

Understanding the Early Years (UEY) in Niagara Falls



The Early Development Instrument (EDI)

Overview

- **Background and Implementation**
- **Results of the EDI Study in Niagara Falls**
- **Next Steps**



Background to the Instrument & Implementation in Niagara Falls

The EDI was developed by Dr. Dan Offord & Dr. Magdalena Janus at the Canadian Centre for Studies of Children at Risk (CCSCR), McMaster University



- **Population measure**
- **Profiles early child development outcomes, or “readiness to learn”, in terms of children’s preparedness for school.**
- **Reports on populations of children at the community level, based on five domains:**
 - ✚ **Physical Health and Well-being**
 - ✚ **Social Competence**
 - ✚ **Emotional Maturity**
 - ✚ **Language and Cognitive Development**
 - ✚ **Communication Skills and General Knowledge**

- **Teachers complete a checklist with students in mind – training and guide facilitate uniform interpretation**
- **All items are characteristic of children's observable behaviour in kindergarten**
- **There is no direct assessment**
- **Results are interpreted on a group level**
- **The EDI is not a diagnostic tool – individual results are confidential**
- **The EDI does not measure school or teacher performance**

Data Analysis

- Completed questionnaires are sent to CCSCR, McMaster University, for analysis
- Results in each domain are scored on a scale of 0-10. Higher scores indicate better “readiness to learn”

The goal of communities should be to have all children achieve a score of 10 on each domain



Percentile Thresholds

- **CCSCR is working towards a national standard or benchmark**
- **Until then population scores for each domain, from each site, are divided into percentiles to facilitate interpretation**
- **Percentile thresholds are relative and based on the distribution of scores within each site – profiling the development of children relative to their peers in the community**
- **Children who score in the lowest 10% of their site's scores are considered to be at risk in terms of readiness to learn skills**

Making Comparisons

- One of the main features of the EDI is that it reports on populations rather than samples
- Scores reported are actual real averages - not estimates
- This feature supersedes a need for statistical comparison within the group and results of whole populations, such as neighborhoods, can be viewed alongside each other



