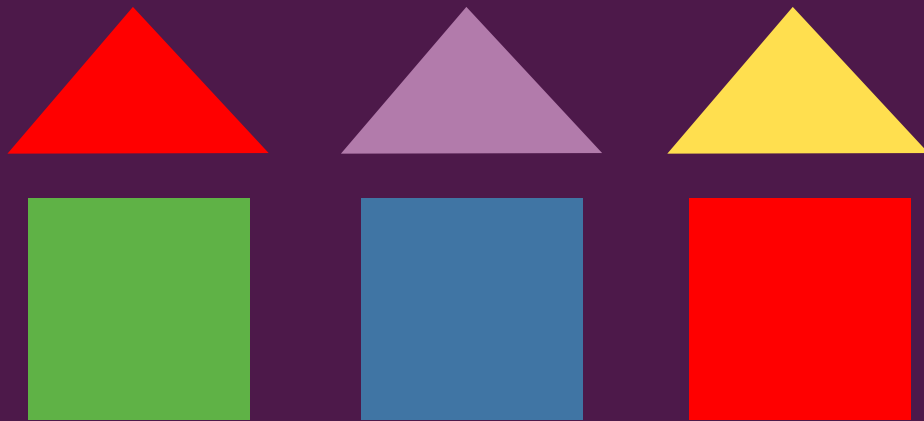


# **Creating Communities for Young Children**

*A Toolkit for Change*

*Produced by the  
Human Early Learning Partnership*



## Acknowledgements

We would like to acknowledge the co-authors of the Early Development Instrument (EDI), Dr. Magdalena Janus and the late Dr. Dan Offord. Dr. Janus has been a driving force in the success of the adaptation of the EDI nationally and around the world. Dan Offord was the founding director of the Offord Centre for Child Studies and was a proponent of addressing issues in children before they arise, and contributed his lifetime to the well-being of children.



*“HELPIng children thrive”*

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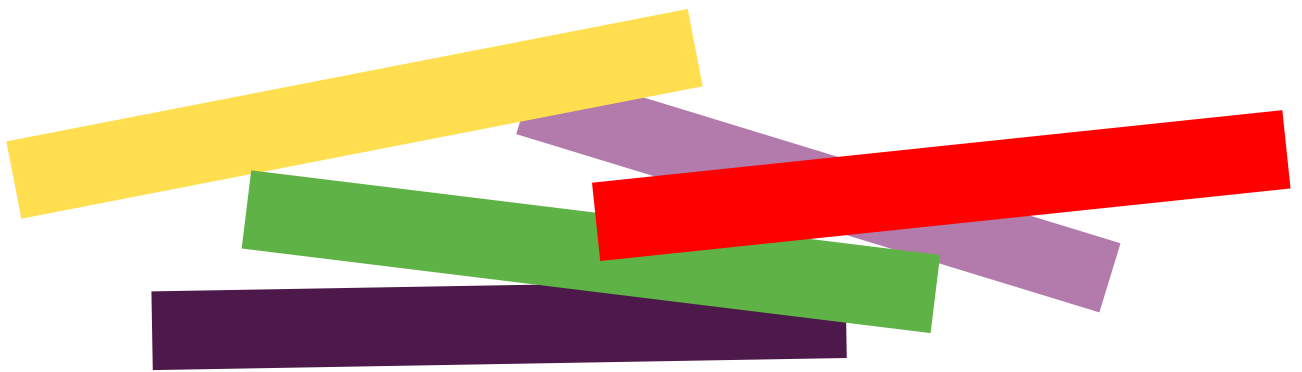
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# **Creating Communities for Young Children**

*A Toolkit for Change*

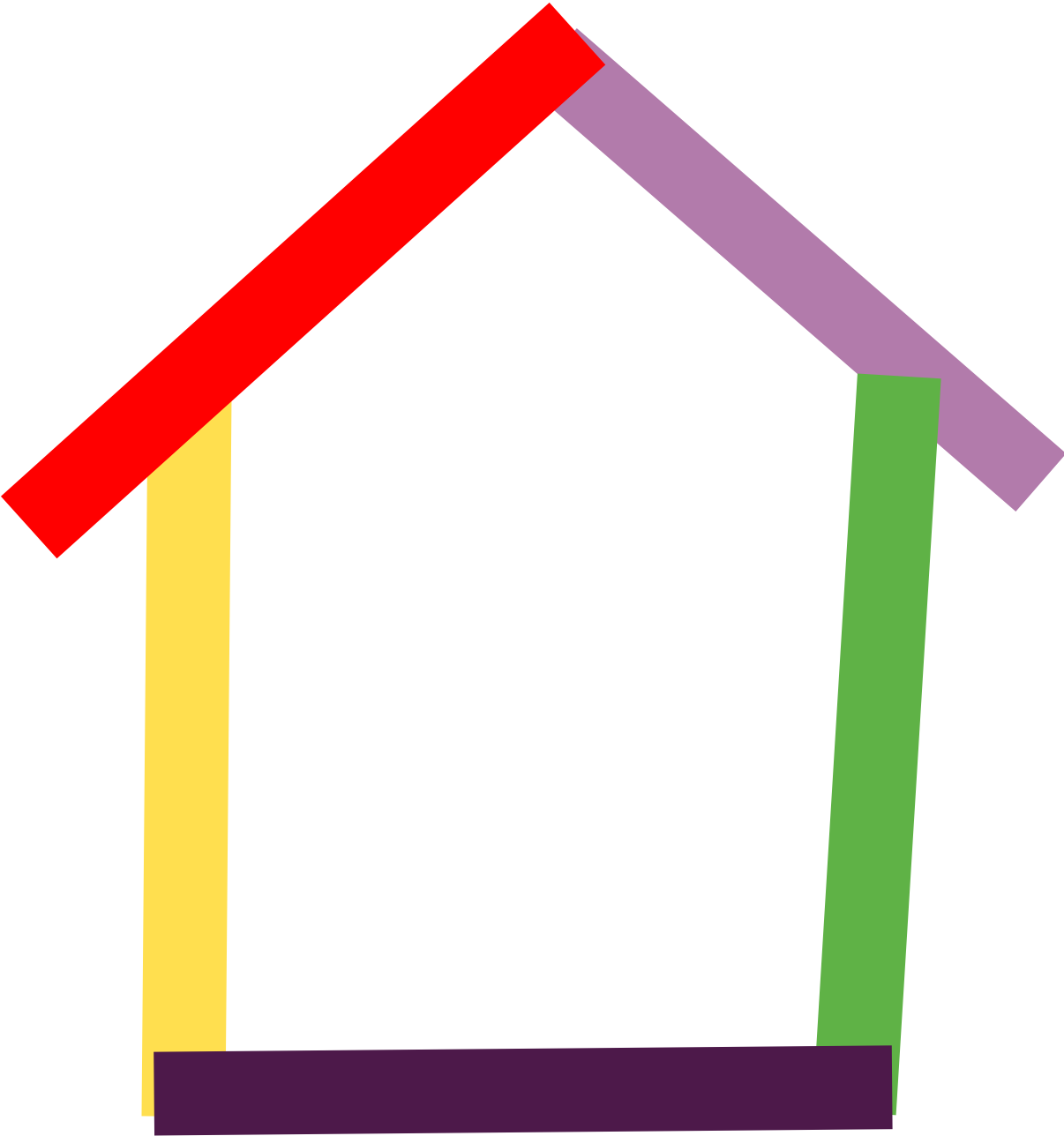
*Produced by the*  
Human Early Learning Partnership

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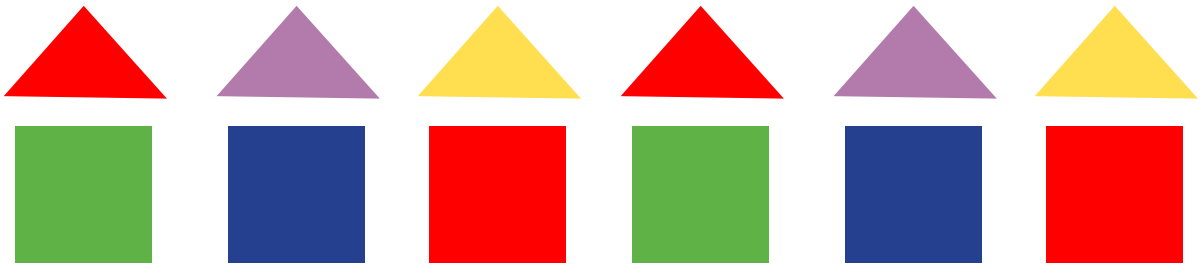
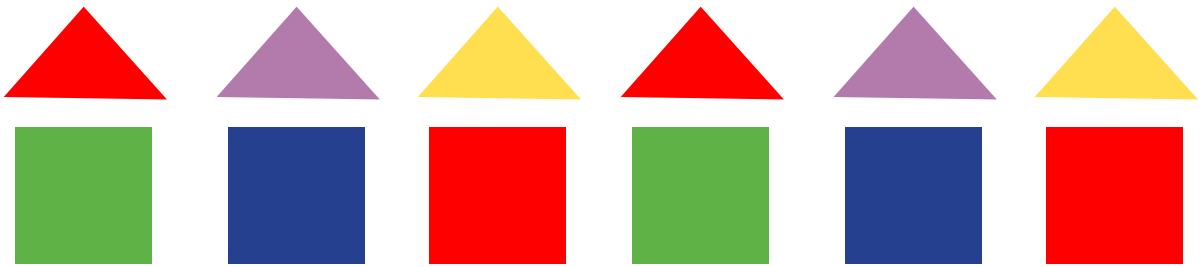
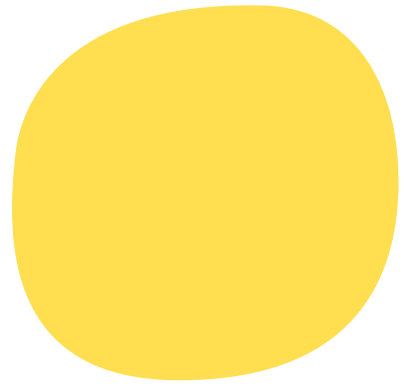
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## Introduction

In 1999, under the leadership of Dr. Clyde Hertzman, the Human Early Learning Partnership (HELP) launched the Early Child Development Mapping Project. The project has evolved to become the first of its kind in the world. British Columbia is the first jurisdiction to track the development of its entire population of kindergarten children.

Using the Early Development Instrument (EDI), a tool developed by Drs. Dan Offord and Magdalena Janus, HELP has collected information on the state of children's development at school entry in every school district in British Columbia. This process has been completed multiple times in each area of the province, revealing the population-level trends in children's development in neighbourhoods throughout BC.

The EDI information in itself is important, however the sharing of that information has been equally critical to the project's overall impact for children, families and communities in BC. From the outset, HELP has emphasized the importance of sharing the information with communities and policy-makers.

HELP identifies "community" very broadly. Our community members come from a variety of sectors and the work of the ECD Mapping project is applicable across these settings.

Certainly "community" means our most common constituents: schools and kindergarten teachers, early child development organizations, early childhood educators, Aboriginal organizations, municipal, provincial and federal governments, yet it also means people and organizations that might not be so commonly thought of as partners in early childhood research: parents, and grandparents, entrepreneurs, and labour unions. Indeed anyone that shares the vision of creating better environments for children can be confident that they are part of the HELP "community".

Using geographic maps, HELP displays the EDI results at the level of the neighbourhood, school district, and local health authority. These maps are posted on the HELP website and are widely used both by the HELP research team and community members to talk about the results. Having a visual representation of the information has empowered communities to understand how "their" children are doing; to use the information to inform local planning for early child development resources; and, perhaps most importantly, to engage all citizens in a conversation about the importance of early child development.

### **The differences that make a difference**

One of the critical findings of the project, consistent with previous research, is that there are large disparities in children's development across the province. From one neighbourhood, or one school district, to another, there are large differences in the physical, social/emotional, and cognitive development of children entering kindergarten.

To quote Dr. Hertzman, these are the "differences that make a difference."

Research on early child development tells us that children who are not given access to environments that nurture their development in the early years are more likely to face lifelong challenges in their health and well-being.

At HELP, it is our long-term intention to redress these "differences." By working in partnership with communities and governments, we want to ensure that all children have equal access to conditions that support healthy development—and ultimately to reduce the inequities.

### **About this toolkit**

This toolkit is designed to help communities understand the work of the ECD Mapping Project and to use the information in their neighbourhoods to create positive change for children. It is intended to support communities within BC, although many of the ideas will be adaptable to other jurisdictions.

Several of the learnings shared in the toolkit have been developed in partnership with Aboriginal communities throughout the province and the toolkit is designed to be used in a variety of cultural contexts. However, it does not address some of the specific questions that arise in respect to using this research in Aboriginal communities. It is anticipated that through the leadership of HELP's Senior Aboriginal Researcher and Aboriginal Steering Committee further chapters will be added that will increase the relevance of the toolkit for indigenous communities.

The toolkit includes information about the importance of early child development, the history of the Early Development Instrument and its administration in BC, as well as details regarding child development indicators and related policy and program considerations.

### *About the Human Early Learning Partnership*

Unique in Canada, The Human Early Learning Partnership (HELP) is an interdisciplinary research consortium of faculty, researchers and graduate students from BC's six major universities who take a life course perspective on development, well-being and competence. Directed by Dr. Clyde Hertzman, HELP partners with government and communities to translate research into policies and practice.

HELP's vision is to create, advance, and apply new knowledge, through leading interdisciplinary research, to help children thrive. Through partnering with government and communities, HELP applies this knowledge in the communities where children grow and learn.

As a core research project within HELP, the Early Child Development Mapping Project brings together academic, government, and community partners to help us to better understand early child development in neighbourhoods across British Columbia.

Chapter 1 provides an overview of early child development, nurturant environments and issues of equity. Chapters 2, 3, and 4 include a description of the Early Development Instrument, steps for implementation, and details of the process that HELP uses to train kindergarten teachers in the completion of the EDI. Chapters 5 and 6 provide information on the analysis and interpretation of three key indicators of population-level early child development: the EDI, socio-economic characteristics, and community-based assets. The final chapter, Chapter 7, includes practical suggestions on how to influence policy and program development. It provides tools designed to address the important question, *what can you do in your community to create change?*

The toolkit is designed to provide practical supports to communities. Please use its contents in ways that support your work. Individual graphics, lists and tables can be adapted for local purposes and can also be downloaded from the HELP website for presentations and sharing. At the end of some chapters will be a few questions intended to further your thinking and increase the local relevance of the content.

*“... the world doesn’t change one person at a time. It changes as networks of relationships form among people who discover they share a common cause and vision of what’s possible. This is good news for those of us intent on changing the world and creating a positive future”.*

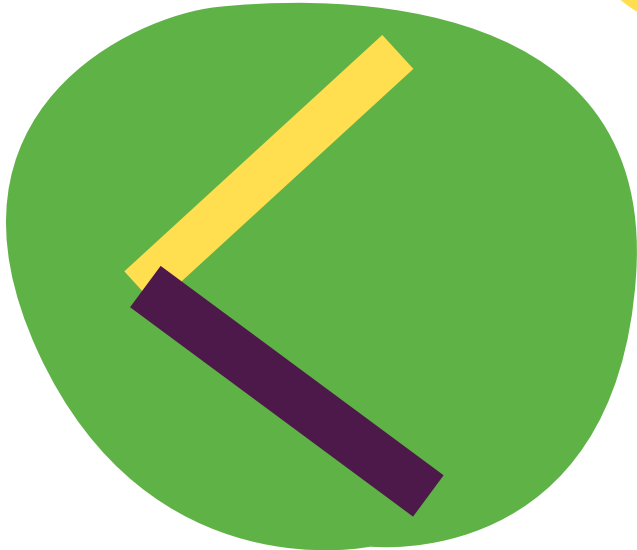
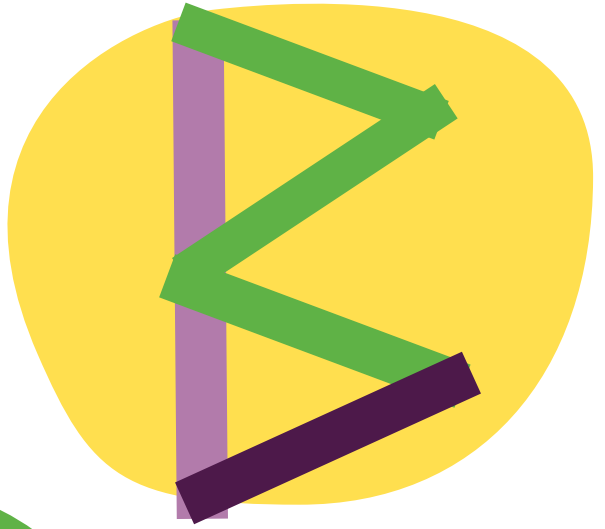
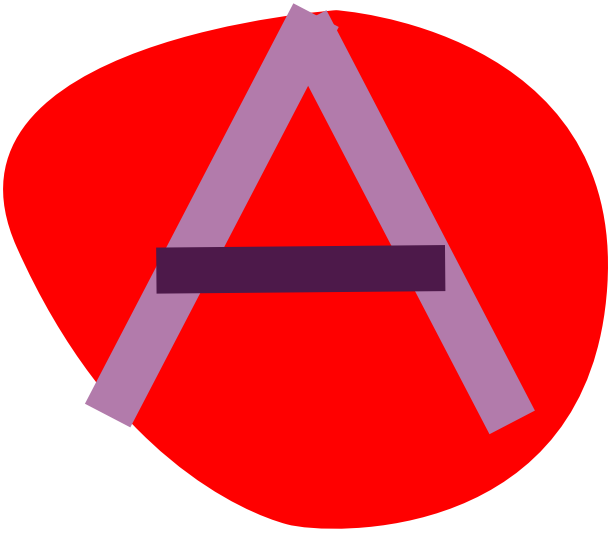
*(Wheatley and Frieze, 2008)*

### **Let us know what you think**

We encourage you to provide feedback on the toolkit. We plan to update this document on a regular basis and your suggestions will help to improve it. Please send us your ideas, tools that have worked (or not worked) in your experience and especially your stories on how the information has been helpful in creating change. Contact information is listed at the back of this toolkit.

In the 2008/09 school year, HELP started collecting EDI information annually. This information will enhance our collective ability to understand children’s development in BC. HELP is also moving to gather more data electronically and build data platforms to support child research across Canada and beyond.

