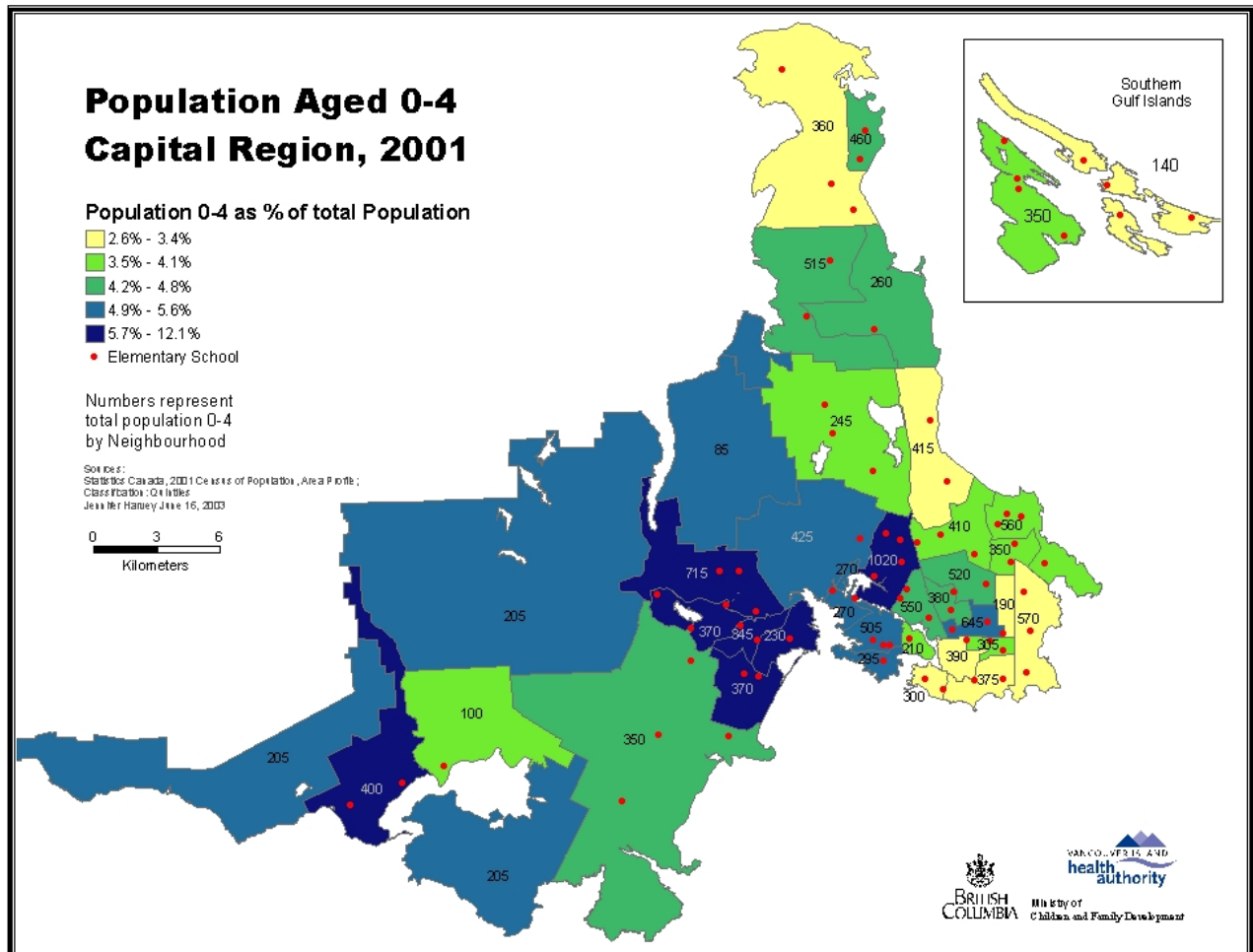


The Early Years Maps

Making a Difference in Greater Victoria

Prepared by M. Fryer for the Greater Victoria Early Childhood Community Coalition, December 2004



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Preface

This document was prepared to assist the Greater Victoria Early Childhood Community Coalition and other community groups who wish to understand and use the Early Years maps prepared by the Human Early Learning Project, and the Coalition. It is structured according to questions that arose during our discussions over the past months. We have learned a great deal from the maps, but needed to be clear on what they tell us, and what they might not tell us, as we begin to make decisions and shift directions in our community planning and funding decisions. For more in depth information, or to view the maps, the reader is referred to the HELP website (www.earlylearning.ubc.ca). We are School Districts 61, 62,63 and 64. The Greater Victoria Early Childhood Community Coalition (earlyyears victoria@shaw.ca) can also provide information, presentations, guidance and the maps that show the neighbourhood characteristics for the five domains. There are also two text reports on the mapping done so far; one a Report on the Victoria Early Childhood Mapping Project (Jennifer Harvey, 2004) and Community Summaries done by the HELP team viewed at this link.

