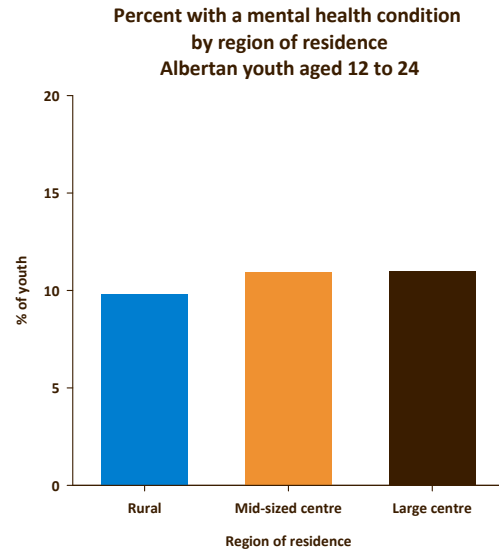
- Female youth with a mental health condition were most likely, in all age groups, to have a *mood/anxiety* disorder. The rate of *mood/anxiety* disorders in females increased markedly with increasing age.
- Male youth with a mental health condition most often had *mood/anxiety* or *behavioural* conditions, with *mood/anxiety* conditions increasing in frequency and *behavioural* conditions decreasing in frequency with increasing age.
- *Mood/anxiety* disorders were more common in females than males from age group 15 to 17 years and onward, while behavioural disorders were more common in males than females up to age group 15 to 17 years. *Neurodevelopmental* and *schizophrenia/psychoses* conditions were rare, but generally more common in males than in females.

Mental health status of Albertan youth

Mental health status by region of residence

(Table 6)

- Among youth living in mid-sized and large centres, 11% had a mental health condition. This rate is similar to the 10% of rural Albertan youth who had a mental health condition.
- Rates for different types of mental health conditions varied little across region of residence (not shown in graph).



Mental health status by socio-economic status (Table 7)

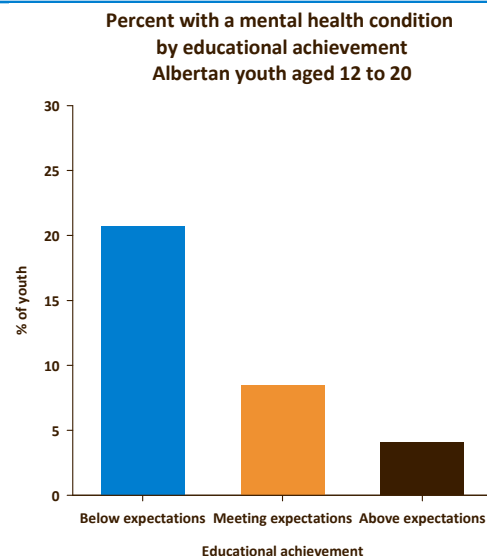
Socio-economic status captures the social and material environments in which youth live. Only the highest and lowest socio-economic status groups are shown in this and the following analysis. See *Definitions and Notes* (p. 19).

- Socio-economic status was not substantially associated with the overall likelihood of having a mental health condition as measured in this study.
- Youth living in the lowest socio-economic areas had slightly higher rates of *mood/anxiety* disorders than youth living in the highest socio-economic areas (not shown in graph).

Mental health status by educational achievement (Table 8)

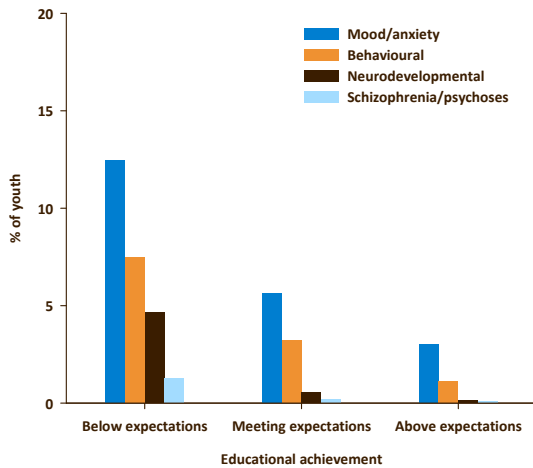
The next four analyses consider youth (aged 12 to 20 years) who were enrolled in the K-12 education system in Alberta in 2008/09. See *Definitions and Notes* (p. 19).

- There was a strong relationship between educational achievement and the presence of any mental health condition.
- Youth who were performing below expectations in school had a mental health condition in 21% of cases, compared with 9% of youth meeting expectations and 4% of those achieving above expectations.



Mental health status of Albertan youth

Percent with a mental health condition by type of condition and educational achievement
Albertan youth aged 12 to 20



Mental health condition by educational achievement (Table 8)

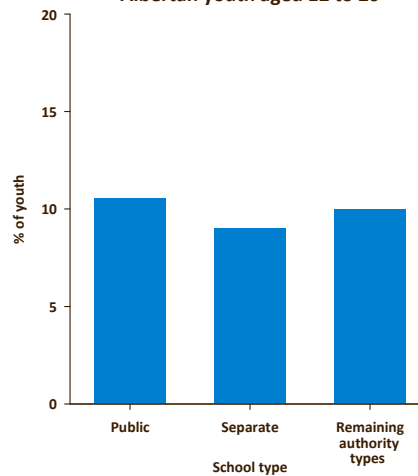
- *Neurodevelopmental* conditions were substantially more common among youth who performed below expectations (4.7%) than youth meeting (0.5%) or above expectations (0.1%).
- *Mood/anxiety* conditions, *behavioural* conditions, and *schizophrenia/psychoses* conditions were also most common among youth who performed below expectations.