At HELP we will be developing new ways to analyze and share the information, and we will be learning from communities about how we can best support your efforts. After ten exciting years at the forefront of early child development research, seeing the ECD Mapping Project evolve and make a difference, we look forward to continuing to serve BC’s children, families, and communities.



## Chapter 1

# The ABC's of ECD

The early years of a child's life play a crucial role far beyond childhood. These years, notably from birth to five, influence many aspects of one's adult life, especially aspects related to health and social issues. Research now shows that many challenges in adult society—mental health problems, obesity, heart disease, criminality, competence in literacy and numeracy—have their roots in early childhood.

Studies show that a child's early experiences have a vital impact on the way his or her brain develops. A baby is born with billions of brain cells that represent lifelong potential. To develop, these brain cells need to connect with each other. The more stimulating the early environment, the more positive connections are formed in the brain and the better the child thrives in all aspects of their life: physically, emotionally, and socially as well as in their ability to communicate and to learn.

Environments influence child development independent of and in combination with a child's biological characteristics. The nurturant qualities of the environments to which children are exposed in their earliest years literally “sculpt” the developing brain. Children are also social actors who influence the environments around them—from the first time they cry and get fed children are acting on their environments.

### **What are nurturant early environments?**

Evidence has demonstrated that it is the quality of the environment that matters most for children's development (Ramey & Ramey, 1998a). Nurturant environments include those which:

- Encourage exploration
- Provide mentoring opportunities for basic skill development
- Guide and extend development of new skills
- Protect against inappropriate discipline
- Celebrate developmental advances
- Provide equity in treatment
- Provide a rich and responsive language environment

Rich and responsive language environments allow children to acquire language much more rapidly than environments where little conversation takes place (Ramey & Ramey, 1998b). Engaged, supportive environments condition the developing brain in positive ways that, in turn, influence positively how children will perceive and respond to stressful experiences for the balance of their lives. Nurturant environments should also include equity in treatment of children: in opportunity, expectations, and aspirations.

*Parents and other caregivers want to provide these opportunities for their children, but they need support from community and government at all levels. Healthy child development is related to the intersection of what is provided by parents, families as a whole, neighbourhoods, schools, communities, and wider civil society. Supports go beyond parental and family influences and extend to aspects of institutions, neighbourhoods, networks, and governments. Children’s development is influenced by the interplay between all of these environments.*

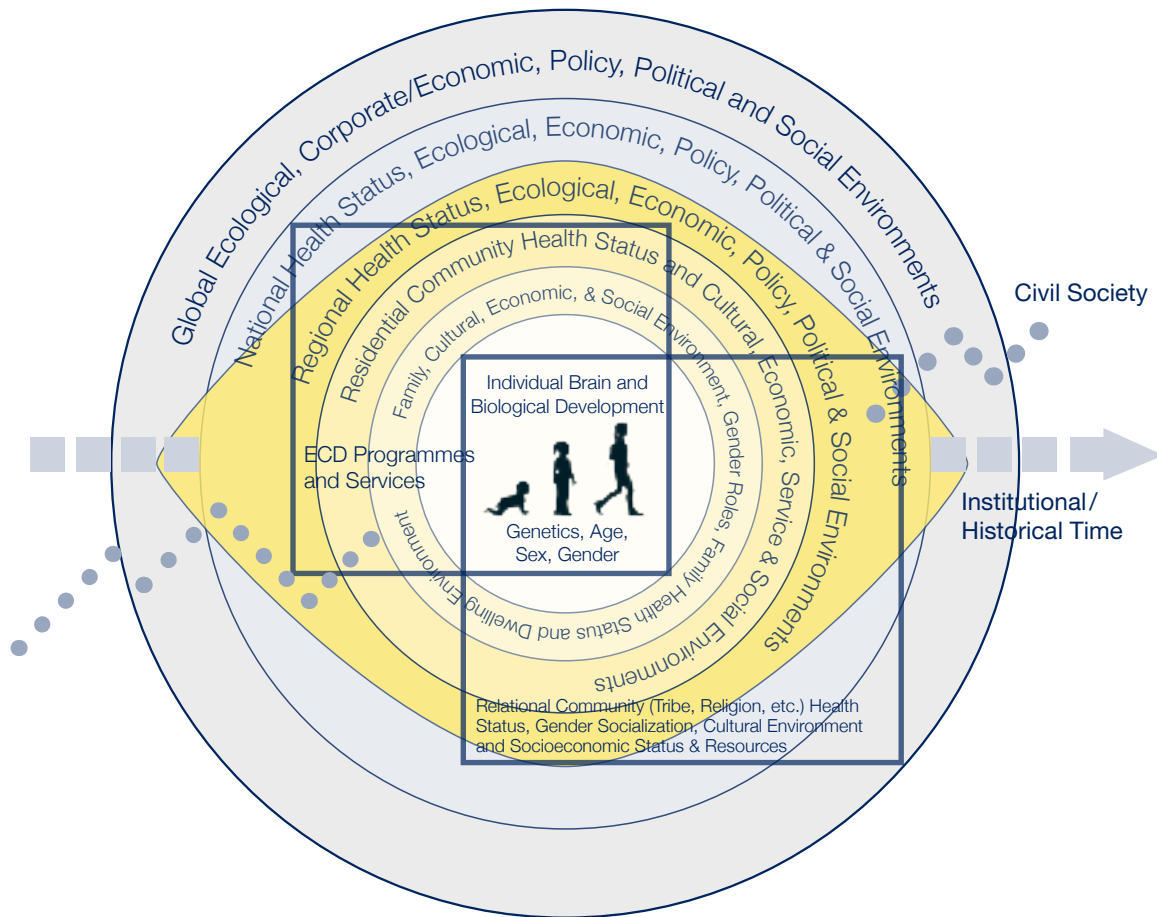


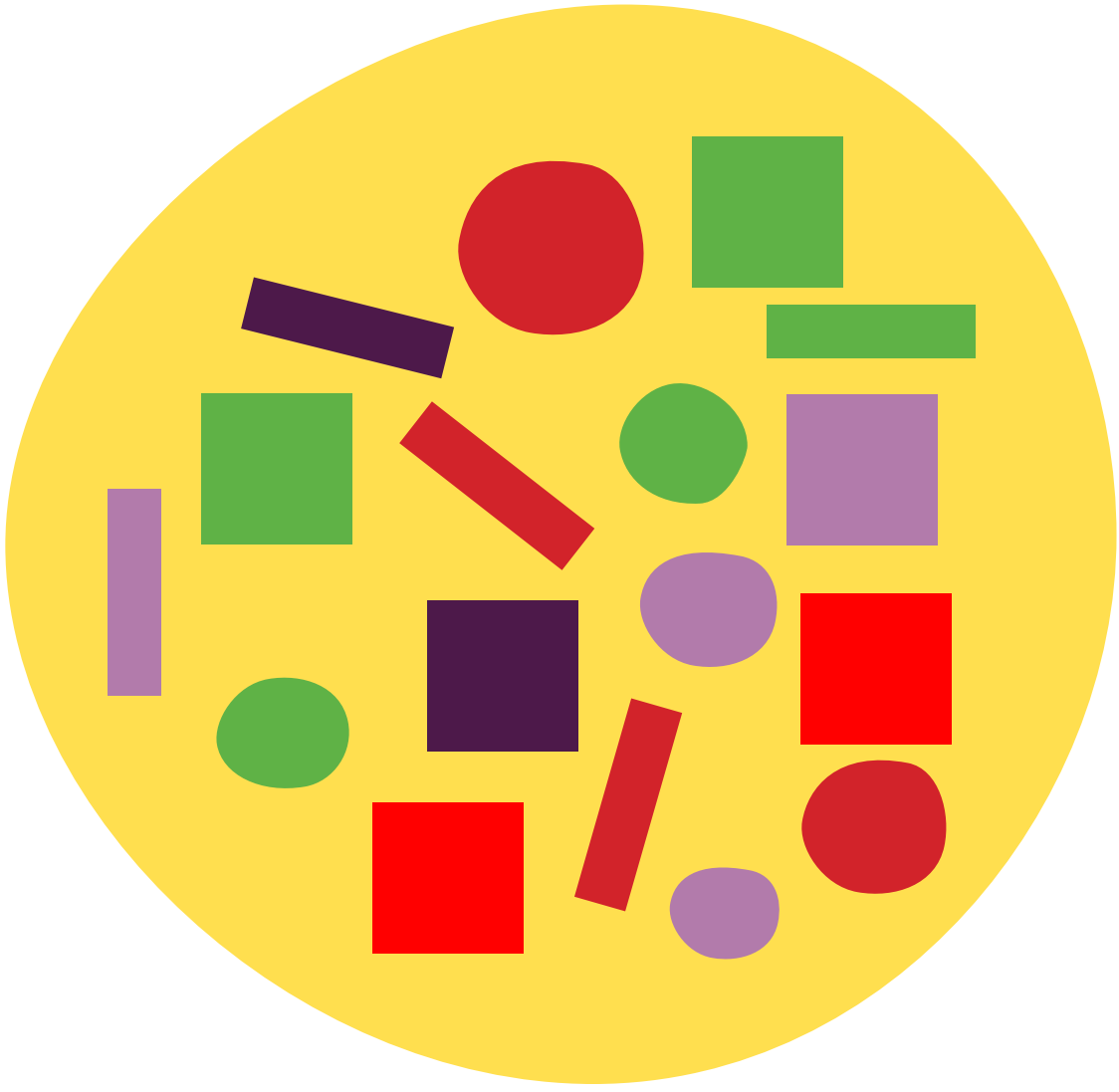
Figure 1: Environments that impact on children’s development. (Irwin, Siddiqi, & Hertzman, 2007)

## Why we care about issues of equity

It is well known that all families and communities do not have the same access to the conditions that support healthy early child development. There are social and economic disparities, and the result of socio-economic inequity is evident in children's developmental outcomes. In addition, there are disparities in the quality of environments to which children have access. These disparities also have a direct impact on developmental outcomes. The overarching goal for communities and governments is to redress these inequities. To reach this goal, we all need to strive to improve the nurturant qualities of all the experiences that children have in the environments where they grow up, live, and learn. To effectively level the playing field we must think about all of the factors that affect children's development: developmental problems there at birth, family environment, socio-economic conditions, neighbourhood influences, availability of early child development services, and policy directions.

### *Dialogue For Our Community*

- Think about the environments that impact the development of children in our community. Places for safe play and exploration? Quality, locally accessible programs? Family environments?
- Have a dialogue about how these environments may or may not be providing nurturant experiences for children's development.
- What is your impression of how equitable the access is to quality environments in your community?
- Do you have ideas about you or others in your community to increase the quality and the equity of access of any environments within your local area?



## Chapter 2

# **Population Health Perspective: The Early Development Instrument**

Addressing inequalities in early child development on a population level requires effective policies and strategies. These measures cannot be developed in a vacuum. Just as you would not set out on a journey without knowing your current location, community members and policy makers who are aiming to improve ECD need robust, reliable population outcome indicators that reflect children's early development.

The EDI is one such indicator because it reflects the three key domains of children's early development, namely

- physical health and well-being
- social and emotional development
- language and cognitive development

In addition, the EDI has demonstrated its validity across a variety of populations (urban, rural, cultural, etc.).

### **Roots and purpose of the EDI**

Following the Ontario Early Years report (Mustard and McCain, 1999), Magdalena Janus and Dan Offord (Janus and Offord, 2000) developed the Early Development Instrument (EDI) to provide a population-based estimate of child development at the time of school entry. The EDI was developed in consultation and collaboration with various community stakeholders, including

- early childhood educators and kindergarten teachers
- early years community coalitions
- staff of early child development and parenting programs

Drs. Offord and Janus required that certain criteria be followed in administering the EDI:

- The EDI is used only as a population level measure: results are interpreted for groups of children, not individuals.

- Based on several months of observation, the EDI is completed by kindergarten teachers.
- The EDI is used to sample diverse populations and communities.
- Results are used by communities to identify areas of strength and vulnerability in children’s development.
- Results are used to mobilize communities and to assist them in developing strategies to improve outcomes for children.

### **The purpose of the EDI**

The EDI provides population-based data about early child development to communities and governments so that they can put into place programs and policies to support healthy child development in all families. Illustrating with data the disparities in children’s development inspires action to redress these inequities.



### **Who is included in this research?**

EDI data are collected for kindergarten children in schools within BC, including kindergarten children in public, independent and Band (First Nations governed) schools. No kindergarten children are excluded from the research, although participation by all districts and schools is voluntary. The ECD Mapping Project does not capture those kindergarten children who are home schooled or in distance education programs. Based on current kindergarten population estimates for British Columbia, the ECD Mapping Project receives data on approximately 40,000 students in each wave of data collection.

### **A population health measure, not an individual assessment**

It is important to emphasize that the EDI is not used to label or identify individual children with specific problems. Instead, it provides information on the number and proportion of children within a given geographic area who are vulnerable and in what aspects of their development.

EDI data are “grouped” at the neighbourhood, school district, community, regional, and provincial levels, to facilitate the use of this data in program and policy planning by various sectors of government. HELP makes this group-level EDI information freely available to individuals, communities, and senior governments so it will inform policies, programs, and individual actions meant to support ECD.

### **What aspects of children’s development does the EDI measure?**

The EDI comprises 104 core items on the development of kindergarten children on five scales of development as follows:

*1. Physical health and well-being*

- fine and gross motor development
- levels of energy
- daily preparedness for school (tired, late, hungry)
- washroom independence
- established handedness

*2. Social competence*

- co-operation and respect for others (children and adults)
- ability to work within the school environment
- socially appropriate behaviour during school activities
- self-control, self-confidence

*3. Emotional maturity*

- pro-social behaviour: helping, tolerance, empathy
- aggressive behaviour
- anxiety, hyperactivity, inattention, impulsiveness
- informal, peer-to-peer interaction

*4. Language and cognitive development*

- interest in books, reading, language-related activities (rhyming, group reading)
- literacy: ability to recognize letters, read and write simple words
- interest in simple math-related activities
- numeracy: ability to recognize and compare numbers, count, sort, etc.

*5. Communication skills and general knowledge*

- ability to clearly communicate one's own needs and understand others in English
- clear articulation
- active participation in storytelling (not necessarily with good grammar and syntax)
- interest in and general knowledge about the world

There are also a number of subscales contained within each of the five primary scales of the EDI (see Table 1). Analysis of the subscales allows for a more focused analysis of specific aspects of children's development.

EDI SCALES	SUBSCALES	EXAMPLE ITEMS
Physical Health and Well-being	Physical readiness for school day	Arrives at school hungry
	Physical independence	Has well-coordinated movements
	Gross and fine motor development	Is able to manipulate objects
Social Competence	Overall social competence	Is able to get along with other children
	Responsibility and respect	Accepts responsibility for actions
	Approaches to learning	Works independently
	Readiness to explore new things	Is eager to explore new items
Emotional Maturity	Prosocial and helping behaviour	Helps other children in distress
	Anxious and fearful behaviour	Appears unhappy or sad
	Hyperactivity and inattention	Is restless
Language and Cognitive Development	Basic literacy	Is able to write own name
	Interest in literacy/numeracy, and uses memory	Is interested in games involving numbers
	Advanced literacy	Is able to read sentences
	Basic numeracy	Is able to count to 20
Communication Skills and General Knowledge	(No subscales)	Is able to clearly communicate one's own needs and understand others; Shows interest in general knowledge about the world

Table 1: Scales of the EDI. (Janus, 2007)

The EDI was designed to obtain teachers' informed view on the development, skills, and abilities of the kindergarten children in their classroom. The teacher does not require a specialized education in early child development, for the EDI is not intended to be a "formal assessment" of each child. The questions are intended to uncover noticeable markers of children's development, appropriate to this age range.

### History of the EDI in BC

Since 1999, the EDI has been implemented in many communities across Canada. British Columbia was the first province to implement the EDI province-wide, map the results on a neighbourhood-by-neighbourhood basis, and make this data publicly available. In the past, HELP worked closely with schools across BC to collect the EDI data every three years, referring to these collection years as Data Waves (see Table 2).

All school districts have been involved at least twice since the project began in 1999; several Band and independent schools have also participated. Data from both Wave 1 (2001–04) and Wave 2 (2004–07) represents a full provincial complement of school district participation.

HELP recently received funding to implement the EDI on an annual basis. Three ministries— Children & Family Development, Education, and the Ministry of

EDI DATA WAVES, 1999-2007	
Wave 0	1999-2000, 2000-01 (pilot studies in 4 school districts)
Wave 1	2001-02, 2002-03, 2003-04 (provincial)
Wave 2	2004-05, 2005-06, 2006-07 (provincial)

Table 2: EDI Data Waves 1999-2007

Healthy Living and Sport—are providing this funding in recognition of the important role that EDI data plays in planning quality services for young children in BC.

### **Benefits of annual EDI implementation/administration**

The EDI provides information about the number of vulnerable children in a city, community, or neighbourhood and the types of vulnerability that are present. The only way to ensure that whatever we are doing is actually working, and reaching those who need this help, is to monitor children's well-being and any changes over time. We can then interpret long-term trends, not only to see whether policies, programs and services are actually achieving any results (moving ECD forward), but also especially to make sure they are not doing any harm (moving ECD backward). Here are some additional benefits of annual data collection.

- Identification of change over time in the state of early development helps us to understand what is working in policy, programming and services. With an annual EDI administration we can establish trends within 3 years and address problems earlier.
- With declining birth rates, it is becoming more and more challenging to acquire large enough numbers of children in rural and remote areas for meaningful analysis. With annual EDI administration more data will provide more meaningful results regarding child development in those areas.
- With groups of children that are distinctly identified on the EDI, such as children with special needs, children of immigrant and refugee families, and children of Aboriginal ancestry, annual EDI administration will allow for a more fine grained analysis of these groups of children for use in targeted policy, program and services.
- We need to know if early child development policies in all jurisdictions are effective; EDI can be used as one tool to monitor the outcome of broad policy and program directions.

### **Results of the EDI in BC to Date**

The EDI has been used as a baseline for understanding the development of children in the province of BC and for guiding policy and program development for young children. The data has shown that inequities in children's development are prevalent across all school districts in the province, and these data have inspired action both at the local and provincial levels.

