A Profile of Young Albertans with Cerebral Palsy

Child and Youth Data Laboratory (CYDL)

Introduction

Cerebral Palsy (CP) is the leading cause of lifelong physical disability that begins in childhood¹. This report highlights the socio-demographic characteristics of, and use of provincial services by, young Albertans aged 0 to 25 years with CP from 2005/06 to 2010/11.

Young Albertans were defined as having CP if, at any point during the study period, they either: (a) had a diagnostic code for CP from a health service (a physician, ambulatory care, or emergency room visit, or hospitalization), or, (b) accessed a disability service for CP from Family Support for Children with Disabilities (FSCD) or Assured Income for the Severely Handicapped (AISH). Because the ability to define CP in the study population is based on the presence of diagnostic codes from services in administrative data, it's important to note that this study is not estimating the prevalence or incidence of CP in Alberta.



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Key Findings

- **Study population:** Over the study period (2005/06–2010/11), 3,970 individuals were identified as having CP, which accounts for 0.25% of the total number of young Albertans who were registered full-time in the Alberta Health Care Insurance Plan (ACHIP) for at least one study year (1,595,101).
- **Education:** About a third (29-34%) of young Albertans with CP were meeting or exceeding educational expectations; 62-67% were students with special needs; and 8-10% were enrolled in a publicly-funded post –secondary institution. For young Albertans without CP, 84-85%, were meeting or exceeding educational expectations, about 7.5% were students with special needs, and 22-24% were enrolled in a publicly-funded post-secondary institution.
- **Health service use:** About 5% of young Albertans without CP were high cost health users and 5% accessed mental health services. In contrast, half of young Albertans with CP (51-52%) were high cost health service users, and 18-23% received mental health services.
- **Chronic diseases:** Young Albertans with CP had higher proportions of chronic diseases (asthma, cancer, or diabetes) compared to young Albertans without CP.
- **Community and children's services use:** Compared to those without CP, young Albertans with CP were more likely to have received Child Intervention services, and just as likely to have received Income Support.
- **Criminal offences:** Young Albertans with CP were less likely to be charged with criminal offences than young Albertans without CP.
- **Disability service use:** For each disability service, about half of young Albertans with CP received services: 48-49% from FSCD, 50-57% from AISH, and 44-52% from Persons with Developmental Disabilities (PDD).

This report is part of the Longitudinal Project by the CYDL in collaboration with Alberta partnering government ministries. Please see the last page for a brief description of the project and go to https://policywise.com/initiatives/cydl/p2 to access other deliverables.

Background Literature

Providing a context for the current report, this section highlights select literature focusing on Cerebral Palsy.

Cerebral Palsy is the leading cause of lifelong physical disability that begins in childhood¹. A diagnosis of CP is made based on physical examinations and can result from a wide range of motor disorders and neurological abnormalities². Generally, children with CP have one or more of four types of neurological impairments of the motor system (spasticity, dyskinesia, hypotonia, or ataxia) and some degree of activity limitation². The motor disorders can limit activities such as walking, maintaining posture, feeding and swallowing, and articulating speech³. Individuals with a CP diagnosis may also experience accompanying neurodevelopmental problems, the most common of which are seizure disorders, intellectual disability, and difficulties with hearing and vision².

Except in some cases of severe CP, the diagnosis is typically made after age two, once it is clear that the child's motor delays have resulted from a brain disturbance that is permanent and non-progessive². Brain disturbances that cause CP can occur in the pre-, peri-, or post-natal periods. A CP case is considered post-natal in origin if it is caused by a brain injury, such as an infection or head trauma, that occurred after the first month of life⁴. In contrast, there are multiple risk factors for CP that occur in the pre- and peri-natal periods, such as pre-term delivery, low birth weight, congenital malformations, hypoxia at birth, intrauterine infection, perinatal stroke, neonatal encephalopathy, multiple pregnancies, genetic factors and others^{5,6}.

The prevalence of CP in developed countries is typically between 2-2.5 per 1,000 live births⁵. Among those with CP, males slightly outnumber females². Low socio-economic status has also been found to be a risk factor for increased CP prevalence⁷. This association can partially be explained by the increased risk of pre-term birth, low birth weight, and postnatal trauma in individuals of lower SES⁷.

Some health problems, such as mental health conditions, musculo-skeletal problems, epilepsy, bodily pain, respiratory problems, diabetes, asthma, hypertension, heart conditions, stroke, and certain cancers are known to be more common among individuals with CP compared to the rest of the population⁸⁻¹¹. As a result of their complex needs, youth with CP have higher rates of outpatient physician visits and hospital admissions compared to their peers without CP¹².

This profile sheds light on the characteristics and service—use patterns of young Albertans with CP—a group that may present with complex needs. This report uses individually linked administrative data to profile young Albertans with CP by a range of socio-demographic characteristics, such as sex, region, and socio-economic status. Following this, the report highlights patterns of service use including high cost health service use, mental-health service use, and disability services use. In Alberta, the release of *Valuing Mental Health: Next Steps* marks a clear call-to-action to improve system continuity by coordinating and integrating mental health supports and services for a number of priority populations including youth and people with complex needs¹³. Knowing more about how specific populations such as young Albertans with CP use government services and programs may aid in the development of a road map toward more coordinated and integrated service and program delivery for mental health. As well, this report may also be used to inform the work of the Regional Collaborative Service Delivery approach in Alberta that focuses on systems transformation, and coordinating and leveraging services to build capacity across multiple ministries to meet the needs of children and youth.

Footnotes: Analyses include young Albertans aged 0 to 25 unless otherwise specified. 95% confidence intervals were calculated to enable comparison of statistical differences between groups. The Cochran-Armitage trend test was used to test trends over time. Only effects that apply to a meaningful proportion of the population were noted in the text. See https://visualization.policywise.com/P2dashboard/CerebralPalsyProfileStat.xlsx

Study Population (Table 1; p.12)

The total study population includes Albertans aged 0 to 25 years in each study year (unless otherwise specified) who were registered in the AHCIP full time for at least one study year. Young Albertans were defined as having CP if, at any point during the study period, they either: (a) had a diagnostic code for CP from a health service(s) (a physician, ambulatory care, or emergency room visit, or hospitalization), or, (b) accessed a disability service for CP from FSCD or AISH. See *Definitions and Notes* (p. 25) for exact codes used. Individuals with CP may have had a diagnostic code from one or more services.

- Over the six study years **1,595,101** young Albertans were registered full time in the health registry in the study population.
- Of those, there were **3,970** young Albertans with CP, which is **0.25%** of the entire study population.
- Most young Albertans with CP in the study population were identified through a health service (3,719).
- CP diagnostic codes were from the following health services: physician visits (2,205), emergency room visits (641), other ambulatory care visits (2,897), and hospitalizations (1,034).
- Young Albertans may have also have had a diagnostic code for CP through FSCD (1,074) or AISH (622).