Mental health status by school authority type (Table 9)

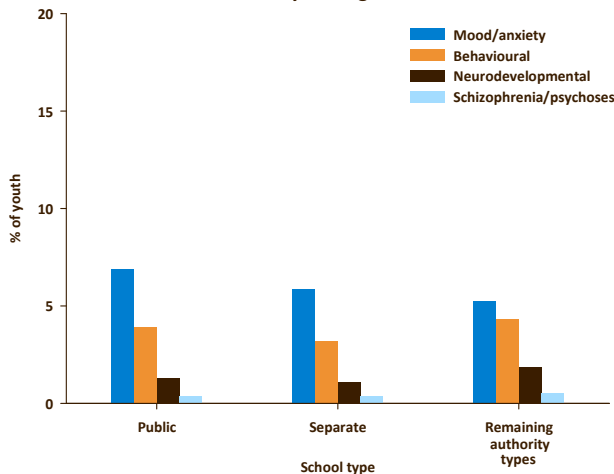
See *Definitions and Notes* (p. 20) for description of school authority types.

- Rates of mental health conditions were similar across all school authority types.

Percent with a mental health condition by school authority type
Albertan youth aged 12 to 20



Percent with a mental health condition by type of condition and school authority type
Albertan youth aged 12 to 20



Mental health condition by school authority type (Table 9)

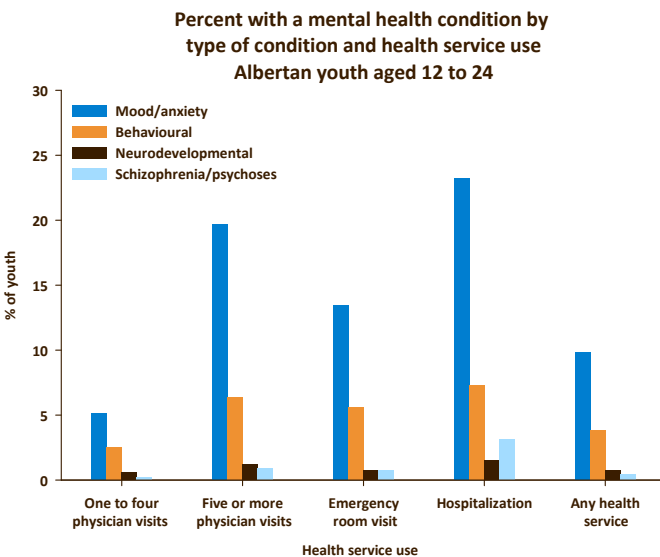
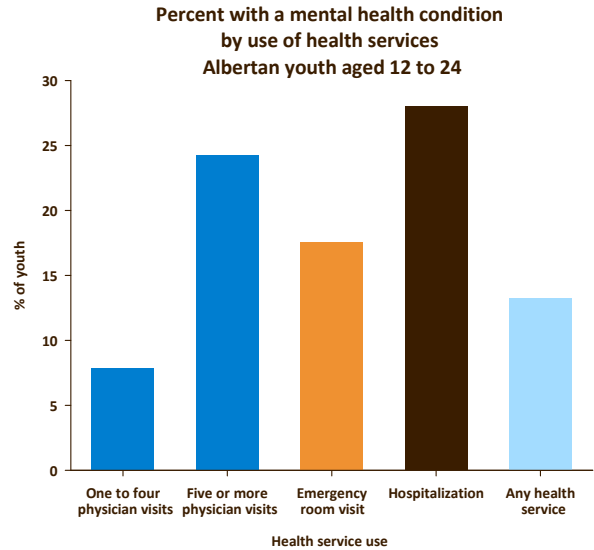
- *Mood/anxiety* conditions were slightly higher in public (7%) compared to *separate* (6%) or *remaining authority types* (5%).
- Higher rates of *behavioural* and *neurodevelopmental* conditions were observed in *remaining authority types* (4.3%, 1.9%) compared to either *public* (3.9%, 1.3%) or *separate* (3.2%, 1.1%) schools. This may reflect specialized services provided at some schools.

Mental health status of Albertan youth

Mental health status by health service type (Table 10)

The next two analyses consider youth (aged 12 to 24 years) who were registered with the Alberta Health Care Insurance Plan in 2008/09.

- 28% of youth who were hospitalized had a mental health condition, compared with 24% of youth with five or more physician visits, 18% of youth who visited emergency rooms, and 8% of youth with one to four physician visits.



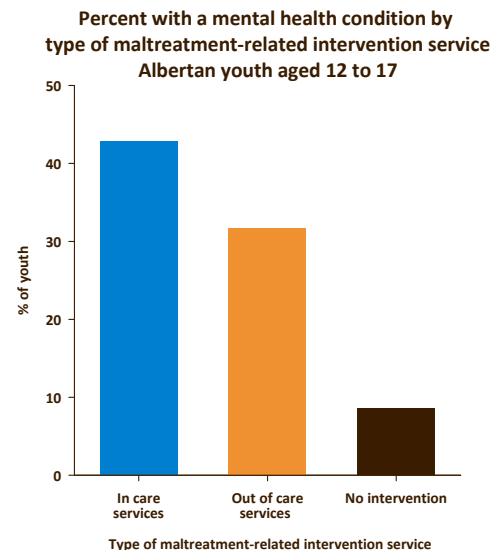
Mental health condition by health service type (Table 10)

- 23% of youth who were hospitalized had a *mood/anxiety* condition, compared with 20% of those with five or more physician visits, 14% of those visiting emergency rooms, and 5% of youth with one to four physician visits.
- The percentage of youth with *schizophrenia/psychoses* was higher among hospitalized youth (3.2%) than among youth visiting emergency rooms (0.8%) or youth visiting physicians five or more times (0.9%).