## EDI Participation by School District of Residence, British Columbia 1999 - 2008

# District	Wave 0		Wave 1			Wave 2			07/08
	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	
5 Southeast Kootenay			443	434	349	402	361	394	395
6 Rocky Mountain			217	242	*	209	215	203	200
8 Kootenay Lake			136	311	312	293	316	291	266
10 Arrow Lakes				39	39	44		35	
19 Revelstoke					89	74	*	75	71
20 Kootenay-Columbia				280	8	*	253	10	7
22 Vernon				548	15		495	13	
23 Central Okanagan				1385	87	*	1368	*	58
27 Cariboo-Chilcotin			*	8	411		*	342	*
28 Quesnel				272	11		200	*	12
33 Chilliwack			813	*		769	*	7	745
34 Abbotsford		1474		1458	*	1427	29	1218	68
35 Langley				1168	7	18	1085	18	10
36 Surrey				3308	954	*	4106	*	31
37 Delta				1103	6		975	*	23
38 Richmond				1342	64		1323	8	44
39 Vancouver	3870			39	3438		47	3330	6
40 New Westminster				407	7		456	*	*
41 Burnaby				1472	55		1496	25	*
42 Maple Ridge-Pitt Meadows				10	957	*	26	826	*
43 Coquitlam		2102		1979	9		1920	*	26
44 North Vancouver				1149	43		1027	54	
45 West Vancouver				6	273		15	302	
46 Sunshine Coast				240			206		
47 Powell River				165	156		131	*	
48 Howe Sound	370				303			292	
49 Central Coast					15	22	30	17	10
50 Haida Gwaii				61			65	14	45
51 Boundary				88	94	99	87	107	98
52 Prince Rupert				30	194			197	
53 Okanagan-Similkameen			192	216	*	188	191		
54 Bulkley Valley			*	*	155	*		138	*
57 Prince George			1009	*		1002	*		
58 Nicola-Similkameen				168			134	*	
59 Peace River South				340			323		
60 Peace River North				409			437		
61 Victoria				1348	39	*	1230		15
62 Sooke				577	9		531		
63 Saanich				399	*		364		
64 Gulf Islands				90	110		81	80	
67 Okanagan-Skaha			431	426	10	390	369		13
68 Nanaimo-Ladysmith				977	24	933	862	897	
69 Qualicum				301		10	261	*	
70 Alberni			340	313		275	269	*	
71 Comox Valley				534	*	*	483	*	
72 Campbell River				412	413		366	340	
73 Kamloops				1015	20		858		24
74 Gold Trail				125				98	88
75 Mission				427	*	12	366	9	*
78 Fraser-Cascade			103	120		114	122		111
79 Cowichan Valley				561	56	*	601		12
81 Fort Nelson					73	79		59	59
82 Coast Mountain				376	51	*	308	19	*
83 North Okanagan-Shuswap				424			407	*	
84 Vancouver Island West					32	24		31	
85 Vancouver Island North				132	114	*	90		97
87 Stikine				33	17	11	18	30	18
91 Nechako Lakes			318			281			256
92 Nisga'a			*	*	28	21		29	



Source: All valid EDI data, 1999/2000- 2006/07, Human Early Learning Partnership.

\* Indicates district with less than five valid EDI responses.

JA - HELP - Sept 2008

Table 3: EDI Participation by school district of residence

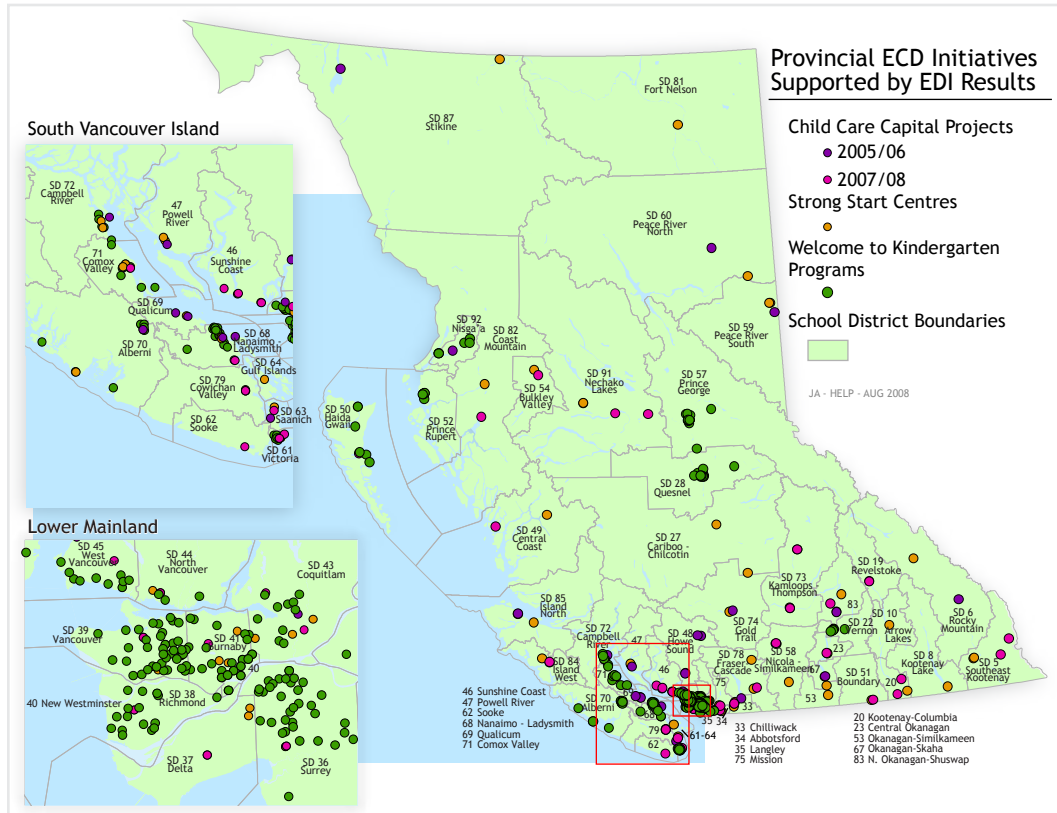


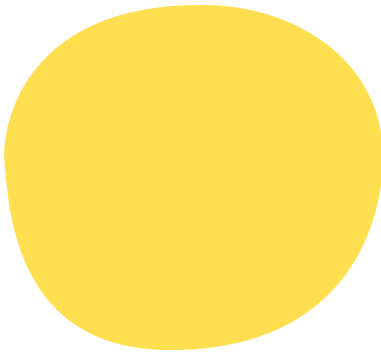
Figure 2: Map of initiatives

Because of the work of school districts and intersectoral coalitions over the last 8 years, there have been hundreds of initiatives put in place to improve the state of children’s development in BC. These initiatives range from identifying placement for new libraries; early literacy programs; neighbourhood drop in centres; parenting

education programs; new vision and hearing screening programs; allocating resources to target vulnerable children; increasing capacity in arts outreach programs; expanding recreational facilities; community gardens; mobilizing communities around early learning events, and much more. Through the commitment of local school districts and community coalitions, the EDI has been a catalyst for much activity to address the existing inequities in children’s development.

*Dialogue For Our Community*

- In what years has EDI been collected in our community?
- Which schools participated in the collection?
- What are some of the impacts that have been realized? New programs and/or policies?
- How can we see the annual EDI administration enriching the understanding of children in our community?



## Chapter 3

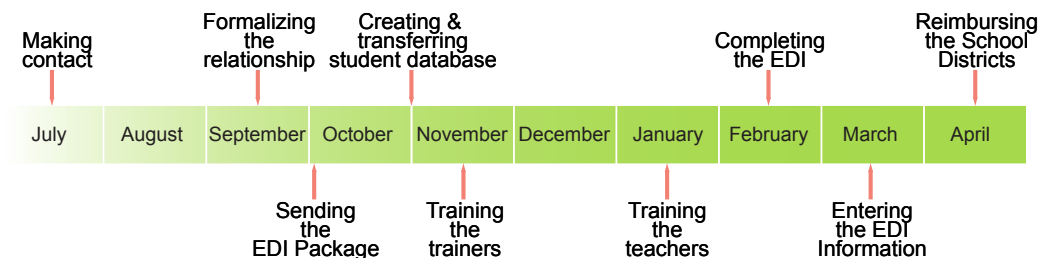
# Ten Steps to EDI Implementation

This chapter describes the steps involved in implementing the Early Development Instrument (EDI). These 10 steps have been developed through working with school districts in British Columbia.

1. Making contact with the school district
2. Formalizing the relationship between HELP and the school district
3. Distributing the EDI administration package
4. Creating and transferring the student database
5. Training the teachers
6. Completing the EDI
7. Entering the EDI Information
8. Storing the EDI tools
9. Reimbursing the school districts
10. Sharing the results

Although the framework outlined here is specific to the BC context, the discussion includes more generic principles for implementation so that the information can be adapted in other jurisdictions. The process undertaken to implement the EDI will vary depending on a region's educational infrastructure as well as, specific ethical considerations, and privacy requirements.

Figure 3: BC EDI Implementation timeline



## 1. Making contact

Before the school year begins, HELP invites school districts, through a formal invitation letter sent to school district representatives (see Appendix 3.1), to participate in the EDI information collection for the upcoming school year.

## 2. Formalizing the relationship

Once a school district agrees to participate, an Information Sharing Agreement is signed to formalize the relationship (see Appendix 3.2). These agreements are important both to ensure the privacy of the data and to allow for the appropriate use of the data in further analysis.

The superintendent then assigns a key contact person. This individual is the “point” person for EDI administration in that district. They work closely with the school principals and the kindergarten teachers and also serve as the contact for HELP. Ideally, the School District Contact has a sound understanding of each step in the EDI process. Furthermore the School District Contacts participate in the Train-the-Trainer sessions (see point 5 in this chapter as well as chapter 4 for more detail). The HELP research team provides ongoing support to the contacts throughout the process.

HELP also encourages all independent and First Nations schools to participate in the EDI information collection. HELP’s Aboriginal Steering Committee guides data collection for First Nations schools. The data collection is founded on the principles of *Ownership, Control, Access, Possession*.

## 3. Distributing the EDI administration package

At the beginning of the school year, HELP forwards an EDI administration package to the School District Contact. The content is updated each year to reflect any changes in the process and/or the instrument. The package contains:

- EDI implementation timeline to ensure a well-planned and efficient process (see Figure 3).
- EDI, EDI Guide, and Teacher Participation Form (see Appendix 3.3, 3.4, 3.5). The teacher participation form gathers demographic data about teachers to assist in furthering the understanding of EDI results. No teacher is ever identified.

### *Funding The Early Development Instrument Process*

Funding for the EDI in BC has been provided by the provincial government. These funds provide support to the research team at HELP and to the school districts and teachers. Critical to the success of the EDI implementation has been access to resources to pay teachers for their time, for both EDI training and administration. Without this core funding, it would have been very difficult, if not impossible to successfully implement the project throughout the province.

- Information letter to parents of kindergarten children advising them of their school's decision to participate in this project (see Appendix 3.6). In BC the implied consent model is used (Appendix 3.7). This is the essential tool for communicating information about the study to parents.
- Information letter to kindergarten teachers informing them of the project (see Appendix 3.8).
- Information letter to principal informing them of the project (see Appendix 3.9).
- Student information database template and a guide for its completion (see Appendix 3.10, 3.11).

#### 4. Creating and transferring the EDI student information database

Each school district completes the student information database. This may be done by the School District Contact or another individual, often a member of the district's clerical staff. It is important that the person completing the database has some familiarity with the spreadsheet software program Microsoft Excel. The database includes the following:

- *School information:* district number, name, Ministry of Education school ID, city, postal code, phone number, fax number, and whether the school is a First Nations, independent, French immersion, or francophone school.
- *Teacher information:* First and last name, teacher ID.
- *Student information:* PEN (Personal Education Number), gender, date of birth, student's home postal code, class time, student ID.
- *District contact information:* First and last name, email, phone number.
- *Year of EDI data collection and automated EDI ID:* For each student in the EDI administrative database, a unique EDI identification number (14-digit EDI ID) is created automatically as the school district completes the database, to protect the identities of individual students.

Once data have been entered for participating kindergarten classes, the school district contact uses the database to prepare EDI labels for the first page of the EDI (see Appendix 3.12). The label features the following information:

39659874125369	✓ 14-digit EDI ID#
Centennial Elementary School	✓ School Name
23/02/2003	✓ Child's Date of Birth
Neda Rahmati	✓ Child's Postal Code
Female	✓ Child's Gender

The EDI label and the first page of the EDI tool have some common information, such as student's gender, date of birth, and so on. These two sets of information are cross-checked to ensure the accuracy of the data collection process.

Once the database is completed, the School District Contact electronically transfers the information to HELP through a secure webpage. When the database is uploaded, HELP receives an automatically generated email notification. *Note:* With upload to the secure environment, student information is kept confidential. Data are not transferred by email.

The School District Contact also prepares a class list from the database (see Appendix 3.13), so that participating kindergarten teachers can verify that they are completing an EDI for the appropriate student. The preparation of the list is essential, for the instrument that is sent to HELP is "blind," containing only the EDI ID but not a student's first or last name. Each class list includes students' first and last names, gender, date of birth, home postal code, and student EDI ID.

This list also serves as a backup in the event that information is missed or incorrectly entered (for example, postal codes). *Note:* It is imperative that the class lists be kept in a safe and confidential place by teachers and school district contacts while the project is underway. Once teachers have completed their EDIs, to protect private information, HELP requires that the class lists be destroyed. The HELP research team follows up with random audits to ensure that class lists and databases have been destroyed.

#### *EDI Data Linkage*

The school district number and school ID are 2- and 3-digit numbers, respectively, provided by the B.C. Ministry of Education. The student ID is randomly developed for class lists and is not identifiable. Students' names are NOT entered into the database. HELP refrains from collecting students' names purposefully, in order to protect the identities of individual students.

The collection of individual students' Personal Education Number (PEN) enables HELP researchers to combine individual level EDI data with other data sources for research purposes. HELP's statistical analyst removes PENs from the EDI data file and stores them separately. No individual student is ever identified through this linkage. Linkage can provide insights into groups of children's health and answer important research questions, leading to improved health for populations. All HELP research and linkage are done in the interest of the public and for public good.

## 5. Training the teachers

Standardized training of kindergarten teachers across school districts is critical for accurate completion of the EDI. HELP has designed its training to build capacity in individual school districts, encourage local engagement, and apply local knowledge and experience to the EDI process.

As part of this model, “Train-the-Trainer” sessions are conducted by HELP staff in regions throughout the province. Each geographic school district designates a team of three trainers: one district administrator, one experienced kindergarten teacher and a community ECD representative. These individuals are responsible for training kindergarten teachers in their districts (see chapter 4 for more details on teacher training).

### *Safeguarding Data*

The Human Early Learning Partnership works with school districts, government, and other collaborators to ensure privacy practices are in place. To protect the privacy and security of its data, HELP has developed a privacy impact assessment (available online) with guidelines on policies and procedures for the Early Child Development Mapping Project. A foremost priority is to adhere to privacy legislation and institutional ethics reviews. Through best practices and the risk management procedures outlined below, HELP protects data against inappropriate disclosure, loss, destruction, or unauthorized use.

#### *Group privacy*

The collection of data on gender, ESL, Aboriginal status, and language allows analyses of sub-populations. Efforts are made to avoid any research statements, report, summaries, or presentations that may lead to stigmatization of any population. HELP works closely with community coalitions, steering committees, immigrant agencies, and various organizations in advance of and alongside data dissemination to avoid miscommunication or misrepresentation of data.

#### *Minimal disclosure of data*

Data collected by HELP are used for research and statistical purposes that meet conditions relating to scientific merit, ethical acceptability, and public interest. Requests for data are carefully reviewed by a trained HELP staff, whose role is to safeguard the data. Only data considered absolutely essential to the research project are used.

#### *Physical protection*

HELP maintains a tightly controlled physical workspace with multiple layers of protection, including locked and alarmed premises, and a separately locked computer server room.

#### *Technical safeguards*

Stringent technological safeguards are in place to protect data against loss, theft, and unauthorized access, disclosure, copying, use, or modification. These safeguards are constantly evaluated and evolve to meet new challenges and threats.

#### *Organizational structure*

HELP staff sign confidentiality agreements stating that they will adhere to strict privacy policies and procedures for ensuring the confidentiality and security of data held. Only a small number of specially trained staff have access to the data.

## 6. Completing the EDI

In preparation for administration of the EDI, each teacher receives the following:

- copies of the EDIs for completion
- EDI Guide
- Teacher Participation Form
- prepared labels (one per student)
- class list

On average, it takes a teacher 20 minutes to complete an EDI for each student. Students are not present when the teacher completes the EDI. Teachers are provided with release time and are asked to complete the EDI outside of class time.

Within a month of receiving the EDI, the teacher returns all of the completed instruments to the School District Contact. When the EDIs from all teachers within a district are received, the School District Contact uses a secure courier to send all of the completed EDIs to HELP. They are signed for upon receipt.

### *Electronic EDI (e-EDI)*

Besides completing the EDI on paper, teachers have the option of completing the EDI electronically through an internet-based platform. Presently the e-EDI is being piloted in several districts. The intent will be to expand the use of the e-EDI in future. Benefits of using the e-EDI are as follows:

- e-EDI offers considerable flexibility for data entry and management. Information can be entered either in English or in French and in stages. Just like the paper-based system, the teacher is not required to complete all sections of the EDI in one session.
- The e-EDI system is easy, user friendly and requires minimal typing skills or knowledge of computers.
- The e-EDI is accessible from any Web-enabled computer, at home or at work, and it dramatically reduces the amount of paper required.

- The e-EDI facilitates the monitoring of completeness of information. The system will notify teachers if they have incorrectly entered any information or missed any questions, thus helping to minimize invalid or missing information.
- The secure site requires password sign-in and other security measures to ensure data are kept safe.

With e-EDI, the same student information is still gathered at the outset, and the School District Contact will upload this data to the e-EDI system via the internet. Once the data are uploaded to the e-EDI system, the system is made available for teachers to log in.

Teachers can then answer e-EDI questions and review information for their classes online. When teachers complete all questions for a specific student, they click on "Submit this child". When all EDIs have been completed and submitted for a class, HELP can begin to analyze the data.

## **7. Entering the EDI Information**

To meet HELP's security standards, paper EDI questionnaires are hand-delivered to a data entry company, who has entered into a confidentiality agreement with HELP. The information from the EDIs are then entered and checked for accuracy by the data entry company.

## **8. Storing the EDIs**

When data entry is complete, a member of the HELP research team picks up the EDIs and an encrypted CD with the EDI data. The data company is also obliged to destroy any electronic files it created. In accordance with HELP's privacy policy, the EDIs are stored at HELP in a locked office and electronic data are placed in a secure research environment for analysis.

