



**INDICATORS OF
EARLY CHILDHOOD HEALTH
&
WELL-BEING IN BRITISH COLUMBIA**

Fourth Report

Winter 2008

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Introduction

The Early Years, a period of development from conception to six years of age, set the foundation for children's social, physical, emotional and cognitive development. The Early Years have the most important influence of any developmental period on brain development and subsequent learning, behaviour, and health through school and into adult life.

In September 2000, all provinces (excluding Quebec¹), the territories and the federal government affirmed their commitment to children's well-being by presenting a vision of early childhood development as an investment in Canada's future. First Ministers agreed to provide regular public reports on child well-being using a common set of indicators.

This is the fourth report on the *Indicators of Early Childhood Health & Well-Being in British Columbia*. Data for this report were collected in 2004/2005 and drawn from several sources, including Statistics Canada, Vital Statistics Birth Database, the British Columbia Vital Statistics Agency and the National Longitudinal Survey of Children and Youth (NLSCY).

The various data sources compiled within this report track British Columbia's progress over time, and compare performance on the common indicators with the national average. This method of analysis provides insight into how British Columbia's children are faring over time compared to their national peers in five key areas: physical health; safety and security; early childhood development; family; and community.

Previous versions of this report included additional indicators on the health and well-being of the Status Indian population (Status Indian as defined by the *Indian Act*) as a means to monitor and understand the unique challenges facing British Columbia's Aboriginal child population. This data were drawn from a report released by the British Columbia Vital Statistics Agency.² An addendum containing the additional Aboriginal indicators will be published once the Provincial Health Officer's *Report on the Well-being of Aboriginal People* is released.

PART 1: Overview & Objectives

Overview

In September 2000, First Ministers reached an important agreement on early childhood development (ECD) to foster the well-being of Canada's young children. As part of their commitment they presented a shared vision of ECD, and agreed to release regular public reports to document the health and development of Canada's children, using a set of common indicators.

In 2002, British Columbia released its baseline report containing 1998/1999 data. The second and third reports were released in 2005 and 2006 respectively. Data for this fourth report are based on the 2004/2005 collection years.

Objectives

These indicators are based on the following ECD objectives:

- To promote early childhood development so that children will be physically and emotionally healthy, safe and secure, socially engaged and responsible and ready to learn.

¹ While sharing the same concerns on early childhood development, Québec does not adhere to the present federal-provincial-territorial early childhood development initiative because sections of it infringe on its constitutional jurisdiction on social matters. Québec intends to preserve its sole responsibility for developing, planning, managing and delivering early childhood development programs.

² British Columbia Vital Statistics Agency, "Regional Analysis of Health Statistics for Status Indians in British Columbia, 1992-2002", April 2004.

- To help children reach their full potential and help families raise their children in safe, cohesive communities.

Family, extended family and community environments are central to children's healthy development. Government's role in fostering healthy environments is to cultivate a strong economy, provide social assistance and ensure adequate education, health care and other benefits.

Early Years programming, which include early childhood development (ECD) and child care, are community-based, prevention programs that provide a continuum of care for children, support for families and communities, and have a demonstrated impact on positive child-related outcomes.

Examples of Early Years programs and services include:

- pregnancy outreach and parenting programs;
- early intervention and rehabilitation therapies;
- immunizations;
- publications for parents;
- nursing and in-home supports; programs for children with special needs;
- early language and literacy programs;
- Aboriginal programs and services;
- autism intervention programs;
- counselling and mental health services, and;
- family resource programs.³

Investments in the Early Years are by their nature long-term commitments, with outcomes realized over time. Data collection from those outcomes must similarly extend over a lengthy period in order to monitor change and supply meaningful information.

Indicators Framework

All jurisdictions (except Quebec) have agreed to report on indicators related specifically to child outcomes. The common framework for measuring child well-being is outlined below:

- Physical health and motor development;
- Emotional health;
- Social knowledge and competence;
- Cognitive learning; and
- Language and communication.

The National Longitudinal Survey of Children and Youth (NLSCY)

The NLSCY is a joint Human Resource Development Canada and Statistics Canada study aimed at determining the factors that influence children's health over time. The study began collecting information in 1994 on an initial 23,000 children and families in households that were currently or had recently been in the Labour Force Survey, with children aged 0 – 11 years, excluding Aboriginal children living on Reserves and children in institutions. Follow-up surveys have been conducted every two years. A variety of children's health factors are considered, including literacy, leisure, parenting and child care.

³ Descriptions and updates of programs and services can be found in BC's 2006/2007 Early Childhood Development and Early Learning and Child Care Annual Report (http://www.mcf.gov.bc.ca/early_childhood/pdf/ecd_annual_06_07.pdf).

Data Considerations

The information in this report provides a good starting point for monitoring, analyzing and reporting on health and well-being of children in B.C. However, it is important to note that while the data may suggest trends, in some cases a trend may not be a strong enough basis for firm conclusions. Broader conclusions based solely on these data may not be appropriate.

In addition, information gathered through the NLSCY is often based on telephone interviews with the 'Person Most Knowledgeable' about the child (usually the mother). As such, these indicators are based on more subjective data than clinical, independent assessments of child development.

Previous reports have included additional indicators for the Status Indian population (Status Indian as defined by the *Indian Act*). An addendum to this report which includes information specific to the Status Indian population will be published once the Provincial Health Officer's *Report on the Well-being of Aboriginal People* is released.

The Early Development Instrument (EDI)

The EDI is a survey tool developed by the Human Early Learning Partnership (HELP), a collaborative, interdisciplinary research network that contributes to new knowledge in early child development. HELP has advanced ECD knowledge by linking over 200 faculty, researchers and graduate students from six B.C. universities. HELP's prominent research area explores how different environments contribute to children's developmental outcomes.

EDI data are another important source of information on the early development of B.C.'s children. For more information, please visit the HELP website at <http://www.earlylearning.ubc.ca/>

Future Reports

The indicators in this report provide measures upon which future reports will be based and allow cumulative comparison over time.

PART 2:

Indicators of Early Childhood Health & Well-Being in British Columbia

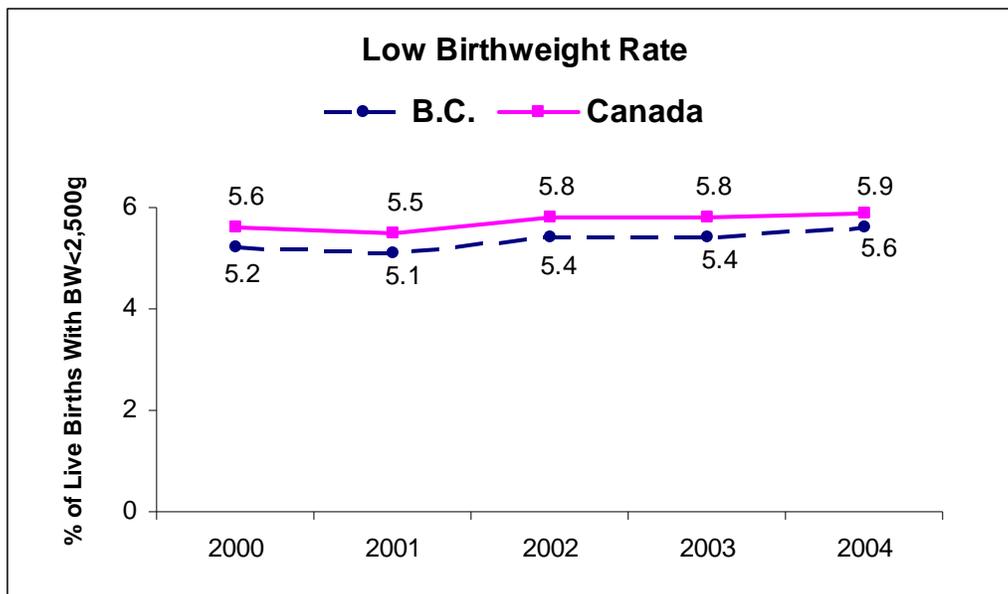
1.0 Physical Health

1.1 Birth weight

a) Low birth weight

Babies born with low birth weight (less than 2,500 grams) are likely to develop health problems and face increased risk of infant mortality. Low birth weight is a strong indicator of infant health and development and has been linked to physical disability, heart disease, diabetes, learning disabilities, vision difficulties, chronic respiratory problems and cerebral palsy. The prevention of low birth weight is a perinatal health issue of ongoing importance.

In 2004, 5.6% of B.C. babies were born with low birth weights, lower than the national average of 5.9%.

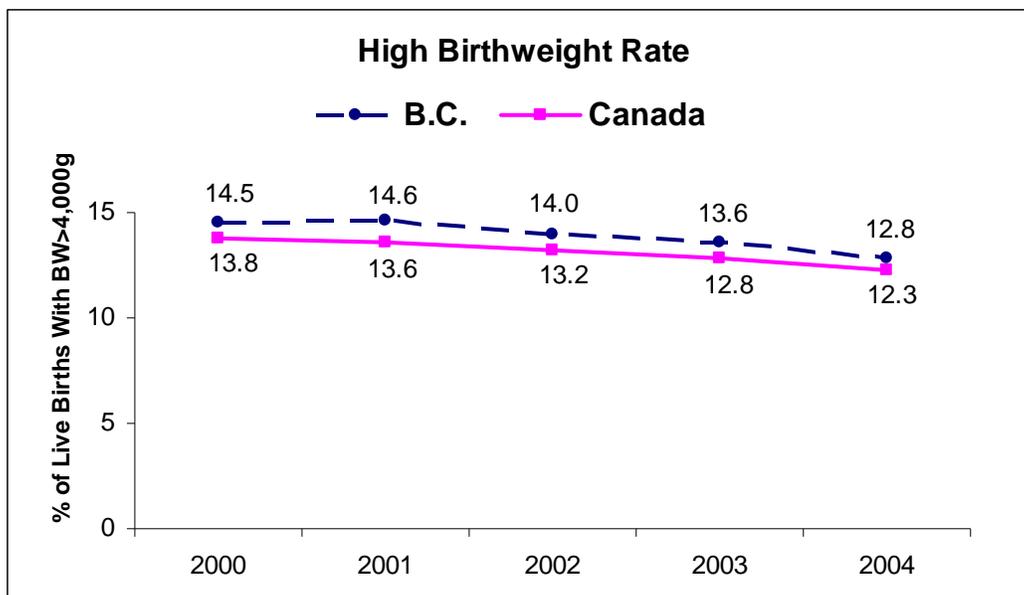


Source: Canadian Vital Statistics - Birth Database; data sheet for this chart provided by the FPT ECD Indicators Working Group - September 2007.

b) High birth weight

Babies born with high birth weight (equal to or over 4,000 grams) are at significant risk of experiencing complications during pregnancy. High birth weight may increase an infant's disposition to certain chronic conditions in adulthood, including obesity, high blood pressure, diabetes and breast cancer. Birth weight may be influenced by the following factors: socio-economic conditions, maternal age, maternal weight, previous births by the mother, maternal nutrition, maternal smoking, illness during pregnancy, diabetes and length of the pregnancy factors.

In 2004, the proportion of B.C. children born with high birth weight was 12.8%, lower than 13.6% in 2003 and slightly above the 2004 national average of 12.3%

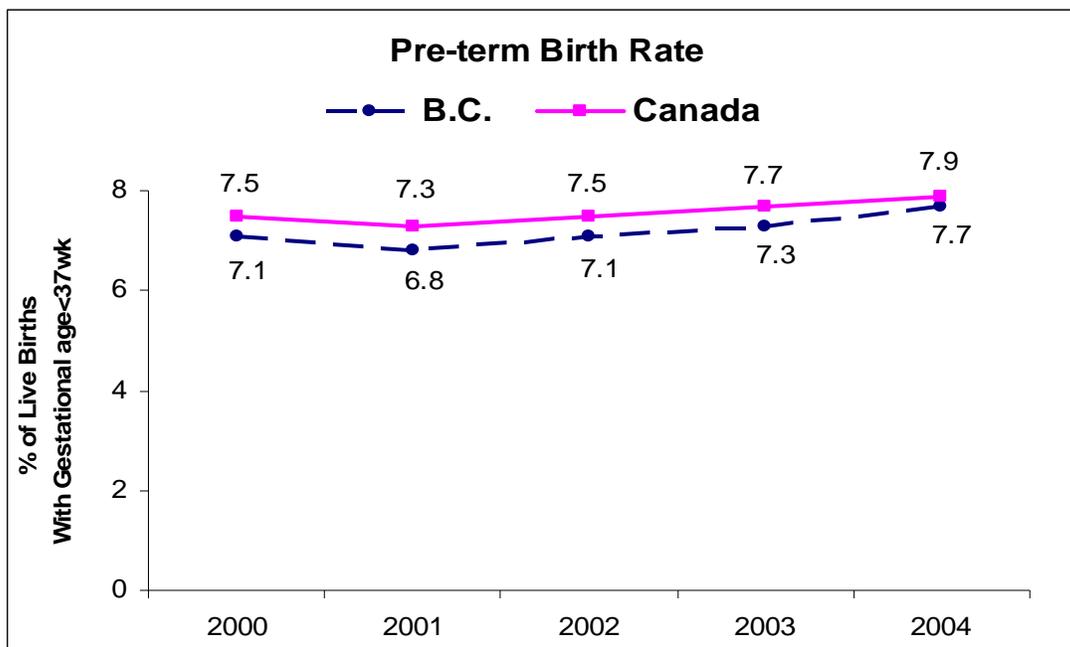


Source: Canadian Vital Statistics - Birth Database; data sheet for this chart provided by the FPT ECD Indicators Working Group - September 2007.

1.2 Pre-term Birth

The pre-term birth rate is the percentage of live births with a gestational age of less than 37 completed weeks. Pre-term birth is associated with higher rates of perinatal illness, neonatal death and long-term complications, including disabilities.

The percentage of pre-term births in B.C. was 7.7% in 2004, a slight increase from 7.3% in 2003. British Columbia's rate has been consistently lower than the national average over the last five years.



Source: Canadian Vital Statistics - Birth Database; data sheet for this chart provided by the FPT ECD Indicators Working Group - September 2007.