Mental health status by type of maltreatment-related intervention services (Table 11)

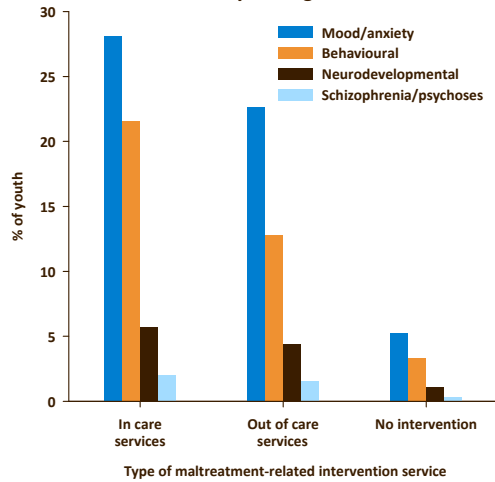
This and the following five analyses are based on youth (aged 12 to 17 years) in Alberta in 2008/09. Maltreatment-related intervention services occur when the safety or well-being of the youth is threatened. See *Definitions and Notes* (p. 21).

- A mental health condition occurred in 9% of youth who did not receive maltreatment-related intervention services. This rate was much higher in youth who were in care (43%) and in youth receiving out of care intervention services (32%).



Mental health status of Albertan youth

Percent with a mental health condition by type of condition and type of maltreatment-related intervention service
Albertan youth aged 12 to 17



Mental health condition by type of maltreatment-related intervention services (Table 11)

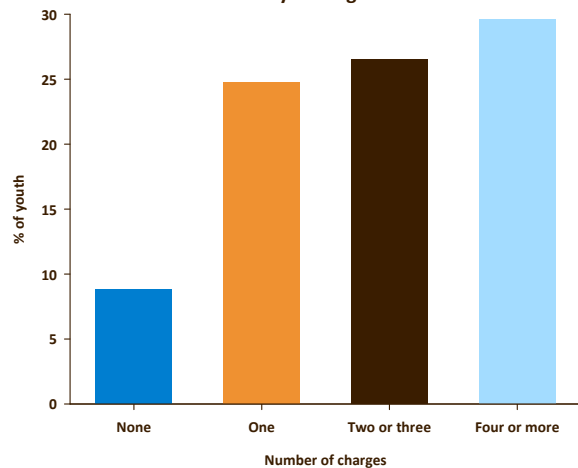
- Service use for all mental health conditions was higher for youth who received maltreatment-related intervention services than for youth with no maltreatment-related intervention services.
- For all mental health conditions there was a gradient in the percentage of youth with these conditions, such that the highest rates were for youth receiving in care services, followed by youth receiving out of care services, and then youth needing no interventions.

Mental health status by number of charges (Table 12)

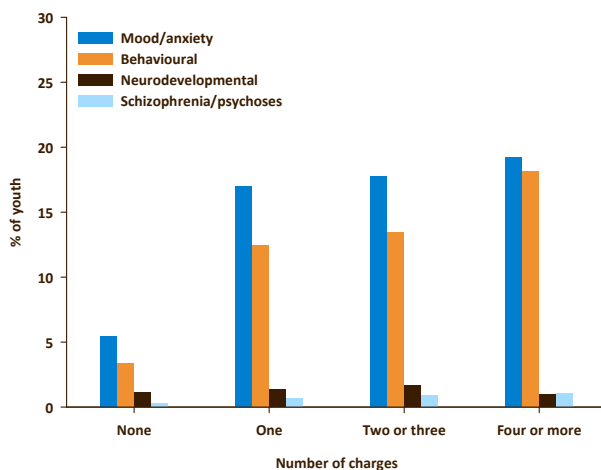
Youth with offence charges include those charged with criminal offences or administrative offences related to criminal offences (e.g., failure to appear in court, breach of probation, etc.). See *Definitions and Notes* (p. 20).

- The percentage of youth with a mental health condition increased with number of charges.
- Youth with no charges had a mental health condition in 9% of cases, compared with a rate of 30% in youth who had four or more charges.

Percent with a mental health condition by number of charges
Albertan youth aged 12 to 17



Percent with a mental health condition by type of condition and number of charges
Albertan youth aged 12 to 17



Mental health condition by number of charges (Table 12)

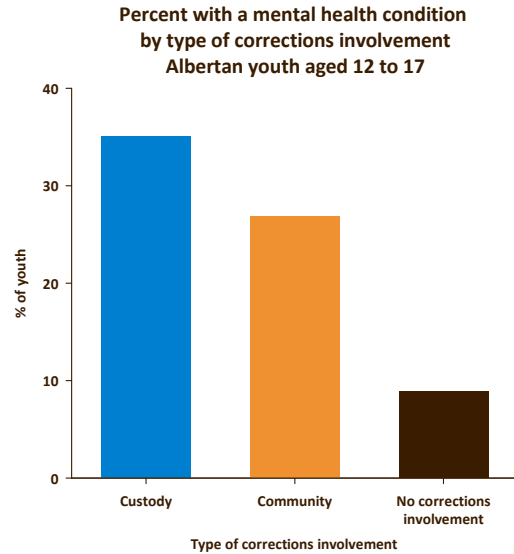
- *Mood/anxiety* conditions were the most common mental health condition in all groups and were markedly more common among charged youth.
- Youth with four or more charges were more likely to have *behavioural* conditions (18%) than youth with two to three charges (14%), youth with one charge (13%) and youth with no charges (3%).
- Rates of *schizophrenia/psychoses* increased slightly with number of charges.
- Rates of neurodevelopmental conditions varied little across number of charges.