Study Limitations

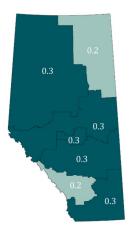
When interpreting results, readers should be aware of the limitations of the study:

- Not all individuals with CP were identified. Individuals with CP may have been missed if they had a diagnostic code from a health or disability (FSCD or AISH) service for CP before or after the study period. Individuals with CP may also have been missed if they did not have a diagnostic code for CP from a health or disability service for CP, despite accessing FSCD, AISH, or a health service during the study. Because the ability to define CP in the study population is based on the presence of diagnostic code for services in administrative data, it's important to note that this study is not estimating the prevalence or incidence of CP in Alberta.
- Individuals with CP who were younger at the start of the study are overrepresented. A greater number of individuals who were in younger age groups (ages 0-5 and 6-10 years) at the start of the study were identified as having CP (see Table 2, p.13, for the age distribution of the study population by year). This is because in any given study year, individuals with CP in the 0-5 and 6-10 years age groups used services more than those in the older age groups. This meant that if an individual was young at the start of the study, they would have spent more time in these "high service" age groups during the study period, and therefore had a greater opportunity to receive a diagnostic code for CP.
- **Time trends should be interpreted with caution.** The age distribution of the study population changed over the study period as the younger Albertans with CP in the study population aged (see Table 2). Therefore, the time trends presented in this report may have been shaped by the changing characteristics of the aging study population.
- The proportion of young Albertans who received disability services is likely overestimated.

 Because individuals were identified as having CP through diagnostic codes received from FSCD and AISH, this study may overestimate the proportion of young Albertans with CP using these disability services.
- **Results cannot be generalized to young Albertans not registered in AHCIP.** Because a criterion for inclusion in the study population is enrolment in AHCIP, results cannot be generalized to young Albertans who were not enrolled in AHICP for at least one full year during the study period.

Regions (Table 3; p.14)

Percentage of Albertans (0-25years) with CP by CS/CSS service delivery regions in 2010/11



Regions include Children's Services (CS) and Community and Social Services (CSS) delivery regions. For information on regional analyses and a legend, see *Definitions and Notes* (p. 25).

• In 2010/11, the proportion of young Albertans with CP was similar (0.2 to 0.3%) across regions.

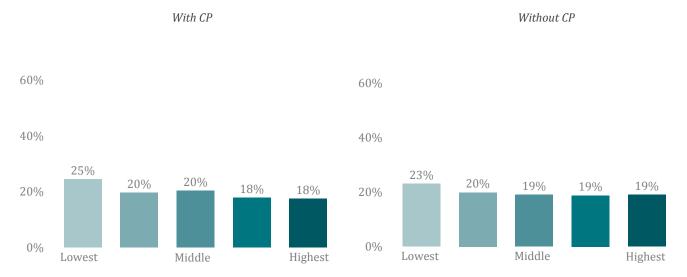
Sex (Table 4; p.15)

 Among young Albertans with CP, the proportion of males was greater than females. Percentage of Albertans aged 0 to 25 with or without CP by sex



Socio-economic Status (SES) (Table 5; p.16)

Percentage of Albertans aged 0 to 25 with or without CP by SES in 2010/11



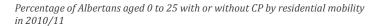
SES captures the social and material environments in which individuals lived. See *Definitions and Notes* for further information (p. 27). SES is shown for 2010/11.

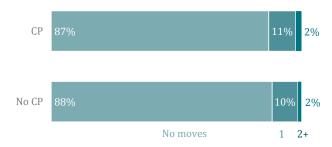
• Young Albertans with and without CP were similarly distributed across quintiles of neighborhood SES and this pattern was persistent across the study period (see Table 5). A quarter of young Albertans with CP were in the lowest SES quintile in 2010/11.

Residential Mobility (Table 6; p.17)

Residential mobility was determined using the number of unique postal codes in the Alberta Health Registry. See *Definitions and Notes* (p. 27). Residential mobility is shown in 2010/11 (see Table 6 for residential mobility in each study year).

 Young Albertans with and without CP showed nearly the same pattern of residential mobility. In both groups, a large majority of young Albertans did not move within the year.





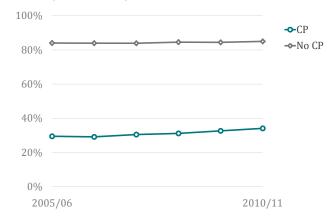
Educational Achievement (Table 7; p.17)

This analysis includes Albertans in grades 3 to 12 who were registered in the Alberta education system. See *Definitions and Notes* for the definition of educational achievement (p. 26).

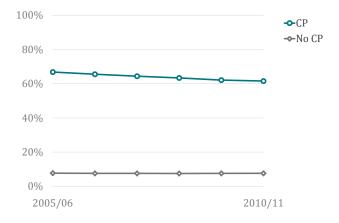
 The percentage of Albertans with CP that were meeting or exceeding educational expectations was between 29 and 34%.

In contrast,

 the percentage of young Albertans without CP that were meeting or exceeding expectations was between 84 and 85%. Percentage of Albertans in grades 3 to 12 with or without CP who were meeting or exceeding educational expectations over time



Percentage of Albertans (2.5-19 years) with or without CP who were students with special needs over time



Students with Special Needs (Table 8; p.18)

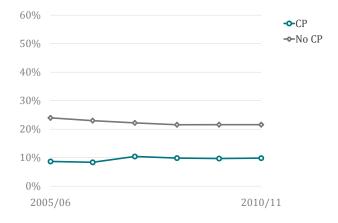
This analysis includes Albertans (2.5 to 19 years) who were students with special needs. For more information, see *Definitions and Notes* (p. 27). Gifted/talented students with and without CP who received special needs programming were not included in this analysis because there were fewer than 10 gifted/talented students with CP per study year.

 The proportion of young Albertans with CP who were students with special needs ranged from 62 to 67% during the study period.

Post-secondary Enrolment (Table 9; p.18)

This analysis includes Albertans (17 to 25 years) enrolled in publicly-funded post-secondary institutions. Both credential (e.g., certificate, diploma) and non-credential enrolment were included in this analysis. See *Definitions and Notes* (p. 27).

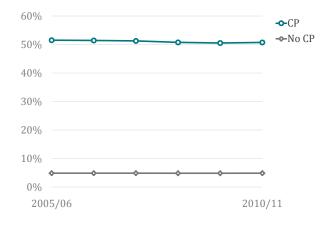
 Between 8 and 10% of young Albertans with CP were enrolled in a publicly-funded postsecondary institution compared to 22 to 24% of young Albertans without CP. Percentage of Albertans (17 to 25 years) with or without CP enrolled in Alberta's publicly funded post-secondary institutions over time



High Cost Health Service Use (Table 10; p.19)

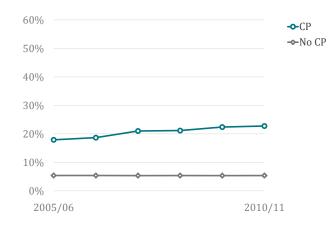
High cost health users are defined as Albertans who were in the top 5% of estimated costs for their age group and sex. See *Definitions and Notes* (p. 26).