## **9. Reimbursing the school districts**

HELP reimburses school districts for teachers attending the EDI training. School districts are reimbursed the dollar equivalent of 20 minutes of teacher replacement time for each EDI completed. School districts are also provided with a small administrative stipend for centralized administrative tasks (i.e., courier, photocopying) (see Appendix 3.14).

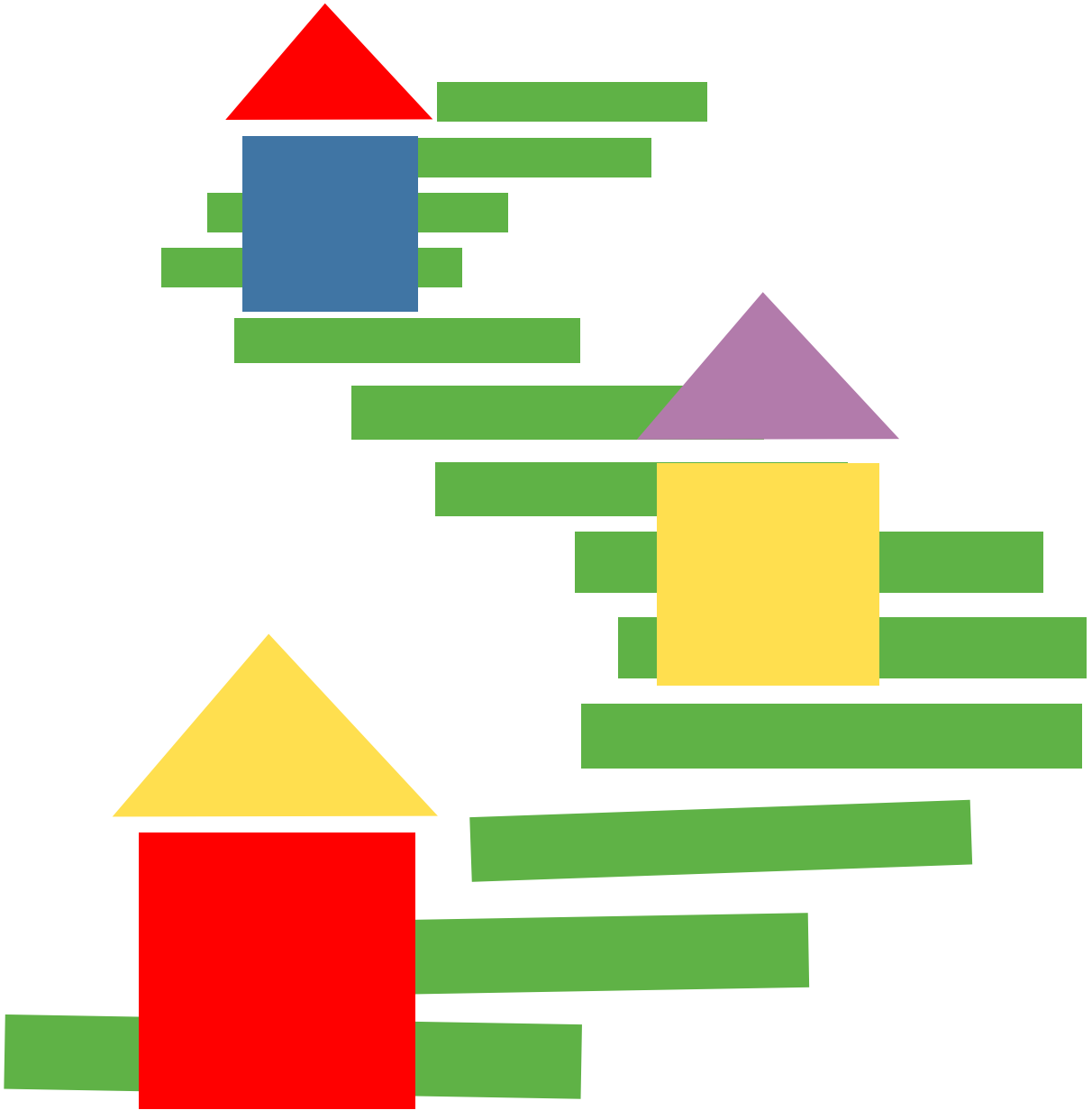
## **10. Sharing the results**

It takes HELP several months to input, verify, and analyze the EDI data from any school districts. This time frame includes the creation of reports in various formats; both data and narrative reports are created at the level of the neighbourhood, region, and school district.

In addition, maps are created that provide a visual representation of neighbourhood and school district results. HELP staff then conduct regional and local presentations, allowing communities to consider their results in more depth and to interact directly with HELP staff. This information is also available through the HELP website or by contacting the ECD Mapping Team (see chapter 5 for more details on EDI results).

## **Evaluation**

Evaluation is important in each step of the implementation process. Over the years HELP has continuously evaluated the process and has incorporated the inputs and feedback it has received from school district staff, community members, and, teachers to make sure that the system is as effective and seamless as possible.



## Chapter 4

# Teacher Training

The most important person in the EDI implementation process is the kindergarten teacher. Making certain that teachers are well trained in the administration of the EDI will facilitate the most reliable and valuable results.

This chapter details the process for training teachers in using the EDI, from HELP's initial Train-the-Trainer session for the local school district team to local training of the teachers who will administer the EDI. The fine points of EDI administration are highlighted, and the chapter provides tips on making the most of the training sessions.

### **The three-phase EDI training model**

In the first six years of EDI implementation, training was primarily done by the HELP research team, who trained groups of kindergarten teachers in school districts around the province. As HELP has worked to improve EDI implementation, we have developed a three-phase training model, as follows:

Phase 1: Train-the-Trainer

Phase 2: Local Teacher Training

Phase 3: Booster Session Training

In phase 1, *Train-the-Trainer*, three-person local teams from each school district are trained by the HELP research team. In phase 2, *Local Teacher Training*, the local school district teams (Train the Trainer teams) train the teachers in their own school districts. After several Train-the-Trainer and Local Teacher Training sessions, we anticipate a phase 3, *Booster Session Training*, to ensure consistency in EDI implementation over time and to provide systematic updates and upgrades for our EDI training process.

This three-phase training model, introduced in 2008, is designed to build capacity in individual school districts, to encourage local engagement, and to apply local knowledge and experience to the EDI training and implementation. We know that local individuals know their communities and school districts best and, as a result, are in the best position to provide the local trainings.

HELP provides the Train-the-Trainer sessions and is available for consultation and guidance as needed for the trainers conducting Local Teacher Training sessions. In addition, the HELP research team provides any resources necessary to ensure effective, consistent training practices to support the best EDI implementation process.

The HELP research team will continue to work with the Local Teacher Training teams and the school districts on a regular basis. We view the process of EDI training as a collaborative partnership, with HELP working together with the local communities to best facilitate the EDI implementation process.

*Roles and Responsibilities of Local Training Team*

Responsibilities of School District trainers:

- Act as lead training contact to HELP.
- Establish training date(s) and location(s).
- Arrange for equipment (e.g., LCD Projector) and refreshments.
- Coordinate teacher registration and Teacher-On-Call (TOC) coverage for training sessions.
- Make alternate training arrangements for any teachers unable to attend.
- Invite kindergarten teachers from independent and/or First Nations schools participating in local area.
- Ensure that class lists, labels, EDIs and teacher packages are prepared for training session.
- Co facilitate the training session(s). It is suggested that the kindergarten teacher lead the components of the session focused on EDI completion.
- Oversee the completion of the Early Development Instruments (to include coordination of TOC coverage and providing support to teachers).
- Send all completed instruments back to HELP along with invoice for district costs by the middle of March.

Responsibilities of Community trainers:

- Provide support to school district trainers as needed.
- Prepare and deliver training components in respect to interpretation of local EDI results and community based ECD activities.

**Phase 1: Train-the-Trainer**

The primary purpose of the phase 1, Train-the-Trainer session is to provide training on the EDI implementation process to a core group from the local community. HELP calls these teams our local school district teams. The local school district teams will not only be trained by HELP in the implementation and administration of the EDI, but they will also be provided with updated knowledge on early child development and tips for making local trainings successful.

Each local school district team will include three members:

- an expert kindergarten teacher familiar with the EDI
- a representative from the local school district who is involved with the EDI at the district level
- a member of the ECD community

Although the HELP research team will provide guidance on who would be best suited for the local school district team,

we believe that local people know the leaders in their community best and are in the best position to develop the local school district team.

Teachers, district representatives, and persons in the local ECD community who have been actively engaged in the EDI process to date are likely the best people to serve on the local school district trainer team. Members should ideally have familiarity

with the EDI, including both its administration and use, some knowledge of previous EDI results and mapping in the local community as well as some sense of and interest in children at both the preschool and kindergarten levels. This team will become the central point of contact for EDI training and implementation in local communities.

The HELP research team conducts several Train-the-Trainer sessions around the province each fall. These sessions are designed to model an effective training in the local community. As a result, a large part of the Train-the-Trainer session is spent rehearsing a typical local community (phase 2) training. A Train-the-Trainer session also includes an orientation to support materials for the local training sessions and the latest updates on provincial implementation of the EDI. Finally, tips are provided that are designed to enhance the phase 2 training sessions in the local communities.

Train-the-Trainer sessions are intended to empower local community members to embrace a leadership role in local EDI implementation. In essence, we at HELP hope that the local school district teams will become EDI champions in their respective communities.

### **Phase 2: Local Teacher Training**

The primary purpose of the phase 2, Local Teacher Training session is to provide training in EDI implementation and administration to kindergarten teachers in the local school district. This is the most important phase in the training process, for the teachers trained at the Local Teacher Training will complete the EDI for the students in their classrooms. The goal is to ensure consistency in the EDI implementation

#### *On-the-ground Expertise*

Here is a snapshot of ideal qualifications of all three members of a local school district team:

Kindergarten teacher who:

- has at least five years' experience as a kindergarten teacher.
- is familiar with and supportive of the EDI process.
- is comfortable presenting to large groups.
- is respected among their teaching peers.
- is expected to be active in the district for at least five years.

School district representative who:

- is familiar with and supportive of the EDI process.
- is comfortable presenting to large groups.
- is expected to be active in the district for at least five years.
- has experience working with the local ECD community.

Community member who:

- is familiar with and supportive of the EDI process.
- is knowledgeable about all aspects of the local ECD community.
- is comfortable presenting to large groups.
- has experience working with school district personnel.

### *Planning your Local Teacher Training*

Here are some steps to get you started with your Local Teacher Training.

- First things first: set the dates for the training session. Training should ideally take place between January 15 and 31. Ideally, you will have no more than 35 kindergarten teachers per session.
- Sessions typically run two hours. You will need to book space large enough to accommodate all the teachers. Ideally, there should be access to a computer terminal which is Internet-equipped to enable review of the HELP website.
- Inform the teachers well in advance of the training session. Don't forget to contact any independent or First Nations schools that are participating.
- Arrange Teacher-On-Call reimbursement process with your district administration.

What you will need on the day:

- Copies of the EDI, the guide and the Teacher Demographic Form.
- EDI Training Presentation Slides.
- Class lists and labels for each teacher (see chapter 3).
- Audiovisual equipment; LCD projector, computer equipment with Internet accessibility.
- Food and drink.

across the province. Although everyone will get the same core training on the EDI at the Local Teacher Training, each session will also highlight unique information regarding EDI implementation in the local community.

Local Teacher Training is conducted in January of each year. HELP provides local school district team members who participate in the Train-the-Trainer session with all the materials needed to conduct Local Teacher Training. The two most important components of the Local Teacher Training are the EDI Training Presentation Slides and the EDI Guide. Local trainers will have received training from the HELP research team at the phase 1 Train-the-Trainer sessions.

The Local Teacher Training team should adhere closely to the EDI Training Presentation Slides (see [www.earlylearning.ubc.ca/teachertraining](http://www.earlylearning.ubc.ca/teachertraining)).

It is important that all teachers across the province are trained in the same way, so that the data collected is as meaningful as possible. Making sure all teachers who complete the EDI across the province do so in the same way is the only means to gain both reliable and valid data on our kindergarten children in British Columbia.

There will be a number of places in the training slides where the local team can add slides that are unique for the presentation to their own community. For example, they may add some information on previous local EDI results or other information on the local ECD community. However, it is important that the core structure and content of the training in EDI administration and implementation remain the same at *all* local training sessions.

In addition to the EDI Training Presentation Slides, the EDI Guide will also be a valuable tool for the administration of training. The training slides often refer to the EDI guide and the trainers need copies of both the slides and the EDI guide to conduct the

training. Local trainers will work through all the steps in completing the EDI with the kindergarten teachers. Special emphasis will be placed on areas that may be more challenging to complete.

By working from the EDI Guide and instrument itself, teachers will get hands-on experience with the EDI before they complete the EDI on children in their classrooms.

The HELP research team has received suggestions from partners in communities around the province on how best to meet training needs. We believe that the revised training package will provide all the teachers who administer the EDI with the information that they need to complete the EDI on the kindergarten children in their classrooms.

### **Phase 3: Booster Session Training**

As HELP moves to annual administration of the EDI, we know that more teachers across the province will be trained on EDI administration and implementation. The prior experience of teachers with EDI administration is valuable. Indeed, most teachers report that administration is easier and more efficient the second time around. However, it is also known that individual administrators can develop bad habits when they participate in administration multiple times without a good refresher.

The primary purpose of the Booster Session Training is to help support the teachers in their administration of the EDI by reviewing the key administration guidelines and updating those involved in the EDI implementation process with the most current information available. The Booster Session Training will be a shorter version of the initial Local Teacher Training session conducted by the local training teams who have been through their own Trainer Booster Session Training with the HELP research team.

Providing Booster Session Training is one way we can achieve greater consistency in administration of the EDI over time. We at HELP believe that this will provide us with the most reliable and valid EDI results. These in turn will give more meaningful information to communities about their children.

### **Steps in completing the EDI**

#### *Getting started*

The EDI is typically completed in February of each year. By completing the EDI in February, teachers have had enough time to have a good sense of the abilities of the children in their classrooms on the scales measured by the EDI.

Completing the EDI does not require the teacher to observe the child directly while the EDI is completed. Indeed, some teachers find it most comfortable to complete the EDI in a quiet place outside of the school environment and free from classroom distractions.

Teachers should have a copy of the EDI for each child along with their EDI coded class

list, the EDI Guide, and the Teacher Demographic Form. We encourage use of the guide, which provides an overview of EDI administration, plus specific definitions or clarifying statements for particular questions.

Once the teacher has identified the best place to complete the EDI, they are ready to start. It will take about 20 minutes to complete the EDI for each child. The teacher should complete the EDI in the same way for each child in their classroom in the order the information is presented on the EDI.

#### *Checking initial information (background, ID, etc.)*

When starting to complete each EDI, the teacher must make sure that the information on the EDI label is correct. If the information is not correct, the teacher should correct the information on the first page of the questionnaire.

#### *Completing the EDI Scales*

After completing the background information, the teacher is then ready to complete questions in the five EDI scales: *Physical Health and Well-being*, *Social Competence*, *Emotional Maturity*, *Language and Cognitive Development*, and *Communication Skills and General Knowledge*. It is important that the full EDI be completed for a child before starting the EDI for another student. Teachers complete the EDI in the order of the EDI items on the form and should be careful not to skip items. If teachers have any questions about how to respond to an item, they should refer to the *EDI Guide* and their notes from their training session.

#### *Filling out the Teacher Participation Form*

Once the teacher has completed the EDI for all the children in their classrooms, they should complete the Teacher Participation Form. The teacher information is an important part of the EDI implementation process. HELP appreciates that some teachers may not be comfortable answering some of the background questions on the teacher questionnaire. However, as we are learning more about the EDI and how to better understand some of our findings, it is important that we know about the teachers completing the EDI. In some cases we find that a teacher's years of experience teaching or even teaching at a particular grade level impacts the answers they provide on the EDI. This does not mean that one situation is better than the other but just that there are differences. When we find differences we do not expect in our EDI results, it is important to know as much as we can about the school and community as well as the teachers. Please be assured that it is only the background information, never the teacher's name, that is associated with the data analysis.

#### **Additional resources**

For those wanting additional information on ways to make the most of their presentation, the following resources may be helpful. Hal Partner's book (2006), *Workshops That Really Work: The ABCs of Designing and Delivering Sensational Presentations*, is intended to provide teachers, school administrators, trainers, and other seasoned

consultants guidance on a step-by-step process for developing and delivering successful presentations and workshops. The author combines practical information with ready-to-use worksheets that help readers to select appropriate activities according to learning style preferences. Tips on how to deal with difficult participants and prepare, organize, and manage presentations are highlighted. In addition, a set of effective presenting principles are illustrated as a means to enhance presenters' abilities to give workshops.

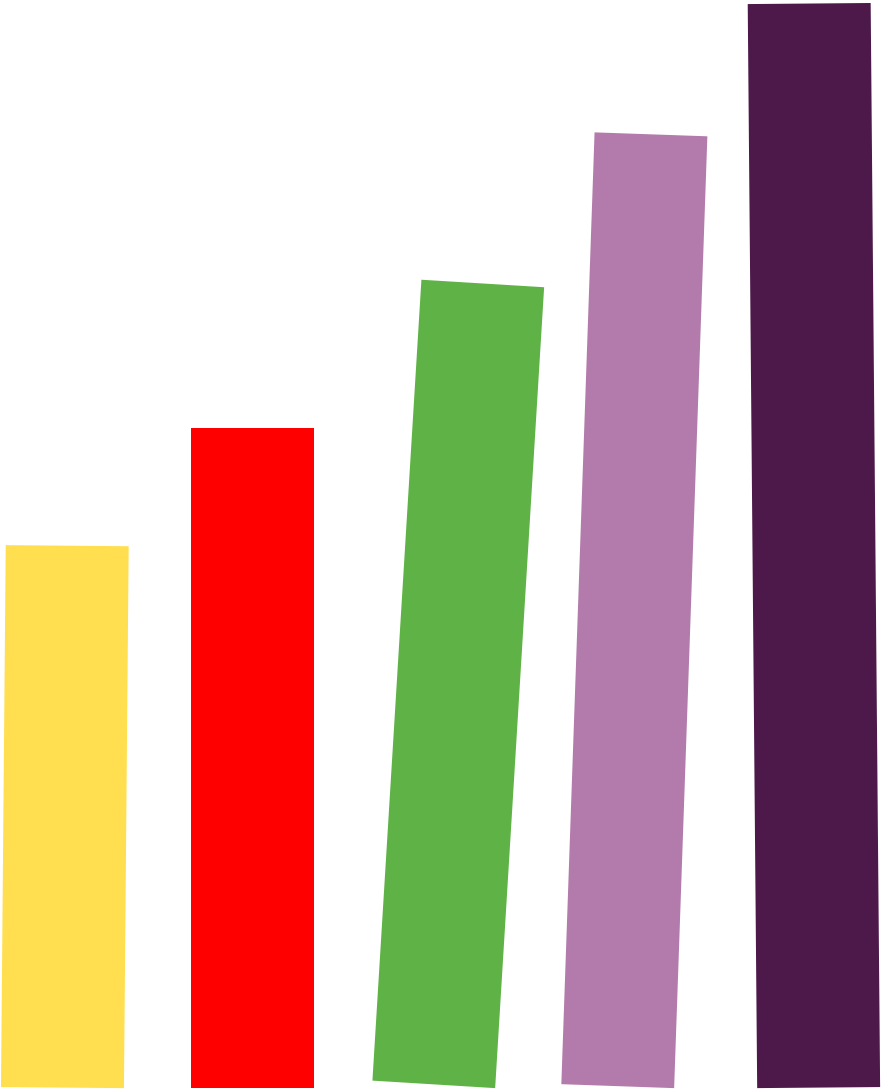
A wide range of websites are available on teaching, learning, and strategies for presenting. The Centre for Teaching and Academic Growth (TAG) at the University of British Columbia offers a number of resources ranging from professional development programs and workshops to researched-based articles intended to enhance teaching skills (go to [www.tag.ubc.ca](http://www.tag.ubc.ca) and click on "Links," then "Selected Teaching and Learning Related Topics"). In addition, TAG provides a myriad of Web resources that can suit different areas of interest (same webpage, bottom of page, click on "Download the detailed list of sites").

