

**LEARNING FROM CUBA'S MODEL:  
RECOMMENDATIONS ON EARLY CHILDHOOD  
EDUCATION AND CARE PROGRAMS IN BRITISH  
COLUMBIA**

by

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## **ABSTRACT**

Evidence from the field of neuroscience and developmental health indicates that early years of life play a crucial role in setting the stage for one's lifelong learning, behaviour and health. However, Canada does not measure up with the international standards in terms of its investments in early childhood programs, specifically, early childhood education and care (ECEC) services. Improving the ECEC programs in BC is a key priority as a significant number of BC children are developmentally vulnerable before kindergarten. This paper examines the current government-implemented or regulated ECEC programs in BC, and compares them with the "Educate Your Child" program in Cuba, which has been proven to be successful. The essential elements in the Cuban model are used to identify and inform a series of recommendations for improving existing ECEC programs in BC. Limitations associated with the availability of data sources, program evaluations, and outcome measurements are discussed.

**Keywords:** early childhood education and care; program recommendations; British Columbia; Cuba

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# TABLE OF CONTENTS

<b>Approval</b> .....	<b>ii</b>
<b>Abstract</b> .....	<b>iii</b>
<b>Acknowledgements</b> .....	<b>iv</b>
<b>Table of Contents</b> .....	<b>v</b>
<b>Table</b> .....	<b>vii</b>
<b>1: Introduction</b> .....	<b>1</b>
1.1 The Public Health Problem.....	1
1.2 Literature Review .....	2
1.2.1 The Importance of Early Childhood Development.....	2
1.2.2 A Preventive and Population Health Approach .....	5
1.2.3 The Importance of Early Childhood Education and Care (ECEC) in the Canadian Context.....	6
<b>2: Purpose</b> .....	<b>9</b>
<b>3: Methods</b> .....	<b>11</b>
3.1 Data Sources: .....	11
3.2 Inclusion Criteria for ECEC Programs in BC.....	13
<b>4: Results</b> .....	<b>15</b>
4.1 ECEC in BC: Non-Parental ChildCare Programs.....	15
4.2 ECEC in BC: Publicly-Funded Early Learning Programs .....	20
4.2.1 Books for BC Babies.....	20
4.2.2 Ready, Set, Learn (RSL) .....	21
4.2.3 Literacy Education Activity and Play (LEAP) .....	21
4.2.4 StrongStart BC Early Learning Centre .....	22
4.3 ECEC Programs in Cuba .....	24
<b>5: Discussion</b> .....	<b>28</b>
5.1 ECEC Programs in BC .....	28
5.2 ECEC Program in Cuba: “Educate Your Child”.....	31
5.3 Successful Elements Identified from Cuba’s Model .....	32
5.3.1 A Publicly Funded and Universally Accessible Early Childhood Education Program.....	32
5.3.2 Integrated Resources and Collaboration among Different Social Sectors .....	33
5.3.3 High Quality, Developmental-focused Program .....	33

5.3.4 Strong Emphasis on Parents' Involvement in a Child's Early Learning .....	34
5.4 Recommendations on ECEC programs in BC .....	34
5.5 Limitations .....	36
5.6 Conclusion .....	37
<b>Appendices</b> .....	<b>39</b>
Appendix 1 .....	40
Appendix 2 .....	41
Appendix 3 .....	42
Appendix 4 .....	43
Appendix 5 .....	44
<b>Reference List</b> .....	<b>45</b>

## **TABLE**

Table 1: Types and Characteristics of Non-Parental Child Care Services in BC..... 18

# 1: INTRODUCTION

## 1.1 The Public Health Problem

The early years play a critical role in one's lifelong health and overall well-being. Research on early childhood development (ECD) suggests that early cognitive and social experiences, especially during the first three years of life, have significant influences on a child's future school performance and long-term human development (Hertzman, 2000; McCain & Mustard, 1999). They form the foundation for a child's future competence, coping skills and health.

Although ECD is an important determinant of health, Canada compares poorly with other developed countries in terms of its investments in children and families. According to a thematic review by the Organisation for Economic Co-operation and Development (OECD), Canada ranks at the bottom of 25 developed countries in funding ECD programs; its public investments in families and children as well as early learning and care are far under the OECD average expenditure (See Appendix 1 and 2) (OCED, 2006).

In September 2000, the Canadian government (both federal and provincial) committed to supporting healthy childhood development and introduced the *Early Childhood Development Agreement*. The objective of the *Agreement* was to promote healthy ECD through enhanced access to services for pregnant women and infants such as prenatal classes and screening, pre-school and childcare programs, as well as parental information and family

supports (Minister of Public Works and Government Services Canada, 2001). However, ten years after the *Agreement*, a significant number of children in British Columbia (BC), as discussed in the next paragraph, are still not experiencing a nurturing and stimulating childhood.

Canada has developed an index that measures the development of children in their early years – the Early Development Instrument<sup>1</sup> (EDI). In BC, EDI data are collected annually by kindergarten teachers and reported by neighbourhoods, school districts and health areas. Findings from 2009/2010 indicated that more than 30% of BC children were developmentally vulnerable before they reached kindergarten; these children struggle to hold a pencil, follow instructions, get along with peers, and do not even have a knowledge of more than ten letters (Human Early Learning Partnership [HELP], 2010). In fact, child vulnerability in BC has increased 5% since 2001 when the data was first collected (Appendix 3). The increasing trend towards child vulnerability may indicate that ECD interventions in BC are not effectively stimulating or supportive of children’s optimal early experience.

## **1.2 Literature Review**

### **1.2.1 The Importance of Early Childhood Development**

Early childhood refers to the time between the period of conception and

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1) EDI assesses ECD outcomes in five key areas: physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication and general knowledge.

the age of five. It is the most crucial and influential period of a child's development as it sets the stage for one's lifelong learning, behaviour and health. Recent research studies in neurobiology and developmental sciences have suggested that experiences in the early years are most influential to the development of brain, school readiness, and long-term health (Maggi, et al., 2005; National Scientific Council on the Developing Child, 2007). For instance, Nelson and Bloom (1997) suggested that almost all neurons (brain cells) are produced prior to birth, and the "sculpting" process for refining neuron-to-neuron connections is then highly influenced by the experiences that occur between birth and school age and the environment in which they occur (See Appendix 4). Children who are exposed to poor stimulation in their early years tend to experience negative physical health and reduced cognitive and emotional functionality (Weiss, 2000). Rice and Barone (2000) indicated that children exposed to toxins during pregnancy (e.g. alcohol and mercury) could potentially develop brain damage or mental retardation. Furthermore, adverse pre- or postnatal experiences such as maternal depression and low birth weight have been found to lead to an increased risk of mental health problems, diabetes and coronary heart disease in adulthood (Barker, Osmond, Forsen, Kajantie & Eriksson, 2005; Romano, Tremblay, Farhat & Cote, 2006; Wilkinson & Marmot, 2003).

The first three years of a child's life are a time of rapid growth in language, social skills and emotional development. For instance, tremendous growth in vocabulary starts at approximately 15-18 months, and the ability to identify and

regulate emotion is well underway before the age of two (Center on the Developing Child at Harvard University, 2007). When optimal conditions are provided during this period, the child is likely to develop the foundations for lifelong well-being and success. Studies on the effect of socio-economic status (SES) and language development suggest that children who grow up in families with high income and high parental education levels have more expressive vocabulary at age three compared to those in low SES families (Hart & Risley, 1995).