 About half of young Albertans with CP (51-52%) were high cost health service users. Percentage of Albertans (0 to 25 years) with or without CP who were high cost health users over time



Mental Health Service Use (Table 11; p.19)

Percentage of Albertans (0 to 25 years) with or without CP who were mental health service users over time



Mental health service use is defined as receipt of a diagnosis from select services. See *Definitions and Notes* for details (p. 27).

 Between 18 and 23% of young Albertans with CP received mental health services.

In contrast.

of young Albertans without CP, about 5% accessed mental health services.

Asthma (Table 12; p.20)

Asthma was identified when an individual had two or more physician visits at least 30 days apart and within two years, using diagnostic codes from health services. See *Definitions and Notes* for full details (p. 26).

• The proportion of young Albertans with CP that had asthma (15%) was almost twice that of those without CP (8%).

Percentage of young Albertans (aged 0 to 25) with or without CP who recieved a diagnostic code for asthma between 2005/06 and 2010/11



Percentage of young Albertans (aged 0 to 25) with or without CP)who recieved a diagnostic code for diabetes between 2005/06 and 2010/11



Diabetes (Table 12; p.20)

Diabetes was identified when an individual had two or more physician visits at least one day apart and within two years, using diagnostic codes from health services or AISH. See *Definitions and Notes* for full details (p. 26).

• The proportion of young Albertans with diabetes was three times as high among those with CP (1.5%), than among those without CP (0.5%).

Cancer (Table 12; p.20)

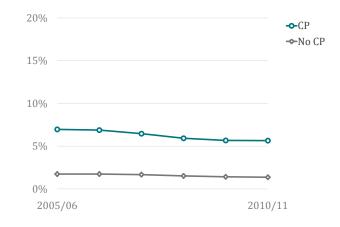
Cancer was identified when an individual received any diagnostic code of cancer from health services or AISH. See *Definitions and Notes* for full details (p. 26).

• The proportion of young Albertans that had cancer was twice as high among those with CP (3.5%), compared to those without CP (1.5%).

Percentage of young Albertans (aged 0 to 25) with or without CP who recieved a diagnostic code for Cancer between 2005/06 and 2010/11



Percentage of Albertans (0 to 22 years) with and without CP who received Child Intervention Services over time



Child Intervention Services (Table 13; p.21)

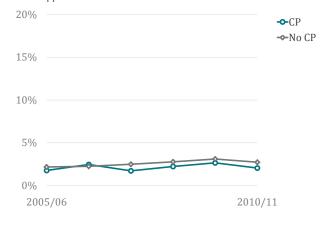
This analysis includes Albertans (aged 0 to 22 years) who received Child Intervention services. See *Definitions and Notes* (p. 25).

• Child Intervention services were received proportionally more by young Albertans with CP (6 to 7%) compared to young Albertans without CP (1 to 2%).

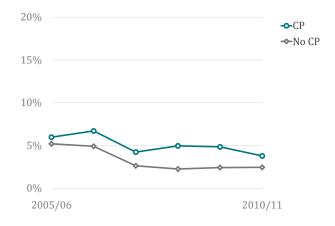
Income Support (Table 14; p.21)

This analysis includes Albertans (aged 18 to 25 years) who received Income Support. See *Definitions* and *Notes* (p. 26).

 The proportion of young Albertans who received Income Support services was similar for those with and without CP (2 to 3%). Percentage of Albertans (18 to 25 years) with or without CP who received Income Support over time



Percentage of Albertans (18-25 years) with or without CP who received ISL services over time

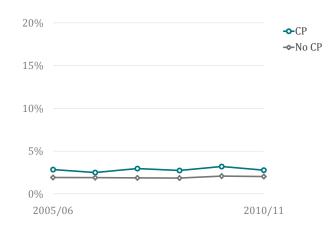


Income Support Learners (Table 15; p.22)

Income Support Learners (ISL) ensures that learners have the financial resources to meet their basic needs (see *Definitions and Notes*, p. 26). This analysis includes Albertans aged 18 to 25 years who received ISL services.

- A higher proportion of young Albertans with CP received ISL (3.8% to 6.7%) services compared to young Albertans without CP (2.3% to 5.2%)
- Use of ISL decreased for both groups over the study period.

Percentage of Child Support Services dependents (0 to 24 years) with or without CP



Child Support Services Dependents (Table 16; p.22)

This analysis includes Albertans (aged 0 to 22 years) who were Child Support Services dependents. See *Definitions and Notes* (p. 25).

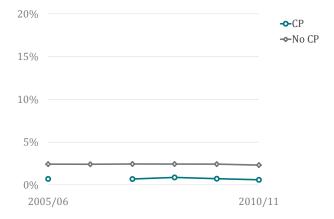
• Child Support Services dependents were represented proportionally more among young Albertans with CP (2.5 to 3.2%) compared to young Albertans without CP (1.9 to 2.1%).

Criminal Offences (Table 17; p.23)

This analysis includes Albertans (aged 12 to 25 years) charged with criminal offences. See *Definitions and Notes* (p. 26).

- The proportion of young Albertans with CP charged with criminal offences (0.6 to 0.9%) was lower than young Albertans without CP (2%).
- Data from 2006/2007 were suppressed for young Albertans with CP because the sample size was smaller than 10.

Percentage of Albertans (12 to 25 years) with or without CP who were charged with criminal offences over time



Family Support for Children with Disabilities (FSCD) (Table 18; p.23)

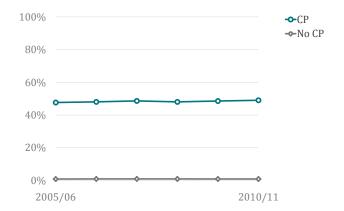
This analysis includes children and youth (aged 0 to 17 years) who received services through FSCD in Alberta between 2005/06 and 2010/11. See *Definitions and Notes* (p. 26).

 Between 48 and 49% of young Albertans with CP accessed FSCD services.

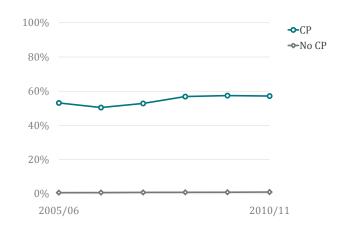
In contrast,

of young Albertans without CP, about 1% accessed FSCD services.

Percentage of Albertans (0 to 17 years) with or without CP who received FSCD services over time



Percentage of Albertans (18 to 25 years) with or without CP who received AISH services over time



Assured Income for the Severely Handicapped (AISH) (Table 19; p.24)

This analysis includes Albertans (aged 18 to 25 years) who received AISH services. See *Definitions and Notes* (p. 25).

 The proportion of young Albertans with CP that received AISH supports was between 50 and 57%.

In contrast,

of young Albertans without CP, about 1% received AISH.