Mental health status of Albertan youth

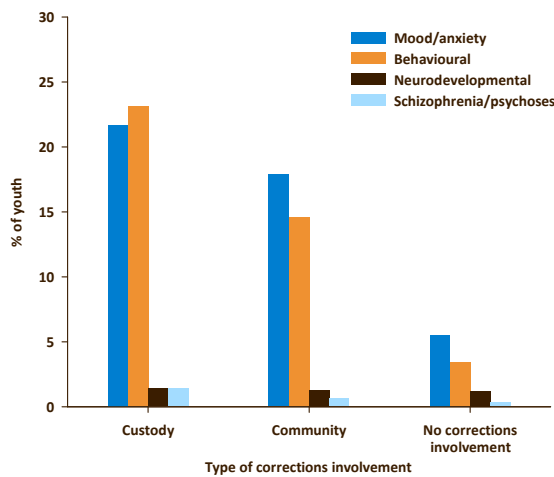
Mental health status by corrections involvement (Table 13)

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). See *Definitions and Notes* (p. 21).

- The highest rate of mental health conditions was for youth in custody (35%).



Percent with a mental health condition by type of condition and type of corrections involvement



Mental health condition by corrections involvement (Table 13)

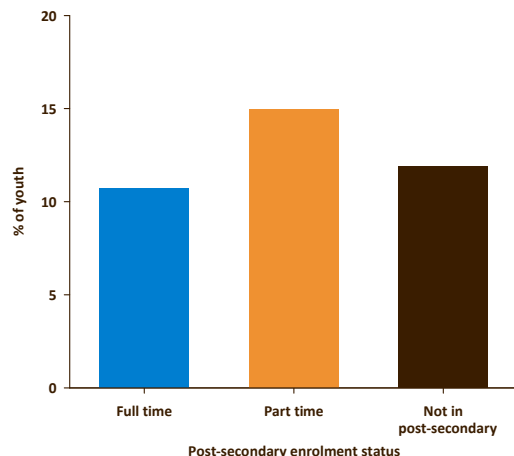
- *Mood/anxiety* and *behavioural* conditions were substantially more likely among youth involved in corrections (18%) than among youth not involved in corrections (6%).
- *Behavioural* conditions were the most frequent mental health condition among youth in custody whereas *mood/anxiety* conditions were most frequent for the other groups of youth.
- Note that *neurodevelopmental* conditions, including fetal alcohol spectrum disorder, are underestimated because data from community mental health clinics were not available for these analyses.

Mental health status by post-secondary enrolment (Table 14)

Youth (17 to 24 years) enrolled in post-secondary institutions in 2008/09 are considered in the next two analyses, in comparison to youth not enrolled in post-secondary institutions. See *Definitions and Notes* (p. 21).

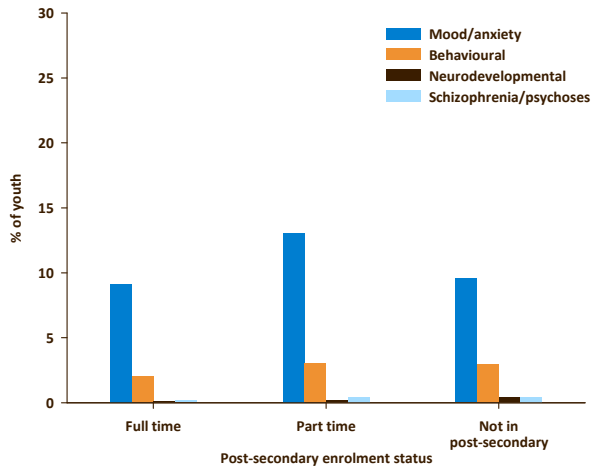
- A mental health condition was present in 11% of youth enrolled in full-time programs, which is equivalent to the rate for those not enrolled in post-secondary programs (12%).
- The rate was elevated (15%) for youth in part-time programs.

Percent with a mental health condition by post-secondary enrolment status



Mental health status of Albertan youth

Percent with a mental health condition by type of condition and post-secondary enrolment status
Albertan youth aged 17 to 24



Mental health condition by post-secondary enrolment (Table 14)

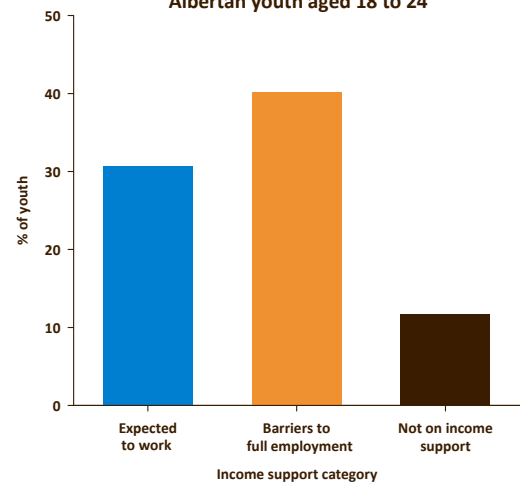
- The higher rate of mental health conditions among youth enrolled in part-time programs compared to those in full-time programs (shown in previous graph) was primarily due to a higher rate of *mood/anxiety* conditions.