Another most influential factor on ECD is the relationship between children and parents or caregivers. Research indicates that parent-child interactions affect children's brain development and their capacity to interact with others (Meaney, 2001; Pianta, Nimetz & Bennet, 1997). A loving, secure attachment between parents, caregivers and babies in the first 18 months of life helps children develop trust, self-esteem and emotional control (Public Health Agency of Canada, 2003). Inversely, insecure emotional attachment and poor stimulation can lead to reduced readiness for school, low educational attainment, antisocial behaviour, as well as the risk of social marginalization in adulthood (Wilkinson & Marmot, 2003; Yoshikawa, 1995).

Moreover, experiences during early childhood have significant influence on the future prosperity of a society. For instance, research indicated that key early childhood factors such as poor parenting and low verbal ability are associated with later delinquent behaviour and the number of criminal convictions (Smith & Thornberry, 1995; Yoshikawa, 1995). Children who have developed

optimal cognitive skills, emotional well-being and social competence tend to be able to contribute to the creation of a prosperous and sustainable society through workplace productivity and responsible citizenship (Schweinhart et al., 2005). Conversely, the cost of inadequate early childhood investment can be enormous. A lack of investment in the early years can result in an increased need for special education for school-aged children, as well as high rates of unemployment and incarceration in the adult population (National Scientific Council on the Developing Child, 2007). HELP (2010) suggests that the ongoing developmental vulnerability in BC children could cost our economy more than \$400 billion over the next 60 years due to lost productivity, crime, related health issues as well as other social costs.

### **1.2.2 A Preventive and Population Health Approach**

Since childhood's problems often lead to distress and impairment throughout adulthood, it is more effective to provide the right conditions for healthy childhood development than to treat the problems at a later age. As Canada's Chief Public Health Officer stated in 2008, "... investment in early childhood development should be a priority area for addressing both physical and mental health issues" (Krakow, 2010, p.3). A population health approach that aims to improve the health of the entire population by focusing on a broad range of factors such as ECD is essential for the policy agenda (Public Health Agency of Canada, 2003).

Most ECD programs seek to promote children's physical and emotional health, as well as to enhance their natural resilience and ability to overcome

adversities. This further prevents illness and dysfunctional behaviours in adulthood. By taking a population health approach and investing in ECD, the nation may also reduce social inequality and ensure future health and prosperity outcomes (Waddell, McEwan, Shepherd, Offord, & Hua, 2005). In addition, effective ECD programs can result in long-term savings for health care and other social programs such as child protection and criminal justice. Research suggests that every dollar invested in a child before the age of six could save up to \$17 in social services costs (Grieve & Hogarth, 2009).

### **1.2.3 The Importance of Early Childhood Education and Care (ECEC) in the Canadian Context**

The *2000 Early Childhood Development Agreement* identified four areas that required further development: (1) healthy pregnancy, birth and infancy, (2) parenting and family supports, (3) early childhood development, learning and care and (4) community supports. It is difficult to coordinate and address the provincial ECD programs effectively since each province/territory develops its own programs in these four areas according to the needs and characteristics of its population. In most provinces/territories, ECD programs in these four areas are carried out under separate legislative sectors with different structures and mandates.

Of these four components, early childhood education and care<sup>2</sup> (ECEC) is

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2) For the purpose of his paper, the term 'early childhood education and care' is used to describe programs in communities that provide non-parental education and care services for children under six. This term is also used by the Organisation for Economic Cooperation and Development.

an area that has been extensively researched and discussed in recent decades. Children need responsive care both at home and in out-of-home environments. They learn through play-based problem solving and exploring their individual perceptions of the world. Several studies that analyzed data from the National Longitudinal Survey of Children and Youth (NLSCY) suggested that participation in day care does have some positive outcomes for Canadian children. For instance, young children who participated in some form of childcare had significantly higher scores on a receptive vocabulary test than their counterparts who did not participate in childcare (Kohen, Herzman & Willms, 2002). Another study indicated that children who participated in any form of ECEC programs had superior skills in communication, learning, literacy and numerical tasks in kindergarten compared with those who did not attend in ECEC programs (Lipps & Yipton-Avila, 2000). These results indicate that a stimulating and nurturing learning environment is essential for a toddler's overall welfare and development. This is particularly relevant for vulnerable populations: Côté and colleagues demonstrated that children of mothers with low education who went to day care before nine months of age were less likely to have issues with physical aggression during early childhood (Côté et al., 2007). Also, a well-known longitudinal study (the High Scope Perry Preschool Study) followed a group of children who were born in poverty at ages three and four and were randomized in either a high-quality preschool program or no preschool group. The result indicated that adults at age 40 who attended the preschool program had higher earnings, were more likely to hold a job and had a greater chance of graduating

from high school than adults who did not attend preschool (Schweinhart et al., 2005) Hence, investments in quality ECEC programs have the potential for significant long-term benefits.

As more women participate in the labour force, the need for non-parental care has increased substantially. At least 70% of children under the age of six in Canada use some forms of non-parental care (Grenier & Leduc, 2008). However, data from 2003 to 2007 indicates that with an increase of 70,000 working mothers with children aged 0-5 years, the curve of increase in total provincial/territorial childcare budgets during this period is shallow<sup>3</sup> (Beach, Friendly, Ferns, Prabhu & Forer, 2009; Friendly & Beach, 2005). Currently, only approximately 18% of children in BC aged zero to five are attending regulated child care services (Beach et al., 2009). This suggests that the total childcare budget has not been responsive to the change because the spaces in regulated childcare do not meet the demands of the population. The majority of children are receiving non-regulated childcare.

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3) Total provincial/territorial budget allocations for regulated child care:  
\$2,401,879,000 in 2003/04, \$2,940,140,000 in 2005/06, and \$3,087,442,746 in 2007/08

## **2: PURPOSE**

Although evidence from the perspectives of developmental health, population health and socio-economic stability demonstrates the importance of ECD, the federal and provincial/territorial governments have not allocated sufficient resources and funding to early childhood learning services compared with other developed countries. A systematic review by OECD indicates that Canada only invests 0.2% of its Gross Domestic Product (GDP) in ECEC, a relatively low public investment rate compared with the OECD average expenditure (0.7%) (Friendly, 2006; OECD, 2006). The lack of adequate public investments in ECEC has reduced children's likelihood of receiving quality early learning opportunities. Research has indicated that currently more than one-third of children in BC are developmentally vulnerable before entering kindergarten (HELP, 2010). This may be the result of the inadequate government support for ECEC. This paper will look at possible improvements to the government-funded ECEC programs in BC that could address these concerns. The paper will examine current government-implemented or regulated programs that provide early care and learning opportunities for BC children before entering kindergarten, and compare these with the ECEC programs in Cuba, a country that is recognized internationally for its successful initiatives in ECD, especially its preschool education programs. Studies indicate that almost all children (99.5%) aged zero to five years in Cuba attend preschool programs, and

students in grade four have the highest language score among South American countries (United Nations Educational, Scientific, Cultural Organization [UNESCO], 2006; Tinajero, 2009).