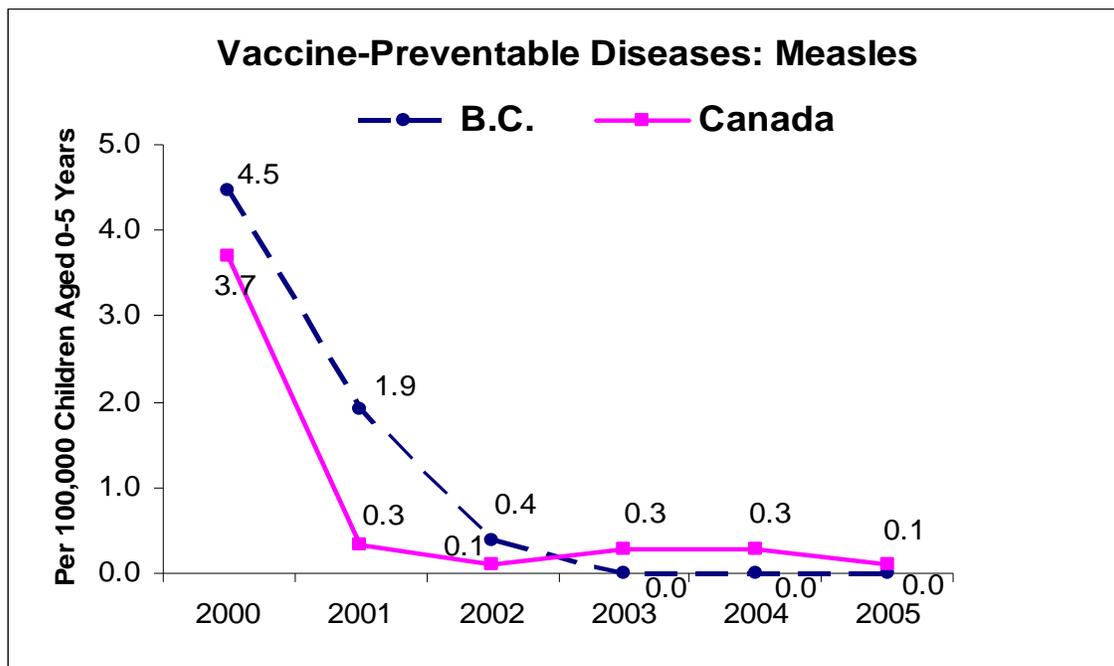
1.3 Vaccine-Preventable Disease⁴

Proper and effective immunizations protect children from a host of debilitating and sometimes deadly childhood diseases.

a) Measles

The reported incidence rate for measles is defined as the number of new cases reported by year, per 100,000, for children aged 5 years and younger.

The rate of new cases of measles in B.C. children aged 0 – 5 years has remained at 0.0 per 100,000 between 2003 and 2005, a significant improvement from 4.5 in 2000. The national average was 0.1 per 100,000 in 2005.



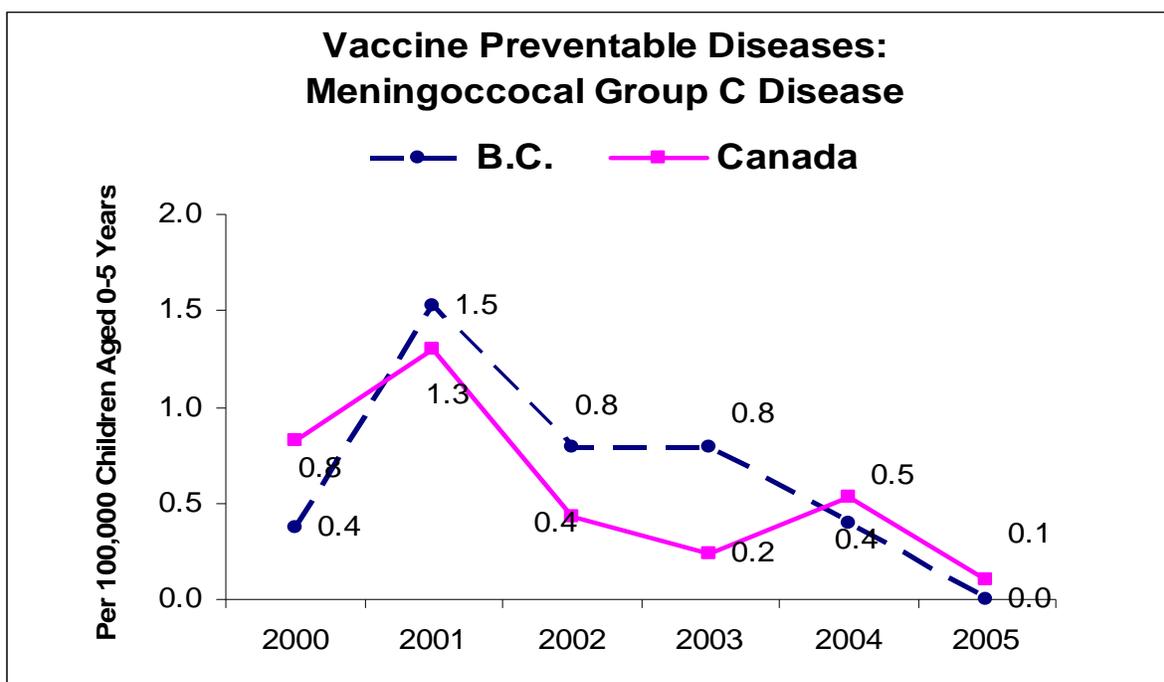
Source: Immunization and Respiratory Infections Division, Centre for Infectious Disease Prevention and Control, Public Health Agency of Canada

⁴ Data for vaccine preventable disease – Meningococcal Group C disease, Measles and Haemophilus Influenzae-type disease (Hib) for 2004 and 2005 are provisional and subject to change. *Haemophilus influenzae* type b disease (Hib) data are not presented in this report as they are currently under revision.

b) Meningococcal Group C

The invasive meningococcal disease (serogroup C) incidence rate is defined as number of new cases reported by year, per 100,000, for children 5 years of age and younger.

The rate of new cases of invasive meningococcal disease (serogroup C) in B.C. for children aged 0 – 5 years decreased to 0.0 per 100,000 in 2005, from 0.4 per 100,000 in 2004. The national average was 0.1 per 100,000 in 2005.



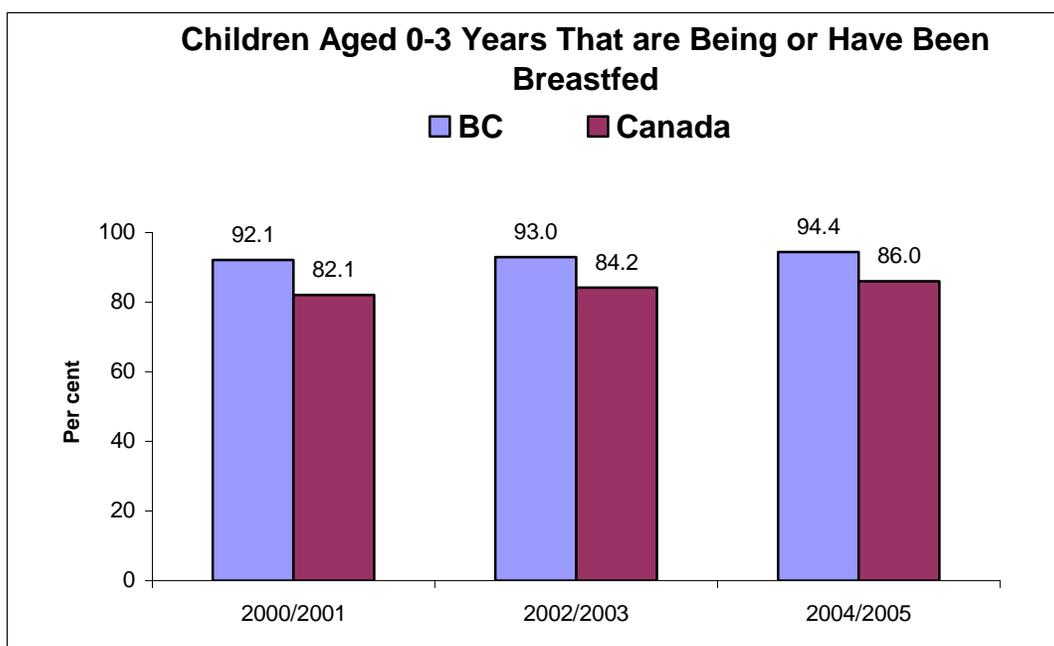
Source: Immunization and Respiratory Infections Division, Centre for Infectious Disease Prevention and Control, Centre for Infectious Disease Prevention and Control, Public Health Agency of Canada

Note: For meningococcal group C disease, rates include children 0 to 5 years of age. Invasive meningococcal disease (IMD) data, including IMD serogroup C, is not available for 2006.

1.4 Prevalence of Breastfeeding

Breastfeeding is linked to prevention of health problems in children because it provides the essential nutrients for healthy growth and promotes resistance to infections and prevention of allergies.

In 2004/2005, the proportion of B.C. children aged 0 – 3 years who were being breastfed or had been breastfed was 94.4%, higher than the national average of 86.0%.



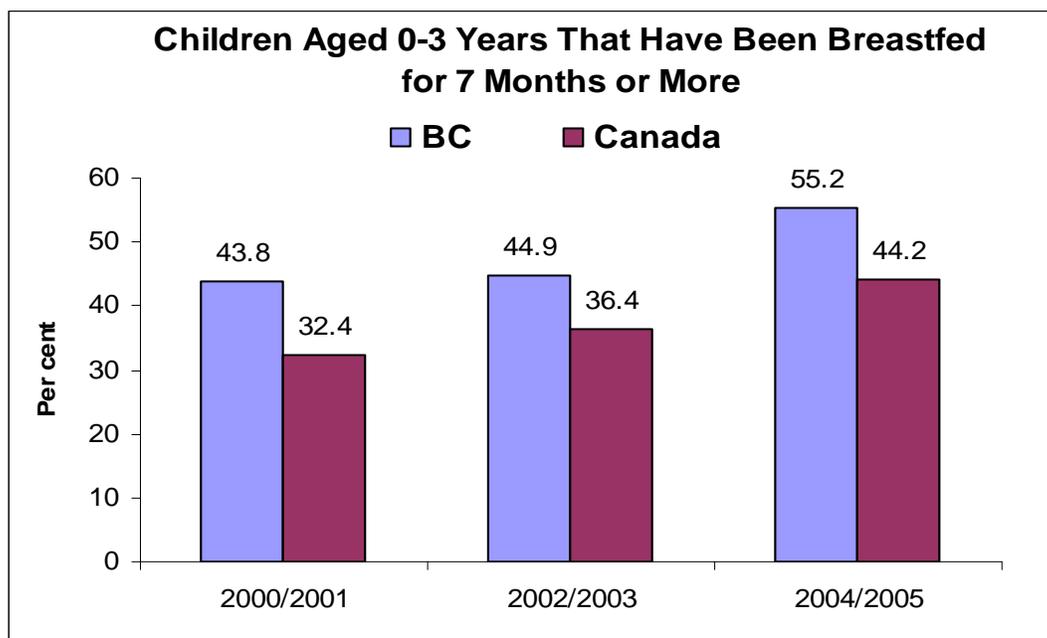
Source: National Longitudinal Survey of Children and Youth, Master Files (Statistics Canada), Cycle 4 (2000-2001), Cycle 5 (2002-2003) and Cycle 6 (2004/2005), Parents Questionnaires.

Caveats: Data excluded children aged 4-5 years; children living in the Territories; children living on reserve; children living in institutions.

1.5 Duration of Breastfeeding

This indicator is defined as the length of time children 0 - 3 years of age were breastfed. Duration is only asked of the 'Person Most Knowledgeable' (PMK) for children who were breastfed but are no longer being breastfed. This indicator does not include children currently being breastfed.

In 2004/2005, 55.2% of B.C. children were breastfed for seven months or more, higher than the national average of 44.2%.



Source: National Longitudinal Survey of Children and Youth, Master Files (Statistics Canada), Cycle 3 (1998/99), Cycle 4 (2000-2001), Cycle 5 (2002-2003) and Cycle 6 (2004/2005), Parents Questionnaires.

Caveats: Data excluded children aged 0-3 years currently being breastfed, children aged 4-5 years; children living in the Territories; children living on reserve; children living in institutions.

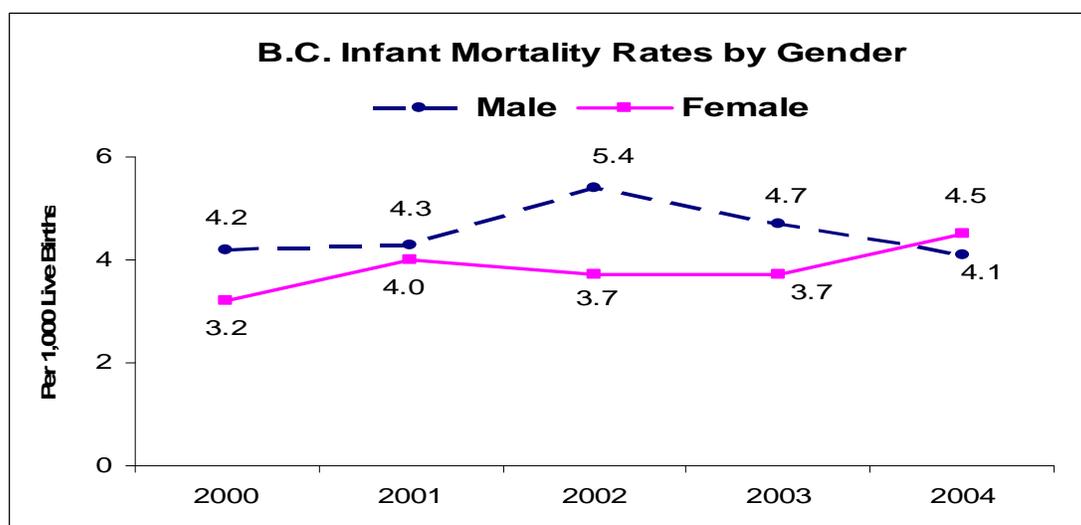
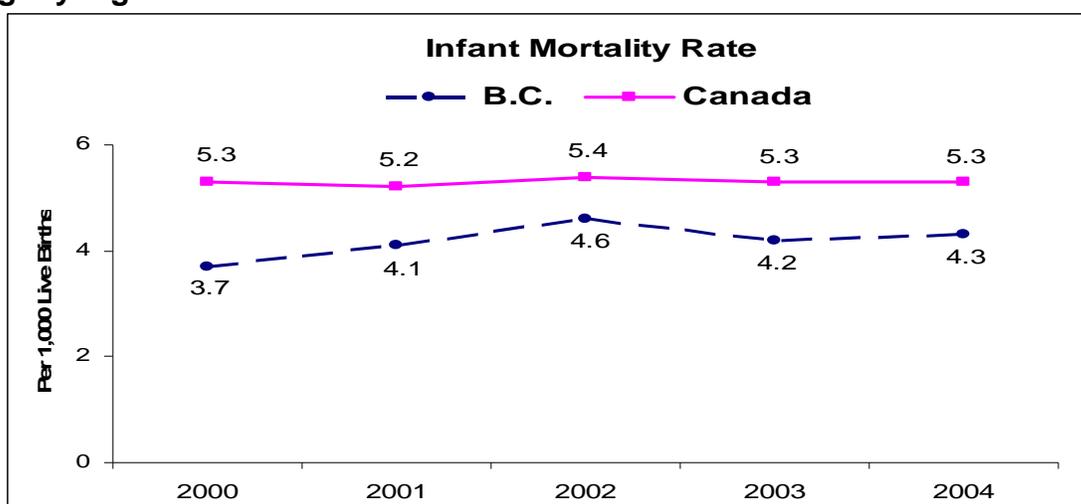
1.6 Infant Mortality

a) Infant mortality rates of British Columbia and Canada

Infant mortality is a fundamental measure of child health and the well-being of a society. It reflects not only the level of mortality, but also the health status and health care of a population, the effectiveness of preventative care and the attention paid to maternal and child health. The infant mortality rate is the number of infants who die in the first year of life per 1,000 live births.

