NIAGARA FALLS MAPPING STUDY
A Community Fit For Children

Understanding the Early Years (2007)

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THE JOURNEY WE ARE ON
(Glock-Grueneich, 2006)

Malidoma Somé tells of his people, the Dagara of Burkina Faso, that when a child of their village quickens in the womb, the elders gather to ask of its spirit, "Why have the ancestors sent you to us at this time? What gifts do you bring that we sorely need?"

Based on the answer they receive, the child is named, and thus called and recalled to her purpose as she grows.

"It is the function of the entire village", he said to me, "to enable that one child to give her gift. And it is the fulfillment of her entire life, her 'individuality', to give that gift to her community, and to be recognized for it."

All for one and one for all.

Disclaimer

The views expressed in this report are the authors' and do not necessarily reflect the opinions of Human Resources and Social Development Canada (HRSDC) or the Federal Government.

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The changing nature of community programs and services adds complexity and some limitations to reporting on the characteristics of a community. The resources collected and studied for this report are not intended to be an exhaustive list, but rather to represent an important next step in understanding the assets and challenges of Niagara Falls and its neighbourhoods. Issues concerning the quality and effectiveness of programs listed are beyond the scope of this study. UEY Niagara Falls has done its best to update previous community resource inventory findings throughout; any omissions or errors due to incomplete data are not intentional. Ongoing community resource updates and tracking of the risk and protective factors present in Niagara Falls continue through the 2006 Community Resource Inventory Survey[1], and HRSDC Niagara Falls Community Study (publication anticipated in spring 2007). Community partners with updated information are encouraged to contact the authors.

The Data Analysis Coordinator (DAC) for the Niagara Region is undertaking a neighbourhood creation project to determine the boundaries for the twelve municipalities in Niagara[2]. The DAC identified that the neighbourhoods in Niagara Falls had historical precedents and the goal of the project was to replicate the existing neighbourhood boundaries as closely as possible to the originals using the new dissemination areas[3]. Statistics Canada defines a dissemination area as a relatively stable geographic unit composed of one or more blocks[4]. It is the smallest standard geographic area for which all census data are disseminated. Using the new DAs resulted in slight shifts in the neighbourhoods that comprise Niagara Falls and future reports will reflect these shifts with 2006 data results[5].

EDI analyses over time have been included in this report to monitor the populations of children in Niagara Falls. Analyses have been conducted on aggregate data, and over time neighbourhood analyses were conducted as based on the extensive body of theoretical and normative knowledge available on early development and appropriate comparisons (i.e. age and gender).

In order to make this report easy to use and read, MLA style · rather than APA style · endnotes have been used for citing references.

Acknowledgements

This community mapping study would not have been possible without the efforts of many individuals, committees, and organizations within the community who possess both the knowledge and the passion to work towards improving the lives of young children and their families/caregivers in Niagara Falls and, indeed, throughout the entire Niagara Region. In particular, the authors would like to thank the following for:

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Contents

1. Introduction

The Understanding the Early Years (UEY) project is a national initiative, funded by HRSDC, that enables communities to better understand the needs of their young children and families so they can determine the best programs and services to meet them. UEY initiatives identify community factors that may influence children's development, readiness to learn in school, and family welfare[6].

This report is based on the information gathered during the implementation of the 2005 Early Development Instrument (EDI) by Ontario Early Years Niagara Region (OEYNR) and Understanding the Early Years Niagara Falls, as well as three previous years of data collection[7]. The EDI provides a population-based snapshot of children's readiness to learn in school over five domains: Physical Health & Well-being; Social Competence; Emotional Maturity; Language & Cognitive Development; and Communication Skills & General Knowledge[8]. Knowledge constructed about the physical, social, and economic environments in Niagara Falls and its neighbourhoods is also provided[9], along with programs and services available to families with young children in the city[10]. Finally, children's readiness to learn in school is provided within the context of the assets and challenges that may be impacting their optimal development[11]. The results culminate in the Community Mapping Study that is contained in this report.

Data has been collected in Niagara Falls at the community and regional level from 2001 to 2007[12]. UEY is a response to the growing body of literature that has provided evidence about how a child's first five years of development significantly affected learning, behaviour, physical and emotional health across the lifespan[13].

A major component of UEY is to identify community and neighbourhood social factors, conditions, and assets that may influence children's growth and development[14]. Researchers have provided compelling evidence that demonstrates how social and economic context for children can have a powerful impact on long-term outcomes[15].

This report provides the local data about the early development of children in Niagara Falls and the context within which their development is occurring. Knowledge about the economic, social, and cultural conditions in which young children grow up is essential to understanding how the early years are shaped[16]. Maps are used to illustrate Niagara Falls' community and neighbourhood assets, such as community resources and/or positive socioeconomic conditions and potential challenges that may arise from gaps in resources and/or poor socioeconomic conditions. This knowledge provides insight into potential relationships between community resources, socioeconomic characteristics, and children's readiness to learn at school[17]. Statistics Canada 2001 Census data were used to provide the context for the maps. UEY Niagara Falls, in collaboration with The Regional Municipality of Niagara Public Health Department – Prep Unit, created the maps[18]. The developmental outcomes reported for children in this report are best captured in the context of 2001 Census data as these children were born in 2001 and have therefore lived in the context that this report examines for the first five years of their life and the developmental outcomes were observed at age 5[19]. Another source for the maps was a Community Resource Inventory compiled from a resource inventory conducted by the Ontario Early Years Niagara Region in 2003 and updated by UEY Niagara Falls in 2006. These maps visually display programs and services for families and their young children in the following areas of importance: child care/nursery programs, and faith-based, social supports, sports and recreation, wellness and hospitals, libraries, educational, and multicultural resources.

1. Introduction (continued from page 6)

The Niagara Falls Community Mapping Study provides knowledge intended to support the community in maintaining and further building a strong environment that is fit for children by outlining the strengths and challenges that may enhance or potentially impede children's healthy development. Community initiatives and other programs and services intended to improve the lives of children in Niagara Falls are encouraged to use this information for developing plans and actions that are based on what we collectively know about the city and the young children and their families/caregivers that live in its neighbourhoods.

1.1 Summary of Findings

Niagara Falls, which is nestled along the Niagara River that divides Canada from the United States, includes both urban and rural areas. The city is largely comprised of families with medium-to low household incomes, as measured by average household income and rate of reliance on government transfer payments[20]. Lone parents head a disproportionate percentage of families and a large percentage of the residents over 20 years of age do not have high school diplomas[21]. Despite these challenges, Niagara Falls compared favourably with the national averages on the social indicators of mobility and employment[22]. Unlike other cities in Ontario, Niagara Falls is not experiencing the degree of cultural diversity that larger urban centres such as Toronto experience[23]. However, there are concentrated pockets in various neighbourhoods that have higher proportions of immigrant families with young children who may face barriers in accessing the city's rich resources.

The wide variety of community supports available to families with young children in Niagara Falls include valuable resources for learning, such as the Ontario Early Years Centres, four (4) Niagara Falls Library branches, the new, multi-purpose MacBain Community Centre, faith-based supports, and numerous facilities for child care and nurseries[24]. The most notable aspect of Niagara Falls' resources is that the majority of them are situated in neighbourhoods with the highest socioeconomic need[25]. However, there are neighbourhoods that may be experiencing challenges to accessing these supports because of physical distance, income, culture, language, and/or lack of caregiver support[26]. In addition, there may be gaps and/or unmet demand for services among resources that provide health and wellness and multicultural support to families and their young children.

The vast majority of the challenges in Niagara Falls are in neighbourhoods that have multiple risk factors (i.e. high unemployment, low income, poor adult educational attainment, high rates of lone parenting, high rates of mobility, etc.[27]). Three areas appear to have more risk when compared to national averages; Westlane, Drummond-Victoria, and Elgin are neighbourhoods that seem to be experiencing a disproportionately higher level of risk than the Beaverdams, Chippawa-Rural, and Stamford areas[28].

Generally, the majority of children in Niagara Falls were found to be ready for school[29]. A large proportion (75%) of children in Niagara Falls are ready for learning in school, and are likely to adjust well and be academically successful[30]! Overall, senior kindergarten children in the city scored above the national averages on all five of the readiness to learn domains[31]. Three out of five of the domains were found to be statistically significantly higher than the national averages; Language & Cognitive Development, Social Competence, and Emotional Maturity[32]. In fact, Niagara Falls' children have been above the national averages across the four years and five

domains being reported on, with 'below the national averages' exceptions in Language & Cognitive Development, Social Competence, and Emotional Maturity in 2001 and Emotional Maturity in 2002[33].

Niagara Falls had particular developmental strengths and challenges. Overall, Physical Health & Well-being, Social Competence, and Language & Cognitive Development were strengths because more children were ready for school in these domains[34], whereas, Emotional Maturity and Communication Skills & General Knowledge appeared to be areas of developmental challenge because fewer children were ready for school in these two domains[35].

Children in the neighbourhoods with low risk had better developmental outcomes, fewer challenges on the EDI, and larger numbers were found to be ready for learning in school[36]. Despite overall healthy neighbourhoods in Niagara Falls, there are areas that have more risk and children living there had poor developmental outcomes (more children considered vulnerable) on the EDI and more challenges in some or all challenges in some or all of the EDI domains[37]. There were three (3) neighbourhoods that had both EDI domain scores below the national averages and multiple risk factors; Westlane in Physical Health & Well-being and Communication Skills & General Knowledge, Drummond-Victoria in Physical Health & Well-being and Social Competence, and Elgin in all five readiness to learn domains[38].

Younger children, boys, children with English as a Second Language (ESL) status, those who did not attend part-time preschool and/or junior kindergarten, and those who attended early intervention were the least ready to make the transition from kindergarten into grade one[39]. However, ESL children and those who attended early intervention were comprised of small percentages of the total sample size and the results should, therefore, be interpreted cautiously for these groups[40]. However, the findings do demonstrate the importance of age, gender, part-time preschool, and junior kindergarten on children's early development and their levels of readiness to learn in school[41].

By taking evidence-based action, we can positively impact the ability of families and their young children to thrive and generally strengthen the neighbourhoods of Niagara Falls. Planning priorities might focus on building healthy communities fit for children and on strengthening families overall. Furthermore, results seem to suggest that serious consideration be given to:

1	family resource programs, particularly those assisting low-income and/or lone parents;
2	learning environments and programs/services that respond to differences in learning between the genders;
3	access to health and wellness resources;
4	recognition of the value and the need for early child care/preschool;
5	support for ESL children and further development of multicultural services;
6	enriching junior kindergarten experiences for all children;
7	early identification and intervention programs;
8	accessible transportation infrastructure (accessible buses) for families and their young children;
9	flexible and mobile programs for neighbourhoods with challenges and barriers;
10	opportunities for economic growth and development that will ensure families have adequate income to meet the needs of their children;
11	collaboration and participation of the community; and
12	additional funding sources.

1.1 Summary of Findings (continued from page 8)

In summary, strategic action and investment in areas of particular challenge will help Niagara Falls and its families/caregivers maintain and further improve the readiness to learn in school of its most vulnerable and at-risk children; without sacrificing any of the considerable assets present within the community or otherwise negatively affecting the "ready for school" scores that the majority of senior kindergarten children in the city appear to be currently experiencing[42].

1.2 Community Context

Human Resources and Social Development Canada[43] has recognized that positive, healthy, and interesting experiences in the first six years of a child's life are important factors in a child's future. Interactions with parents/caregivers, siblings, and other children and adults in the community have important impacts on a child's growth and help establish the foundation for future development and well-being. Generally speaking, children thrive in families and communities that meet their developmental needs. Conversely, poor supports for children's needs reduce their quality of life and may increase the likelihood of experiencing future academic and social difficulties. Knowledge about the economic, social, and cultural conditions in which young children grow up is essential to understanding how the early years are shaped.

Examining the neighbourhoods where our children live, grow, and play assists the community in identifying areas of strength (assets) and need (challenges) and in making plans and taking action that has good potential for improving children's outcomes[44]. There is growing evidence that strong, supportive communities help nurture healthy child development[45]. Friends, neighbours, community organizations, institutions, businesses, and other members of the community are powerful influences[46]. Along with parents, they can provide children with the early foundations that lead to success in school and throughout their lives[47].

Dr. Jason Ramsay outlines key protective and risk factors that are associated with what he refers to as "a brain-development friendly neighbourhood"[48]. They are:

Protective	Risk
Parental support	Parental Stress
Quality child care	Poor child care resources
Nutrition programs	Poor nutrition
Parenting skills classes	Lack of parental support services
Income support	Low stimulation
Building community social cohesion	Poor access to health care
Community-wide resources for adults	Lack of community-level resources
Violence reduction	Stressful neighbourhood conditions
Play-centred learning	Lack of knowledge about child development

Niagara Falls has much to be proud of; it is doing better than some communities in Canada in supporting healthy child development and has numerous community resources available for families with young children. It also outperforms many other Canadian communities across the key indicators of child development.

Neighbourhood level information provides both a comprehensive overview and more detailed insight into the characteristics that foster or hinder optimal development for children in Niagara Falls[49]. Social risk indicators based on Statistics Canada's 2001 Census data have been mapped to provide a snapshot of the various factors that may influence early development and readiness to learn among children six and under in the city.

However, there is still more to be done. There are many low-income families in Niagara Falls, and results from the Early Development Instrument show that 1 in 4 young children in the city are vulnerable to experiencing some form of developmental difficulty that may hinder his or her success in school[50].

Upon examining the neighbourhood results, it becomes apparent that there are some neighbourhoods in Niagara Falls that seem to be experiencing more challenges and this may result in higher proportions of their children being vulnerable or at-risk[51]. The identification of these challenges is in no way meant to diminish the strengths and positive outcomes being experienced in Niagara Falls. On the contrary, the challenge may be in maintaining the momentum and outcomes being generated by the existing assets, while continuing to build on these strengths in order to improve outcomes for the children who are experiencing difficulties.

1.3 The City of Niagara Falls

Niagara Falls is a city located in south-eastern Ontario, within The Regional Municipality of Niagara. It is situated in a geographic area commonly referred to as the 'Golden Horseshoe'. Comprised of 212 square kilometres of both rural and urban areas, the city is located on the Niagara River and is opposite to Niagara Falls, New York. Two international bridges connect Niagara Falls, Ontario to New York State, making it one of Canada's busiest border towns. The St. Lawrence Seaway water transportation system and the Queen Elizabeth Highway connect Niagara Falls to other major routes across Canada and the United States[52].

The economy in Niagara Falls is diverse and rich with employment in the agricultural, manufacturing, wholesale and retail trades, finance and real estate, health and education, business, and other service sectors. Niagara is very fortunate to experience temperate winters and warm summers which results in a booming tender fruit and wine industry. Niagara Falls also is a source for generating electricity to households in Ontario. The city has spectacular views of the Canadian Falls, which is why Niagara Falls is a popular tourist destination. This results in high levels of seasonal employment in the service sector[53].

Niagara Falls consists of 6 neighbourhoods. There are 29 elementary schools to serve a population of 78,815 with 5,105 children aged zero to five in Niagara Falls[54]. Children five and under comprise six percent of the Niagara Falls population[55]. There are 5,010 families that have children under six years of age throughout Niagara Falls[56]. The number of children in each family ranges from one to three or more, with the average being three children[57]. The senior kindergarten sample sizes in UEY Niagara Falls ranged from 335 to 534[58].

1.3 The City of Niagara Falls (continued from page 10)

Niagara Falls has been described as a safe and stable community with high levels of social support[59]. Despite this, it also has a high percentage of lone parent/caregiver families and is largely medium to low in terms of socioeconomic status[60]. Additionally, there is a higher proportion of the population over 20 who do not have high school diplomas compared to the national average[61].

Map 1. Neighbourhoods in Niagara Falls

Niagara Falls Neighbourhoods
- Beaverdams
- Chippawa
- Drummand - Victoria
- Elgin
- Stamford
- Westlane

Data Sources: Neighbourhood (ECCDC), 2006.,
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.
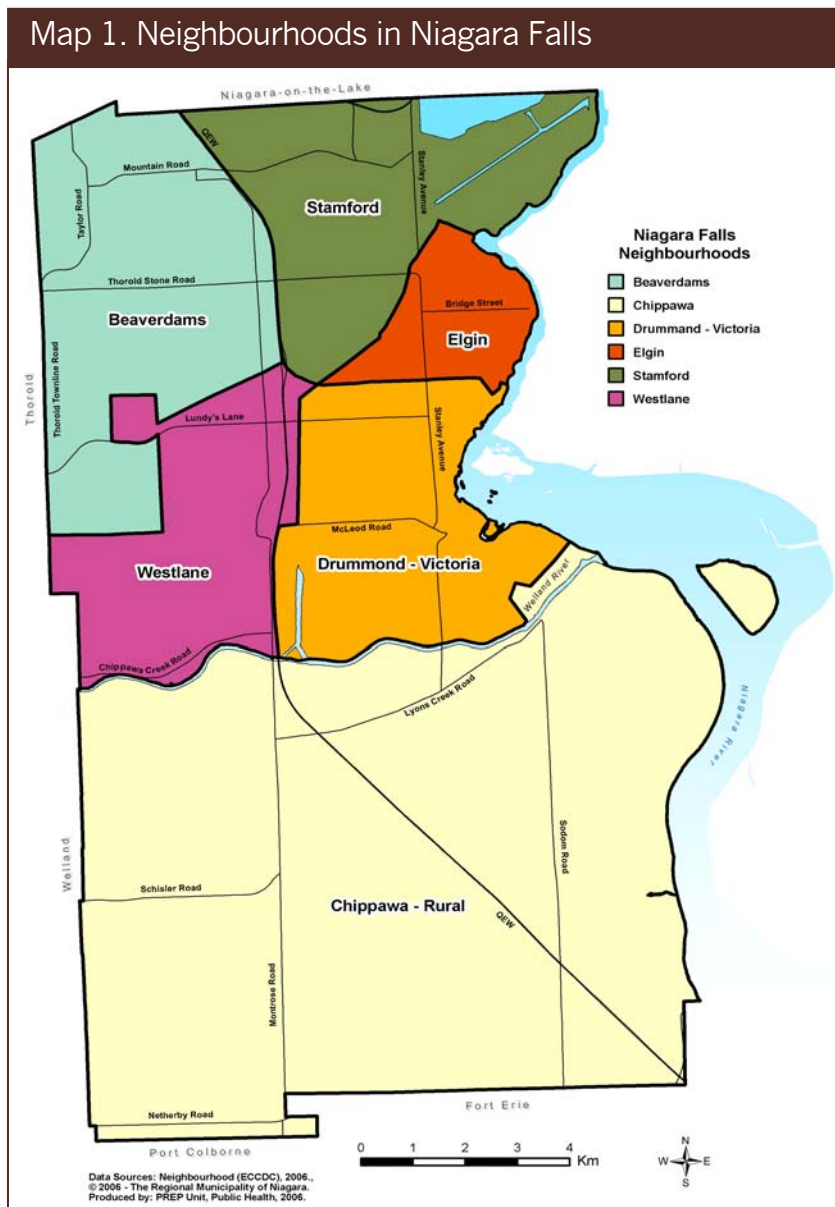
Map 1 provides an illustration of the neighbourhoods in Niagara Falls that are divided by the thick black lines, which outline each of the six neighbourhoods[62]. The neighbourhood names in Niagara Falls are:

1. Chippawa-Rural,
2. Drummond-Victoria,
3. Elgin,
4. Stamford,
5. Beaverdams, and
6. Westlane.

The neighbourhoods outlined in Map 1 were developed in collaboration with the Data Analysis Coordinator (DAC) for The Regional Municipality of Niagara and all results in the report are based on the neighbourhoods identified at the time of the Niagara Falls data collection in 2004/2005[63]. The DAC for the Niagara Region is conducting a neighbourhood creation project to determine the neighbourhood boundaries for the twelve municipalities in Niagara[64]. The DAC indicated that the neighbourhoods in Niagara Falls had historical precedents and the goal of the project was to replicate the existing neighbourhood boundaries as closely as possible to the originals using the new dissemination area (DAs)[65].
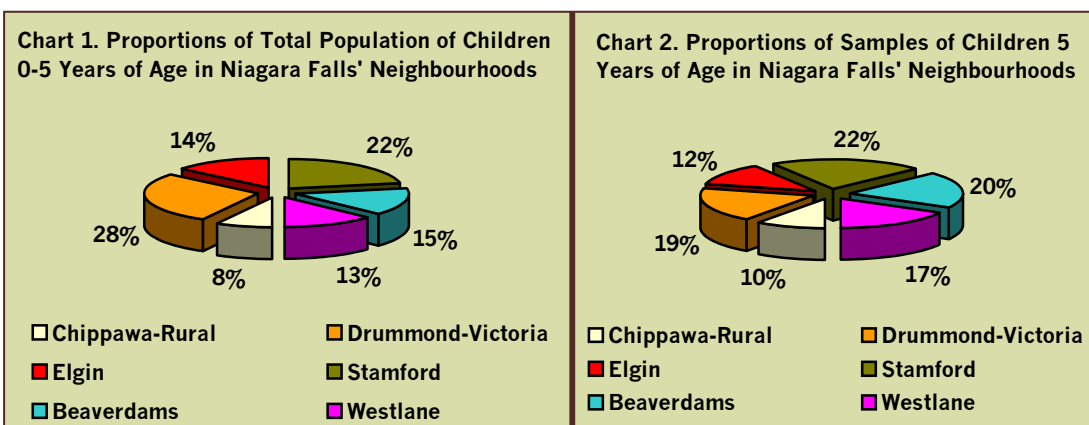
1.4 Sampling Methodology

Statistics Canada defines a dissemination area as a relatively stable geographic unit composed of one or more blocks. It is the smallest standard geographic area for which all census data are disseminated[66]. Using the new DAs resulted in slight shifts in the neighbourhoods that comprise Niagara Falls and future reports will reflect these shifts with 2006 data results[67].

Table 1. Distribution of children aged 0-5 in Niagara Falls and UEY Sample Sizes by Neighbourhood

Neighbourhood	Population 0-5	UEY Sample Size
Chippawa-Rural	480	51
Drummond-Victoria	1405	99
Elgin	695	67
Stamford	1140	119
Beaverdams	745	105
Westlane	640	90
Total	**5105**	**531**

Table 1 (above) provides information about how many children 0-5 years of age live in each of the neighbourhoods[68]. It also provides the size of the sample selected from each of the neighbourhoods during the 2004/2005 data collection[69]. The sample sizes in Table 1 are proportionally representative of the population of children from 0-5 years of age in each of the neighbourhoods'. **Charts 1 and 2** (below) provide an illustration of how comparatively representative the proportions of the samples are to the total population of children from 0-5 years of age in each neighbourhood[70]. It would appear from comparing the proportions in Charts 1 and 2 that every effort was taken to ensure that children five years of age from each of the neighbourhoods had a probability of being included in the UEY sample and that the proportions are relatively similar. Although there were slightly higher percentages of children that were included in the samples from Westlane and Beaverdams and slightly lower percentages were included in the sample from Drummond-Victoria. Generally, neighbourhoods with larger populations of children comprised the bulk of the sample but effort was taken to ensure that there was an even distribution across all six neighbourhoods that comprised the whole sample.

Chart 1. Proportions of Total Population of Children 0-5 Years of Age in Niagara Falls' Neighbourhoods

Chart 2. Proportions of Samples of Children 5 Years of Age in Niagara Falls' Neighbourhoods

2. Niagara Falls Community Assets

Niagara Falls has much to offer families with young children. By providing access to rich community resources, families and their children in the city are afforded opportunities that develop a sense of attachment or belonging to the community and help build social capital[71]. Human Resources and Social Development Canada supports communities in examining how the availability and distribution of community resources may be linked to young children's developmental outcomes and whether there are gaps in the provision of services and programs that support families[72]. Mapping Niagara Falls' community assets provides us a geographically-based picture of the strengths that our community has to offer.

Citizens and community leaders can use the maps to make decisions, develop plans, and build on existing assets to achieve positive change. In doing so, they will help the collective and individual development of the children who, after all, are the primary engines of the community's future prosperity[73].

There may be existing resources that we can build on to improve outcomes and plan for the future. Awareness of the resources available in the community is essential for all residents and service providers, if barriers to access (i.e. physical distance, language, income) and gaps in service are to be identified and the ways to overcome them developed and implemented[74].

As you examine the wonderful resources Niagara Falls has to offer, there may be certain programs and services that you notice are not included in this report. This may be because they were not applicable to families with young children[75]. Also, to map a comprehensive list of community resources was not possible and would have overcrowded the maps with multiple symbols, thereby obscuring the data. The resources represented were carefully selected to build on previous data collection efforts in the community and represent programs and services important to families and their children in Niagara Falls[76].

Please refer to the list (See Appendix A) of the various programs and resources that are available to families and their young children. The list is provided to assist in locating the services on the maps and for accessing them[77].

2.1 Summary of Findings

Generally, results of the Community Resource Inventory Survey suggest that Niagara Falls has valuable community resources in the areas of child care, faith-based resources, sports and recreation, and education for parents/caregivers and their children between 0-5 years of age[78]. Nevertheless, despite the presence of these rich community resources some children are still not able to reach optimal healthy development as measured by the EDI[79]. The presence of multiple social risk factors may be negating the positive impact that existing community resources have in Niagara Falls[80].

It would appear from the response to the survey that perhaps there is a gap in social support resources and health and wellness resources in the Niagara Falls community[81]. Social support and health and wellness resources may provide a means for fostering resilience among children in Niagara Falls who live in areas of high to somewhat high risk.

Poor supports for children's needs reduce their quality of life and may increase the likelihood of these children experiencing future academic and social difficulties[82]. Many of the resources that are in Niagara Falls were found to be associated with having a protective effect for children's development[83]. Gaps in services, such as less educational resources for parents/caregivers and their children when compared to other UEY communities, were associated with having a negative effect on children's development[84]. Building on existing community assets, and their access and use, will assist Niagara Falls in becoming even more of a community fit for supporting children's readiness to enter school and be successful in their learning.