The literature on the positive outcomes associated with Cuba's preschool education system provoked my curiosity to learn more about the successful model in Cuba. It is quite fascinating how Canada, as a developed and wealthy country, could learn to achieve a high quality ECEC program from a resource-deprived country such as Cuba. Moreover, a recent visit of a Canadian delegation to Cuba to study its ECD program may be an indication of the Canadian government's belief that there are lessons that Canada could learn from Cuba (Senate of Canada, Subcommittee on Population Health, 2008).

Cuba is a socialist country where most aspects of Cuban life are controlled by the government. The government distributes resources to ensure that all citizens receive the same services (Gomez, 2008). However, as a democratic society, BC is open to new ideas and markets. We pursue individuality and free enterprise. In fact, many services in BC are privatized and market-driven. Acknowledging the significant difference in social ideology and political context between Canada and Cuba, I believe that Canada can learn from some successful elements of the ECEC programs in Cuba, which can be used to enhance the development and delivery of ECEC programs in Canada.

## **3: METHODS**

### **3.1 Data Sources:**

A comprehensive literature search was carried out to identify scientific evidence related to the development outcomes and significance of ECD. The following keywords were used as “searching words” in the databases such as CINAHL, MEDLINE and PsycINFO: *child mental health or child health services; maternal behaviour or maternal-child care or maternal-child health; non-maternal infant care; early parent-child relationship or parent-child interaction; childcare or learning and care; early learning and development programs; parenting or parental participation; child development.*

A few relevant journals were also valuable in this research. They included the following: Journal of the Canadian Academy of Child and Adolescent Psychiatry, Journal of Child Psychology and Psychiatry, Canadian Journal of Early Childhood Education, Canadian Journal of Research in Early Childhood Education, Early Childhood Education Journal and Journal of Paediatrics and Child Health.

Searches in the grey literature of BC government and non-profit organization websites were performed to understand the current state of ECEC systems in BC and Cuba. These included but were not limited to the following: the Ministry of Children and Family Development of British Columbia; the Centre of Excellence for Early Childhood Development in Montreal, Canada; Council for

Early Child Development; Childcare Resource and Research Unit in Toronto, Canada; Canadian Senate Subcommittee on Population Health; Organisation for Economic Co-operation and Development (OECD) and United Nations Educational, Scientific and Cultural Organization (UNESCO). Approximately 10 articles that summarized the ECEC programs in BC were used to understand the current structure of the system. Most of the government ECEC programs in BC are documented in the *British Columbia Early Year, Annual Report*<sup>4</sup>. Further information on each of the programs was collected from the government website in order to determine the characteristics of the program.

Because most of the national reports in Cuba are in Spanish, it was not possible to collect information directly from the official Cuban government website in regards to Cuba's ECEC programs. Therefore, information was mainly compiled from international reports and conference presentations on Cuba's ECEC model: *Cuba: Early Childhood Care and Education*, by UNESCO; *Maternal Health and Early Childhood Development in Cuba*, by Senate of Canada, Subcommittee on Population Health.

The programs in Cuba and those in BC that met the inclusion criteria were further examined. Lastly, the essential elements that led to the success Cuba's preschool system were identified and used to inform evidence-based recommendations on how to enhance the current government-funded ECEC

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4) *British Columbia Early Years Annual Report*, which is produced by the Ministry of Children and Family Development, outlines an array of government initiatives and services that supported health development of children and school readiness in each year.

programs in BC.

### **3.2 Inclusion Criteria for ECEC Programs in BC**

The ECEC programs in BC include childcare programs for children younger than age 5 (both regulated and non-regulated), a publicly funded kindergarten program for all children ages five to six, and other early learning initiatives and services that support early childhood learning and integrated development. Of these, only programs meeting certain criteria were included in the review. The following are inclusion criteria for the BC ECEC programs assessed here:

- 1. ECEC programs that are available for children under five, and are either regulated or implemented by the government** – These include non-parental childcare services and the government-implemented Early Learning Programs (ELPs) that are listed under the key action area of “Strengthen Early Childhood Development, Learning and Care” in the *British Columbia Early Years, Annual Report 2007/2008*<sup>4</sup> (see Appendix 5). As these services are less well organized compared with the well-established kindergarten system attached to the school system, they may place a high burden on the family who are more responsible for arranging and paying the cost of these services.
- 2. ECEC programs that are universal and have the objective of enhancing early learning experiences** – Under the key action area of “Strengthen Early Childhood Development, Learning and Care” in the *2007/2008 Annual Report*

(Appendix 5), some programs focus on the health aspect of ECD while others are targeted programs for children with special needs. Currently, there is no targeted program in BC which is based on SES or other social determinants. Therefore, only universal programs with the objective of providing early learning opportunities will be discussed in this paper. These include:

- Non-parental child care programs (government-regulated)
- Books for BC Babies
- Ready, Set, Learn
- Literacy Education Activity and Play
- StrongStart BC Early Learning Centre

Programs that are intended for the vulnerable populations (e.g. children with mental or physical disabilities) will be excluded.

The inclusion criteria for ECEC programs for Cuba are similar to the Canadian criteria. Only universal programs that are available to all children under five and that are regulated or implemented by the government will be discussed.

## 4: RESULTS

### 4.1 ECEC in BC: Non-Parental ChildCare Programs

The ECEC system in BC includes non-parental childcare services and other publicly funded early learning programs (which will be addressed in next section). These two programs are operated separately in BC. Currently, there is no publicly delivered childcare in BC; all child care services are operated privately. Parents are responsible for arranging and paying for their own childcare costs. To reduce the burden of childcare costs on families, the federal government provides direct financial support to families with children through the *Canada Child Tax Benefit (CCTB)*, the *National Child Benefit Supplement (NCBS)* and the *Universal Child Care Benefit (UCCB)* programs. The amounts of payment from the CCTB<sup>5</sup> and the NCBS<sup>6</sup> are adjusted based on the family net incomes. The UCCB issues an instalment of \$100 per month to each child regardless of the types of childcare he/she receives (Senate of Canada, Subcommittee on Population Health, 2009).

The roles of the provincial government in child care programs include licensing, regulating and monitoring. There is no mandated role for the municipal

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5) The CCTB is paid to the majority of Canadian families with children. In 2008/2009, families with net incomes below \$37,885 receive a maximum of \$108.91 per month for each child.

6) The NCBS is targeted to low-income families with children. In 2008/2009, families with net incomes below \$21,280 receive a maximum of \$168.75 per month for each child.

level of government in regulating child care. Most of the child care programs are licensed and regulated under the *Community Care and Assisted Living Act* and Child Care Licensing Regulation, and health and safety issues are monitored by the local health authorities. Moreover, the government of BC allocates public funding for child care and education through fee subsidies for low-income families (*Child Care Subsidy Program*), capital and operating funding (*Child Care Operating Funding Program* and *Child Care Capital Funding Program*) and investments in training child care professionals.

The non-parental childcare services that are available before kindergarten include centre-based childcare, preschool, family childcare and others (as shown in Table 1). Of all these services, preschool is the only program that has significant learning components. Family childcare is mostly a care-oriented program without structured learning activities. The table summarizes information such as the age of children being served, time of operation, fees, staff qualifications, as well as licensing and monitoring procedures for a variety of childcare services. For instance, centre-based and family childcare provide either full-day or part-day services to children of any age, for which there are higher fees for younger children. Preschool only provides half-day programs to children aged two to four years during the school-year. Some of these are located within school facilities. The amount of government subsidy depends on family income and size, the age and number of children, as well as the type of childcare provided. On average, the maximum childcare subsidy from the government covers only 60-70% of the total fees. Childcare providers within the centre-based

childcare and preschool must be licensed Early Childhood Educators (ECEs) or certified Early Childhood Education Assistants (ECEAs), but no specific education level or training is required for the care providers who operate family child care services. Lastly, all regulated childcare (centre-based, preschool, regulated family childcare) are licensed and monitored under the *Community Care and Assisted Living Act* and the Child Care Licensing Regulation. However, no regulation or monitoring process is imposed on license-not-required (LNR) family child care and other informal care.