The mortality rate for B.C. infants in 2004 was 4.3 per 1,000 live births, slightly higher than 4.2 in 2003 and lower than the national average of 5.3.

The mortality rate for B.C. female infants in 2004 was 4.5 per 1,000 live births, which was slightly higher than 4.1 for B.C. male infants.



Source: Statistics Canada, Canadian Vital Statistics, Birth and Death Databases and Demography Division (population estimates); Data sheet for this chart provided by the FPT ECD Indicators Working Group - September 2007.

Caveats: Cases of unknown sex and stillbirths are excluded from number of live births.

2.0 Safety and Security

Unintentional injuries and falls are the leading causes of death and injury for children and youth, and both are almost entirely preventable. The injury mortality rate and injury hospitalization rate are measures of the risk to children's health and well-being. They are also measures of the adequacy of a broad range of public health and accident prevention strategies, such as public education, product development and prevention and treatment resources. Injury is also a major cause of long and short term impairment and disability for Canadians.

The injury mortality rate and injury hospitalization rate are based on data on injuries caused by motor vehicle traffic crashes, falls, assaults, other unintentional accidents and self-inflicted injuries.

2.1 Injury mortality

Due to issues related to Statistics Canada obtaining the necessary permissions to share provincial injury mortality data with other federal departments, at this time, new data for years beyond 2000, disaggregated by province/territory is currently not available.

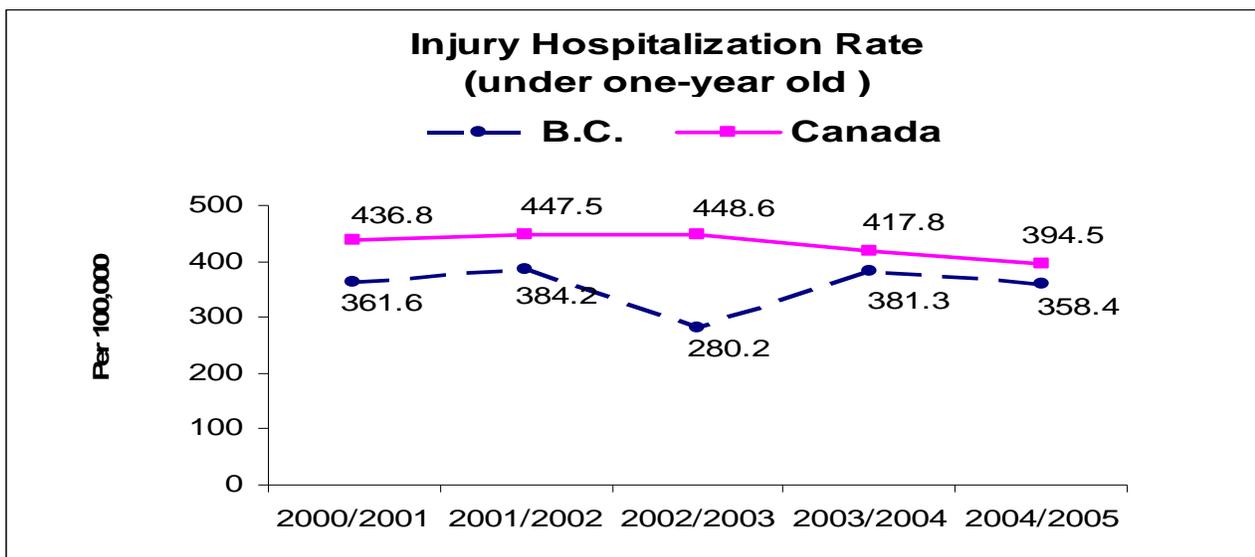
a) Unintentional death injuries per 100,000 for under 5 year-olds

Due to issues related to Statistics Canada obtaining the necessary permissions to share provincial injury mortality data with other federal departments, at this time, new data for years beyond 2000, disaggregated by province/territory is not available.

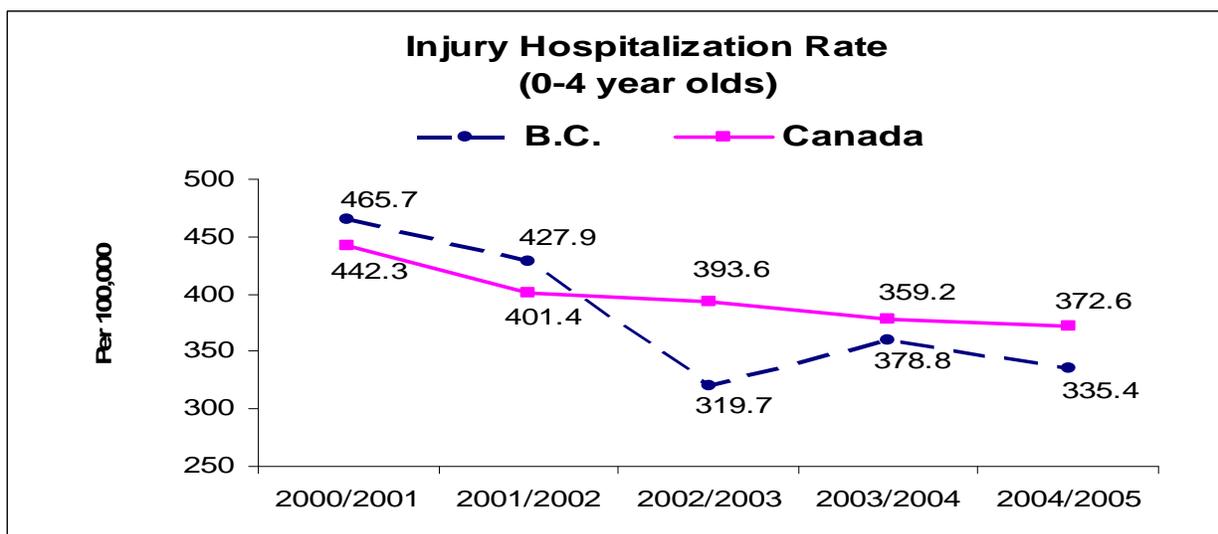
2.2 Injury hospitalization

The injury hospitalization rate is defined as the proportion of children aged less than 1 year and between 0 and 4 years who are hospitalized for treatment of injuries resulted from all external causes. The injury hospitalization rate is a measure of the risks to children's health and well-being, and also a measure of the adequacy of a broad range of public health and accident prevention strategies, including public education, product development and use, community and road design and prevention and treatment resources.

In 2004/2005, B.C.'s injury hospitalization rate (per 100,000 aged less than 1 year) decreased to 358.4 from 381.3 in 2003/2004. Canada's injury hospitalization rate was 394.5 per 100,000 in 2004/2005.



In 2004/2005, B.C.'s injury hospitalization rate (per 100,000 aged 0 to 4 years) decreased to 335.4 from 378.8 in 2003/2004. Canada's injury hospitalization rate was 372.6 per 100,000 in 2004/2005.



Source: Canadian Institute for Health Information (CIHI) Hospital Morbidity Database: Data sheet for this chart provided by the FPT ECD Indicators Working Group - September 2007.

3.0 Early Childhood Development

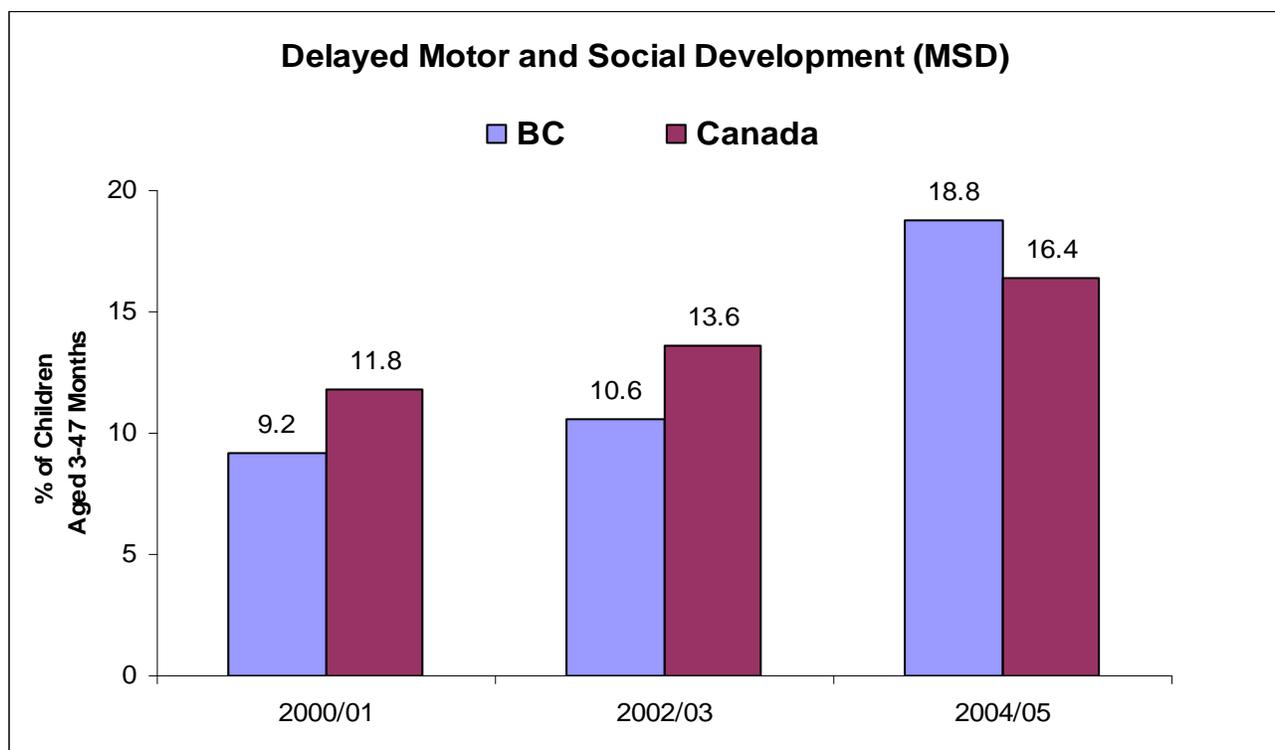
Children need a safe and stimulating environment in order to succeed in school and become happy and well-adjusted citizens. The physical, behavioural and psychological health of children in the early years is important for healthy development. Early childhood development (ECD) refers to the period of a child's growth that takes place from the moment of conception until the child is six years old.

3.1 Physical Health and Motor Development

The motor and social development⁵ indicator is defined as the proportion of children aged 3 – 47 months who have delayed motor and social development.

a) Delayed Motor and Social Development Skills

In 2004/2005, 18.8% of B.C. children aged 3 – 47 months were reported by their parents as having delayed motor and social development skills. The national average was 16.4% in 2004/2005.



Source: National Longitudinal Survey of Children and Youth, Cycle 3 (1998/99), Cycle 4-v2 (2000/01), Cycle 5 (2002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

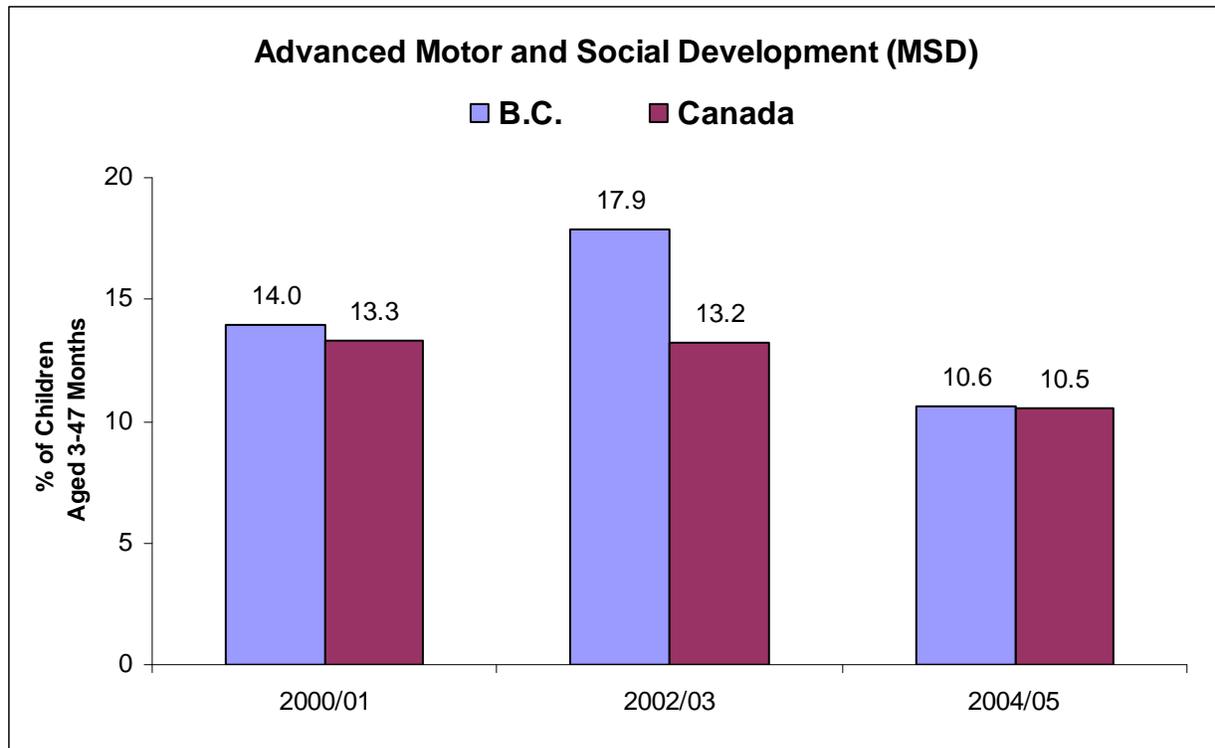
Caveat: Data excluded children aged 4-5 years; children living in the Territories; children living on reserve; children living in institutions.

