UEY - Niagara Region Mapping Study & PIDACS

"The quality and capacity of our future population depends on what we do now to support early child development."

Fraser Mustard, Founder & Chair Emeritus, Council for Early Child Development

GLORY RESSLER & TIFFANY GARTNER

Understanding the Early Years

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August 26, 2008

Region of Niagara

eccdc
early childhood community development centre

Understanding the Early Years

AGENDA

- EDI Overview
- Regional, Municipal & Neighbourhood EDI Results
- Socioeconomic Factors
- Community Resources
- Highlights of Surprising Results
- PIDACS
- Next Steps

What is the Early Development Instrument (EDI)?

- Developed by Dr. Dan Offord and Dr. Magdalena Janus at the Offord Centre for Child Studies, McMaster University

- Profiles early child development outcomes or "readiness to learn"

Purpose of the EDI

- Measure 'readiness to learn in school'
- Report on groups of children
- Monitor groups over time
- Predict elementary school success

The Vision

- Take stock of how well communities are doing for young children
- Need population-based data
- "No data, no problem, no action"

~ Dr. Magdalena Janus

The Goals

- Give communities a set of tangible and interpretable results to:
  - Monitor populations of children over time
  - Plan action
  - Evaluate community initiatives
  - Provide data for policy research and decision-making
 - Make a difference

The Perspective

A large number of children at a small risk for school failure may generate a much greater burden of suffering than a small number of children with a high risk.

(Based on Rose 1992, Offord et al. 1998)

EDI Completion in Canada - 2000 to 2006
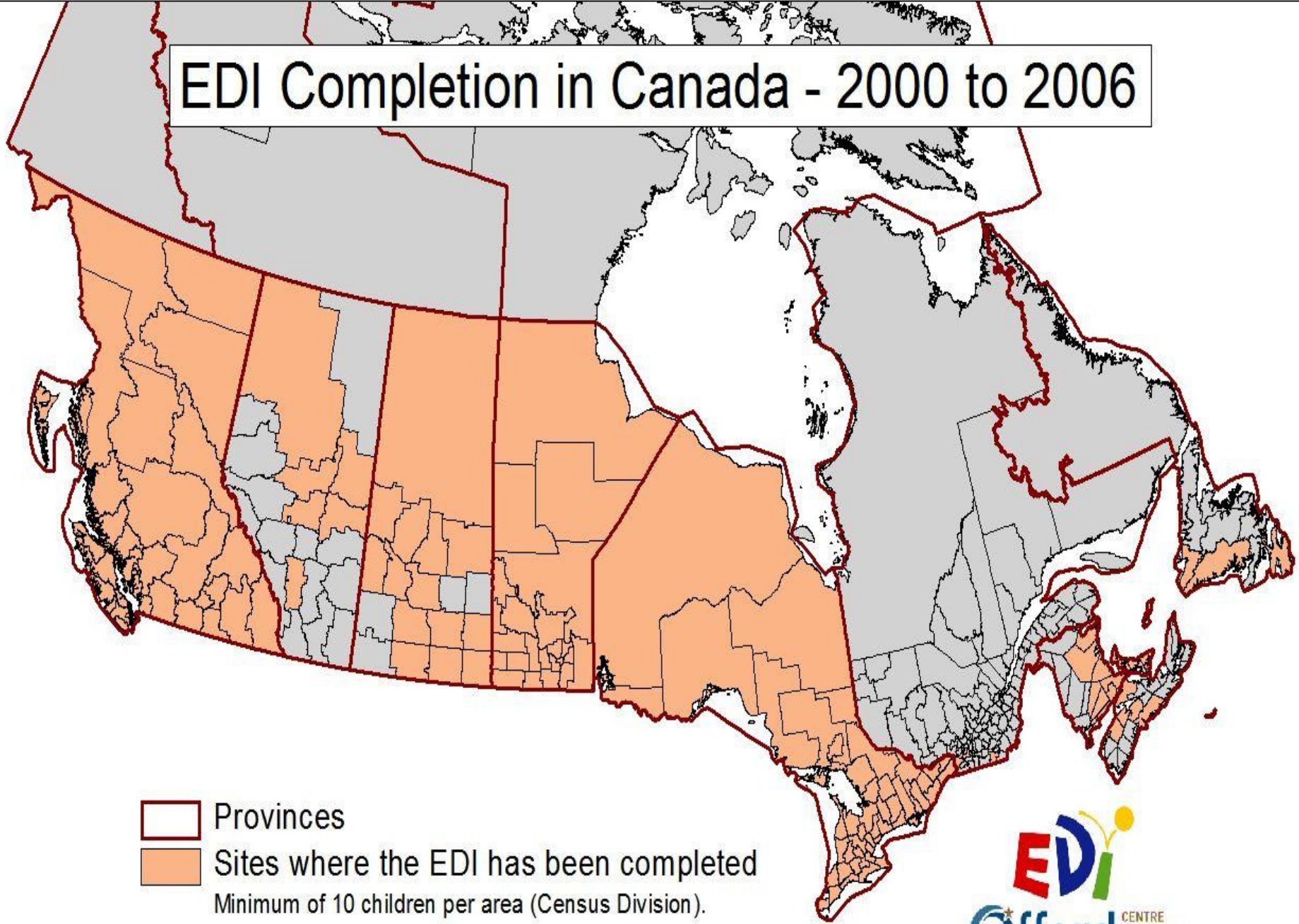
Provinces

Sites where the EDI has been completed
Minimum of 10 children per area (Census Division).

EDI

Offord CENTRE FOR CHILD STUDIES

EDI is:

- a survey
- a mobilisation tool
- a monitoring tool

EDI is not:

- an individual assessment
- a prescription for action
- perfect

What is School Readiness?

- Based on the concept of developmental health

- Context of early experiences

- Reflects developmental outcomes and milestones achieved during the first five years of life

- A *measurable* holistic concept involving several developmental areas

What is School Readiness?

Refers to the child's ability to meet the task demands of school, such as:

- being comfortable exploring and asking questions,
- listening to the teacher,
- playing and working with other children,
- remembering and following rules.

Readiness to Learn Domains

1. Physical Health & Well-being

2. Social Competence

3. Emotional Maturity

4. Language & Cognitive Development

5. Communication Skills & General Knowledge

Regional, Municipal & Neighbourhood Results

Results are organized into:

- 12 Municipalities
- 74 neighbourhoods (created in 2005 by DAC) however 50 amalgamated EDI neighbourhoods reported on (due to required sample sizes)

Niagara Region Municipalities & Neighbourhoods

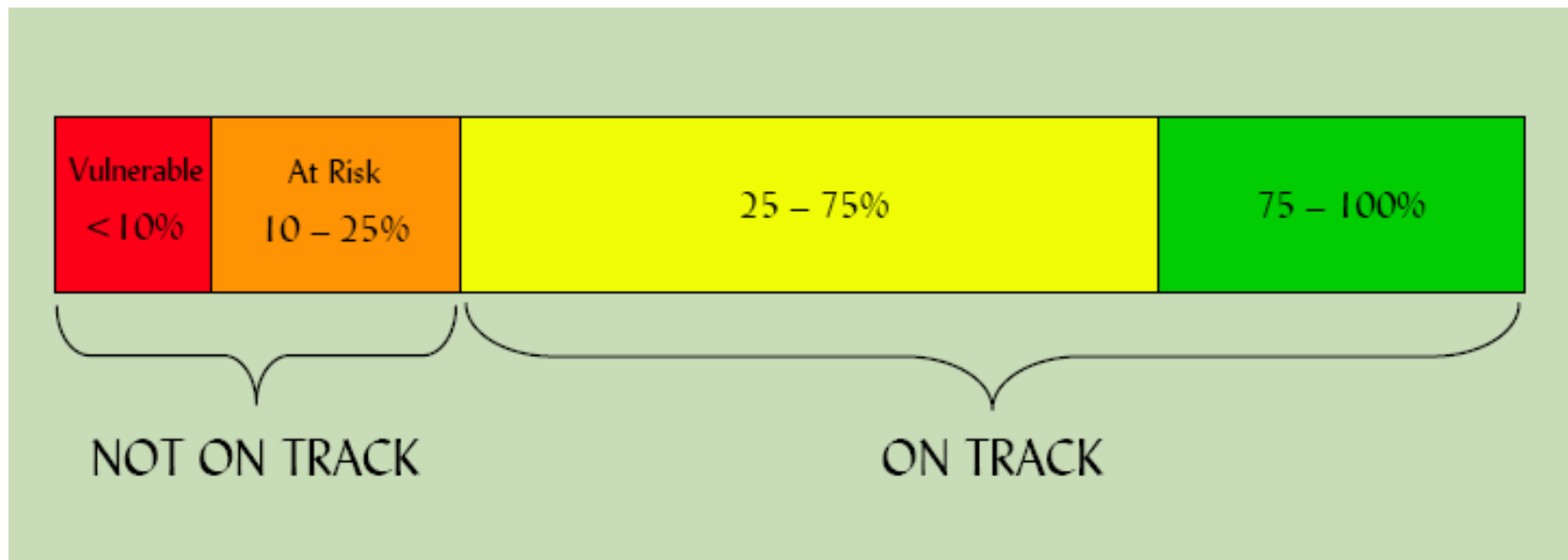Amalgamated Neighbourhoods in Municipalities of Niagara Region
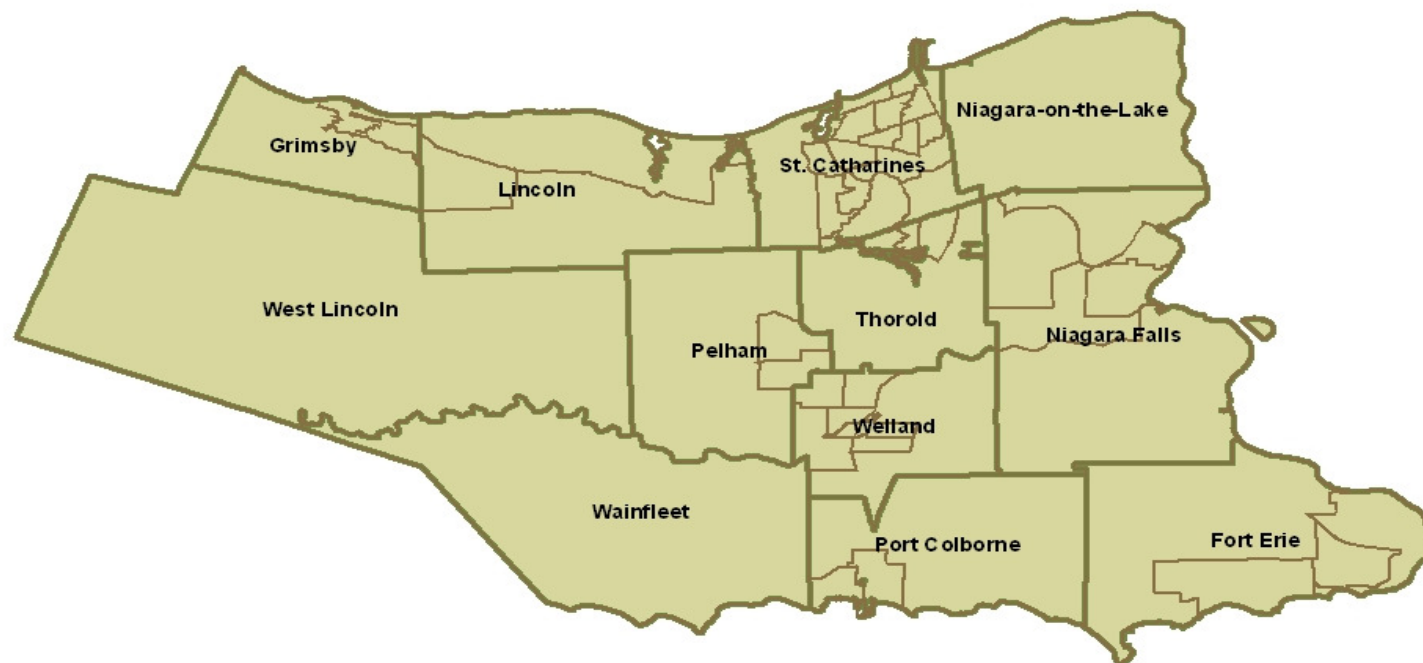
Data Sources:
Base Map Features: Statistics Canada custom tabulation(s) from 2001 Census
Amalgamated Neighourhoods: Ontario Early Years Niagara Region & UEY, 2007
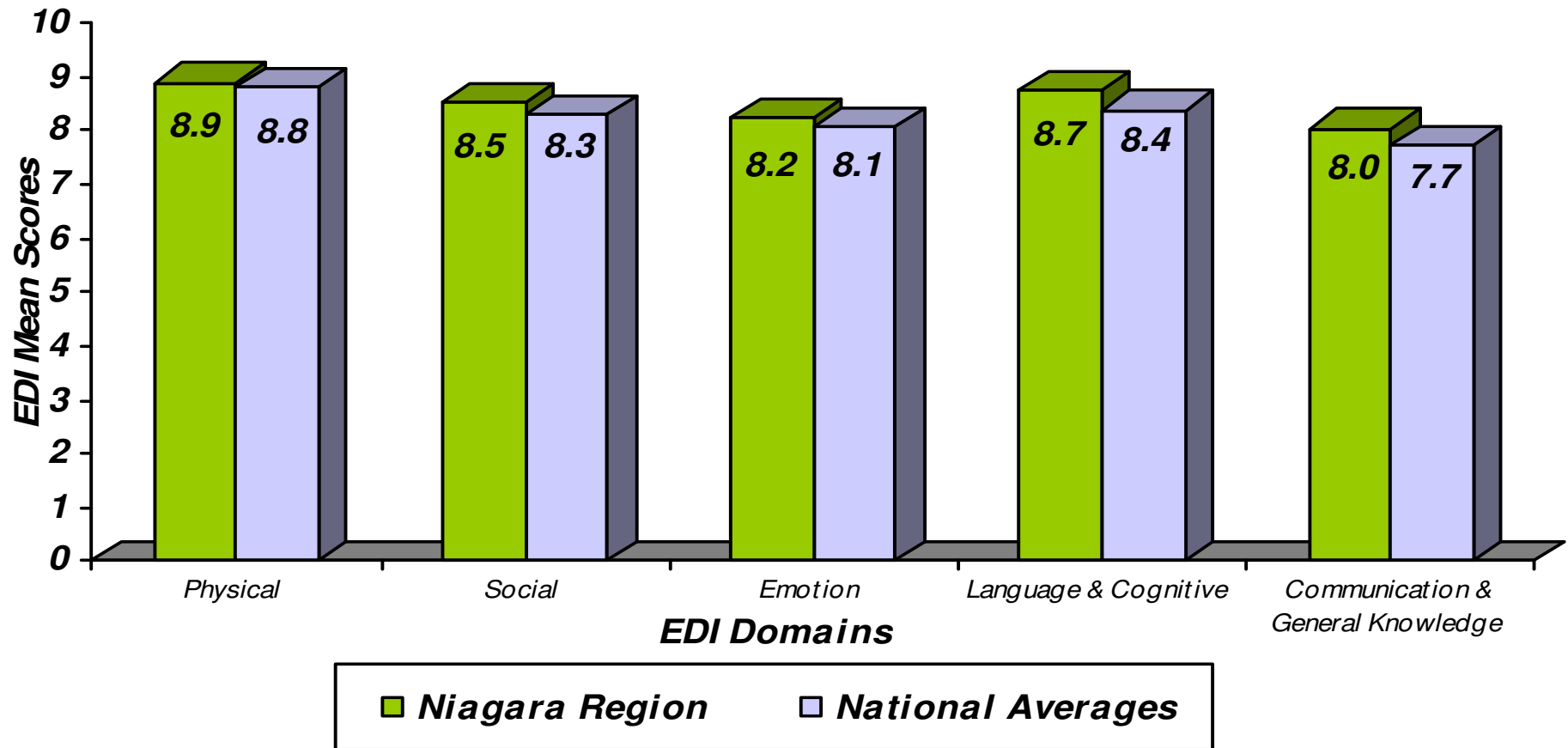Produced by: UEY & Offord, 2007
© 2007 - UEY/ECCDC