Of course, the HELP research team and the resources provided on the HELP website will also provide ongoing support to the local trainers.

### *Tips for a Successful Presentation*

While members of the local school district team are likely already accustomed to presenting in front of large groups, every presentation audience is different. Even the best presenter will benefit from a review of tips for a successful presentation.

- An important starting point is to know not only your material but also your audience.
- Plan to arrive early and make sure all your equipment is working.
- Although it may be more comfortable for local trainers to sit while presenting and keep the session informal given potential familiarity with members of the audience, training on EDI administration and implementation is serious. It is important for the Local Teacher Training team to set an appropriate tone for the project. Be sure to stand in front of the group. Speak loudly or use a microphone if needed.
- A laser pointer is a helpful tool when pointing to and discussing various aspects of the training slides.
- A flip chart, whiteboard, or overhead projector, depending on the size of the room, can be helpful for administration or scoring demonstrations.
- Be sure to check frequently for understanding and allow time for questions.
- Remember that each group is unique and sometimes the style of the presentation will need to be adjusted to the group.
- Perhaps most important, relax and have a good time. Be interactive with the audience and everyone will benefit.



## Chapter 5

# EDI Results: Reporting and Interpretation

This chapter provides an overview of how the Early Development Instrument (EDI) results are interpreted and reported by HELP in the form of maps, summary narratives and data tables. It is important to make the results as accessible as possible both to communities and policy-makers.

Having a clear understanding of the results encourages their appropriate use in program and policy decisions and allows for the public monitoring of the state of children's development.

HELP has made it a priority to make the EDI results available to all. The information is shared through written reports, public presentations, and electronic posting on the HELP website. Unquestionably, the impact of the Early Child Development Mapping Project has been strengthened by the emphasis on the sharing of results.

### EDI map formats

Maps displaying EDI results are powerful tools for use in planning and community mobilization. Seeing the results for children in “your neighbourhood” inspires a direct commitment to improving those results. Additionally, the maps provide elements of colour and design that allow for a simple and intuitive interpretation of the findings by a wide audience.

*There is a vast difference between seeing data in a table of rows and columns and seeing it presented in the form of a map. The difference is not simply aesthetic, it is conceptual—it turns out that the way you see your data has a profound effect on the connections you make and the conclusions you draw from it.*

(ESRI, 2008)

*What is a Natural Neighbourhood?*

Items to consider when defining neighbourhood boundaries include the following:

- natural social and economic divisions in your community.
- natural or other physical boundaries such as ravines, waterways, major highways.
- local municipal boundaries (for example, municipalities, regional districts).
- school catchment areas.
- neighbourhood association boundaries.

Ideally, all of these items should come together to reveal “natural neighbourhoods” that have at least 35 kindergarten children but fewer than 200 children (minimizing the size range makes it easier to compare neighbourhoods). These neighbourhood boundaries should also account for the long-term anticipated growth and decline in the population patterns of communities. Many areas of BC although experiencing an increase in their overall population, are experiencing a decline in the proportion of the population that are children. BC Stats can be accessed to obtain projections on population trends in communities throughout the province ([www.bcstats.gov.bc.ca/data/sep/index.asp](http://www.bcstats.gov.bc.ca/data/sep/index.asp)). Statistics Canada also provides detailed socio-demographic information through “Community Profiles” ([www12.statcan.ca/english/profil01/CP01/Index.cfm?Lang=E](http://www12.statcan.ca/english/profil01/CP01/Index.cfm?Lang=E)).

**Defining geographic jurisdictions**

The geography of a child’s daily life in his or her early years tends to centre on the neighbourhood. For this reason, the ECD Mapping Project uses “natural neighbourhood units” to report EDI results.

The HELP research team has worked closely with communities to tap their local knowledge in creating natural neighbourhood units. HELP provided blank maps to coalition representatives and invited them to draw on the map to indicate “natural divides” in their community. In some cases, local coalitions preferred to use an existing boundary system with the intent to integrate the EDI work with other planning initiatives.

Using the information supplied by community coalitions, HELP’s mapping team then digitized the maps and built them into a province-wide file containing over 480 neighbourhood units.

In addition to mapping EDI results by neighbourhood, the HELP research team also maps results by larger jurisdictions to provide information to guide policy and programming decisions provincially and regionally. Routinely, maps are created for the 59 school districts and 5 regional health authorities in BC. It would also be possible to map other jurisdictions (such as municipalities) if the results were to be used for planning within those jurisdictions. The key is to organize the data within jurisdictions that have meaning for those who will use it.

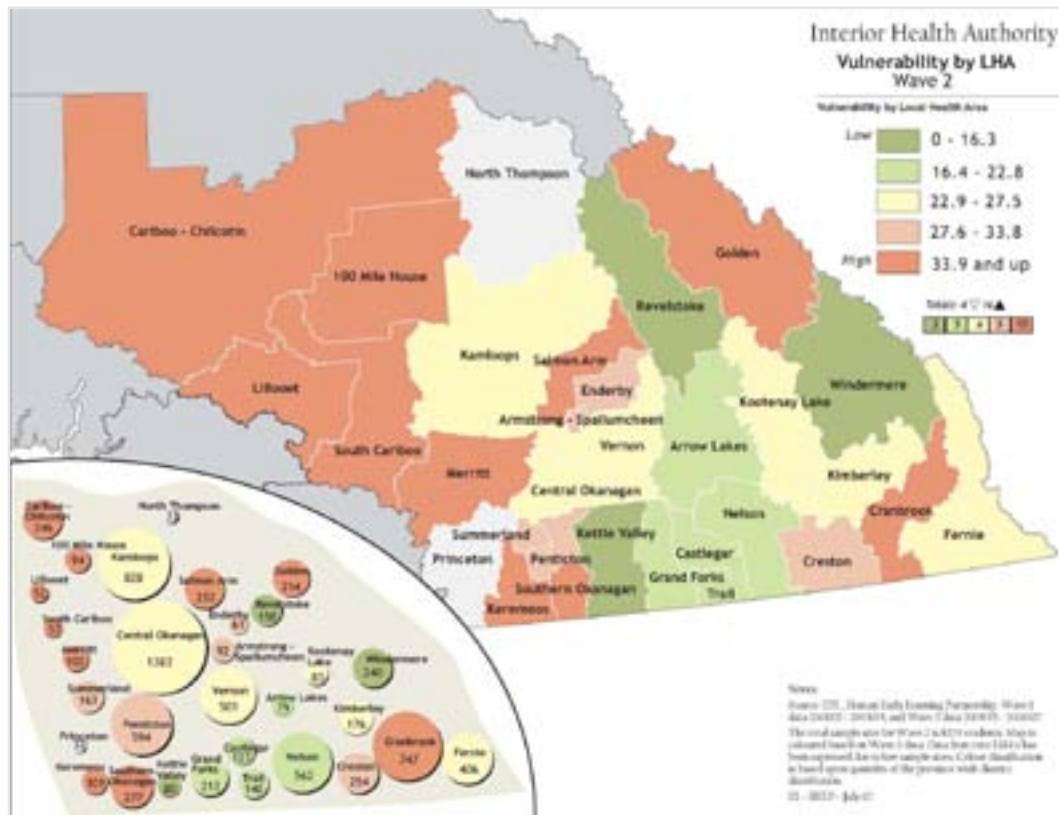


Figure 4: Reading EDI maps

### Reading EDI maps

EDI maps have some distinct features, including the use of colour and the inclusion of proportional “circle maps.” HELP classifies EDI results into five colours based on the proportion of children vulnerable. These numerical classifications, or quintiles, were established based on the distribution of vulnerability in the first complete round of provincial data collection (Wave 1, 2000 – 2004).

As can be seen in the Interior Health Authority map above, dark-green areas have the lowest vulnerability (0 – 16.3%), with increasing vulnerability represented by light green (16.4 – 22.8%), yellow (22.9 – 27.5%), and light (27.6 – 33.8%) and dark reddish brown (33.9% and higher). Areas with the highest proportion of children vulnerable are shaded in the darkest reddish brown colour. These colour classes are applied across all maps—local, regional, and provincial—allowing for ease of comparability from one location to another.

Occasionally, a neighbourhood, school district, or local health authority is coloured grey (for example, the Princeton area in the above map). This represents a neighbourhood where the number of kindergarten students is too small for the results to be mapped (typically below 35).

To illustrate the difference between the numbers of kindergarten students in each neighbourhood, the data are also displayed in a proportional circle map, called a cartogram (usually alongside the EDI map). In these circle maps, each neighbourhood is represented (in its approximate location) as a circle that is “sized” according to the number of kindergarten students in that neighbourhood. The bigger the circle, the more children in that area. Each circle is shaded in the colour scheme described above, and the name of the community and number of students is given within each circle.

**Understanding EDI results**

The EDI is most commonly used to demonstrate the vulnerability of the population of children. Vulnerability is determined based on the provincial range of scores on each of the five EDI scales (see chapter 2) at the end of the first round of data collection (Wave 1). The vulnerability threshold or cut-off is the EDI score that delineates the children who scored in the bottom of the provincial distribution.

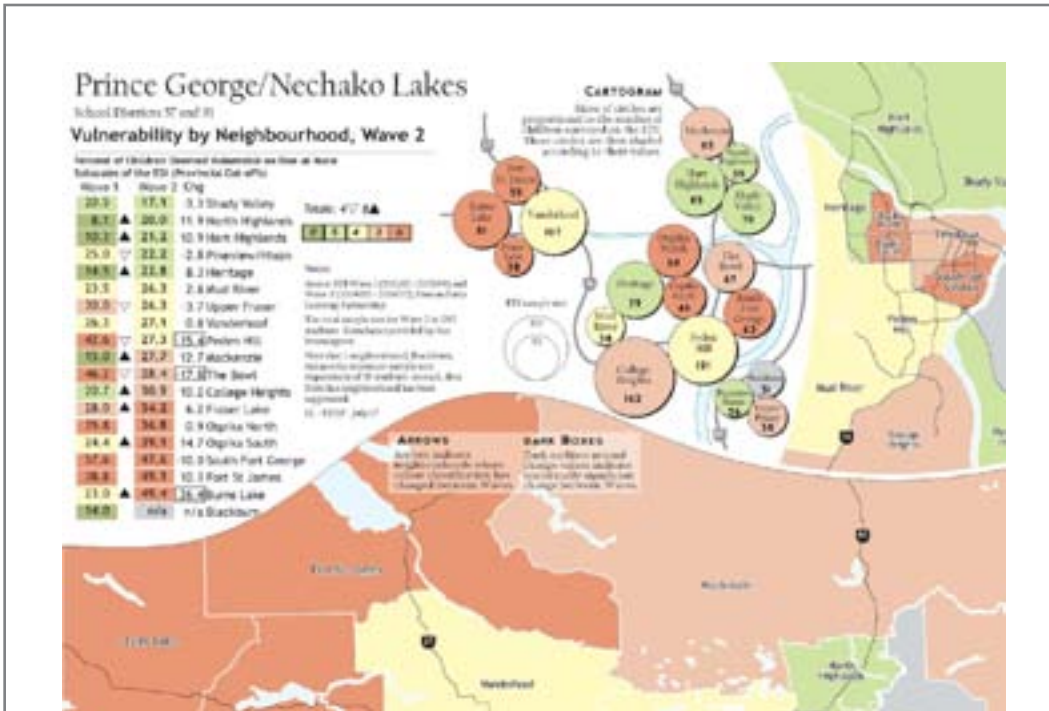


Figure 5: Reading EDI map legends

*Reading EDI map legends*

EDI map legends are an important component of the maps. In a map like the one shown here, the legend lists each neighbourhood beside the colour-matched results for each round of data collection. The arrows indicate those neighbourhoods where the colour classification has changed between waves. A dark outline around the change value indicates that the change is statistically significant.

Children whose EDI results fall below the cut-off are said to be vulnerable in that area of development. The appropriate interpretation of vulnerability is that the child is, on average, more likely to be limited in his or her development than a child who scores above the cut-off. Vulnerabilities can be determined on each scale and on one or more, or two or more, scales.

Typically vulnerabilities are shown as a proportion of the total population of kindergarten students in a particular neighbourhood. For example, in the map at left, depicting the two school districts of Prince George and Nechako Lakes, 27.3% of children are vulnerable in Peden Hill and 39.1% of children in the Ospika South neighbourhood are vulnerable on one or more scales of their development.

Along with understanding the proportion of children at risk, it is also important to consider the absolute number of children who are vulnerable in each neighbourhood. Again to use the example of the Ospika South neighbourhood, although 39.1% of children here are vulnerable, there are only 46 kindergarten children in the neighbourhood, which means there are 18 children vulnerable in this neighbourhood. In comparison, the Peden Hill neighbourhood has a lower proportion of children vulnerable (27.3%), but since this neighbourhood also has more children in total, it in fact has more vulnerable children (33).

RANGE OF CHILDREN'S VULNERABILITY IN BC		
EDI Scale	% Vulnerable, Wave 1	% Vulnerable, Wave 2
Physical Health and Well-being	3.1 - 23.5	4.1 - 27.6
Social Competence	2.4 - 22.4	2.0 - 36.7
Emotional Maturity	4.9 - 25.0	4.0 - 27.6
Language and Cognitive Development	2.6 - 33.3	1.4 - 31.0
Communication Skills and General Knowledge	2.4 - 23.8	4.0 - 30.0
One or more Scales	12.8 - 42.9	12.1 - 54.1

Table 4: Range of children's vulnerability in BC

Understanding the range of vulnerability in a specific jurisdiction is helpful in determining appropriate action to support children's development. Again, to look at the map for Prince George/Nechako Lakes, you can see that the range of vulnerability goes from 17.1% in Shady Valley up to 49.4% in the Burns Lake area, nearly a threefold difference in the proportion of vulnerability. This range of vulnerability is also evident from one school district to the next (see Table 4).

Given what is known about the importance of early child development to children’s lifelong health and well-being, it is these differences that “make a difference.” Ultimately, it is the aim of the ECD Mapping Project to work in partnership with communities and governments to reduce these disparities in children’s development.

*Multiple Challenge Index*

Besides vulnerability in the 5 EDI scales, vulnerability can also be determined in each of 16 subscales of the EDI (see Table 1, page 12). The Multiple Challenge Index (MCI) is used to represent children who are in the low range of the scores on nine or more of the subscales. The MCI is helpful in understanding those children who have overlapping vulnerabilities.

**Average scores**

Average scores for each area can also be calculated simply by averaging the scores of all of the children who are resident in that neighbourhood. A higher average score represents stronger results in that neighbourhood. Average scores can be particularly helpful when used in conjunction with vulnerability results. For example, a high average score, along with a high proportion of children vulnerable, indicates a wide range in the distribution of scores and more disparity between children’s results. Conversely, a low average score, along with a low proportion of children vulnerable, means that the range of distribution of children’s scores in that area is smaller.

Each of the scales has a different distribution of scores across the province. Scores on physical health and well-being, for example, tend to be higher overall than scores for communication skills and general knowledge. The following figure shows the distribution of scores on each scale from the first round (Wave 1) of data collection.

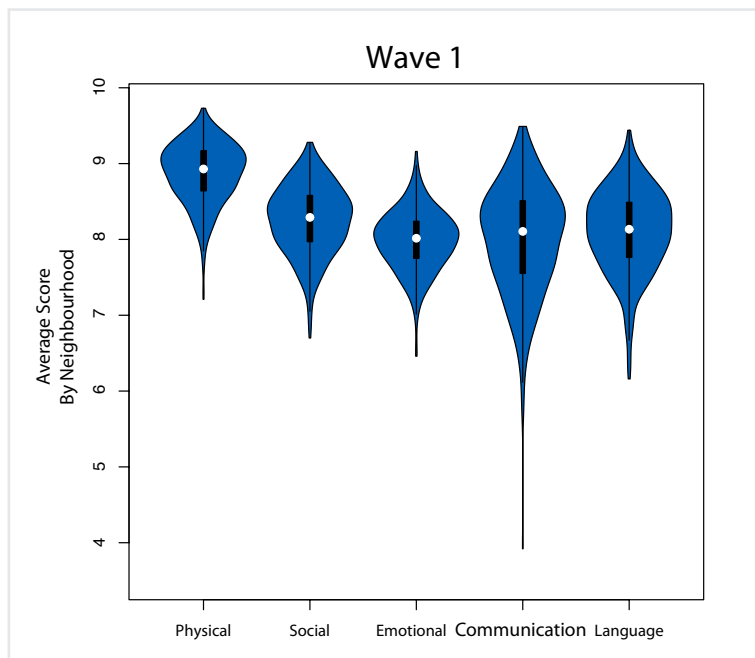


Figure 6: Distribution of average scores by neighbourhood and scale

## Monitoring change

The province-wide results from the first (Wave 1) round of data collection serve as a “baseline” of the state of early child development at school entry and create a stable unit of comparison, or benchmark, to show how vulnerabilities may change over time.