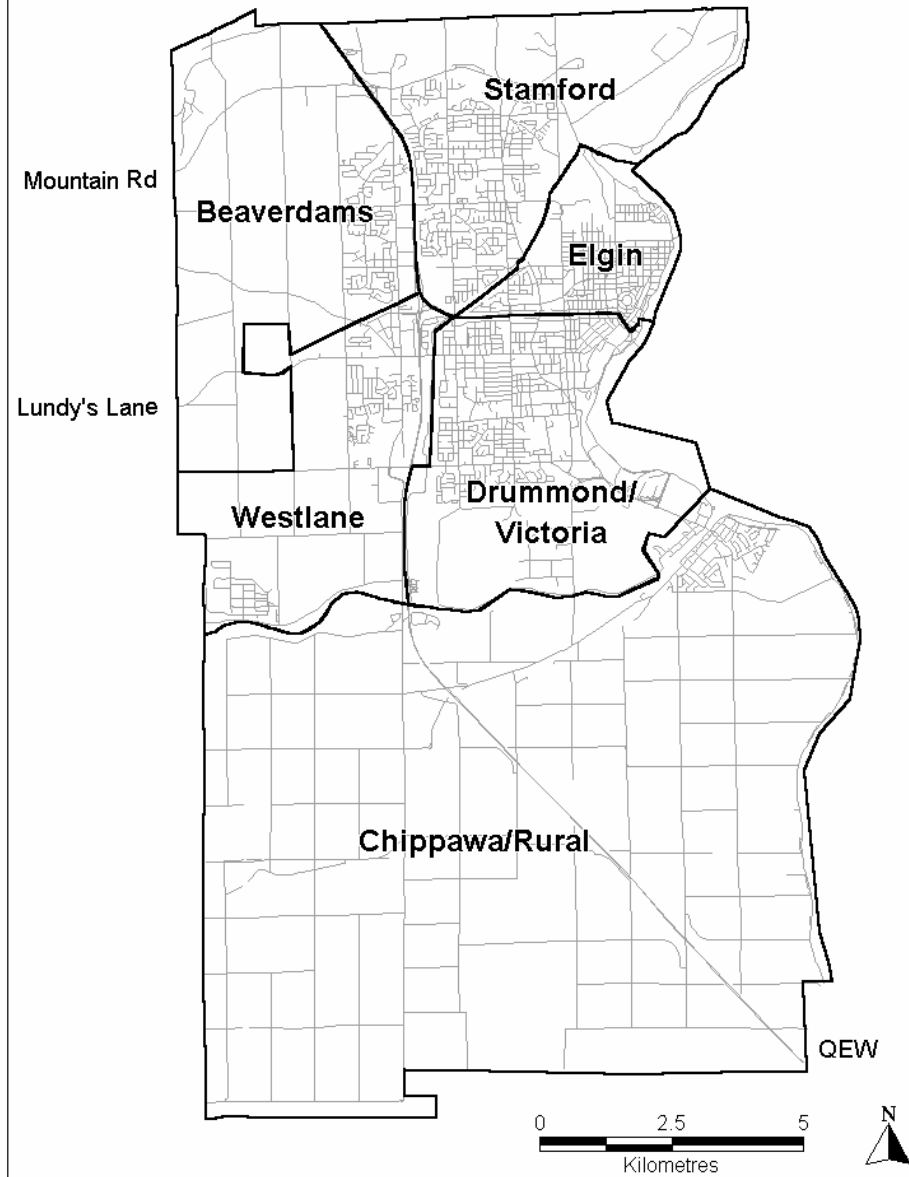
The 2001 Cohort

- Provides a means of comparing children in Niagara Falls to other 5-6 year olds across Canada
- Results provided by CCSCR based on data from children across Canada who took part in the EDI during the 2000/2001 school year
- This group is not representative nor is it truly national
- In the absence of norms, CCSCR does recommend statistical comparison between this group and the city as a whole to show where overall strengths and weaknesses lie.

Neighbourhood Results

- **CCSCR creates school-by-school and site reports, but recommends that results be presented at the neighbourhood level**
- **UEY Researchers consulted CCSCR regarding the manipulation of data to take results out of the school context and place them back in the community**
- **Neighbourhood study areas were defined in consultation with the Planning and Development Department of the City of Niagara Falls and the UEY advisory committees**

Neighbourhood Study Areas



- Beaverdams
- Chippawa/Rural
- Drummond/Victoria
- Elgin
- Stamford
- Westlane

Results of the EDI Study in Niagara Falls



Overall Results

On average, Niagara Falls scored as well as, or better than the 2001 Cohort in all domains except Social Competence and Emotional Maturity, where Niagara Falls scored lower

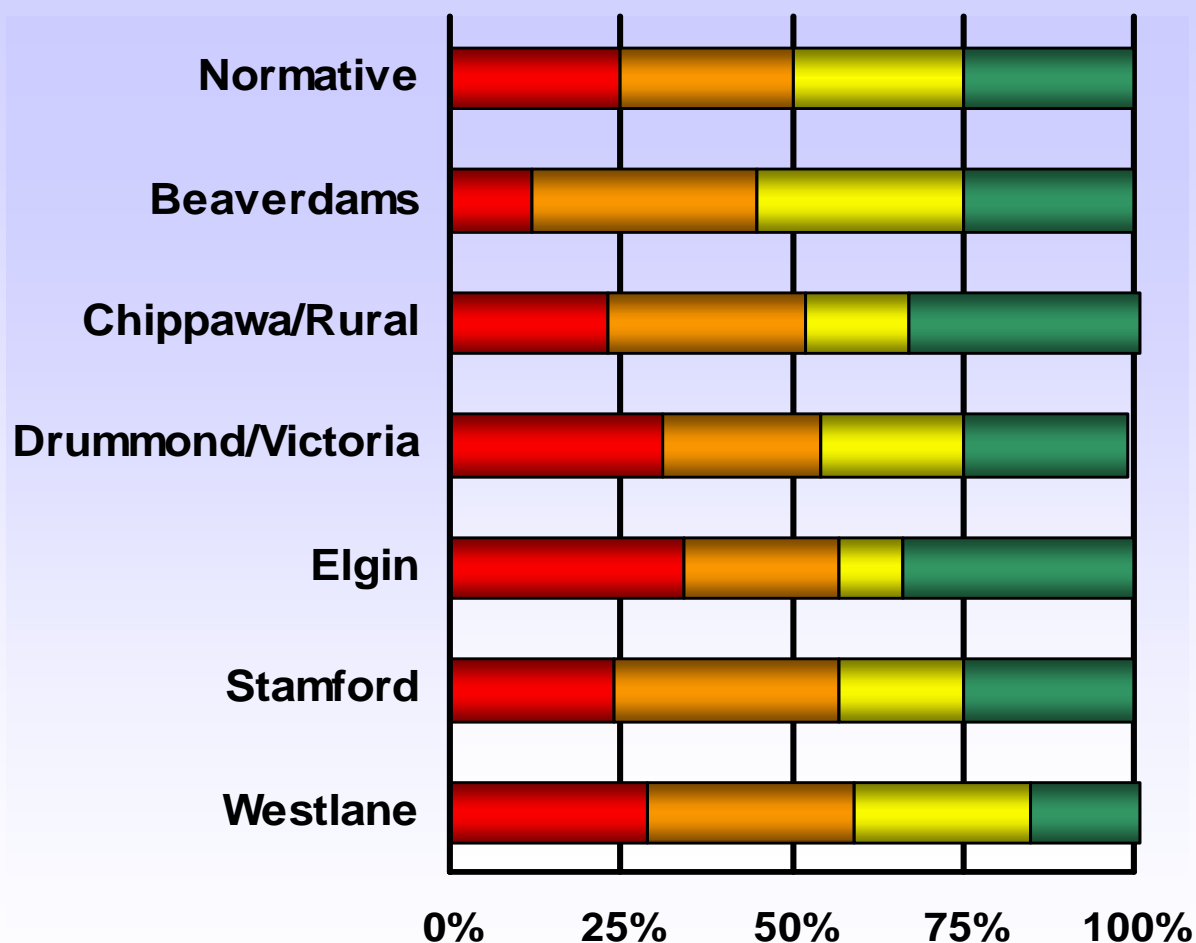


EDI Domain	Average Scores	
	Cohort 2001	Niagara Falls
Physical health & Well-being	8.77	8.78
Social Competence	8.32	8.14
Emotional Maturity	8.04	*7.72
Language & Cognitive Development	8.28	8.29
Communication Skills & General Knowledge	7.70	7.78