Map 2. Home Ownership
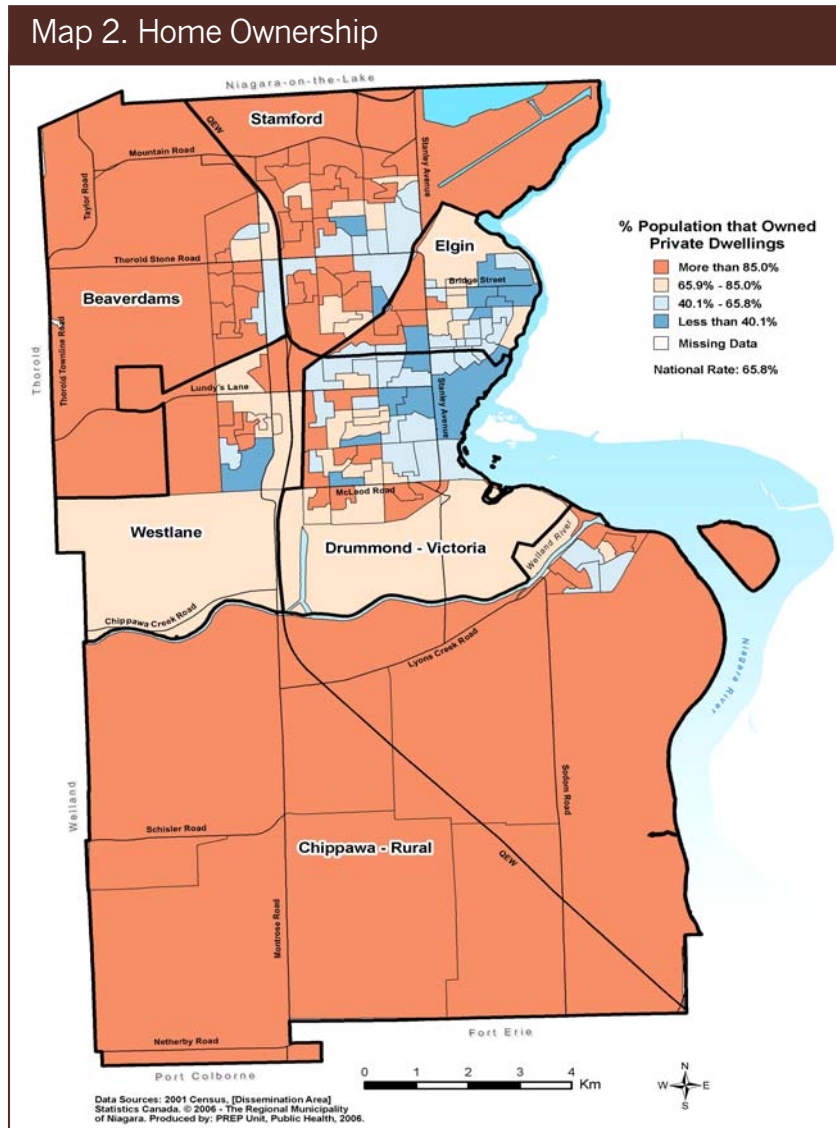
Map 2 displays the distribution of an important community asset; showing the percentage of residents who own their place of residence in Niagara Falls[85]. This is one of the socioeconomic factors that can impact young children because it is related to income levels and residential and neighbourhood stability. It appears that the city is made up of neighbourhoods where there are high percentages of the population who reported owning their homes and these rates were well above the national average[86].

The average value of a home with 6.9 rooms was reported to be $139,813 in Niagara Falls[87]. These homes were typically reported to be occupied by one family[88].

Central portions of Niagara Falls, located in areas that are more commercial in nature, reported high rental rates[89]. These are highlighted in the light and dark blue areas on the map. The neighbourhoods with the lowest rates of home ownership also had more children score below the national averages across some or all of the readiness to learn domains[90].

2.1 Summary of Findings (continued from page 14)

Map 3. Residential Stability

% Population that Moved within the Last Year (2000)
- More than 25.0%
- 14.4% - 25.0%
- 5.1% - 14.3%
- Less than 5.1%
- Missing Data

National Rate: 14.3%

Data Sources: 2001 Census, [Dissemination Area] Statistics Canada. © 2006 - The Regional Municipality of Niagara. Produced by: PREP Unit, Public Health, 2006.
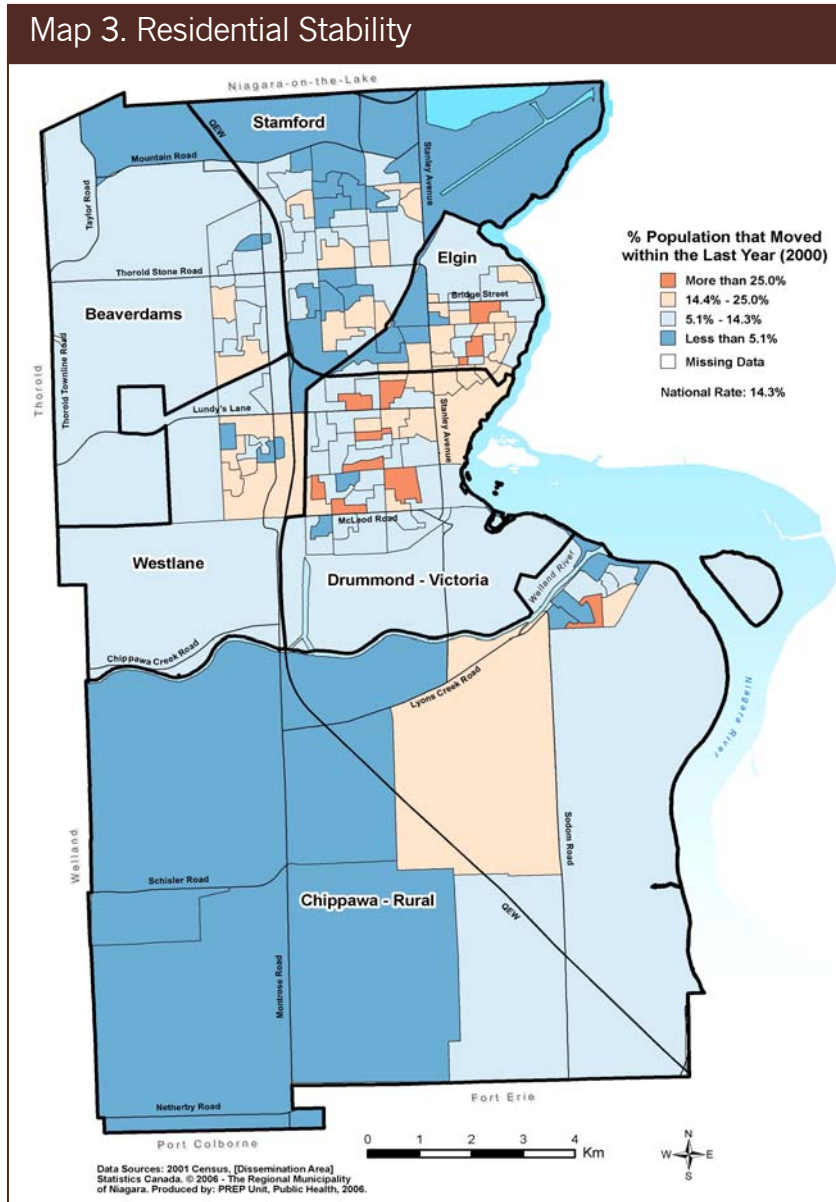
Map 3 provides a snapshot of residential stability rates over a one year period in Niagara Falls, which can also be considered a valuable asset[91]. Researchers have examined stability and found that it has positive developmental outcomes for children[92]. In addition, low-income families with children experience higher rates of instability (moving 3 or more times) than families that have higher incomes[93].

There was good overall residential stability in Niagara Falls and, in areas where home ownership was reported to be high, there tended to be smaller proportions of the population moving residences within the previous year. These are indicated by the light and dark blue areas on the map[94]. The pockets of highest mobility rates (more than 25%) were found in Elgin, Drummond-Victoria, and northeast Chippawa-Rural.

Neighbourhoods with more overall stability had scores higher than the national averages, whereas neighbourhoods with more overall instability had scores lower than the national averages in some or all of the readiness to learn domains[95].

Map 4. Child Care Centres & Nursery Schools

Niagara Falls Community Resource Inventory Legend

Child Care Centre / Nursery School

Data Sources: CRI (ECCDC), 2006.,
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.
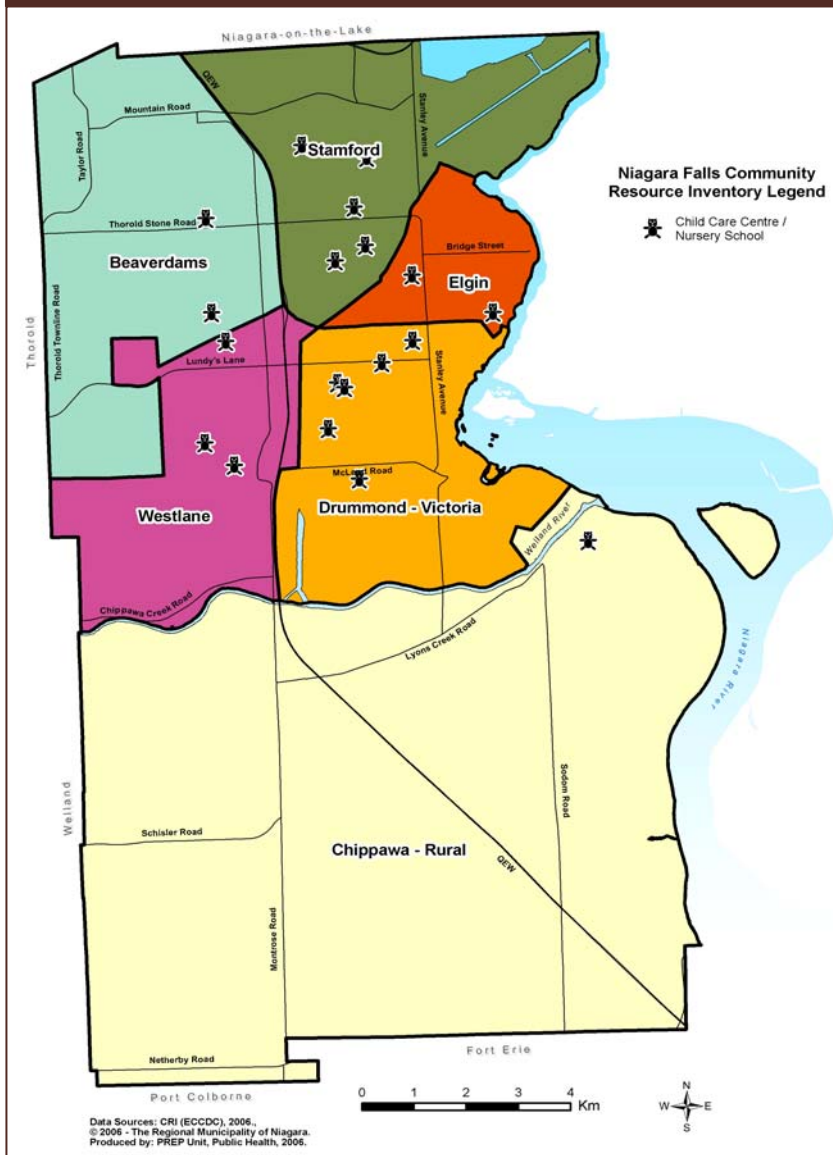
Map 4 shows the location of important community assets providing care or support for children and their families from 0-5 years of age[96]. In previous research, attending preschool had positive long-term outcomes for children in poverty[97]. In the Perry Preschool Longitudinal study, Schweinhart found at age 40 that the same 'at risk' children followed over time had higher earnings, were more likely to be employed, had committed fewer crimes, and were more likely to have graduated from high school than adults who did not have access to the study's high quality preschool[98].

The services mapped include licensed child care/ nurseries, summer day camps, parent/caregiver support or education programs, and clubs that support and foster children's healthy development, such as the Boys and Girls Club of Niagara[99]. Niagara Falls appears to have a higher concentration of these programs in the more central areas and very few options in services were found to be available in more rural areas of the city[100]. Higher concentrations of children live in the neighbourhoods of Drummond-Victoria, Elgin, Beaverdams, and Stamford[101]. It would seem that there is an abundance of child care services in Drummond-Victoria and Stamford but in Beaverdams, Westlane, and Elgin there were not as many services recorded[102].

One of the findings of the EDI showed that children who attended part-time preschool had higher scores in four of the five readiness to learn domains than children who did not attend preschool[103]. Specifically, the higher domains were: Physical Health & Well-being, Language & Cognitive Development, Social Competence, and Communication Skills & General Knowledge.

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2.1 Summary of Findings (continued from page 16)

Map 5. Faith-based Resources

Niagara Falls Community Resource Inventory Legend

▲ Place of Worship

Data Sources: CRI (ECCDC), 2006.,
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Produced by: PREP Unit, Public Health, 2006.
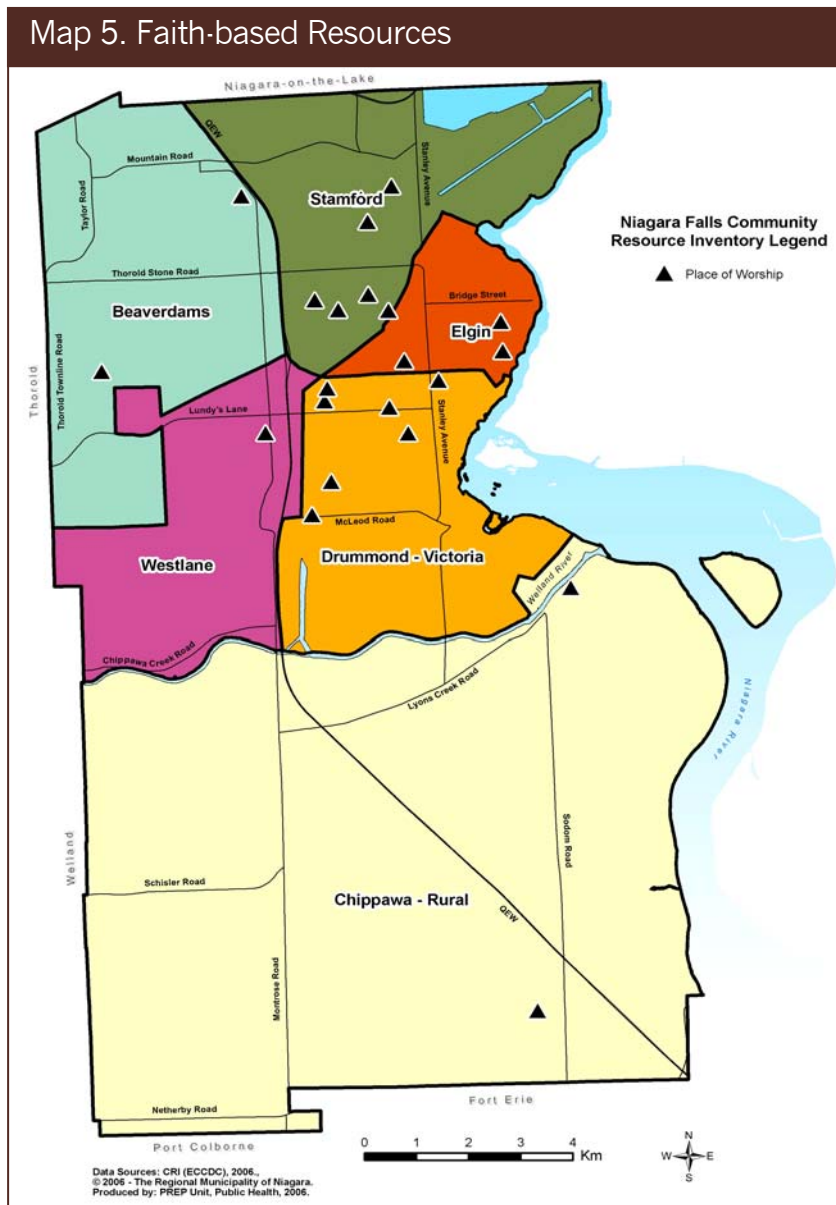
Map 5 illustrates how Niagara Falls has an abundant supply of faith-based resources representing a rich community asset[104]. Children who attended Language/Religion classes were above the national averages in Social Competence, Communication Skills & General Knowledge, Emotional Maturity, and Language & Cognitive Development domains[105].

The map displays 22 places for worship in Niagara Falls[106]. Religious groups often serve to support communities in building residents' sense of belonging. In addition, they provide valuable social supports for basic needs, shelter, education, employment assistance, counselling, child care, and settlement for new arrivals to the community. The majority of these faith-based resources provide Sunday School Programs for children and some have nurseries or daycares available for families who want the choice of a faith-based child care program[107].

The concentration of these assets seems to be towards the central areas of Niagara Falls, with a few located in rural areas[108]. Physical distance may be impeding some families and their children from accessing these valuable community resources.

Niagara Falls is predominantly made up of those who are of the Christian faith and the resources on the map are all Christian; however, there are diverse religious beliefs reflected across the city, including Buddhist, Hindu, Islamic, and Sikh adherents[109].

Map 6. Education Programs and Multicultural Centres
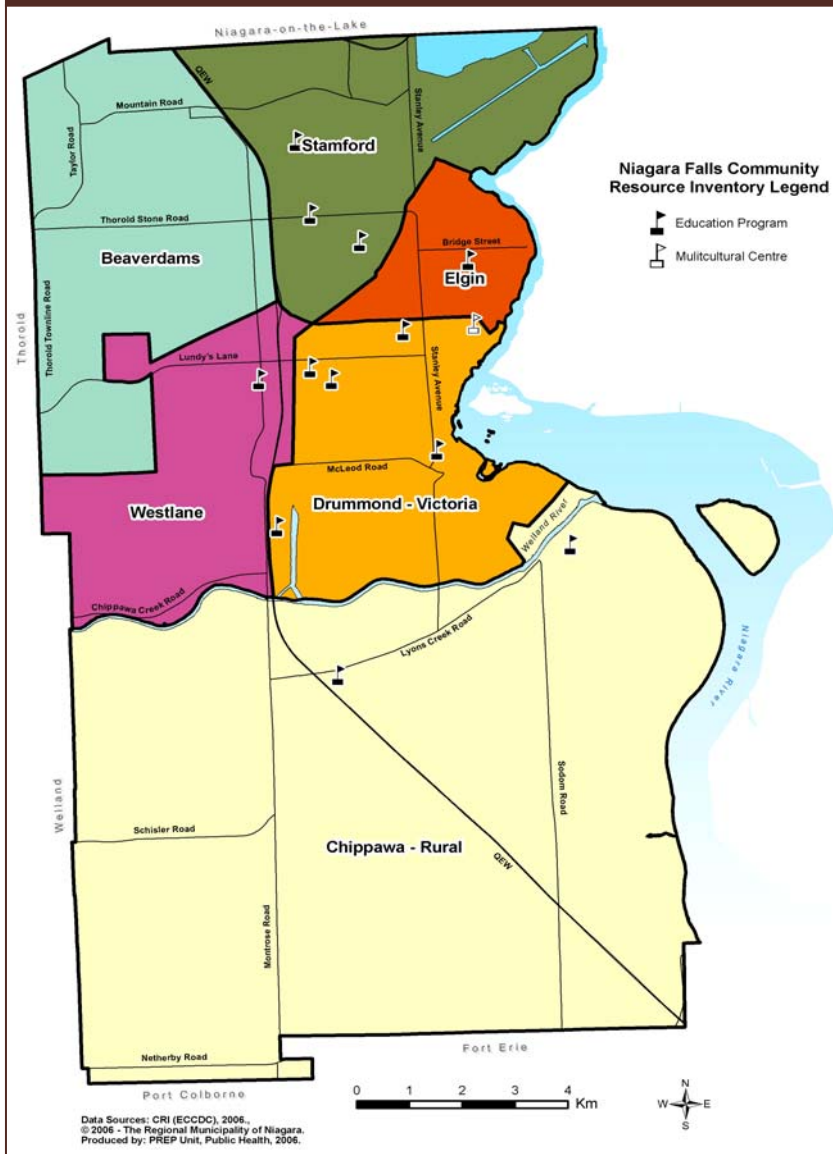
Map 6 shows where educational programs and multicultural centres are located in Niagara Falls[110]. These represent important assets that can positively impact families and their young children. The educational programs include parenting supports that assist them in meeting the needs of their children[111]. In addition, children's educational services are included in this inventory because they help to foster healthy development and readiness for school[112].

The Ontario Early Years Centres included in this inventory, one of Niagara Falls' valuable community resources, offers both types of services and provide a range of community-based programs and services for parents/caregivers and their children 0-5[113]. Mobile services and satellites locations ensure good access. The Multicultural Network Service of Niagara Falls, located on Victoria Avenue, provides support and educational programs for families and their children who are refugees or who have recently immigrated to Canada[114]. It is situated in the North end of Drummond-Victoria, near a border crossing where immigrants and refugees are likely to cross over into Canada; however, there are clusters of immigrant populations situated throughout the six neighbourhoods that may have difficulty accessing this important community resource because of physical distance, demand for services, and income[115].

Immigrants in Niagara tend to be transient and they appear to live in neighbourhoods with multiple risk factors, such as low income and unemployment[116]. Typically, they leave for larger urban centres in search of better opportunities for their families[117]. These Canadians have higher fertility rates and represent an important source of social capital for Canadian cities in their plans for future economic prosperity[118].

2.1 Summary of Findings (continued from page 18)
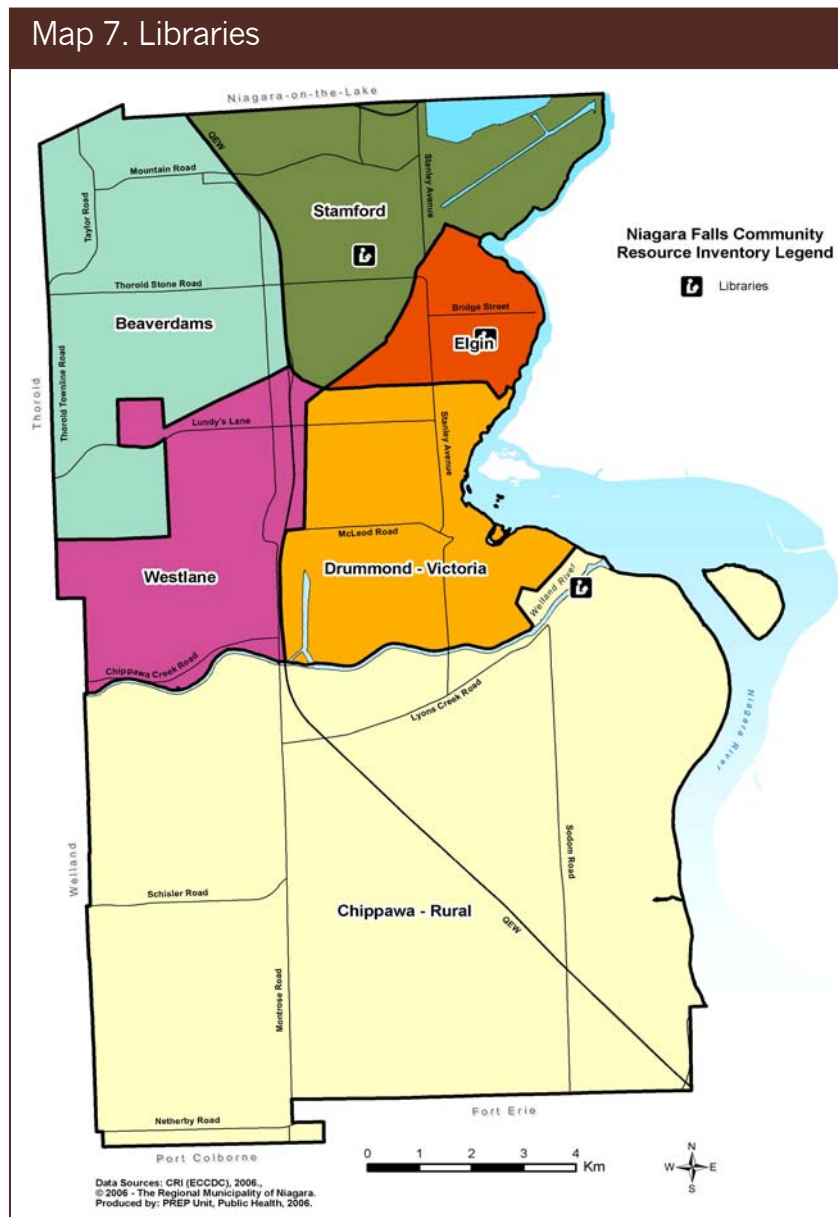
Map 7. Libraries

Map 7 shows the location of one of Niagara Falls' treasured assets, its libraries[119]. Libraries are public buildings that are open to all members of the community and represent an important way for families and their children to freely access reading and educational materials or resources, and participate in various programs that enhance literacy, learning, and development. Libraries are also often cited as one of the factors associated with enhancing cognitive development, emergent literacy, and lifelong readers[120].

There are four library branches in Niagara Falls offering responsive services and programs that are usually free of charge or low cost. Branches include the Victoria Avenue Library, the Community Centre Branch Library in the MacBain Community Centre, the Chippawa Branch, and the Stamford Centre Branch[121]. Many of the programs for families and their children between 0-5 foster adult literacy, emergent literacy for young children, and school readiness[122].

Niagara Falls' children had statistically higher Language & Cognitive Development scores than the national average[123]. Data provided by the Chief Librarian for Niagara Falls suggests that, on average, about 50% of the population in Niagara Falls' neighbourhoods access the libraries[124]. Although the libraries are being used it seems that higher proportions of the populations in each neighbourhood could be utilizing these rich assets[125].