Changes in vulnerability are considered to be notable if they are larger than 5%, have statistical significance, or if they represent a quintile (or colour) change in the neighbourhood. For areas that have collected data on more than two occasions, it is also possible to look at multi-year trends in children’s development.

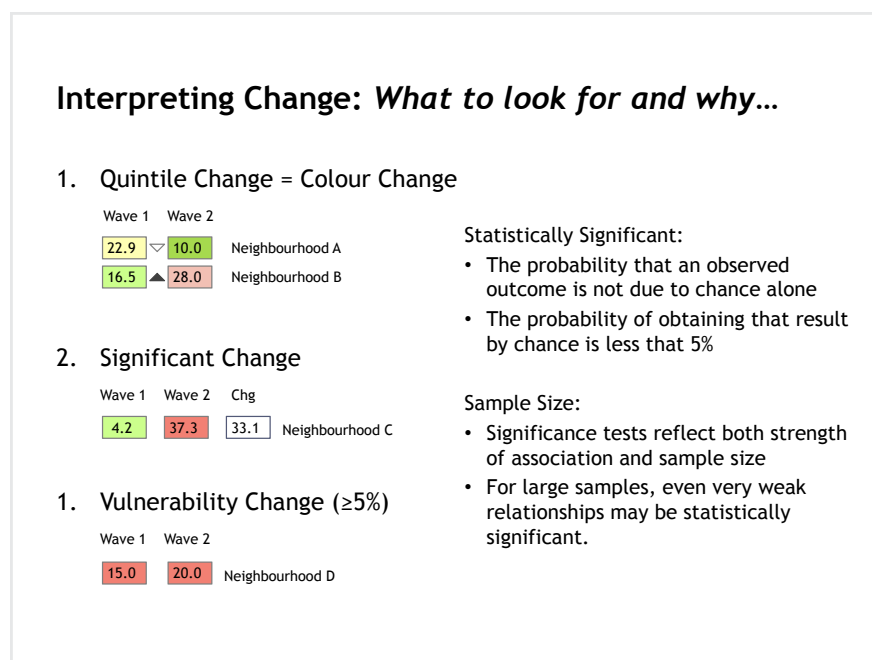


Figure 7: Interpreting change

Analysis of results over time must include an understanding of each of the populations (also called cohorts). Questions to ask include the following:

- Is the neighbourhood size similar from one time to the next? With smaller populations, fewer children will influence a larger change in the proportion of children vulnerable.
- Did the same schools and communities participate in each round of data collection?
- In which years were the data collected, and have there been notable changes in the community in that time?

Understanding the details of the data collected will enhance the understanding of the results.

Children’s development is influenced by a variety of factors, among them genetics, family environment, socio-economic conditions, neighbourhood influences, availability of early child development services, and policy directions. Changes in the state of children’s development at the level of the population result from the interplay of these factors in a community.

EDI results can be used to guide community planners and policy-makers in making decisions about priorities for early child development supports and services, but they cannot be accurately used to evaluate one aspect of the environment, or one specific program, in isolation from the others.

**Trend data**

Looking at EDI results over time, on an annual basis, provides a deeper understanding of the local trends in children’s development. As you can see in the graph below, in Cranbrook-North (yellow line) there was a large increase in vulnerability between 2003 and 2004, followed by a small decrease the following year and then two small increases in 2007 and 2008. Overall, the trend, though, was for a consistent increase in vulnerability between 2000 and 2008. The trend line for Nelson, however, is much flatter. Although there have been small increases from one year to the next, the overall trend is for a consistent level of vulnerability. Only in the Revelstoke community in this example do you see a consistent trend to decreasing vulnerability. As the HELP research team embarks on annual EDI data collection in 2009, this type of trend data will be available to all communities.

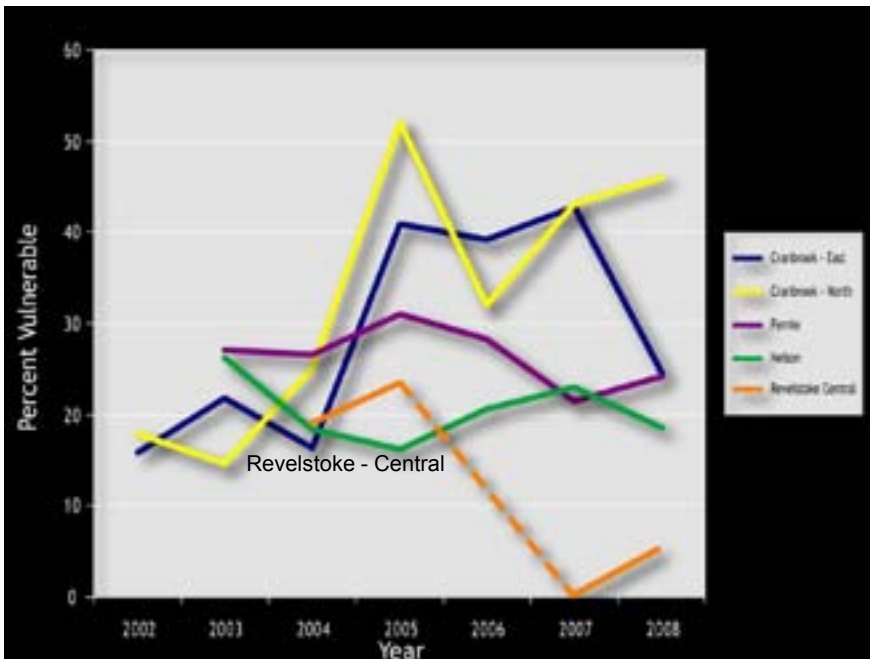


Figure 8: Neighborhood EDI trends

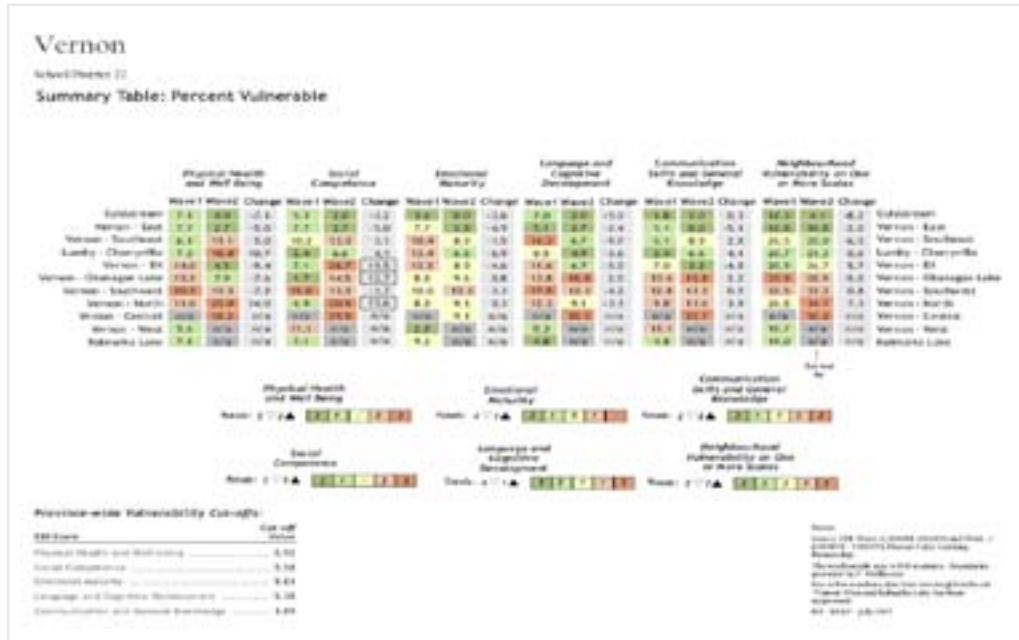


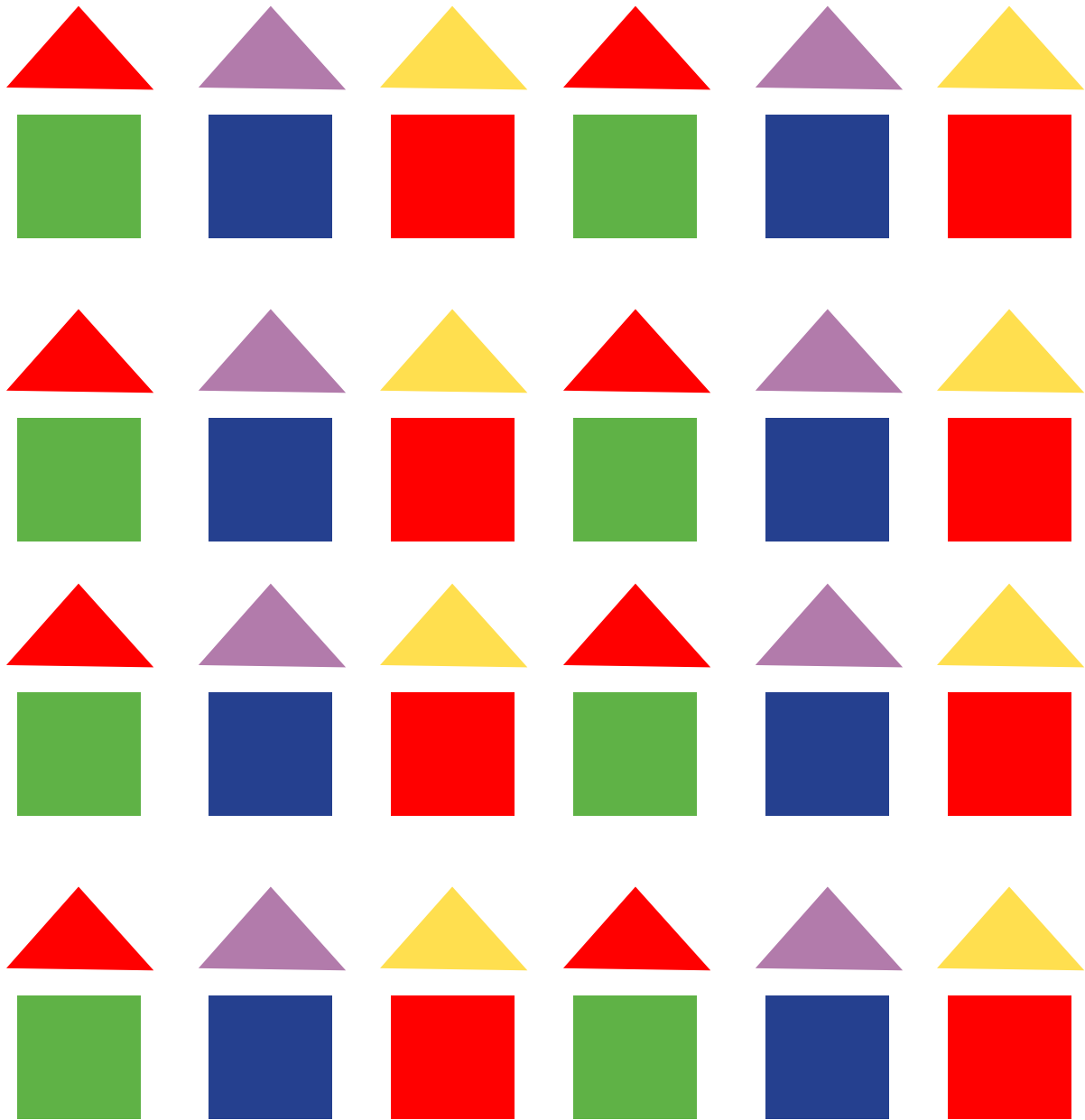
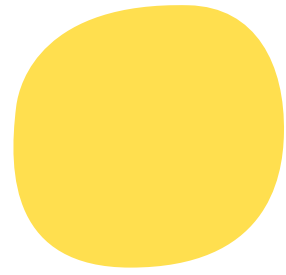
Figure 9: EDI Summary table

**Other EDI reporting formats**

In addition to maps, EDI results are also reported as data tables and in summary narrative reports. These, as in the Vernon example above, display the colour coded data in tabular form. Narrative reports are done at the level of the neighbourhood, the school, the region, and the province (see Appendix 5.1). Reporting formats can be tailored to meet the needs of the community.

*Dialogue for Our Community*

- Find your most recent EDI maps and summaries on the website. You can follow the links to local data at [www.earlylearning.ubc.ca](http://www.earlylearning.ubc.ca).
- Talk about the neighbourhoods in your community. Do they represent meaningful natural neighbourhoods for planning? Are there changes taking place in your neighbourhoods?
- Look at the levels of vulnerability and trends in children’s development in your community.
- What may be impacting on these results in your local area?



## Chapter 6

# Understanding Socio-economic and Community Asset Data

The Early Development Instrument is only one of the indicators that can help researchers and communities better understand what shapes early child development. HELP's ECD Mapping Project also collects information at the level of the neighbourhood on socio-economic characteristics and community assets. This chapter describes how socio-economic data and community assets can be used to further understand early child development and how to collect, interpret, and use these data.

### **Socio-economic indicators**

Socio-economic status (SES) is the term used to describe the social and economic characteristics of a given unit of analysis, for example, a child's family, neighbourhood, school district, or province. Some of the most common SES variables are income, employment and education. Over the past few years researchers at HELP have come to understand that the nature of children's development requires a much more comprehensive measure of early experiences—those things that matter for optimum early child development beyond the more common variables of income, occupation, and education at a group level.

In Canada, early child development is typically influenced by various socio-economic circumstances that have created a “developmental gradient” (an incremental, step-wise trend) that moves along the socio-economic spectrum. Inequalities in child development emerge in a systematic fashion over the first five years of life, according to well-recognized factors: family income, parental education, parenting style, neighbourhood safety and cohesion, neighbourhood socio-economic differences, and access to quality child care and developmental opportunities.

By age 5, a “gradient” in early child development emerges, such that, as one goes from the families with the lowest to highest incomes, least to most parental education, and least to most nurturing and interactive parenting style, the average development improves (Hertzman, McLean, Kohen, Dunn, & Evans, 2002).

Gradients in child development are not inherent in individuals (that is, they are not biologically determined). Rather, they are directly affected by socio-economic conditions. This means that Canadian society can be altered to broaden the opportunities to support healthy child development for all children, thereby reducing the degree of socio-economic inequality in early child development (Hertzman, 2002).

*Finding the Balance: Targeted and Universal Programs*

Ideally, programs and services reflect a mix of targeted and universal programs that best fits the character of the community. Having only targeted services in neighbourhoods misses the majority of vulnerable children who are spread across all neighbourhoods. Universal services, on the other hand, will engage all children and their families.

**Vulnerability in all neighbourhoods**

Although the gradient tells us that children who are socio-economically disadvantaged are more likely to be at developmental risk, it is important to understand that threats to healthy child development are found across the entire socio-economic spectrum.

Research has shown that, although the intensity (or proportion) of developmental vulnerability increases as one goes down the socio-economic spectrum, the greatest number of developmentally vulnerable children are found in the much more populous middle-class neighbourhoods. Because of this fact, strategies that provide universal access to the conditions that support healthy child development are required. These conditions include quality programming and services, quality child care, and early literacy opportunities.

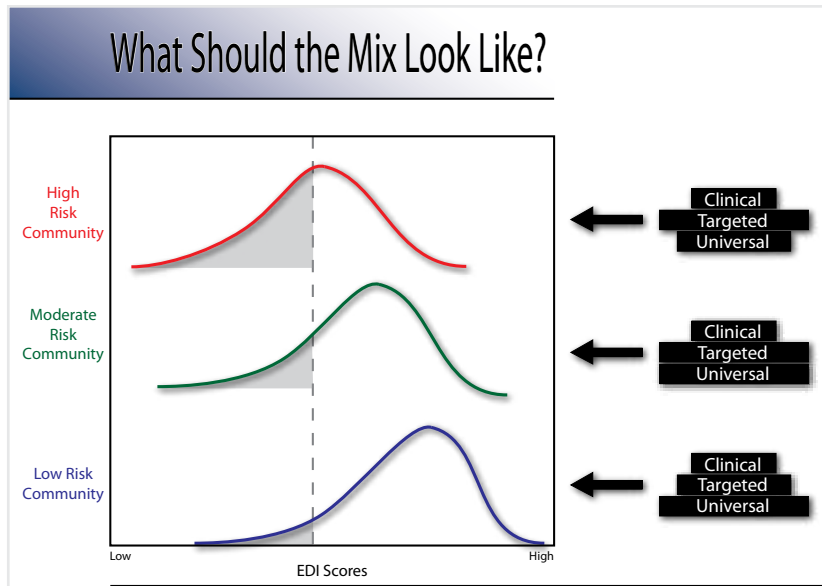


Figure 10: The mix of targeted and universal programs will change based on the needs of the community (Hertzman, 2004).

### *How do we Measure Up? A Community Story*

Port Alberni, on Vancouver Island is a community with a long history of working collaboratively for young children. When the EDI results showed that vulnerability in Port Alberni neighbourhoods was increasing between Wave 1 and Wave 2, the local Make Children First Network decided to look beyond these results to understand the other factors in their community that might be impacting their child population.

Using data from the BC Stats website, [www.bcstats.gov.bc.ca](http://www.bcstats.gov.bc.ca), members of the network were able to determine the following about their community:

- Tied for highest population receiving income assistance in B.C.
- Highest population of single parents
- Highest population of children in care
- Highest rate in BC for children at risk
- Highest rate in BC for education concerns
- Lowest in B.C. for overall socio-economic status

This obviously distressing socio-economic information spurred the Port Alberni network into action. Firstly, it confirmed that work was needed to increase public awareness about local socio-economic conditions and how they were negatively affecting children in the community. The network encouraged people to advocate for policy changes to best support socio-economically disadvantaged children and families. These were statistics that the people of Port Alberni wanted to change.

What the network also did, however, was to find a much better news story for their community. Again, using BC Stats information, the network looked at two other areas of the province where the socio-economic conditions were comparable. Then they compared their EDI results to those two areas and learned that within Port Alberni, although vulnerability was increasing, they did not have the extremely vulnerable neighbourhoods that existed in other communities.

It seemed that the collaborative community building that the network had been leading was paying off in mitigating the impact of a declining socio-economic situation. Yes, they needed to advocate for policy changes for children, but they also knew that they needed to keep focused on building relationships and championing children in their community.

### **Connections to early child development**

The relationships between socio-economic status and early child development are well established in the literature. Here are a few examples of connections between socio-economic characteristics and ECD:

*Average family income:* Higher family income levels provide families with a means to more easily access the conditions for healthy child development. For example, as income levels rise, access to good-quality child care, nutritious food, and secure housing improves.

*Education levels:* Higher levels of parental education tend to have a positive impact on the healthy development of children. Studies have shown that the education level of the primary caregiver, often the mother, is of particular significance to a child's readiness for school.