How do we look at EDI results?

- Mean Score by Domain
- At Risk
- Vulnerable

- On Track & Not on Track
- Sub-domain analyses

Niagara Region 2006: Comparison of Children's Mean Scores and the National Average

EDI Mean Scores

	Physical	Social	Emotion	Language & Cognitive	Communication & General Knowledge
Niagara Region	8.9	8.5	8.2	8.7	8.0
National Averages	8.8	8.3	8.1	8.4	7.7

EDI Domains

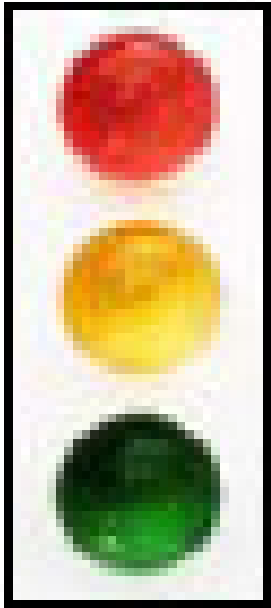■ Niagara Region   □ National Averages

(UEY, 2007)

Regional EDI Results

% of Children On Track and Not On Track for School
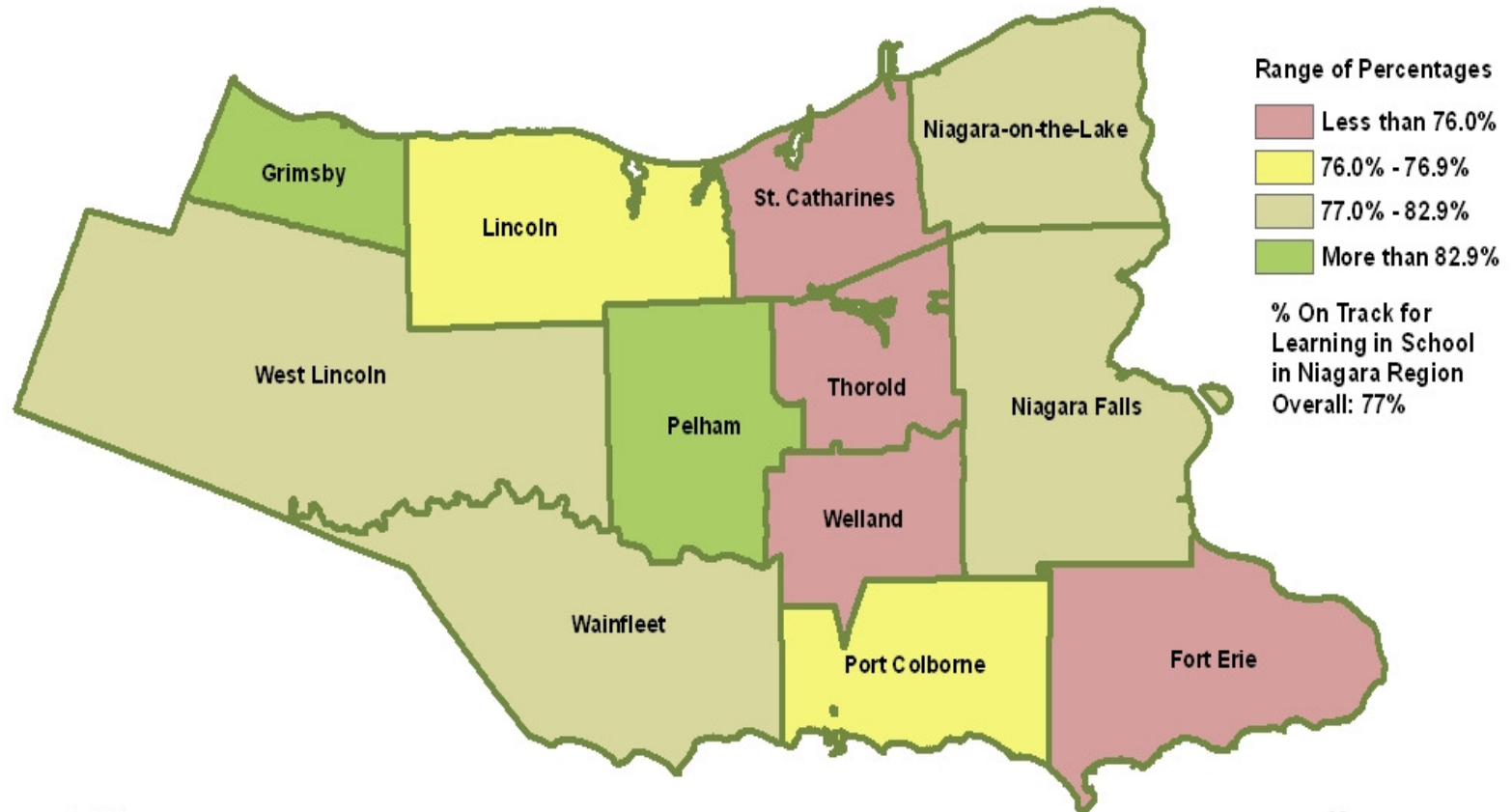

77%

23%
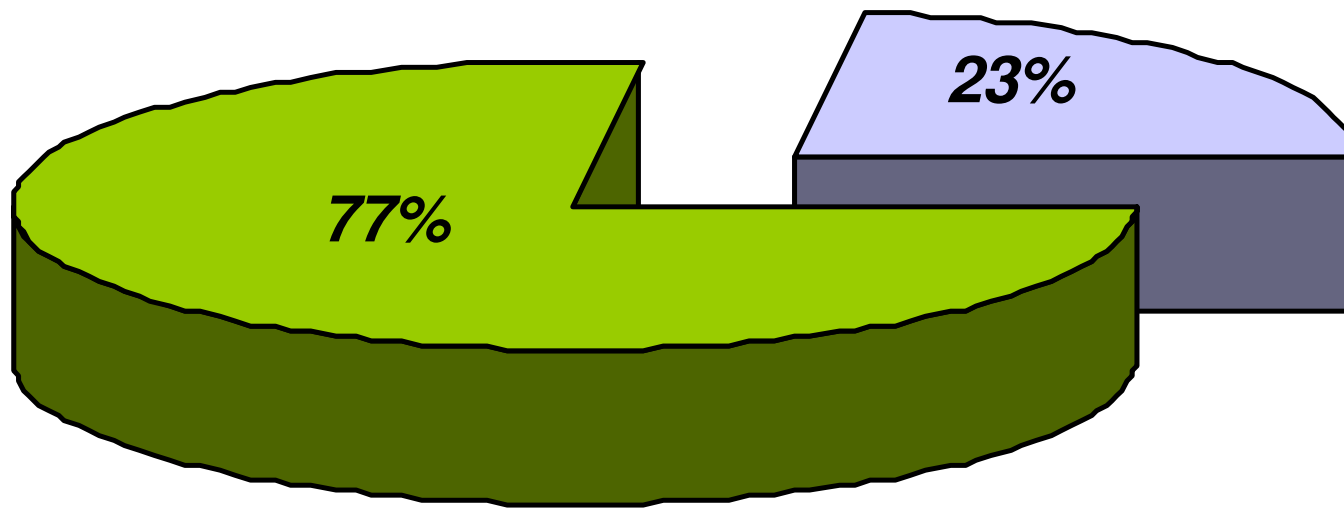
☐ On Track ☐ Not On Track

How to examine mapped knowledge

- Stop at 'red' and seriously examine the situation;

- Proceed with caution when you see 'yellow', carefully factoring in community conditions; and

- Celebrate and replicate beige & green success.