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Map 8. Social Supports
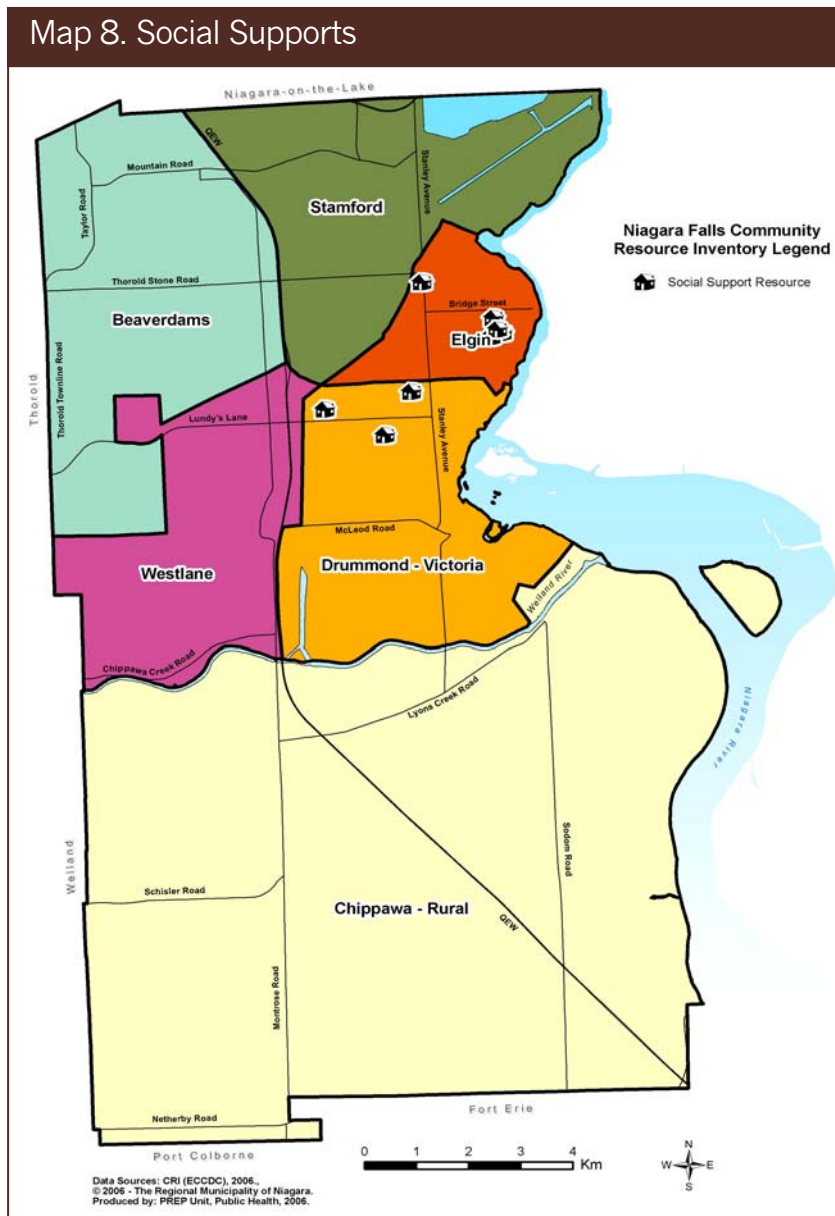
Map 8 provides a geographic picture for locating social assets in Niagara Falls that support families and their children who are 0-5 years of age[126]. Social supports are community resources that may enrich the environments in neighbourhoods where families with young children live[127]. Children in the areas well serviced by social support resources are likely to experience optimal developmental outcomes[128]. However, physical distance, culture, language, and income may be a barrier to some families and their children from accessing these services[129].

Social support resources can be a lifeline for some families and their children who may be experiencing difficulties and/or hardships[130]. Niagara Falls has been recognized for high levels of social support and it was previously identified as a protective factor for the community[131]. The health of a community is often measured by its compassion for others[132] and Niagara Falls has social support resources that are situated in the communities of most need and that are experiencing multiple risk factors[133].

Although these resources are placed in areas with higher needs, the children in neighbourhoods with multiple risk factors had poor outcomes across the five readiness to learn domains and more children were identified as vulnerable in these neighbourhoods than the others[134].

2.1 Summary of Findings (continued from page 20)

Map 9. Sports & Recreation

Niagara Falls Community Resource Inventory Legend

Sports and Recreation

Data Sources: CRI (ECCDC), 2006.,
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.
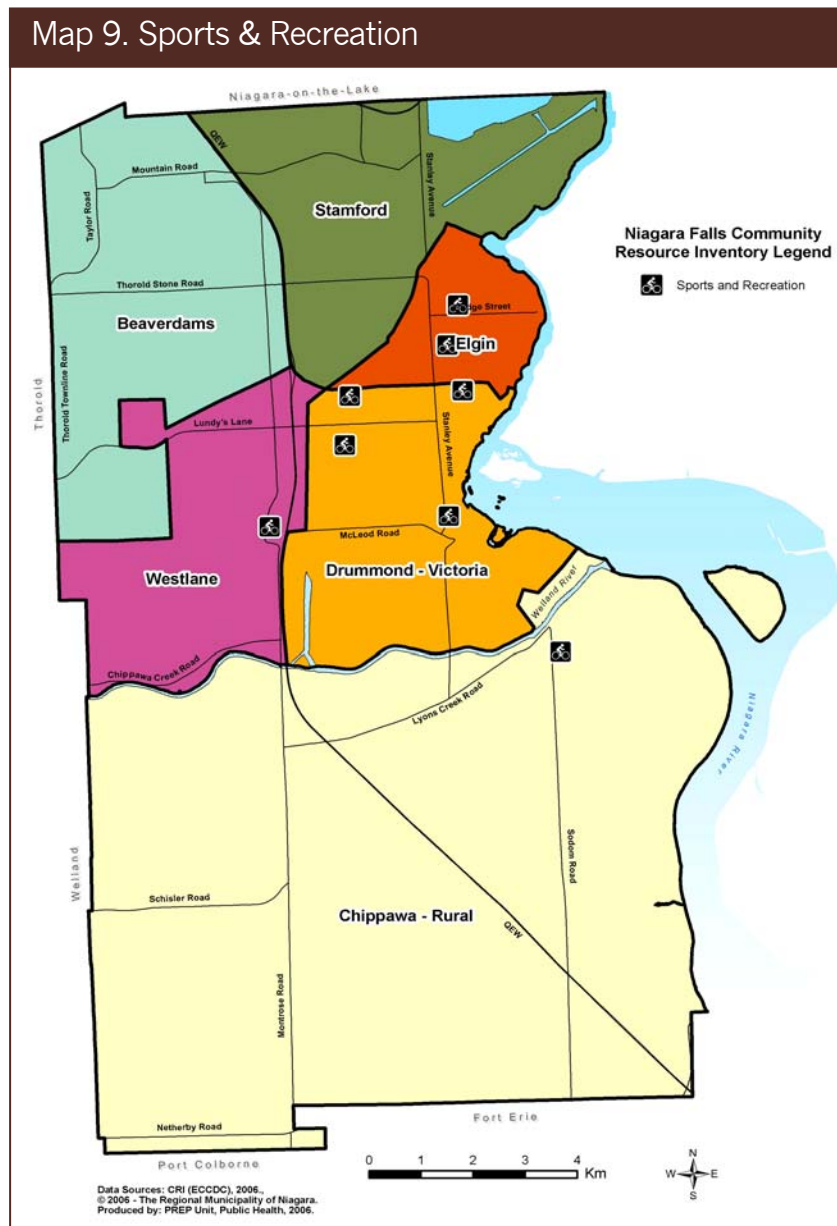
Map 9 illustrates the various sports and recreation facilities, programs, or services available throughout Niagara Falls[135]. Forty percent of Canadian children have already developed at least one risk factor for heart disease – reduced fitness due to inactivity[136]. Lack of physical activity is related to childhood obesity which, in North America, is reaching epidemic proportions[137]. Half the neighbourhoods in Niagara Falls scored below the national average in Physical Health & Well-being[138]. It is becoming increasingly important for communities to provide as many opportunities as possible for families to be able to engage in daily physical activity to promote health and longevity[139]. Sports and recreation resources in the community are one important and timely community asset that supports this goal.

Towards the central areas of Elgin and Drummond-Victoria there are sports and recreation facilities that families can choose to access[140]. Most notable in Niagara Falls is the new MacBain Community Centre which houses, among other partnering agencies, the YMCA[141]. It is situated in the neighbourhood of Westlane. The YMCA is well known for providing a space for families and their children to feel welcome, take regular exercise, and have a sense of belonging in their community. The YMCA provides access to families in need through fee subsidization but physical distance and income may be acting as a challenge or barrier to some families and their

children. Despite subsidization, low-income families with young children may not have the income available for the associated transportation costs.

Map 10. Hospital & Wellness Resources
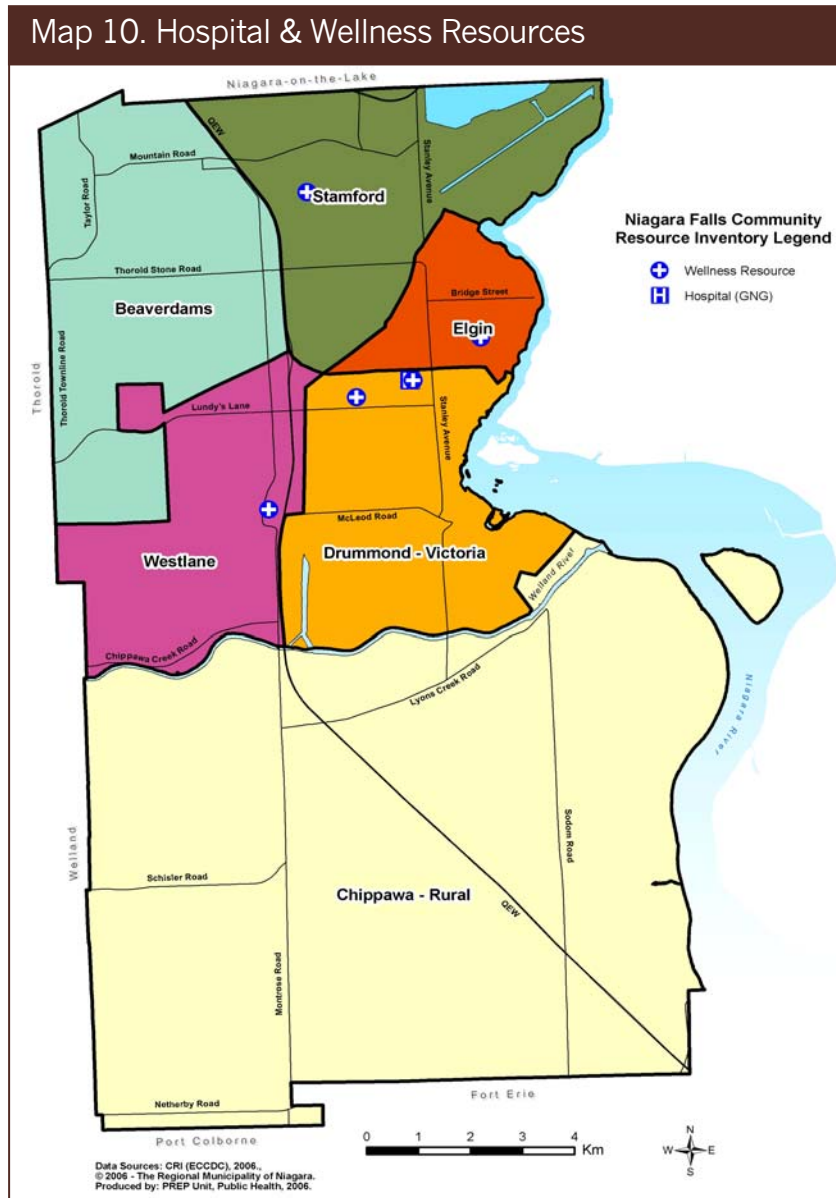
Map 10 provides an overview of the location of the hospital in Niagara Falls, situated in the Drummond-Victoria neighbourhood, and other wellness resources[142]. These represent important community factors that influence the overall well-being of families and the readiness to learn in school of their children.

The mapped programs and services include valuable assets such as breastfeeding clinics, mental health services, physical activity opportunities (i.e. YMCA), and healthy babies and children's wellness clinics held in the Ontario Early Years Centres. Access to health and wellness facilities is an important issue for most Canadians[143].

In the Niagara Region, challenges in recruiting doctors and shortages in health care workers have been experienced[144].

The map illustrates how most of the health and wellness resources are currently located close to the downtown core of Niagara Falls[145]. People located outside of the more populated regions of Niagara Falls may have a considerable physical distance in accessing these services. At the same time, medical services are placed in the areas displaying the most need, in terms of the presence of multiple risk factors that may be impacting healthy early childhood development and learning[146]. These neighbourhoods in Niagara Falls also scored below the national average in Physical Health & Well-being[147].

3. Niagara Falls Community Challenges

Generally, Niagara Falls has healthy environments that make it a city fit for children to be born, live, grow, play, and thrive in and is mostly a community where children have healthy developmental outcomes[148]. However, there are socioeconomic conditions (i.e. unemployment, low income) and multiple risk factors that may be impeding healthy developmental outcomes for some children in the city and its six neighbourhoods[149].

As attention turns to Niagara Falls' community challenges, readers are invited to consider how these conditions may represent risk factors that impede Niagara Falls' capacity for being a community fit for all children[150].

It may also be helpful to remember that the information contained in this section outlines relevant conditions and risk factors widely associated with early learning and development and are provided with the intention to help diminish incidences of children who may be at risk or vulnerable, rather than as an evaluation of current conditions and services. Community members are encouraged to use additional information as they develop plans, make decisions, forge partnerships, and take action on behalf of young children and their families/caregivers in Niagara Falls. In fact, these efforts may represent the essential pockets of potential social capital and opportunities for community asset building vital to the sustainability of a community that strives to be fit for all its children.

3.1 Summary of Findings

Mounting evidence has provided insight into how community environments can support early child development and improve outcomes for children[151]. For the most part, Niagara Falls has an abundance of resources available for families and their young children[152]. However, Niagara Falls has challenges that may be impeding developmental outcomes for some children in the community[153].

On closer examination of the data at the neighbourhood level, it becomes apparent that some neighbourhoods in Niagara Falls may be experiencing more challenges[154]. The accumulative effect of multiple risk factors such as low income, unemployment, social assistance, lone parenting, and poor educational attainment may result in higher proportions of children in Niagara Falls being at-risk or vulnerable[155]. McCain and Mustard examined how high and somewhat high risk levels generated by the presence of multiple risk factors in neighbourhoods may mirror the negative effects of deprivation[156]. Specifically, McCain and Mustard found that developmental outcomes for children in neighbourhoods with multiple risk factors were similar, if not the same, as the poor developmental outcomes of children living in extremely unhealthy environments and who received little or no external stimulation[157].

In determining factors that contribute to a community fit for children in Niagara Falls, population measures that examine children's developmental outcomes can provide communities with an indicator of how well they are doing in supporting parents and their children's early development[158]. From a population perspective, readiness to learn measures when contextualized with social conditions, socioeconomic factors, and community assets and challenges are useful for providing guidance in making decisions, developing plans, and taking action for building on communities' assets[159].

Map 11. Average Household Income

Average Household Income
- More than $80,000
- $58,361 - $80,000
- $35,001 - $58,360
- Less than $35,001
- Missing Data

National Avg: $58,360

Data Sources: 2001 Census, [Dissemination Area]
Statistics Canada. © 2006 - The Regional Municipality
of Niagara. Produced by: PREP Unit, Public Health, 2006.
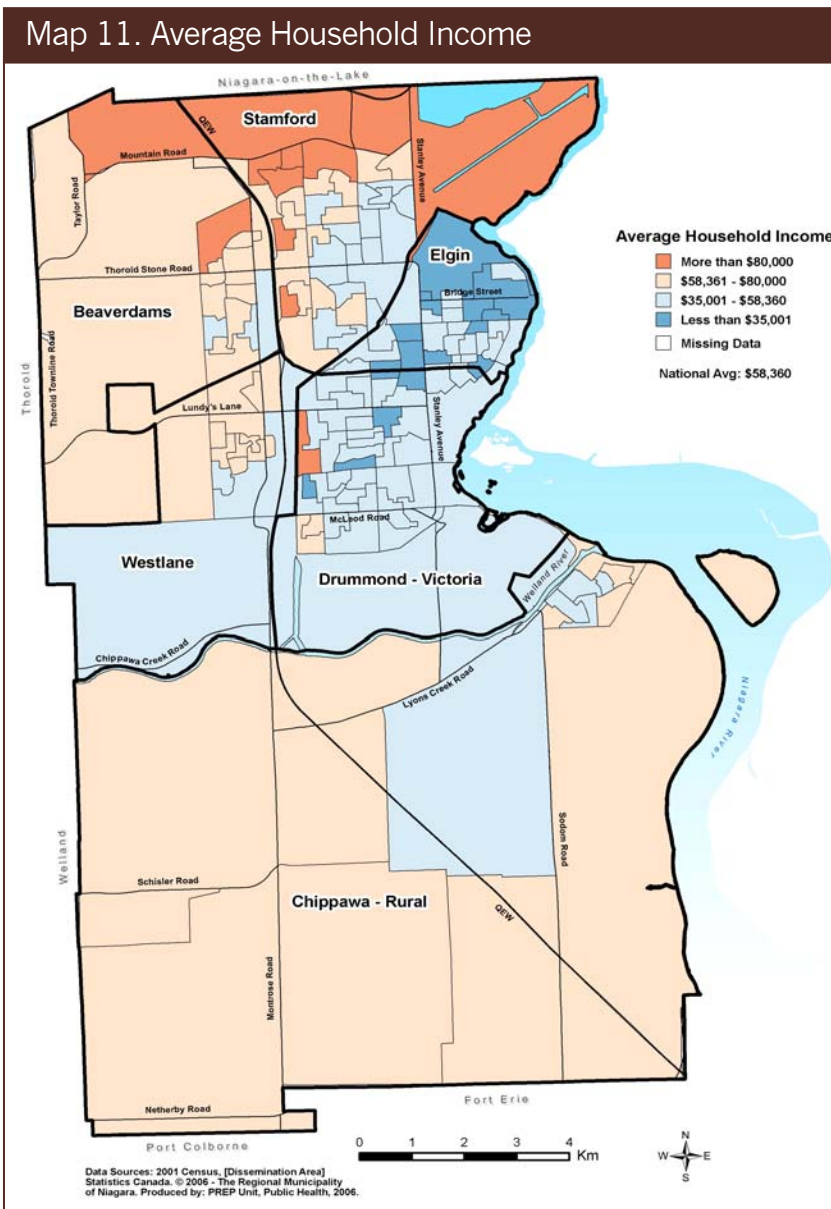
Map 11 shows the distribution and difference in household income across the neighbourhoods in Niagara Falls[160]. Higher income is usually associated with better outcomes for children. The size of the association between income and child outcomes varies with developmental domain. For example, income has particularly strong associations with cognitive and behavioural outcomes. Physical health outcomes also have quite consistent positive associations with family income[161].

The light and dark blue areas across the six neighbourhoods provide an illustration of where children in Niagara Falls are likely to experience the challenging effects of poverty because the incomes in these areas are at, or are substantially below, the national average[162].

Overall, the average full-time income in Niagara Falls was $39,035[163]. Lone parent/caregiver families with children had an average income reported to be $29,299[164]. The size of families, on average, where there were two caregivers/parents was 3 children while lone parent/caregiver families averaged 2.5 children[165]. The prevalence of low income reported in Niagara Falls was 14.4%. By family type, 34% of lone parent/caregiver families live in low income and 6.7% of coupled families live in low income[166].

In neighbourhoods that reported higher incomes, children's EDI scores had better outcomes and in neighbourhoods that reported lower incomes, children's EDI scores had poorer outcomes in some or all of the five readiness to learn domains[167]. As well, neighbourhoods with the lowest incomes had the highest percentage of children considered vulnerable[168].

3.1 Summary of Findings (continued from page 24)

For example, Elgin, Westlane, and Drummond-Victoria all scored below the national average on Physical Health & Well-being[169]. Elgin, with the lowest incomes, also scored below the national averages on Language & Cognitive Development and also in Emotional Maturity, which is related to behavioural measures[170].

Map 12. Government Transfer Payments (GTPs)
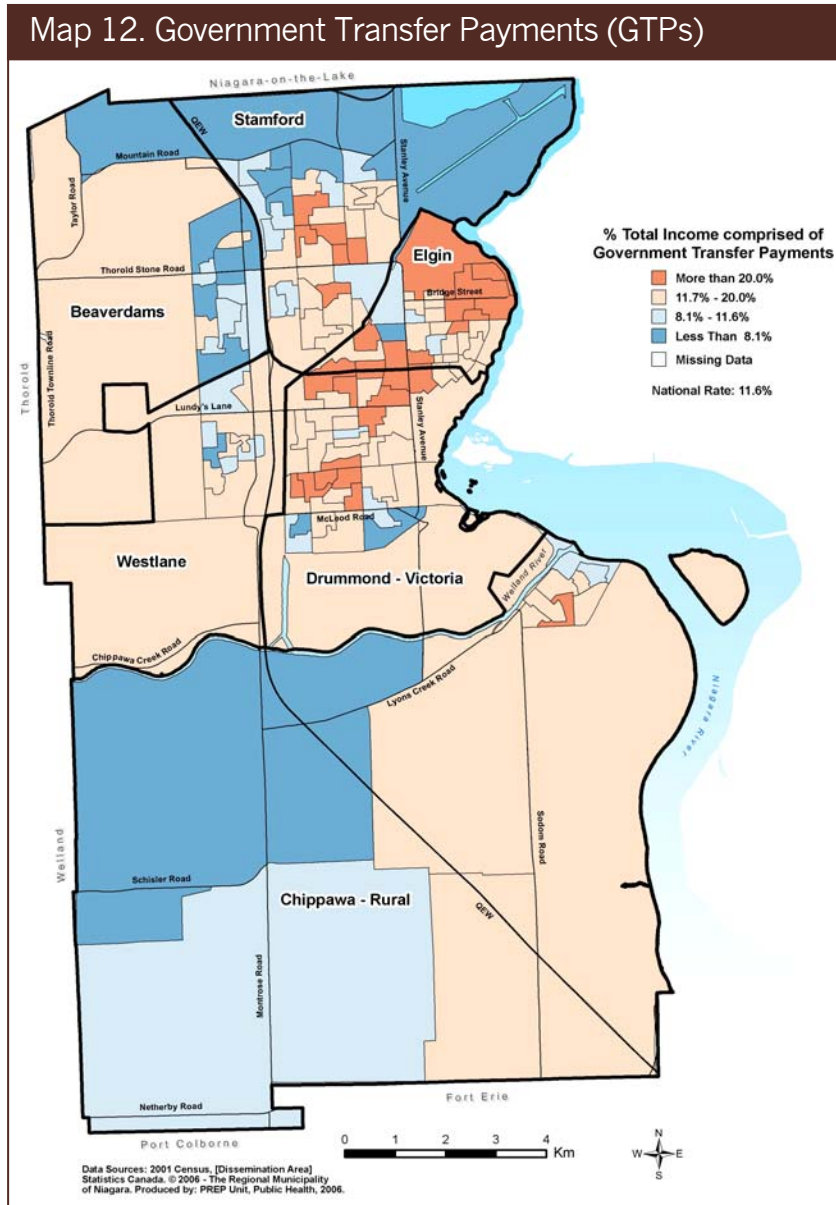
Map 12 shows the percentages and differences in households in Niagara Falls' neighbourhoods that receive some portion of their incomes from Government Transfer Payments (GTPs). These include: Employment Insurance, GST/HST, Provincial Refundable Tax Credit, Canadian Pension Plan, Child Tax Benefit, Social Assistance, Old Age Security, and Workers Compensation[171].

Substantial portions of Niagara Falls and its neighbourhoods display a percentage of their total incomes comprised of GTPs that were above the national average[172]. The light and dark orange areas across the six neighbourhoods visually demonstrate where these higher rates of GTPs were received. Niagara Falls has a higher incidence of low income compared to the other municipalities in the region and 21% of children in Niagara Falls live in families with low incomes[173].

Time spent living in poverty has its largest effect during a child's years of early development[174]. "Increases in income at very low-income levels are particularly important for the youngest children"[175].

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Neighbourhoods that had less of their total incomes comprised of GTPs had fewer children that were considered vulnerable[176], whereas neighbourhoods that had more of their total incomes comprised of GTPs had more children who were considered vulnerable[177].
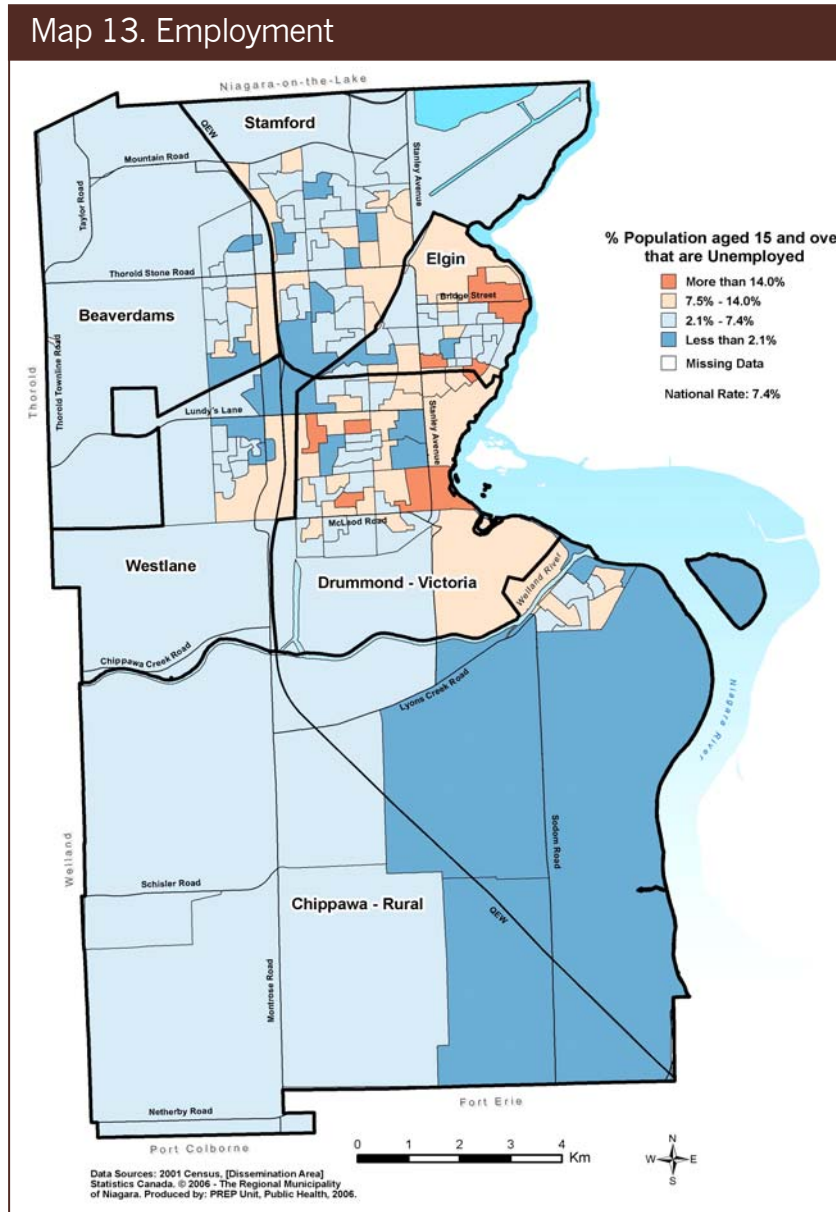
Map 13. Employment

Map 13 shows the rate of unemployment across the six neighbourhoods in Niagara Falls[178]. In neighbourhoods where unemployment was above the national rate, children had poorer outcomes on readiness to learn domains, whereas children in neighbourhoods that had higher rates of employment had better outcomes[179].