*Home ownership and mobility:* High levels of mobility (in other words, frequent moves) may be stressful for families and young children. Home ownership suggests a level of stability of residence and some economic security. Neighbourhoods with higher levels of home ownership are more likely to have lower levels of mobility, which we know are supportive of early child development.

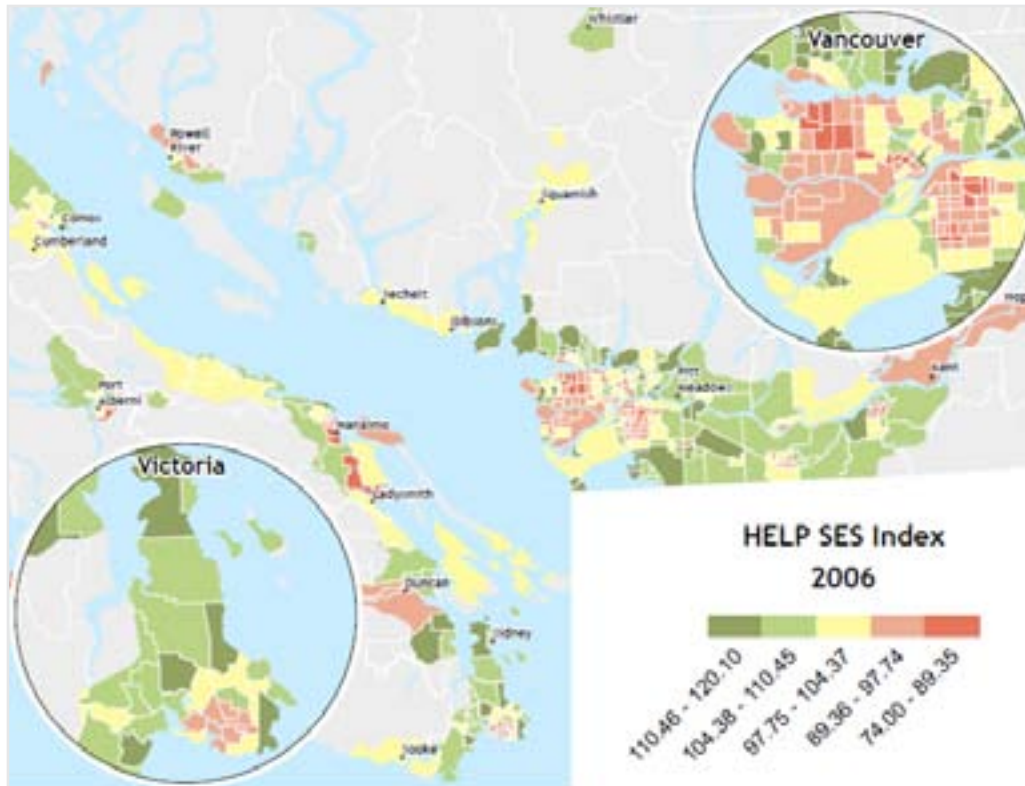


Figure 11: The HELP SES index

### **A child development index**

HELP has begun work on broadening our understanding of how socio-economic conditions affect the state of children’s development in BC. Using the provincial EDI data, a large number of socio-economic variables are being analyzed to determine which of these variables are most predictive of neighbourhood vulnerability. Within this analysis, attention is being paid to the differing kinds of impact of socio-economic conditions in different neighbourhoods (i.e. urban as compared to rural). Once these variables are pinpointed, the identified variables can be combined to produce a socio-economic index of children’s development in BC.

### **Finding socio-economic data**

Understanding the socio-economic character of your local community can strengthen your ability to effectively plan for the children and families in your neighbourhoods. Sources of SES data for communities include Statistics Canada, provincial

statistics, local government, and school districts. In Canada, the census provides a “statistical portrait” of our country and its people every five years. The most recent census was conducted in 2006.

Census data can be found at different levels of geography (country, province, community, and census tract) by selecting the “data products” tab on the Statistics Canada website ([www12.statcan.ca](http://www12.statcan.ca)). In BC, BC Stats ([www.bcstats.gov.bc.ca](http://www.bcstats.gov.bc.ca)) produces community profiles outlining demographic profile, economic hardship, labour market structure, education, crime, health problems, children at risk, and youth at risk.

### Community assets

While socio-economic data can tell us part of the story, other sources of data can help broaden our understanding of early child development. These data include information about communities, how they operate and the resources community members have access to that are of importance to early child development.

What is a community asset?

A guideline for deciding what constitutes an ECD asset is to ask the question, *does this asset positively influence child development in our community?* Assets are both formal and informal; they can be everything from pediatricians to mud puddles. Community ECD assets are the concrete, such as the community library, as well as the intangible, such as the watchful eye of a neighbour when children are playing.

#### *Community Assets*

Community assets strengthen people’s connections to one another, creating a nurturing environment where young children:

- are cared for by loving families, neighbours, teachers, and caregivers
- are around good role models and are lovingly taught desired and acceptable behaviour
- spend time in wholesome activities, both at and away from home
- are encouraged and supported to explore their world safely
- are shown positive values that guide actions
- are guided toward making healthy choices and getting along with people
- experience people who appreciate them and help them to serve others (Anonymous, 2003).

### Developmental assets

The SEARCH Institute, based in Minneapolis, is a leader in providing knowledge, and resources to promote healthy children, youth, and communities. The SEARCH Institute has identified building blocks of healthy development, referred to as “developmental assets.” These developmental assets help young children grow up healthy, caring, and responsible and are found across all cultural and socio-economic groups (see [www.searchinstitute.org](http://www.searchinstitute.org)).

Internal assets are the inner strengths that grow within a child and are nurtured by many different people in a child’s life. An example would be assets related to positive

*“There are two kinds of developmental assets, external and internal. External assets are the structural supports we want to find in every child’s life, created and held up by family, friends, and community members.”*

*(Goelman, 2007)*

identity—helping children to understand their special place in the world and to be excited about their future.

These developmental assets are simple everyday things done by everyday people. As a community member, you are an expert in what benefits kids. Carl Dunst’s work on identifying “learning opportunities and natural learning environments” for children has been used by many communities to assist in identifying the “everyday” activities that support children’s development (see [www.poweroftheordinary.org](http://www.poweroftheordinary.org)).

### **Identifying and collecting asset data**

Gathering information on community ECD assets has many benefits. First, the process of collecting the data is valuable in and of itself. It brings together community members with a common goal and celebrates the strengths of their community. Asset data can be used for documenting, monitoring, and analyzing community change. In terms of programs and services, the process of collecting asset data may help in identifying gaps in services, expanding opportunities for partnerships, and enhancing community support systems. Finally, the information can be used to help communities in organizing and advocating for policy change.

The process of collecting community asset data has several stages. It often begins with the bringing together of an early child development community coalition (see chapter 7 for more information on coalitions). This core group works together to identify some common goals for the asset data collection process. As it moves forward, the core group will usually expand the local dialogue to include more community voices and perspectives. The process of identifying and collecting assets is as important as what gets collected. A good process aims to build trust and engage participants around a common goal.

Collecting community asset data involves identifying people,

#### *A Plan of Action?*

The intersectoral coalition in Kelowna, B.C., held a series of neighbourhood workshops to engage community members in what mattered for early child development in the Central Okanagan.

Workshop participants were invited to reflect on what was known about the challenges facing young children and their caregivers. The process led to the creation of a community ECD plan identifying six priorities for young children and families. The full plan and a description of the process can be viewed at [www.members.shaw.ca/merrillandcompany/catch/ecdplan2.pdf](http://www.members.shaw.ca/merrillandcompany/catch/ecdplan2.pdf).

places, and things that support the development of young children in your community and displaying that data, either on a map or in a table or even in a child's drawing. It means involving citizens living in a community by acknowledging, celebrating, and accessing their strengths. Just bringing together people around a common issue can make a difference for children in your community.

When collecting community asset data, be sure to include the experts on early childhood assets: children, parents, and grandparents! It is never too early to involve children and youth in what matters in their community. Children and youth are naturally inquisitive, and can be creative and effective researchers. Young children can provide amazing insights into places and programs that matter when they are asked. Parents also have a great deal to offer in sharing their perspective about local ECD services. Parents have knowledge of not only what services are available, but also of how welcoming and accessible those services are.

ECD community asset data may be available from organizations in your community or region. Organizations that collect data include the following:

- community agencies that serve families with children
- provincial ministries that serve families with children
- health departments, hospitals, health care associations
- municipal governments (for example, planning departments, parks and recreation departments, and so on)
- school districts
- universities and colleges
- libraries
- law enforcement and associated agencies

### *Get to Know your Community Assets*

There are many possible ways to collect community asset data. Here are a few suggestions to get you started.

- Use driving and walking tours of the region, telephone books, community directories, maps of the region, municipal planning documents.
- Use personal knowledge, social contacts, and informal networks to identify community members with special talents, abilities, and capacities.
- Classify assets (for instance, individuals, organizations, natural resources, cultural assets).
- Think about relationships—how are assets interconnected and how do those relationships create yet another asset?
- Look out the window. You will be surprised at what you see when you consider how your surroundings might affect the development of a child.

- arts and culture agencies
- Aboriginal agencies within your community
- sports and recreation groups and facilities
- government statistics agencies (for example, BC Stats and Statistics Canada)

Whatever the source of your community asset data, it should not be accepted at face value. Here are some questions to ask when collecting and assessing data:

- Does the data come from a reliable source?
- Do you understand the conditions under which the data was collected, so that you have reason to believe the data to be accurate?
- How recent are the data?
- In what format are the data available?
- Are there costs attached to accessing the data—not only in terms of data purchase requirements, but also costs to “build” an electronic database from hard copies of data?
- How will collecting this information help you to address the issues that you have identified?
- How can the information be used?

Beyond understanding what ECD assets exist in your community, it is critical to know something about how they are used by children and families. You should also think about and assess the quality of the assets. For example, there may be two playgrounds in the same neighbourhood, but only one may be well used because the other is dirty and poorly lit. When considering the quality of formal ECD services, it is necessary to think about both the capacity and the accessibility of these services.

### **Considering the barriers to access**

HELP, in conjunction with community service providers, has compiled a list of the most common barriers to accessibility of services for families with young children. Each of these should be considered in the identification of community ECD assets. Even if a program or service is available in a community, if it is not truly accessible, it cannot be considered an asset for all children and families.

#### *Program or service not available*

Families are unable to access services because the service they need simply does not exist within their community.

#### *Cost*

Families are unable to access services due to financial constraints. This may be a barrier across income groups.

*Transportation*

Lack of transportation to and from services prevents families from accessing the program.

*Time program is offered*

The times of the day or week that the program or service is offered may present a barrier to access. Many working families are not able to attend services on a weekday.

*Time poverty*

Parents may struggle to juggle multiple roles, including paid work and caregiving, and thus do not have sufficient time to access resources. Time poverty is likely an especially significant barrier among lone-parent families.

*Language*

The language in which the service is offered prevents families from accessing the program/service.

*Fragmentation*

Families have children of various ages and are unable to access the desired programs for each child due to conflicting schedules or locations of programs. Also, different services for one child may be located in quite separate locations.

*Lack of information*

Families do not access services due to the lack of information available about programs.

*Conflicting expectations*

Parents of children who could benefit from services do not use them because they have not been consulted and potentially disagree about what the program should look like and how it should be delivered.

*Social distance*

Parents of children who could potentially access services are from different class, social, or cultural circles than those who provide the service. Lack of trust, embarrassment, or other factors may make parents unwilling to access available services.

*Lack of awareness*

Parents are unaware of the benefits to their children of the available programs and services. For example, parents may not be aware that it is important to read to their children and therefore not access the available literacy programs.

Breaking down the barriers of access demands that communities work together with governments, service providers and parents to reach solutions. Many of the barriers are a result of a lack of adequate resources to the early child development system that can only be altered through additional investment and public education. Some, however, can be reduced with local innovation and leadership. Adding a Saturday session or a multi lingual outreach worker to a Family Resource Program can go a long way to engaging families who are working or new to Canada. Local community networks are best able to take stock of the barriers that are impacting in their neighbourhoods and work collaboratively to find solutions.

## Representing the data

Once socio-economic and community asset data have been collected, these data should be compiled or represented so that the results can be shared with the community. There are many ways of representing socio-economic and community asset data including charts, tables, and graphics. New software tools are available to aid communities in the display process and are improving the usefulness of the data for communities. Mapping the data, however, helps communities see themselves or their children in the geographic representation.

Layering, or comparing different aspects of the data side by side on maps or charts, can enrich the understanding of the data and illustrate relationships in the factors that contribute to healthy early child development. Below are two quite different examples of how communities represented their ECD asset information.

Key to the style that you choose for your representation is how you plan to use the data. At each step along the way, pause to ask how the information can be helpful in achieving positive change for children and families in your community.

Children's development is influenced by a variety of inter-related factors. Understanding as many of these factors as possible in your community facilitates the development of local strategies for change.

### *Dialogue for Our Community*

- Find your most recent census information on the Stats Canada website
- What are the socio-economic trends that may be impacting on children's development in your community?
- Begin to think about community assets. Consider doing a survey of some parents with young children. What do they think of as assets for their children and how often do they access them?
- Can you be a barrier buster? What keeps families with young children from accessing services? Are there solutions that can be found locally or do the solutions lie in working with your funders and policy makers?





## Chapter 7

# Influencing Policy and Program Development

Implementing the Early Development Instrument in British Columbia has provided valuable data about the current state of children’s development at school entry in the province. These findings provide several reasons for local stakeholders to pause, take note, and consider the impact of policies and programs:

**REASON 1:** First, EDI data shows that more than 25% of children enter the BC elementary school system vulnerable, meaning behind in at least one aspect of their development at kindergarten entry. This finding is troubling, particularly since countries such as Sweden report that only 10% of children are vulnerable when they start school (Bremberg, 2007).

**REASON 2:** The vulnerable children in BC are not spread evenly throughout the province. Rather, EDI research reveals a large “geography of opportunity,” one that is much like our topography: some children face steep socio-economic difficulties, while others do not. The disparity is significant: on the low end, some neighbourhoods report rates of early vulnerability that are below 5% of children. However, others report vulnerability rates of over 60%. Of this variation, nearly half can be accounted for by differences in neighbourhood socio-economic status, as measured by routinely collected census data (Kershaw, Forer, Irwin, Hertzman, & Lapointe, 2007).

**REASON 3:** The provincial level of vulnerability has not fallen in recent years, despite a strong economy and the lowest levels of unemployment in three decades.

Between 2001 and 2004 the proportion of all BC children vulnerable was 26%. Between 2004 and 2007, the rate was over 29%. And, twice as many school districts reported vulnerability increases as reported decreases between these two time periods.

The rise in vulnerability, although modest at the provincial level, frustrates many citizens in neighbourhoods and

*21% of BC children live in households with incomes below the poverty level*

*There has been an 11% decline in median income in BC between 1980 and 2005*

towns across the province. These citizens, as ECD champions, report that the initial EDI data motivated them to work harder than ever before. Yet the EDI results are not improving as they, or we at HELP, would like to see.

### **Explaining rising rates of vulnerability**

How are these troublesome results to be explained? The answer rests in large part with the intersection of public policies and several socio-economic factors.

One key factor in socio-economic status is income. Statistics reveal that over the past generation, even though costs have risen, the average income of Canadians has not changed. At the national level, median earnings for Canadians employed full-time stagnated at about \$41,000 between 1980 and 2005. In BC, the trend is more worrisome still. Rather than no growth, there has been an 11% decline in median income in BC—the largest drop of any province or territory.

The stagnant incomes and even income losses for the average person show substantial differences across income levels. Nationally, the top 20% of earners saw their incomes rise by over 16%, whereas the bottom 20% of earners have experienced a 21% drop in income over the past 25 years (Statistics Canada, 2006).

One obvious result of this trend is growing income inequality. Although public policy offset this inequality into the early 1990s, major policy changes at the federal and provincial levels since then have coincided with increases in inequality even after taxes and benefits are factored in (Yalnizyan, 2007). Hence BC can boast low unemployment levels, but still have 21% of children in the province living in households with incomes below the poverty level.

Such poverty occurs alongside much tighter welfare regulations since 2002. After housing expenses, the amount of cash available each month to a BC mother caring for one toddler who relies solely on social assistance and other federal and provincial family benefits has hovered at around \$400 per month (Kershaw, 2007). This \$400 is supposed to cover food, transportation and other non-shelter necessities. However, even after adjusting for differences in currency exchange and purchasing power, this amount is not even one-half of the funds available to comparable lone-mother families in other Commonwealth countries like the United Kingdom and Australia. This amount is only about one-third of the funds available in Denmark and just over a quarter of the funds to which comparable Norwegian mothers are entitled (Kershaw, 2007).

Among a group of 16 affluent countries for which comparable policy data are available (all members of the Organisation for Economic Co-operation and Development), only in the United States are benefit levels for similar families lower than those reported in Canada. Such differences in local welfare policy from other jurisdictions deserve to be studied further, particularly since HELP research shows that the policy measure that has the strongest association with EDI vulnerability levels in BC neighbourhoods is the rate of social assistance in those same neighbourhoods.

Child care policies are also important. Generally, across Canada, there are more regu-

lated child care spaces for children aged 3-5 than for younger or older children. In BC, regulated child care spaces exist for just 14% of children under age 12 overall, but 29% of children aged 3-5. Shared use of the latter spaces means that approximately 25% of three- to five-year-olds access part-time programs in centres (in addition to kindergarten for five-year-olds), while approximately 15% use full employment-day, year round centres. In addition, approximately 2.5% of children under 12 in BC attend privately-operated licensed family child care programs.