Age range: 4.6 to 6.8 years; special needs excluded

* Significantly lower; $p < 0.05$

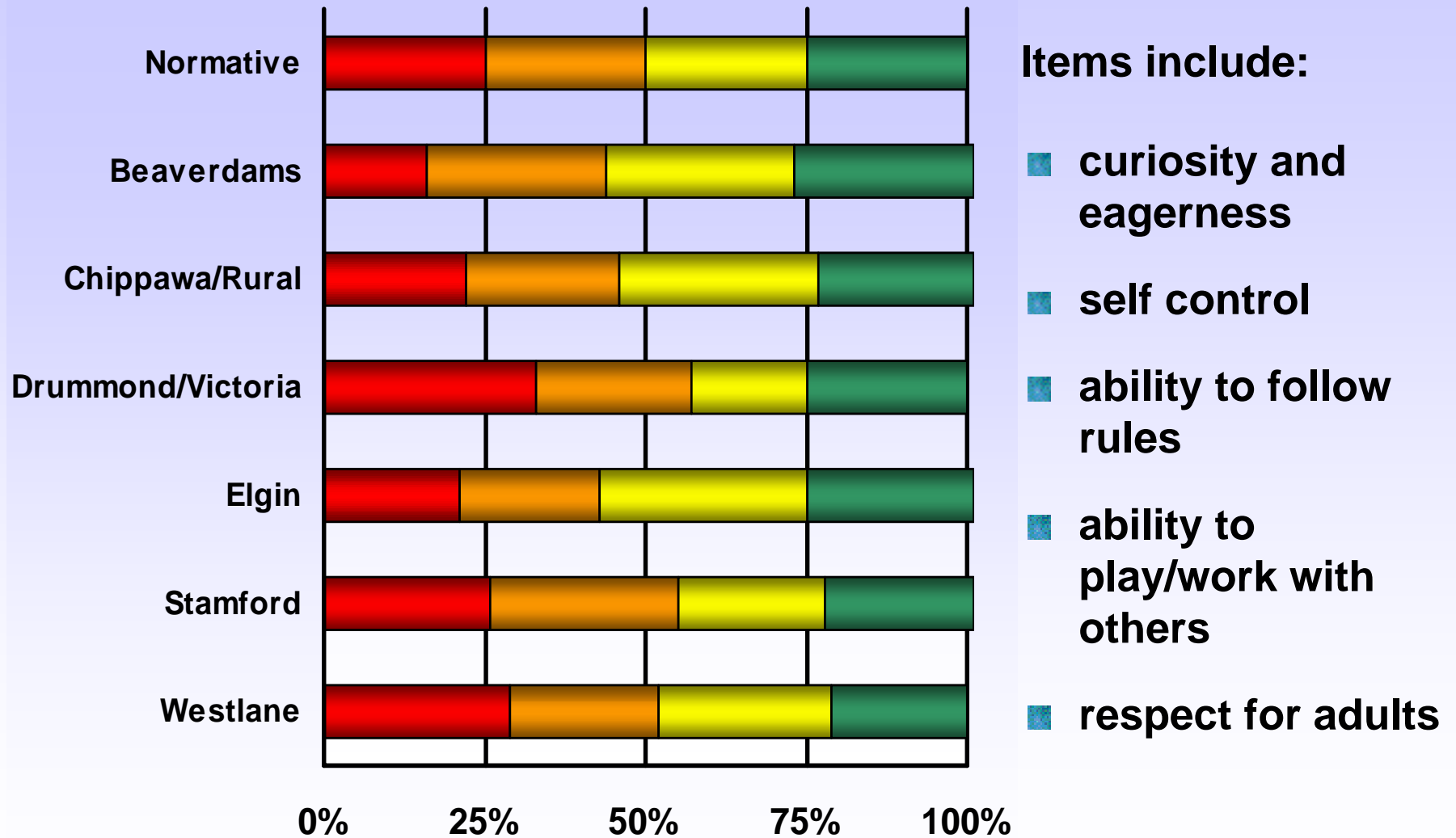
Physical Health and Well-Being



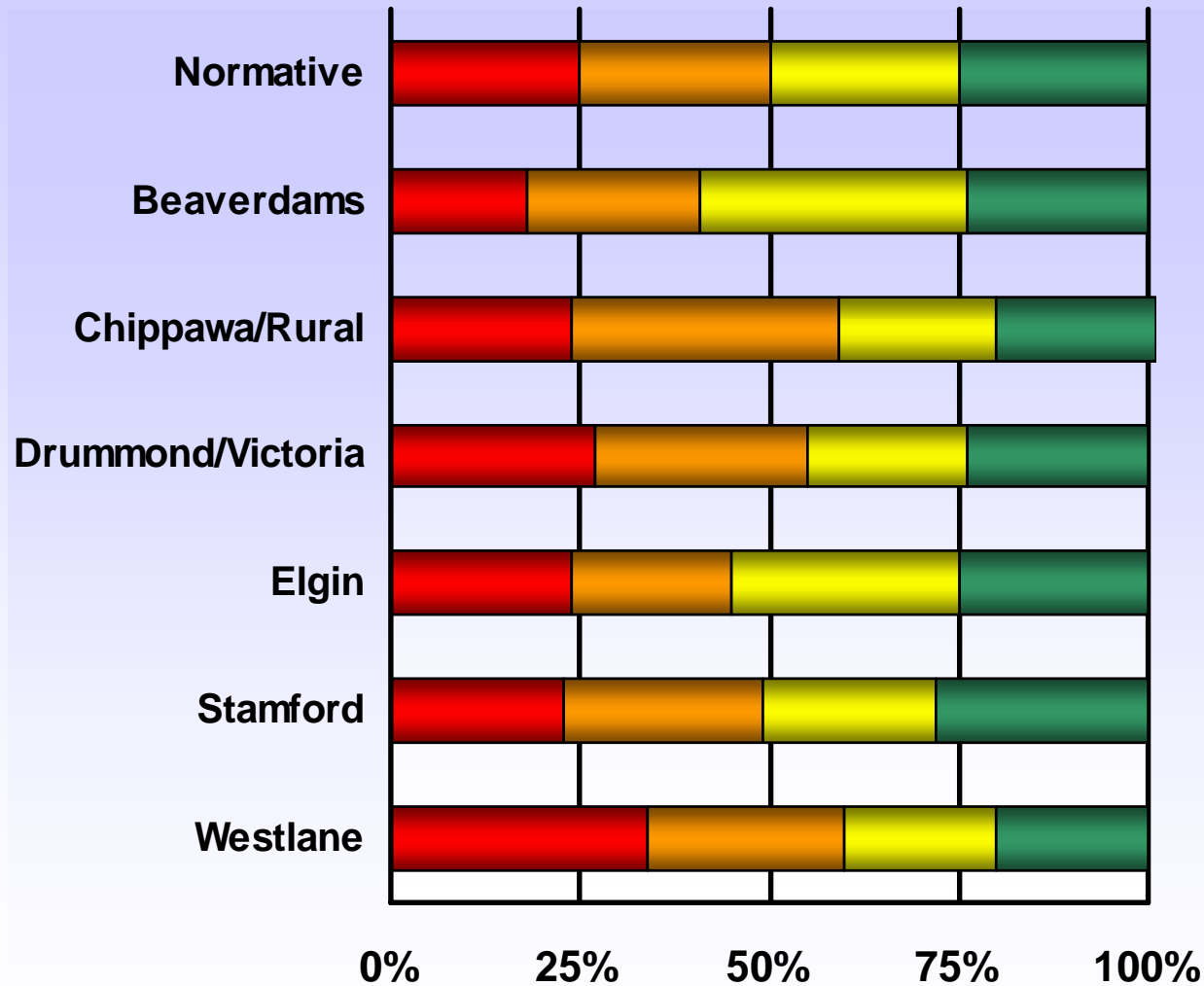
Items include:

- fine & gross motor skills
- daily living skills
- adequate energy levels
- preparedness for school (tired, late, hungry)