Although the light and dark blue areas of the map indicate high levels of employment across the six neighbourhoods, Niagara Falls also has a higher rate of employment insurance collection and reliance on social assistance than other municipalities in the Niagara Region that is higher than the national average[180].

Niagara Falls' rate of unemployment is 6% and the city has a 64.4% participation rate in the labour force[181]. Manufacturing is one of the main sources for employment in Niagara Falls but the Niagara Region has seen a recent, drastic decline in its manufacturing industry in many of its municipalities[182]. Over 30,000 jobs in Niagara Falls are in the services sector and/or are tied to seasonal industries such as tourism, which are typically associated with lower incomes[183]. The average wage per hour is $13.67 in Niagara Falls[184].

Women's participation rates and wages are typically lower than men's in Niagara Falls. At the same time, there are a high percentage of women who are lone parents/caregivers that, on

3.1 Summary of Findings (continued from page 26)

average, provide for 2.5 children[185]. Ringbäck Weitoft, Hjern, and Rosen in a study examining educational performance on the part of the offspring of lone parents/caregivers found that poor academic performance was strongly associated with socioeconomic disadvantage[186].

Map 14. Education

% Population aged 15 and over without a High School Diploma

More than 40.0%
31.4% - 40.0%
20.1% - 31.3%
Less than 20.1%
Missing Data

National Rate: 31.3%

Data Sources: 2001 Census, [Dissemination Area]
Statistics Canada. © 2006 - The Regional Municipality
of Niagara. Produced by: PREP Unit, Public Health, 2006.
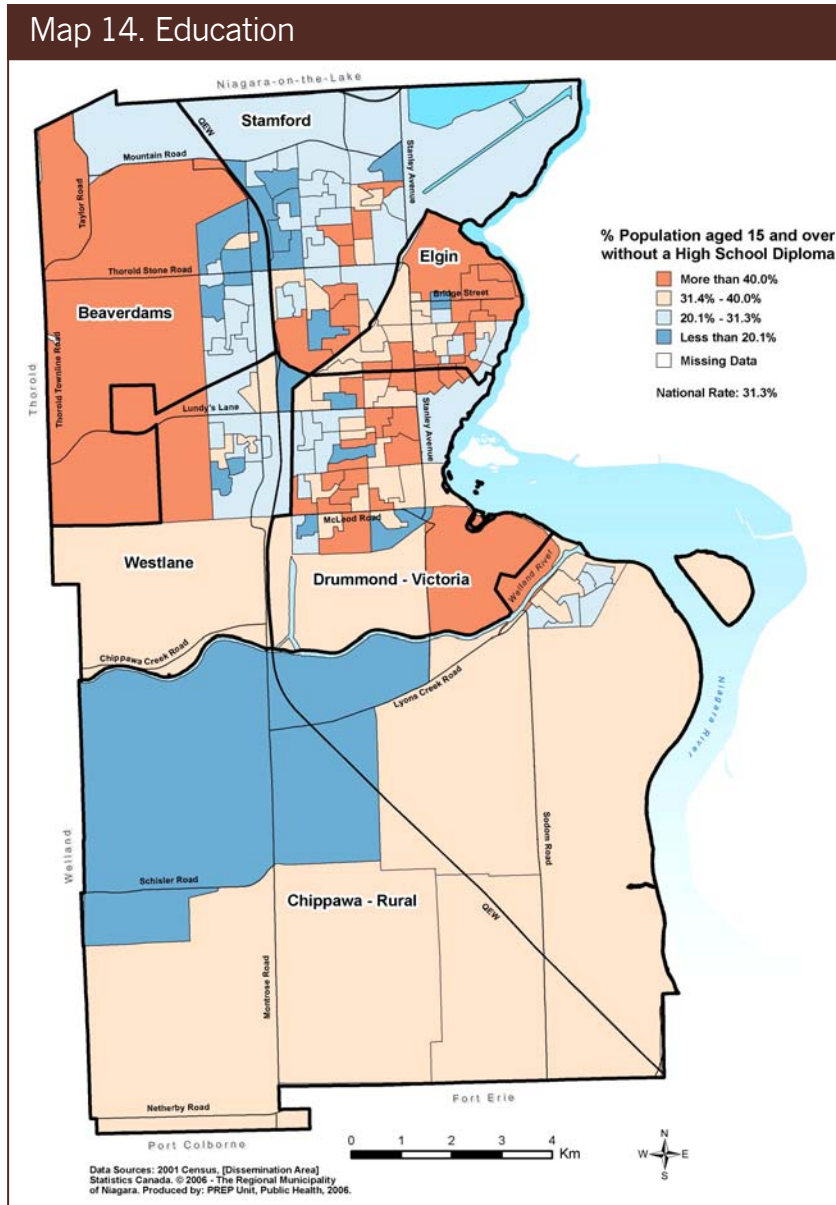
Map 14 shows Niagara Falls' educational attainment[187]. Education has been cited as the pathway for escaping poverty[188]. Income potential has been found to be directly related to educational attainment in that those who obtain post-secondary training, such as trades, college, or university are likely to earn more than those who do not complete high school[189]. Researchers have consistently reported that children's educational attainments have been found to be associated with those of their parents'/ caregivers'[190].

The light and dark orange areas throughout the neighbourhoods in Niagara Falls show high percentages of the population who are over 15 years of age and do not have high school diplomas.

Despite the lower adult education attainment in Niagara Falls, 3 in 4 children were ready to learn across the five readiness to learn domains[191]. In fact, some neighbourhoods, such as Beaverdams, reported low educational attainment but had fewer children who were identified as vulnerable[192]. However, at the same time, Beaverdams had higher rates of employment,

incomes, and less reliance on government transfer payments. This resulted in Beaverdams having fewer risk factors and this neighbourhood might be referred to as a "brain-development friendly neighbourhood"[193].

Map 15. Family Status

% Population with Children Headed by a Lone Parent

More than 45.0%
24.8% - 45.0%
10.1% - 24.7%
Less than 10.1%
Missing Data

National Rate: 24.7%

Data Sources: 2001 Census, [Dissemination Area]
Statistics Canada. © 2006 - The Regional Municipality
of Niagara. Produced by: PREP Unit, Public Health, 2006.
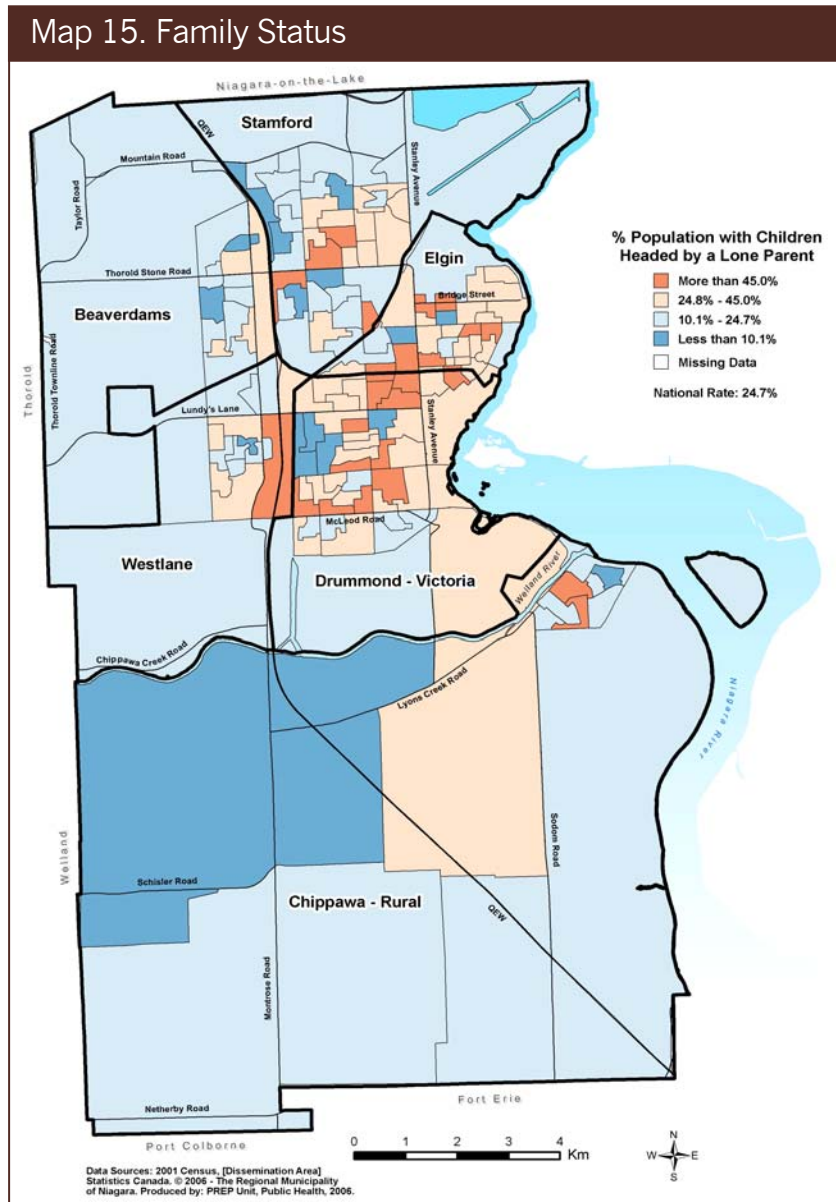
Map 15 shows the percentage of families in Niagara Falls' neighbourhoods that are lone parent/caregiver families[194]. Often in neighbourhoods where high rates of lone parenting were observed along with other risk factors such as low income, residential instability, and reliance on social assistance, more children were found to be at-risk or vulnerable and are, therefore, more likely to have difficulty in school[195].

The light and dark orange areas on the Niagara Falls map show concentrated pockets in Elgin, Drummond-Victoria, Beaverdams, Stamford, and Chippawa-Rural where the percentages of families headed by lone parents/caregivers were well above the national average[196].

Single parent/caregiver mothers typically account for 85 percent or more of all single parent/caregiver families in Canada[197]. In Niagara Falls, female lone parent/caregiver families comprise 83% of the lone parents/caregivers in the city, which is slightly lower than the national average[198]. Nevertheless, the fact remains that more than 90 percent of families with single parents/caregivers live in poverty[199]. Over the years, the poverty rate for single parent/caregiver mothers has remained high[200]. Rates dropped in 2001 to below 50% as single parent/caregiver mothers' educational attainments rose[201]. Ringbäck Weitoft, Hjern, and Rosen, in the study that was referred to previously in this report, found children's poor academic performances were strongly associated with socioeconomic disadvantage[202].

3.1 Summary of Findings (continued from page 28)

Map 16. Immigration

% Population Immigrating to Canada (1996 - 2001)

- More than 10.0%
- 3.4% - 10.0%
- 1.1% - 3.3%
- Less than 1.1%
- Missing Data

National Rate: 3.3%

Data Sources: 2001 Census, [Dissemination Area]
Statistics Canada. © 2006 - The Regional Municipality
of Niagara. Produced by: PREP Unit, Public Health, 2006.
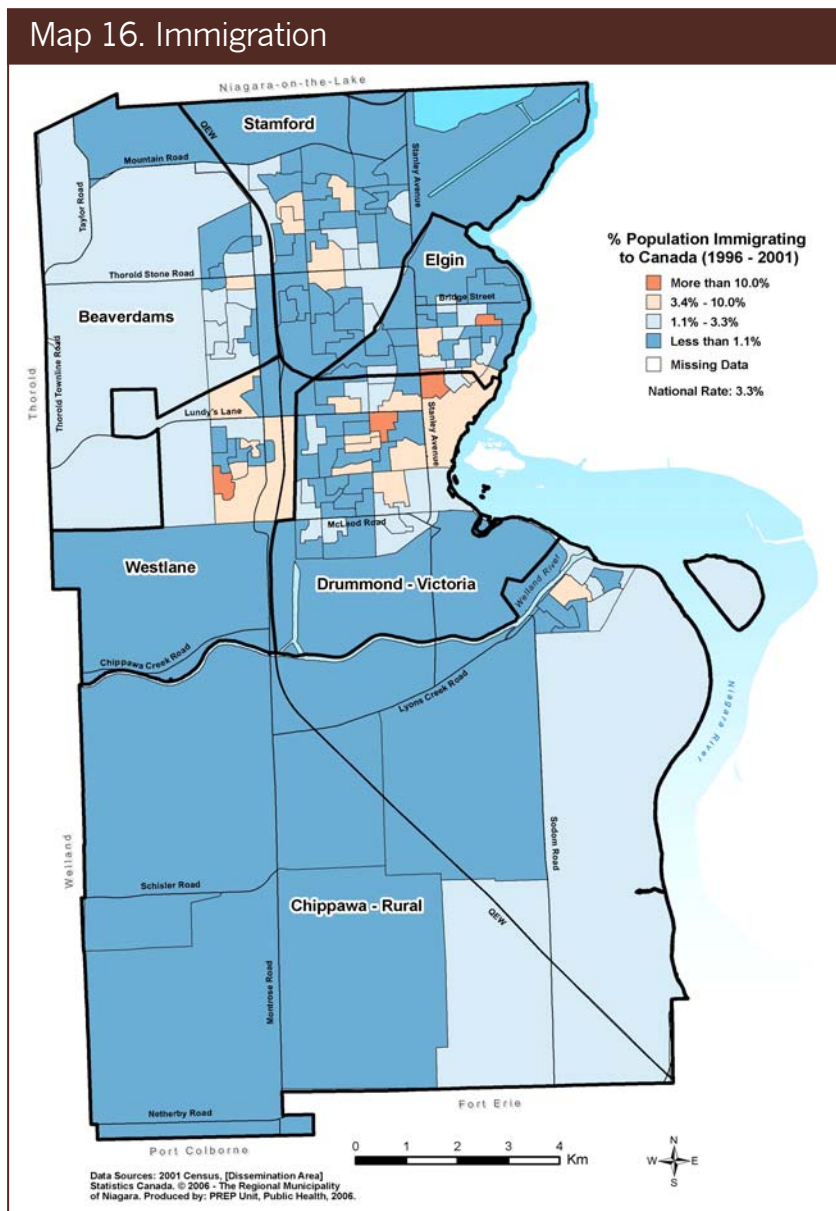
Map 16 provides a glimpse at the low rates of immigration in Niagara Falls from 1996 to 2001[203]. The vast majority of Niagara Falls' neighbourhoods reported less than 1.1% rate of immigration. At present Niagara Falls may not be experiencing the cultural diversity that other cities, such as Toronto, are but it is likely that demand for services that support families from diverse cultures will increase as it is predicted that, by 2017, one in five Canadians will be from a visible minority[204].

The light and dark orange areas are where the highest concentrations of immigrants tend to cluster into the six neighbourhoods. Typically, the trend among recent immigrants to Canada is to move to larger urban centres, such as Toronto, in search of better opportunities for their families[205]. This potentially represents a loss in social capital that may have positively impacted the future prosperity of Niagara Falls and its residents.

The National Council of Welfare reported that immigrants who are visible minorities are especially vulnerable to high rates of poverty, as well as deep and persistent poverty[206]. Many of the areas where immigrants tend to cluster are the neighbourhoods that also reported other risk factors, such as low incomes and higher rates of unemployment. It became apparent during the compilation of the Community Resource Inventory referenced in this report that there may potentially be a gap in multicultural resources to assist immigrant families[207].

Children with English as a Second Language (ESL) status scored statistically significantly lower than those without in the Communication Skills & General Knowledge domain on the EDI[208]. However, their scores in Emotional Maturity and Language & Cognitive Development were above those children who were not identified as ESL[209]. These results must be interpreted cautiously as children with ESL status comprised less than 4% of the sample[210].

Map 17. Languages
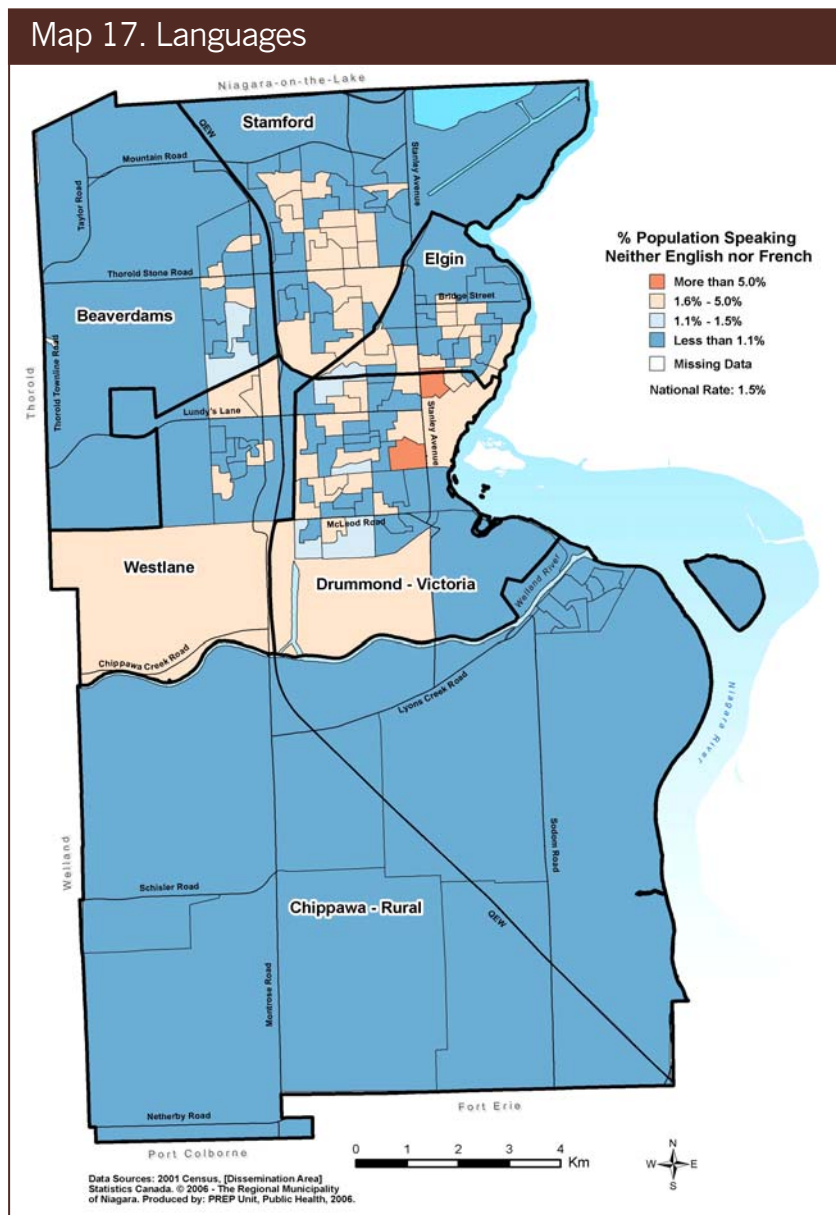
Map 17 illustrates the percentages of the population in Niagara Falls who speak neither English nor French, representing what is considered a linguistic challenge. Speaking neither English nor French can be a challenging barrier to gaining employment and access to valuable resources within the community[211]. Success in school includes proficiency with language and it has become even more necessary in today's knowledge-based society[212]. In a Swedish study boys with early speech delays, from various socioeconomic backgrounds, and who had difficulties in understanding and expressing themselves at age 3 and 5 years, were more likely to be functionally illiterate by age 17[213].

The light and dark orange areas in the neighbourhoods are where larger percentages of the population do not speak either language. Statistics Canada reports that Niagara Falls is mostly comprised of people who speak English as their first language[214]. However, a surprising number of residents also reported themselves as multilingual in Niagara Falls[215].

3.1 Summary of Findings (continued from page 30)

The community has the Multicultural Network Services of Niagara Falls located on Victoria Avenue and they provide English as Second Language classes, computer training, and employment programs[216]. This resource is ideally located near the Rainbow Bridge for immigrants entering Canada from the United States in the north-eastern tip of Drummond-Victoria. In addition, the most concentrated pockets of people who speak neither English nor French are located relatively close to this resource; however, there are outlying populations in Westlane, Beaverdams, and Stamford for which distance may be a barrier to access.

Children's average scores in the Language & Cognitive Development domain were higher than the other four readiness for school domains and were statistically significantly higher than the national average[217]. However, approximately 1 out of 3 children in Niagara Falls scored below the national average in Communication Skills & General Knowledge[218]. Generally, there seemed to be a higher proportion of children in Niagara Falls scoring below the national average in Communication Skills & General Knowledge than the other five domains[219]. In addition, boys scored statistically significantly lower than girls did in Communication Skills and General Knowledge[220].

4. Readiness to Learn in School in Niagara Falls

Children are born ready to learn with their neurosystems pre-programmed to develop various skills and pathways, depending on the experiences they receive[221].

The term 'readiness to learn in school' refers to the child's ability to meet the task demands of school, such as being cooperative, sitting quietly and listening to the teacher, and generally being able to benefit from the educational activities that are provided[222].

The Offord Centre for Child Studies, McMaster University, describes the Early Development Instrument (EDI) as a measure based on the readiness to learn concept[223]. The EDI was developed by Drs. Magdalena Janus and Dan Offord at the Offord Centre for Child Studies, McMaster University, with the support of a national advisory committee. It is largely based on the National Longitudinal Survey of Children and Youth (NLSCY) and other existing developmental tests[224]. Between 1998/99 and 2004/05 it has been implemented with over 290,000 students nation-wide[225]. During this time revisions to the EDI have occurred and data for 2001 to 2003 had to be recoded to reflect the subtle changes in the Physical Health & Well-being, Social Competence, and Communication Skills & General Knowledge domains.

The EDI instrument is an outcome measure of children's early development at the population, rather than individual, level[226]. It measures children's readiness to learn in the school environment in five general domains: Physical Health & Well-being, Social Competence, Emotional Maturity, Language & Cognitive Development, and Communication Skills & General Knowledge in relation to developmental benchmarks rather than curriculum-based ones[227].

The Offord Centre for Child Studies indicates that there are five domains of school readiness to learn that also encompass sixteen sub-domains[228]:

	Physical Health & Well-being		Social Competence
ONE	1 Physical readiness for the school day (i.e. tired, hungry, late) 2 Physical independence 3 Gross (i.e. running) and fine (i.e. holding a pencil) motor skills	**TWO**	4 Overall social competence 5 Responsibility and respect 6 Approaches to learning 7 Readiness to explore new things
	Emotional Maturity		Language & Cognitive Development
THREE	8 Prosocial and helping behaviour 9 Anxious and fearful behaviour 10 Aggressive behaviour (i.e. hitting, kicking) 11 Hyperactivity, inattention, impulsivity	**FOUR**	12 Basic literacy (i.e. recognize letters) 13 Interest in literacy/numeracy and memory 14 Advanced literacy (i.e. write simple words) 15 Basic numeracy (i.e. compare numbers, count, sort)
	Communication Skills & General Knowledge		
FIVE	16 Communicating easily and effectively • Ability to participate in storytelling or imaginative play • Ability to articulate clearly • Showing adequate general knowledge and proficiency in their native languages		

4. Readiness to Learn in School in Niagara Falls (continued from page 32)

There are two additional indicators included in the EDI that measure whether a child has special skills in literacy, numeracy, dance, and/or music.

The EDI can be applied at either the junior or senior kindergarten level, for either 4 or 5 year olds[229]. After an EDI training/orientation session and several months of classroom interaction with the child, the teacher uses his/her observations to complete the questionnaire[230]. The instrument provides information for groups of children in order to: 1) report on areas of strength and need for populations of children, 2) monitor populations of children over time, and 3) predict how children will do in elementary school.

4.1 Summary of EDI Findings

Overall, Niagara Falls' children are exceeding many of their peers across Canada in the five readiness to learn domains and fewer children have challenges that may impede their success in school[231].

Niagara Falls, as a whole, had particular developmental strengths and challenges. Physical Health & Well-being, Social Competence, and Language & Cognitive Development were strengths for most children in Niagara Falls because more children were ready for school in these domains[232], whereas Emotional Maturity and Communication Skills & General Knowledge appeared to be a challenge for more children in Niagara Falls because fewer children were ready for school in these two domains[233].

However, neighbourhood results suggest that some children may have challenges in some or all of the EDI domains that could hinder their future success[234]. Within neighbourhoods, children's strengths and challenges appear to be difference from the overall developmental trends for most children in Niagara Falls. Even if a neighbourhood scored above the national averages[235], challenges could be identified that associated 1 in 3 children with potentially not being ready for school in some or all of the domains[236]. **Table 2** (below) provides an overview of the neighbourhoods' strengths and challenges.

Table 2. Neighbourhood Strengths (✓) & Challenges (✗)					
Neighbourhoods	EDI Domains				
	Physical Health & Well-being	Social Competence	Emotional Maturity	Language & Cognitive Development	Communication Skills & General Knowledge
Beaverdams	✓	✓	✓	✗	✓
Chippawa-Rural	✓	✓	✓	✗	✗
Stamford	✓	✓	✗	✗	✗
Westlane	✓	✗	✗	✓	✗
Drummond-Victoria	✗	✗	✓	✓	✗
Elgin	✗	✗	✗	✗	✗

Citizens and community leaders can use table 2 (page 33) as a guideline for making evidence-based decisions and taking action that targets the challenges experienced by children who were found to be not ready for school in some or all of the readiness to learn domains[237].

