Measuring the well-being of children at school entry: International perspectives

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Early years matter

- They set the stage for further development
- All children are born ready to learn:
  the neurosystem is pre-programmed to develop various skills and neuropathways, depending on the experience it receives.

How do we know that children are exposed to optimal social and physical environment?

- Need to keep score
- Need to monitor over time

Existing common indicators

- Infant/child mortality rates
- Prenatal and antenatal care
- Low birth weight
- School enrollment
- School drop-out rates

Existing common indicators

… do not account for the child's development

Measuring child development

- Incorporate aspects of the major developmental areas
- Allow for association with external factors
- Reliable, valid, and sensitive
- Comparable across groups of children

Child development at school entry

- School readiness as an indicator of developmental health:

  - a holistic concept involving several developmental areas

  - reflects developmental outcomes and milestones achieved during the first five years of life within the context of early experiences

School readiness is an indicator of children's health in a community

- Reflects a broad concept of health
- Population level indicator
- Useful at macro and micro-levels

Domains of school readiness

- Physical health and well-being
- Social competence
- Emotional maturity
- Language and cognitive development
- Communication skills and general knowledge

Early Development Instrument (EDI)

- Completed by teacher or early childhood educator
- Items grouped into five domains
- Long: 104; short: 35-50
- Items adaptable to the local context
- May include:

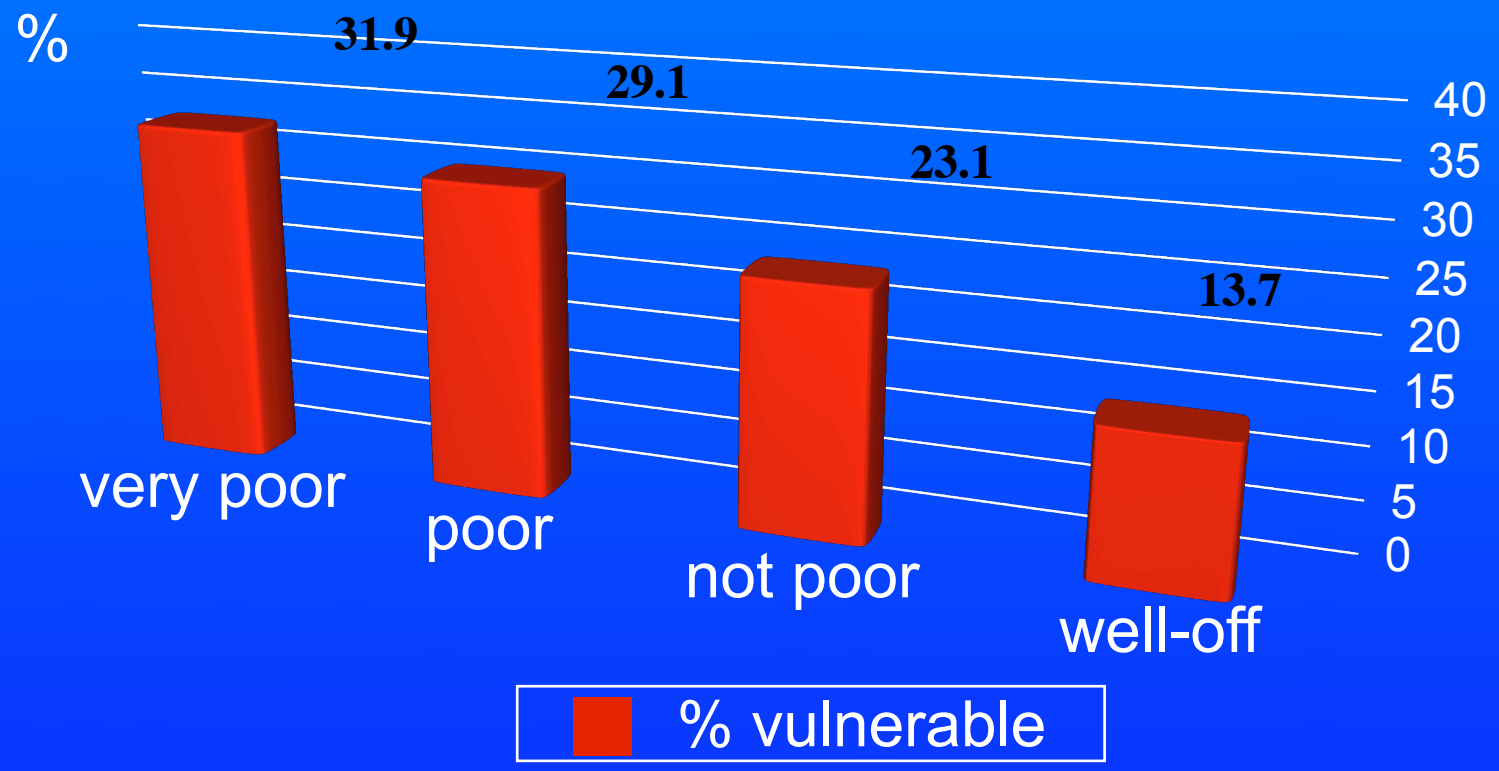
- Indicators of special problems and special skills
- Questions about the child's pre-school experience