Overall % On Track for Learning in School in Niagara Region

(On Track for Learning in School: Children who scored above the 25th percentile)

Range of Percentages

- Less than 76.0%
- 76.0% - 76.9%
- 77.0% - 82.9%
- More than 82.9%

% On Track for Learning in School in Niagara Region Overall: 77%

Grimsby

Lincoln

Niagara-on-the-Lake

St. Catharines

West Lincoln

Thorold

Niagara Falls
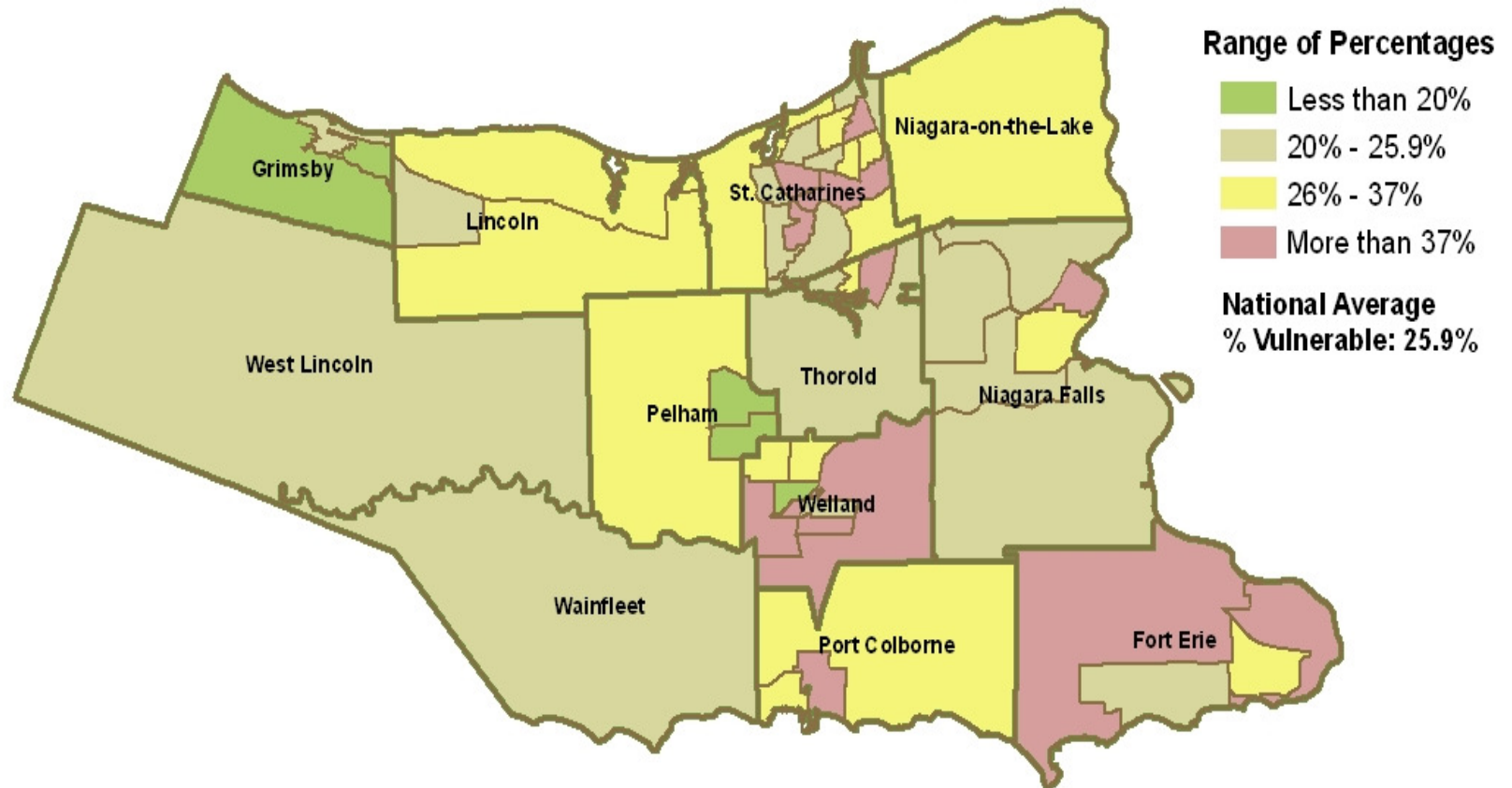
Pelham

Welland

Wainfleet

Port Colborne

Fort Erie

Data Sources
EDI Data: UEY & Offord Centre Centre for Child Studies, 2006
Base Map Features: Statstics Canada custom tabulation(s) from 2001 Census
Produced by: UEY & Offord, 2007
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N

0   7   14   21   28
Kilometers
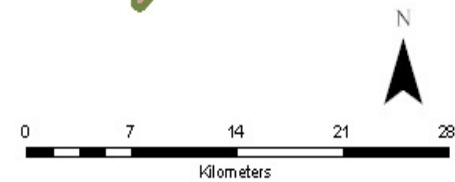
% of Vulnerable Children by Neighbourhoods in Niagara Region

(Vulnerable: Children who scored below the 10th percentile on one or more readiness to learn domains)

Range of Percentages

- Less than 20%
- 20% - 25.9%
- 26% - 37%
- More than 37%

National Average % Vulnerable: 25.9%

Grimsby

Lincoln

Niagara-on-the-Lake

St. Catharines

West Lincoln

Thorold

Niagara Falls

Pelham

Welland

Wainfleet

Port Colborne

Fort Erie

N

0   7   14   21   28
Kilometers
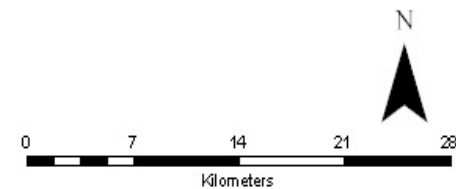
% Vulnerable in Communication Skills & General Knowledge by Neighbourhoods in Niagara Region

(Vulnerable: Children who scored below the 10th percentile)

Range of Percentages

- Less than 9.00%
- 9.01% - 16.00%
- 16.01% - 22.00%
- More than 22.00%

% Vulnerable in
Niagara Region
Overall: 16.00%

Grimsby

Lincoln

West Lincoln

Niagara-on-the-Lake

St. Catharines

Thorold

Niagara Falls

Pelham

Welland

Wainfleet

Port Colborne

Fort Erie

N

| 0 | 7 | 14 | 21 | 28 |

Kilometers

% Vulnerable in Physical Health and Well-being by Neighbourhoods in Niagara Region

(Vulnerable: Children who scored below the 10th percentile)

Range of Percentages

- Less than 7.00%
- 7.01% - 14.00%
- 14.01% - 25.00%
- More than 25.00%

% Vulnerable in
Niagara Region
Overall: 14.00%

Grimsby

Lincoln

Niagara-on-the-Lake

St. Catharines

West Lincoln

Thorold

Pelham

Niagara Falls

Welland

Wainfleet

Port Colborne

Fort Erie

N

| 0 | 7 | 14 | 21 | 28 |

Kilometers
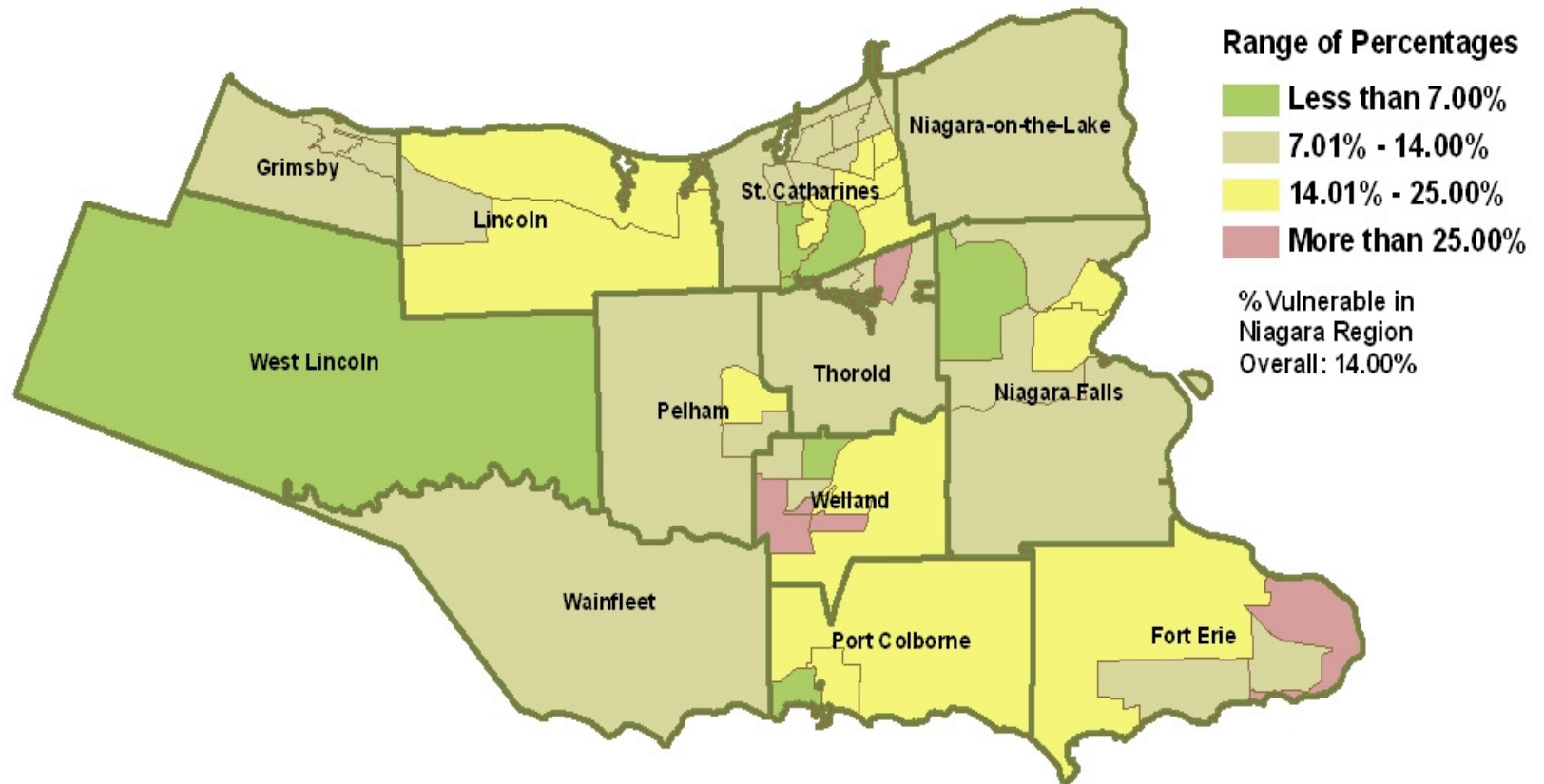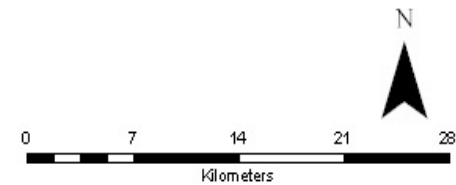
% Vulnerable in Language & Cognitive Development by Neighbourhoods in Niagara Region

(Vulnerable: Children who scored below the 10th percentile)

Range of Percentages

- Less than 6.00%
- 6.01% - 12.00%
- 12.01% - 20.00%
- More than 20.00%

% Vulnerable in
Niagara Region
Overall: 12.00%

N

| 0 | 7 | 14 | 21 | 28 |

Kilometers

% Vulnerable in Emotional Maturity by Neighbourhoods in Niagara Region

(Vulnerable: Children who scored below the 10th percentile)