As pointed out in the beginning of this report, HRSDC has found that there is mounting evidence that strong, supportive communities help nurture healthy child development[238]. Examination of the neighbourhood results in conjunction with community conditions may assist in determining some protective and risk factors related to children scoring above or below the national averages[239].

Most of the neighbourhoods in Niagara Falls have healthy environments with low to somewhat low risk[240]. Children in the neighbourhoods with low risk had better scores and fewer challenges on the EDI, and larger numbers of children were found to be ready for learning in school[241]. Despite the generally healthy neighbourhoods in Niagara Falls, there are neighbourhoods that have more risk and children in these areas had poor scores on the EDI and more challenges in some or all of the domains[242].

Niagara Falls' results appear to replicate the findings of McCain and Mustard in the *Early Years Study* because they seem to show the negative impact of multiple risk factors on children's developmental outcomes[243]. Specifically, children in neighbourhoods with multiple risk factors scored below the national averages[244]. Additionally, higher percentages of children in higher risk areas were considered vulnerable and these children are likely to have trouble adjusting to school, may be academically unsuccessful, and have later challenges with employment[245].

The future prosperity of any community depends, in part, on its ability to meet the needs of its children, particularly those who are considered vulnerable and with multiple challenges[246]. Although Niagara Falls, overall, did not have high percentages of children who were considered vulnerable and with multiple challenges, neighbourhood results suggest that environments with multiple risk factors were found to be associated with more children considered vulnerable and with multiple challenges, despite the presence of community resources[247]. Beauvais and Jenson suggest that there are three elements needed for good outcomes among children: adequate income, good parenting, and supportive communities[248]. They further suggest that public policy should make access to programs and/or resources available that will provide families with adequate access to income, so that they are able to ensure healthy outcomes for all of our children and diminish the number considered vulnerable and with multiple challenges.

Offord also reported that the following participant characteristics impacted EDI results:

- Girls scored statistically significantly higher than boys did. These findings were the same as those across all sites where the EDI has been implemented.
- Children who were born earlier in the year scored higher than those who were born later in the year in all five of the school readiness to learn domains. Differences between the older and younger groups were statistically significant for Physical Health & Well-being, Language & Cognitive Development, and Communication Skills & General Knowledge.
- Children who attended part-time preschool scored statistically significantly higher than those who did not in Physical Health & Well-being and Communication Skills & General Knowledge.
- Children who attended junior kindergarten scored statistically significantly higher than those who did not in all five of the readiness to learn domains.[249]

A large number of children were surpassing the national averages on the five readiness to learn domains and an overwhelming number of children were found to be ready for school learning and will likely be successful in transitioning to grade one and do well in school[250]. Typically,

4.1 Summary of EDI Findings (continued from page 34)

children who had positive outcomes (high scores) on the five readiness to learn domains were from neighbourhoods that had fewer risk factors[251]. However, even with overall positive outcomes in the neighbourhoods, challenges remain for some children in some or all of the EDI domains[252].

On average, one out of four children in Niagara Falls is likely to have difficulty in transitioning to grade one and may not do well in school[253]. Although specific neighbourhood strengths were identified, there were some neighbourhoods that had larger percentages of children who had challenges in some or all of the domains[254]. A common characteristic among children who scored low on the five readiness to learn domains and below the national averages was living in neighbourhoods that had multiple risk factors (i.e. low-income, unemployment, instability, etc.), even when community resources were situated in the neighbourhoods with most need[255].

4.2 EDI Domain Results

Generally, the majority of children in Niagara Falls were found to be ready for school[256]. A large proportion (75%) of children in Niagara Falls are ready to learn in school and are likely to adjust well and be academically successful[257]! **Chart 3** (at left) illustrates the high percentages of children in Niagara Falls who
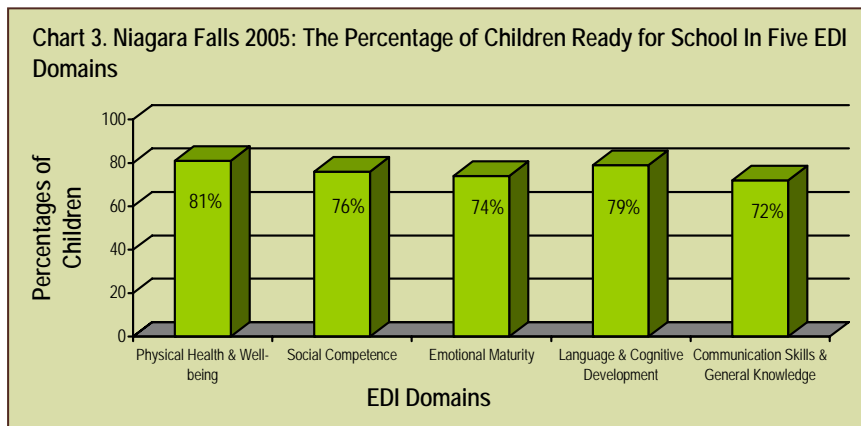
Chart 3. Niagara Falls 2005: The Percentage of Children Ready for School In Five EDI Domains

were likely to adapt well and be successful at school across the five readiness to learn domains.

While Niagara Falls had high numbers of children scoring well across the five EDI domains, which is good news, it is important to compare children's

Chart 4. Niagara Falls 2005: Comparisons of EDI Mean Scores with National Averages
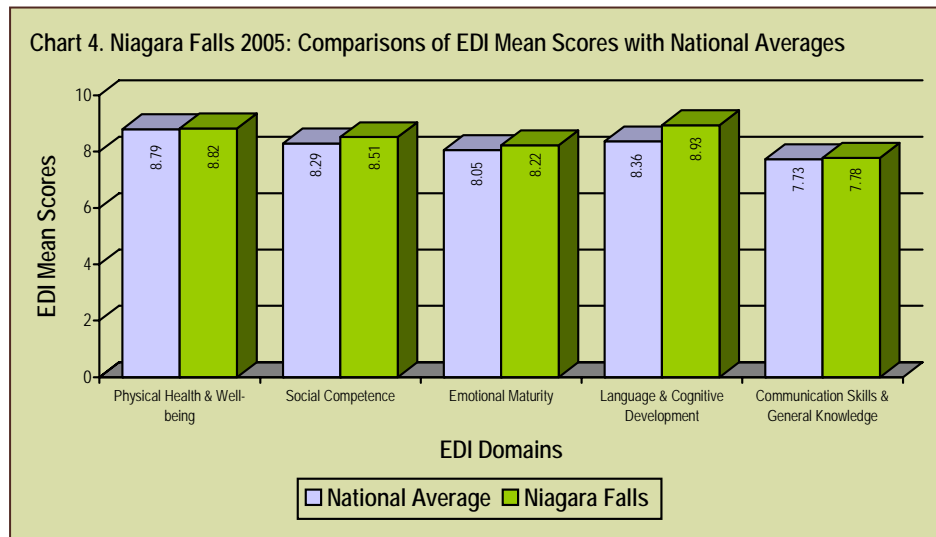
mean scores in Niagara Falls to the national averages in order to identify children's overall strengths and potential challenges and predict how they will do in elementary school[258]. By examining early indicators of children's needs, citizens and community leaders may determine ways to strengthen Niagara Falls' neighbourhoods and increase the likelihood that every child has the opportunity to have healthy developmental outcomes[259].

Chart 4 (page 35) provides a visual comparison between children's mean EDI domain scores and the national averages. Three out of five of the domains were found to be statistically significantly higher than the national averages; Language & Cognitive Development, Social Competence, and Emotional Maturity[260].

Chart 5 (below) offers a visual display for monitoring Niagara Falls' children over time. The graph shows the developmental trends and differences from the national averages across time in the Niagara Falls cohorts[261]. Visual analyses of chart 5 suggest that subtle differences in developmental trends occurred across the four years in the five readiness to learn domains[262]. It would appear that overall Niagara Falls' children have been above the national averages across the four years in the five readiness to learn domains with exceptions in 2001, when Language & Cognitive Development, Social Competence, and Emotional Maturity were below the national averages, and 2002, when Emotional Maturity was below the national average[263].

Chart 5. Niagara Falls 2001 - 2005: Multi-year Comparisons of EDI Mean Scores with National Averages
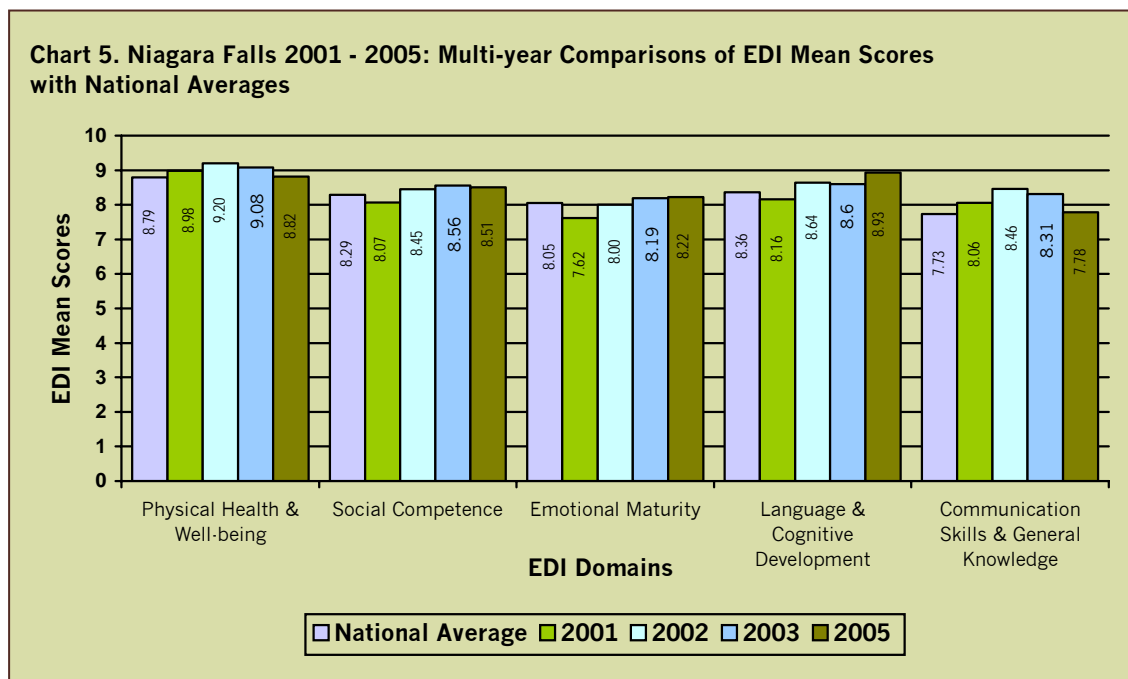
Simple Analyses of Variance tests were conducted to compare between years across the five readiness to learn domains. The level of statistical significance was $p < 0.05$, which provided confidence in the findings that the results were not due to chance and if this investigation were to be conducted again, the same results would be obtained, 95 out of 100 times.

Table 3 (page 37) contains the statistically significant differences between the years and the national averages. Statistically significant differences are indicated in table 3 by the ↓ and ↑ arrows and n.s. means there were no significant differences found. The table shows the differences by the years and the national averages across the top when compared to the years down the left–hand side of table 3. For example, the national averages were statistically significantly lower in

4.2 EDI Domain Results (continued from page 36)

Physical Health & Well-being and Communication Skills and General Knowledge than the EDI domain mean scores were in 2001; however, the national averages were statistically significantly higher in Social Competence, Emotional Maturity, and Language & Cognitive Development than the EDI domain mean scores were in 2001.

Table 3. Niagara Falls 2001-2005: Multi-year Comparisons of EDI Mean Scores

Years	National Averages					2001					2002					2003					2005				
	P	S	E	L	C	P	S	E	L	C	P	S	E	L	C	P	S	E	L	C	P	S	E	L	C
2001	↓	↑	↑	↑	↓	n/a	n/a	n/a	n/a	n/a	n.s.	↑	↑	↑	↑	n.s.	↑	↑	↑	n.s.	↓	↑	↑	↑	↓
2002	↓	↓	n.s.	↓	↓	↓	↓	↓	↓	↓	n/a	n/a	n/a	n/a	n/a	n.s.	n.s.	n.s.	n.s.	n.s.	↓	n.s.	n.s.	n.s.	↓
2003	↓	↓	↓	↓	↓	n.s.	↓	↓	↓	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n/a	n/a	n/a	n/a	n/a	↓	n.s.	n.s.	n.s.	↓
2005	n.s.	↓	↓	↓	n.s.	↓	↓	↓	↓	↑	↑	n.s.	n.s.	n.s.	↑	↑	n.s.	n.s.	n.s.	↑	n/a	n/a	n/a	n/a	↓

Domains: P=Physical Health & Well-being, S=Social Competence, E=Emotional Maturity, L=Language & Cognitive Development, and C=Communication Skills & General Knowledge

While charts 3, 4, 5, and table 3 demonstrate that the majority of Niagara Falls children experienced good results on the EDI in 2005 and previous years, when the data is analyzed further areas of need begin to emerge.

Chart 6. Niagara Falls 2005: Comparisons of EDI Mean Scores by Neighbourhood with National Averages
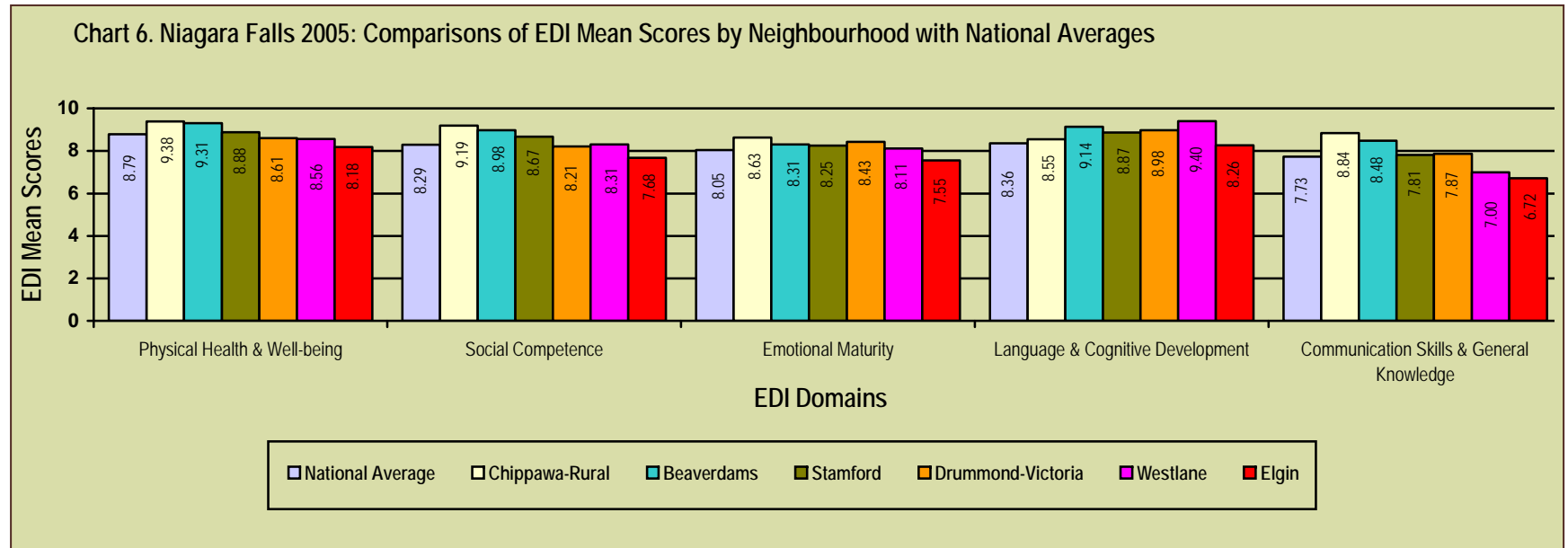
Chart 6 (page 37), which compares neighbourhood results on the five EDI domains, indicates that three neighbourhoods had EDI domain scores below the national averages;

- Westlane in Physical Health & Well-being and Communication Skills & General Knowledge,
- Drummond-Victoria in Physical Health & Well-being and Social Competence, and
- Elgin in all five readiness to learn domains[264].

Table 4 (below) contains the EDI mean scores and the standard deviations for the national averages and the neighbourhoods that were compared to the national averages[265]. A one-sample t – test was performed to compare the differences between the neighbourhood EDI mean scores and the national averages. A two-tailed test was performed to determine whether the neighbourhood means were statistically significantly higher or lower than the national averages and the level of statistical significance was set at $p < 0.05$. The level of statistical significance indicates that if this investigation was repeated 100 times, there would be a 5 in 100 chance that the findings would be due to chance alone.

The values with asterisks in table 4 indicate that the mean scores for those neighbourhoods were either statistically significantly higher or lower than the national averages. Although some neighbourhoods' scores were above or below the national averages, they were not found to be statistically significantly different. However, neighbourhood scores that were above or below the national averages may reflect a slight difference in children's developmental trends or changes in community factors that may be impeding children's development in those neighbourhoods. In addition, neighbourhoods that were below the national averages had larger proportions of children considered potentially not ready for learning in school in some or all of the readiness to learn domains[266]. Replication of the investigation in 2006 with the region-wide EDI implementation[267] will assist in monitoring these developmental and community factors and to track any emerging trends.

Table 4. Neighbourhood Study Areas 2005 EDI Mean Scores and Standard Deviations															
Neighbourhood															
Domains	**National Averages**		**Chippawa-Rural**		**Beaverdams**		**Stamford**		**Drummond-Victoria**		**Westlane**		**Elgin**	
	Mean	**±SD**	**Mean**	**±SD**	**Mean**	**±SD**	**Mean**	**±SD**	**Mean**	**±SD**	**Mean**	**±SD**	**Mean**	**±SD**
Physical Health & Well-being	8.79	1.05	**9.38***	0.99	**9.31***	0.83	8.88	1.09	8.61	1.22	8.56	1.22	**8.18***	1.54
Social Competence	8.29	1.74	**9.19***	0.90	**8.98***	1.09	**8.67***	1.56	8.21	1.63	8.31	1.63	**7.68***	2.04
Emotional Maturity	8.05	1.51	**8.63***	1.10	**8.31***	1.24	8.25	1.47	**8.43***	1.26	8.11	1.68	**7.55***	1.55
Language & Cognitive Development	8.36	1.82	8.55	0.90	**9.14***	0.82	**8.87***	1.34	**8.98***	1.22	**9.40***	1.10	8.26	2.08
Communication Skills & General Knowledge	7.73	1.94	**8.84***	1.92	**8.48***	1.97	7.81	2.50	7.87	2.35	7.00	2.40	**6.72***	2.71

4.2 EDI Domain Results (continued from page 38)

Table 4 (page 38) illustrates the fact that, despite very good overall results, the Elgin neighbourhood scored statistically significantly below the national averages in four domains:

- Physical Health & Well-being,
- Social Competence,
- Emotional Maturity, and
- Communication Skills & General Knowledge[268].

Overall, one-third of all children scored below the national averages in Niagara Falls[269] and the following percentages of children were found to score below the national averages:

- 19% in Physical Health & Well-being,
- 35% in Social Competence,
- 39% in Emotional Maturity,
- 21% in Language & Cognitive Development, and
- 37% in Communication Skills & General Knowledge[270].

Neighbourhoods that were below the national averages in some or all of the five readiness to learn domains typically had from almost half, to more than half, of the children sampled scoring below the national averages[271]. The maps of the neighbourhoods that show the neighbourhoods that scored above and below the national averages can be useful in identifying strengths and potential challenges for some children.

Map 18. Physical Health & Well-being

Comparison of 2005 EDI Neighbourhood
Means to National Average
(PHYSICAL)

☐ At or Above National Average
■ Below National Average

Niagara-on-the-Lake

Mountain Road

Taylor Road

Stamford

Thorold Stone Road

Beaverdams

Bridge Street

Elgin

Lundy's Lane

McLeod Road

Westlane

Drummond - Victoria

Chippawa Creek Road

Lyons Creek Road

Welland River

Niagara River

Schisler Road

Chippawa - Rural

Montrose Road

Netherby Road

Fort Erie

Port Colborne

0 1 2 3 4 Km

Data Sources: EDI Niagara Falls, (ECCDC), 2005.,
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.

Half of the neighbourhoods scored above the national average in **Physical Health & Well-being**[272]. Overall, 4 out of 5 children scored above the national average in Physical Health & Well-being; only 1 in 5 children across the Niagara Falls area scored below the national average[273]. However, at the neighbourhood level more than half of the children in Westlane (54%) and Elgin (60%) scored below the national average in Physical Health & Well-being and slightly less than half scored below the national average in Drummond-Victoria (49%)[274].

Children in the neighbourhoods that scored below the national average in Physical Health & Well-being were likely to:

- come unprepared for school (i.e. inappropriately dressed, late, hungry or tired, displayed low energy levels),

- display developmentally inappropriate behaviours (sucking thumb, no decided hand preference), and

- have difficulty performing skills that required gross (running, walking) and fine (holding a pencil) motor skills[275].
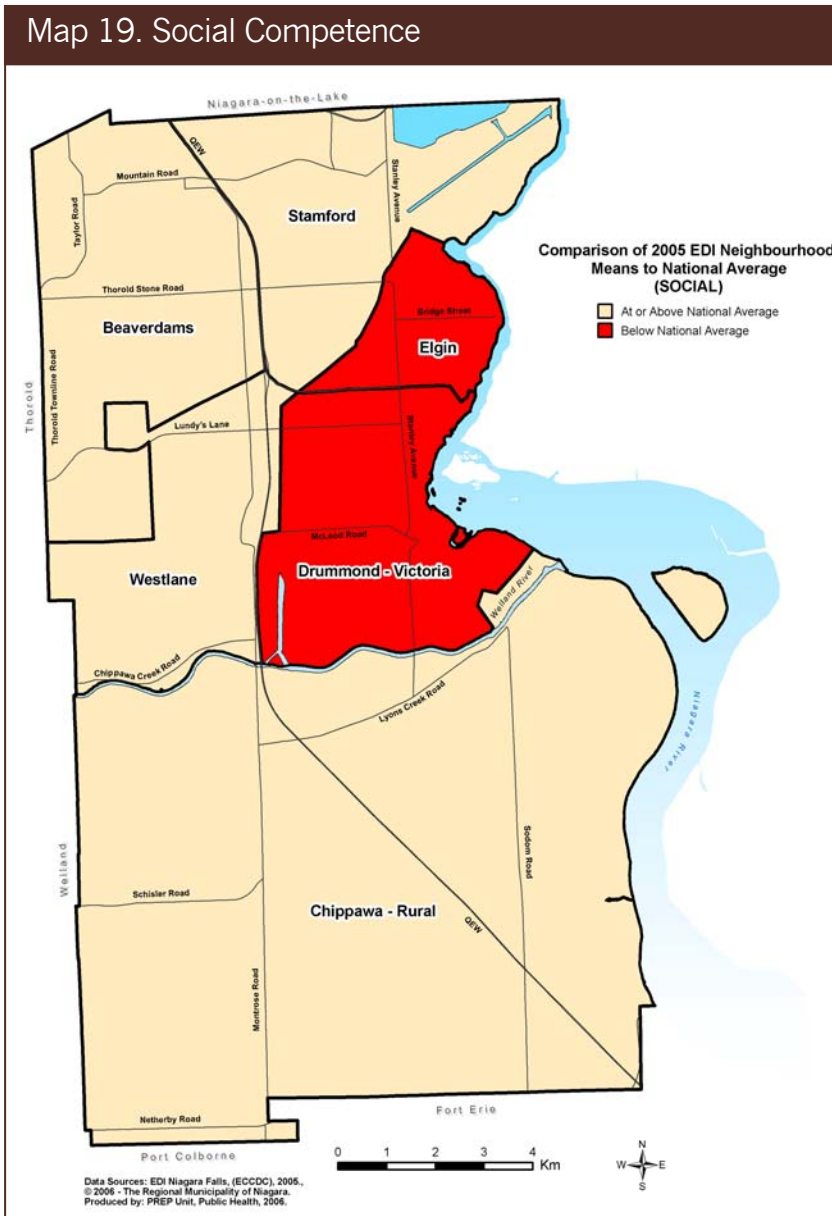
It would seem that some children in the neighbourhoods that scored below the national average have challenges in Physical Health & Well-being which may negatively impact both readiness to learn in school, as well as other aspects of healthy development.

4.2 EDI Domain Results (continued from page 40)

Over two-thirds of the neighbourhoods scored above the national average in **Social Competence**[276]. Overall, children's mean Social Competence scores were statistically significantly higher than the national average[277]. Even with higher numbers of children scoring well in Social Competence, more than 1 out of 3 children in Niagara Falls scored below the national average[278]. Over half of the children in Elgin (52%) and slightly less than half of the children in Drummond-Victoria (41%) were below the national average[279].

Children in the neighbourhoods that scored below the national average in Social Competence were likely to have challenges with:

Map 19. Social Competence

Comparison of 2005 EDI Neighbourhood Means to National Average (SOCIAL)

☐ At or Above National Average
■ Below National Average

Data Sources: EDI Niagara Falls, (ECCDC), 2005.,
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Produced by: PREP Unit, Public Health, 2006.