Social Competence



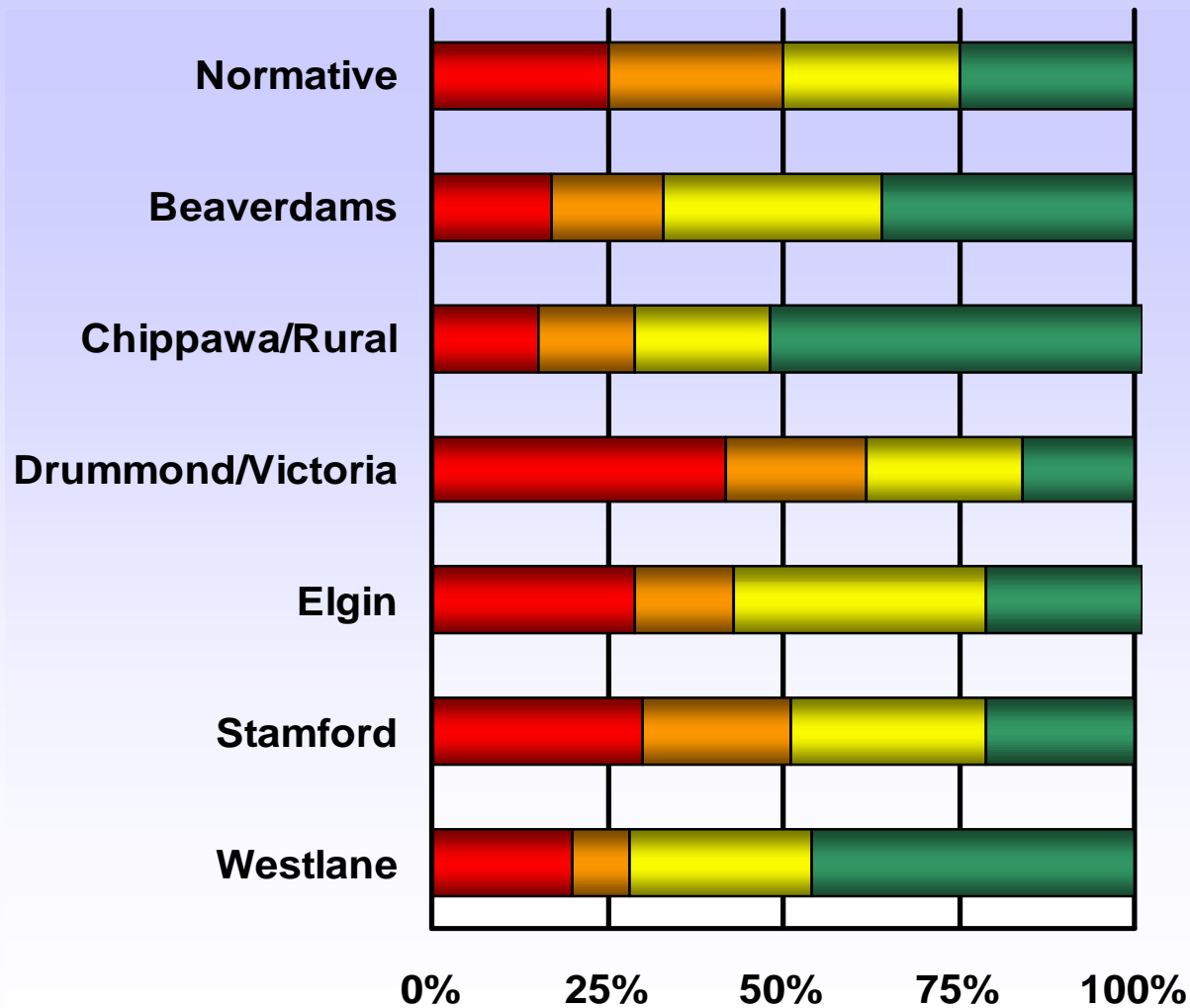
Emotional Maturity



Items include:

- prosocial behaviour – helping, tolerance, and empathy
- aggressive behaviour
- anxiety
- hyperactivity, inattention, and impulsiveness