Information from the EDI

- Average scores for groups of children in five domains/16 subdomains
- Percentages of children who are vulnerable:
  - for each domain
  - overall
- Percentage of children with Multiple Challenge Index (MCI)

Individual and population-level correlates of school readiness: Canada

Readiness to Learn at School by Family Income (N=2039)



Source: NLSCY/UEY 1999-2000; EDI 1999-2000

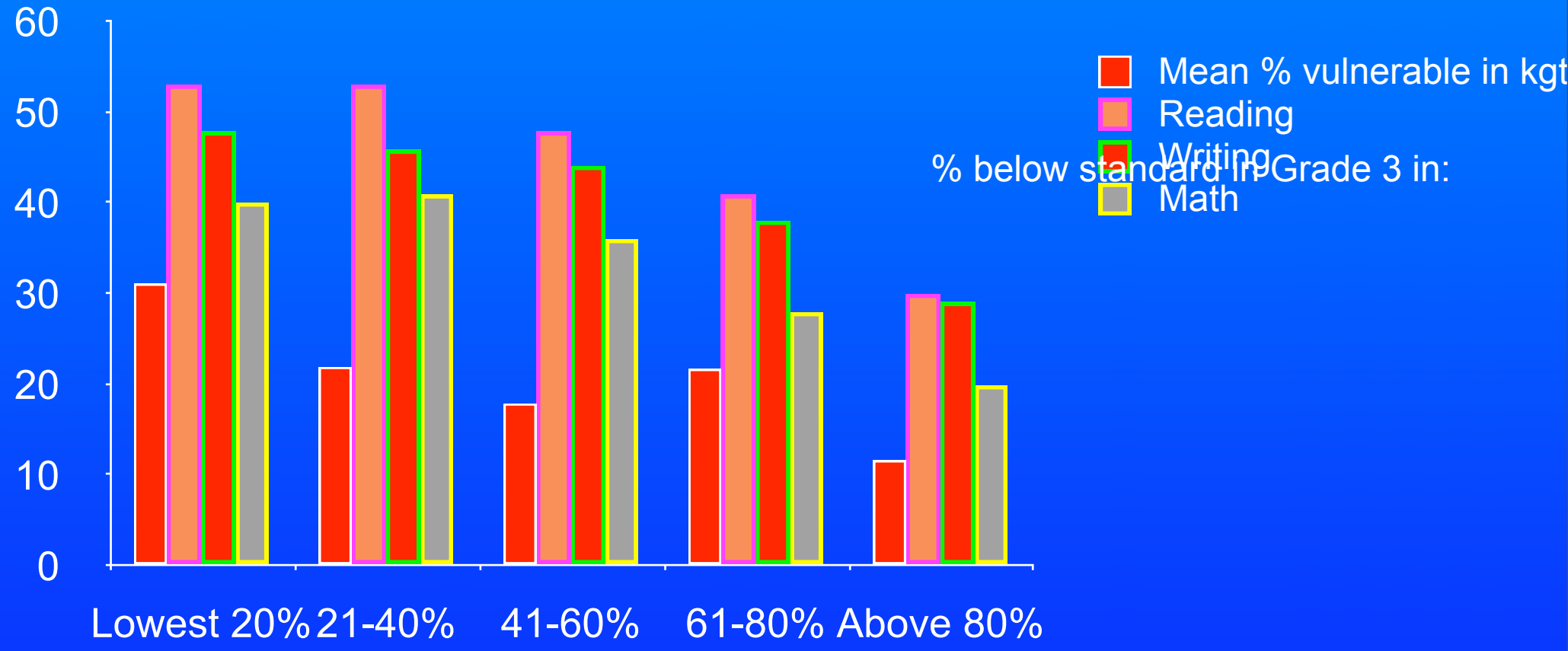
Important child and family variables

Gender (Boy)	2.43
Income (Low)	2.21
Birthweight (Low)	1.72
Intact family (Not)	1.71
Child's age (Younger)	1.48
Parental smoking (Yes)	1.36

- Reading with child; preschool

Source: NLSCY/UEY/EDI 1999/2000

School readiness and Grade 3 by neighbourhood affluence



EDI Internationally

International implementation of the EDI

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Instrumento de medición de desarrollo infantil

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  Instrument i zhvillimit te hershem te femijeve

The Jordan study

- Population-level assessment of early childhood outcomes (not EDI)
- Sample: 3600 first-grade children
- Analyses of demographic factors

General results

- Some gender differences
- Consistently better scores for children:
  - from urban communities,
  - from families with higher income,
  - who experienced kindergarten,
  - whose mother worked,
  - whose mother was more educated