- low self-confidence,

- playing with other children or interacting cooperatively,

- working independently and neatly, solving problems, following class routines, and transitioning during changes in their schedules,

- showing respect for others and for property, and

- self-control[280].
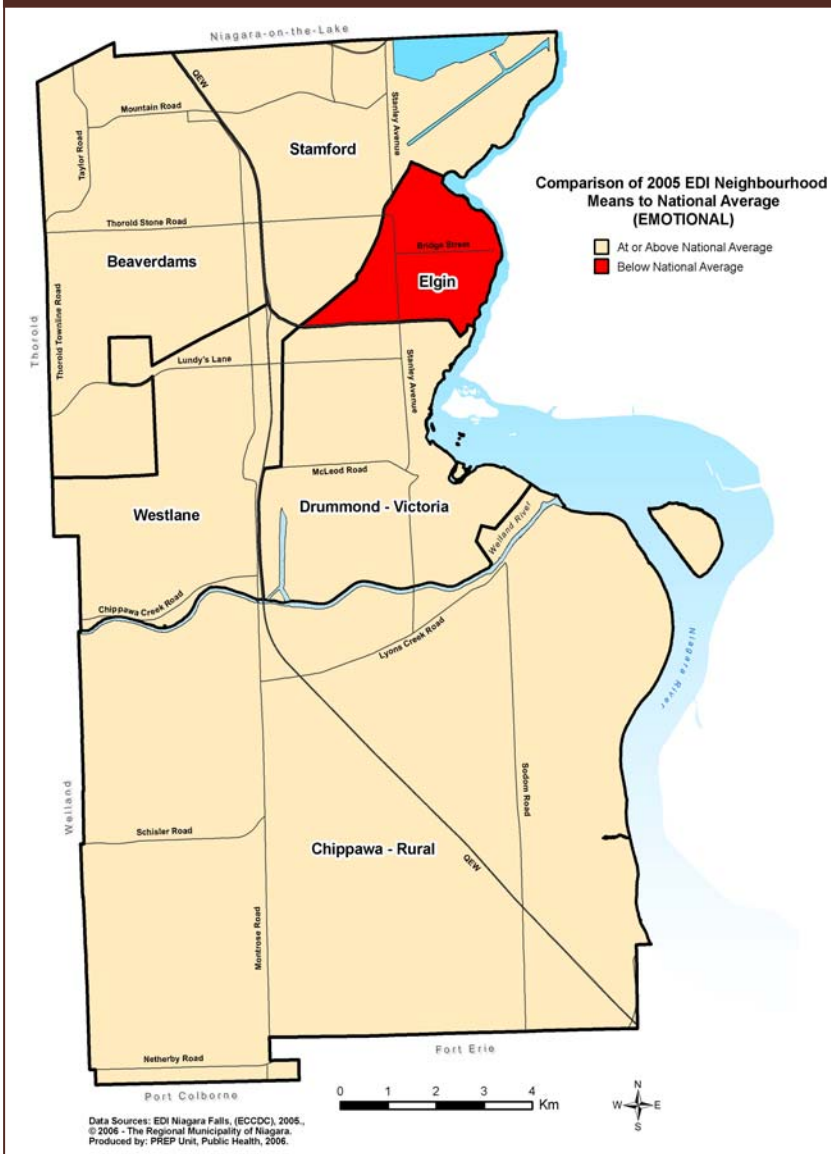
Henricsson and Rydell have examined how behaviour challenges, such as aggression, poor prosocial skills, anxiety, etc., impacted children's school achievements[281]. They found that children's challenging behaviours did not diminish across the six year study and that those with behaviour problems had lower school achievements and peer acceptance than children who had no behaviour challenges.

Five out of six of the neighbourhoods had **Emotional Maturity** scores that were above the national average[282]. Overall, children's mean Emotional Maturity scores were statistically significantly higher than the national average in Niagara Falls[283]. Sixty-two percent of children in Niagara Falls scored above the national average in Emotional Maturity and the remaining 38% of children scored below the national average[284]. However, children in Elgin scored statistically significantly lower in Emotional Maturity than the national average and one in two children (50%) in this neighbourhood scored below the national average in this domain[285].

Map 20. Emotional Maturity

Comparison of 2005 EDI Neighbourhood Means to National Average (EMOTIONAL)

☐ At or Above National Average
■ Below National Average

Data Sources: EDI Niagara Falls, (ECCDC), 2005.,
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Produced by: PREP Unit, Public Health, 2006.

Children in the neighbourhood that scored below the national average in Emotional Maturity were likely to have challenges with:

- poor helping behaviours (did not help someone who was hurt, sick, upset, or invite others to join in),
- hyperactive behaviours (restlessness, distractibility, impulsivity, fidgeting, difficulty settling into activities), and
- aggression (getting into physical fights, kicking or biting others, taking other people's things, disobedience or having temper tantrums)[286].

Research that examines Emotional Intelligence, or EI (i.e. the ability to self-regulate, act empathetically toward others, contextual adjustments to emotions, etc.) has found that it was a significant predictor of academic success[287]. EI has also been cited as an extremely valuable ability for adapting to school and managing the stresses associated with adjusting to school[288]. Later success in the workplace has also been contributed to Emotional Intelligence[289]. Specifically, those with high EI were found to be more productive in their jobs, to be major

4.2 EDI Domain Results (continued from page 42)

contributors to their company's successes, to advance rapidly to positions of leadership, and were able to manage stress[290].

Almost all of the neighbourhoods scored above the national average in **Language & Cognitive Development**[291]. Overall, children's mean Language & Cognitive Development scores were statistically significantly higher than the national average[292]. Four out of five children in this community scored above the national average[293]. Generally, 1 out of 5 children in Niagara Falls scored below the national average in Language & Cognitive Development[294]. However, Language & Cognitive Development appears to be a challenge for slightly more than 1 out of 4 children in Elgin who scored below the national average[295].

Map 21. Language & Cognitive Development
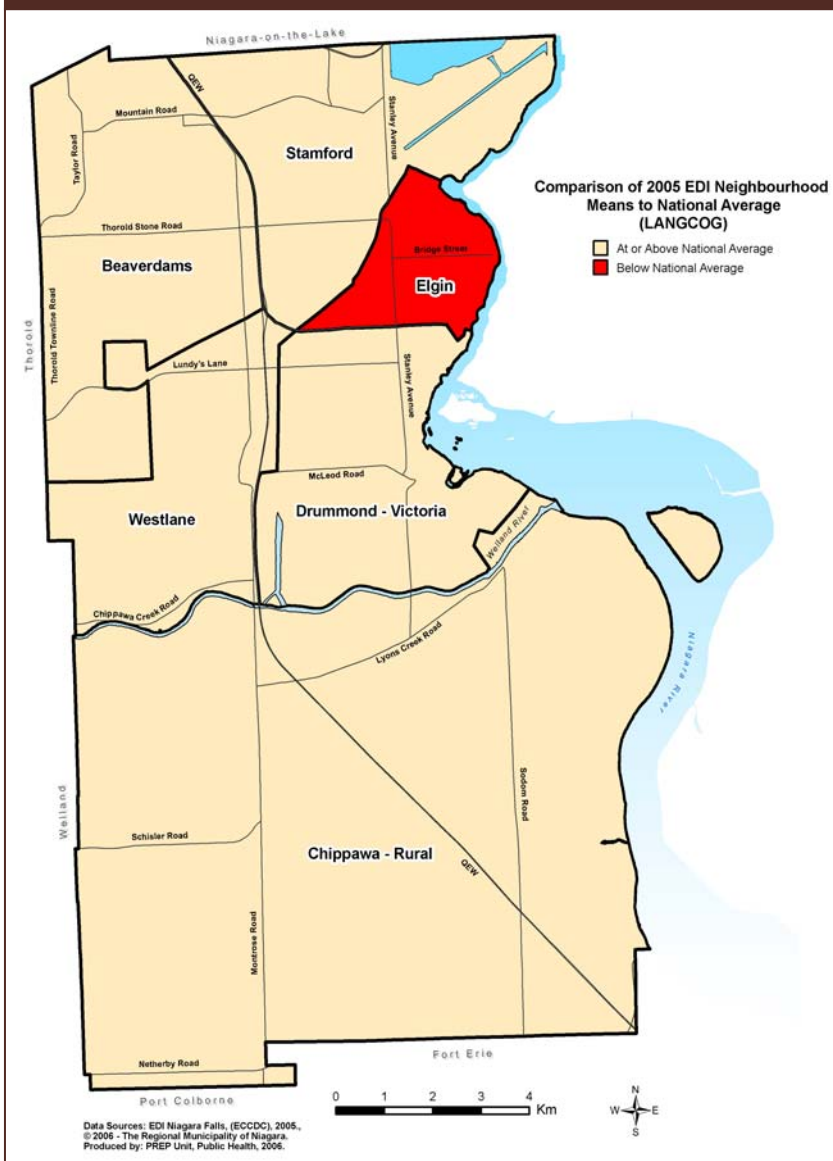
Children in the neighbourhood that scored below the national average in Language & Cognitive Development were likely to have challenges with:

- identifying letters or attaching sounds to them, rhyming, directionality of writing, writing their own names,
- not showing interest in books/reading or math/number games and having difficulty remembering things, and
- basic to advanced literacy and numeracy skills[296].

An overwhelming body of knowledge exists concerning the links between school readiness and success in school with language skills (i.e. interest in reading, recognizing letters), numeracy skills (i.e. interest in problem solving, counting, sorting), and cognitive abilities[297].

Four out of six neighbourhoods scored above the national average in **Communication Skills & General Knowledge**[298]. Sixty-three percent of children in Niagara Falls scored above the national average but the remaining 37% of children in Niagara Falls scored below the national average in this domain[299]. However, 2 out of 3 children who reside in Elgin and Westlane may have challenges in Communication Skills & General Knowledge because they scored statistically significantly lower than the national average[300].

Map 22. Communication Skills & General Knowledge
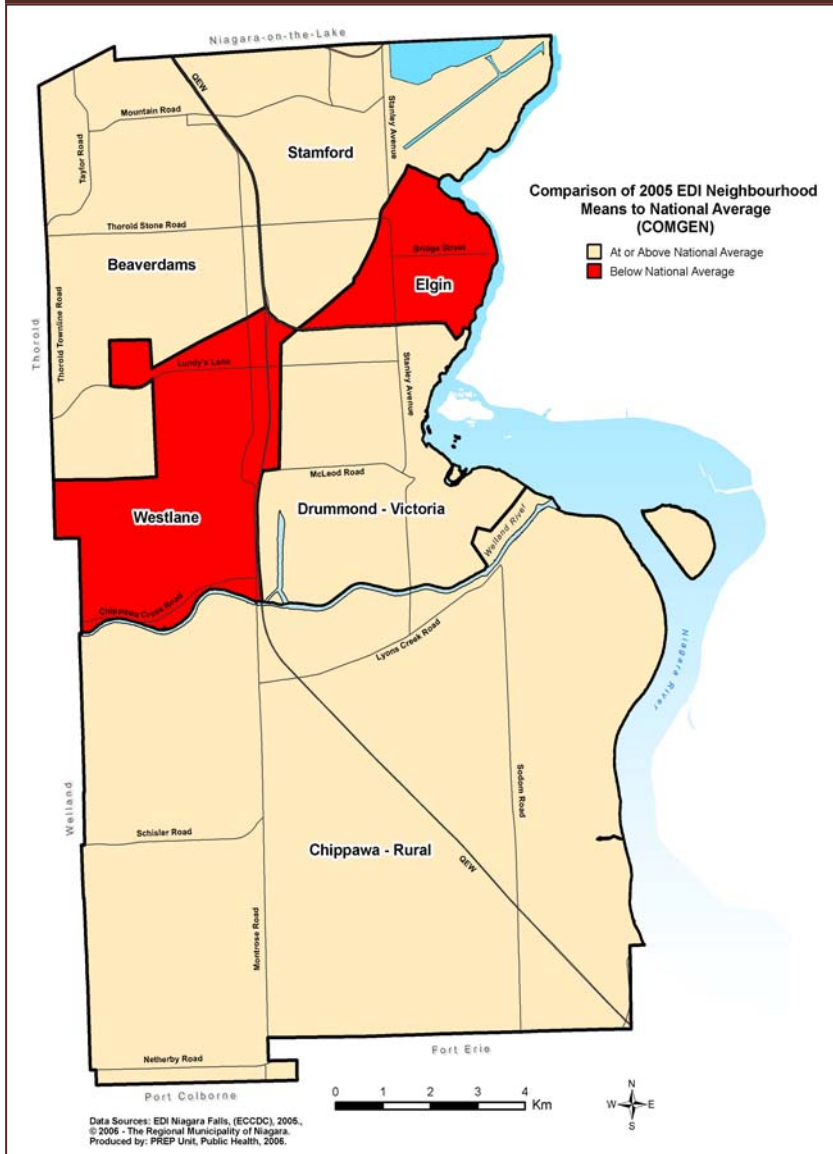
Children in the neighbourhoods that scored below the national average in Communication Skills & General Knowledge were likely to have:

- little general knowledge and difficulty with native language,

- poor communication skills,

- difficulty being understood by their peers,

- difficulty understanding their peers,

- difficulty with native language, and

- trouble participating in games involving the use of language[301].

Generally, there seemed to be a higher proportion of children in Niagara Falls scoring below the national average in Communication Skills & General Knowledge and fewer children were found to be ready for school in this domain. When children are provided with opportunities to interact and play together they are developing communication skills and strengthening their understanding about the world around them and this will foster their adjustments to school and work later in life[302].

4.3 Social Risk Index and EDI Results

The Social Risk Index can serve as a tool to help communities effectively allocate resources to meet the needs of children and their families who live in areas that are experiencing the negative effects of multiple risk factors[303]. The colour chart below illustrates the four categories of risk and the number of risk factors within those categories that were used in mapping the results in Niagara Falls neighbourhoods (risk categories – the darker colours represent more risk and lighter colours less risk).

Low Risk 0 or 2 Risk Factors	**Somewhat Low Risk** 3 or 4 Risk Factors	**Somewhat High Risk** 5 or 6 Risk Factors	**High Risk** 7 or More Risk Factors

The Social Risk Index provides a composite measure of socioeconomic risk in communities[304]. The Social Risk Index was developed to provide a general picture of neighbourhoods and the number of potential challenges they faced[305]. Statistics Canada determined the level of risk for each neighbourhood based on data from the 2001 Census. Neighbourhoods were considered to have more risk if they reported higher levels of risk factors. The Social Risk Index is comprised of the following factors:

1 Employment Rate	7 Immigrant Status
2 Educational Attainment	8 Reliance on Government Transfers
3 Family Status	• Employment Insurance • Child Tax Benefits
4 Mobility	• GST/HST • Social Assistance
5 Language	• Provincial Refundable Tax Credit • Old Age Security
	• Canada Pension Plan • Workers Compensation
6 Home Ownership	9 Average Household Income

Map 23. Niagara Falls Social Risk Index

Social Risk Index
- 7 - 9 High Risk
- 5 - 6 Somewhat High Risk
- 3 - 4 Somewhat Low Risk
- 0 - 2 Low Risk

Data Sources: 2001 Census, [Dissemination Area]
Statistics Canada, © 2006 - The Regional Municipality
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Healthy environments have their greatest impact on development in the first five years of life[306]. Large proportions of the neighbourhoods in Niagara Falls had healthy environments with low to somewhat low risk[307]. Children in areas with low to somewhat low risk are likely to experience optimal developmental outcomes[308]. Neighbourhoods with less risk have also been associated with better outcome measures on the EDI[309].

Despite mostly low to somewhat low risk, Niagara Falls does have areas in Drummond-Victoria, Elgin, Stamford, and Westlane that were reported to have high and somewhat high risk[310]. Across all Niagara Falls neighbourhoods, it was found that 1 in 4 children were likely to have difficulty being ready to learn in school[311]. The pervasiveness of high and somewhat high risk neighbourhoods may mirror the negative effects of deprivation[312]. Deprivation refers to a lack of resources to meet the needs of a child that would be associated with poor developmental outcomes when compared to children who are in healthy environments. Children in areas with high to somewhat high risk were often associated with poor outcome measures on the EDI because more children scored below the national averages and were considered not ready to learn in school and/or vulnerable in these neighbourhoods[313].

46

4.3 Social Risk Index and EDI Results (continued from page 46)

Map 24. Beaverdams Social Risk Index

Social Risk Index
- 7 - 9 High Risk
- 5 - 6 Somewhat High Risk
- 3 - 4 Somewhat Low Risk
- 0 - 2 Low Risk

2005 EDI Domain Means (Beaverdams)
COMGEN: 8.48
PHYSICAL: 9.31
SOCIAL: 8.98
EMOTION: 8.31
LANGCOG: 9.14

Data Sources: 2001, Census [Dissemination Area]
EDI Niagara Falls, (ECCDC), 2005.,
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.
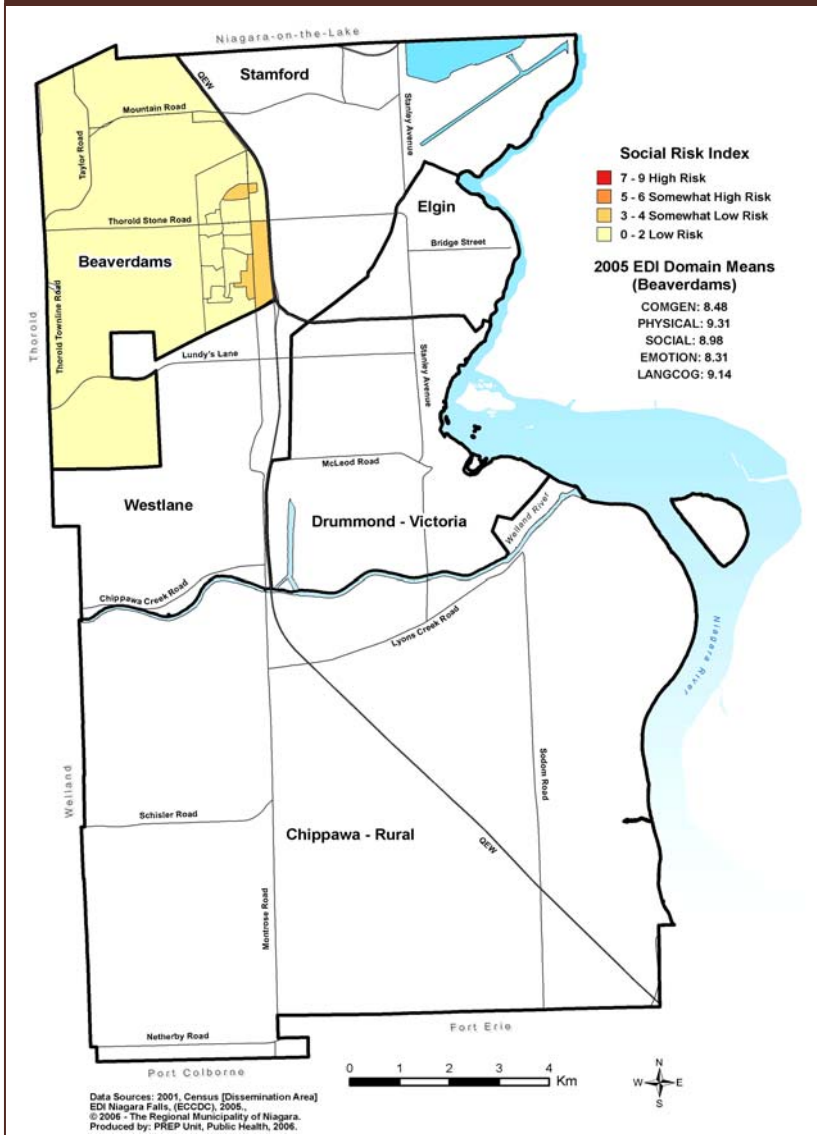
Beaverdams is one of the neighbourhoods in Niagara Falls that has the lowest risk[314]. Children in Beaverdams scored statistically significantly higher than the national averages on all five of the school readiness to learn domains[315]. **Chart 7** illustrates how large percentages of children in Beaverdams were ready to learn across all five readiness to learn domains[316]. Overall, three-quarters of the children in Beaverdams were ready to learn[317].

Despite low levels of social risk, chart 7 shows how children's potential challenges in this neighbourhood seem to be in Language & Cognitive Development, as more than 1 in 4 were at risk or vulnerable in this domain[318]. These children were not interested in books and reading or math and number games, had difficulty remembering things, were unable to read or write simple words, and rarely volunteered to write[319].

Chart 7. Beaverdams % of Children Ready and Not Ready to Learn by Domains

Legend:
- Physical Health & Well-being
- Social Competence
- Emotional Maturity
- Language & Cognitive Development
- Communication Skills & General Knowledge

Map 25. Chippawa-Rural Social Risk Index

Social Risk Index
- 7 - 9 High Risk
- 5 - 6 Somewhat High Risk
- 3 - 4 Somewhat Low Risk
- 0 - 2 Low Risk

2005 EDI Domain Means (Chippawa)
COMGEN: 8.84
PHYSICAL: 9.38
SOCIAL: 9.19
EMOTION: 8.63
LANGCOG: 8.55

Data Sources: 2001, Census [Dissemination Area]
EDI Niagara Falls, (ECCDC), 2005.,
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Chippawa-Rural was reported to have mostly low risk with a north-eastern area of somewhat high risk[320]. Chippawa-Rural scored above the national averages on all five of the school readiness to learn domains and 4 of the domains were statistically significantly higher; Physical Health & Well-being, Social Competence, Emotional Maturity and Communication Skills & General Knowledge[321].

Chart 8 illustrates the large percentages of children who were ready to learn across the EDI domains[322]. Overall, almost 3 out of 4 children in Chippawa-Rural were ready to learn[323]. Slightly less than 1 in 3 children appear to have challenges in Language & Cognitive Development, as they showed little interest in books, reading, and/or math and numbers. They also had difficulty with memory tasks.

Chart 8. Chippawa-Rural % of Children Ready and Not Ready to Learn by Domains

Legend: Physical Health & Well-being, Social Competence, Emotional Maturity, Language & Cognitive Development, Communication Skills & General Knowledge

4.3 Social Risk Index and EDI Results (continued from page 48)

Map 26. Stamford Social Risk Index

Social Risk Index
- 7 - 9 High Risk
- 5 - 6 Somewhat High Risk
- 3 - 4 Somewhat Low Risk
- 0 - 2 Low Risk

2005 EDI Domain Means (Stamford)
- COMGEN: 7.81
- PHYSICAL: 8.88
- SOCIAL: 8.67
- EMOTION: 8.25
- LANGCOG: 8.87

Data Sources: 2001, Census [Dissemination Area]
EDI Niagara Falls, (ECCDC), 2005.,
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.

Stamford had areas with low risk in the northern portion and small clusters of somewhat high to high risk areas towards the centre of the neighbourhood[324]. Despite risk factors, children in Stamford scored above the national averages on all five of the school readiness to learn domains and two of the domains were statistically significantly higher; Social Competence and Language & Cognitive Development[325]. **Chart 9** shows the high percentages of children who were ready for school in the five EDI domains[326].

More challenges were found for children not ready in Language & Cognitive Development, Communication Skills & General Knowledge, and Emotional Maturity[327]. These children had difficulty reading and writing simple and complex words/sentences, and writing voluntarily[328]. They also had difficulty with understanding peers and being understood by others[329]. Their proficiency in their native language and general knowledge were poor, while hyperactivity and poor helping behaviours were another challenge[330].

