

# Pediatric Profile of Disability in British Columbia

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## BACKGROUND

Information on disability rates and type of disabilities is required to plan disability supports, community capacity, health services delivery, as well as skills development and employment.

## OBJECTIVE

To describe the disability profile of children living in British Columbia (BC) and to compare BC pediatric disability rates with Canadian rates.

## METHODS

Study design: observational, cross-sectional study

Sources of data:

Data was obtained from the 2006 Participation and Activity Limitation Survey (PALS), a post-censal survey about persons with disabilities whose everyday activities were limited because of a health-related condition or problem. PALS took place between November 2006 and February 2007.

The PALS sample included 9,000 Canadian children <15 years of age.

Children with disabilities were defined as those whose parent/guardian reported difficulties with daily living activities.

The overall response rate was 75%.

The PALS uses the World Health Organization's framework of disability provided by the International Classification of Functioning (ICF).

Analysis:

Descriptive analysis. Comparison between BC and Canadian rates were made. Counts and percentages are presented.

Chi-square test. Significance level <0.05

Definitions:

- Children with disabilities were defined as those whose parent/guardian reported difficulties with daily living activities.
- Severity of disability: a score was calculated based on the intensity and frequency of the disability. Scores are assigned for each question in increasing order of severity, for example: "Some difficulty": 1 point, "A lot of difficulty": 2 points, "Completely unable": 3 points.
- Unmet needs: parents report that a service is necessary for their child and that their child is not receiving that type of service.
- Special education: education modified to accommodate the educational needs of children with a disability

## RESULTS

26,520 out of 663,180 (4%) children in BC were identified as having a disability. Overall, rates of disability were higher in BC; differences were statistically significant by age-group except in boys under 5 years. Table 1

Boys were more likely to have activity limitations than girls. The most severe types of disabilities were higher among the youngest BC children.

Learning and chronic conditions were the leading types of disabilities. Table 2

According to parents' report in BC:

- 39% of children with disabilities aged 5 to 14 received special education. Figure 1
- 26% children with disabilities aged 5 to 14 present unmet needs for special education. Figure 2
- 44.8 % of children with disabilities aged 5 to 14 have their needs met for assistive technology.

Table 1. Pediatric disabilities rates BC and Canada, by age and sex, 2006

	Age Groups			
	0-4 years		5-14 years	
	BC	Canada	BC	Canada
Total population	197,200	1,656,040	465,980	3,815,310
Females	96,540	809,170	226,270	1,860,800
Males	100,670	846,870	239,710	1,954,510
Children with disabilities, n (%)	3,980 (2.02)*	27,540 (1.66)	22,540(4.84)*	174,810 (4.58)
Females	1,840 (1.91)*	9,770 (1.21)	8,140 (3.60)*	63,370 (3.41)
Males	2,140 (2.13)	17,770 (2.10)	14,400(6.01)*	111,440 (5.70)
Severity of Disability, n (%)				
Mild/moderate	1,920 (48.24)*	17,460 (63.4)	12,570 (55.77)*	100,610 (57.55)
Severe/very severe	2,060 (51.76)*	10,080 (36.6)	9970 (44.23)*	74,200 (42.45)

\*p-value ≤0.05, chi-square test all comparisons BC vs Canada

Table 2. Types of disabilities in BC and Canada by age, 2006

Type of disabilities	BC		Canada	
	n	%*	n	%
Learning‡	14,660	65.04	121,080	69.26
Chronic condition†	14,590	64.73	116,340	66.55
Speech‡	9,970	44.23	78,240	44.76
Psychosocial‡	9,020	40.02	60,310	34.50
Developmental‡	7,000	31.06	53,740	30.74
Neurosensory‡	4,000	17.75	36,700	20.99

\* Columns do not sum to 100% because caregivers could report more than one disability

‡ applied to children aged 5 to 14

† applied to children aged 0 to 14

Figure 1. Proportion of children with disabilities aged 5 to 14 receiving special education

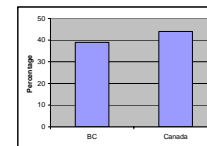
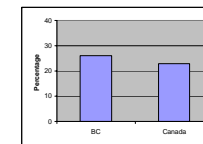


Figure 2. Proportion of children with disabilities aged 5 to 14 with unmet needs for special education



In Canada:

- special education was more common among older children
- Learning disabilities was the most common condition requiring special education
- full-time special education was more common among students in urban areas

Table 3. Use and need for assistive technology for children aged 5 to 14 with disabilities, 2006

	No needs met	Some needs met	All needs met	Total
	Number (%)	Number (%)	Number (%)	Number (%)
Canada	22,240 (24.6)	27,230 (30.1)	41,020 (45.3)	90,480 (100)
BC	2,570 (21.7)	3,950 (33.5)	5,290 (44.8)	11,820 (13.1)

In terms of needs for assistive technology being met, BC figures were similar to the national ones.

Home computers were the most commonly used assistive devices for children with learning limitations (72.4% of Canadian children with seeing limitations use large print reading materials)

## DISCUSSION

Between 2001 and 2006 the number of parents/guardians who reported having a child with a disability in Canada and BC increased, suggesting a change in pediatric disability profiles, reporting practice, or a combination of both.

We plan to study possible factors that may explain current differences between BC and Canada disability rates. (i.e.: socioeconomic status, parental education, parental age, ethnicity and residential area)

## CONCLUSIONS

Based on PALS 2006 data, BC age-specific disability rates are higher than the national pediatric rates, except in boys under 5 years.

This information has the potential to support, at the provincial level, the planning of services needed by children with activity limitations in order to fully integrate them in society.

## ACKNOWLEDGEMENTS