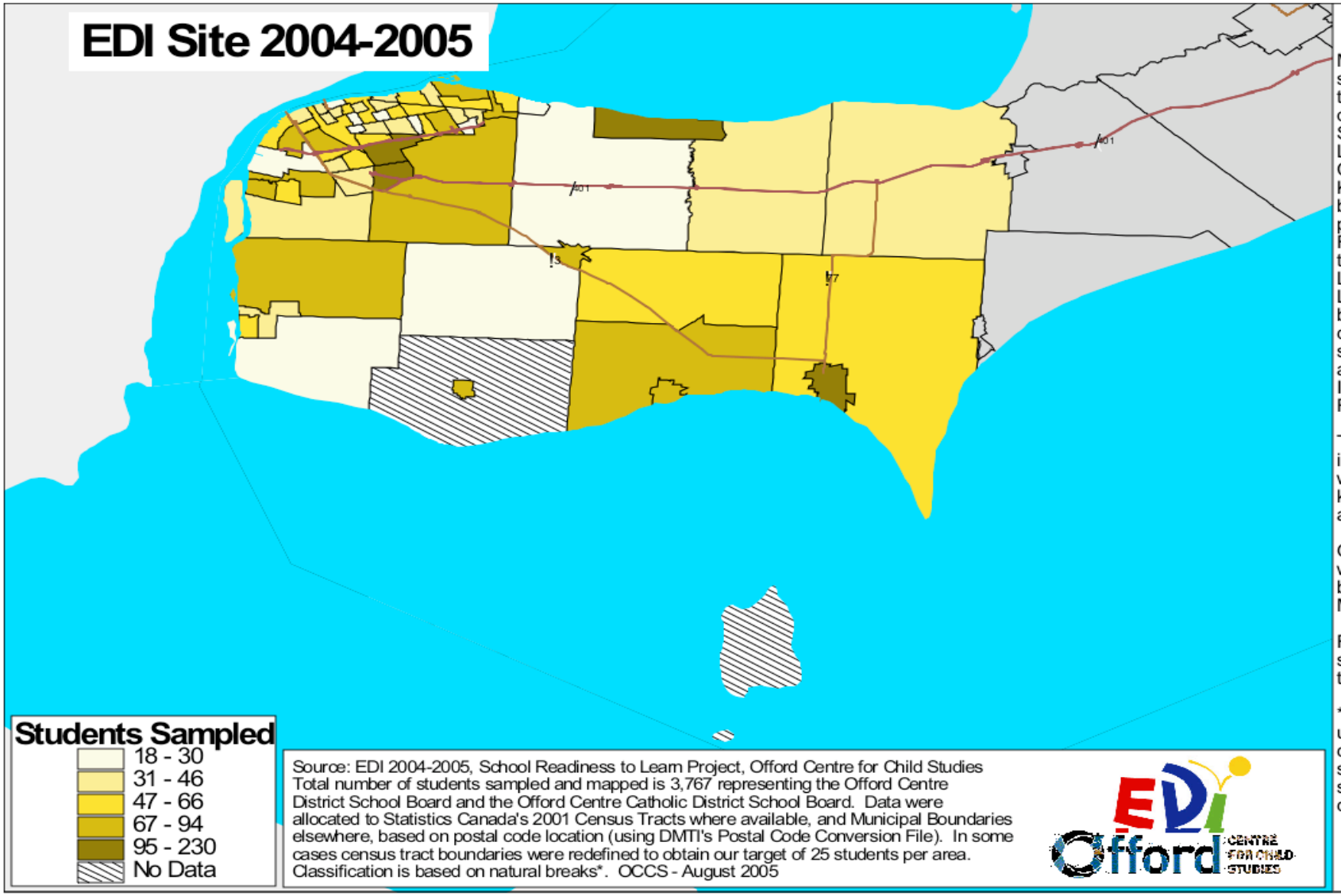
Kosovo project

- Evaluation of outcomes of early child development programs
- EDI adapted to local and linguistic context
- Approximately 500 children in total
- Availability of household data for comparison
- Work in progress

Ways to use the EDI

- Basic information
- Comparisons of degree and range of vulnerability
- Associations

EDI Site 2004-2005



Source: EDI 2004-2005, School Readiness to Learn Project, Offord Centre for Child Studies
Total number of students sampled and mapped is 3,767 representing the Offord Centre District School Board and the Offord Centre Catholic District School Board. Data were allocated to Statistics Canada's 2001 Census Tracts where available, and Municipal Boundaries elsewhere, based on postal code location (using DMTI's Postal Code Conversion File). In some cases census tract boundaries were redefined to obtain our target of 25 students per area. Classification is based on natural breaks*. OCCS - August 2005

Mapped here is the distribution of students for this EDI site. In addition to this, five maps, one for each of the domains [Physical Health and Well-Being, Social Competence, Emotional Maturity, Language and Cognitive Development, Communication Skills and General Knowledge], show the distribution of both the domain score and the percentage of vulnerable children. Following these are maps representing the Multiple Challenge Index and the Low on at Least One Readiness to Learn Domain. These maps have been formatted in a portrait style and can be folded out. This enables the specific domain maps to be viewed along with either the Multiple Challenge Index or the Low on at Least One Readiness to Learn Domain.

The number of students mapped includes those for whom valid EDIs were completed, who are in senior kindergarten, without special needs, and whose postal codes were valid.