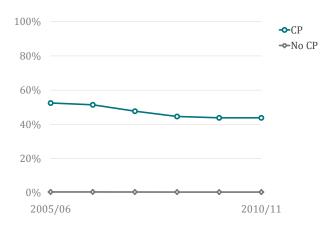
Persons with Developmental Disabilities (PDD) (Table 20; p.24)

This analysis includes Albertans (aged 18 to 25 years) who received PDD services. See *Definitions* and *Notes* (p. 27).

 The proportion of young Albertans with CP who received PDD supports ranged from 44 to 52%.

In contrast,

 of young Albertans without CP, about 0.5% received PDD. Percentage of Albertans (18 to 25 years) with or without CP who received PDD services over time



CP diagnostic code source from Health

TABLE 1: Number and percentage of Albertans aged 0 to 25 years with CP by source of diagnostic code* and study year

Study year

Number of individuals with CP	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	All years
Physician Visit	864	831	599	575	623	667	2,205
Other ambulatory care visit	1,394	1,490	1,444	1,273	1,235	1,221	2,897
Hospitalization	306	269	267	286	297	280	1,034
Emergency room visit	125	129	166	176	177	158	641
Any health service*	1,750	1,833	1,771	1,648	1,650	1,637	3,719
Percentage of individuals with CP	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	All years
Physician Visit	49.37	45.34	33.82	34.89	37.76	40.75	59.29
Other ambulatory care visit	79.66	81.29	81.54	77.25	74.85	74.59	77.90
Hospitalization	17.49	14.68	15.08	17.35	18.00	17.10	27.80
Emergency room visit	7.14	7.04	9.37	10.68	10.73	9.65	17.24
Any health service*	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Source of CP code (Health, FSCD, and AISH)							
Number of individuals	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	All years
Any health service*	1,750	1,833	1,771	1,648	1,650	1,637	3,719
FSCD service	693	686	702	698	693	686	1,074
AISH service	270	272	302	336	346	370	622
With CP*	2,057	2,127	2,091	1,997	2,013	1,995	3,970
Percentage of individuals	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	All years
Any health service	85.08	86.18	84.70	82.52	81.97	82.06	93.68
FSCD service	33.69	32.25	33.57	34.95	34.43	34.39	27.05
AISH service	13.13	12.79	14.44	16.83	17.19	18.55	15.67
With CP*	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number of individuals in study population	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	All years
With CP*	2,057	2,127	2,091	1,997	2,013	1,995	3,970
Without CP	1,119,880	1,138,861	1,168,400	1,196,492	1,228,411	1,247,062	1,591,131
Total	1,121,937	1,140,988	1,170,491	1,198,489	1,230,424	1,249,057	1,595,101
Percentage of individuals in study population	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	All years
With CP*	0.18	0.19	0.18	0.17	0.16	0.16	0.25
Without CP	99.82	99.81	99.82	99.83	99.84	99.84	99.75
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

 $^{{\}it *Individuals could have received a diagnosis or services from more than one source.}$

Family Support for Children with Disabilities (FSCD)

Assured Income Support for Severely Handicapped (AISH)

TABLE 2: Number and percentage of Albertans aged 0 to 25 years with or without CP by age group and study year $\,$

	Age Group			Study	year		
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	0 to 5	984	1,012	973	929	829	692
	6 to 10	839	828	811	801	816	801
	11 to 15	721	758	803	808	818	839
	16 to 20	569	596	661	704	700	721
	21 to 25	348	384	411	461	520	569
	Total	3,461	3,578	3,659	3,703	3,683	3,622
Without CP	0 to 5	284,681	291,645	299,551	305,853	309,250	311,817
	6 to 10	237,641	233,987	231,735	231,732	232,730	234,467
	11 to 15	254,838	251,032	247,107	243,341	240,907	237,641
	16 to 20	288,036	278,642	270,849	265,291	260,078	254,838
	21 to 25	264,332	282,644	293,792	296,532	293,641	288,036
	Total	1,329,528	1,337,950	1,343,034	1,342,749	1,336,606	1,326,799
Percentage of individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	0 to 5	28.43	28.28	26.59	25.09	22.51	19.11
	6 to 10	24.24	23.14	22.16	21.63	22.16	22.11
	11 to 15	20.83	21.19	21.95	21.82	22.21	23.16
	16 to 20	16.44	16.66	18.07	19.01	19.01	19.91
	21 to 25	10.05	10.73	11.23	12.45	14.12	15.71
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	0 to 5	21.41	21.80	22.30	22.78	23.14	23.50
	6 to 10	17.87	17.49	17.25	17.26	17.41	17.67
	11 to 15	19.17	18.76	18.40	18.12	18.02	17.91
	16 to 20	21.66	20.83	20.17	19.76	19.46	19.21
	21 to 25	19.88	21.13	21.88	22.08	21.97	21.71
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 3: Number and percentage of Albertans aged 0 to 25 years with or without CP by CS/CSS* service delivery regions and study year

	CS/CSS service delivery regions*			Study	year		
Number of individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Calgary	980	1,034	1,067	1,089	1,099	1,075
	Central	411	421	437	430	440	439
	Edmonton	1,029	1,077	1,111	1,133	1,139	1,114
	North Central	188	190	194	198	190	179
	Northeast	45	46	48	49	49	46
	Northwest	225	235	244	253	245	238
	South	299	312	321	326	322	316
	Total	3,177	3,315	3,422	3,478	3,484	3,407
Without CP	Calgary	385,476	393,485	405,222	417,760	431,768	440,326
	Central	141,712	144,209	147,289	149,201	151,131	151,756
	Edmonton	341,849	347,179	355,476	364,110	374,399	379,952
	North Central	66,713	66,849	67,890	68,730	69,419	69,859
	Northeast	19,216	19,424	20,763	21,609	23,453	24,778
	Northwest	71,328	72,680	74,392	75,740	76,865	77,720
	South	92,293	93,639	95,826	97,655	99,664	101,007
	Total	1,118,587	1,137,465	1,166,858	1,194,805	1,226,699	1,245,398
Total population	Calgary	386,456	394,519	406,289	418,849	432,867	441,401
	Central	142,123	144,630	147,726	149,631	151,571	152,195
	Edmonton	342,878	348,256	356,587	365,243	375,538	381,066
	North Central	66,901	67,039	68,084	68,928	69,609	70,038
	Northeast	19,261	19,470	20,811	21,658	23,502	24,824
	Northwest	71,553	72,915	74,636	75,993	77,110	77,958
	South	92,592	93,951	96,147	97,981	99,986	101,323
	Total	1,121,764	1,140,780	1,170,280	1,198,283	1,230,183	1,248,805
Percentage of individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Calgary	0.25	0.26	0.26	0.26	0.25	0.24
	Central	0.29	0.29	0.30	0.29	0.29	0.29
	Edmonton	0.30	0.31	0.31	0.31	0.30	0.29
	North Central	0.28	0.28	0.28	0.29	0.27	0.26
	Northeast	0.23	0.24	0.23	0.23	0.21	0.19
	Northwest	0.31	0.32	0.33	0.33	0.32	0.31

0.33

0.32

0.31

South 0.32 0.33 0.33 *Children's Services (CS) and Community and Social Services (CSS) service delivery regions.