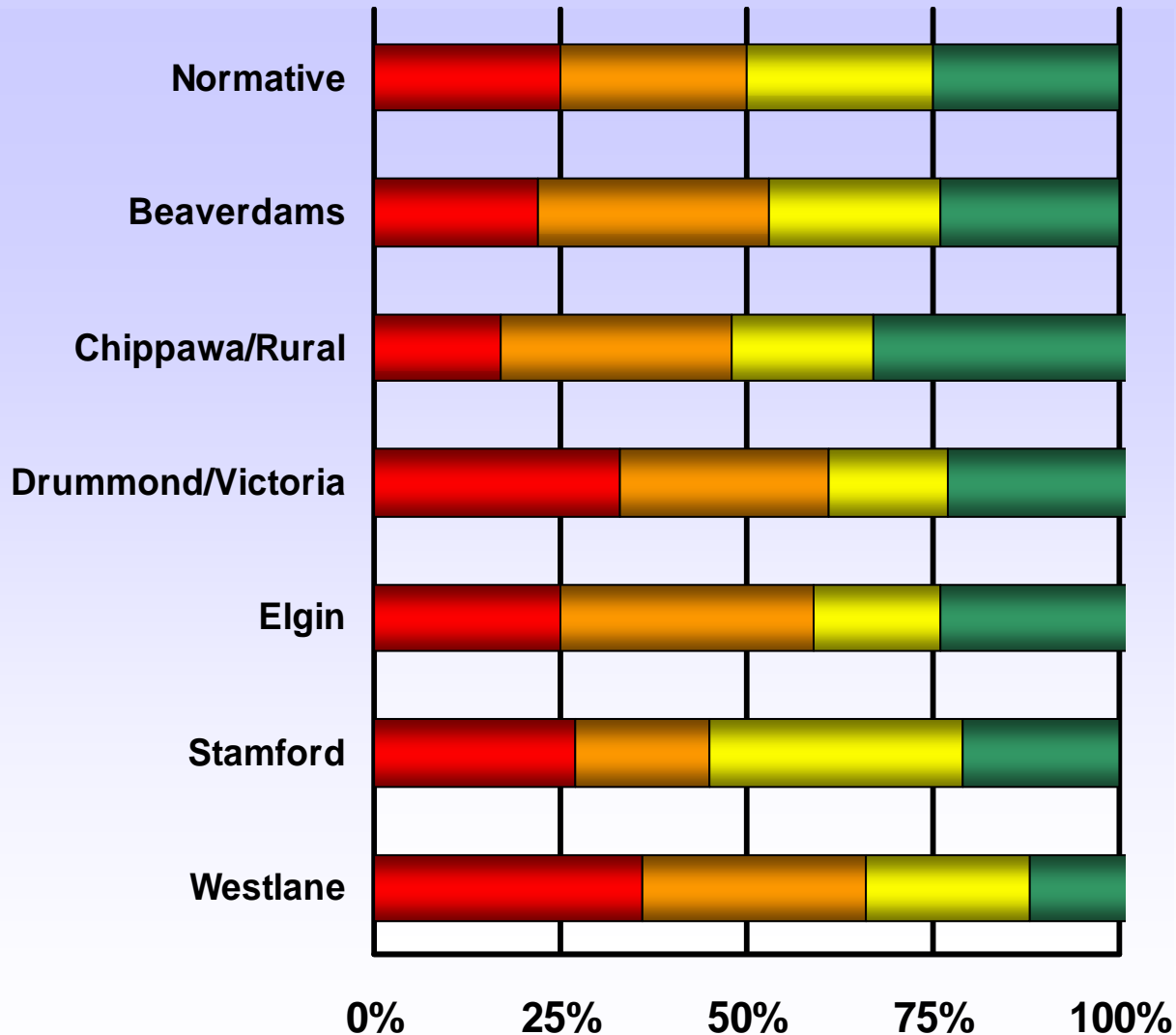
Language and Cognitive Development



Items include:

- interest in books and reading
- interest in simple math activities
- numeracy skills
- ability to understand similarities and differences
- ability to recite information from memory

Communication Skills & General Knowledge



Items include:

- ability to communicate needs and understand others
- clear articulation
- active participation in story-telling
- age-appropriate interest and knowledge

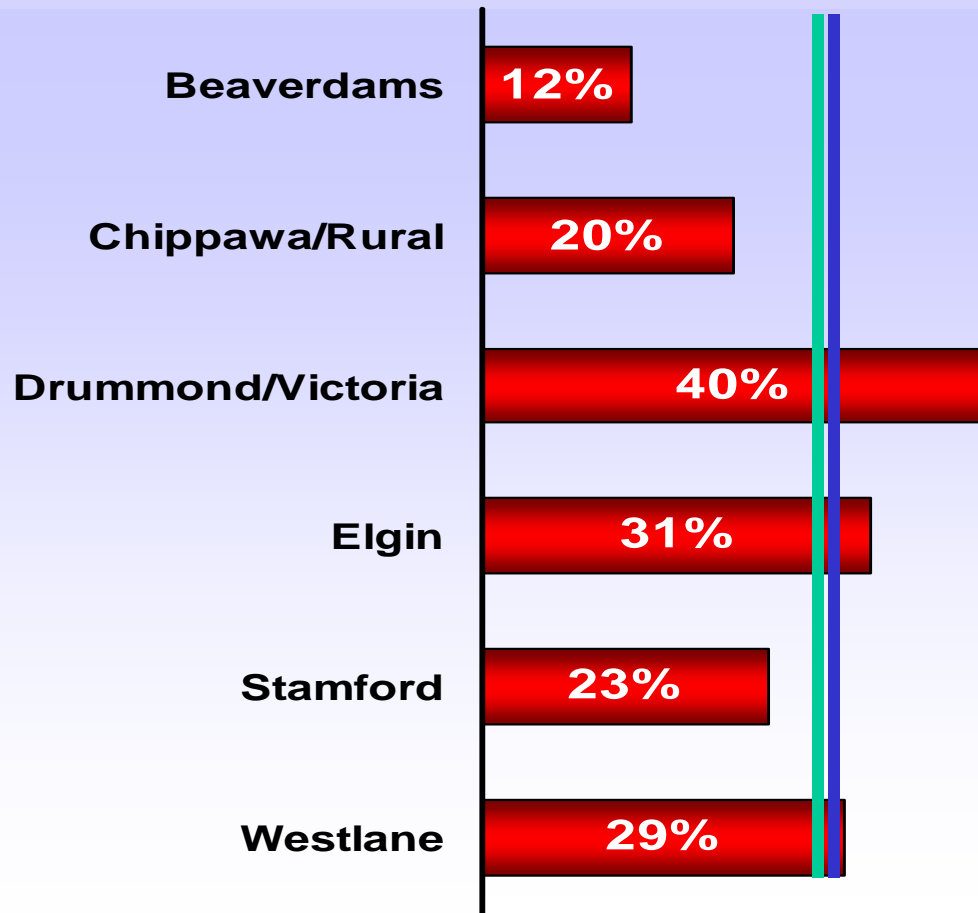
Children at Risk in Terms of Readiness Skills



Approximately 28% of children in Niagara Falls were at risk in terms of readiness to learn school

- **11% scored in the lowest 10% on one domain**
- **17% scored in the lowest 10% on two or more domains**

Children at Risk by Neighbourhood



■ Distribution of scores in the lowest 10th percent encountered in Niagara Falls on one or more domains