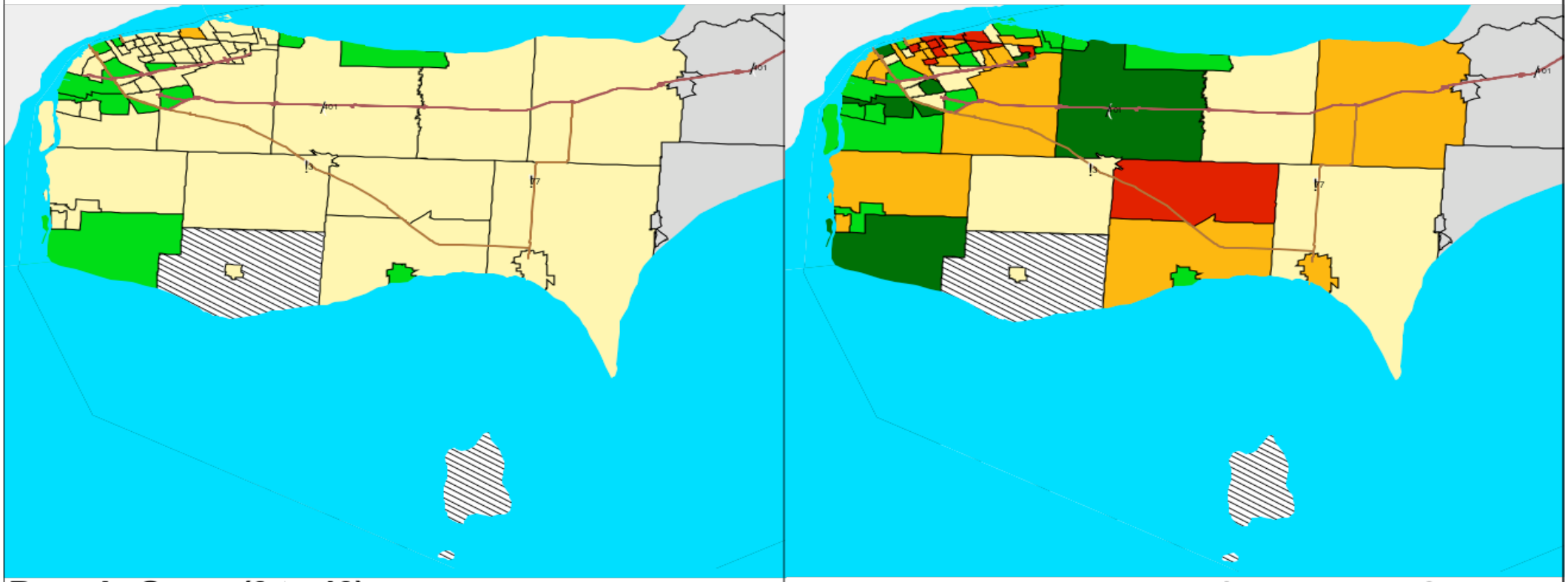
Only those students with postal codes within the boundaries of your school board(s), as defined by the Ontario Ministry of Education, have been mapped.

For additional definitions and explanations see the accompanying reports as well as the FAQs and Glossary.

*Natural breaks is a classification method used to identify breakpoints between classes using Jenk's Optimization, a statistical formula that minimizes the sum of the variance within each of the classes.

Physical Health and Well-Being

EDI Site 2004-2005



Domain Score (0 to 10)

- 1.54 - 7.31
- 7.31 - 8.08
- 8.08 - 9.23
- 9.23 - 10
- 10
- No Data

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EDI Offord Centre for Child Studies

Percentage of Vulnerable Children

- 20 - 32.35 %
- 11.77 - 20 %
- 6.98 - 11.77 %
- 4 - 6.98 %
- 0 - 4 %
- No Data

Can the EDI be adapted?

- Used in six other countries with minimal changes
- Subdomain identification allows for valid shortening
- Room for adjusting items to ensure relevance to local context

Requirements for implementation

- Entire groups of children are involved
- Respondents know the child in an early learning setting
- Respondents capable of interpreting the questions:
  - minimal training
  - provision of a written interpretation “guide”

Steps in adapting to local context

- Experts' feedback regarding the relevance of items
- Possible change: within limits of the subdomains for comparability
- Pilot implementation with teachers/ECE
- Local validity assessment

Reminder….

1524 Paper
White
40 BAGS/SACS
Change of clothes
Les poules
Le Collier
LUNCH ROOM POLICY
Madame
FIRE
ALARM

For more information:

- www.offordcentre.com/readiness
- janusm@mcmaster.ca