<http://ecdportal.help.ubc.ca/mapComReports.htm>

What can we do with these maps?

The early years maps of Greater Victoria provide a previously unavailable view of multiple types of information, from multiple sources. We mapped them because there is evidence that the elements we mapped are influential on the health and well being of children 0-6. Clearly, they are not all the information we need to understand what is supporting or challenging our children, and they must be viewed in terms of community knowledge of those who know the region. The parents, the community members and providers all have important knowledge that can be explored using these maps. We need to add information to these maps as we develop new questions.

The maps show some of the characteristics of our neighbourhoods, and the readiness to learn of kindergarten children as measured by the Early Development Indicator (EDI) done in February 2003. Our over-all goals to be promoted with these maps include:

- Increasing the profile of children 0-6
- Increasing awareness of how community characteristics influence the life long health and well being of children
- Understanding and reducing variation and disparity between neighbourhoods in our region.
- Providing direction for our strategic directions and funding decisions

Why did we define the neighbourhoods as we did?

37 neighbourhoods define the Greater Victoria Region. The process of defining them included consultation and discussion with many and we believe they are recognizable using “local knowledge”. It was also essential that the boundaries were consistent with

the way we receive data from census Canada and BC Vital Stats, and that there was a minimum of 40 kindergarten students in each neighbourhood as this is required for valid use of the EDI. The neighbourhoods can be rolled up, but not broken down into smaller units for these reasons. Each child was placed in a neighbourhood using postal code.

Why don't the neighbourhoods reflect the school catchments areas?

The EDI is a measure of the characteristics and experiences of a child before they enter school – an outcome measure for the early years. Evidence shows us that the child's health, relationship with parents, and other early experiences are the influences of readiness to learn by the time of kindergarten. We are also responding to the research, which says that a child's community effects their development, and their community does not always coincide with their school. Families choose their children's schools based on other reasons that geography, and they may live in different neighbourhoods in the years before school. The children who attend a school are not necessarily the ones who spend their early years in that school's catchment area. Also, as mentioned in the previous paragraph, data from census and vital statistics is not available in this arrangement.

How do we know the EDI results are good enough to draw conclusions on?

We believe the EDI is a valid measure, on a population level, of a child's readiness to learn at kindergarten. We also believe it is the early years which create or challenge this state of health and well being which allows a child to take full advantage of the school environment and thrive. What will take more time and study is an understanding of what factors within a child, his family and his neighbourhood either support or challenge readiness to learn at kindergarten. We have the national research to guide the way, and we need to apply it to our own neighbourhoods.

The EDI results are one spot in time, with one group of children. How long does this remain valid?

It is true that February 2003 is the spot in time we know about now. We do hope to repeat the EDI every 3 years to monitor changes and see how we are doing in improving readiness to learn and reducing disparity between neighbourhoods. It is, however, reasonable to assume that most of the variables in play will not change very quickly, but will take time. (ie: new programs and services, socio-economic supports to families, neighbourhood characteristics.)

What do we know about the EDI tool itself and it's ability to measure the health and well being of children and readiness to learn?

The EDI as a measure of readiness to learn, and health and well being in the five domains [physical health, social competence, emotional maturity, language and cognitive development and communication skills and general knowledge] has been rigorously tested. The measure is only valid at a group, not individual level. The results of studies

using other measures of readiness to learn are consistent with the EDI. ¹ Also, inter rater reliability (between teachers) has been shown to be very high, and that there is little variation between teachers. ² All the teachers received training on use of the tools, which is intended to support consistent use of the tools, and decrease chances of bias. However, in some schools where there is only one kindergarten teacher, it has been suggested that we conduct our own inter-rater testing when the EDI is done next. The references listed describe research studies that show that the reliability of EDI has remained stable over time, and for different samples with differing characteristics.