Chart 9. Stamford % of Children Ready and Not Ready to Learn by Domains

- Physical Health & Well-being
- Social Competence
- Emotional Maturity
- Language & Cognitive Development
- Communication Skills & General Knowledge

Map 27. Westlane Social Risk Index

Social Risk Index
- 7 - 9 High Risk
- 5 - 6 Somewhat High Risk
- 3 - 4 Somewhat Low Risk
- 0 - 2 Low Risk

2005 EDI Domain Means (Westlane)
COMGEN: 7.0
PHYSICAL: 8.56
SOCIAL: 8.31
EMOTION: 8.11
LANGCOG: 9.40
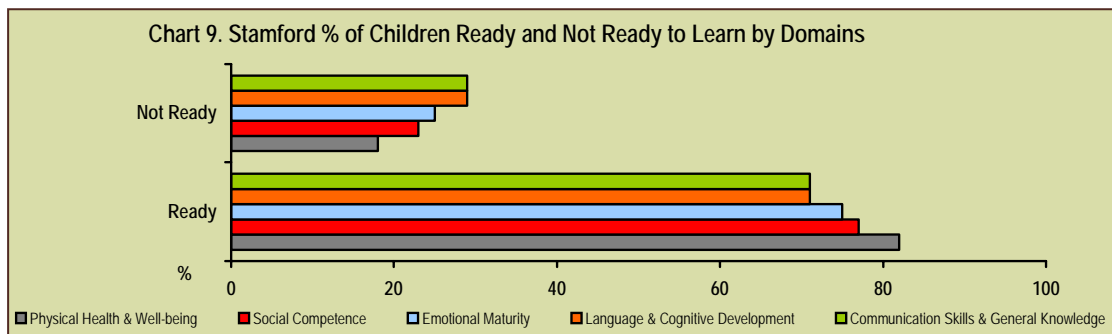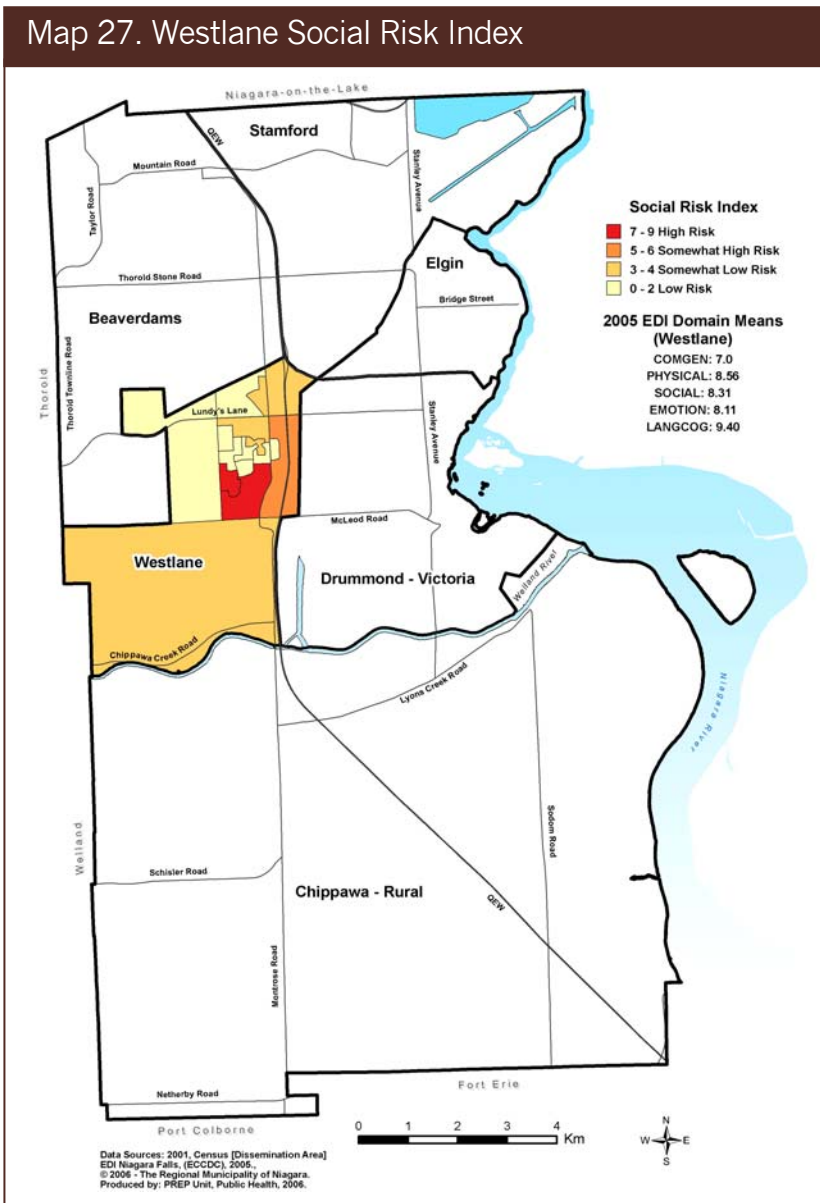
Areas to the north in Westlane, bordering Beaverdams, were reported as having low risk and southern areas, bordering Chippawa-Rura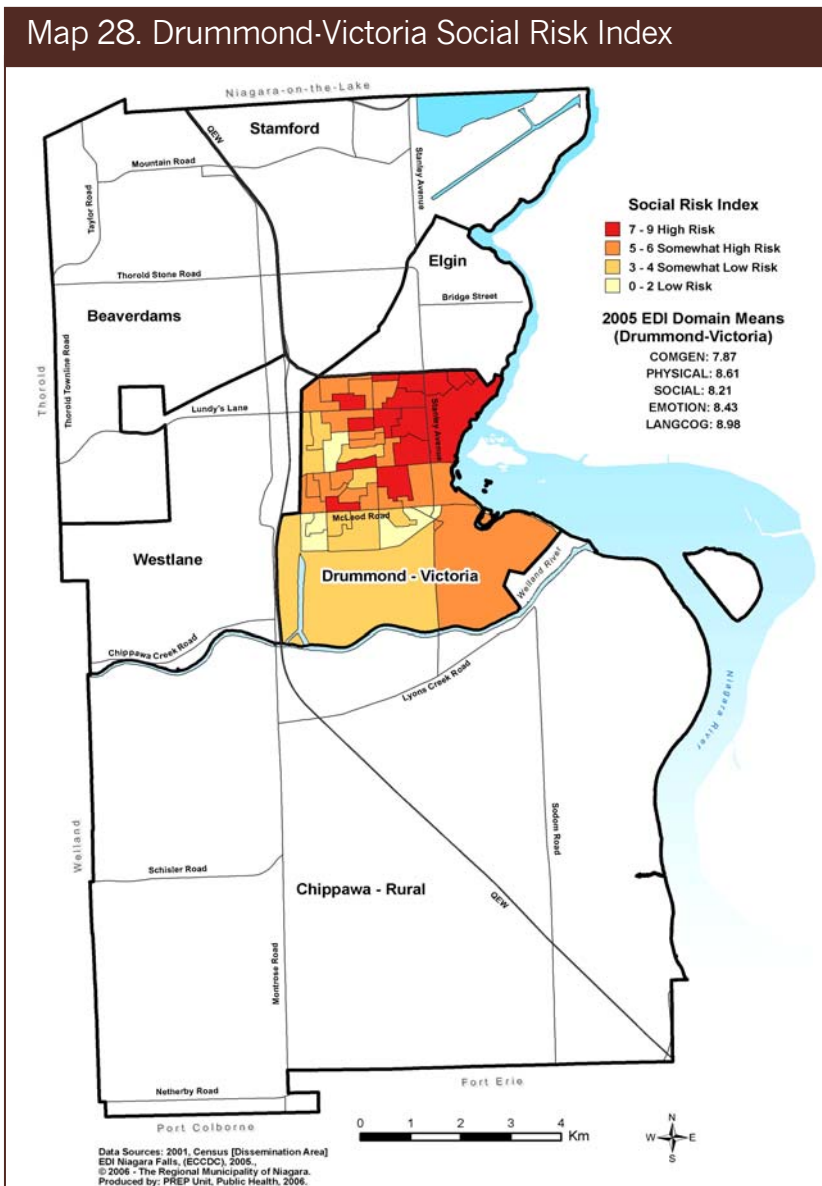l, were reported as having somewhat low risk[331]. Areas bordering Drummond-Victoria, between McLeod Road and Lundy's Lane, were reported as high to somewhat high risk[332]. Children's scores in Westlane on two of the five readiness to learn domains were below the national averages; Physical Health & Well-being and Communication Skills & General Knowledge[333]. Even with some areas experiencing multiple risk factors, children's Language & Cognitive Development scores in Westlane were statistically significantly higher than the national average[334].

Chart 10 (page 51) shows the high percentages of children ready to learn in Westlane[335]. Some children had challenges in the domains of Social Competence, Communication Skills & General Knowledge, and Emotional Maturity. Specific challenges for some children not ready to learn were low self-confidence and rarely playing with other children or interacting cooperatively[336]. Other children had challenges working independently and neatly, solving problems, following class routines, and transitioning during changes in their schedules[337]. Hyperactivity and aggression were an issue, while understanding peers and being understood by others were challenges for some children[338]. Proficiency in their native language and overall general knowledge were found to be poor[339].

4.3 Social Risk Index and EDI Results (continued from page 50)

Chart 10. Westlane % of Children Ready and Not Ready to Learn by Domains

Legend: Physical Health & Well-being · Social Competence · Emotional Maturity · Language & Cognitive Development · Communication Skills & General Knowledge

Map 28. Drummond-Victoria Social Risk Index

Social Risk Index
- 7 - 9 High Risk
- 5 - 6 Somewhat High Risk
- 3 - 4 Somewhat Low Risk
- 0 - 2 Low Risk

2005 EDI Domain Means (Drummond-Victoria)
COMGEN: 7.87
PHYSICAL: 8.61
SOCIAL: 8.21
EMOTION: 8.43
LANGCOG: 8.98

Data Sources: 2001, Census [Dissemination Area]
EDI Niagara Falls, (ECCDC), 2005.,
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.

Drummond-Victoria has large portions of the neighbourhood that were reported to have high or somewhat high risk[340]. These are mostly concentrated around Stanley Avenue. The children in Drummond-Victoria scored below the national averages on two of the five readiness to learn domains; Physical Health & Well-being and Social Competence[341]. Overall, three out of four children were ready to learn and would likely adjust well to school and be successful in learning[342].

Chart 11 outlines how children not ready to learn in Drummond-Victoria had more challenges in Physical Health & Well-being, Social Competence, and Communication Skills & General Knowledge[343]. In particular, children had poor fine (i.e.

holding a pencil) and gross (i.e. walking) motor skills[344]. Also, children had poor self-confidence and difficulty playing cooperatively with others, while understanding peers and being understood by others was a challenge for some[345]. Proficiency in their native language and overall general knowledge were found to be poor[346].

Chart 11. Drummond-Victoria % of Children Ready and Not Ready to Learn by Domains

Legend: Physical Health & Well-being, Social Competence, Emotional Maturity, Language & Cognitive Development, Communication Skills & General Knowledge

Map 29. Elgin Social Risk Index

Social Risk Index
- 7 - 9 High Risk
- 5 - 6 Somewhat High Risk
- 3 - 4 Somewhat Low Risk
- 0 - 2 Low Risk

2005 EDI Domain Means (Elgin)
COMGEN: 6.72
PHYSICAL: 8.18
SOCIAL: 7.68
EMOTION: 7.55
LANGCOG: 8.26

Data Sources: 2001, Census [Dissemination Area]
EDI Niagara Falls, (ECCDC), 2005.
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.

Elgin has areas throughout the neighbourhood that were reported to have high to somewhat high risk. These were generally situated around Bridge Street, the downtown core, and Stanley Avenue[347]. The children in Elgin scored below the national averages on all five EDI domains[348]. Four out of five were statistically significantly lower; Communication Skills & General Knowledge, Emotional Maturity, Physical Health & Well-being, and Social Competence[349]. More than half of the children in Elgin scored below the national averages in these four domains[350].

Chart 12 (page 53) shows how substantial percentages of children in Elgin had challenges in all five domains[351].

Fine (i.e. holding a pencil) and gross (i.e. walking) motor skills were poor, low self-

4.3 Social Risk Index and EDI Results (continued from page 52)

confidence and difficulty playing cooperatively with peers, poor helping behaviours, and hyperactivity were problems for some children[352]. Some children had difficulty reading and writing simple and complex words/sentences and writing voluntarily[353]. They also had difficulty with memory tasks, understanding peers, and being understood by others[354]. Proficiency in their native language and overall general knowledge were poor[355].


Chart 12. Elgin Children Ready and Not Ready to Learn
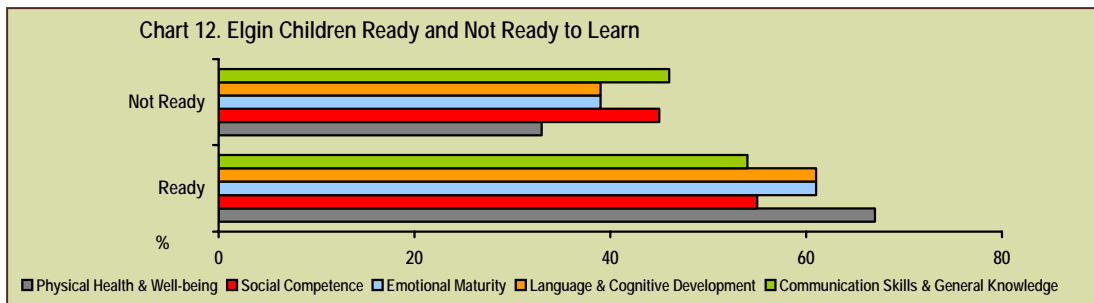
4.4 EDI Vulnerability Results

Children who scored low (below the 10th percentile cut-off relative to their peers) in one or more of the five domains were considered vulnerable[356]. If children scored low on 9 or more of the 16 sub-domains they were considered to have multiple challenges[357]. Children who were identified as vulnerable or who had multiple challenges are likely to have difficulty in school[358]. Cut-offs for multiple challenges were based on teachers' endorsements of the items on the questionnaire[359].

Chart 13. Niagara Falls 2005: Percentage of Vulnerable Children and Children with Multiple Challenges
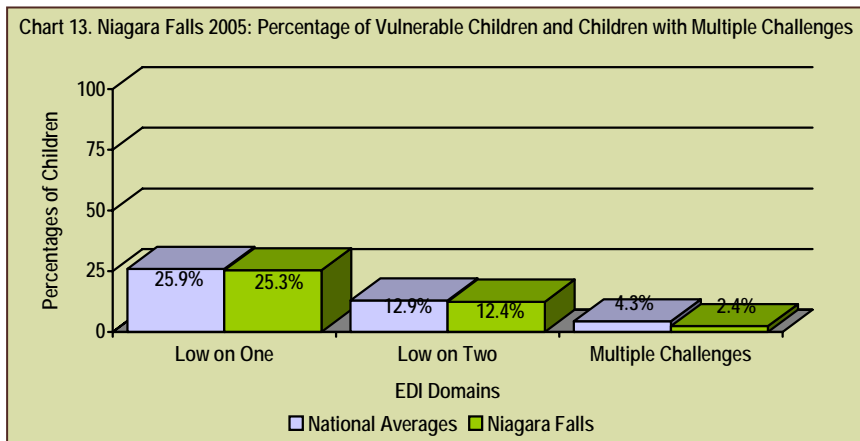
Chart 13 illustrates the percentage of children in Niagara Falls who scored low on one or more domains and with multiple challenges while visually comparing the percentages to the national average percentages[360]. Generally, Niagara Falls had fewer children who were considered vulnerable and fewer children with multiple challenges than the national averages[361].

Although Niagara Falls had fewer children considered vulnerable and with multiple challenges, closer examination of the neighbourhood maps demonstrates how some neighbourhoods had higher percentages of children considered vulnerable and with multiple challenges when compared to other neighbourhoods[362]. Moreover, typically the neighbourhoods with more risk were often associated with higher percentages of children being considered vulnerable[363].

Map 30. Vulnerable Children Low on at Least One or More Domains

Percentage of Vulnerable Children
(Low on at least 1 Domain)
By Neighbourhood, 2005

- 26 % Drummond-Victoria
- 22 % Elgin
- 21 % Stamford
- 17 % Westlane
- 8 % Beaverdams
- 6 % Chippawa - Rural

Data Sources: EDI Niagara Falls, (ECCDC), 2005.,
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.

Number of SK Children in Niagara Falls Sample N = 531.
Number of Children Low on 1 Domain N =134.

Map 30 illustrates the percentage of children who scored low on one or more domains by neighbourhood *in relation to all children who were considered vulnerable in Niagara Falls*[364]. Drummond-Victoria had the highest proportion of children who were considered vulnerable in Niagara Falls, overall. However, closer examination of the data on children who were *considered vulnerable within each neighbourhood* revealed higher percentages of vulnerability within the study areas: 11% in Beaverdams, 16% in Chippawa-Rural, 24% in Stamford, 26% in Westlane, 35% in Drummond-Victoria, and 43% in Elgin.

The data suggests that Elgin, Drummond-Victoria, and Westlane had higher percentages of children considered vulnerable than the national average of 25.9%[365]. In addition, boys were considered vulnerable more often than girls were across most of the neighbourhoods[366]. These neighbourhoods had higher levels of risk than the other neighbourhoods and this has been found to be associated with poor developmental outcomes[367].

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4.4 EDI Vulnerability Results (continued from page 54)

Map 31. Vulnerable Children Low on Two or More Domains

Percentage of Children Vulnerable (Low on 2 or more Domains) By Neighbourhood, 2005

28 % Stamford
26 % Elgin
19 % Drummond - Victoria
17 % Westlane
6 % Beaverdams
5 % Chippawa - Rural

Data Sources: EDI Niagara Falls, (ECCDC), 2005.,
© 2006 - The Regional Municipality of Niagara.
Produced by: PREP Unit, Public Health, 2006.

Number of SK Children in Niagara Falls Sample N = 531.
Number of Children Low on 2 Domains N = 65.

Map 31 illustrates the percentage of children who scored low on two or more domains by neighbourhood, *in relation to all children 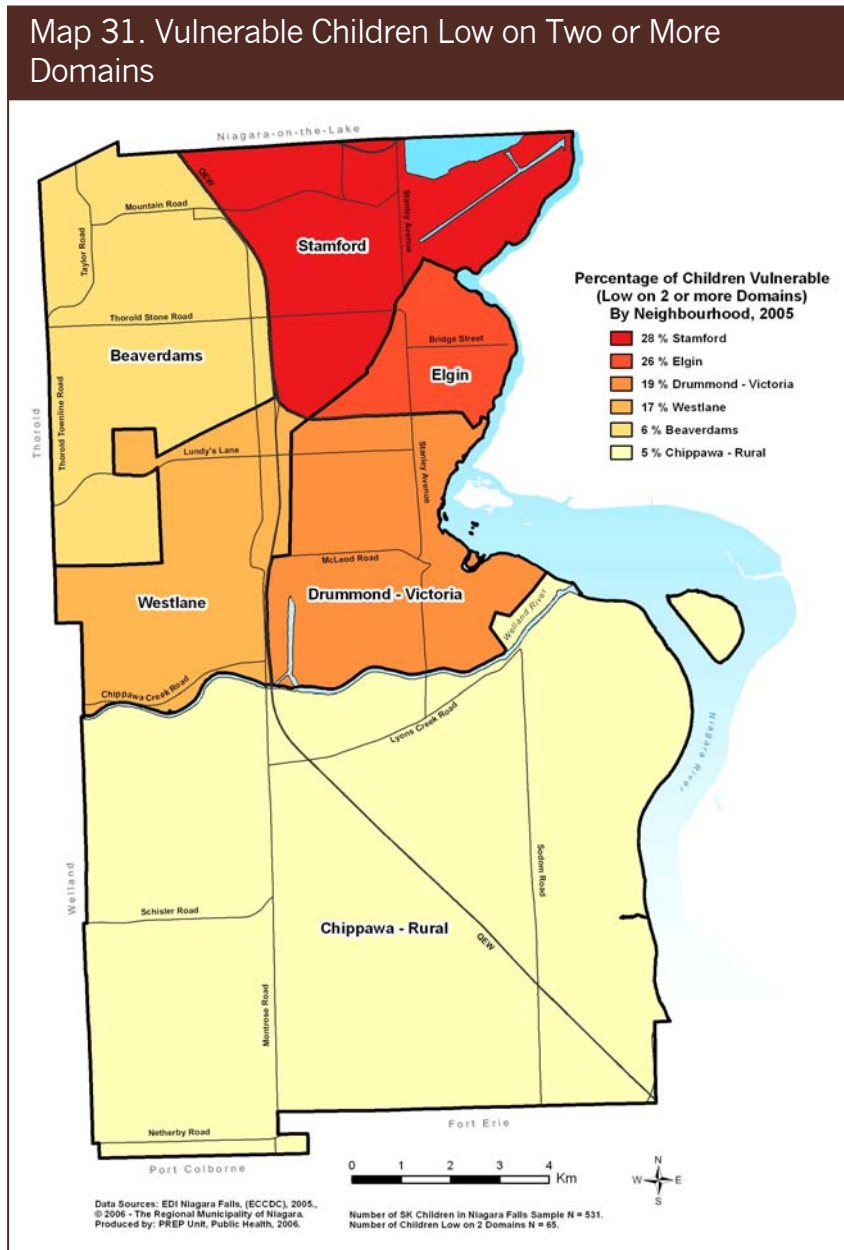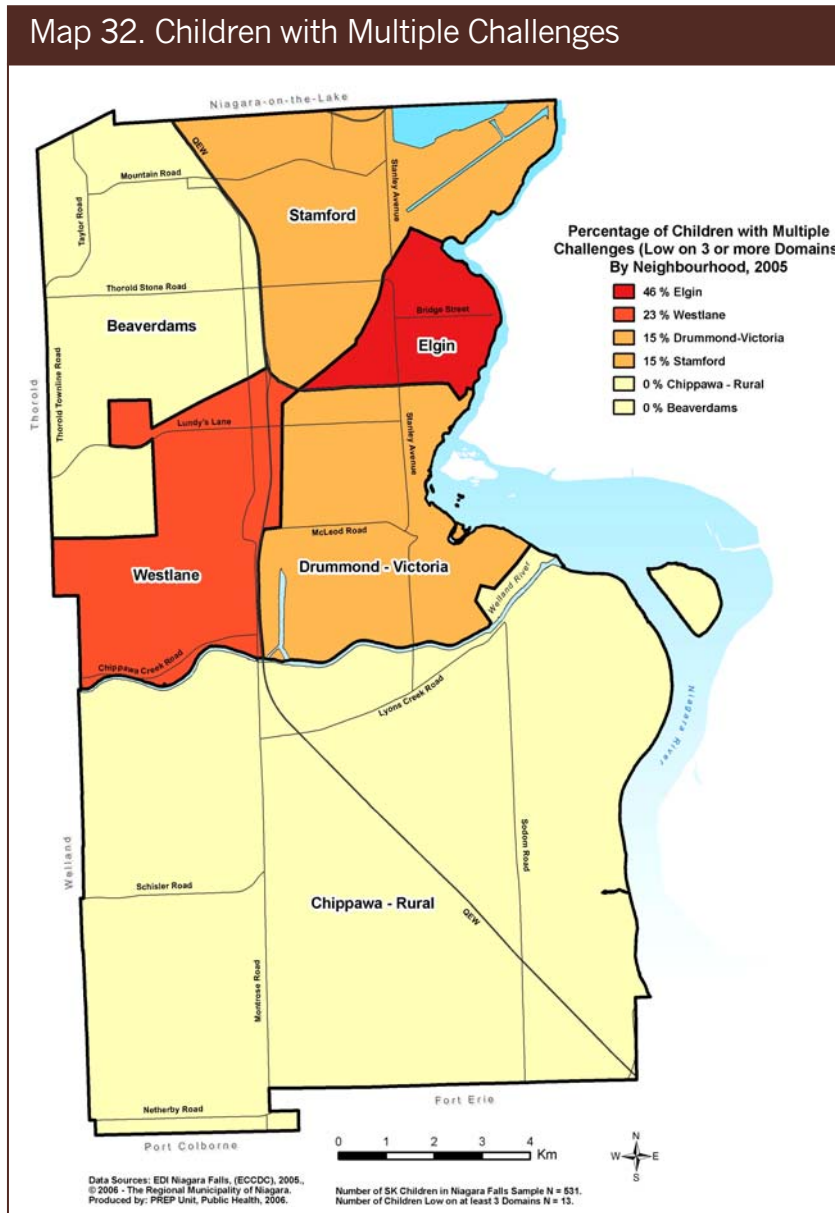who were considered similarly vulnerable in Niagara Falls*[368]. Stamford, Elgin, Drummond-Victoria, and Westlane had the higher proportions of children considered vulnerable in Niagara Falls[369]. However, closer examination of the data reveals lower percentages of children were *considered vulnerable within each neighbourhood*: 4% in Beaverdams, 6% in Chippawa-Rural, 12% in Westlane, 12% in Drummond-Victoria, 15% in Stamford, and 25% in Elgin.

The data suggests that Stamford and Elgin had higher percentages of children considered vulnerable than the national average of 12.9%[370]. In addition, boys scored low in two or more domains more often than girls did in most of the neighbourhoods[371]. Stamford and Elgin also had areas with multiple risk factors which have been found to be associated with poor developmental outcomes[372].

Map 32. Children with Multiple Challenges

Percentage of Children with Multiple Challenges (Low on 3 or more Domains) By Neighbourhood, 2005

- 46 % Elgin
- 23 % Westlane
- 15 % Drummond-Victoria
- 15 % Stamford
- 0 % Chippawa - Rural
- 0 % Beaverdams

Data Sources: EDI Niagara Falls, (ECCDC), 2005., © 2006 - The Regional Municipality of Niagara. Produced by: PREP Unit, Public Health, 2006.

Number of SK Children in Niagara Falls Sample N = 531. Number of Children Low on at least 3 Domains N = 13.

Map 32 illustrates the percentage of children who scored low on three or more domains by neighbourhood, *in relation to all children who were considered vulnerable with multiple challenges in Niagara Falls*[373]. The largest proportions of children who were considered vulnerable with multiple challenges in the city were in the Elgin and Westlane neighbourhoods[374]. However, closer examination of the data reveals lower percentages of children were considered to have *multiple challenges within each neighbourhood:* 0% Beaverdams, 0% Chippawa-Rural, 2% Drummond-Victoria, 2% Stamford, 3% Westlane, and 9% Elgin.

The data suggests that Elgin had higher percentages of children considered vulnerable with multiple challenges than the national average of 4.3%[375]. Elgin also had areas with higher levels of risk that have been found to be associated with poor developmental outcomes[376].

4.5 EDI Results by Participant Characteristics

The Offord Centre for Child Studies did additional analyses based on the characteristics of the Niagara Falls participants[377]. The Offord Centre for Child Studies conducted simple Analyses of Variance tests to compare between groups across the five readiness to learn domains. The level of statistical significance was $p < 0.05$, which provided confidence that the findings were not due to chance and if this investigation were to be conducted again, the same results would be obtained 95 out of 100 times. **Table 5** (below) provides an overview of the results by gender, age, ESL status, attended early intervention, attended part-time preschool, and attended junior kindergarten.

Table 5. EDI Scores and Participants' Characteristics						
Domains	Gender	Age	ESL	Early Intervention	Part-time Preschool	Junior Kindergarten
Physical Health & Well-being	✔	✔	✘	✔	✔	✔
Social Competence	✔	✘	✘	✘	✘	✔
Emotional Maturity	✔	✘	✘	✔	✘	✔
Language & Cognitive Development	✔	✔	✘	✔	✘	✔
Communication Skills & General Knowledge	✔	✔	✔	✔	✔	✔
Note: Statistically Significant = ✔ & Not Statistically Significant = ✘						

Table 5 shows the results from Offord Centre for Child Studies that indicated that participants' characteristics had an effect on EDI Scores[378]. Offord reported that:

- Girls scored statistically significantly higher than boys did. These findings were the same as those across all sites where the EDI has been implemented.
- Children who were born earlier in the year scored higher than those who were born later in the year in all five of the school readiness to learn domains. Differences between the older and younger groups were statistically significant for Physical Health & Well-being, Language & Cognitive Development, and Communication Skills & General Knowledge.
- Children with ESL status scored statistically significantly lower than those without in the Communication Skills & General Knowledge domain. Children with ESL status comprised less than 4% of the sample; therefore, these results should be interpreted cautiously.
- Children who attended early intervention scored lower than those who did not in all five readiness to learn domains. Differences were statistically significant for all domains except Social Competence. Children who had early intervention comprised less than 6% of the population and these findings should also be interpreted cautiously.
- Children who attended part-time preschool scored statistically significantly higher than those who did not in Physical Health & Well-being and Communication Skills & General Knowledge.
- Children who attended junior kindergarten scored statistically significantly higher than those who did not in all five of the readiness to learn domains.

Informing Community Action

Citizens and community leaders have, and can continue to have, a positive impact on children's well-being and the Niagara Falls community, as they continue their efforts in making it fit for all children.

In 2004, the Centre for Research and Education in Human Services (CREHS), in partnership with the UEY Niagara Falls Project Coordinator (Lori Walker), prepared an action plan to be utilized by the Early Years Niagara Research Action Group (EYNRAG) entitled, "Understanding the Early Years (UEY) Niagara Falls Project's ACTION PLAN".

The lessons that were taken from the UEY Niagara Falls Project, as reported in that document, clustered around a single theme:

We can't improve the health of young children, families, and the communities where they live until we take an honest and thorough look at the current situation.