Range of Percentages

- Less than 5.00%
- 5.01% - 10.00%
- 10.01% - 15.00%
- More than 15.00%

% Vulnerable in
Niagara Region
Overall: 10.00%

Grimsby

Lincoln

Niagara-on-the-Lake

St. Catharines

West Lincoln

Thorold

Niagara Falls

Pelham

Welland

Wainfleet

Port Colborne

Fort Erie

N

0   7   14   21   28
Kilometers
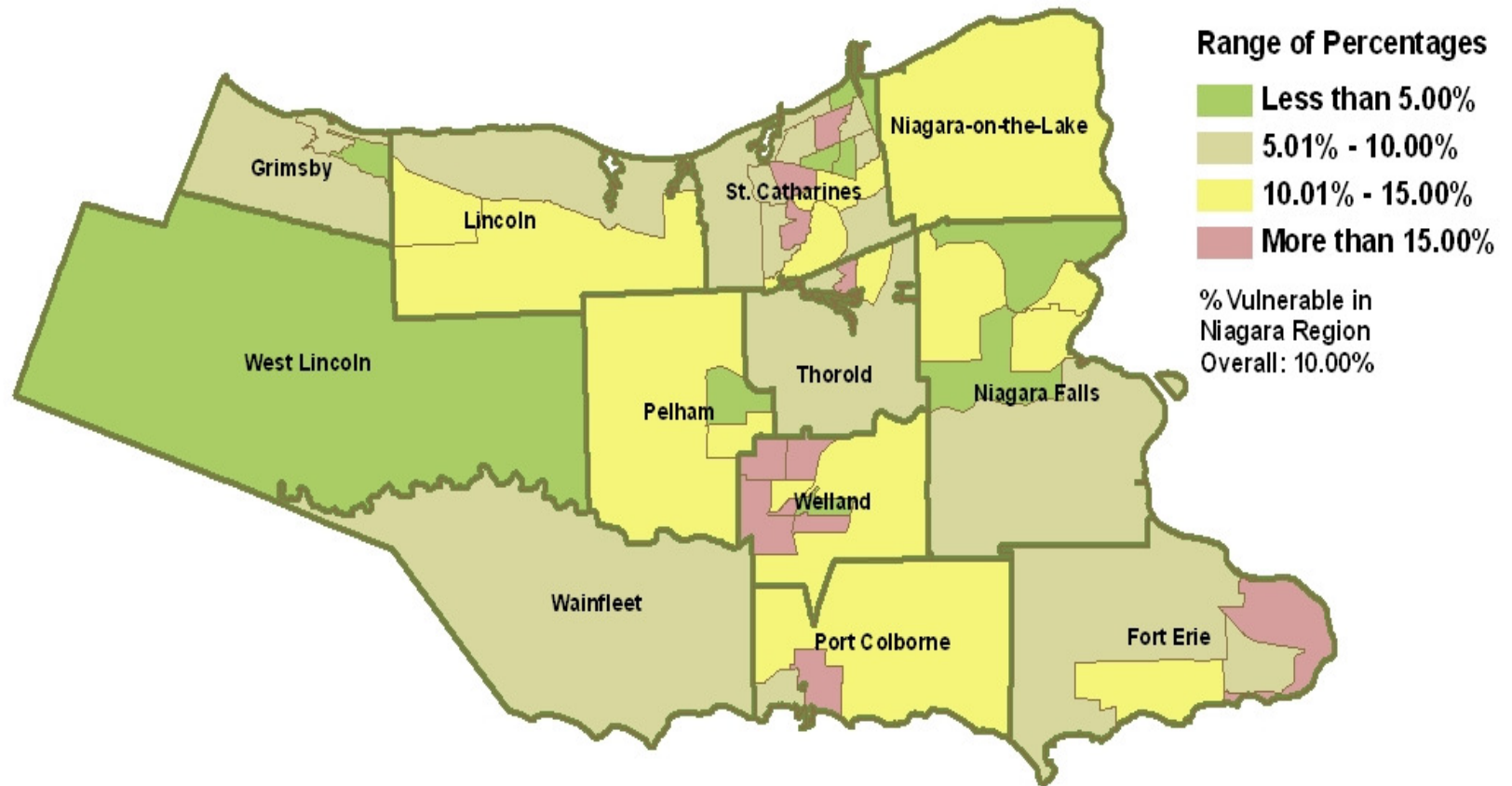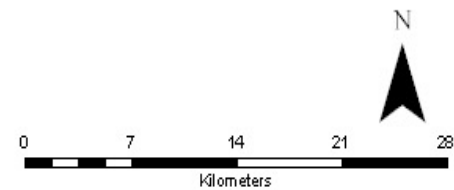
% Vulnerable in Social Competence by Neighbourhoods in Niagara Region

(Vulnerable: Children who scored below the 10th percentile)

Range of Percentages

- Less than 4.00%
- 4.01% - 9.00%
- 9.01% - 14.00%
- More than 14.00%

% Vulnerable in
Niagara Region
Overall: 9.00%

Grimsby

Niagara-on-the-Lake

St. Catharines

Lincoln

West Lincoln

Thorold

Niagara Falls

Pelham

Welland

Wainfleet

Port Colborne

Fort Erie

N

0   7   14   21   28
Kilometers
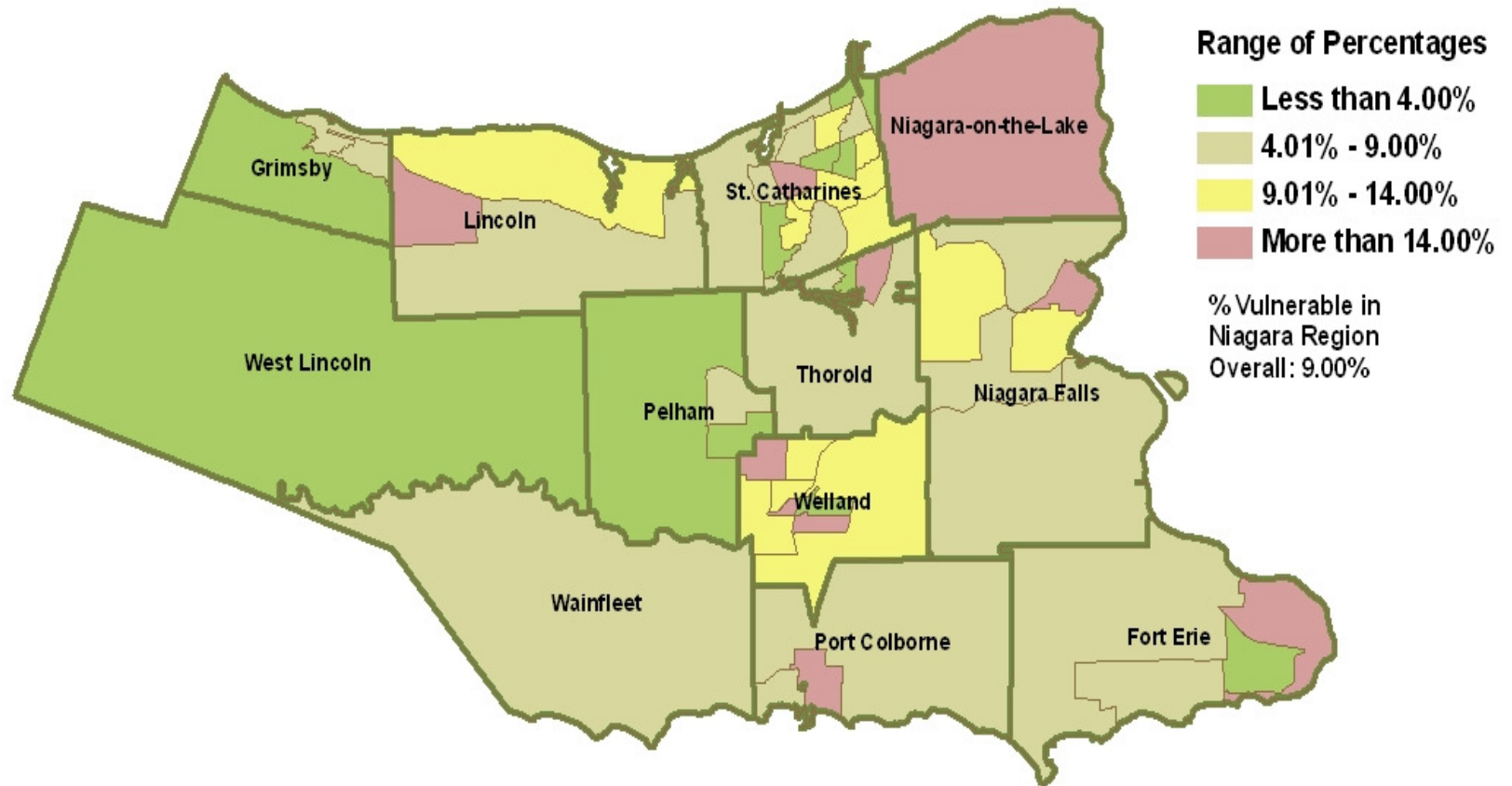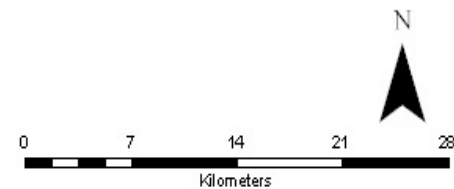
Overall Vulnerability (%)

- Neighbourhoods above regional average across all five domains:
  - Thorold Proper in Thorold
  - Rural Welland/Cooks Mills & Ontario Rd./Dain City in Welland
  - Elgin in Niagara Falls
  - Queenston & Downtown in St. Catharines

Overall Vulnerability (n)

Municipalities of note:

- St. Catharines = 31.9% vulnerable of 910 children
- Niagara Falls = 27.4% of 634 children
- Welland = 33.3% of 318 children
- Lincoln = 30.7% of 260 children
- Fort Erie = 33.9% of 210 children

Neighbourhoods of note:

- Stamford, Drummond/Victoria & Beaverdams in Niagara Falls
- Campden/Tintern & North Beamsville/Vineland/Jordan in Lincoln
- Merritton in St. Catharines

Sub-domain Analyses

- 20 sub-domains which make up 5 domains
- Grimsby – weak on only 1 sub-domain
  – Gross & Fine Motor Skills (PHWB)
- West Lincoln – weak on only 2 sub-domains:
  – Articulates clearly (CSGK)
  – Gross & Fine Motor Skills (PHWB domain)
- Thorold – weak on 17 out of 20 sub-domains
- Niagara-on-the-Lake – weak on 10 out of 20 sub-domains

Demographic Factors Influencing EDI

- Age of child
- Gender
- ESL

% of English as a Second Language (ESL) SK Children in Niagara Region
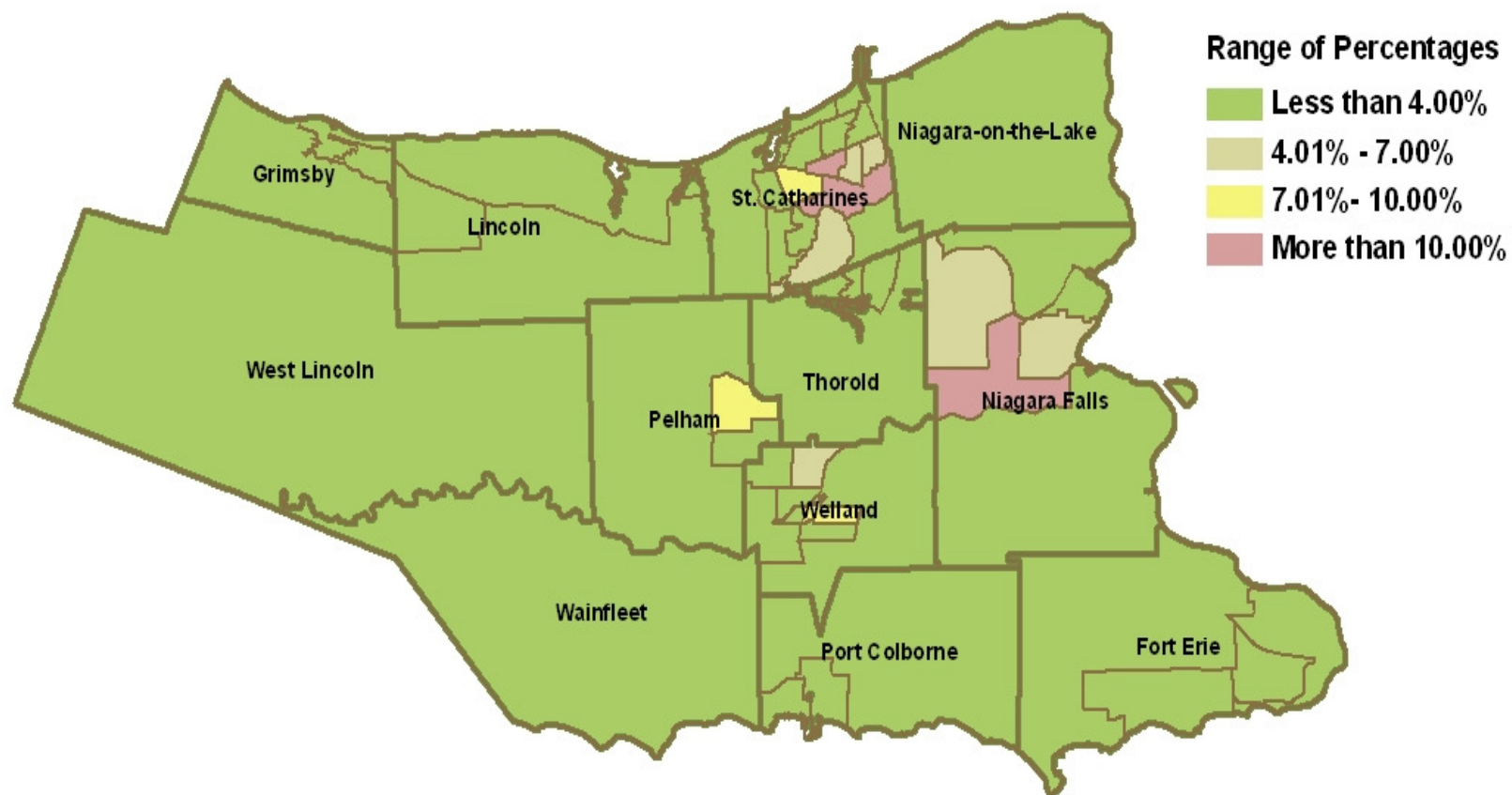
Grimsby

Niagara-on-the-Lake

Lincoln

St. Catharines

West Lincoln

Thorold

Niagara Falls

Pelham

Welland

Wainfleet

Port Colborne

Fort Erie

Range of Percentages

- Less than 4.00%
- 4.01% - 7.00%
- 7.01%- 10.00%
- More than 10.00%

N

| 0 | 7 | 14 | 21 | 28 |

Kilometers
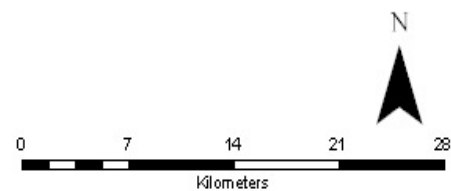
Distribution of Male SK EDI Sample in Niagara Region