TABLE 4: Number and percentage of Albertans aged 0 to 25 years with or without CP by sex

	Sex	All years
Number of individuals		2005/06-
		2010/11
With CP	Female	1,764
	Male	2,206
	Total	3,970
Without CP	Female	781,172
	Male	809,959
	Total	1,591,131
Providence of the latest and the		2005/06-
Pecentage of individuals		2010/11
With CP	Female	44.43
	Male	55.57
	Total	100.00
Without CP	Female	49.10
	Male	50.90
	Total	100.00

 $TABLE\ 5: Number\ and\ percentage\ of\ Albertans\ aged\ 0\ to\ 25\ years\ with\ or\ without\ CP\ by\ SES\ and\ study\ year$

	Socio-economic status	Study year					
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Number of individuals with CP	Lowest SES	814	827	818	840	847	803
	Low middle SES	649	652	664	663	668	643
	Middle SES	609	656	677	693	691	667
	High middle SES	500	529	560	565	564	582
	Highest SES	467	508	551	562	565	572
	Total	3,039	3,172	3,270	3,323	3,335	3,267
Number of individuals without CP	Lowest SES	264,846	264,532	268,013	269,693	275,032	276,354
	Low middle SES	228,931	228,925	231,118	233,853	237,200	238,572
	Middle SES	201,342	205,147	211,883	217,800	224,584	228,738
	High middle SES	190,711	196,954	205,033	212,944	220,537	225,548
	Highest SES	188,958	197,543	205,854	214,509	222,483	228,790
	Total	1,074,788	1,093,101	1,121,901	1,148,799	1,179,836	1,198,002
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Percent of individuals with CP	Lowest SES	26.79	26.07	25.02	25.28	25.40	24.58
	Low middle SES	21.36	20.55	20.31	19.95	20.03	19.68
	Middle SES	20.04	20.68	20.70	20.85	20.72	20.42
	High middle SES	16.45	16.68	17.13	17.00	16.91	17.81
	Highest SES	15.37	16.02	16.85	16.91	16.94	17.51
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Percent of individuals without CP	Lowest SES	24.64	24.20	23.89	23.48	23.31	23.07
	Low middle SES	21.30	20.94	20.60	20.36	20.10	19.91
	Middle SES	18.73	18.77	18.89	18.96	19.04	19.09
	High middle SES	17.74	18.02	18.28	18.54	18.69	18.83
	Highest SES	17.58	18.07	18.35	18.67	18.86	19.10
	Total	100.00	100.00	100.00	100.00	100.00	100.00

 $TABLE\ 6: Number\ and\ percentage\ of\ individuals\ aged\ 0\ to\ 25\ years\ with\ or\ without\ CP\ by\ residential\ mobility\ and\ study\ year$

	Residential mobility			Study year			
Number of individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	No moves	2,616	2,711	2,823	2,906	2,989	2,960
	One move	485	514	505	504	418	366
	Two or more moves	77	91	94	68	77	81
	Total	3,178	3,316	3,422	3,478	3,484	3,407
Without CP	No moves	909,233	931,413	950,857	998,671	1,083,143	1,099,449
	One move	174,857	174,946	183,533	168,692	124,601	127,325
	Two or more moves	34,666	31,308	32,674	27,643	19,191	18,868
	Total	1,118,756	1,137,667	1,167,064	1,195,006	1,226,935	1,245,642
Percentage of individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/2011
With CP	No moves	82.32	81.76	82.50	83.55	85.79	86.88
	One move	15.26	15.50	14.76	14.49	12.00	10.74
	Two or more moves	2.42	2.74	2.75	1.96	2.21	2.38
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	No moves	81.27	81.87	81.47	83.57	88.28	88.26
	One move	15.63	15.38	15.73	14.12	10.16	10.22
	Two or more moves	3.10	2.75	2.80	2.31	1.56	1.51
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 7: Number and percentage of Albertans in grades 3 to 12 with or without CP by educational achievement and study year $\frac{1}{2}$

Educational achievement			Study	year		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Below expectations	887	919	921	967	967	957
Meeting or above expectations	371	378	404	438	469	496
Total	1,258	1,297	1,325	1,405	1,436	1,453
Below expectations	57,505	58,017	58,586	56,881	58,553	56,813
Meeting or above expectations	302,686	303,888	305,963	311,198	317,741	322,462
Total	360,191	361,905	364,549	368,079	376,294	379,275
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Below expectations	70.51	70.86	69.51	68.83	67.34	65.86
Meeting or above expectations	29.49	29.14	30.49	31.17	32.66	34.14
Total	100.00	100.00	100.00	100.00	100.00	100.00
Below expectations	15.97	16.03	16.07	15.45	15.56	14.98
Meeting or above expecations	84.03	83.97	83.93	84.55	84.44	85.02
Total	100.00	100.00	100.00	100.00	100.00	100.00
	Below expectations Meeting or above expectations Total Below expectations Meeting or above expectations Total Below expectations Meeting or above expectations Total Below expectations Meeting or above expectations Meeting or above expectations	Below expectations 2005/06 Below expectations 387 Meeting or above expectations 371 Total 1,258 Below expectations 57,505 Meeting or above expectations 302,686 Total 360,191 Below expectations 70.51 Meeting or above expectations 29.49 Total 100.00 Below expectations 15.97 Meeting or above expectations 84.03	Below expectations 2005/06 2006/07 Below expectations 887 919 Meeting or above expectations 371 378 Total 1,258 1,297 Below expectations 57,505 58,017 Meeting or above expectations 302,686 303,888 Total 360,191 361,905 Below expectations 70.51 70.86 Meeting or above expectations 29.49 29.14 Total 100.00 100.00 Below expectations 15.97 16.03 Meeting or above expectations 84.03 83.97	Below expectations 2005/06 2006/07 2007/08 Below expectations 887 919 921 Meeting or above expectations 371 378 404 Total 1,258 1,297 1,325 Below expectations 57,505 58,017 58,586 Meeting or above expectations 302,686 303,888 305,963 Total 360,191 361,905 364,549 Below expectations 70.51 70.86 69.51 Meeting or above expectations 29.49 29.14 30.49 Total 100.00 100.00 100.00 Below expectations 15.97 16.03 16.07 Meeting or above expecations 84.03 83.97 83.93	Below expectations 887 919 921 967 Meeting or above expectations 371 378 404 438 Total 1,258 1,297 1,325 1,405 Below expectations 57,505 58,017 58,586 56,881 Meeting or above expectations 302,686 303,888 305,963 311,198 Total 360,191 361,905 364,549 368,079 Below expectations 70.51 70.86 69.51 68.83 Meeting or above expectations 29.49 29.14 30.49 31.17 Total 100.00 100.00 100.00 100.00 Below expectations 15.97 16.03 16.07 15.45 Meeting or above expecations 84.03 83.97 83.93 84.55	Below expectations 887 919 921 967 967 Meeting or above expectations 371 378 404 438 469 Total 1,258 1,297 1,325 1,405 1,436 Below expectations 57,505 58,017 58,586 56,881 58,553 Meeting or above expectations 302,686 303,888 305,963 311,198 317,741 Total 360,191 361,905 364,549 368,079 376,294 Elow expectations 70.51 70.86 69.51 68.83 67.34 Meeting or above expectations 29.49 29.14 30.49 31.17 32.66 Total 100.00 100.00 100.00 100.00 100.00 Below expectations 15.97 16.03 16.07 15.45 15.56 Meeting or above expectations 84.03 83.97 83.93 84.55 84.44