■ Percentile divisions are relative and based on local distribution

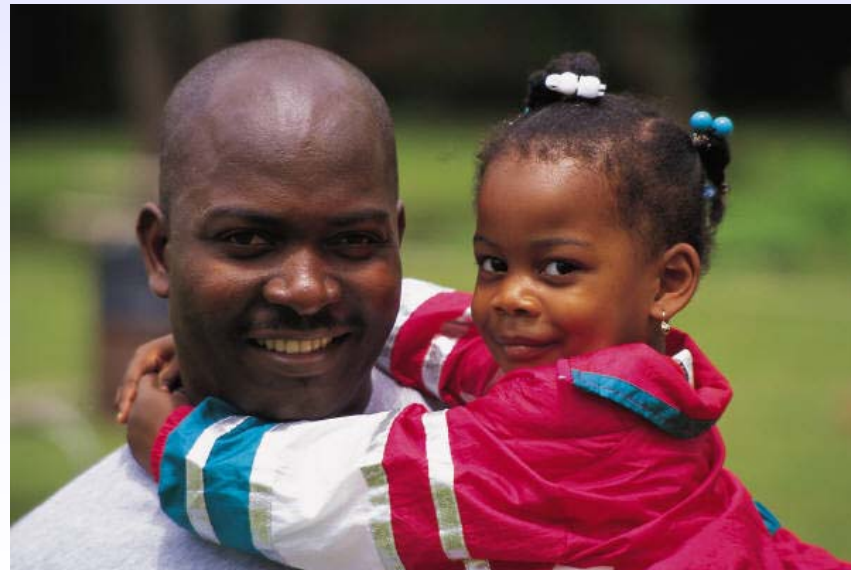
— 2001 Cohort (26%)

— Niagara Falls (28%)