Grimsby

Lincoln

Niagara-on-the-Lake

St. Catharines

West Lincoln

Thorold

Niagara Falls

Pelham

Welland

Wainfleet

Port Colborne

Fort Erie

Range of SK Males

Less than 39.00%

39.00% - 49.99%

50.00% - 59.99%

More than 60.00%

Data Sources
EDI Data: UEY & Offord Centre for Child Studies, 2006
Base Map Features: Statistics Canada custom tabulation(s) from 2001 Census
Amalgamated Neighbourhoods: Ontario Early Years Niagara Region & UEY, 2007
Produced by: UEY & Offord, 2007
© 2007 - UEY/ECCDC

N

0   4   8   12   16
Kilometers
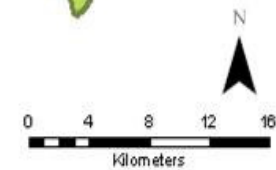
Socioeconomic Factors Influencing EDI

- Income
- Family Structure
- Education

Average Household Income in Niagara Region
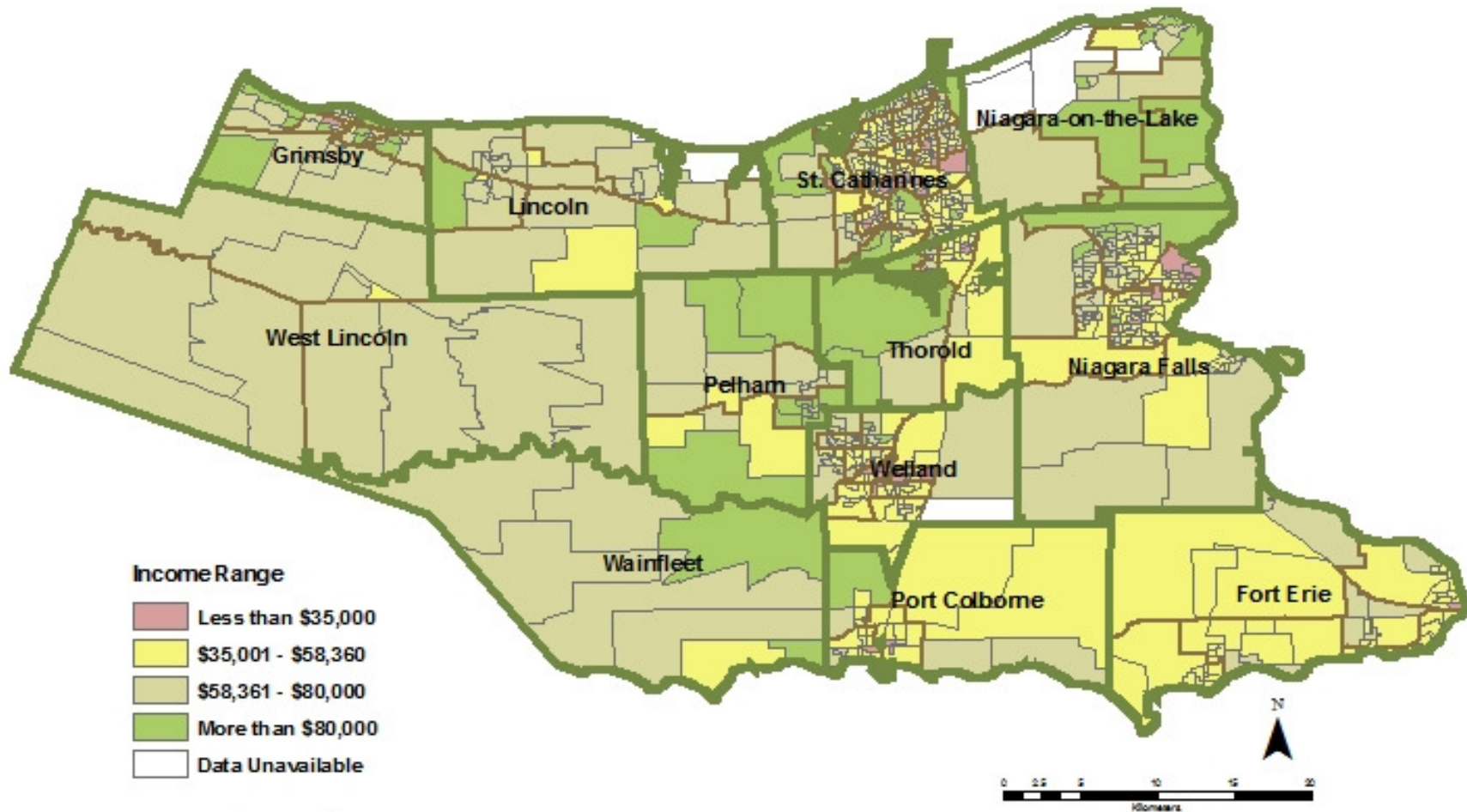
Grimsby

Niagara-on-the-Lake

St. Catharines

Lincoln

West Lincoln

Thorold

Niagara Falls

Pelham

Welland

Wainfleet

Port Colborne

Fort Erie

Income Range

- Less than $35,000
- $35,001 - $58,360
- $58,361 - $80,000
- More than $80,000
- Data Unavailable

National Average: $58,360

N

0   2.5   5   10   15   20
Kilometers

Family Structure in Niagara Region
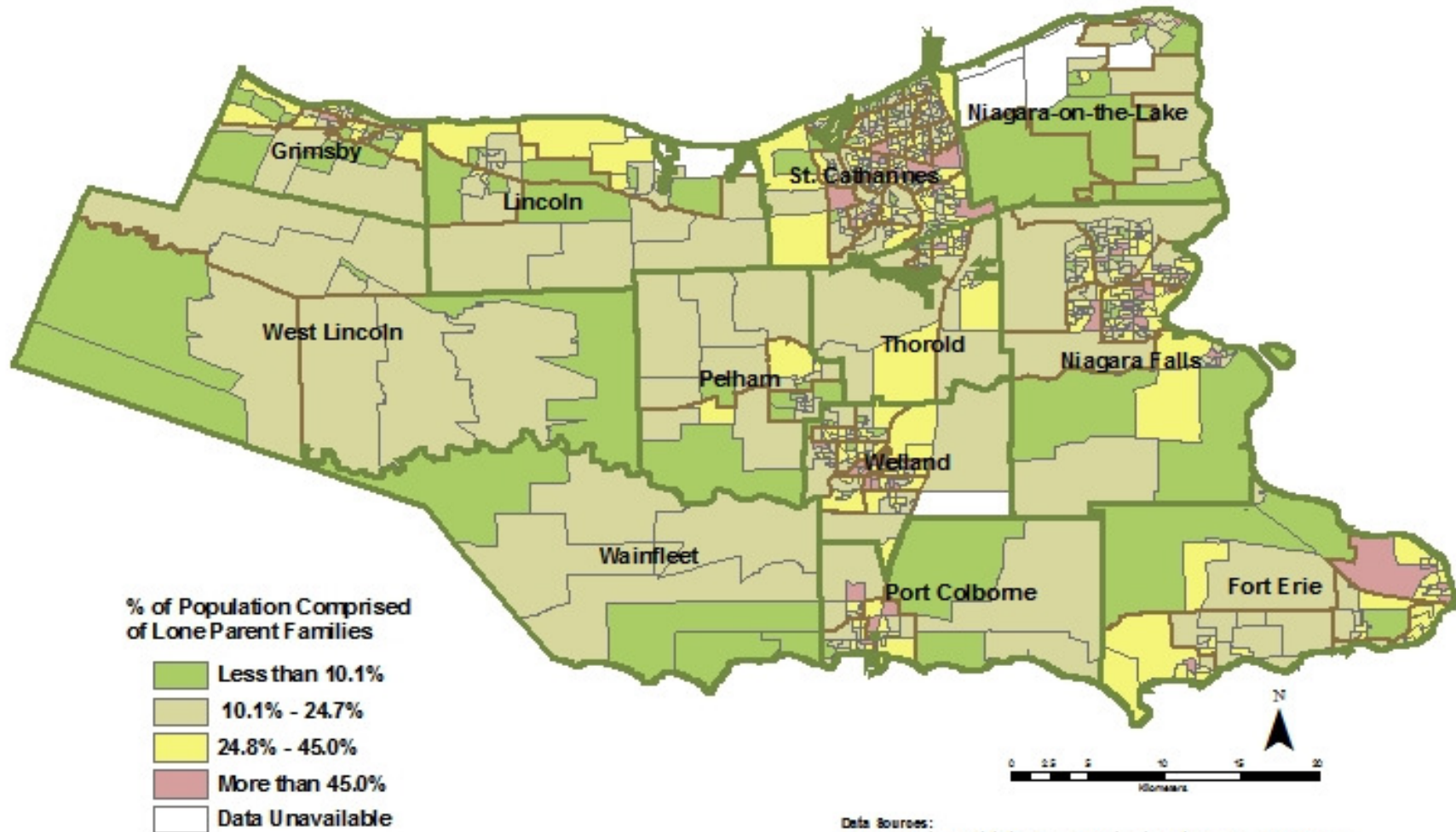
% of Population Comprised of Lone Parent Families

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

National Rate: 24.7%

Grimsby
Niagara-on-the-Lake
Lincoln
St. Catharines
West Lincoln
Thorold
Niagara Falls
Pelham
Welland
Wainfleet
Port Colborne
Fort Erie

N

0   2.5   5   10   15   20
Kilometers

Low-Income Cut-Off (LICO) Percentage Comparisons

Grimsby

Lincoln

St. Catharines

Niagara-on-the-Lake

West Lincoln

Pelham

Thorold

Niagara Falls

Welland

Wainfleet

Port Colborne

Fort Erie

Legend

▢ Neighbourhoods with High Rates on Both Measures

% of Population Below the LICO

▢ Lower than the National Average of 16.2%

▢ Higher than the National Average of 16.2%

Data Sources:
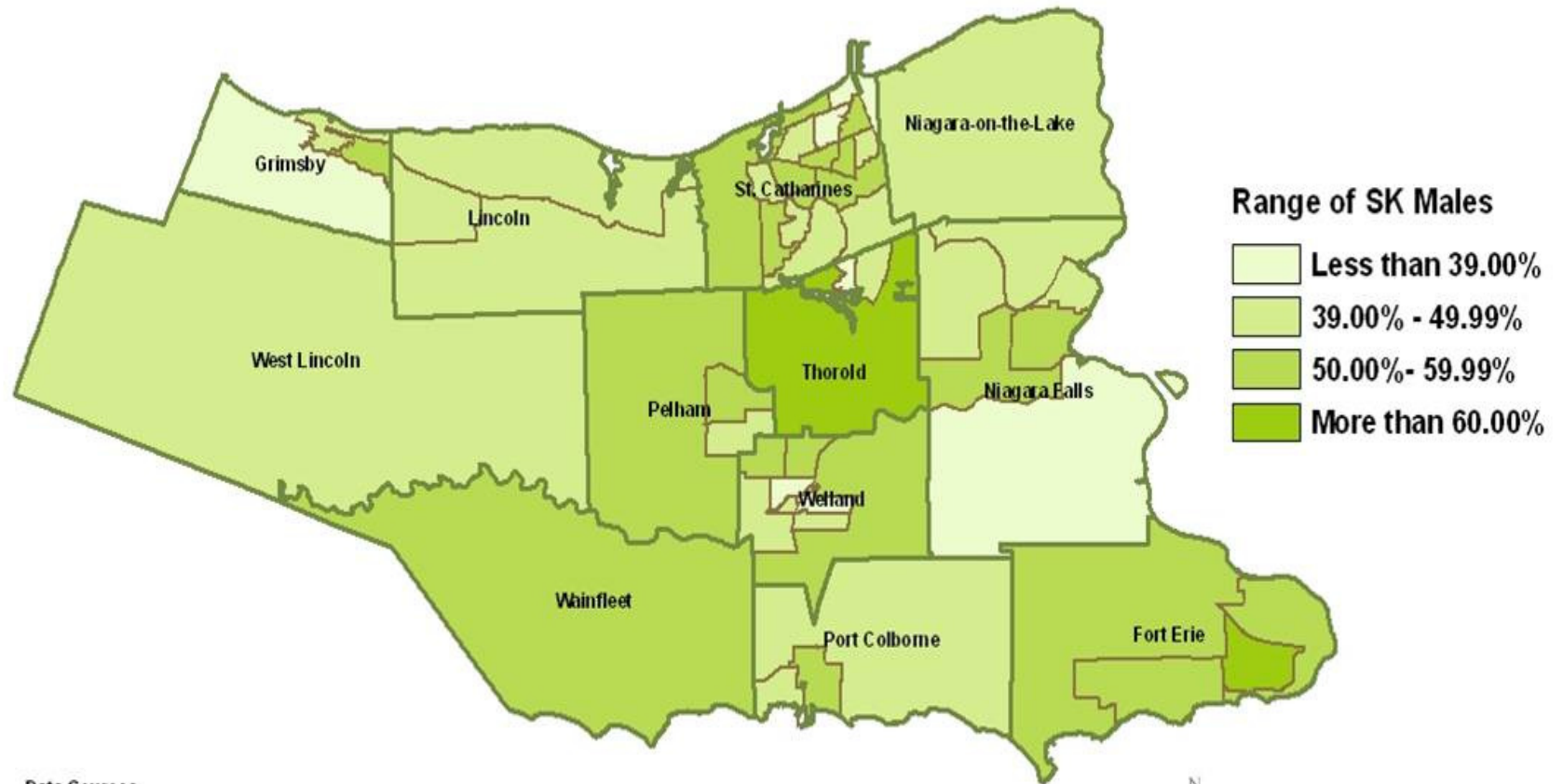Base Map Features: Statistics Canada custom tabulation(s) from 2001 Census
Neighbourhoods: Amalgamated Neighbourhoods. Ontario Early Years Niagara Region and UEY. 2007
Produced by: UEY & Offord. 2008
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EDI Vulnerability