TABLE 8: Number and percentage of Albertans in grades 3 to 12 with or without CP who were students with special education needs* by study year

	Students with special needs	Study year					
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	1,595	1,618	1,649	1,663	1,651	1,643
	No	792	851	912	961	1,008	1,027
	Total	2,387	2,469	2,561	2,624	2,659	2,670
Without CP	Yes	57,692	57,403	58,166	58,448	60,104	61,358
	No	694,864	700,930	711,028	720,991	733,023	744,863
	Total	752,556	758,333	769,194	779,439	793,127	806,221
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	66.82	65.53	64.39	63.38	62.09	61.54
	No	33.18	34.47	35.61	36.62	37.91	38.46
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Yes	7.67	7.57	7.56	7.50	7.58	7.61
	No	92.33	92.43	92.44	92.50	92.42	92.39
	Total	100.00	100.00	100.00	100.00	100.00	100.00

^{*}Gifted/talented students with or without CP are not included because there were fewer than 10 gifted students/talented with CP per study year

TABLE 9: Number and percentage of Albertans aged 17 to 25 years with or without CP who were enrolled in a publicly-funded post-secondary institution in Alberta by study year

	Post-secondary enrolment			Study	woor		
Number of Individuals	emonnent	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	58	63	83	86	90	97
	No	611	688	713	786	838	889
	Total	669	751	796	872	928	986
Without CP	Yes	91,790	90,090	89,820	89,793	92,311	93,165
	No	290,960	301,714	314,634	326,816	335,368	338,717
	Total	382,750	391,804	404,454	416,609	427,679	431,882
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	8.67	8.39	10.43	9.86	9.70	9.84
	No	91.33	91.61	89.57	90.14	90.30	90.16
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Yes	23.98	22.99	22.21	21.55	21.58	21.57
	No	76.02	77.01	77.79	78.45	78.42	78.43
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 10: Number and percentage of Albertans aged 0 to 25 years with or without CP who were high cost health service users by study year $\frac{1}{2}$

	High cost health service use	n Study year							
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11		
With CP	High cost	1,638	1,706	1,755	1,766	1,761	1,729		
	Not high cost	1,540	1,610	1,667	1,712	1,723	1,678		
	Total	3,178	3,316	3,422	3,478	3,484	3,407		
Without CP	High cost	54,468	55,295	56,744	58,010	59,568	60,559		
	Not high cost	1,064,291	1,082,377	1,110,325	1,137,001	1,167,372	1,185,091		
	Total	1,118,759	1,137,672	1,167,069	1,195,011	1,226,940	1,245,650		
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11		
With CP	High cost	51.54	51.45	51.29	50.78	50.55	50.75		
	Not high cost	48.46	48.55	48.71	49.22	49.45	49.25		
	Total	100.00	100.00	100.00	100.00	100.00	100.00		
Without CP	High cost	4.87	4.86	4.86	4.85	4.86	4.86		
	Not high cost	95.13	95.14	95.14	95.15	95.14	95.14		
	Total	100.00	100.00	100.00	100.00	100.00	100.00		

TABLE 11: Number and percentage of Albertans aged 0 to 25 years with or without CP who received any mental health services by study year $\frac{1}{2}$

	Mental health service			Study	year		
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Any mental health service	569	619	719	736	780	775
	No mental health service	2,609	2,697	2,703	2,742	2,704	2,632
	Total	3,178	3,316	3,422	3,478	3,484	3,407
Without CP	Any mental health service	60,382	61,300	62,500	64,048	65,595	66,792
	No mental health service	1,058,377	1,076,372	1,104,569	1,130,963	1,161,345	1,178,858
	Total	1,118,759	1,137,672	1,167,069	1,195,011	1,226,940	1,245,650
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Any mental health service	17.90	18.67	21.01	21.16	22.39	22.75
	No mental health service	82.10	81.33	78.99	78.84	77.61	77.25
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Any mental health service	5.40	5.39	5.36	5.36	5.35	5.36
	No mental health service	94.60	94.61	94.64	94.64	94.65	94.64
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 12: Number and percentage of Albertans aged 0 to 25 years with or without CP by chronic health condition

	Chronic health condition	All years
		2005/06-
Number of individuals		2010/11
With CP	Asthma	612
	No Asthma	3,358
	Total	3,970
	Diabetes	61
	No diabetes	3,909
	Total	3,970
	Cancer	137
	No Cancer	3,833
	Total	3,970
Without CP	Asthma	131,310
	No Asthma	1,459,821
	Total	1,591,131
	Diabetes	7,922
	No diabetes	1,583,209
	Total	1,591,131
	Cancer	24,115
	No Cancer	1,567,016
	Total	1,591,131
		2005/06-
Percentage of Individuals		2010/11
With CP	Asthma	15.42
	Diabetes	1.54
	Cancer	3.45
Without CP	Asthma	8.25
	Diabetes	0.50
	Cancer	1.52

TABLE 13: Number and percentage of Albertans aged 0 to 22 years with or without CP who received Child Intervention Services by study year $\frac{1}{2}$

	Child Intervention Service			Study	vear		
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Child Intervention	213	220	212	197	188	183
	No Child Intervention	2,845	2,977	3,068	3,128	3,126	3,058
	Total	3,058	3,197	3,280	3,325	3,314	3,241
Without CP	Child Intervention	17,863	18,107	17,859	16,563	15,866	15,506
	No Child Intervention	1,012,030	1,026,594	1,051,118	1,075,993	1,104,014	1,120,921
	Total	1,029,893	1,044,701	1,068,977	1,092,556	1,119,880	1,136,427
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Child Intervention	6.97	6.88	6.46	5.92	5.67	5.65
	No Child Intervention	93.03	93.12	93.54	94.08	94.33	94.35
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Child Intervention	1.73	1.73	1.67	1.52	1.42	1.36
	No Child Intervention	98.27	98.27	98.33	98.48	98.58	98.64
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 14: Number and percentage of Albertans aged 18 to 25 years with or without CP who received Income Support by study year $\frac{1}{2}$