Mental health status by income support (Table 15)

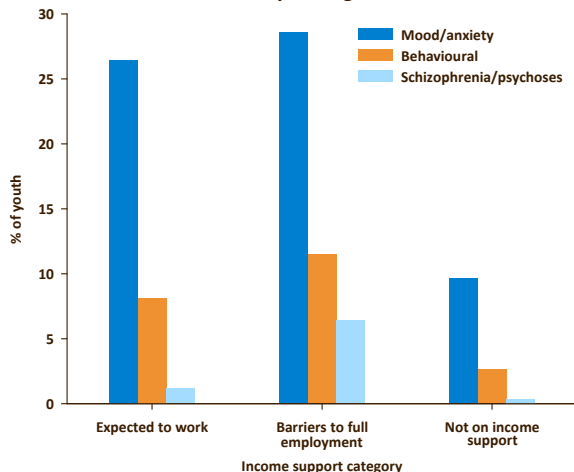
Income support refers to financial benefits provided to individuals and couples (aged 18 to 24 years) who cannot meet their basic needs. The client types for income support clients are *expected to work* (clients who are looking for work, working, or unable to work in the short term) and *barriers to full employment* (clients who have difficulty working because of a chronic mental or physical health problem or because of multiple barriers to employment). See *Definitions and Notes* (p. 21).

- Youth receiving income support and experiencing *barriers to full employment* were most likely to have a mental health condition.

Percent with a mental health condition by income support category
Albertan youth aged 18 to 24



Percent with a mental health condition by type of condition and income support category
Albertan youth aged 18 to 24



Mental health condition by income support (Table 15)

There were not enough youth with *neurodevelopmental* conditions across income support categories to graph.

- Youth experiencing *barriers to full employment* had substantially higher rates of *schizophrenia/psychoses* (6.4%) than youth *expected to work* (1.2%) and youth not on income support (0.4%).
- Mood/anxiety* and *behavioural* conditions were substantially elevated in both the *expected to work* group and *barriers to full employment* group in comparison to youth not receiving income support.

Mental health status of Albertan youth

Tables

Table 1. Number and percent of youth by mental health condition and age group, Albertan youth aged 12 to 24 years, 2008/09

	Mental health condition*	Age group				
		12 to 17	12 to 20	17 to 24	18 to 24	12 to 24
Number of youth	Mood/anxiety	15,777	28,713	38,025	34,152	49,929
	Behavioural	9,967	14,116	11,053	9,459	19,426
	Neurodevelopmental	3,311	3,840	1,250	859	4,170
	Schizophrenia/psychoses	904	1,439	1,580	1,387	2,291
	Any condition	25,442	41,677	46,622	41,350	66,792
	No condition	251,408	381,204	348,417	305,752	557,160
	Total	276,850	422,881	395,039	347,102	623,952
Percent of youth	Mood/anxiety	5.7	6.8	9.6	9.8	8.0
	Behavioural	3.6	3.3	2.8	2.7	3.1
	Neurodevelopmental	1.2	0.9	0.3	0.2	0.7
	Schizophrenia/psychoses	0.3	0.3	0.4	0.4	0.4
	Any condition	9.2	9.9	11.8	11.9	10.7
	No condition	90.8	90.1	88.2	88.1	89.3
	Total	100.0	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

Mental health status of Albertan youth

Tables (continued)

Table 2. Number and percent of female youth by mental health status and age, Albertan youth aged 12 to 24 years, 2008/09

	Mental health status	Age (years)												
		12	13	14	15	16	17	18	19	20	21	22	23	24
Female														
Number of youth	Any condition	1,120	1,347	1,655	2,034	2,640	2,911	3,017	3,218	3,400	3,526	3,895	4,143	4,494
	No condition	20,093	20,714	20,800	20,269	20,461	20,389	20,423	20,940	20,667	20,492	21,078	21,179	21,496
	Total	21,213	22,061	22,455	22,303	23,101	23,300	23,440	24,158	24,067	24,018	24,973	25,322	25,990
Percent of youth	Any condition	5.3	6.1	7.4	9.1	11.4	12.5	12.9	13.3	14.1	14.7	15.6	16.4	17.3
	No condition	94.7	93.9	92.6	90.9	88.6	87.5	87.1	86.7	85.9	85.3	84.4	83.6	82.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 3. Number and percent of male youth by mental health status and age, Albertan youth aged 12 to 24 years, 2008/09

	Mental health status	Age (years)												
		12	13	14	15	16	17	18	19	20	21	22	23	24
Male														
Number of youth	Any condition	2,355	2,305	2,288	2,207	2,219	2,361	2,232	2,237	2,131	2,180	2,171	2,311	2,395
	No condition	20,444	21,120	21,498	21,564	21,780	22,276	22,479	22,911	22,376	22,499	22,797	23,086	23,329
	Total	22,799	23,425	23,786	23,771	23,999	24,637	24,711	25,148	24,507	24,679	24,968	25,397	25,724
Percent of youth	Any condition	10.3	9.8	9.6	9.3	9.2	9.6	9.0	8.9	8.7	8.8	8.7	9.1	9.3
	No condition	89.7	90.2	90.4	90.7	90.8	90.4	91.0	91.1	91.3	91.2	91.3	90.9	90.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Mental health status of Albertan youth