The Niagara Falls and regional community has made great progress on this lesson in many regards. Efforts of particular note include:

- Under the leadership of co-chairs Margaret Andrewes and Dr. Robin Williams, the Niagara Children's Planning Council's ongoing efforts and its approval of a 2008 community report card project proposal (Early Years Niagara Research Advisory Group);
- The Best Start Network's and Niagara Children's Planning Council's continued efforts on the Integrated Community Plan;
- The Regional Municipality of Niagara – Children's Services Department Community Plan (2005-2007);
- The ongoing research efforts and evidence-based planning of both the Niagara Catholic District School Board and the District School Board of Niagara;
- The development of an Early Years Research Inventory and Community Snapshot, under the leadership of the Early Years Niagara Research Advisory Group;
- The Niagara Children's Rights Charter, under the leadership of Pat Heidebrecht, Director of Regional Municipality of Niagara Children's Services Department;
- The Regional Municipality of Niagara – Public Health Department's Healthy Babies, Healthy Communities joint community initiative with Speech and Language Services on the 18 Month Baby Wellness Project;
- Successful funding bid for Literacy services, under the leadership of Jackie Van Lankveld, Manager, Speech and Language Services; and
- Quality Child Care Niagara's continuing activities, under the leadership of Janice Horner, Manager – Children's Services Department, Regional Municipality of Niagara.

It is apparent that the community has made great strides around examining the current conditions of children in Niagara, building a base of knowledge and capacity for evidence-based planning, and successfully securing funding based on community need.

The list that follows outlines the additional activities, to-date, in which the community has responded to knowledge gathered and disseminated through the Understanding the Early Years Niagara Falls Project.

Informing Community Action (continued from page 55)

LOCALLY & REGIONALLY

Early Years Niagara/Early Years Niagara Research Group

- The Transition to School Working Group partnered with UEY Niagara Falls and other community organizations to develop the Off to School Calendar in both English and French (2005, 2006, 2007). 8,500 of these are distributed to all parents registering their children in kindergarten in Niagara each year, within which one month outlines the EDI domains and provides associated tips for parents.

- Partnered with UEY in developing and distributing a Community Snapshot (2005)

- Partnered with UEY in compiling and disseminating an Early Years Research Inventory (2005)

- UEY supports the development of its work plan, terms of reference, and report card project through participation on working groups and contribution to documents and proposals developed

Niagara Children's Planning Council

- Referenced UEY knowledge in their Best Start Integrated Community Plan

Early Childhood Community Development Centre (ECCDC)

- Partnered with UEY to bring expert speakers to the community, thereby raising awareness of the importance of the first six years of life to an individual's overall development

- Utilized the UEY Project and findings for the focus of annual conferences including the *2002 Connecting Research to Practice Conference and 2004 Niagara Summit on Human Development*

- Compiled, published, and distributed lists of emotional and social development support materials available through the ECCDC's Resource Library

- Regularly profiled Project findings in their *Community Update* newsletter and highlight in other communications, as appropriate

- Partnered with UEY to offer a variety of program-related training to child care professionals including Gender-Advantaged Programming, Make & Take for the Great Outdoors, Healthy Habits for Working Woman, Creating Invitations for Learning, and Teaching Social Skills Training

- Partnered with UEY Niagara Falls to provide information and knowledge on findings at various conferences and training/professional development events (i.e. Richard Lavoie Learning Disabilities Conference, DSBN Teacher Conference, Licensed Home-based Child Care Start-up Information session, Early Childhood Education student tours and sessions, etc…)

- Partnered with UEY to offer capacity building sessions for the community that highlighted UEY findings and knowledge about how the information had been, and could be, applied to capacity building efforts to-date (i.e. Capacity Building, Data-driven Planning, and Outcome Measurement)

Regional Municipality of Niagara

- UEY information contributed to the focus of the **Brock Parenting Conference**, an annual event coordinated by the Public Health Department

- Findings related to the importance of social-emotional development supported Public Health Nurses' knowledge and skills regarding parenting and attachment

- UEY findings were presented to the Healthy Babies, Healthy Communities program of the Public Health Department, as well as its management team

- Children's Services Department used research to assist with site planning and selection

- The UEY Niagara Falls project findings and future plans were presented at Regional Municipality of Niagara Recreation Map Project, and UEY hosted two of its early meetings

- UEY Niagara Falls partnered with Children's Services Department and Ontario Early Years Data Analysis Coordinator in developing 2006 Community Inventory Resources Survey

- UEY Niagara Falls partnered with Ontario Early Years Data Analysis Coordinator to revise Niagara Falls boundaries to better reflect results of Neighbourhood Creation Project

- UEY partnered with Public Health Department – PREP Unit to produce Niagara Falls maps

District School Board of Niagara (DSBN)

- Cited UEY results in a proposal to Special Education and Curriculum Services in support of the pilot project ROAD (**Reframing Our Approach to Discipline**) designed to foster social and emotional development in elementary school children

- Partnered with UEY to bring experts to the community to address social-emotional development issues with teachers and parents

- Additionally, the DSBN has used UEY findings to:

- Increase educator awareness regarding the importance of the early years in setting trajectories for learning, health and behaviour

- Provide direction for professional development activities

- Support decision-making concerning services and placement of child care programs within schools

- Support proposals and planning efforts of several schools and a resource planning team (Special Needs)

Niagara Catholic District School Board (NCDSB)

As reported at the UEY Niagara Falls 'Readiness to Learn' Community Forum (February, 2006) by Christine Graham, Program Officer – Early Years to Grade 12:

As a learning community we have used the longitudinal data from the UEY Project to:

- report on the populations of children in different communities;
- monitor population of children over time;
- predict how children will do in elementary school;

Informing Community Action – Locally and Regionally (continued from page 60)

- provide a means of comparison in several crucial areas of child development; and
- assess how well a community is doing in combination with other sources.

The NCDSB uses the research findings from the EDI to better understand the needs of the children in our various communities by measuring their "readiness-to-learn" as they enter grade one.

The NCDSB recognizes that the EDI has the capacity to impact Board, school and community decision-making. The information from the EDI helps with decisions regarding staffing needs, classroom resources, remediation and intervention programs, professional development for school communities and initiatives to improve learning conditions and school target setting:

- Findings from the EDI are used by Senior Administration in the provision of resources and differentiated staffing to those schools that have shown high needs in the components of EDI (ex. **Reading Recovery** Teachers and Educational Assistants)

- EDI findings in the domains of "Social Competence" and "Emotional Maturity" have been used with findings generated from the YCL-CURA research to provide Niagara Catholic District School Board principals a global perspective on system needs within their schools in the above domains. Such information provides principals an opportunity to implement programs such as "Lion's Quest" to teach or reinforce appropriate social skills

- EDI findings on "Physical Health and Well-Being" are used in concert with research findings on Daily Physical Activity (D.P.A.) to improve the learning conditions for students in the Niagara Catholic system

- Physical health and well-being findings will be used in conjunction with QDPA (**Quality Daily Physical Activity**) research data for programming purposes

- EDI gender analysis findings on language & cognitive development and communication skills & general knowledge were used in conjunction with data from the NCDSB Research Department to support a Board focus on boys and literacy

- EDI findings on ESL versus non-ESL students were used in conjunction with data from the Board's Research Department to identify ESL students and literacy as a priority

- Findings from Regional EDI are provided to elementary principals in conjunction with EQAO scores to facilitate "target setting" and "Evidence-Informed Decision Making" (E.I.D.M) for improved student achievement

- EDI findings in the domains of "Social Competence" and "Emotional Maturity" are referenced with elementary principals in conjunction with earlier findings from the Board on "Anti-Bullying Surveys" to select appropriate programs and early intervention strategies for schools

Ontario Early Years Centre (OEYC) Niagara Falls; NCDSB – Lead Agency

- Considered results when planning sites for mobile resources and satellite services
- Stipulated in purchase of service agreements that all satellite programming include social and emotional skill development
- Trained staff to identify social-emotional deficiencies and incorporate social and emotional skill development into program planning

- Purchased social-emotional development resources, for use in the Centre and for loan to parents/community

- Utilized UEY data in a successful Challenge Fund bid to design an interactive readiness for school program called **Count Me In**, for parents/caregivers and children that will build on numeracy awareness and the development of social/emotional skills

- Partnered with UEY Niagara Falls, on several occasions, to host community information forums focused on local results

- Used UEY findings to develop, adjust, and resource programs (e.g. snacks for programs in high need areas) and plan for professional development of staff

- Provided UEY data as evidence for a community need (e.g. the summer "Get Ready for School" program, formerly "School's Cool")

Brock University

- Highlighted the UEY community research model through a variety of presentations to faculty and students of the University Research Department, Special Needs Education, and Child and Youth Studies Department (Graduate Program)

- UEY staff collaborated with a Graduate student to analyze Niagara Regional EDI data

- UEY partnered on a successful research proposal bid to study the Social Determinants of Child Hypertension

- Provided Med Plus student for a UEY Service Learning Project

Niagara College of Applied Arts & Technology

- Provided UEY presentation on local findings to 2nd year Early Childhood Education students

Town of Fort Erie

- Findings were used to support a successful proposal bid for the development of a community health centre

City of Niagara Falls

- Provided materials that utilized UEY data for the Niagara Falls Community Development Coordinator Parks, Recreation, and Culture

Niagara Falls Library

- Partnered with UEY in co-hosting three (3) community action planning meetings

- Purchased more library materials on ADD/ADHD as a result of the Understanding the Early Years research data

- Encouraged and supported HOPE, a support group for parents and caregivers, because of UEY knowledge

- Preschool outreach programs, which are very popular with the community, resulted from applying early years research and funding

Informing Community Action – Locally & Regionally (continued from page 62)

Greater Niagara General Hospital

- Obstetrical unit has partnered with UEY to distribute the following to new moms: mouse pad (with sleeve to insert picture of newborn), UEY brochure and information flyer on early learning and development (info and tips) for new parents

Trinity United Church, Grimsby

- The Social Justice Committee used UEY data to motivate a public letter writing campaign to MPs and MPPs concerning early learning and care cuts
- Featured UEY information and speaker in service celebrating Children's Rights

Niagara Kiwanis Clubs

- Presented UEY findings to Young Children Priority First project Advisory Board, who plan to use UEY findings in their project planning
- Invited to make UEY presentation to Kiwanis Regional Executive

Young Carers Initiative of Niagara

- "Bouncing Back – The Role of Resilience in Strengthening Young Carers, Their Families, & Their Community" Conference presentation

PROVINCIALLY

Ontario Early Years Initiative

- The UEY Coordinator attended provincial meetings of the Early Years Coordinators and consulted on methodology regarding EDI implementation, program inventories, and community mapping
- The OEY Steering Committee engaged the UEY Niagara Falls Project to conduct a region-wide EDI and CMS based on UEY methodology

Ministry of Community, Family and Children's Services

- Reviewed UEY findings when planning for relocation of a critical program/service

Ontario Association of Home Child Care Providers

- Included UEY article in regional Quiet Times newsletter
- Discussed UEY provided briefing on findings at their Board meeting, in order to assist with annual conference planning

Association of Ontario Health Centres (AOHC)

- Invited UEY to community forum dedicated to striking an interim steering committee for the Niagara Falls Community Health Centre pilot project

- UEY findings will be used in planning activities for both the Niagara Falls and Fort Erie Community Health Centre pilots

Halton-Hamilton 2007 Early Years Conference Steering Committee

- Partnered with Ontario Early Years Data Analysis and UEY Coordinators from Hamilton, Milton and Halton to participate in a 2007 Hamilton/Halton Early Years Conference Sub-committee, which is surveying the community on topics of need/interest (including early years research), arranging for a networking event among research projects, and making recommendations to the Steering Committee on workshop topics for Day 2 (skill building theme)

NATIONALLY

Social Development Canada (formerly Human Resources Development Canada)

- Contributed to national data collection, resulting in a series of integrated reports on community research on child development in Canada

- Provided UEY Niagara Falls sample reports, presentations, and work plans to UEY coordinators from various sites throughout the country

University of Guelph

- Psychology student Angela Di Nello used UEY aggregate data for applied GIS (Geographic Information Systems) research: A GIS Approach to Siting an Educational Resource for Vulnerable Children in the city of Niagara Falls (2004) http://www.geography.uoguelph.ca/research/geog4480_w2004/index.htm

Canadian Child Care Federation

- Submitted a Conference Proposal on 'Data-driven Planning' for the 2007 National Conference, which uses UEY Niagara Falls findings and community response examples

5. Conclusion

The Understanding the Early Years Niagara Falls Project will sunset on March 31, 2007 and final action planning, evaluation, and reporting activities are currently underway. All feedback from action planning meetings and consultation with community partners will be incorporated into an updated action plan.

The community can anticipate the following Understanding the Early Years Niagara Falls' reports:

- Niagara Falls Community Study (spring 2007)
- Niagara Falls Updated Community Action Plan (spring 2007)

The integrated website for the UEY Niagara Falls and Niagara Region projects is anticipated to be launched in late March, 2007. Additionally, it is anticipated that reports will also be available through an Ontario Early Years Data Analysis Coordinator's website collaborative project. Additionally, project evaluation activities continue, under the prescribed HRSDC framework, and in partnership with an external consultant.

Fortunately, Human Resources and Social Development Canada has funded another UEY project which has a region-wide focus (present – 2008). This will provide yet another full set of mapped information for the Niagara Falls community (2005/6 EDI, 2006 Community Inventory Resource survey, 2001 Census data) which will assist greatly with efforts towards sustainability.

To obtain any current or anticipated UEY Reports, discuss findings, or request a presentation please contact the Early Childhood Community Development Centre:

eccdc@eccdc.org or 905.646.7311

In conjunction with the knowledge being gathered, shared, and used by others in the Niagara community, and their considerable successes so far, UEY continues its efforts to enable our communities to better understand the needs of young children and families and to determine the best programs and services to meet them.

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Appendix A: Niagara Falls' Community Resource Inventory List

Niagara Falls' Community Resource Inventory List

Child Care Centres and Nursery Schools	Locations
Boys and Girls Club of Niagara (Child Care, Sports and Leisure Programs)	6681 Culp St
Boys and Girls Club of Niagara (Summer Programs, Day Camps 2003)	6681 Culp St
Branscombe Day Care	6271 Glengate St
Cataract Kids Child Care Centre	6624 Culp St
Dr. Fingland Regional Child Care Centre	5027 Drummond Rd
Fallsway Early Learning and Parenting Program	4700 Epworth Cir
Kalar Christian Nursery School & Day Care	5140 Kalar Rd
Kids Kastle Co-op	6136 Lundy's Lane
La Petite Etoile De Niagara Inc.	7374 Wilson Cres
La Petite Etoile (Summer Day Camp)	7374 Wilson Cres
Little Peoples Nursery School Inc.	3855 St. Peter Ave
Little Scholar's Child Care Centre	5645 Morrison St
Mary Ward Day Care Centre	2999 Dorchester Rd
Niagara Community Child Care and School Age Club	8333 Willoughby Dr
Pettit Avenue Nursery School	4519 Pettit Ave
Southminster Nursery School Inc.	6801 Hagar Ave
Stamford Green Day Nursery	3252 Portage Rd
Tots N Tikes Inc.	8055 McLeod Rd
Valleyway Day Care	8055 McLeod Rd
Valleyway Day Care	6071 Valley Way
Valleyway Day Care, St. Ann's Campus	5082 Magdalen St
YMCA Child Care, Cardinal Newman	5580 Cardinal Newman Way
YMCA Child Care, Durdan/Loretto	6855 Kalar Rd
YMCA Child Care, St. Vincent de Paul	3900 Kalar Rd
Faith-based Resources	**Locations**
Bible Baptist Church	5329 Beechwood Rd
Cathedral of St. Luke Church, Christ Catholic Church International	5165 Palmer Ave
First Baptist Church	4519 Pettit Ave
Glengate Alliance Church	6271 Glengate
Grace Gospel Church	5855 Valley Way
Living Waters	5511 Desson Ave
Lundy's Lane United Church	5825 Lowell Ave

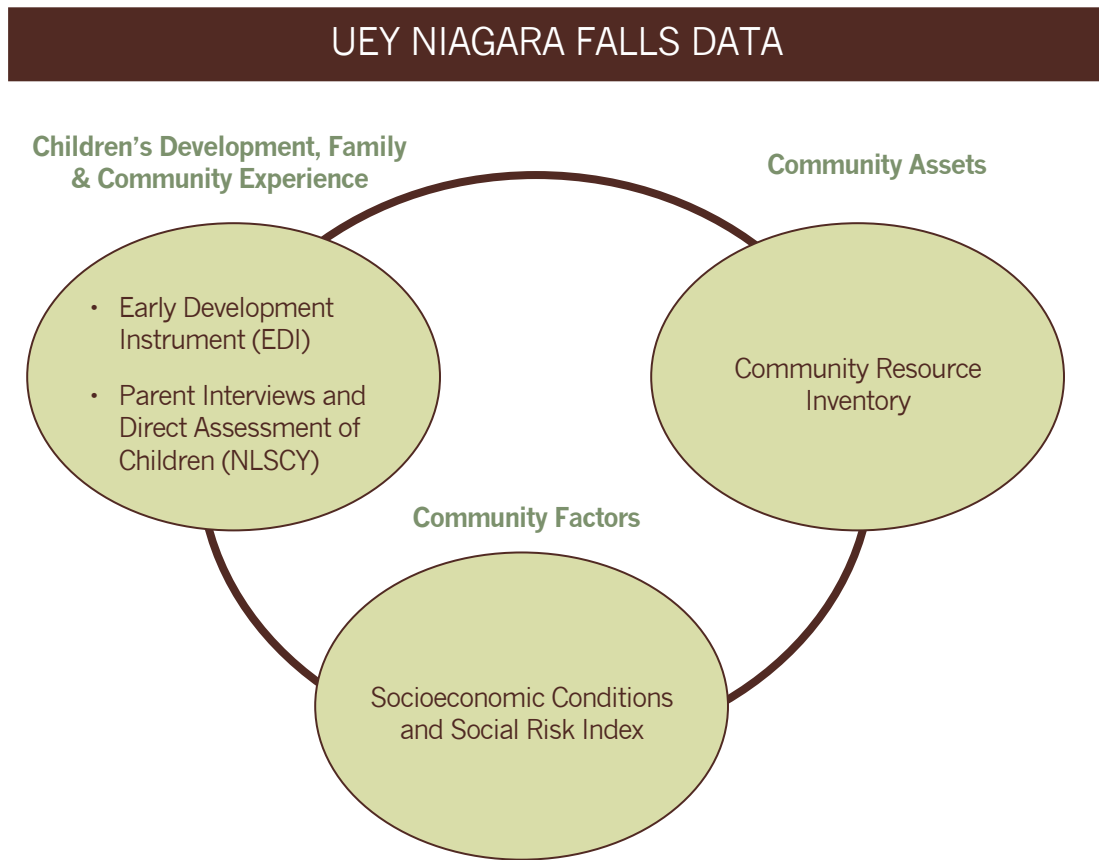| Niagara Falls' Community Resource Inventory List	
Main Street Baptist Church	6151 Main St
Morrison Street United Church	4527 Morrison St
New Apostolic Church	5864 Church's Lane
Niagara International Worship Centre	6846 Frederica St
Our Saviour Lutheran Church, LCC	7081 McLeod Rd
Queensway Free Methodist Church	4397 Dorchester Rd
Redeemer Bible Church	3017 Montrose Rd
River Crossings Community Church	13839 Sodom Rd
Sacred Heart Roman Catholic Church	3882 Main St
Southminster United Church	6801 Hagar Ave
St. Antoine De Padoue Roman Catholic Church	4570 Portage Rd
St. George Serbian Orthodox Church	6085 Montrose Rd
St. John The Evangelist Anglican Church	3428 Portage Rd
St. Martin's Anglican Church	5720 Dorchester Rd
Stamford Presbyterian Church	3121 St. Paul Ave
Education Programs and Multicultural Centre	**Locations**
Boys And Girls Club of Niagara, Ontario Early Years Centre	6681 Culp St
Cataract Kids Child Care Centre	6624 Culp St
Fallsway Early Learning & Parenting Centre	6271 Glengate
Grey Gables School, Niagara Falls Campus	7021 Stanley Ave
Healthy Babies, Healthy Children	5710 Kitchen St
Islamic Society of The Niagara Peninsula	6768 Lyons Creek Rd
Learning From A To Z	6105 Montrose Rd
Multicultural Network Services of Niagara Falls	5485 Victoria Ave
Niagara Falls Art Gallery and Niagara Children's Museum (Day Camps/Summer Programs)	8058 Oakwood Dr
Niagara Falls Parent Child Centre	5971 Dorchester Rd
Ontario Early Years Centre, Sacred Heart Catholic School	8450 Oliver St
Ontario Early Years Centre, Niagara Falls & Mary Ward site	2999 Dorchester Rd
Ontario Early Years Centre, St. Patrick's Catholic School	4653 Victoria Ave
Oxford Learning Centre, Niagara Falls	6837 Thorold Stone Rd
Literacy	**Locations**
Niagara Falls Public Library, Chippawa Branch	3763 Main St
Niagara Falls Public Library, MacBain Community Centre Branch	7150 Montrose Rd
Niagara Falls Public Library, Stamford Centre Branch	3643 Portage Rd
Niagara Falls Public Library, Victoria Avenue Branch	4848 Victoria Ave

Niagara Falls' Community Resource Inventory List

Social Supports	Locations
Community Kitchen (Year-round Soup Kitchen)	4865 St. Lawrence Ave
Family and Children Services (FACS), Niagara Falls	4635 Queen St
Hannah House Maternity Home, A Ministry of Niagara Life Centre	4761 Crylser Ave
Healthy Babies, Healthy Children	5710 Kitchener St
Out of the Cold	4527 Morrison St
Project Share	4129 Stanley Ave
Salvation Army Niagara Orchard Community Church	5720 Dorchester Rd
YWCA Crisis Shelter (Housing, Support, Kids Club Program)	6135 Culp St

Sports and Recreation	Locations
Boys and Girls Club (Programs and Community Pool)	6681 Culp St
Chippawa Willoughby Memorial Arena	9000 Sodom Rd
Niagara Falls Badminton, Tennis and Lawn Bowling Club (Basketball Camp 2003)	5300 Willmott St
Niagara Falls Lightning Gymnastic Club Inc.	7021 Stanley Ave
Niagara Falls Lightning Gymnastic Club (Summer Programs)	7021 Stanley Ave
Niagara Falls Memorial Arena	5145 Centre St
Scouts Canada, Niagara Area	4377 Fourth Ave
Stamford Memorial arena	6570 Frederica St
YMCA of Niagara (Day Camps)	7150 Montrose Rd

Hospital and Wellness Resources	Locations
Child Wellness Clinics (Mary Ward OEYC)	2999 Dorchester Rd
Healthy Babies, Healthy Children	5710 Kitchener St
Niagara Falls Big Brothers Big Sisters Association Inc.	5017 Victoria Ave
Niagara Health System, Greater Niagara General Site, Breastfeeding Clinic	5546 Portage Rd
Niagara Health System, Greater Niagara General Site, Mental Health Services	5546 Portage Rd
Niagara Support Services, Preschool Services	3470 Sinnicks Ave
St. John Ambulance	5734 Glenholme Ave
YMCA of Niagara	7150 Montrose Rd

Appendix B:
UEY Tools and Timelines

UEY Tools and Timeline

UEY NIAGARA FALLS DATA

Children's Development, Family & Community Experience

- Early Development Instrument (EDI)
- Parent Interviews and Direct Assessment of Children (NLSCY)

Community Assets

Community Resource Inventory

Community Factors

Socioeconomic Conditions and Social Risk Index

UEY Timeline

2001	● Early Development Instrument (EDI) · UEY Niagara Falls ● Census – Statistics Canada
2002	● National Longitudinal Study of Children & Youth (NLSCY) · Statistics Canada ● EDI – UEY Niagara Falls/Ontario Early Years Niagara Region
2003	● EDI – UEY Niagara Falls ● Community Resources Inventory Survey – Ontario Early Years Niagara Region/UEY Niagara Falls
2005	● EDI · UEY Niagara Falls/Ontario Early Years Niagara Region ● National Longitudinal Study of Children & Youth (NLSCY) · Statistics Canada
2006	● EDI – UEY Niagara Region ● Community Resources Inventory Survey – UEY Niagara Region
2007	● Parent Interviews and Direct Assessment of Children Survey (PIDACS) – UEY Niagara Region, HRSDC, and Malatest Inc.

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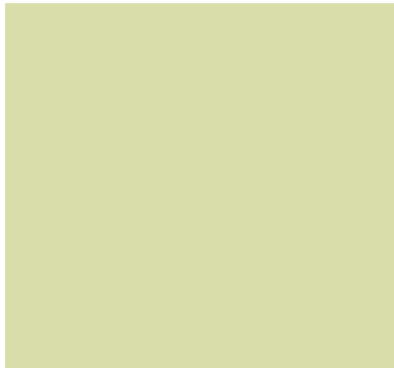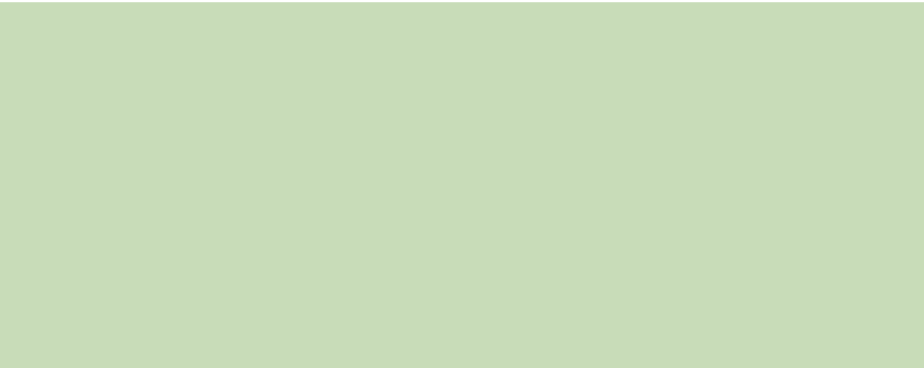[294] Ibid.
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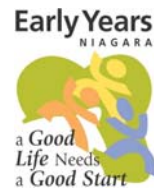[347] Statistics Canada, 2001a
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