	Income Support	Study year					
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Income Support	11	17	13	18	23	19
	No income Support	612	675	742	789	844	908
	Total	623	692	755	807	867	927
Without CP	Income Support	7,860	8,346	9,540	10,975	12,616	11,210
	No income Support	355,399	362,745	374,071	384,832	394,068	399,906
	Total	363,259	371,091	383,611	395,807	406,684	411,116
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Income Support	1.77	2.46	1.72	2.23	2.65	2.05
	No income Support	98.23	97.54	98.28	97.77	97.35	97.95
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Income Support	2.16	2.25	2.49	2.77	3.10	2.73
	No income Support	97.84	97.75	97.51	97.23	96.90	97.27
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 15: Number and percentage of Albertans aged 18 to 25 years with or without CP who received Income Support Learner (ISL) services by year

	Income Support Learner			Study	year		
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	38	52	38	50	55	48
	No	597	723	858	958	1,078	1,220
	Total	635	775	896	1,008	1,133	1,268
Without CP	Yes	20,344	22,453	13,541	12,861	15,066	16,331
	No	369,961	434,598	500,918	556,921	607,857	649,119
	Total	390,305	457,051	514,459	569,782	622,923	665,450
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	5.98	6.71	4.24	4.96	4.85	3.79
	No	94.02	93.29	95.76	95.04	95.15	96.21
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Yes	5.21	4.91	2.63	2.26	2.42	2.45
	No	94.79	95.09	97.37	97.74	97.58	97.55
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 16: Number and percentage of Albertans aged 0 to 22 years with or without CP who received Child Support Services as dependents by study year

	Child support dependents			Study	voor		
Number of Individuals	uepenuents	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Child Support	87	80	97	91	106	90
	No Child Support	2,971	3,117	3,183	3,234	3,208	3,151
	Total	3,058	3,197	3,280	3,325	3,314	3,241
Without CP	Child Support	19,727	19,809	19,982	20,204	23,273	23,090
	No Child Support	1,010,166	1,024,892	1,048,995	1,072,352	1,096,607	1,113,337
	Total	1,029,893	1,044,701	1,068,977	1,092,556	1,119,880	1,136,427
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Child Support	2.84	2.50	2.96	2.74	3.20	2.78
	No Child Support	97.16	97.50	97.04	97.26	96.80	97.22
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Child Support	1.92	1.90	1.87	1.85	2.08	2.03
	No Child Support	98.08	98.10	98.13	98.15	97.92	97.97
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 17: Number and percentage of Albertans aged 12 to 25 years with or without CP who were charged with criminal offences by study year

	Criminal offences	Study year					
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Criminal offences	10	_	11	15	13	11
	No criminal offences	1,413	_	1,598	1,703	1,778	1,826
	Total	1,423	_	1,609	1,718	1,791	1,837
Without CP	Criminal offences	15,466	15,579	16,076	16,309	16,580	15,894
	No criminal offences	621,350	630,127	642,991	654,944	666,172	671,612
	Total	636,816	645,706	659,067	671,253	682,752	687,506
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Criminal offences	0.70		0.68	0.87	0.73	0.60
	No criminal offences	99.30		99.32	99.13	99.27	99.40
	Total	100.00		100.00	100.00	100.00	100.00
Without CP	Criminal offences	2.43	2.41	2.44	2.43	2.43	2.31
	No criminal offences	97.57	97.59	97.56	97.57	97.57	97.69
	Total	100.00	100.00	100.00	100.00	100.00	100.00

Notes. Percentages and numbers were replaced with "." and "-" if numerators were under 10.

TABLE 18: Number and percentage of Albertans aged 0 to 17 years with or without CP who received Family Support for Children with Disabilities (FSCD) by study year

	Received FSCD			Study	year		
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	1,271	1,325	1,359	1,343	1,339	1,289
	No	1,395	1,430	1,433	1,451	1,417	1,338
	Total	2,666	2,755	2,792	2,794	2,756	2,627
Without CP	Yes	7,223	7,960	8,030	8,057	8,130	8,176
	No	793,649	805,217	824,236	839,656	860,961	874,773
	Total	800,872	813,177	832,266	847,713	869,091	882,949
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	47.67	48.09	48.67	48.07	48.58	49.07
	No	52.33	51.91	51.33	51.93	51.42	50.93
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Yes	0.90	0.98	0.96	0.95	0.94	0.93
	No	99.10	99.02	99.04	99.05	99.06	99.07
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 19: Number and percentage of Albertans aged 18 to 25 years, with or without CP who received Assured Income for the Severely Handicapped (AISH) by study year

	Received AISH			Study	year		
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	331	349	399	459	498	530
	No	292	343	356	348	369	397
	Total	623	692	755	807	867	927
Without CP	Yes	2,460	2,703	3,129	3,372	3,752	4,155
	No	360,799	368,388	380,482	392,435	402,932	406,961
	Total	363,259	371,091	383,611	395,807	406,684	411,116
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	53.13	50.43	52.85	56.88	57.44	57.17
	No	46.87	49.57	47.15	43.12	42.56	42.83
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Yes	0.68	0.73	0.82	0.85	0.92	1.01
	No	99.32	99.27	99.18	99.15	99.08	98.99
	Total	100.00	100.00	100.00	100.00	100.00	100.00

TABLE 20: Number and percentage of Albertans aged 18 to 25 years with or without CP who received Persons with Developmental Disabilities (PDD) by study year

	Received PDD			Study	year		
Number of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	327	356	360	360	380	406
	No	296	336	395	447	487	521
	Total	623	692	755	807	867	927
Without CP	Yes	1,747	1,690	1,659	1,621	1,637	1,663
	No	361,512	369,401	381,952	394,186	405,047	409,453
	Total	363,259	371,091	383,611	395,807	406,684	411,116
Percentage of Individuals		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
With CP	Yes	52.49	51.45	47.68	44.61	43.83	43.80
	No	47.51	48.55	52.32	55.39	56.17	56.20
	Total	100.00	100.00	100.00	100.00	100.00	100.00
Without CP	Yes	0.48	0.46	0.43	0.41	0.40	0.40
	No	99.52	99.54	99.57	99.59	99.60	99.60
	Total	100.00	100.00	100.00	100.00	100.00	100.00

Definitions and notes

- **Age, sex**, and postal code (translated into Statistics Canada **dissemination areas**) were provided for each individual by each participating program. In the case of discrepancies between programs, 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.
- All years refers to the indicator occurring at any point across the six study years unless otherwise specified.
- The **Assured Income for the Severely Handicapped (AISH)** program provides financial and health-related assistance to Albertan adults (aged 18 and older) who have a severe handicap that is permanent and substantially limits ability to earn a living.
- An individual was considered to have **Cerebral Palsy (CP)** if , at any point during the study period, they either: (a) had a diagnostic code (ICD-9: 343-343.9 or ICD-10: G80-68.9) in any of the six study years from Health (from an emergency room visit, ambulatory care visit, or hospitalization), or, (b) accessed a disability service for CP from Family Support for Children with Disabilities (FSCD) or Assured Income for the Severely Handicapped (AISH). Those "without Cerebral Palsy" may have included some individuals with CP who had a diagnostic code prior to our study or had not yet been diagnosed.
- **Child Intervention** services are focused on meeting the safety and well-being of children and helping families and communities to meet these needs. The Child Intervention Program provides services to children and youth between the ages of 0 and 17 years who are or may be at risk of being abused, neglected or otherwise in need of intervention. As well, young adults (18-22 years of age) may also be eligible for post-intervention supports through the use of Support and Financial Assistance Agreements to help them transition to adulthood.
- Children's Services (CS) and Community and Social Services (CSS) service delivery regions were used for regional analyses.

