

MAPPING EARLY CHILD DEVELOPMENT:

Richmond (SCHOOL DISTRICT #38)

COMMUNITY SUMMARY

The Human Early Learning Partnership (HELP) brings together academic, government and community partners to help us understand early child development across British Columbia. The ECD Mapping Project involves mapping child development data, socio-economic characteristics and community assets. An important goal of the project is to assist communities in using maps to monitor early child development, and in developing effective local responses that support the needs of children and families. The project is administered by HELP, in partnership with community networks and school districts of British Columbia. The project is funded by the BC Ministry of Children and Family Development.

This report provides a summary and analysis of the ECD Mapping project undertaken in Richmond, School District #38.

Assessing Children's Development

The Early Development Instrument

A key component of the ECD Mapping Project is the Early Development Instrument (EDI), a research tool that assesses the state of children's development in kindergarten. Measuring children's development at school entry is important because it reflects children's early experiences and it can predict their performance later in life.

The EDI is a checklist that kindergarten teachers complete for each child in their class after they have known their students for several months. It measures a child's development in five areas, or domains.

1) Physical health and well-being

This domain provides an assessment of:

- Fine and gross motor development
- Levels of energy
- Daily preparedness for school (tired, late, hungry)
- Washroom independence
- Established handedness

2) **Social competence**

This domain provides an assessment of:

- Cooperation 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**

This domain provides an assessment of:

- Pro-social behaviour: helping, tolerance, empathy
- Aggressive behaviour
- Anxiety, hyperactivity, inattention, impulsiveness
- Informal, peer-to-peer interaction

4) **Language and cognitive development**

This domain provides an assessment of:

- Interest in books, reading, language-related activities (rhyming, group reading)
- Literacy: ability to recognise letters, read and write simple words
- Interest in simple math related activities
- Numeracy: ability to recognise and compare numbers, count, sort, etc.

5) **Communication skills and general knowledge**

This domain provides an assessment of:

- Ability to clearly communicate one's own needs and understand others in English
- Clear articulation
- Active participation in story-telling (not necessarily with good grammar and syntax)
- Interest in and general knowledge about the world

Vulnerability

Each EDI domain is scored somewhere between 0 and 10. At the completion of the first round of data collection, a provincial range of scores was established for each domain. The vulnerability threshold or cut-off is the EDI score that distinguishes the bottom 10% of children in the province from the other 90%. Children who fall below that score are said to be vulnerable on that domain 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. Results included in this summary show the proportion of children who are vulnerable in each domain of development, as well as the proportion that are vulnerable on one or more domain.

BC has now completed two “waves” (rounds) of EDI data collection in every school district. After the first provincial data collection, the vulnerability cut-offs were converted into *fixed scores* for each domain of children's development. These scores serve as a “baseline” of the

state of early child development at school entry, and create a stable unit of comparison to show how vulnerabilities may change over time.

Interpretation

Results from the EDI are interpreted only at the level of the group (school, neighbourhood, region, or school district). Results are never interpreted at the individual level. Communities benefit from this research in a number of ways. The research helps show where there are large differences in children’s development; where groups of children are more or less developmentally ready for school across communities, regions, and the province; and how broad socio-economic factors may influence children's early development. This information can help community members become more aware of ways to create environments to help children thrive.

This summary provides an analysis of Richmond results from 2001 to 2004 (Wave 1) compared to the results from 2005 to 2007 (Wave 2).

The Community

For the purposes of this project, the Richmond district has been divided into eleven neighbourhoods or areas. Children’s scores are mapped in their area of *residence*, not in the area where they go to school. Neighbourhood boundaries were originally established through the consensus of local ECD intersectoral coalitions in most communities in the province. HELP was instrumental in coordinating this boundary definition process.

The table below shows the EDI sample size for each neighbourhood in each wave. There were a total of 1,406 children in the Wave 1 sample and 1,331 children in the Wave 2 sample.



Richmond
 School District 38
 Base Map

	Number of Children Sampled		
	W1	W2	Chg
Steveston	195	203	8
Shellmont	103	115	12
Seafair	119	108	-11
Broadmoor	174	148	-26
Thompson	147	123	-24
Hamilton	54	62	8
Blundell	115	102	-13
City Centre	244	200	-44
Bridgeport/Sea Island	111	104	-7
East Richmond	44	52	8
Cambie	100	114	14

Notes:
 Source: Human Early Learning Partnership
 Boundaries provided by Helen Davidson
 (Make Children First).
 EL - HELP - Sept06

EDI Results (See attached Summary Table)