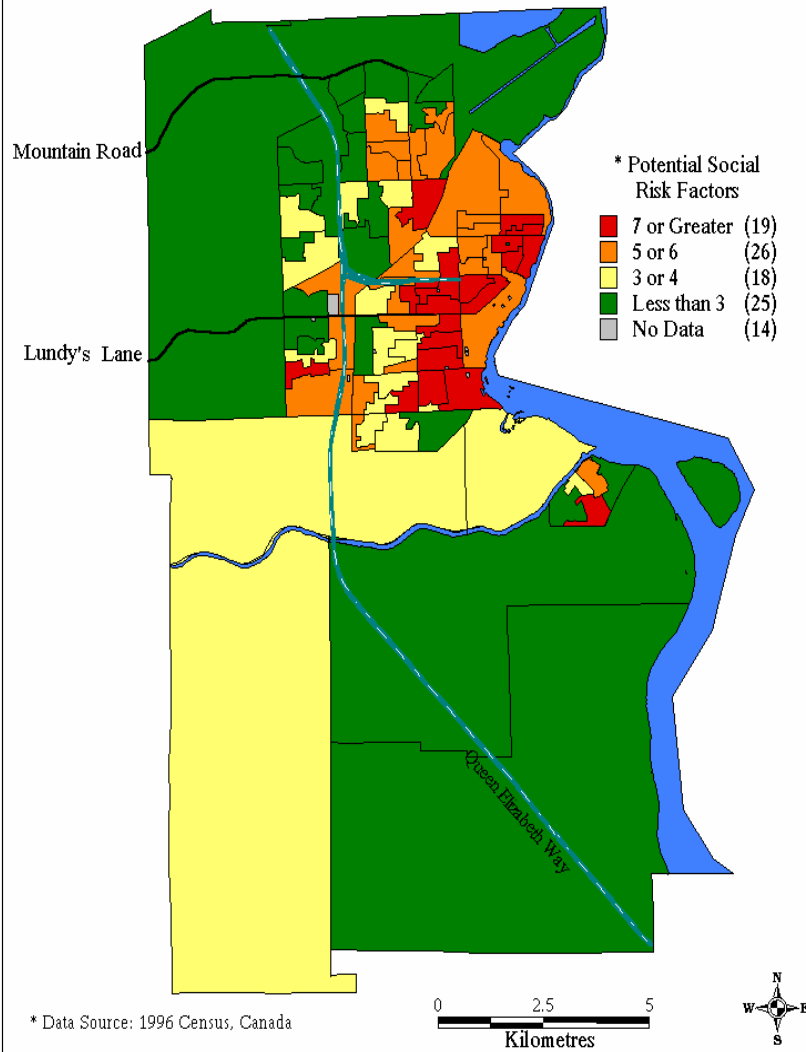
Next Steps

Finding Meaning in the Community

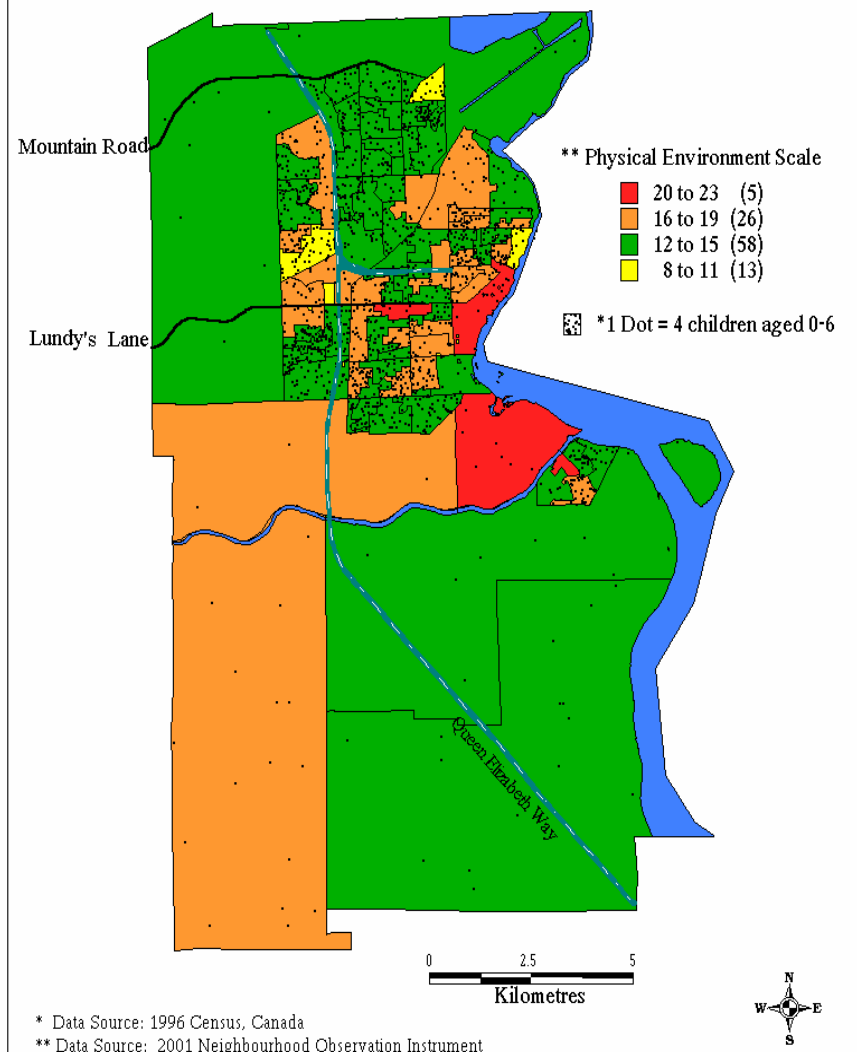
- The EDI is a tool that provides a descriptive profile of child development within communities.
- The next step is to look at results along side other tools such as community maps to see where patterns emerge