⁵ The NLSCY motor and social development indicator is based on a set of 15 age-sensitive questions that measure the motor and social development of young children from birth through three years of age. These questions are answered by the 'Person Most Knowledgeable' about the child, and therefore reflect a parental assessment of the child's motor and social development skills, not a professional diagnosis. The results are rolled into a standardized scale that takes account of the child's age and allows for comparisons of scores to be made across age groups.

b) Advanced Motor and Social Development Skills

The motor and social development indicator is defined as the proportion of children aged 3 – 47 months who have advanced motor and social development.

In 2004/2005, 10.6% of B.C. children aged 3 – 47 months were reported by their parents as having advanced motor and social development skills, slightly higher than the national average of 10.5% in 2004/2005.



Source: National Longitudinal Survey of Children and Youth, Cycle 3 (1998/99), Cycle 4-v2 (2000/01), Cycle 5 (2002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

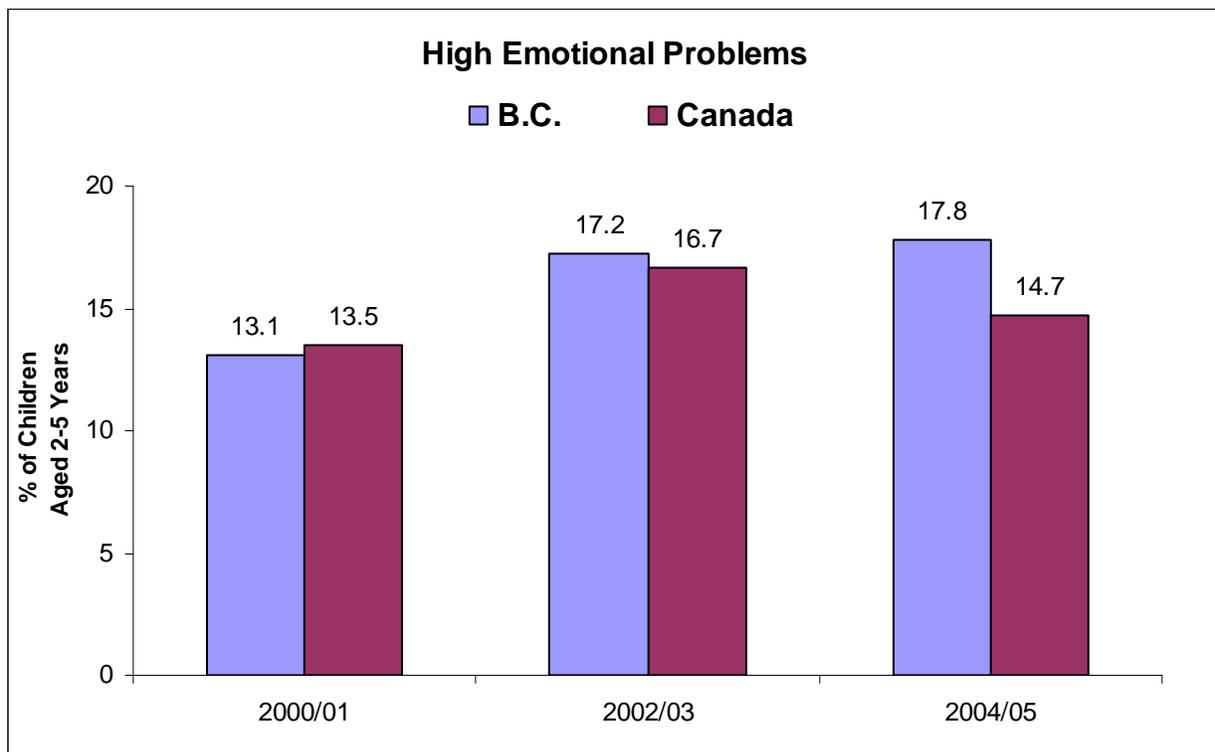
Caveat: Data excluded children aged 4-5 years; children living in the Territories; children living on reserve; children living in institutions.

3.2 Emotional Health and Social Development

a) The *Emotional Problem-Anxiety Score* is the proportion of children aged 2 – 5 years who exhibit high levels of emotional and/or anxiety problems.

From 1998 – 2005, the proportion of B.C. children displaying high levels of emotional problems increased.

In 2004/2005, 17.8% of B.C. children aged 2 – 5 exhibited high emotional scores, while the national average was 14.7% in 2004/2005.

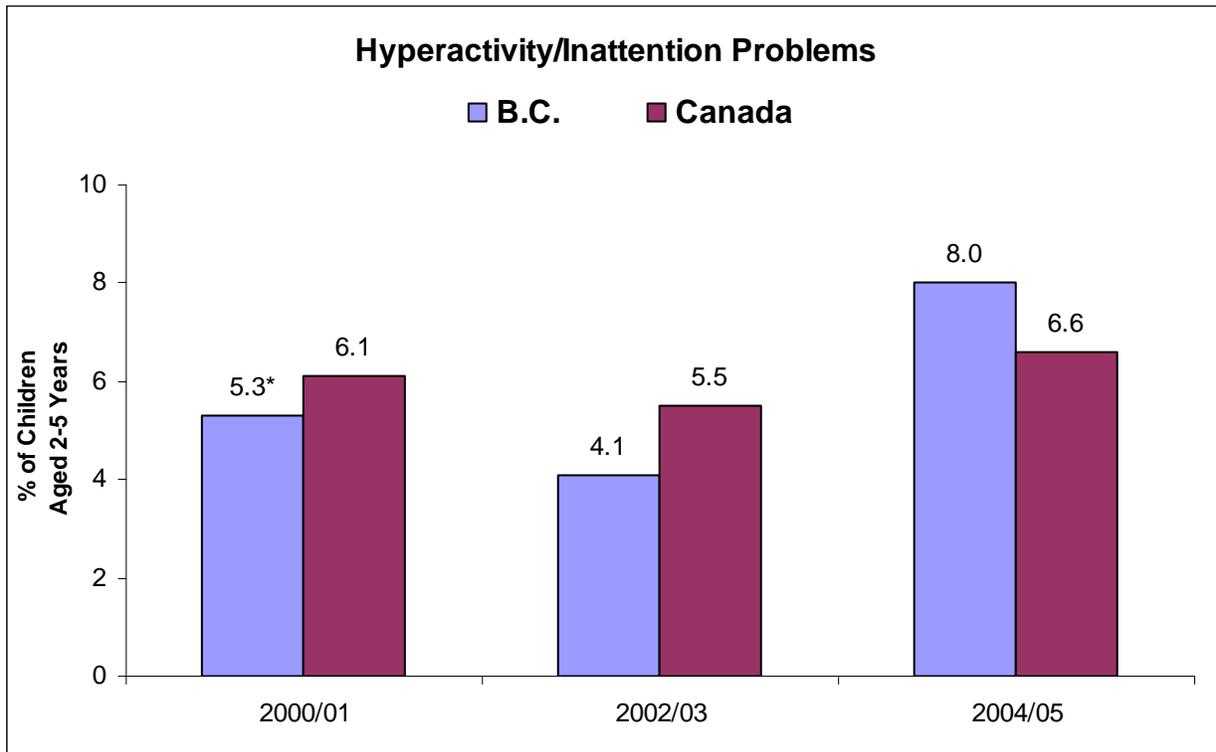


Source: National Longitudinal Survey of Children and Youth, Cycle 3 (1998/99), Cycle 4-v2 (2000/01), Cycle 5 (2002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

Caveat: Data excluded children aged 0-1 years; children living in the Territories; children living on reserve; children living in institutions.

b) The *Hyperactivity-Inattention Score* is the proportion of children aged 2 – 5 years who exhibit high levels of hyperactivity and/or inattention.

In 2004/2005, 8.0% of B.C. children aged 2 – 5 were reported by their parents as having exhibited high levels of hyperactivity and/or inattention. The national average was 6.6% in 2002/2003.



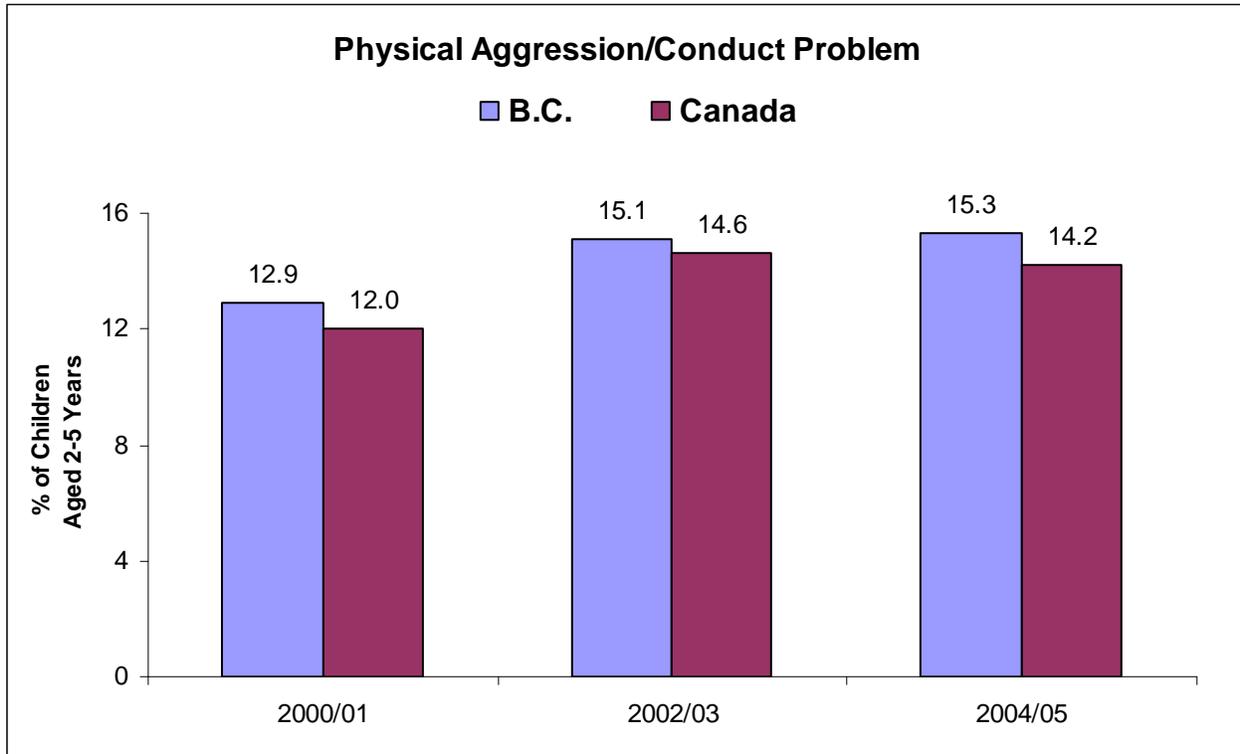
Note: *While this estimate meets Statistics Canada's quality standards, there is a high level of error associated with it.

Source: National Longitudinal Survey of Children and Youth, Cycle 3 (1998/99), Cycle 4-v2 (2000/01), Cycle 5 (2002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

Caveat: Data excluded children aged 0-1 years; children living in the Territories; children living on reserve; children living in institutions.

c) The *Physical Aggression Score* is the proportion of children aged 2 – 5 years who exhibit high levels of physical aggression, opposition and/or conduct disorder.

In 2004/2005, 15.3% of B.C. children aged 2 – 5 years were reported by their parents as having exhibited high levels of physical aggression, opposition, and/or conduct disorder, higher than the national average of 14.2% in 2004/2005.

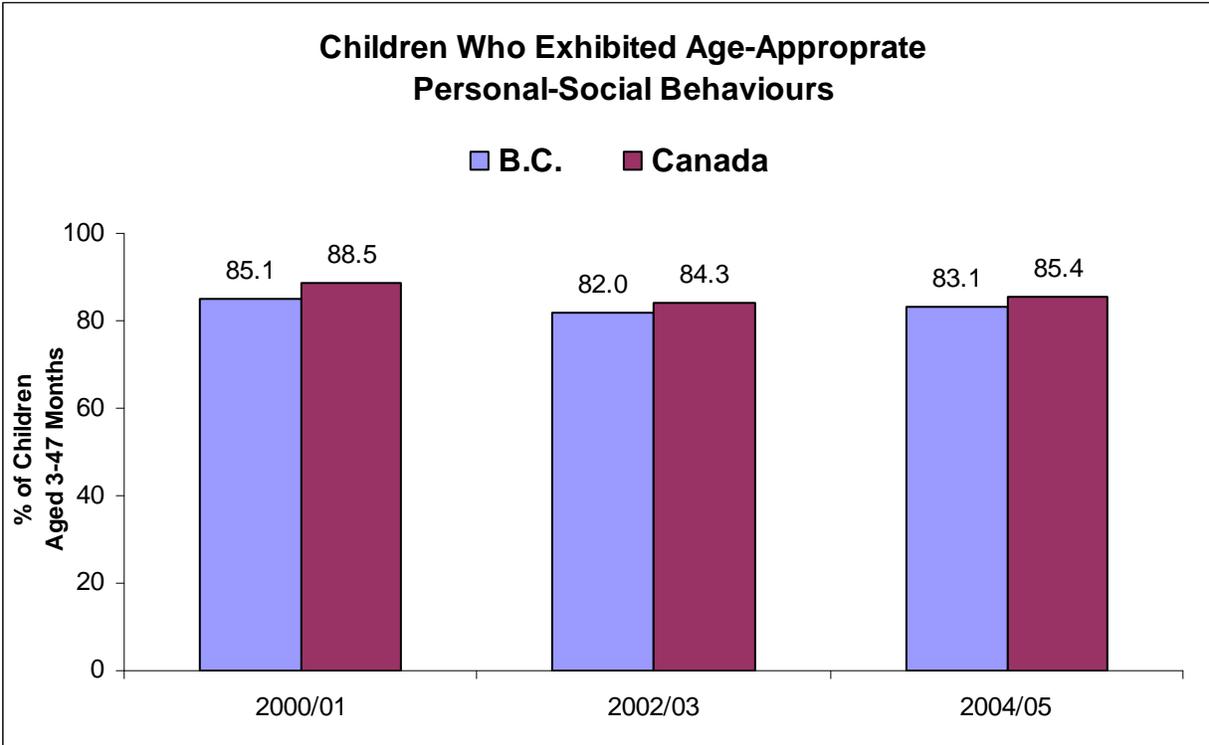


Source: National Longitudinal Survey of Children and Youth, Cycle 3 (1998/99), Cycle 4-v2 (2000/01), Cycle 5 (20002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

Caveat: Data excluded children aged 0-1 years; children living in the Territories; children living on reserve; children living in institutions.

d) *The Ages and Stages* reports the proportion of children aged 3 – 47 months who do not exhibit appropriate personal-social behaviours.