 Dissemination areas from the 2006 Statistics Canada Census were used to determine region. Those with missing dissemination areas are excluded from analyses. There are seven regions (Northwest, Northeast, North Central, Edmonton, Central, Calgary, South); the boundaries for these regions are shown on the map.
- **Child Support Services Dependents** are the children for whom support is being sought when single parents and parents in blended families reach child support payment agreements or obtain court orders for payment.



Definitions and notes (continued)

- Three **chronic health** conditions were defined: asthma, diabetes, and cancer. **Asthma** was defined as having two or more physician visits at least 30 days apart and within two years, with an ICD-9 diagnostic code 293 in any field, or any ambulatory care visit or hospitalization with an ICD-10 diagnostic code J45 to J46 in any field. **Diabetes** was defined as having two or more physician visits at least one day apart and within two years, with an ICD-9 diagnostic code 250 in any field, or any ambulatory care visit or hospitalization with an ICD-10 diagnostic code E10 to E24 in any field, or from a medical code 12 from Assured Income for the Severely Handicapped (AISH) services. Gestational diabetes diagnoses were excluded and were defined as a diabetes code 120 days prior to or 180 day after a pregnancy code (ICD-9: 641 to 676.7, V27-V27.9 and ICD-10 CA: O10 to O16.9, O21 to O95.9, O98 to O99.9, Z37 to Z37.99). An individual was considered to have **cancer** if they received any cancer code (ICD-9: 140 to 208.92) from physician visits, or any ambulatory care visit or hospitalization with a diagnostic code (ICD-10: C00 to C97.9) in any field, or an AISH medical code 10. Only Albertans who were registered with the Alberta Health Care Insurance plan for the full fiscal year were included.
- Individuals with **criminal offences** include those (aged 12 or older) charged with offences under various federal statutes.
- Cross-ministry analyses included only study participants who were linked across the relevant programs. This means that not all participants in the project were represented in every analysis. As well, only participants with a value for a given indicator were included in analyses involving that indicator (i.e., missing values were excluded).
- **Disability services** include Family Support for Children with Disabilities (FSCD), Assured income for the Severely handicapped (AISH), and Persons with Developmental Disabilities (PDD).
- 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 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), for home-schooled high school youth with no credits, and for students in grades lower than 3.
- The **Family Support for Children with Disabilities (FSCD)** program provides a wide range of child- and family-centered supports and services to children and youth (aged 0 to 17 years) with a disability.
- **High-cost health service use:** Cost estimates per type of service across physician visits (general practitioner or specialist), ambulatory care visits (emergency or other ambulatory care), and hospitalizations (by type of service) were obtained from the Canadian Institute for Health Information. Estimated costs per visit were summed across all visits for each individual. High cost health service users were those in the top 5% of estimated costs for their age group and sex.
- **Income Support** provides financial assistance to individuals (aged 18 and older) who are unable to meet their basic needs.
- **Income Support Learners** provides financial assistance to individuals (aged 16 and older) who are in training, including basic costs to maintain their household, supplemental benefits, health benefits, and training benefits.

Definitions and notes (continued)

- Mental health service was defined by the presence or absence of mental health diagnosis codes (Two or more ICD-9: 290-309.9, 311-314.9, 316, or a single ICD-10CA: F00-F06.9, F09-F69, F84-F99, G31.2, G44.2, R41.0) in Alberta Health and Wellness' databases (Inpatient—Discharge Abstract Database, Ambulatory Care, and Practitioner Payments), or in the Family Support for Children with Disabilities (FSCD) or the Assured Income for the Severely Handicapped (AISH) information systems. Only Albertans who were registered with the Alberta Health Care Insurance Plan for the full fiscal year or who had a mental health service with FSCD or AISH were included. 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.
- The **Persons with Developmental Disability (PDD)** program funds a range of programs and services to help adult Albertans (aged 18 and older) with developmental disabilities be part of their communities and live independently.
- **Post-secondary** students are individuals (aged 17 years or older) who were enrolled in publicly funded universities, public colleges, technical institutes, and non-profit private university colleges in Alberta.
- **Residential mobility** was defined as the number of unique postal codes within the Alberta Health Care Insurance Plan registry during the study period. Health care premiums ceased to be collected on January 1st, 2009; addresses in the registry have been updated less often since that time, reducing their accuracy.
- **Socio-economic status (SES)** captures the social and material environments in which individuals lived. For each year of the study period, an individual was assigned a dissemination area level socio-economic status via an index based on Statistics Canada 2006 Census data¹⁴. Six indicators were included in the index: percent without a high school diploma, the employment rate, 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 of 2006 census.
- **Students with special needs** (aged 2.5 to 19 years) who received special education programming services.
- **Study population:** The study included individuals with a date of birth between April 1, 1980 and March 31, 2011 and who were registered in the Alberta Health Care Insurance Plan (AHCIP) full-time for at least one year between April 1, 2005 and March 31, 2011. The youngest study participants were those born in the last study year. The oldest study participants were 25 years old at the end of the first study year and consequently 30 years old at the end of the last study year.
- **Tables** are shown by fiscal year.

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The Child and Youth Data Laboratory

The Child and Youth Data Laboratory's (CYDL's) Longitudinal Project (*Experiences of Albertan Children and Youth over Time, 2005/06 to 2010/11*) is a joint initiative between PolicyWise for Children & Families and participating ministries in the Government of Alberta. The mandate of the CYDL is to link and analyse administrative data from Government ministries, to provide evidence for policy and program development.

The CYDL is managed by **PolicyWise for Children & Families**. PolicyWise is a not-for-profit organization whose mission is to develop and integrate evidence to inform, identify and promote effective public policy and service delivery to improve the well-being of children, families and communities in Alberta, Canada and internationally.

This project

The CYDL Longitudinal Project, focuses on understanding the experiences of Albertan children and youth as they develop. The focus is service use within and across ministries, as it is related to key indicators and to the passage of time. Studying experiences over several years of development adds a valuable level of richness to an already ground-breaking initiative, providing detailed insight into the factors that help to shape our children and youth as they develop.

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:

Advanced Education Education Health Children's Services Community and Social Services Justice and Solicitor General

Prepared by

Daniel O'Brien, BSc; Christine Werk, PhD; Carley Piatt, PhD; Hitesh Bhatt, MSc; and Xinjie Cui, PhD

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Contact CYDL

info@policywise.com (780) 944 8630 www.policywise.com

This study is based in part on data provided by the Government of Alberta. The interpretation and conclusions contained herein are those of the researchers and do not necessarily represent the views of the Government of Alberta. The Government of Alberta does not express any opinion in relation to this study.

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