What the EDI is and is not³

| The EDI is | The EDI is NOT |
|---|---|
| ➤ 120 item questionnaire filled out by kindergarten teachers | ➤ A screening tool |
| ➤ A description of child development in 5 domains | ➤ A diagnostic tool |
| ➤ A catalyst for discussion and review of the early years | ➤ A measure of success or failure |
| ➤ A tool to bring the many contributors to child health and well being together | ➤ An implication for specific teaching approaches |
| ➤ A communication tool to increase the profile of young children | ➤ A comprehensive picture of the early years |
| ➤ A valid comparison of variation between groups of children | ➤ A comparison between individual children |

What about the socio-economic and health characteristics of neighbourhoods?

This information was selected for mapping in response to the research about determinants of health and well being. The information was used by permission from Census Canada (2001) and BC Vital Statistics. The sources provide an exact description of measurement methods, and we believe this is accurate and important information to view in terms of neighbourhood differences, and possible contributing challenges and supports to children. In the full mapping report, reference is made to the significance of the variables mapped in terms of the effect on child development. Examples of variables include

- Numbers of children
- Numbers of families living below the low income cut-off

¹ Favaro, P., Russell, K., & Gray, E. (2004) Readiness to Learn Early Development Instrument: Dixie Bloor Neighbourhoods, Mississauga, Ontario. Mississauga: Peel District School Board. Uey.peelschools.org/documents/ReadinesstoLearn.pdf

² Duku, E and Janus, M. (2004). Stability and Reliability of the Early Development Instrument: A Population-Based Measure for Communities (EDI Department of Psychiatry and Behavioural Neurosciences Annual Research Day, 2004 McMaster University, Offord Centre for Child Studies.

³ Goelman, H. What the EDI is(not)-and Why it is Important for British Columbia

- Education levels of residents
- Low and high birth weights
- Mobility of residents
- Single parent families

What do we mean by vulnerable?

Children who have scores which fall below the 10th percentile of all scores in the Greater Victoria Region are considered “vulnerable”. As the measure is group, not individual, this is shown as the percentage of children within a neighbourhood. If the number of children vulnerable in any domain were not variable by neighbourhood, then each neighbourhood would have no more than 10% of their children vulnerable. Clearly this is not the case, as the variation of percent of children vulnerable on one or more domains ranges from 9% to 58 % in different neighbourhoods.

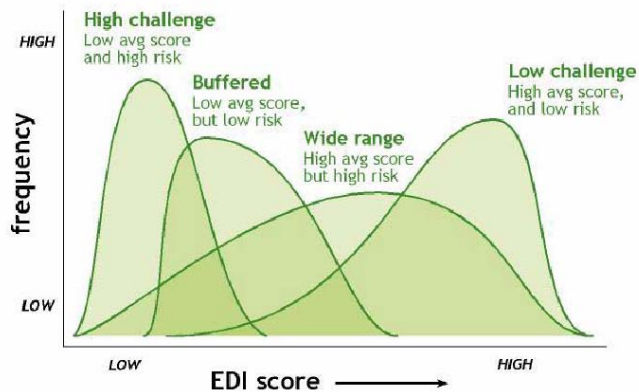
For cross province comparison, and use of a larger sample size, the Vancouver population is used in determining the cut off for the lowest 10%. The threshold for vulnerability in this case is higher due to the large sample size. For example, in Langford 32.05 percent of the children there fall below the 10th percentile for one or more domains using the Greater Victoria sample, but 21.79 percent would be in the category if the Vancouver sample were used.

What do the EDI results imply about the focus for changes and supports for the 5 domains?

Using our locally defined neighbourhoods, the Human Early Learning Partnership provided neighbourhood by neighbourhood information about the average scores on **each of the 5 domains**, the amount of variability of the average scores within neighbourhoods and the average number of children whose scores are below the 10th percentile for children in our whole region. We applied the model proposed by Clyde Hertzman which suggests that depending on these results, a special emphasis on supports in the areas of civil society, universal programs and services, or targeted supports and services is needed.

Hertzman suggests that the ideal mix of supports for each community will depend on the characteristics of the neighbourhoods that are reflected in by the EDI (Early Development Indicator). Diagram 2 (Hertzman, 2004) shows examples of ways in which communities may vary.

Diagram 2



In all four types of neighbourhoods, there is a need for universal, targeted, and clinical supports. It is suggested that the special emphasis may be different, depending on the category of neighbourhood.

Low challenge neighbourhoods have higher average EDI scores, and fewer children in the vulnerable (below the 10th percentile). This implies that, on average, children experience good supports and fewer challenges to early development.

In **high challenge** neighbourhoods, Hertzman recommends an “increased” emphasis on universal supports and supports offered within civil society, while a “special” emphasis is recommended for targeted supports. These are neighbourhoods where both the average EDI scores and a higher proportion of them (as compared to the whole region) are falling in the lowest 10th percent.