In 2004/2005, 83.1% of B.C. children aged 3 – 47 months exhibited age-appropriate personal-social behaviours, higher than 82.0% in 2002/2003. The national average was 85.4% in 2004/2005.



Source: National Longitudinal Survey of Children and Youth, Cycle 4-v2 (2000/01), Cycle 5 (2002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

Caveat: Data excluded children aged 4-5 years; children living in the Territories; children living on reserve; children living in institutions.

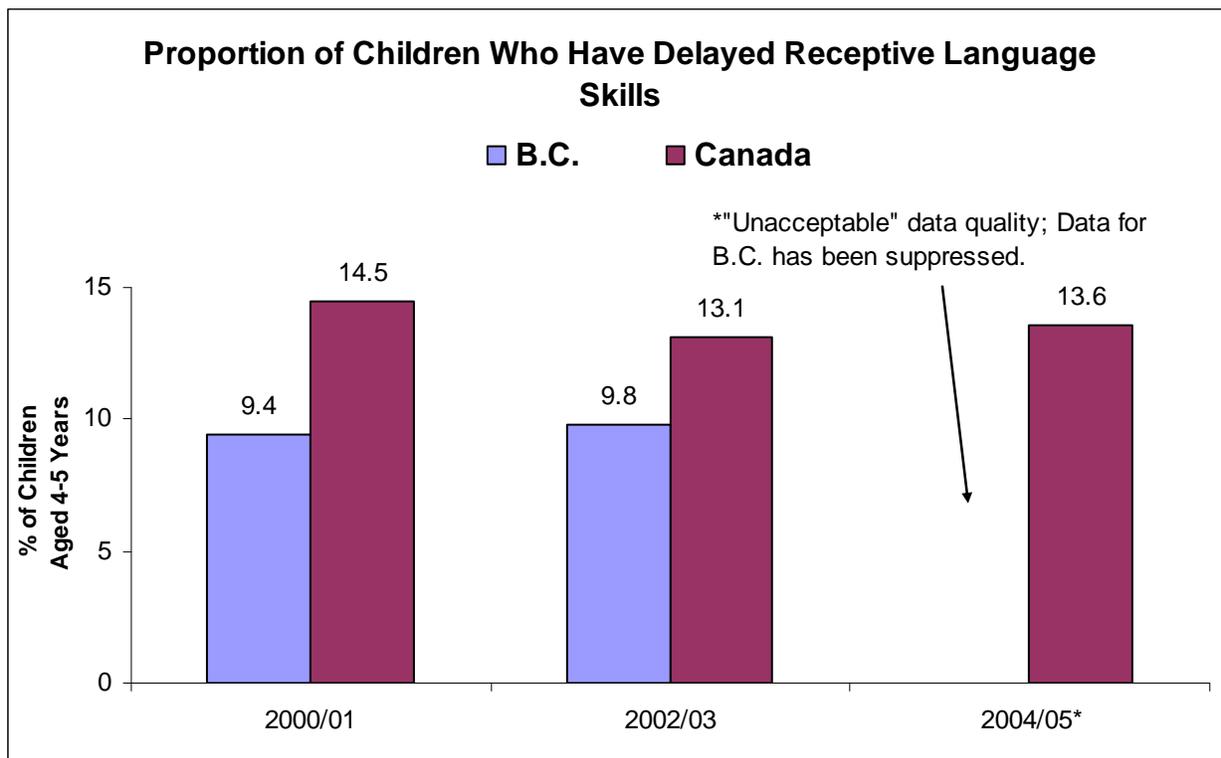
3.3 Language Skills

Developing language skills, such as putting words into sentences, learning vocabulary and using proper pronunciation, are important for 'school readiness' and communicating with others.

This indicator is based on the Peabody Picture Vocabulary Test – Revised (PPVT-R), which assesses a child's receptive or hearing vocabulary. This indicator reflects the proportion of children aged 4 – 5 years, who have delayed, average and advanced levels of receptive vocabulary.

a) Delayed Receptive Language Skills

In 2002/2003, 9.8% of B.C. children aged 4 – 5 years were scored as “delayed” on the PPVT-R. This represents an increase from 9.4% in 2000/01 and is lower than the 2002/2003 national average of 13.1%. B.C. data for 2004/2005 is unavailable.

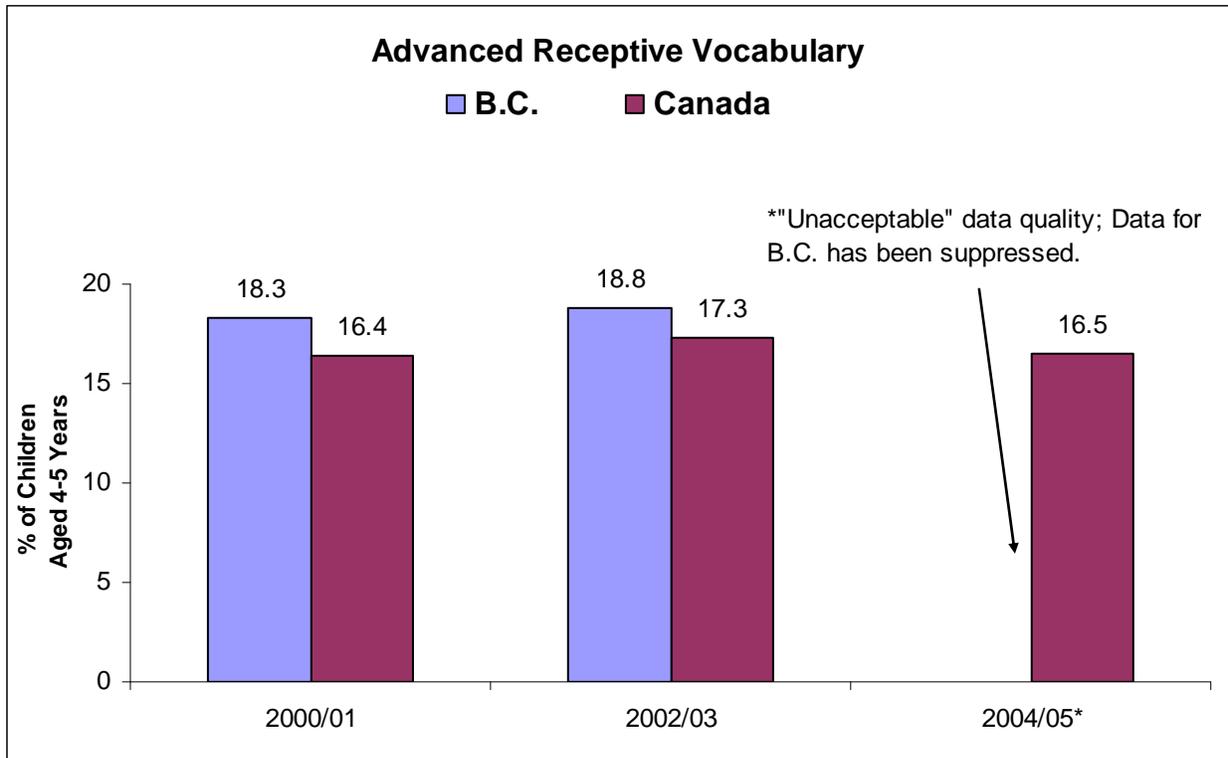


Source: National Longitudinal Survey of Children and Youth, Cycle 3 (1998/99), Cycle 4-v2 (2000/01), Cycle 5 (20002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

Caveat: Data excluded children aged 0-3 years; children aged 4-5 years for whom the PMK did not provide consent for the PPVT-R to be administered; children living in the Territories; children living on reserve; children living in institutions.

b) Advanced Receptive Language Skills

In 2002/2003, 18.8% of B.C. children aged 4 – 5 years received “advanced” scores on the Peabody Picture Vocabulary Test – Revised. This represents an increase from 18.3% in 2000/01 and is higher than the 2002/2003 national average of 17.3%. B.C. data for 2004/2005 is unavailable.



Source: National Longitudinal Survey of Children and Youth, Cycle 3 (1998/99), Cycle 4-v2 (2000/01), Cycle 5 (20002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

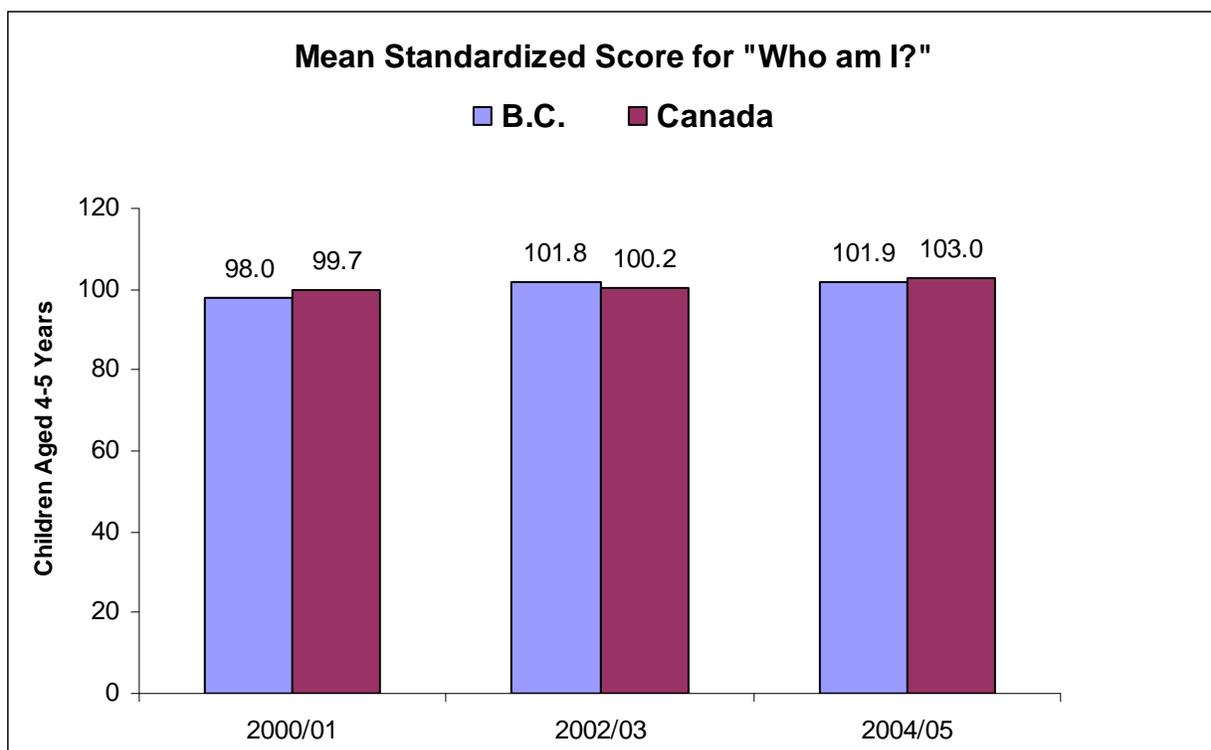
Caveat: Data excluded children aged 0-3 years; children aged 4-5 years for whom the PMK did not provide consent for the PPVT-R to be administered; children living in the Territories; children living on reserve; children living in institutions.

c) Levels of Copying Skills and Writing Tasks

This indicator is defined as the proportion of children aged 4 – 5 years who display delayed, average and advanced levels of copying skills and writing tasks, as measured by *Who Am I?*.

The *Who am I?* instrument⁶ assesses the ability to conceptualize and reconstruct a geometrical shape (copying skill), and the ability to use symbolic representations (writing task) such as numbers, letters and words. This instrument assesses nonverbal language and can be used to assess children whose knowledge of English or French is limited.

In 2004/2005, B.C. children scored a mean standardized (average) score of 101.9 on the “Who am I?” instrument. This represents a slight improvement from the 101.8 average score in 2002/2003. The 2004/2005 national average score was 103.0.



Source: National Longitudinal Survey of Children and Youth, Cycles 4 (2000/2001), Cycle 5 (2002/2003) and Cycle 6 (2004/2005)

Caveat: Data excluded children aged 0-3 years; children living in the Territories; children living on reserve; children living in institutions.