**Table 1: Types and Characteristics of Non-Parental Childcare Services for Children under Age of Five in BC**

	Centre-based Child Care		Preschool	Family Child Care		Other Informal Care
<b>Subtypes</b>	Infant /toddler care	Group child care	Includes Montessori and nursery school	Regulated	Non-regulated/ License-not-required (LNR)	Nanny or relatives
<b>Children's Age</b>	Under 36 months	30 months and up	30 months and up	Any age	Any age	Any age
<b>Location of Care</b>	Centre	Centre	Centre/ school setting	Care provider's home	Care provider's home	Child's home
<b>Time of Operation</b>	Year-round, full employment day or part-day; with no more than 13 hours/day		School-year, no more than 4 hours/day	Part-time/ full-time	Part-time/ full-time	Flexible
<b>Average Monthly Fee (in Vancouver City)</b>	\$1046-\$1103 (full day)	\$748 (full day)	\$356 (5 days/ week)	\$868-\$1013 (depends on the age)	\$815- \$958 (depends on the age)	-
<b>Maximum Provincial Child Care Subsidy</b>	\$635-\$750	\$550	\$225	\$550-\$600	\$550-\$600	\$198-\$394
<b>Maximum Number of Children served</b>	12	25	20	7	2, not including children related to caregiver	-
<b>Staff-Child Ratios</b>	1:4	1:8	1:10	1:7	1:2	-
<b>Staff Requirements</b>	Licensed ITE <sup>7</sup> , licensed ECE <sup>8</sup> , and certified ECEA <sup>9</sup> with first aid certificate and	Licensed ECE and certified ECEA with first aid certificate and clear criminal record	Licensed ECE and certified ECEA(s) with first aid certificate and clear criminal record check, and/ or parent(s)	Responsible adult <sup>10</sup> with first aid certificate and clear criminal record check	Registered LNR provider must be older than 19 years with health reference, first aid certificate and	-

	clear criminal record check	check			clear criminal record check	
<b>Regulation</b>	Must meet and comply with the Community Care and Assisted Living Act and the Child Care Licensing Regulation <sup>11</sup> ; license is issued by the regional Health Authority Community Care Licensing program.				No license required, but have the option to register with CCRR <sup>12</sup>	No regulation
<b>Monitoring</b>	Monitoring of the child care environment such as health and safety conditions, space and equipments is carried out by regional Health Authority officers; no legislated minimum or maximum frequency for on-site inspection, usually on annual basis		Might require an initial inspection, in addition to the monitoring procedures as other licensed child care services		No monitoring	No monitoring

- 
- 7) Licensed Infant Toddler Educator (ITE): In addition to the 902-hour Early Childhood Education training program, ITE also required to complete a post basic program that includes 200 hours infant/toddler education and a 200-hour infant/toddler practicum, and is licensed to practice through the Early Childhood Educator Registry (ECER) of BC.
  - 8) Licensed Early Childhood Educator (ECE): a person who has completed an approved Early Childhood Education training program (902 hours), with 500 hours of supervised work experience, and is licensed to practice through the ECER of BC.
  - 9) Certified Early Childhood Educator Assistant (ECEA): a person who has completed one early childhood education class in any of the followings: child growth and development; health, safety and nutrition or child guidance, and is certified through the ECER.
  - 10) Responsible Adult: an adult who is at least 19 years of age, has minimum 20 hours of training (either courses or workshops) in child development, health and safety, nutrition or child guidance.
  - 11) Child Care Licensing Regulation sets out health and safety requirements, license application requirements, staffing qualifications, staff to child ratio, space and equipment, and childcare program standards in BC.
  - 12) Child Care Resource and Referral (CCRR) is a provincial program that provides support, resources and referral services for childcare providers and parents in all communities in the province.

## **4.2 ECEC in BC: Publicly-Funded Early Learning Programs**

According to the definition in Section 1 of the *School Act*, the Early Learning Programs (ELPs) are universal programs designed for all children under school age to improve their readiness for and success in kindergarten. ELPs focus on the key developmental domains such as cognitive, physical, social, emotional, language and communication, and they require the attendance and supervision of child's parents or caregivers (*School Act*, 2009). The following section describes the five universal ELPs in BC that are publicly-funded and implemented by the government of BC, under the mandate of the Ministry of Children and Family Development and/or the Ministry of Education.

### **4.2.1 Books for BC Babies**

Books for BC Babies is a community-based literacy program that emphasizes the importance of speaking, reading and singing to newborns. The program is a province-wide partnership program between the Ministry of Education, Public Library Services Branch, the Ministry of Health and the BC Libraries Association. The program supports infant/child development by linking parents with community resources such as local libraries. Parents of every newborn in BC receive a package that contains a booklet titled *Babies Love Books: A Guide for Grown-Ups*, a children's music CD, and an educational literacy DVD for parents and caregivers. Approximately 42,000 packages are distributed every year in the community by a range of community partners and

services clubs. This program potentially covers more than 95% of newborns in BC<sup>13</sup>.

#### **4.2.2 Ready, Set, Learn (RSL)**

It is important for the families to know how to support their young child's learning and be familiar with school system and local community agencies. RSL provides families and their three-year-olds with information on local early learning programs and services through play-based activities and events. This initiative provides an opportunity for kindergartens to partner with community-based early childhood services providers to influence school readiness in children. Families who attend the RSL events receive a kit including a book for three year olds, a booklet of helpful tips for parents to support their preschooler's learning and development, information on school programs and services, as well as information on other ECD services and community events. This initiative is led by the Ministry of Education in collaboration with the Ministry of Children and Family Development and the Ministry of Healthy Living and Sport. (In October 2010 the Ministry of Healthy Living and Sport was subsumed under the Ministry of Health.) In 2007/2008, all 60 school districts in BC participated in this initiative.

#### **4.2.3 Literacy Education Activity and Play (LEAP)**

LEAP BC is a set of online resources that motivate parents and caregivers to actively participate in a child's learning. The program provides children from

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13) According to Statistics Canada, there were 42,379 births in BC in 2006/2007, and 44,061 births in 2007/2008.

birth to age five with a strong foundation in literacy, physical activity and healthy eating. Through fun activities and play, families and caregivers can enhance infant and toddler movement, early language skills and eating habits. The following are five published resources available for parents and early learning practitioners.

- ***Move with Me from Birth to Three*** is designed to promote physical movement for infants and toddlers from birth to three years of age by incorporating the components of early language development and healthy eating.
- ***(Healthy Opportunities for Preschoolers (HOP)*** is a resource for families for playing with their children from three to five years old. It includes activities that integrate physical movement, oral language, early literacy and healthy eating.
- ***HOP Early Learning Practitioner's Resource*** is a handbook for service providers who work with families and children aged three to five years. It contains background information on healthy child development and guidelines for using other LEAP BC resources.
- ***Talk*** is a series of activity cards designed to encourage early literacy and language development in children from birth to five years old. Children learn oral language and words through playing with their parents and caregivers.
- ***FoodFlair*** are cards that contain information about nutrition, healthy eating and food-related topics, as well as recipes and fun activities which parents can do with their children to encourage healthy eating habits.