Grimsby

Lincoln

St. Catharines

Niagara-on-the-Lake

West Lincoln

Pelham

Thorold

Niagara Falls

Welland

Wainfleet

Port Colborne

Fort Erie

Legend

▢ Neighbourhoods with High Rates on Both Measures

% of Children Vulnerable on One or More Domain

▢ Lower than the Normative Expectation of 26.8%

▢ Higher than the Normative Expectation of 26.8%

Data Sources:
Base Map Features: Statistics Canada custom tabulation(s) from 2001 Census
Neighbourhoods: Amalgamated Neighbourhoods. Ontario Early Years Niagara Region and UEY. 2007
Produced by: UEY & Offord. 2008
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2007 Community Resources

Type of Resource	# of resources in Niagara Region
Sports & Recreation	420
Special Interest	319
Educational	172
Health & Wellness	141
Arts, Entertainment and Multicultural	105
Social	78

Distribution of Sports and Recreation Resources in the Niagara Region
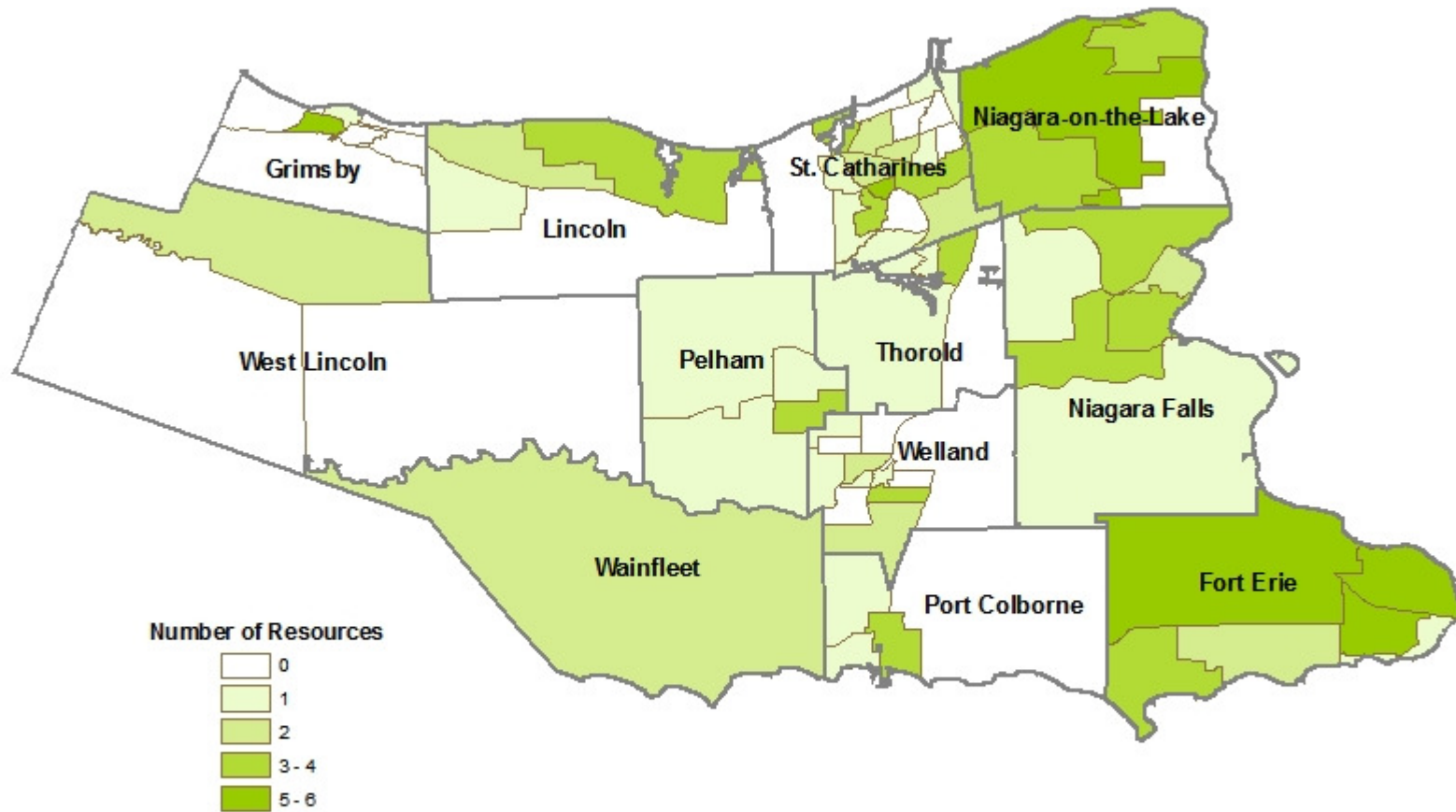
Grimsby

Lincoln

St. Catharines

Niagara-on-the-Lake

West Lincoln

Pelham

Thorold

Niagara Falls

Welland

Wainfleet

Port Colborne

Fort Erie

Number of Resources

- 0
- 1
- 2
- 3 - 4
- 5 - 6

0 2.5 5 10 15 20
Kilometers

N

Distribution of Special Interest Resources in the Niagara Region
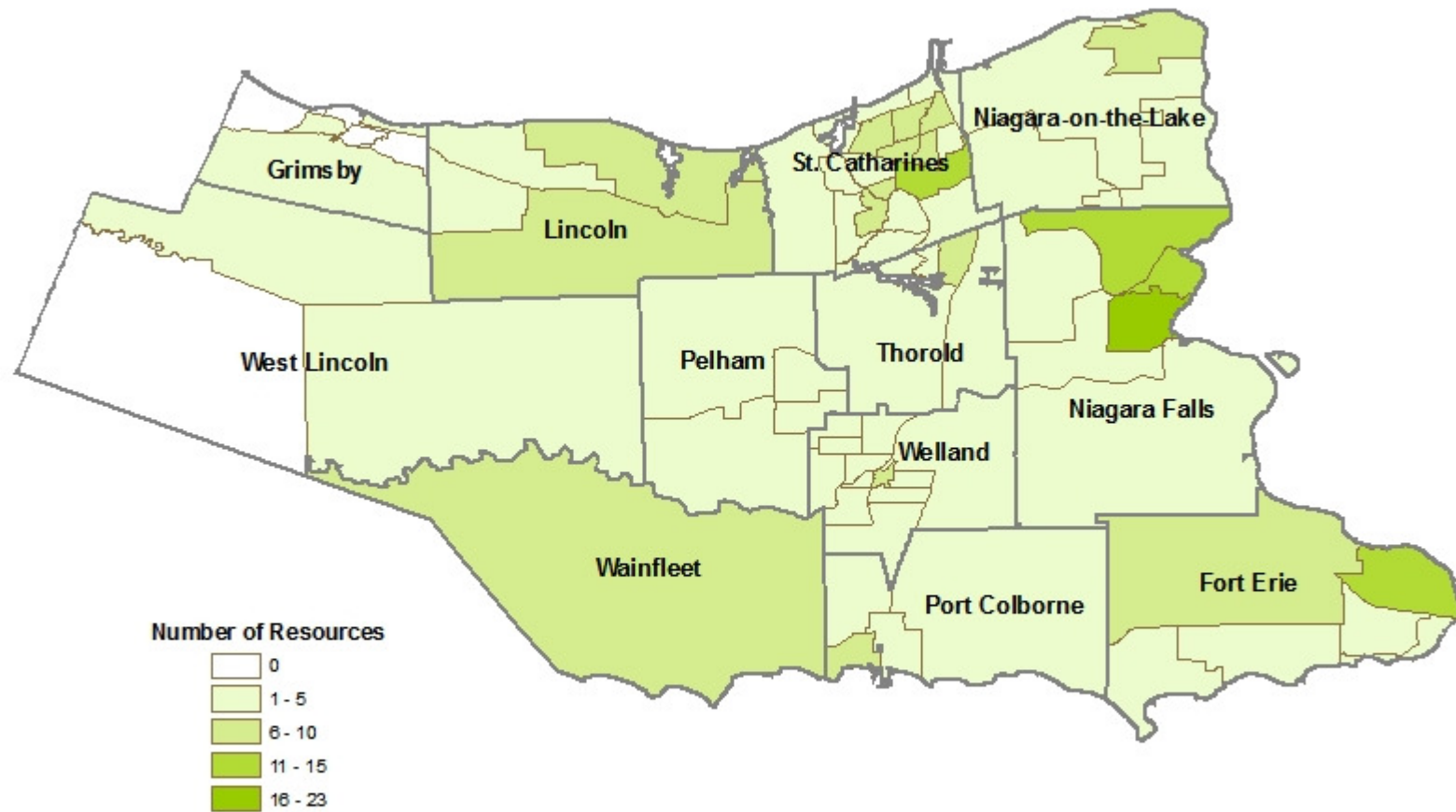
Number of Resources

- 0
- 1 - 5
- 6 - 10
- 11 - 15
- 16 - 23

Grimsby
Lincoln
West Lincoln
St. Catharines
Niagara-on-the-Lake
Pelham
Thorold
Welland
Niagara Falls
Wainfleet
Port Colborne
Fort Erie

0 2.5 5 10 15 20
Kilometers

N

Distribution of Arts, Entertainment and Multicultural Resources in the Niagara Region