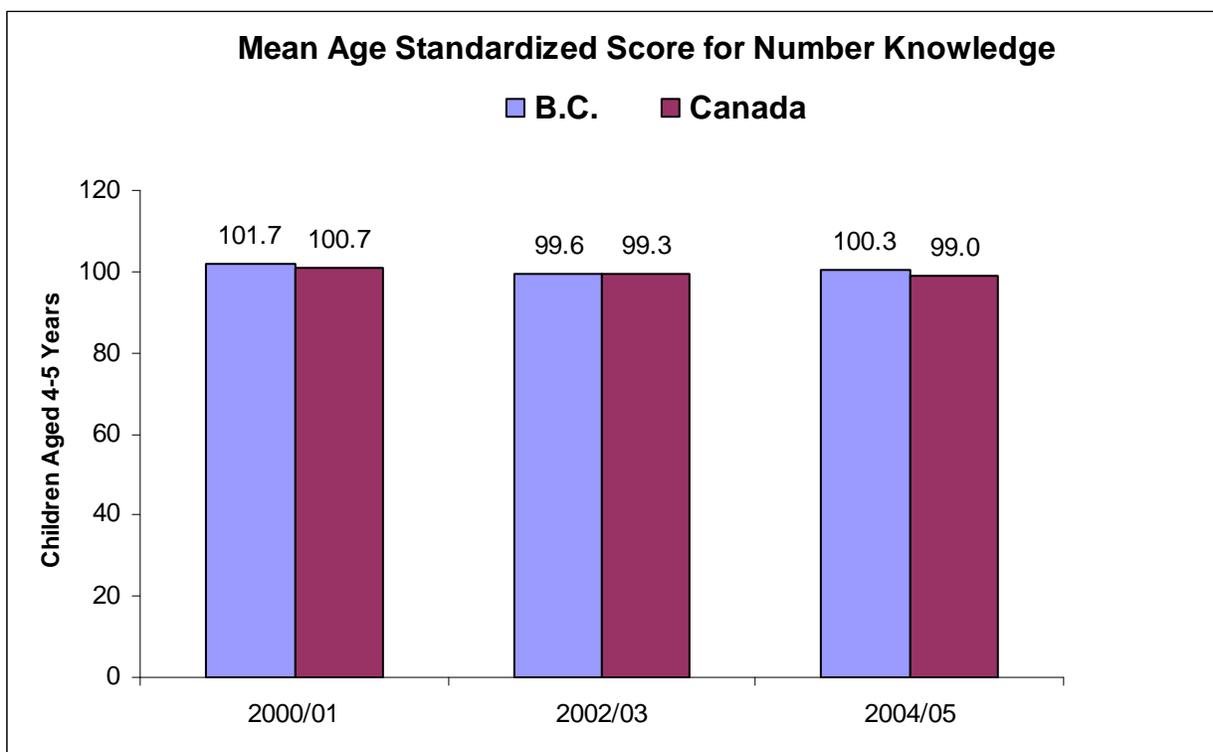
⁶ Only means and standard error were provided by the FPT ECD Indicators Working Group for Number Knowledge and Who am I.

3.4 Number Knowledge Levels⁷

This indicator is defined as the proportion of children aged 4 – 5 years who display delayed levels of intuitive knowledge of numbers, as measured by the *Number Knowledge Test*.

The *Number Knowledge Test* assesses children’s intuitive knowledge of numbers by assessing their understanding of the system of whole numbers. Children who exhibit this intuitive knowledge tend to fare better in school mathematics. Four developmental levels have been established for children’s understanding of numbers – pre-dimensional (level 0), uni-dimensional (level 1), bi-dimensional (level 2) and integrated bi-dimensional (level 3). Knowledge at each level of the test is a prerequisite, or provides the conceptual building block, for knowledge at the next level of the test.

In 2004/2005, B.C. children scored a mean standardized (average) score of 100.3 on Number Knowledge. This represents a slight improvement from the 99.6 average score in 2002/2003. The 2004/2005 national average score was 99.0



Source: National Longitudinal Survey of Children and Youth, Cycles 4 (2000/2001), Cycle 5 (2002/2003) and Cycle 6 (2004/2005).

Caveat: Data excluded children aged 0-3 years; children living in the Territories; children living on reserve; children living in institutions.

⁷ Only means and standard error were provided by the FPT ECD Indicators Working Group for Number Knowledge and Who am I.

4.0 Family-Related Indicators

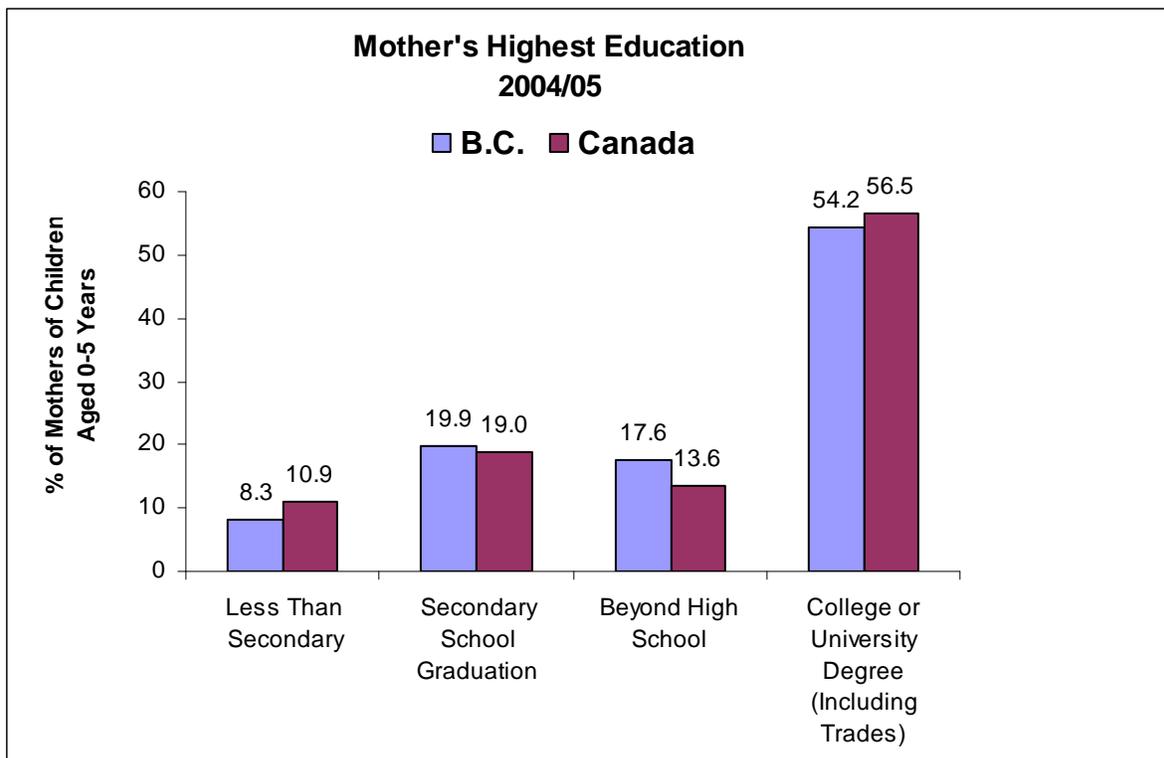
4.1 Parental Education

Parental educational attainment plays an important role in shaping the development of children. Recent research has demonstrated a strong link between maternal education and levels of vocabulary development in children.

The *Mother's Highest Level of Education* measure is the highest level of education attained by the mother of children aged 0 – 5 years.

a) Mother's Highest Education Level

In 2004/2005, 54.2% of B.C. mothers (with children aged 0 – 5) had a university degree or college credential⁸ (including trades), lower than the national average of 56.5%.



Source: NLSCY, Cycle 6 (2004/2005), Master File, Parents Questionnaire.

Caveats: Data excluded children whose PMK (or spouse of the PMK) is not a biological, step, adoptive or foster mother; children living in the Territories; children living on reserve; children living in institutions.

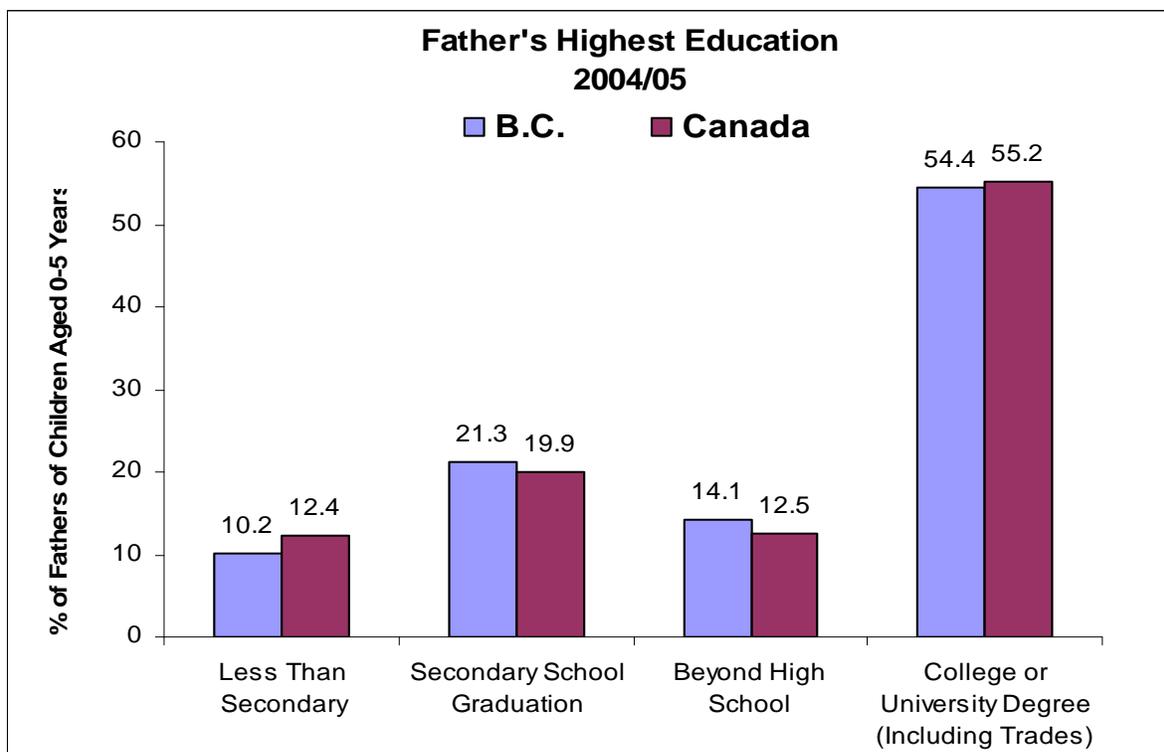
⁸ College or University Degree category includes 1) Completed community college, technical college, CEGEP or nurse's training; 2) Completed university or teacher's college; 3) Master's degree, or; 4) Doctorate or medical degree.

b) Father's Highest Education Level

The *Father's Highest Level of Education* measure is the highest level of education attained by the father of children aged 0 – 5 years.

In 2004/2005, 10.2% of B.C. fathers had less than secondary school education, lower than the national average of 12.4%.

In 2004/2005, 54.4% of B.C. fathers had a university degree or college credential⁹ (including trades), lower than the national average of 55.2%.



Source: NLSCY, Cycle 6 (2004/2005), Master File, Parents Questionnaire.

Caveats: Data excluded children whose PMK (or spouse of the PMK) is not a biological, step, adoptive or foster father; children living in the Territories; children living on reserve; children living in institutions.

⁹ College or University Degree category includes 1) Completed community college, technical college, CEGEP or nurse's training; 2) Completed university or teacher's college; 3) Master's degree, or; 4) Doctorate or medical degree.

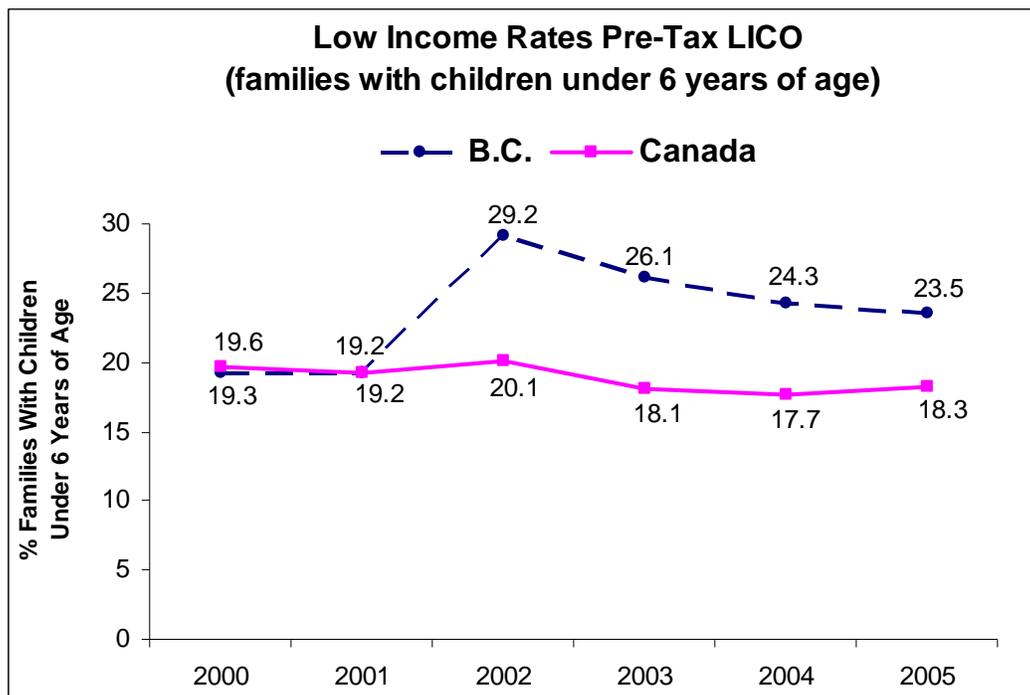
4.2 Level of Income

Low income is associated with health and social problems in children. Low-income families face challenges in securing adequate and safe shelter, nutritional food, adequate clothing and other necessary supplies. The Low-Income Cut-Off (LICO) is a national measure of poverty for a household of four people (two adults and two children) in a large urban area (500,000 or more people). The threshold for LICO is adjusted from year to year.

a) Pre-tax Low-Income Cut-Off

The pre-tax LICO is the proportion of children under age six years living below the poverty level before income tax.

In 2005, 23.5% of B.C. children under age six years were living below the pre-tax LICO, a decrease from 24.3% in 2004. The national average was 18.3% in 2005.