In **buffered** neighbourhoods, Hertzman recommends an “increased” emphasis on universal supports and supports offered within civil society. It appears that buffered neighbourhoods have something going on which keeps the number of children in the lowest 10th percentile down, even though the average EDI score are may be low compared to other neighbourhoods.

In **wide range** neighbourhoods, the average EDI score may look good, but there are wide differences in the same neighbourhoods. This implies that global or universal supports may not be there for all, and that children’s experiences rely more completely on their family. Some questions for variable results within a neighbourhood may be:

Is there lack of universal supports, programs, or assets without barriers? This could leave the family as a more dominant influence, and this could vary within a short block.

Does the community (local leadership, business included) value children and understand the importance of the early years? Do they make decisions like municipal plans and policies accordingly?

Why would some children be doing better than others, right within the same neighbourhood?

It is noteworthy that the mapping review does not specify programs or support services. It simply recommends types of support needing “increased” or “special” emphasis.

How accurate are these neighbourhood classifications?

We recognize that these neighbourhood classifications are based on a theory, and are somewhat subjective. The threshold to cross from one category to the next may be as small as a 1% difference in the average scores, or average number of children below the 10th percentile. Therefore, this information must be used in context of what else is known about the neighbourhood.

How do we know what factors in a neighbourhood are contributing to the EDI outcomes?

While there is good evidence from national and international research about the things that support or challenge healthy development, we don’t always have measures for them. We know that educational level of parents has an effect on early child development (on a population level), so we can look at the maps showing this. We also know that parental attunement to an infant, and parenting style is also influential, particularly on the social and emotional development of a child. We don’t have measures of this, so different kinds of information must be inserted into this discussion – the type of information that most likely comes from local knowledge of the community. We therefore recommend that groups use this information for discussion and identify new questions from it. Some examples of questions are provided in the following.

| |
|--------------------------------------|
| Examples of questions for discussion |
|--------------------------------------|

Buffered Neighbourhoods

- While the average EDI scores are on the lower side, there aren’t as many children in the lowest 10% of the region. The suggestion is that something may be providing a buffer, which prevents them from being in the bottom 10%.

Oak Bay, Cedar Hill/Swan Lk and Fairfield have similar average EDI scores on social competence. (8.92, 8.30 and 8.27 respectively). Their percent of children whose scores end up below the 10th percentile are quite different. Oak Bay has 7.81 percent, Cedar Hill/Swan Lk 4.05% and Fairfield only 1.43 %. This is why Fairfield is called buffered when it comes to Social competence. What’s different in the community of Fairfield from Oak Bay when it comes to promoting social competence for young children? Those who

know the communities best, and look at all the available information will be a best position to address this.

Fernwood and Esquimalt average EDI score for the emotional domain aren't that different at 7.57 and 6.53 respectively. But, in Esquimalt 35.21 percent of children are in the lowest 10% for the region and in Fernwood 18.18 percent are in the lowest 10%. Is there something in Fernwood that is buffering children and keeping their vulnerability above the 10 percentile? Is there something in Esquimalt that prevents this buffering effect? This discussion must happen between those who know those neighbourhoods in order to put this in context.

In the domain of physical health and well being, Cedar Hill/Swan Lk is showing as a buffered community. They have 4.11 percent of children below the 10% in physical health, but an average score of 8.69 - similar to that of Atkins (8.90). But, Atkins has 8.51 percent of their children in the vulnerable category. What is buffering the children in Cedar Hill? Or is this due to a small sample size issue? (75 kindergarten children were tested in Cedar Hill/Swan Lk and 47 in Atkins)

Again, these are questions for exploration, addition of other information and community knowledge.

- Are there good supports in the neighbourhood? What do they look like? Something that should be identified and protected? What is different about this neighbourhood versus others, which have a higher percentage of vulnerable (>10%)?

Our recommendations

We recommend that the Greater Victoria community, leaders, funders and advocates use and continue to evolve these maps in order to increase awareness of the importance of early years, the profile of young children and the issues that impact them and in turn our communities. We also recommend that coalition members and groups use this data to analyze, confirm and explore; and that they continue to develop it by adding new information, increasing the scope and depth of information and apply their own knowledge of their communities. We recognize the limitations of all measurement, including the EDI and the mapping of other data, and suggest that the limitations be recognized, but we believe this information is valuable and should influence of discussions and decisions, particularly in the absence of other information. All data is dynamic and has limitations, and we believe this is sound information to use in our decision-making and communications.