#### **4.2.4 StrongStart BC Early Learning Centre**

In 2008, the Province agreed to invest \$43 million to establish 400 centres under the StrongStart BC initiative for preschool children who are not attending

full-time childcare. Currently, there are 310 centres operating across BC.

StrongStart BC Early Learning Centre is a publicly funded, school-based early childhood program that is delivered by school districts in collaboration with the Ministry of Education. It offers a safe and high-quality early learning environment to preschoolers accompanied by parents or caregivers. The major difference between StrongStart BC Early Learning Centre and licensed child care is that it requires the parent's involvement in the child's early learning stages.

The program is located primarily in school areas and is led by licensed ECEs. This drop-in program operates approximately three hours a day, five days a week during school hours, and is available to families and children at no cost. The purpose of this program is to provide an opportunity for home-based children to interact and learn the skills they need to be ready for school; furthermore, it provides parents and caregivers with the knowledge and skills needed to support their child's early learning.

Children in this program have exposure to language-rich environments and play-based early learning experiences. These include activities such as storytelling, music, arts, puzzles and various physical movements that promote children's literacy, physical and social experiences. By attending the program, children are more likely to develop the skills, knowledge and disposition that support their success in school.

This program provides an opportunity for parents to observe and practice activities that they can do at home with their child. Parents who participate in the program learn strategies to support their child's physical, social and emotional

learning, language and communication skills, as well as healthy eating habits. Furthermore, this program connects parents with service providers and the community. It provides a family-friendly environment that allows parents to meet other families and become familiar with the community resources that support early learning.

This is a high quality early learning program because it is guided and evaluated by the *British Columbia Early Learning Framework* and *Understanding the British Columbia Early Learning Framework: From Theory to Practice*. The Centres operate in accordance with Ministry of Education standards. The locations of the Centres are determined using a combination of criteria. Prior to opening a StrongStart BC Early Learning Centre, a proposal is submitted to the Ministry of Education by school districts based on the unique needs of their community. The program not only demonstrates collaboration with the community to meet the needs of children and family, it also provides opportunities for other service providers to connect with parents or caregivers.

### **4.3 ECEC Programs in Cuba**

Cuba is a developing country that has a reputation for having a high-quality preschool educational system. In 2008, members of the Canadian Senate Subcommittee on Population Health conducted a fact-finding mission on Cuba's ECD programs, including early education programs. A government report was produced after the mission documenting the content, structure, management and impacts of these programs.

The early childhood educational system for children aged six months to five years in Cuba is mainly organized through a child care program known as Círculos Infantiles [Children's Circle] and a non-institutional program known as Educa a Tu Hijo [Educate Your Child], with the objective of achieving the greatest development for a child (Senate of Canada, Subcommittee on Population Health, 2008). These programs provide early childhood education to almost all children (99.5%) in Cuba. Of these, 71 percent of children participate in Educate Your Child (UNESCO, 2006).

"Children's Circle", a free, all-day, centre-based child care program, was created in 1961. It provides early learning to children whose mothers are working. Centres are open from 6 am to 7 pm, 5 days a week, with a team of professionals working collaboratively to provide integrated services. For instance, a centre with 110 children would include 33 staff (teachers and educational assistants), a full-time nurse and a part-time doctor on-site three days per week to provide services (Senate of Canada, Subcommittee on Population Health, 2008). The program is organized by age with a maximum of 30 children in each group. It addresses elements such as social development, motor development, literacy, music and play, which are intended to optimize a child's integrated development and preparedness for school.

However, as more parents entered the workforce in the 1980s, funding from the government could not sustain the program. This caused a shortage of child care spaces, and about 80% of children did not receive any form of education before primary school (Miller, 2002). In 1992, with support from

UNICEF, the government of Cuba adopted a community-based education approach with the launch of a universal, informal preschool education system – the “Educate Your Child” program (Keon, 2009).

“Educate Your Child” is a social-educational program based on more than 10 years of research on childhood growth and development (Senate of Canada, Subcommittee on Population Health, 2008). It is a non-institutional program for children under age six in Cuba who do not attend childcare centres. The program uses an intersectoral approach, with a strong emphasis on community engagement. It operates under the supervision of Ministry of Education, which collaborates with other agencies and organizations in the community, such as Ministries of Public Health, Culture, and Sport, the Federation of Cuban Women and student organizations (UNESCO, 2006). A group of counsellors and health promoters are responsible for planning and organizing the activities.

The program is designed to coach and empower families to stimulate their child’s integrated development by participating in their child’s early learning and education (Senate of Canada, Subcommittee on Population Health, 2008). It provides family-oriented services, both to individuals and small groups. Besides early learning and parenting education, “Educate Your Child” provides future parents with information on healthy pregnancy and nutrition. The following are three main components of the program:

- Information on healthy pregnancy and early child development is provided to future parents when they visit doctors and nurses.
- Individual home visits are provided to families with children less than two years of age once or twice per week. Through the home-based

activities and games, a family receives guidance from counsellors and learn effective parenting and communication skills to enhance their toddler's development.

- Children between the ages of two and four years, accompanied by their families, attend activities and programs in parks, cultural facilities and sport centre for two hours, once or twice a week. These programs are facilitated by counsellors and promoters trained in child development and family participation.

The “Educate Your Child” emphasizes family involvement as it recognizes the effect of the family on the formation and development of children at all stages of life, especially at a very young age. Families are taught how to stimulate their children's integrated growth through home-based activities and by building a strong parent-child connection. Besides learning the proper activities and practicing with their children, families are encouraged to acquire an in-depth understanding of child development through direct participation. For instance, this program encourages some grandparents to study psychology and learn developmental tools which can be used with their grandchild. They can further transmit this knowledge to working parents to enhance their parenting skills.

## **5: DISCUSSION**

### **5.1 ECEC Programs in BC**

Among all the ECEC programs in BC, non-parental childcare services are the most common educational and developmental program for young children under the age of five as it does not require parents to accompany the children. However, there has been no significant expansion of the childcare services over the past few decades; public spending on childcare has decreased in BC since 2001. Since 2000/2001, the provincial surplus has grown by 388% of GDP, however, data from 2006/07 indicates that the provincial contributions to child care services have declined by 33% (The Consortium for Health, Intervention, Learning and Development [CHILD] Forum, 2007).

The childcare system in BC is not universally accessible to every child who may need these services. Data indicate that 56% of children aged zero to five years in BC have mothers working in the labour force, but only 18.3 percent of the children are enrolled in a regulated childcare space (Beach et al., 2009). Low attendance might imply certain barriers to seeking appropriate services. For instance, results from the *2003 BC Parent Child Care Survey* indicated that 41% of parents were unable to find childcare when they needed it, and 40 % of parents found childcare to be too expensive (HELP, 2005). It is the parents' responsibility to arrange the childcare service and some parents might not be aware of the available services in their neighbourhood. Furthermore, parents are

paying a high portion of the childcare cost since the programs in BC run under a market-determined fee structure. The majority of middle-income families, who are not eligible for the federal supports and provincial childcare subsidy, are paying a very high childcare fee (Table 1).