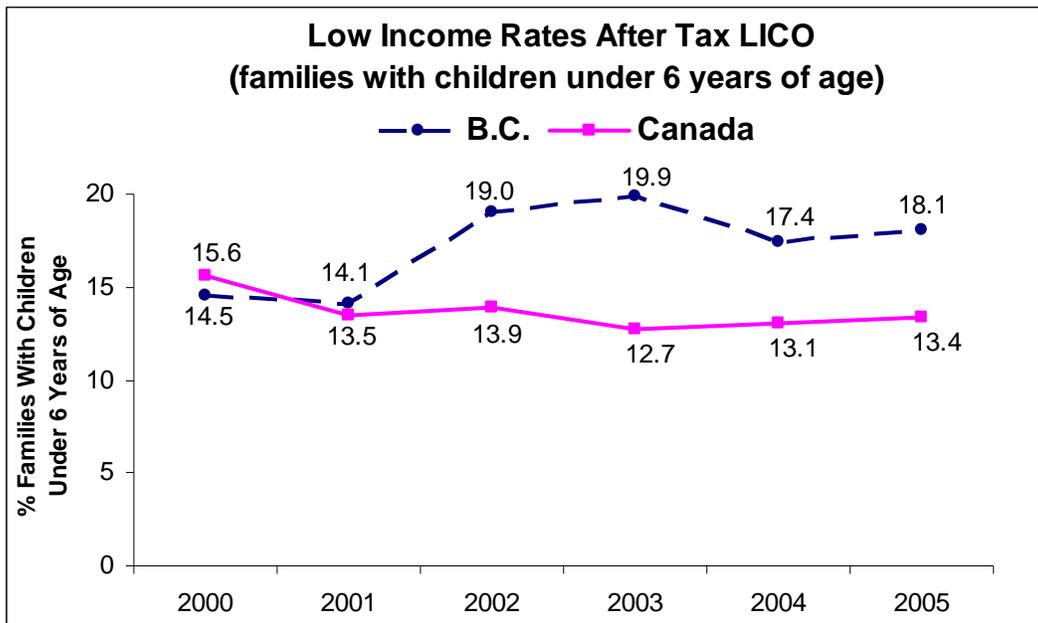
Source: Survey of Labour and Income Dynamics: Reference years 1998-2005.

Note: Population-level families with children 0 to 5 years of age (inclusive); data based on provinces only.

b) Post-tax Low-Income Cut-Off (LICO)

The post-tax LICO is the proportion of children under age six living below the poverty level after income tax. This measure recognizes the change in purchasing power after income tax for low to middle-low income levels.

B.C.'s post-tax LICO rate increased from 17.4% in 2004 to 18.1% in 2005. The national post-tax LICO rate also increased from 13.1% in 2004 to 13.4% in 2005.



Source: Survey of Labour and Income Dynamics: Reference years 1998-2005.

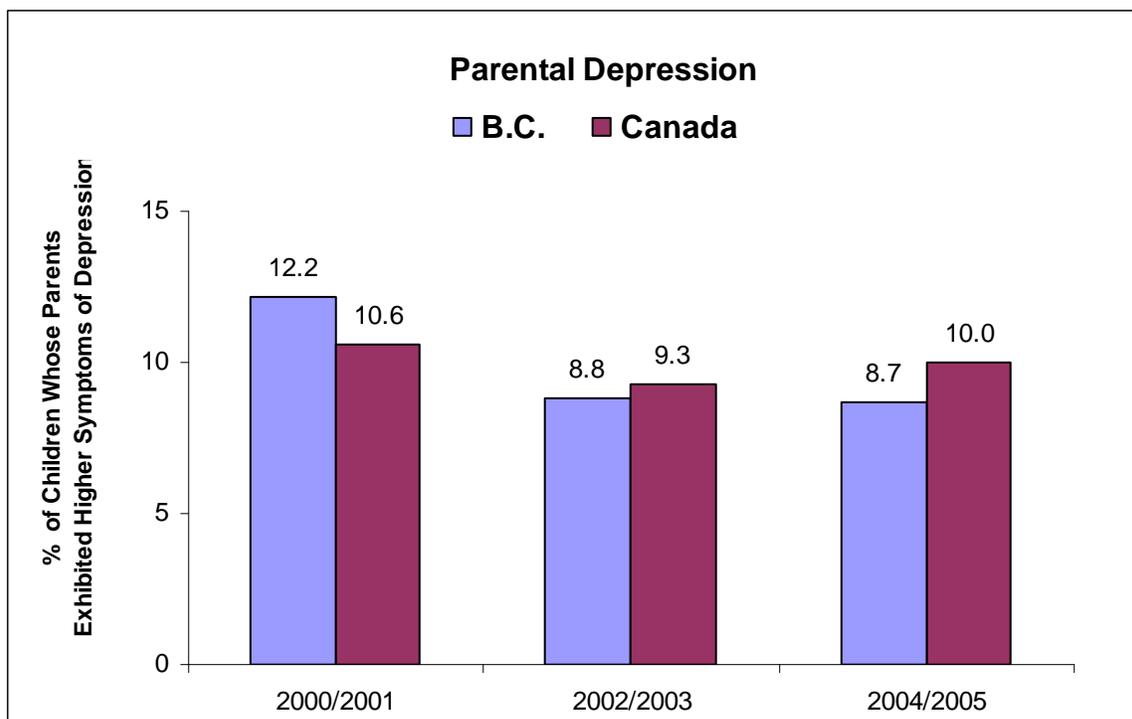
Note: Population level families with children 0 to 5 years of age (inclusive); data based on provinces only.

4.3 Parental Health: Depression

The well-being of a parent plays a key role in how a family functions. Researchers have found that optimal health and well-being for a child are difficult to achieve if the primary caregiver is depressed – withdrawn, tired, pessimistic about the future and despondent – and therefore may not be able to give adequate stimulation and care to the child. Children raised by a depressed parent are more likely to have poor cognitive development and behavioural problems.

The parental depression indicator is the proportion of children aged 0 – 5 years whose primary caregiver exhibits high symptoms of depression.

In 2004/2005, the proportion of B.C. children aged 0 – 5 whose ‘Person Most Knowledgeable’ (PMK) exhibited high levels of depression was 8.7%, a slight decrease from 8.8% in 2002/2003. In Canada, the proportion of children aged 0 – 5 whose PMK exhibited high levels of depression was 10.0% in 2004/2005.



Source: National Longitudinal Survey of Children and Youth, Master Files (Statistics Canada), Cycle 3 (1998/99), Cycle 4 (2000-2001), Cycle 5 (2002-2003) and Cycle 6 (2004/2005), Parents Questionnaires.

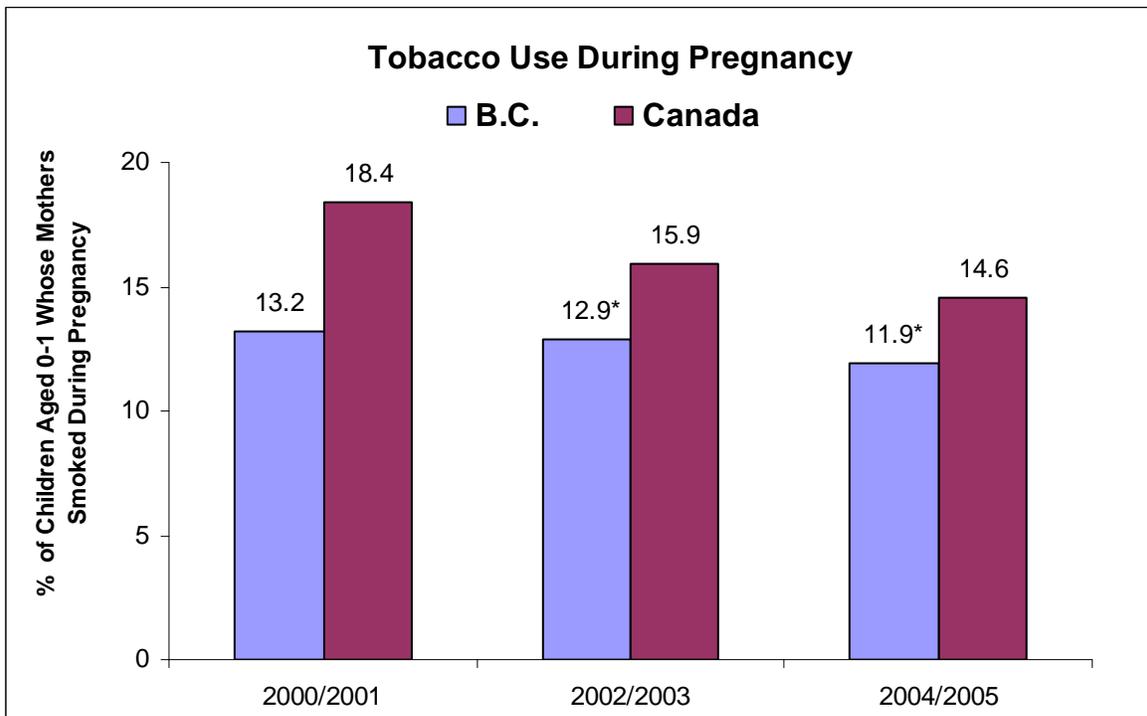
Caveats: Data excluded children living in the Territories; children living on reserve; children living in institutions.

4.4 Parental Health: Tobacco Use During Pregnancy

Research shows that smoking during pregnancy leads to higher rates of perinatal complications and illnesses. Children of mothers who smoked during pregnancy are also more likely to have learning problems, ear infections and breathing problems, hyperactivity, lower scores in reading and spelling and delays in developing math skills.

This indicator shows the proportion of children aged 0 – 1 years whose mothers smoked during pregnancy.

In 2004/2005, 11.9% of B.C. children's mothers smoked during pregnancy, a decrease from 12.9% in 2002/2003. At the national level, 14.6% of Canadian mothers smoked during pregnancy in 2004/2005.



Note: * While this estimate meets Statistics Canada's quality standards, there is a high level of error associated with it.

Source: National Longitudinal Survey of Children and Youth, Master Files (Statistics Canada), Cycle 3 (1998/99), Cycle 4 (2000-2001), Cycle 5 (2002-2003) and Cycle 6 (2004/2005), Parents Questionnaires.

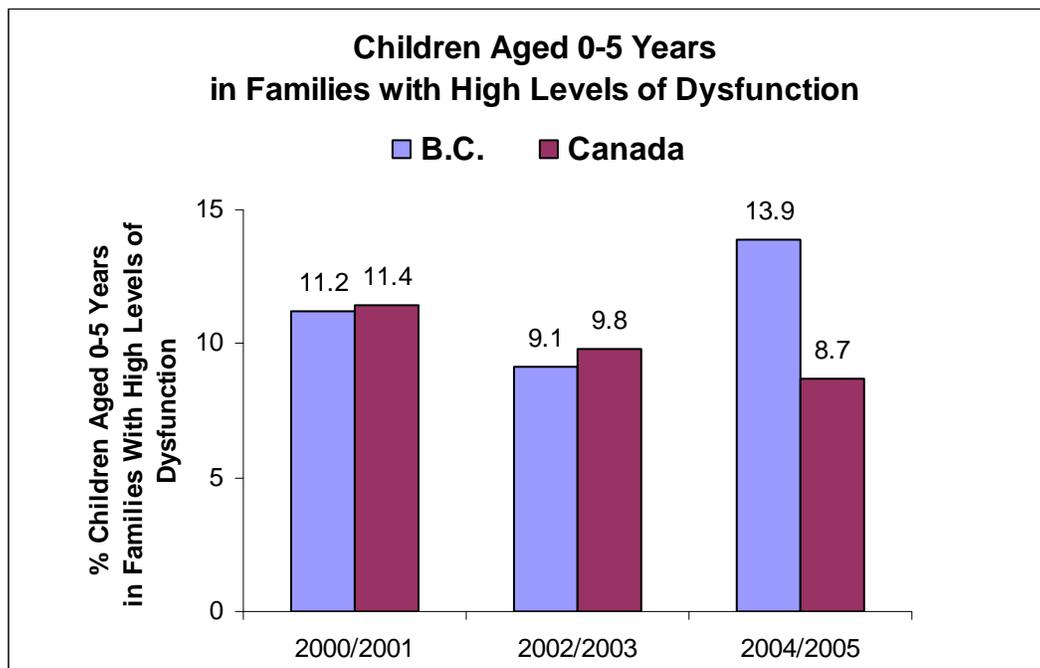
Caveats: Data excluded children aged 2-5 years; children living in the Territories; children living on reserve; children living in institutions.

4.5 Family Functioning

The quality of the family environment has major effects on the health and well-being of children. Current research indicates that children from dysfunctional families have more relationship problems than those from healthy families and have an increased likelihood of childhood behavioural and emotional problems, such as aggression and anxiety.

The family function indicator is the proportion of children aged 0 – 5 years in families with high levels of dysfunction, which includes problem solving, communication, roles, affective involvement, affective responsiveness and behaviour control.

In 2004/2005, 13.9% of B.C. children aged 0 – 5 years were living in families with high levels of dysfunction, an increase from 9.1% in 2002/2003. At the national level, 8.7% of children aged 0 – 5 years were living in families with high levels of dysfunction in 2004/2005.



Source: National Longitudinal Survey of Children and Youth, Master Files (Statistics Canada), Cycle 3 (1998/99), Cycle 4 (2000-2001), Cycle 5 (2002-2003) and Cycle 6 (2004/2005), Parents Questionnaires;

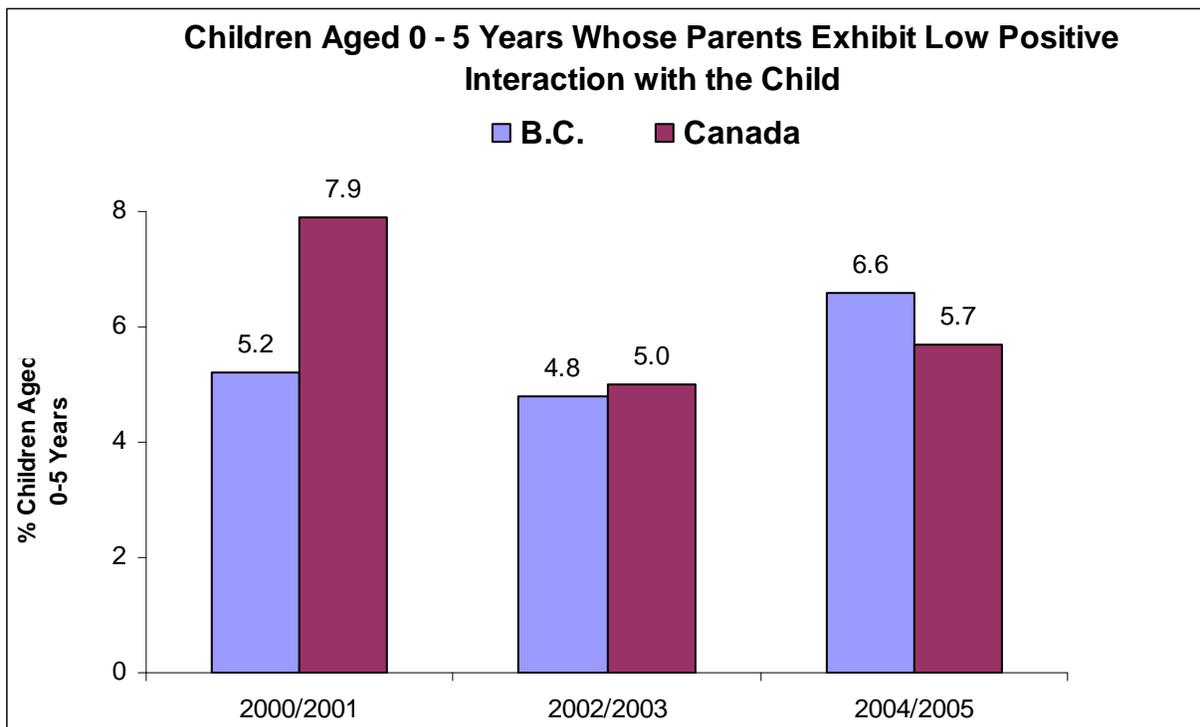
Caveats: Data excluded children living in the Territories; children living on reserve; children living in institutions.