Vulnerable on at Least one Domain of Development

- District wide, 31% of children were vulnerable on at least one domain of their development in Wave 1 and 29.5% in Wave 2. This is a decrease of 1.5%.
- At the level of the district, Richmond is the 34th least vulnerable of the 59 school districts in the province.
- The neighbourhood with the highest proportion of children vulnerable in Wave 2 was Cambie (35.1%).
- There were four other neighbourhoods, Blundell, City Centre, East Richmond and Bridgeport/Sea Island, that all had over 30% of children vulnerable.
- There were no neighbourhoods that had lower than 24% of children vulnerable. The lowest vulnerability area was Steveston (24.1%).
- Eight of the eleven neighbourhoods had a decrease in vulnerability between Wave 1 and Wave 2. The largest decrease was in Thompson (-9.64%).
- Of the neighbourhoods where vulnerability increased, the largest increase was in Steveston (3.63%).

Physical Health and Well-Being

- Physical Health and Well-Being had the lowest proportion of vulnerability of any of the domains. It also had the largest decrease in vulnerability between samples.
 - District wide (Wave 2), 6.8% of children were vulnerable on Physical Health and Well Being. This is a decrease of 3.2%.
 - At the level of the district, Richmond is the 6th least vulnerable on this domain (of the 59 districts).
 - Two neighbourhoods, East Richmond (3.8%) and Thompson (4.1%) had less than 5% of children vulnerable on this domain.
 - The neighbourhood with the highest proportion of vulnerability on this domain (Wave 2) was Bridgeport/Sea Island (11.5%).
 - Nine of the eleven neighbourhoods had decreases in vulnerability, the largest of which was in East Richmond (9.8%).
 - Cambie and Hamilton were the neighbourhoods where vulnerability increased on this domain.
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Social Competence

- District wide (Wave 2), 12.9% of children were vulnerable on Social Competence. This is a decrease of 1.2% from the first sample.
- At the level of the district, Richmond is the 34th least vulnerable on this domain.
- Steveston and Thompson had the lowest proportions of vulnerability on this domain, although each still had 8.9% of children vulnerable.
- Cambie, Hamilton, Bridgeport/Sea Island and Blundell all had over 15% of children vulnerable on this domain.
- Only five of the eleven neighbourhoods had decreases of vulnerability on this domain. The largest of these were in East Richmond (-13.5%) and Thompson (-10.3%).

Emotional Maturity

- District wide, 11% of children were vulnerable on this domain, a small decrease (0.4%) from Wave 1.
- Richmond is the 25th least vulnerable district on this domain.
- East Richmond has the highest level of vulnerability (19.2%) on the Emotional Maturity domain. In Cambie 18.4% of children were vulnerable.
- The lowest vulnerability was in Thompson (5.7%).
- Eight neighbourhoods had decreases in vulnerability on this domain.
- Vulnerability increased in Cambie, Blundell and Broadmoor.

Language and Cognitive Development

- District wide only 7.7% of children were vulnerable on this domain. This is a decrease of 2.8% from Wave 1.
 - Richmond is the 9th least vulnerable district in the province on Language and Cognitive Development.
 - Nine of the eleven neighbourhoods had vulnerability lower than 10% on this domain.
 - The lowest proportions of vulnerability were in Blundell (4.0%) and Hamilton (4.8%).
 - Bridgeport/Sea Island had the highest proportion of vulnerability (14.4%).
 - There were decreases in vulnerability in all neighbourhoods except Shellmont.
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Communication Skills and General Knowledge

- At the district level, Communication Skills and General Knowledge had the highest proportion of vulnerability of any of the domains. It also was the only domain to have an increase in vulnerability (1.8%) between samples.
- District wide, 17.2% of children were vulnerable on Communication Skills and General Knowledge.
- There are only seven school districts that have higher vulnerability on this domain than Richmond.
- All neighbourhoods had greater than 10% vulnerability on this domain. Three neighbourhoods, City Centre, Bridgeport/Sea Island and Thompson, had greater than 20% vulnerability.
- The lowest proportion of vulnerability was in Steveston (10.8%).
- Seven of the eleven neighbourhoods had increases in vulnerability on this domain. The largest increases were in Broadmoor and Bridgeport/Sea Island (both 5.9%).

Considerations for Community Planning

EDI results can be used as one tool to guide planning for young children and families in the community. The results must be considered within the context of changing socio-economic conditions within the community.