Although all of the child care centres, preschool and the regulated family child care are licensed and monitored in accordance with the *Community Care and Assisted Living Act* and the Child Care Licensing Regulation, officers from health authorities only perform annual inspection on issues such as health and the safety of the child care environment. The quality of the child care such as the type and range of children's activities and the nature of the caregiver-child interactions are not adequately monitored in BC. There is no review or assessment by the ministries on whether the childcare programs in BC have a developmental focus. Especially for family childcare in which the childcare provider may have only minimal knowledge of child health and development, the program is mainly care-oriented instead of providing an early learning opportunity for the children.

In addition to the different types of childcare services, the government of BC has implemented a few early learning initiatives such as RSL, LEAP and StrongStart BC Early Learning Centres that aim to support a child's learning experience and development in the first few years. These programs are free of charge and require a certain degree of parental involvement. They are designed to enhance parents' knowledge and skills in stimulating their child's development through home-based activities. However, most of the programs only provide

parents with written resources on early childhood development and learning, without guidance or advice from professionals. For instance, RSL is a one-time workshop that provides parents with information on early childhood development and local resources. Families who attend the event receive a kit of written materials for both parents and children. The nature of the program is not to provide development-oriented service; rather, it is an information session for parents and children on the school system and early learning. Similarly, Books for Babies and LEAP are sets of resource for parents to stimulate their children's development in area such as motor movement, early language skills and eating habits. Parents are expected to learn the activities through the books or online resources and practice with their children on their own.

Of the publicly funded ELPs, the StrongStart BC Early Learning Centre is relatively more interactive. The Centres offer a high quality early learning environment for home-based children, with activities led by licensed early childhood educators. Parents who attend the program can observe effective strategies and become familiar with the community resources that support early learning. However, these Centres are not widely available in all communities because only 310 Centres have been established since 2008. Furthermore, these Centres are not accessible for working parents as they only operate for a short period of time during school hours. A recent evaluation of StrongStart BC found that the main reasons for parents to drop out of the program are related to their inconvenient schedule in relation to work or school requirements (HELP, 2008).

## **5.2 ECEC Programs in Cuba: “Educate Your Child”**

“Educate Your Child” is a collaborative program addressing both early learning experiences and parental participation in childhood learning. The program facilitates the integration of resources on early child learning and ensures a sharing of responsibilities among the stakeholders. Parents receive comprehensive information and support on how to stimulate their children’s development as early as birth. For instance, the home-visiting component provides parents with information on how to communicate and be responsive to their toddlers. Not every family adapts successfully to the challenges of caring for a young baby. Sometimes this transition can be a difficult time, particularly for first-time parents who are not familiar with the services available. Under such circumstance, a home visiting service not only provides parents with the skills and knowledge needed to support their child’s development, it also increases the accessibility of the “Educate Your Child” program because some parents might be preoccupied with household duties or taking care of older children.

For children aged two to four years, “Educate Your Child” provides community-based learning activities and programs to stimulate their integrated development. Programs are coordinated among different organizations and take place in parks, cultural facilities and sport centres, with flexible schedules. Family involvement is the key to the program. Besides learning the activities and repeating them with the children at home, parents are expected to acquire an in-depth understanding of child development through direct participation. They are encouraged to discuss their concerns and they receive guidance from the

program counsellors who have extensive knowledge in early childhood development.

### **5.3 Successful Elements Identified from Cuba’s Model**

After examining the ECEC programs in BC and Cuba, the following seem to be the essential elements that contribute to the success of the “Educate Your Child” program in Cuba. The differences between the programs in BC and Cuba for all of the elements are also mentioned.

#### **5.3.1 A Publicly Funded and Universally Accessible Early Childhood Education Program**

The “Educate Your Child” program in Cuba is available to every child under the age of five at no cost. The program addresses the needs of families and children by improving their access to an early childhood learning experience. It consists of a home-visiting component and community-based learning experiences that can happen outside the parents’ work schedule. Data indicate that more than 70% of children in Cuba are attending this program (UNESCO, 2006). In comparison, the child care programs in BC are privately operated and have a market-driven fee structure. They are neither accessible nor affordable for most parents; data indicate that only 18% of children aged zero to five years are attending in a regulated childcare program (Beach et al., 2009). Other publicly funded ELPs such as the StrongStart BC Early Learning Centre are not widely accessible to children in BC because they only take place in certain communities and often with short hours of operation that do not accommodate the needs of working parents.

### **5.3.2 Integrated Resources and Collaboration among Different Social Sectors**

Cuba undertakes a multisectoral and collaborative approach in their early childhood education system. “Educate Your Child” is a community- based program that includes strong support and active participation from a variety of social sectors. All sectors believe in the principle that education is the responsibility of all. In comparison, the ECEC programs in BC are only addressed under the mandates of the Ministry of Children and Family Development and the Ministry of Education. A collaboration with other government departments such as the Ministry of Community, Sport and Cultural Development and social and cultural organizations can enrich children’s early learning experience by improving the activities and resources in the communities.

### **5.3.3 High Quality, Development-focused Program**

The “Educate Your Child” program is organized and delivered by a group of specialists in childhood growth and development. The activities are directed at the total development of each child; they provide family guidance on stimulation of the social, affective, cognitive and motor development of the child. In contrast, families have no assurance that the child care programs in BC will be nurturing and stimulating, and whether they will provide an environment that supports the development of a child, especially in the family child care where the child care providers have only minimal training in child development. There is currently no monitoring or evaluation of the quality of the programs.

### **5.3.4 Strong Emphasis on Parents' Involvement in a Child's Early Learning**

The government of Cuba recognizes the importance of the parent-child relationship. Its early childhood education program integrates parenting education and children's learning. It requires parents to take a proactive role in their child's early learning and to be interactive with the service providers. Research indicates that parental involvement in a child's program is associated with positive changes in parenting abilities, the parent-child relationship and the home-learning environment (Cleveland et al., 2006). In contrast, parent participation is not emphasized in the ECEC program in BC, especially in the child care program. A Canadian national survey on parents of young children indicated that although more than 90% of parents agreed on the importance of parenting, these parents have very limited knowledge of children's growth as well as their social and emotional development (Matusicky & Russell, 2009).

## **5.4 Recommendations on ECEC programs in BC**

As there is an increasing trend of child vulnerability in BC, the province urgently needs a more comprehensive ECEC system to adequately address the needs of children and families. A way to enhance the ECEC system is by incorporating the successful elements identified from Cuba's model into the existing programs in BC. Since it is more feasible to build from what exists, the following are few recommendations to enhance the existing ECEC system in BC:

- 1. Increasing the Affordability of Regulated Childcare Services** because the financial burden is one of the major barriers for children to attend childcare programs. Although the government provides some families with financial

supports through programs such as the *NCBS* and the *Provincial Child Care Subsidy*, the majority of families with middle class income are not eligible for benefit and fee subsidy. The government should consider enhancing the existing child care subsidy systems for middle-income families by increasing the income level that is eligible for subsidy as well as increasing the amount of subsidy for low-income families as the current subsidy amount covers only a maximum of 60-70% of the child care cost.