Tables (continued)

Table 4. Number and percent of female youth by mental health condition and age, Albertan youth aged 12 to 24 years, 2008/09

Female	Mental health condition*	Age group (years)				Total
		12 to 14	15 to 17	18 to 20	21 to 24	
Number of youth	Mood/anxiety	2,641	6,032	8,273	14,355	31,301
	Behavioural	1,425	1,872	1,901	2,644	7,842
	Neurodevelopmental	629	510	222	164	1,525
	Schizophrenia/psychoses	107	166	179	275	727
	Any condition	4,122	7,585	9,635	16,058	37,400
	No condition	61,607	61,119	62,030	84,245	269,001
	Total	65,729	68,704	71,665	100,303	306,401
Percent of youth	Mood/anxiety	4.0	8.8	11.5	14.3	10.2
	Behavioural	2.2	2.7	2.7	2.6	2.6
	Neurodevelopmental	1.0	0.7	0.3	0.2	0.5
	Schizophrenia/psychoses	0.2	0.2	0.2	0.3	0.2
	Any condition	6.3	11.0	13.4	16.0	12.2
	No condition	93.7	89.0	86.6	84.0	87.8
	Total	100.0	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

Table 5. Number and percent of male youth by mental health condition and age, Albertan youth aged 12 to 24 years, 2008/09

Male	Mental health condition*	Age group (years)				Total
		12 to 14	15 to 17	18 to 20	21 to 24	
Number of youth	Mood/anxiety	3,143	3,961	4,663	6,861	18,628
	Behavioural	3,697	2,973	2,248	2,666	11,584
	Neurodevelopmental	1,353	819	307	166	2,645
	Schizophrenia/psychoses	320	311	356	577	1,564
	Any condition	6,948	6,787	6,600	9,057	29,392
	No condition	63,062	65,620	67,766	91,711	288,159
	Total	70,010	72,407	74,366	100,768	317,551
Percent of youth	Mood/anxiety	4.5	5.5	6.3	6.8	5.9
	Behavioural	5.3	4.1	3.0	2.6	3.6
	Neurodevelopmental	1.9	1.1	0.4	0.2	0.8
	Schizophrenia/psychoses	0.5	0.4	0.5	0.6	0.5
	Any condition	9.9	9.4	8.9	9.0	9.3
	No condition	90.1	90.6	91.1	91.0	90.7
	Total	100.0	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

Mental health status of Albertan youth

Tables (continued)

Table 6. Number and percent of youth by mental health condition and region of residence, Albertan youth aged 12 to 24 years, 2008/09

	Mental health condition*	Region of residence			
		Rural	Mid-sized centre	Large centre	Total
Number of youth	Mood/anxiety	9,775	7,724	32,427	49,926
	Behavioural	3,916	3,234	12,276	19,426
	Neurodevelopmental	795	676	2,699	4,170
	Schizophrenia/psychoses	476	363	1,452	2,291
	Any condition	13,203	10,525	43,061	66,789
	No condition	121,476	85,788	349,833	557,097
	Total	134,679	96,313	392,894	623,886
Percent of youth	Mood/anxiety	7.3	8.0	8.3	8.0
	Behavioural	2.9	3.4	3.1	3.1
	Neurodevelopmental	0.6	0.7	0.7	0.7
	Schizophrenia/psychoses	0.4	0.4	0.4	0.4
	Any condition	9.8	10.9	11.0	10.7
	No condition	90.2	89.1	89.0	89.3
	Total	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

Table 7. Number and percent of youth by mental health condition and socio-economic status (SES), Albertan youth aged 12 to 24 years, 2008/09

	Mental health condition*	Socio-economic status					Total
		Lowest SES	Low middle	Middle	High middle	Highest SES	
Number of youth	Mood/anxiety	12,072	7,948	10,789	8,520	9,498	48,827
	Behavioural	4,730	2,844	4,336	3,374	3,768	19,052
	Neurodevelopmental	1,049	717	852	688	821	4,127
	Schizophrenia/psychoses	534	391	508	403	416	2,252
	Any condition	16,083	10,429	14,541	11,499	12,849	65,401
	No condition	126,202	84,415	125,822	97,266	111,082	544,787
	Total	142,285	94,844	140,363	108,765	123,931	610,188
Percent of youth	Mood/anxiety	8.5	8.4	7.7	7.8	7.7	8.0
	Behavioural	3.3	3.0	3.1	3.1	3.0	3.1
	Neurodevelopmental	0.7	0.8	0.6	0.6	0.7	0.7
	Schizophrenia/psychoses	0.4	0.4	0.4	0.4	0.3	0.4
	Any condition	11.3	11.0	10.4	10.6	10.4	10.7
	No condition	88.7	89.0	89.6	89.4	89.6	89.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

Mental health status of Albertan youth

Tables (continued)

Table 8. Number and percent of youth by mental health condition and educational achievement, Albertan youth aged 12 to 20 years, 2008/09