Grimsby

Lincoln

Niagara-on-the-Lake

St. Catharines

West Lincoln

Pelham

Thorold

Niagara Falls

Welland

Wainfleet

Port Colborne

Fort Erie

Number of Resources

- 0
- 1
- 2
- 3 - 4
- 5 - 8

0 2.5 5   10   15   20
Kilometers

N
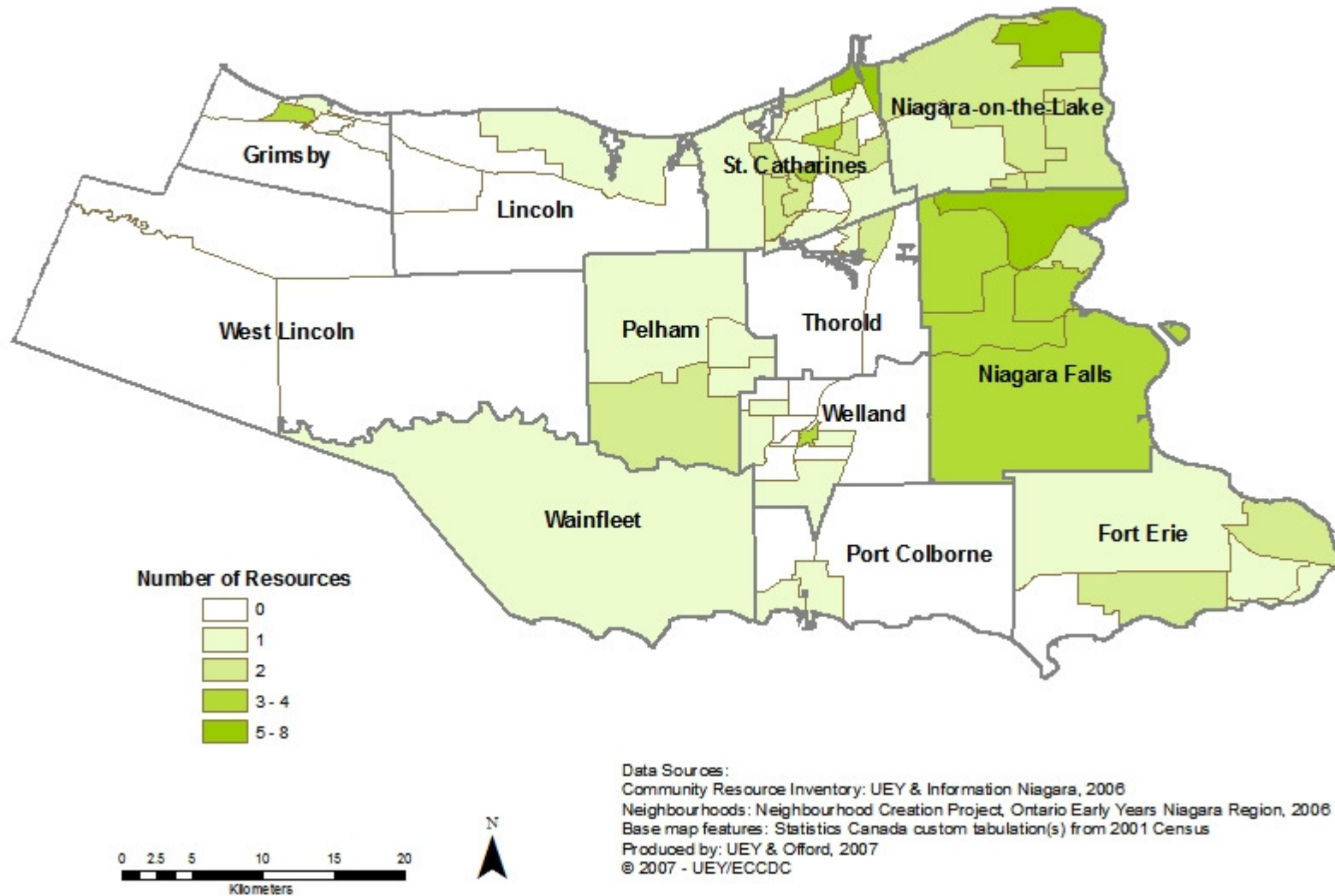
Distribution of Social Resources in the Niagara Region

Grimsby

Lincoln

West Lincoln

Niagara-on-the-Lake

St. Catharines

Pelham

Thorold

Welland

Niagara Falls

Wainfleet

Port Colborne

Fort Erie

Number of Resources

- 0
- 1 - 3
- 4 - 6
- 7 - 9

N

0 2.5 5   10   15   20
Kilometers
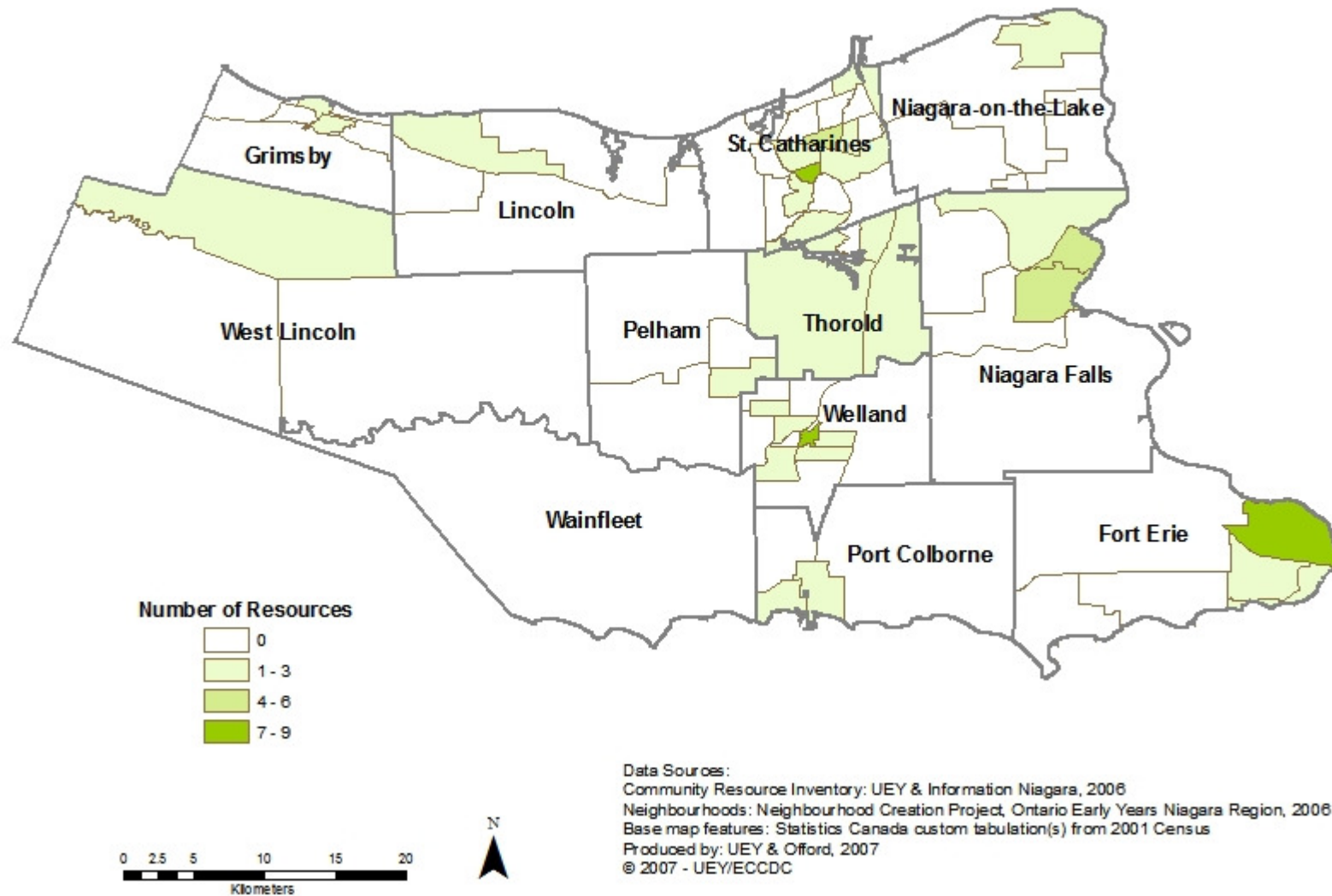
Highlights – Municipal

- Surprising municipal results given SES:
  - NOTL
  - Lincoln
  - Pelham

Highlights - Neighbourhood

- Surprising neighbourhood results given available resources:
  - Thorold Proper neighbourhood
    - 2nd highest vulnerability of all 50 neighbourhoods
    - Low SES
    - Many resources
    - What are barriers to accessing resources?

Highlights – Neighbourhood

- **Sugarloaf neighbourhood in Port Colborne**
  - 1 Very high and 4 low domain vulnerability rates
    - 0% vulnerability in Language & Cognitive Development
    - 24.3% vulnerability in Communication Skills & General Knowledge
- **Fairview Neighbourhood in St. Catharines**
  - 1 Very high and 4 low domain vulnerability rates
    - 0% vulnerability in Social Competence & Emotional Maturity
    - 19.1% in Communication Skills & General Knowledge
  - Why are children in these neighbourhoods only struggling in one domain?
  - Overall children doing quite well despite low SES might be due to availability of and access to resources

Highlights – Neighbourhood Resilience

These 3 neighbourhoods are doing well despite poor SES conditions:

- Ridgeway in Fort Erie
- Westlane in Niagara Falls
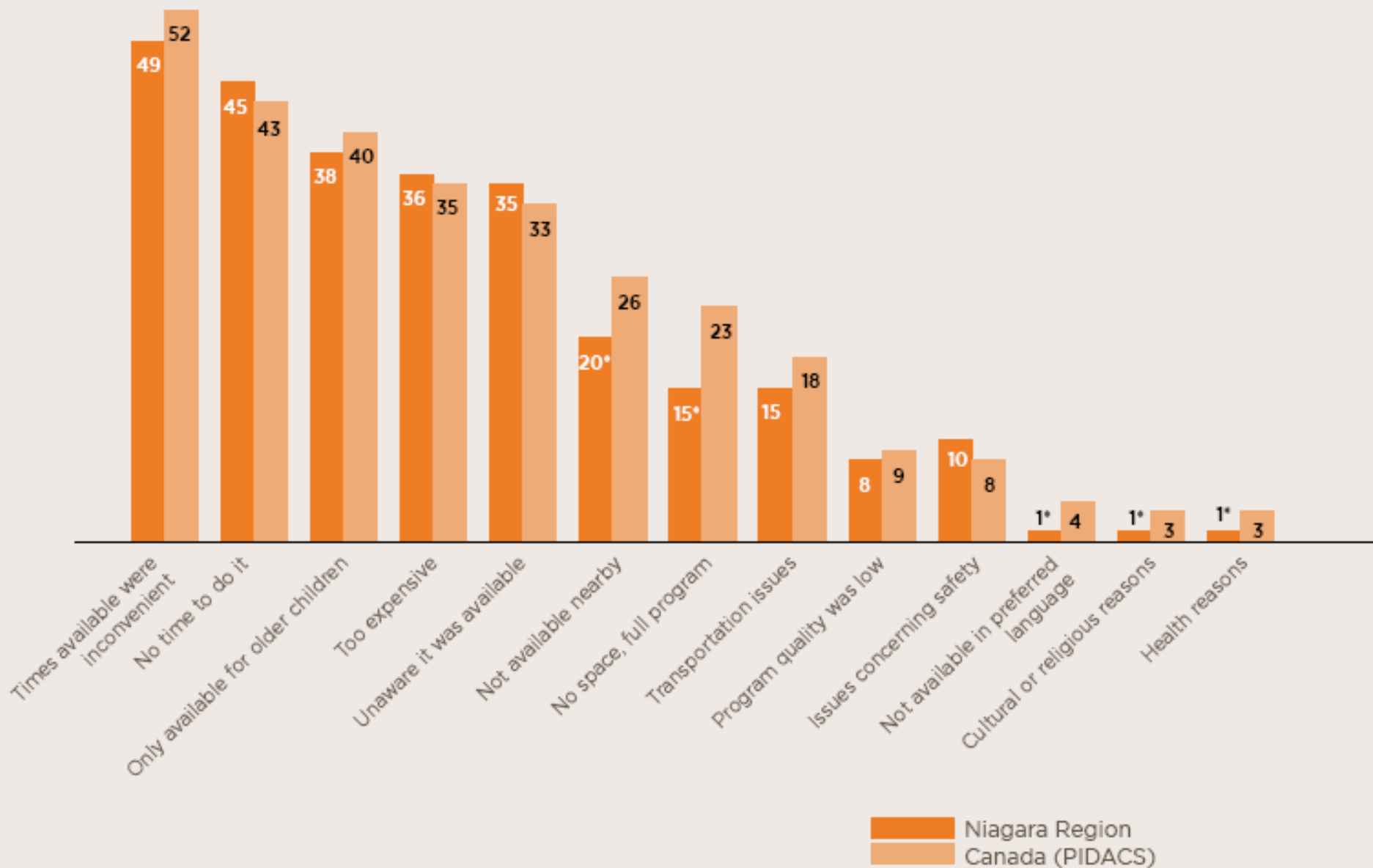- Eastdale & Market Square in Welland

PIDACS

Parent Interviews and Direct Assessment of Children Survey (PIDACS) was conducted in 2007. Your briefs outline regional level results on:

- Community Supports
- Family Background and Functioning
- Developmental Skills Results

FIGURE 3-8. Barriers to the Use of Programs and Resources

Percentage of Families

Barrier	Niagara Region	Canada (PIDACS)
Times available were inconvenient	49	52
No time to do it	45	43
Only available for older children	38	40
Too expensive	36	35
Unaware it was available	35	33
Not available nearby	20*	26
No space, full program	15*	23
Transportation issues	15	18
Program quality was low	8	9
Issues concerning safety	10	8
Not available in preferred language	1*	4
Cultural or religious reasons	1*	3
Health reasons	1*	3

Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07.