4.6 Positive Parenting

Research in Canada has consistently shown that parenting practices influence a range of childhood outcomes, such as aggressive behaviour, pro-social behaviour, academic achievement and high school completion.

The positive interaction indicator shows the proportion of children aged 0 – 5 years whose parents exhibited low levels of positive interaction with the child.

The B.C. rate of children whose parents exhibited low positive interaction rose above the national average in 2004/2005 to 6.6%. The national average was 5.7% in 2004/2005.



Source: National Longitudinal Survey of Children and Youth, Master Files (Statistics Canada), Cycle 3 (1998/99), Cycle 4 (2000-2001), Cycle 5 (2002-2003) and Cycle 6 (2004/2005), Parents Questionnaires.

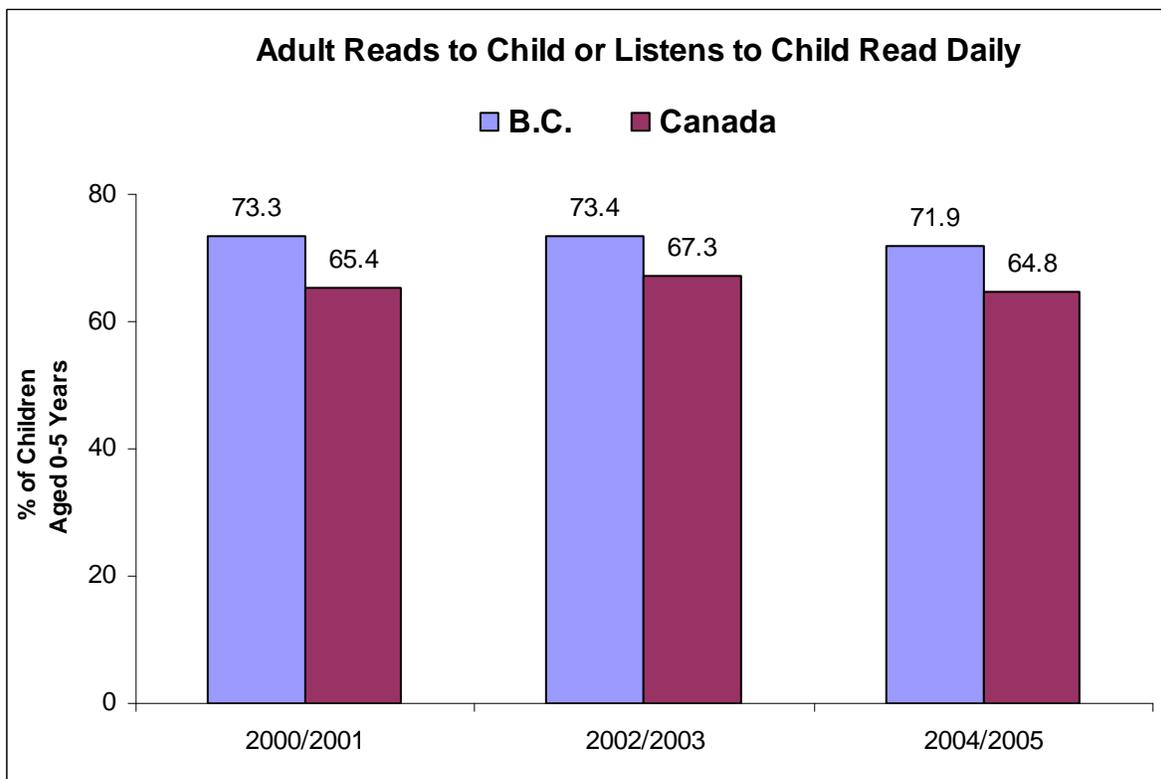
Caveats: Data excluded children living in the Territories; children living on reserve; children living in institutions.

4.7 Reading by an Adult

Reading to children is an excellent way to develop language, reading, writing and social interaction skills. Children who are read to several times a day are typically more prepared for entering school, and score higher on the Peabody Picture Vocabulary Test – Revised, than those who are read to less often. This indicator shows the distribution of children ages 0 – 5 years by how often an adult reads to the child or listens to the child read.

a) Adult Reads to Child or Listens to Child Read Daily

Between 2004/2005, 71.9% of B.C. children aged 0 – 5 years had an adult read to them, or an adult listened to the child read daily, a slight decrease from 73.4% in 2002/2003. In 2004/2005 the national average was 64.8%.



Source: NLSCY, Cycle 4-v2 (2000/01), Cycle 5 (2002/03), Cycle 6 (2004/2005), Master File, Parents Questionnaire; data presented is weighted.

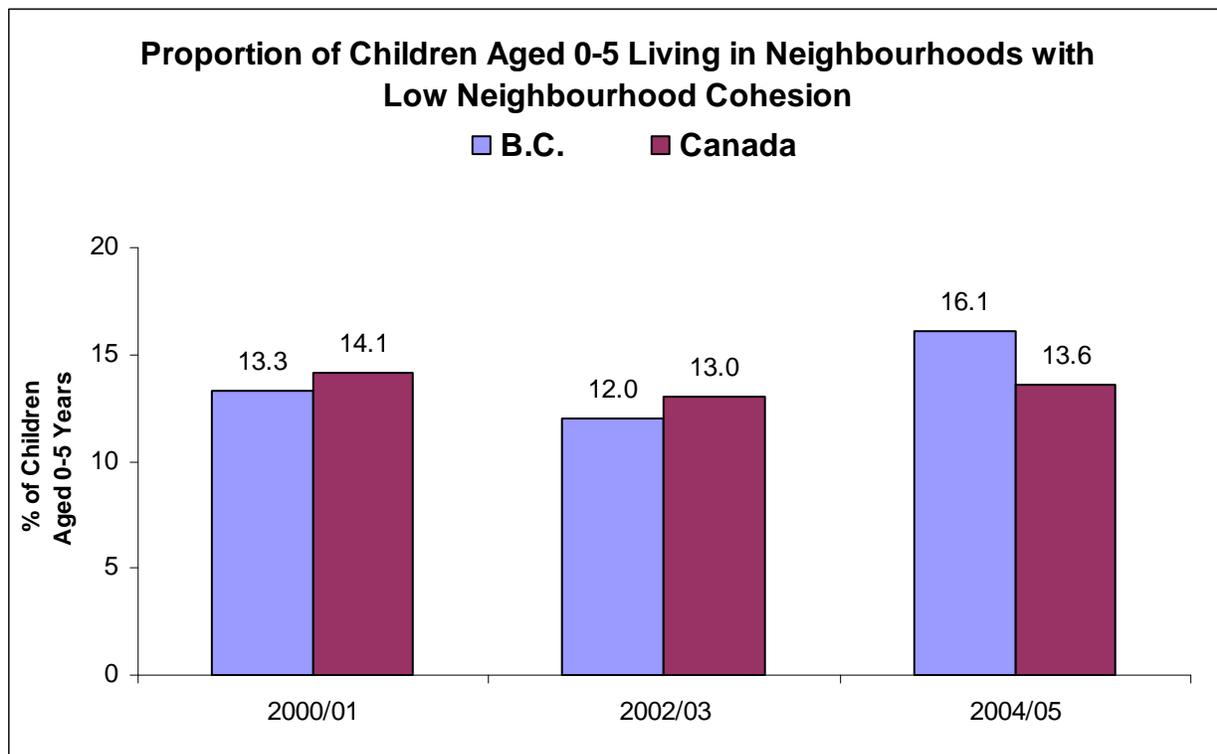
Caveats: Data excluded children living in the Territories; children living on reserve; children living in institutions.

5.0 Community-Related Indicators

5.1 Neighbourhood Cohesion and Safety

a) *Neighbourhood cohesion* reflects the primary caregiver's perception of his/her neighbours and the extent to which there is a sense of support among neighbours. For example, low neighbourhood cohesion indicates the proportion of children aged 0 – 5 years living in neighbourhoods with a low level of support among neighbours, as perceived by the primary caregiver.

In 2004/2005, 16.1% of B.C. parents indicated that their children lived in neighbourhoods defined as having low levels of cohesion. The 2004/2005 national average was 13.6%.

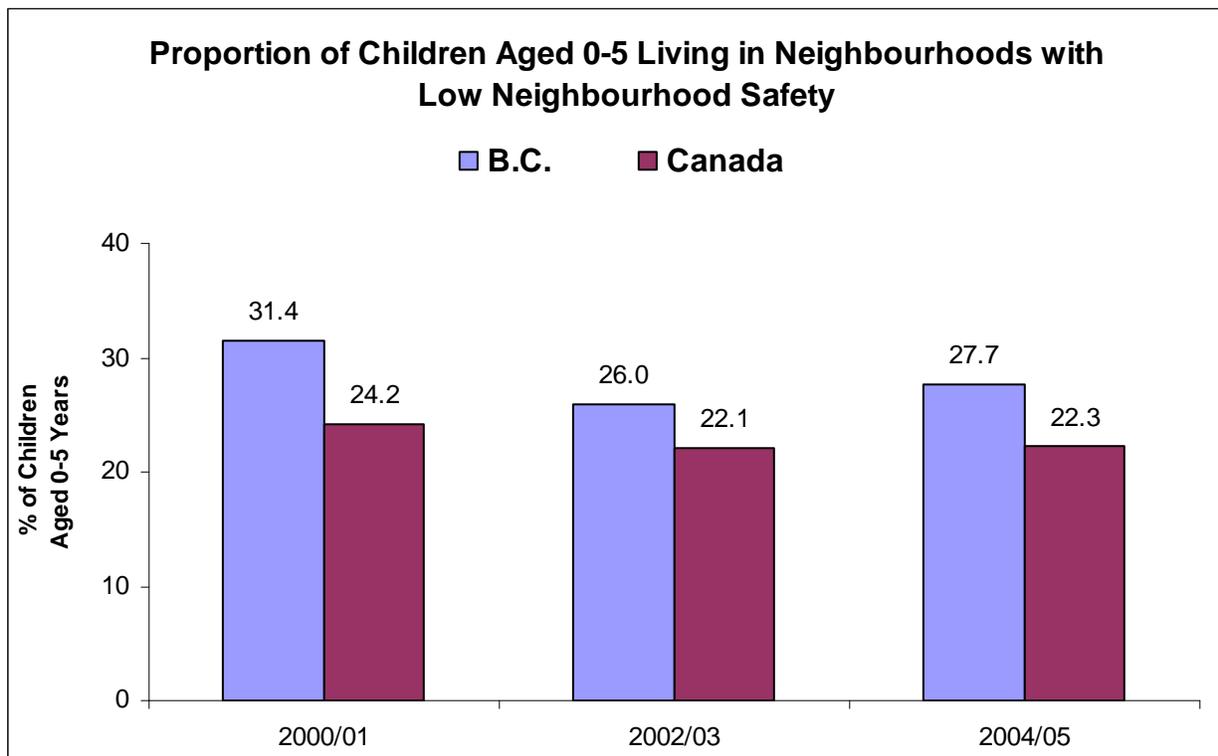


Source: National Longitudinal Survey of Children and Youth, Cycle 3 (1998/99), Cycle 4-v2 (2000/01), Cycle 5 (2002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

Caveat: Data excluded children living in the Territories; children living on reserve; children living in institutions.

b) *Neighbourhood Safety* reflects the primary caregiver's perception of their neighbourhood and the extent to which there is a sense of safety in the neighbourhood. Low neighbourhood safety indicates the proportion of children aged 0 – 5 years living in neighbourhoods where there is a low degree of safety associated with such activities as walking alone after dark and children playing outside, as perceived by the primary caregiver.

In 2004/2005, 27.7% of B.C. parents indicated that their children lived in a neighbourhood where there is a low degree of safety, an increase from 26.0% in 2002/2003. The national average was 22.3% in 2004/2005.



Source: National Longitudinal Survey of Children and Youth, Cycle 4-v2 (2000/01), Cycle 5 (2002/03) and Cycle 6 (2004/05), Master File, Parents Questionnaire.

Caveat: Data excluded children living in the Territories; children living on reserve; children living in institutions.

6.0 Moving Forward

This report provides a good starting point to understanding the various factors which contribute to early childhood health and well-being in British Columbia. Children in British Columbia are doing as well as, or better than, their national counterparts on many of the indicators. Areas for potential improvement in early childhood development, family and community-related indicators indicate that further work is needed to improve the health and well-being of all children in British Columbia.

It is the responsibility of all levels of government to ensure programs and policies are in place to support children within healthy, cohesive environments. The government of British Columbia envisions a province where all children are raised in safe and nurturing environments and families are supported.

For further information about Early Childhood Development programs and services in British Columbia, refer to the 2006/2007 Early Childhood Development (ECD) and Early Learning and Child Care (ELCC) Annual Reports found on the Ministry of Children and Family Development Web site: http://www.mcf.gov.bc.ca/early_childhood/pdf/ecd_annual_06_07.pdf