- 2. Improving the Accessibility of StrongStart Early Learning Centres** by extending the hours of operation. As a publicly-funded ELP that provides nurturing and stimulating early learning experiences to the preschoolers in BC, the StrongStart BC Early Learning Centres were highly valued by the parents who attended (HELP, 2008). The Centres should take into consideration the availability for working parents. They could extend the hours of operation to after-school or weekends in order to accommodate the needs of parents.
- 3. Conducting Adequate Monitoring and Evaluation to Ensure the Quality of ECEC Program** -- Currently, there is minimal or no monitoring of the quality of childcare programs, especially for family child care. At present, no process or outcome evaluation has been done for most of the publicly funded ELPs. The government of BC should conduct adequate monitoring and program evaluation such as by assessing the developmental components in the childcare programs, tracking the number of sessions held and attendance

in each session, and measuring family or child outcomes, as these data are essential to determine the effectiveness of programs.

- 4. Promoting Parents' Involvement in ECEC Programs by Integrating Childcare Services and Parenting Education** – Since parents are recognized as a child's first teacher, the government should create more opportunities to prepare and educate parents for their roles in meaningful ways. This would specifically include direct interaction with and guidance from the professionals. The element of parenting support and education can be integrated with the childcare services as to increase parental involvement in their child's early learning. For instance, a "family night" with the opportunity for parents to participate and learn the skills needed to stimulate their children's development can be introduced in regulated childcare programs.
- 5. Developing ECEC Programs that Address the Risk Factors in BC** – Although this is not directly related to the successful elements of Cuban model, researchers could provide information from the EDI to identify factors that contributed to children vulnerability, which might include previous attendance in a preschool program or parents' education level. In order to improve the health of the entire population in BC, future programs on ECEC should address these risk factors.

## **5.5 Limitations**

There are several limitations in this study that need to be acknowledged. Since there is no consensus on the definition of ECEC programs in the previous

reports in BC, the BC ECEC programs that are discussed in this paper may not represent all of the government regulated or funded early learning opportunities for children across the province. For instance, since being a universal program is one of the inclusion criteria, other programs that may have significant impact on children's early learning might be excluded (e.g. programs that are intended for children with mental disability).

Other than the data on regulated child care, no systematic information is collected for any non-regulated child care and ELPs in BC. Information such as suboptimal rate of early childhood learning, patterns of use and characteristics of children who use the program is not available to determine the use and the effectiveness of the existing programs.

Likewise, information on the Cuban model is limited because of the language barrier. It is mostly derived from international reports prepared for other purposes. The information might not be as comprehensive and informative as those available on the official websites of Cuban governments. A probable way to compensate this limitation is by interviewing the policy-makers in Cuba who are responsible for the ECEC program or having someone to translate relevant materials from Spanish.

## **5.6 Conclusion**

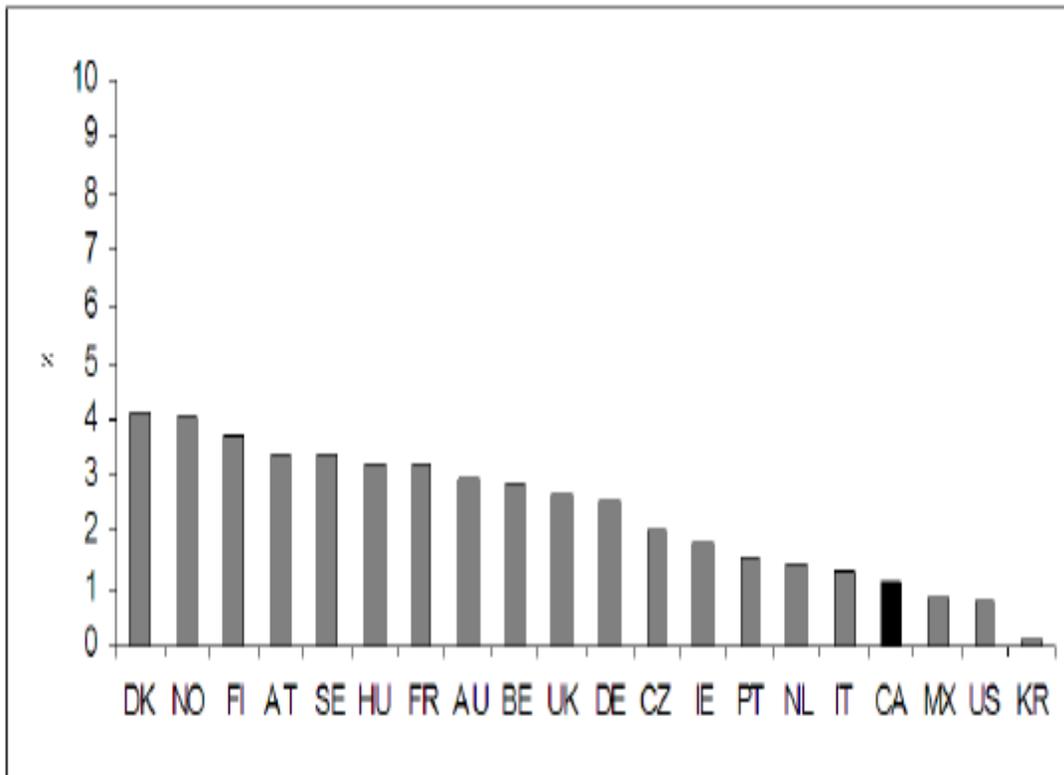
Although there are significant differences in terms of the social and political contexts between Canada and Cuba, the elements identified from the Cuban model are applicable to the situation in BC. In order to enhance children's

early learning experiences and possibly reduce the rate of developmental vulnerability in BC children, the ECEC programs in BC should consist of high quality, affordable childcare services and accessible publicly funded ELPs. Moreover, adequate monitoring and evaluation of the processes and outcomes are essential to ensure the effectiveness of these programs.

## **APPENDICES**

## Appendix 1

### Public spending on benefits/services for families/young children (as a % of GDP)

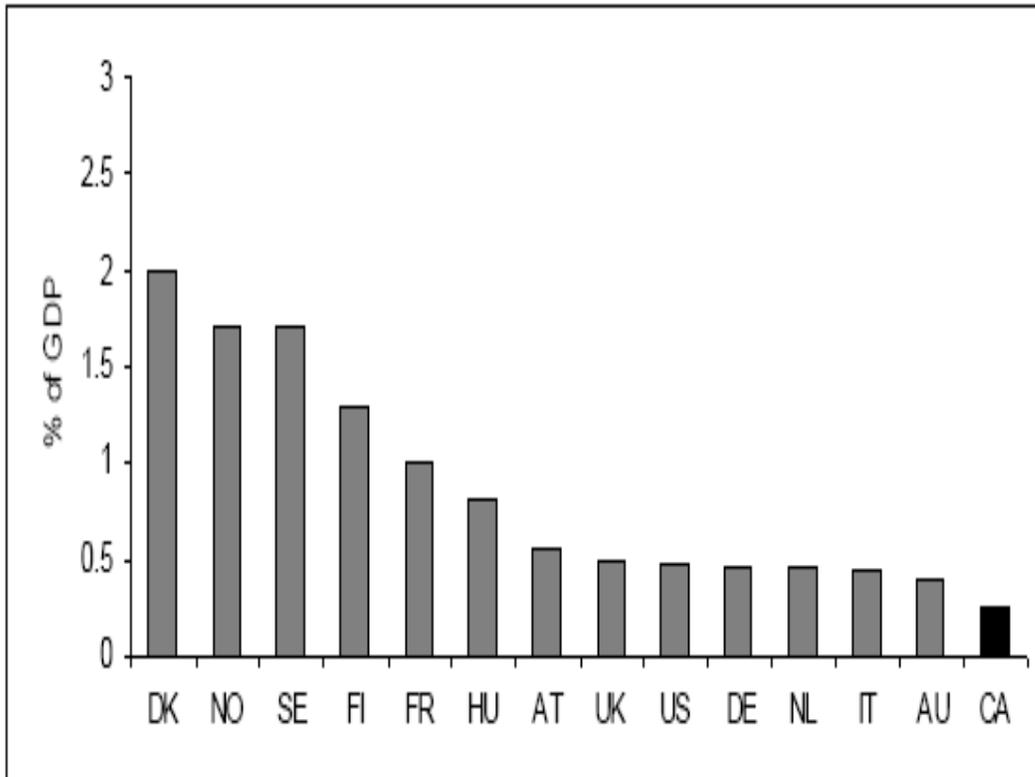


Note: Includes total cash benefits and total family services. Public expenditures based on International Standard Classification.