- These patterns will generate questions and create meaning for the data in the community



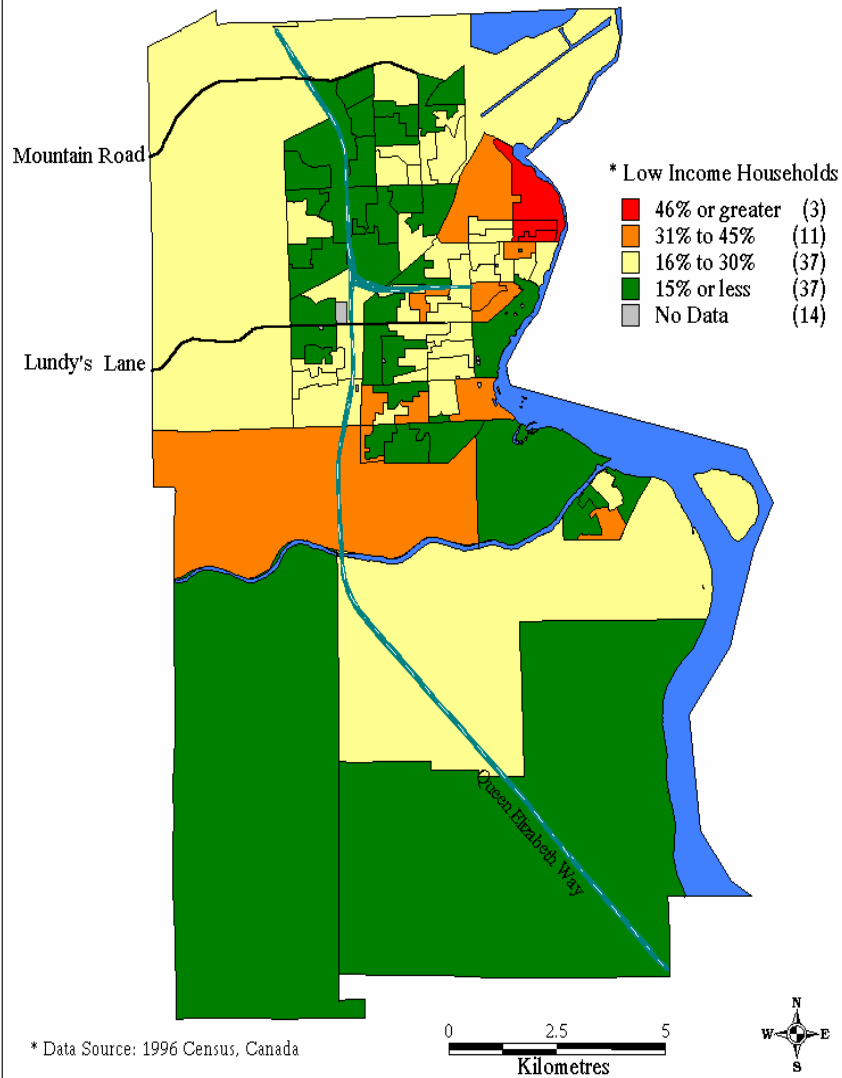
Map 11: Number of Potential Social Risk Factors in Niagara Falls



Map 14: Physical Environment Index Relative to Location of Children Aged 0-6



Map 7: Proportion of Households Below the Low Income Cut-Off



Map 23: Children Aged 0-6 and Location of Breakfast Programs