Some of the results to take note of in Richmond are:

- ◆ Richmond is still in the middle range provincially for overall vulnerability although vulnerability decreased slightly from Wave 1 to Wave 2.
- ◆ All domains, except Communication Skills and General Knowledge, had a decrease in vulnerability.
- ◆ More neighbourhoods (8 of 11) had decreases, rather than increases, in vulnerability.
- ◆ There are no neighbourhoods that are within the least vulnerable quintile provincially. Every area has at least 24% of children vulnerable on one or more domain of development.
- ◆ Five neighbourhoods, Cambie, Blundell, City Centre, East Richmond and Bridgeport/Sea Island all had more than 30% of children vulnerable.
- ◆ The highest proportion of vulnerability was found on the Communication Skills and General Knowledge domain.
- ◆ The lowest proportion of children vulnerable and the largest decrease between samples were on the Physical Health and Well-Being domain.

- ♦ The results do indicate disparity between neighbourhoods, reflecting that children within the district have had disparate qualities of experience before school entry. These are the “differences that make a difference” to children’s futures.

This research was conducted by the Human Early Learning Partnership. Community maps created for this project are available on the ECD Mapping Portal: ecdportal.help.ubc.ca.

All materials from the project are available to be used liberally in support of activities that assist in early child development.

For further information, contact:

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Or for information on local ECD planning and services,

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Richmond

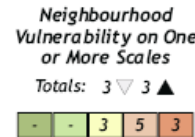
School District 38

Summary Table: Percent Vulnerable

	Physical Health and Well Being			Social Competence			Emotional Maturity			Language and Cognitive Development			Communication Skills and General Knowledge			Neighbourhood Vulnerability on One or More Scales			
	Wave1	Wave2	Change	Wave1	Wave2	Change	Wave1	Wave2	Change	Wave1	Wave2	Change	Wave1	Wave2	Change	Wave1	Wave2	Change	
Steveston	7.8	6.4	-1.4	7.7	8.9	1.2	10.3	7.5	-2.8	6.2	5.4	-0.7	10.3	10.8	0.6	20.5	24.1	3.6	Steveston
Shellmont	10.7	5.3	-5.4	9.8	12.2	2.4	8.9	8.7	-0.2	4.9	9.8	4.9	10.8	15.0	4.3	22.3	25.2	2.9	Shellmont
Seafair	10.9	9.3	-1.7	16.8	14.0	-2.8	8.4	7.4	-1.0	7.6	5.6	-2.0	9.2	15.0	5.7	28.6	25.9	-2.6	Seafair
Broadmoor	7.5	6.8	-0.7	8.6	12.9	4.3	8.8	12.5	3.7	8.7	6.4	-2.2	12.7	18.6	5.9	25.3	27.7	2.4	Broadmoor
Thompson	11.6	4.1	-7.5	19.2	8.9	-10.2	6.8	5.7	-1.1	12.3	9.8	-2.6	20.4	22.3	1.9	38.1	28.5	-9.6	Thompson
Hamilton	7.4	9.7	2.3	14.8	16.1	1.3	16.7	9.7	-7.0	9.3	4.8	-4.4	14.8	12.9	-1.9	31.5	29.0	-2.4	Hamilton
Blundell	7.8	5.9	-1.9	14.0	17.6	3.6	9.6	10.9	1.3	13.0	4.0	-9.1	13.9	18.8	4.9	31.3	30.4	-0.9	Blundell
City Centre	12.7	5.5	-7.2	13.1	13.0	-0.1	12.5	11.5	-1.0	11.3	6.5	-4.7	21.9	20.7	-1.2	36.1	33.5	-2.6	City Centre
Bridgeport/Sea Island	14.4	11.5	-2.9	16.2	16.3	0.1	16.2	15.5	-0.7	16.4	14.4	-1.9	16.2	22.1	5.9	35.1	34.6	-0.5	Bridgeport/Sea Island
East Richmond	13.6	3.8	-9.8	25.0	11.5	-13.5	22.7	19.2	-3.5	18.2	5.8	-12.4	18.2	13.5	-4.7	43.2	34.6	-8.6	East Richmond
Cambie	5.0	8.8	3.8	25.0	15.8	-9.2	17.2	18.4	1.2	15.1	12.3	-2.8	19.0	17.5	-1.5	40.0	35.1	-4.9	Cambie

Dark outlines indicate neighbourhoods with statistically significant change between Waves.

Sorted by



Province-wide Vulnerability Cut-offs:

EDI Scale	Cut-off Value
Physical Health and Well-being	6.92
Social Competence	5.58
Emotional Maturity	5.83
Language and Cognitive Development	5.38
Communication and General Knowledge	3.89

Notes:

Source: EDI Wave 1 (2001/02 - 2003/04), EDI Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership. The total sample size is 1331 students. Boundaries provided by Helen Davidson (Make Children First).

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