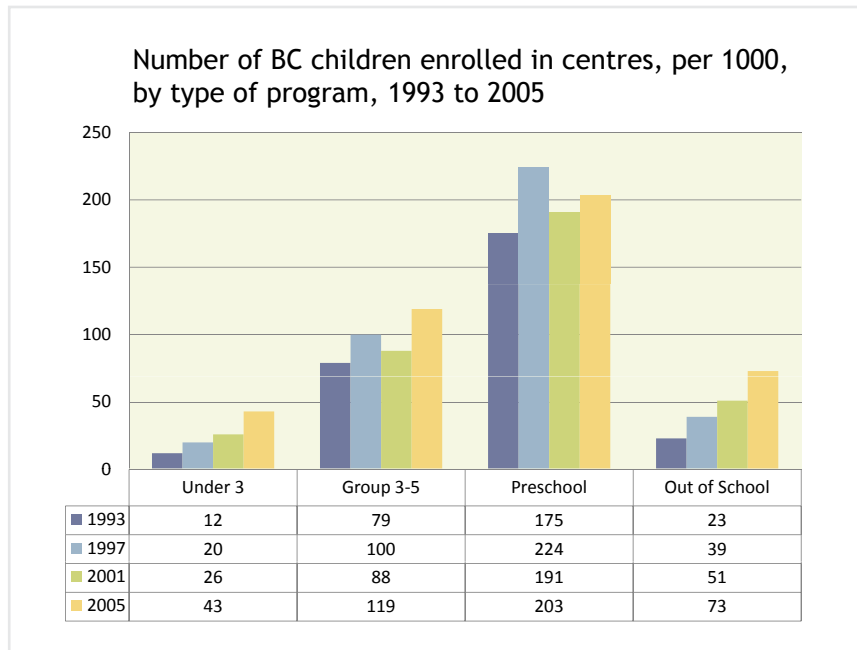


Figure 15: Participation in child care centres. (Goelman, Anderson, Forer, & Boonstra, 2009)

The modest number of regulated spaces reflects the fact that federal and provincial governments allocated just under \$300 million to child care services in BC for children under age 13 (Government of British Columbia, Ministry of Children and Family Development, 2008). When combined with the kindergarten budget of approximately \$111 million (Friendly, Beach, Ferns & Turiano, 2007), BC allocates a total of only 0.21% of GDP to kindergarten and child care. The OECD reports that this figure is lower than in the United States, where 0.5% of GDP is allocated to services specifically for children under age 6. It is well below leading member countries such as Denmark, Sweden, and Norway, all of which allocate more than 1.5% of GDP to preschool-age children.

Again, BC’s policy departure in terms of child care services requires further attention because early EDI results suggest that some child care services have the potential to positively affect the relationship between vulnerability and low socio-economic status. Particularly effective are child care services that are of high quality, licensed, and delivered in centres that can contribute indirectly to community development and social cohesion.

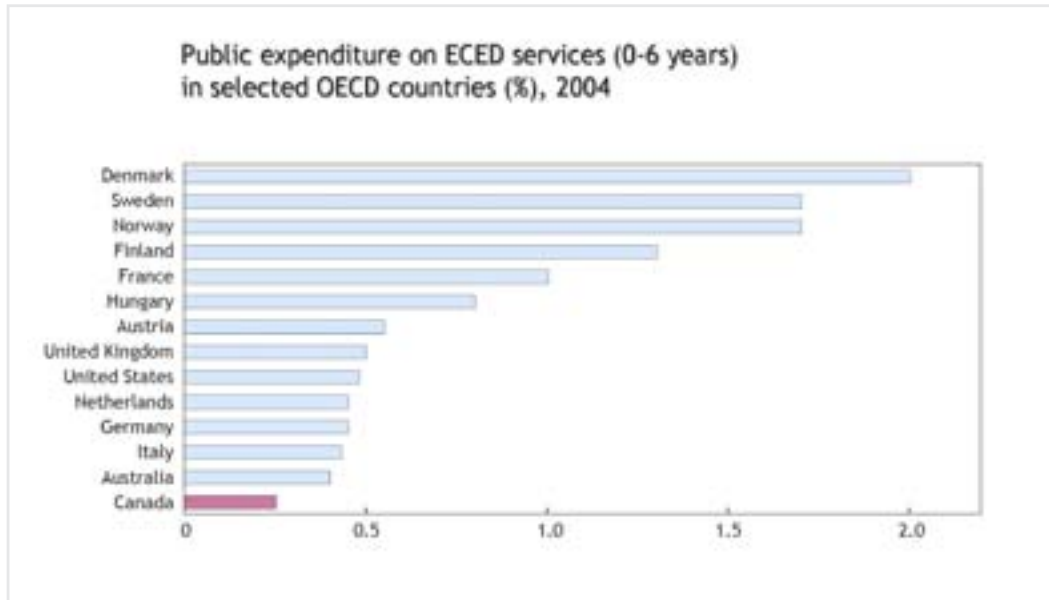


Figure 16: Public expenditures on ECED services. (OECD, 2006)

Altogether EDI research invites British Columbians to think more closely about how public policy interacts with local social and economic circumstances. As we do, it is important to recall that any discussions of what BC or Canada can afford are rarely about the absolute cost of a particular policy. Rather, talk of affordability really means that there are some policies and programs to which we give a higher priority.

Where do our priorities around early child development and families with young children lie? EDI data invites each of us to be bold, look in the mirror, and consider what we have prioritized when thinking about government policy in recent elections. Analyses of federal and provincial budgets over the past decade suggest that most voters have prioritized implementing tax cuts far more than strengthening supports for families with young children, or the returns that such investments will yield in the future.

### **Understanding the policy environment**

Given the importance of public policy to early child development, understanding the environment in which policies for young children are created is central to setting strategic goals and actions for your community. The policy environment, however, is complex. Funding and policy decisions are made at various levels of government: federal, provincial, regional, and local. International organizations, in addition, play an increasingly important role in establishing guidelines for early child development systems.

Within BC, most funds for early child development are managed at the provincial level. Some of these funds are raised directly by the BC government through taxes. Other funds are delivered by transfers from the federal government. For instance,

under the federal/provincial/territorial Early Child Development Agreement (Government of Canada, Department of Finance, 2006), BC receives \$66 million annually in federal funding to be invested in one or more of the following areas:

- promoting healthy pregnancy, birth, and infancy
- improving parenting and family supports
- strengthening early child development, learning, and care
- strengthening community supports

Additional federal funding totalling \$80 million annually is provided to BC specifically for early learning and child care through two additional transfers:

1. the 2003 Multilateral Framework Agreement on Early Learning and Child Care transfers \$47 million to improve access to quality, affordable, regulated early learning and child care services (Government of Canada, Department of Finance, 2006).
2. the 2007 Child Care Space Initiative transfers \$33 million to support ongoing provincial efforts to create child care spaces (Government of Canada, Department of Finance, 2006).

Starting in 2009, all three of these federal transfers will increase by 3% annually. Detailed information about the spending of the federal funds within BC can be found in the most recent report on Early Years Activities in BC.

Mostly then, the federal and provincial governments are jointly responsible for the overall level of investment in early child development, but it is the provincial government that has primary jurisdiction to establish spending priorities.

BC also has a structure of regional governance, particularly through the Ministry of Children & Family Development and the five regional health authorities. Many early child development programs, with the exception of child care, are managed at the regional level.

Finally, local governments have some responsibility for early child development. The direct ECD programs that are managed at the local level are relatively modest, as municipalities have limited legal capacity to generate revenue through taxation. That said, the approach municipal governments take to urban planning could have a considerable impact on children's development. Although it may sometimes seem complex and mysterious, understanding the policy environment in your community has real value.

- Who sets the policies that influence your identified priorities for children?
- Who funds which programs?
- What flexibility is there in how funds are allocated?

Making sense of the policy environment helps you to identify, communicate with, and influence the right decision-makers. While local government may be most famil-

iar to community residents, citizens of BC will generally find that it is the provincial and federal levels of government that have the authority and financial resources to make the most significant policy and program changes to support families with young children.

Thus those who aspire toward community development for families with young children should remain skeptical about the catch-phrase “think globally, act locally.” Given the policy environment in BC, those wanting to engage their community in taking action for children may be better served to “think locally, but act provincially or federally.”

One of the most important community development strategies available to support families with young children is educating citizens to think about this issue when they are deciding how to vote in provincial and federal elections. What are they demanding their representatives to prioritize in and after those elections? In the absence of asking these questions, community coalition work at the local level risks “distracting deliberations”: talk about local activity that ultimately needs provincial and federal investment so that it is possible to sustain. The frustrations that local stakeholders report about the rise in EDI vulnerability levels over time despite the additional work of volunteers and community roundtables underscore this risk.

### **Building the community network**

Action—whether it be local, provincial or federal—needs to be grounded in communities; launched by a group of like-minded people who care deeply about the same issues. A successful community initiative will bring to the table not only those who are committed to early child development, but also people who have a variety of skills, a breadth of community knowledge, differing perspectives, and specialized abilities.

British Columbia has an established infrastructure that supports community capacity building for young children in most parts of the province. At present there are well over 100 community ECD coalitions, networks, or tables. Most of these receive funding through Children First, Success by 6, or Understanding the Early Years (see sidebar). Many have been in operation for years, and new coalitions are constantly emerging as a result of both a growing understanding of the importance of collaboration and the commitment of government to fund these efforts. If you are not already involved in a coalition, find out who to contact in your community by going to the HELP website and following the links to your area.

Membership in the community coalition needs to be continually revisited to enhance the involvement from individuals and organizations that might not have traditionally seen themselves as part of the early child development community. A coalition’s understanding of the community is better informed, and its voice stronger, when it includes non-traditional partners.

### Who can make an important contribution to community action?

Every person in your community has something at stake when it comes to the healthy development of children. Champions for children are often found in the least likely places. Representation can be sought from individuals, organizations, and communities such as the following:

- parents and grandparents
- Aboriginal communities and organizations, whether on-reserve or urban
- ethnocultural communities and organizations
- faith-based organizations
- local businesses and financial institutions
- community agencies that serve children and families (for example, child care providers, family resource programs)
- community development and advocacy groups
- local branches of provincial ministries that support children and families (for instance, BC Ministry of Children & Family Development, Ministry of Health)
- the school district and the broader educational system, including independent schools
- local government, both elected, such as mayors and councillors, and staff members serving in municipal departments, such as planning or parks and recreation
- local universities and/or colleges (early childhood education departments, research units, and so on)
- youth groups

#### *Community Coalitions in BC*

*Children First* is a community-based program designed to identify and develop an integrated and comprehensive system for children age 0 to 6 and their families. It is funded by the Ministry of Children & Family Development, with 45 initiatives around the province. [www.bcchildrenfirst.ca](http://www.bcchildrenfirst.ca)

*Success by Six*<sup>®</sup> builds and enhances community through engaging citizens in early childhood development and funding programs that strengthen services for young children and their families. It is a partnership of the United Way of the Lower Mainland, Credit Unions of BC, and the Ministry of Children & Family Development. [www.successby6bc.ca](http://www.successby6bc.ca)

*Understanding the Early Years* (UEY) is a national research initiative designed to increase knowledge about child development, to monitor progress as a society in improving outcomes for young children, and to catalyze community action. [www.hrsdc.gc.ca/en/hip/sd/300\\_UYEYInfo.shtml](http://www.hrsdc.gc.ca/en/hip/sd/300_UYEYInfo.shtml)

- seniors' groups
- local health system representatives (such as public health nurses)
- police and legal organizations
- local libraries and early literacy programs
- organized labour
- community funders and service organizations (United Way, community foundations, and more)
- provincial elected representatives
- federal elected representatives

The length of this list—and it could go on—illustrates the rich human resources waiting to be tapped. Every neighbourhood, every community contains many potential advocates of early child development who can contribute in different ways to the cause.

### **Engaging new partners**

There are many strategies for engaging people in the community network. As with any volunteer work, remember that people are more likely to participate when they feel that the activities address a personal need or provide them with personal relevance or meaning. True partnerships are between people, not organizations. Look for ways to learn about potential participants and to understand their individual passions for children.

Participants will have different levels of involvement. Some may be interested in attending every coalition meeting, and others may only want to join for special events or be given specific projects to work on. Identify and build on the strengths and interests of everyone individually.

Here are some suggested strategies for getting people involved:

- *Personal conversations.* Whether you plan a conversation with someone you would like to invite to the network or you strike up an unexpected conversation with your neighbour, each interaction is a chance to build a new connection.
- *Town hall meetings.* Identify an issue relevant to people in the community (e.g., child care), and convene a session where people can express their concerns and collaborate on solutions.
- *Celebrations and festivals.* Bringing people together to celebrate in a family-friendly atmosphere (children's festivals, community dances) can provide an opportunity to profile the needs of local children.
- *Local newspaper articles* can provide information about early child development and invite participation in network activities.

- *Targeted recruitment.* There may be specific individuals or organizations whose involvement is seen as particularly beneficial to the network. Plan an approach that includes an overview of the network along with information on the importance of early child development.
- *Electronic Networking.* Increasingly, like minded individuals can connect through the internet. Consider setting up a website, or Facebook page, where you can post information on local early years resources and activities.

### **Using EDI in community engagement**

EDI results can be effective tools as part of the community engagement process. The neighbourhood-level maps and narrative summaries provide information that is specific to the local population of children. Presentation of results allows people to see how “their” children are doing and fosters the personal meaning that encourages people to participate in actions for change.

There is reason to be slightly cautious in how the maps are presented. You do not want to encourage direct comparison between neighbourhoods, but to demonstrate that there are inequities in children’s development across all neighbourhoods.

Creating time for a dialogue about the results following the presentation can deepen the understanding of the results and frame the development of strategies for action. Some questions that could guide such a dialogue are as follows:

- Think about the distribution of vulnerability—how many (absolute number) of vulnerable children are resident in each neighbourhood?
- Which neighbourhoods have the highest and lowest proportions of vulnerability? Has the vulnerability been sustained over all data collections?
- Has the range of vulnerability grown or become less?
- Is the vulnerability consistent across domains? Across neighbourhoods?
- Considering some of the community characteristics that effect children’s development, what may be reflected in the EDI results shown? (This could be a chance to brainstorm.)
- What would you like to do next with the information?

Local EDI presentations can be offered by network members and tailored to different groups. A presentation to the mayor and council may take only 10 minutes and provide a brief overview of the results. On the other hand, a group of ECD service providers may want to spend a full day considering the results and the implications for their programs. The key in all cases is to build the presentation based on what is meaningful for your audience.

## Programs that best support children’s development

Much is known about how individual programs effectively support children’s development. It is important to think of all these programs, however, as part of a broad system of policy and program support for children and families. Individual programs, while helpful to the children and families who access them, cannot in isolation influence the state of children’s development at the level of the population.

A pan-provincial (or even pan-Canadian), comprehensive system of programs founded on the well-researched principles of **quality** and **universal entitlement** should be the longer-term outcome of community development.

**Quality programs** support responsive adult-child interactions where children can investigate and think for themselves. Good outcomes for children are enhanced when programs employ qualified staff that are appropriately compensated, when reasonable staff:child ratios are in place, and when children attend programs regularly and frequently (Mitchell, 2007).

**Universal entitlement** is generally established in legislation to ensure that all children have a right to access equitable services regardless of additional support needs, families’ ability to pay, parental employment status language spoken or cultural background.

Young children have a range of developmental needs—physical, emotional, social, and cognitive. Each is as critical as the next in contributing to their overall healthy development. Services supporting children’s development should be organized accordingly. They should be comprehensive, integrated, and accessible to children and their families. They should be inclusive of both non-parental (child care) services and services that are designed

to support fathers, mothers, and other guardians to maximize the availability and quality of the time they have with their children. Services that are easy to get to will best support children’s development and families’ need for support.

Integrated early child development centres (hubs) are at the core of a comprehensive framework of supports and activities for young children and their families. These ECD hubs will look quite different from one community to the next, as different as the range of neighbourhoods in BC. Key to the development of hubs is their responsiveness to local needs. The services they provide, their location, and their infrastructure will depend on the nature of the community and the characteristics of its children and families.

Most importantly, there is no “one size fits all” model. In fact, to impose a common model would be detrimental to already existing community programs. The intent is to build on and support what is already working. There are, however, key components or principles that are part of a neighbourhood hub model.

- *Multiple services.* A hub provides at least two early child development or family-strengthening services under the same roof, including a child care program (e.g., infant/toddler, preschool, etc.). Child care is the cornerstone of the hub model, supporting parents' need for quality care and early learning for their children while they work or study.
- *Connections with other services.* A hub has relationships or connections with most other ECD, child care and family-strengthening services in the community. The hub building acts as the centre of a broader web of services. Parents and children accessing services in the hub building will be able to gain information and seamless access to a continuum of services.
- *Research-based services.* The services provided in hubs are developed based on what is known about the neighbourhood and the community. Early Development Instrument findings, socio-economic data, local inventories of existing services, and information gathered from parents and community members all contribute to a comprehensive understanding of neighbourhoods and how and where services can best be developed to meet local needs.
- *Community development component.* Due to the nature of hubs, there is a need for ongoing community development. This involves both outreach to children and families as well as ongoing relationship building with service providers and community stakeholders. Hubs reflect community character and must have a mechanism for adapting service design to reflect changing neighbourhood needs.
- *Community space.* ECD hubs make use of available space(s) in the community. Hubs can be located in community centres, schools, neighbourhood houses, libraries, public housing complexes, or occasionally private space (e.g., malls). Communities should assess the existence of available and appropriate spaces as a first step in developing hub programs.
- *Accessibility.* At present many barriers limit access to existing ECD services. These barriers include affordability, lack of transportation, hours of operation, language of service, and lack of information about services. Hubs are based within neighbourhoods, providing easy access for children and families and allowing for the creation of services to meet the needs of that neighbourhood.
- *Collaboration.* ECD hubs evolve from local collaboration and partnerships and are designed to further the collaborative process, not duplicate services or create competition between agencies. It is important that the hubs bring together stakeholders from a variety of sectors to reduce the historical fragmentation between services. In many communities, the local early years coalition facilitates the development of these community partnerships.
- *Universality.* ECD hubs provide universal access to services that promote healthy early child development. It is a system that is available to *every* child and family.

Presently, there are numerous examples around British Columbia of community developed ECD hubs. Neighbourhood houses, Aboriginal Friendship centres, recreation centres and Family resource programs all have some components of the hub model. However, there has not been the infrastructure and funding support provincially to establish this model universally. Without this, the system relies too heavily on the well intentioned, but poorly resourced, innovations of communities.

In closing, we at HELP believe that it is only in collaboration between academics, communities and government that we can make a positive impact on child development outcomes. We know that what gets measured gets attention, and the population level collection of EDI data in BC has provided us with that measurement. Now, we need to take action at all levels of the system and to compel others to join us in making a difference for the children of British Columbia.

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# Appendices

PDFs of each of the appendices listed below are available at the following location:

[www.earlylearning.ubc.ca/EDI/resources\\_toolkit.html](http://www.earlylearning.ubc.ca/EDI/resources_toolkit.html)

Appendix 3.1	Invitation to School District
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The Human Early Learning Partnership (HELP) is an interdisciplinary research consortium of faculty, researchers and graduate students from six universities in the province of British Columbia who take a life course perspective on development, well-being and competence. HELP partners with government and communities to translate research into policies and practice.

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