	Mental health condition*	Educational achievement			Total
		Below expectations	Meeting expectations	Above expectations	
Number of youth	Mood/anxiety	5,361	9,388	810	15,559
	Behavioural	3,215	5,408	302	8,925
	Neurodevelopmental	2,020	893	38	2,951
	Schizophrenia/psychoses	543	299	22	864
	Any condition	8,935	14,127	1,085	24,147
	No condition	34,110	152,638	25,517	212,265
	Total	43,045	166,765	26,602	236,412
Percent of youth	Mood/anxiety	12.5	5.6	3.0	6.6
	Behavioural	7.5	3.2	1.1	3.8
	Neurodevelopmental	4.7	0.5	0.1	1.2
	Schizophrenia/psychoses	1.3	0.2	0.1	0.4
	Any condition	20.8	8.5	4.1	10.2
	No condition	79.2	91.5	95.9	89.8
	Total	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

Table 9. Number and percent of youth by mental health condition and school authority type, Albertan youth aged 12 to 20 years, 2008/09

	Mental health condition*	School type			Total
		Public	Separate	Remaining authority types	
Number of youth	Mood/anxiety	12,055	3,074	681	15,810
	Behavioural	6,825	1,671	564	9,060
	Neurodevelopmental	2,218	574	241	3,033
	Schizophrenia/psychoses	633	190	65	888
	Any condition	18,486	4,754	1,300	24,540
	No condition	156,637	48,020	11,714	216,371
	Total	175,123	52,774	13,014	240,911
Percent of youth	Mood/anxiety	6.9	5.8	5.2	6.6
	Behavioural	3.9	3.2	4.3	3.8
	Neurodevelopmental	1.3	1.1	1.9	1.3
	Schizophrenia/psychoses	0.4	0.4	0.5	0.4
	Any condition	10.6	9.0	10.0	10.2
	No condition	89.4	91.0	90.0	89.8
	Total	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

Mental health status of Albertan youth

Tables (continued)

Table 10. Number and percent of youth by mental health condition and health service type, Albertan youth aged 12 to 24 years, 2008/09

	Mental health condition*	Health service type**				
		One to four physician visits	Five or more physician visits	Emergency room visit	Hospitalization	Any health service
Number of youth	Mood/anxiety	15,981	33,497	21,526	5,384	49,870
	Behavioural	7,964	10,914	9,022	1,689	19,403
	Neurodevelopmental	1,820	2,133	1,180	359	3,984
	Schizophrenia/psychoses	664	1,571	1,234	736	2,289
	Any condition	24,459	41,122	28,112	6,486	66,535
	No condition	287,761	128,725	131,868	16,651	438,855
	Total	312,220	169,847	159,980	23,137	505,390
Percent of youth	Mood/anxiety	5.1	19.7	13.5	23.3	9.9
	Behavioural	2.6	6.4	5.6	7.3	3.8
	Neurodevelopmental	0.6	1.3	0.7	1.6	0.8
	Schizophrenia/psychoses	0.2	0.9	0.8	3.2	0.5
	Any condition	7.8	24.2	17.6	28.0	13.2
	No condition	92.2	75.8	82.4	72.0	86.8
	Total	100.0	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

**Health service type categories are not mutually exclusive

Table 11. Number and percent of youth by mental health condition and type of maltreatment-related intervention service, Albertan youth aged 12 to 17 years, 2008/09

	Mental health condition*	Maltreatment-related intervention service			No intervention
		In care services	Out of care services	Total	
Number of youth	Mood/anxiety	1,030	496	1,526	14,251
	Behavioural	789	280	1,069	8,898
	Neurodevelopmental	208	97	305	3,006
	Schizophrenia/psychoses	74	33	107	797
	Any condition	1,570	694	2,264	23,178
	No condition	2,093	1,496	3,589	247,819
	Total	3,663	2,190	5,853	270,997
Percent of youth	Mood/anxiety	28.1	22.6	26.1	5.3
	Behavioural	21.5	12.8	18.3	3.3
	Neurodevelopmental	5.7	4.4	5.2	1.1
	Schizophrenia/psychoses	2.0	1.5	1.8	0.3
	Any condition	42.9	31.7	38.7	8.6
	No condition	57.1	68.3	61.3	91.4
	Total	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

Mental health status of Albertan youth

Tables (continued)

Table 12. Number and percent of youth by mental health condition and number of charges, Albertan youth aged 12 to 17 years, 2008/09

	Mental health condition*	Number of charges				
		None	One	Two or three	Four or more	Total charged with an offence
Number of youth	Mood/anxiety	14,853	371	266	287	924
	Behavioural	9,222	271	203	271	745
	Neurodevelopmental	3,239	31	26	15	72
	Schizophrenia/psychoses	859	15	14	16	45
	Any condition	24,063	539	398	442	1,379
	No condition	247,617	1,637	1,105	1,049	3,791
	Total	271,680	2,176	1,503	1,491	5,170
Percent of youth	Mood/anxiety	5.5	17.0	17.7	19.2	17.9
	Behavioural	3.4	12.5	13.5	18.2	14.4
	Neurodevelopmental	1.2	1.4	1.7	1.0	1.4
	Schizophrenia/psychoses	0.3	0.7	0.9	1.1	0.9
	Any condition	8.9	24.8	26.5	29.6	26.7
	No condition	91.1	75.2	73.5	70.4	73.3
	Total	100.0	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

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

	Mental health condition*	Type of corrections involvement**			
		Custody	Community	Any corrections involvement	Not involved in 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 status of Albertan youth

Tables (continued)

Table 14. Number and percent of youth by mental health condition and post-secondary enrolment status, Albertan youth aged 17 to 24 years, 2008/09