FIGURE 3-3. Children's Participation in Sports and Other Activities
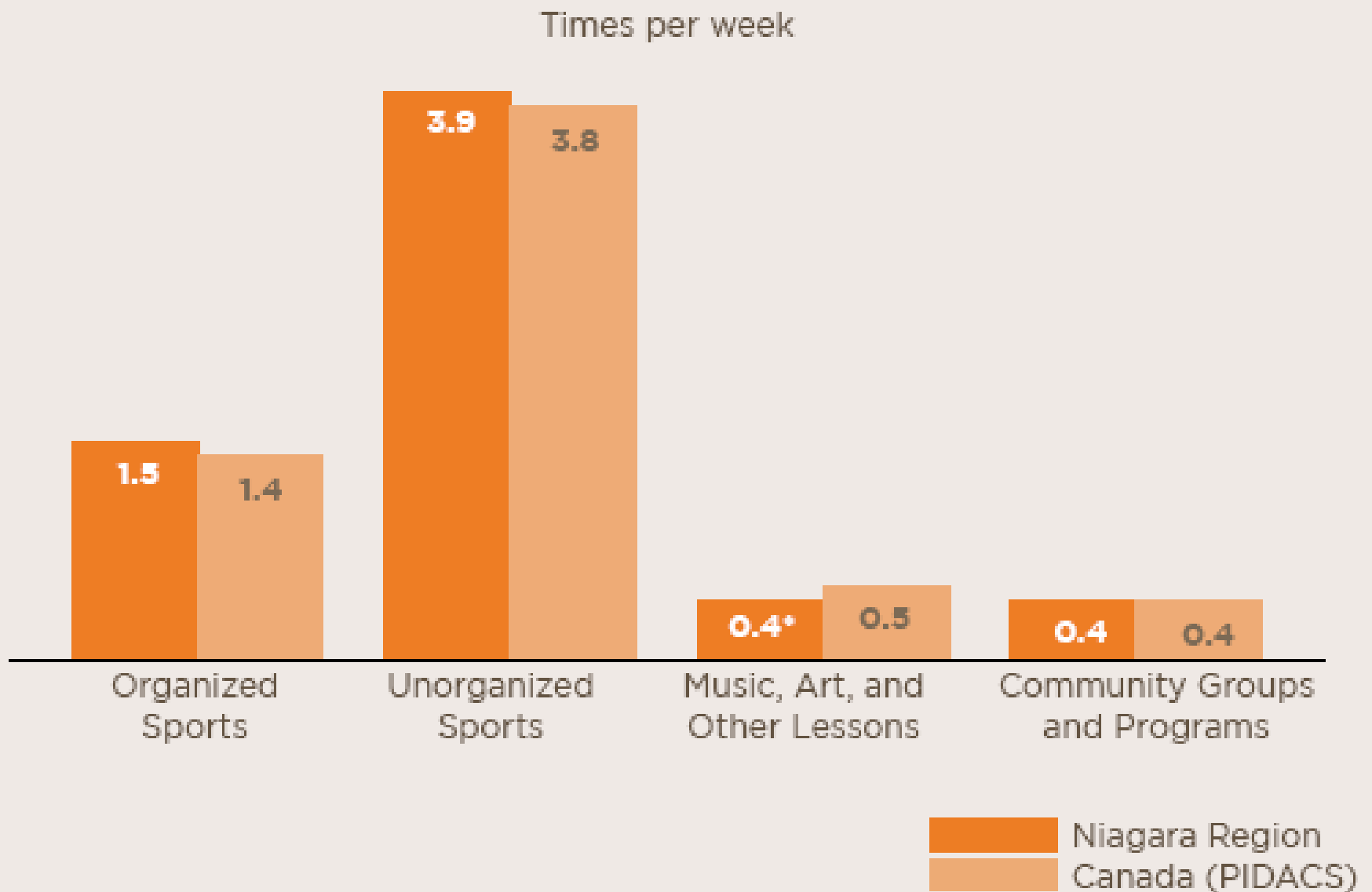
Times per week

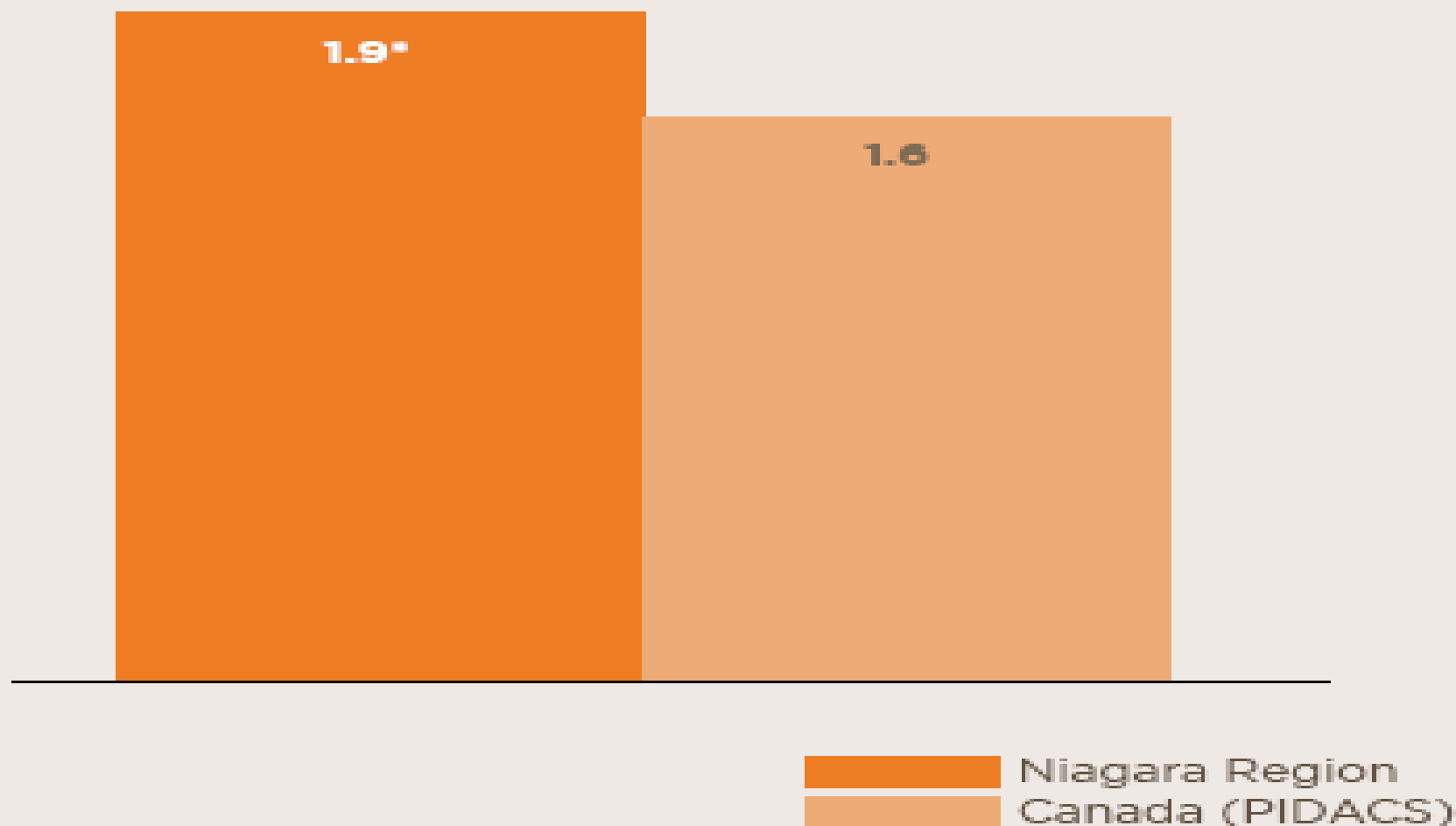|	Niagara Region	Canada (PIDACS)
Organized Sports	1.5	1.4
Unorganized Sports	3.9	3.8
Music, Art, and Other Lessons	0.4*	0.5
Community Groups and Programs	0.4	0.4

Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07.

FIGURE 3-4. Time Spent Watching Television or Videos
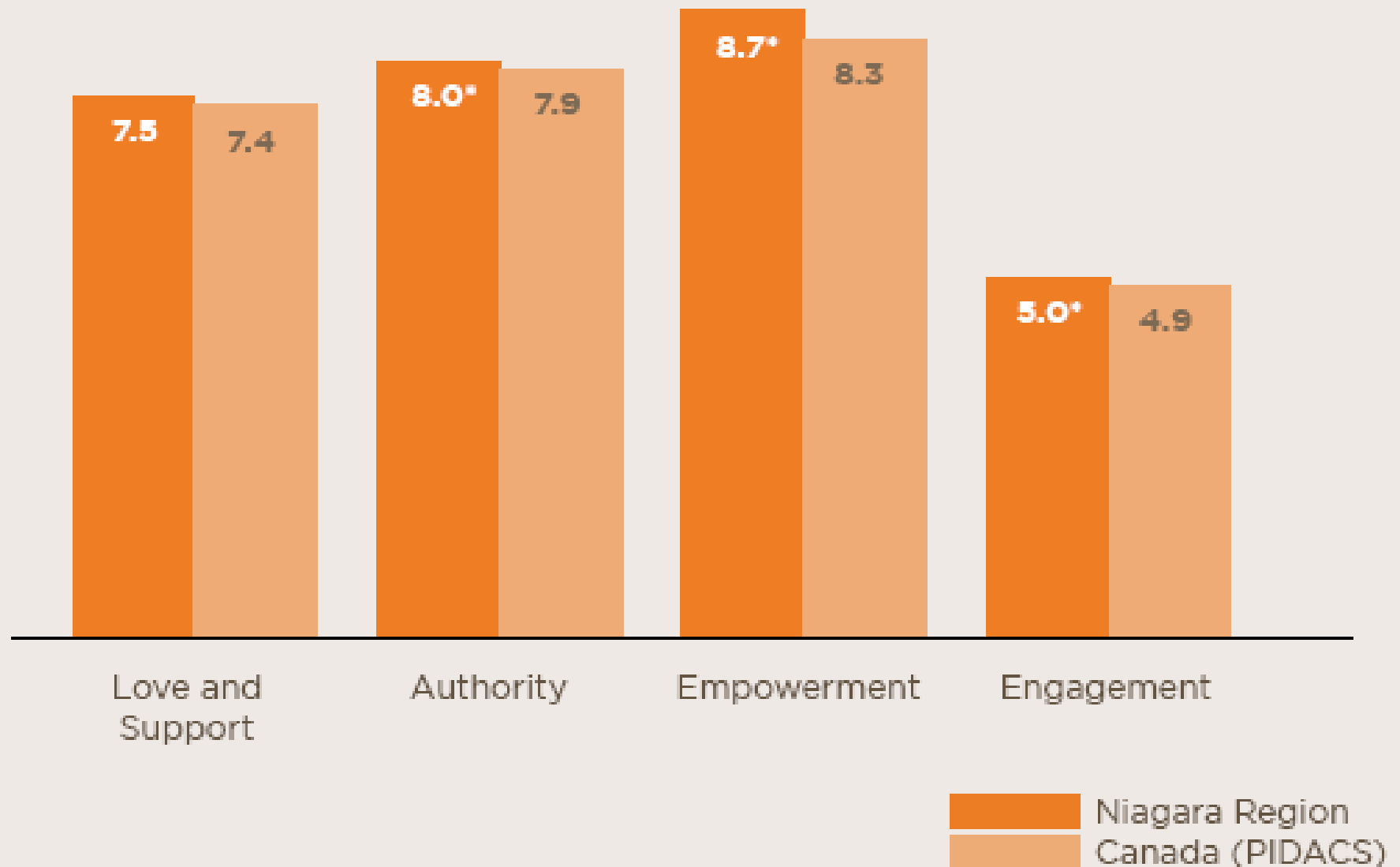
Hours per day

1.9*

1.6

Niagara Region
Canada (PIDACS)

Note: Statistically significant differences are
indicated with an asterisk.
Source: PIDACS, 2006-07.

FIGURE 3-2. Positive Parenting Practices

Average scores on a ten-point scale

	Love and Support	Authority	Empowerment	Engagement
Niagara Region	7.5	8.0*	8.7*	5.0*
Canada (PIDACS)	7.4	7.9	8.3	4.9

Niagara Region
Canada (PIDACS)

Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07.

UEY's Next Steps

- UEY is sun setting and is no longer providing custom briefs, presentations or planning support. However, we will:

- Release an Action Plan based on local results and work with partners (September 30/08)

- Upload all reports, presentations etc.. onto our website: www.uey.eccdc.org

- Release additional analysis on EDI and PIDACS data (October 15/08)

Community Next Steps

- Use local data (UEY and other) in planning and program development and delivery
- Continue analysis of neighbourhood conditions and early development results (i.e. City of Toronto)
- Track results over time (i.e. EDI and SES)
- Share information
- Be an evidence-based planning champion

Questions?

Thank You

~ Glory & Tiffany