Data source: OECD. (2006). Starting Strong II: Early Childhood Education and Care. Annex C, pg. 246.

## Appendix 2

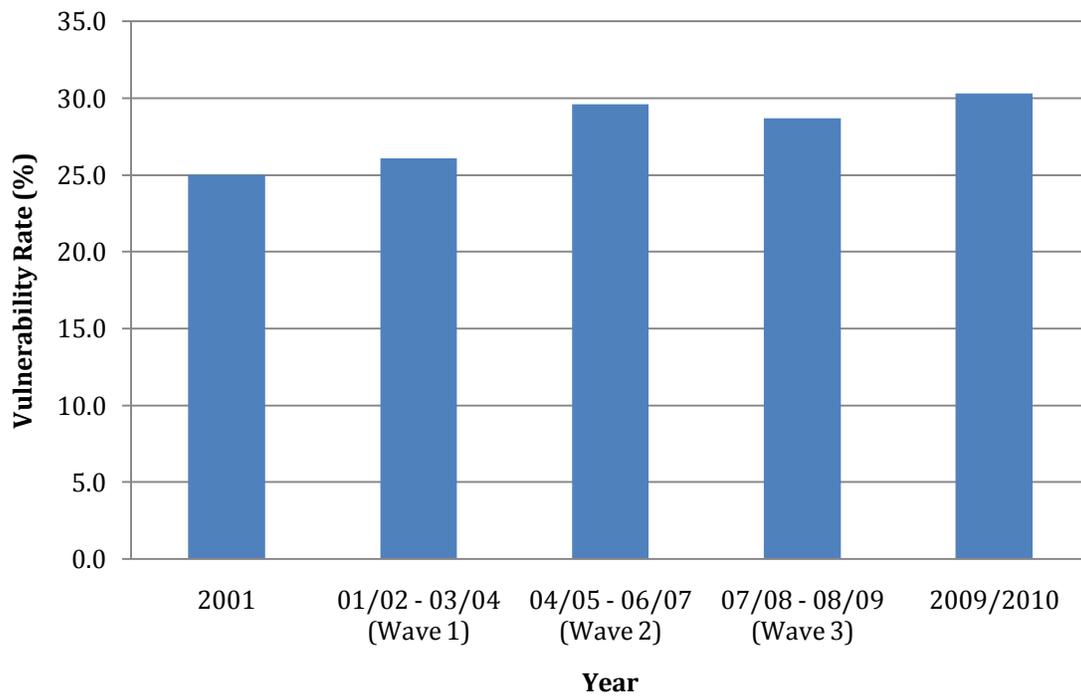
### Public spending on Early Learning and Child Care programs for children aged 0 to 6 years (as a % of GDP)



Data source: OECD. (2006). Starting Strong II: Early Childhood Education and Care. Annex C, pg. 246.

### Appendix 3

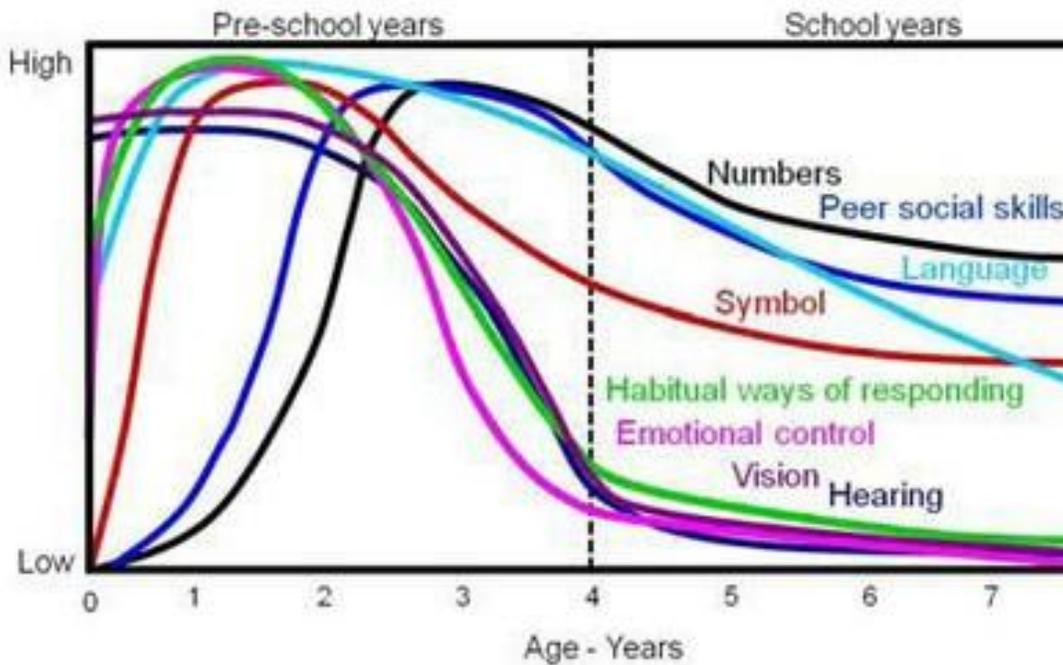
## The Rate of Vulnerable Children in British Columbia (based on EDI result), between the Year 2001 and 2010



Data Source: Human Early Learning Partnership (2010). Early Development Instrument (EDI) Data Tables (as Excel Files). Website: <http://www.earlylearning.ubc.ca/maps-and-data/edi-data-tables/>

## Appendix 4

### Sensitive Periods in Early Brain Development



Graph developed by Council for Early Child Development (ref. Nash, 1997, Early Years Study, 1999; Shonkoff, 2000.)

Data Source: Council for Early Child Development. (April, 2010). *The Science of Early Child Development*. Website: [www.developingchild.harvard.edu](http://www.developingchild.harvard.edu)

## Appendix 5

The list of provincial activities, as shown in the *British Columbia's Early Years Annual Report 2007/2008*, under the key action area "Strengthen Early Childhood Development, Learning and Care":

- Infant and Early Childhood Mental Health Services
- Autism Diagnosis and Assessment (ASD)
- ASD- Early Intensive Intervention Services
- Consultation for Complex Condition - Child
- Early Childhood Screening Initiatives (vision screening, early hearing screening, dental health and screening)
- BC Early Learning Framework
- StrongStart BC Early Learning Centres
- Books for BC Babies
- LEAP BC
- Ready, Set, Learn
- Roots of Empathy
- Seeds of Empathy

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