	Mental health condition*	Post-secondary enrolment status			
		Full time	Part time	Total	Not in post-secondary
Number of youth	Mood/anxiety	6,339	1,666	8,005	30,020
	Behavioural	1,414	386	1,800	9,253
	Neurodevelopmental	81	20	101	1,149
	Schizophrenia/psychoses	117	54	171	1,409
	Any condition	7,420	1,910	9,330	37,292
	No condition	61,797	10,844	72,641	275,776
	Total	69,217	12,754	81,971	313,068
Percent of youth	Mood/anxiety	9.2	13.1	9.8	9.6
	Behavioural	2.0	3.0	2.2	3.0
	Neurodevelopmental	0.1	0.2	0.1	0.4
	Schizophrenia/psychoses	0.2	0.4	0.2	0.5
	Any condition	10.7	15.0	11.4	11.9
	No condition	89.3	85.0	88.6	88.1
	Total	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

Table 15. Number and percent of youth by mental health condition and income support category, Albertan youth aged 18 to 24 years, 2008/09

	Mental health condition*	Income support category			Not on income support
		Expected to work	Barriers to full employment	Total	
Number of youth	Mood/anxiety	511	688	1,199	32,953
	Behavioural	157	276	433	9,026
	Neurodevelopmental**	–	184	–	673
	Schizophrenia/psychoses	23	154	177	1,210
	Any condition	592	966	1,558	39,792
	No condition	1,339	1,441	2,780	302,972
	Total	1,931	2,407	4,338	342,764
Percent of youth	Mood/anxiety	26.5	28.6	27.6	9.6
	Behavioural	8.1	11.5	10.0	2.6
	Neurodevelopmental**	–	7.6	–	0.2
	Schizophrenia/psychoses	1.2	6.4	4.1	0.4
	Any condition	30.7	40.1	35.9	11.6
	No condition	69.3	59.9	64.1	88.4
	Total	100.0	100.0	100.0	100.0

*Mental health condition categories are not mutually exclusive

**There were not enough youth with neurodevelopmental conditions in one or more income support categories to be able to show data

Mental health status of Albertan youth

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 resided⁵. 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.

Mental health status of Albertan youth

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 or 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® Case-Mix System (version 8.2)⁵. 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.
- 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.

- **School authority types**

There is one publicly-funded system of education in Alberta. The public system includes public, separate, Francophone and charter schools.

- **Public** schools are non-denominational schools.
- **Separate** schools are established under rights guaranteed by the Constitution of Canada for the minority religion (Protestant or Roman Catholic).
- **Francophone** schools provide instruction in French to children whose parents have rights under section 23 of the Canadian Charter of Rights and Freedoms.
- **Charter** schools are autonomous public schools designed to meet the needs of students through a specific program or approach. They must be non-religious.

Private schools operate outside the public education system. Private schools may charge tuition and other fees. There are two kinds of private schools.

- Accredited private schools must offer the Alberta Program of Studies with certificated teachers; they may be partially funded or non-funded.
- Registered private schools are not required to offer the Program of Studies and are not funded.

Other schools are accredited post-secondary institutions offering high school courses for credit to adults. Schools on First Nations reserves are not funded by Alberta Education; students who attended these schools are not included in the youth enrolled in the K to 12 education system.

Mental health status of Albertan youth

Definitions and Notes (continued)

- **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.
- Participation in **education** refers to enrolment in the kindergarten to grade 12 education system in Alberta. No data were available for students who attended schools on First Nations reserves or in Lloydminster.
- **Maltreatment-related interventions** occur when the safety or well-being of a youth is threatened. Categories of intervention include *in care services* (the youth is taken into care, and placed in a foster home, with family, in a group home, etc.), and *out of care services* (the youth remains in the home and the family receives support services).
- 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.). **Number of offences** in the study year was available, but individual incidents were not available. This means that youth charged with multiple offences may have had multiple charges in a single incident, or they may have been charged in multiple incidents.
- 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).
- Participation in **post-secondary** education refers to enrolment in a post-secondary institution in Alberta. Youth enrolled in apprenticeship programs were not included. When a student was enrolled in more than one session in the study year, one session was chosen to provide values for credential type, enrolment status, and institution type for that individual. Full-time enrolments were chosen over part-time, winter session enrolments were chosen over fall sessions, and fall sessions were chosen over spring and summer enrolments. If only spring or summer enrolments occurred, the session was randomly chosen from among the spring and summer enrolments.
- **Enrolment status** for post-secondary programs consists of full-time (students who enrolled in at least 60% of a full course load in at least one session in the academic year) or part-time (students who were enrolled in less than 60% of full course load in all sessions attended for the academic year).
- **Income support** refers to financial benefits provided to individuals and couples who cannot meet their basic needs. The **client types** for income support clients are *expected to work* (clients who are looking for work, working, or unable to work in the short term) and *barriers to full employment* (clients who have difficulty working because of a chronic mental or physical health problem or because of multiple barriers to employment).

Mental health status of Albertan youth

Data sources

Ministry	Database	Use in this report
Enterprise and Advanced Education	Learner Enrolment Reporting System (LERS)	Post-secondary education enrolment data
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
Human Services	Central Client Directory (CCD)	Income support 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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Mental health status of Albertan youth

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** (ACCFR). 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

Suggested citation

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Contact CYDL

www.research4children.com

Click on "Data"

Xinjie Cui, Director
780 944 8631
xcui@research4children.com

Leslie Twilley, Senior Scientist
780 408 8734
ltwilley@research4children.com

Christine Werk, Research Scientist
780 408 8767
cwerk@research4children.com



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