

# Measuring School Readiness:

## The Early Development Instrument



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)

# The vision

Take stock of how well communities are doing for young children

Small changes for large numbers of children will bring better outcomes than big changes for small numbers

Need population-based data



# Population-level indicator

---

- ◆ Data collected from the whole population, or a representative sample
- ◆ Method relevant to the issue(s) in question
- ◆ Feasibility and ease of use (timing, respondents)
- ◆ Suitable for policy recommendations

# Readiness to learn concept

---

Children are born ready to learn:

the neurosystem is pre-programmed to develop various skills and neuropathways, depending on the experience it receives.



# Readiness for school

---

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.

In short, it is the ability to benefit from the educational activities that are provided by the school.

# Domains of school readiness

---

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



# 5 Domains; 16 Subdomains

---

- ◆ Physical health and well-being (3)
- ◆ Social competence (4)
- ◆ Emotional maturity (4)
- ◆ Language and cognitive development (4)
- ◆ Communication skills and general knowledge (1)

# 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

# Early Development Instrument (EDI)

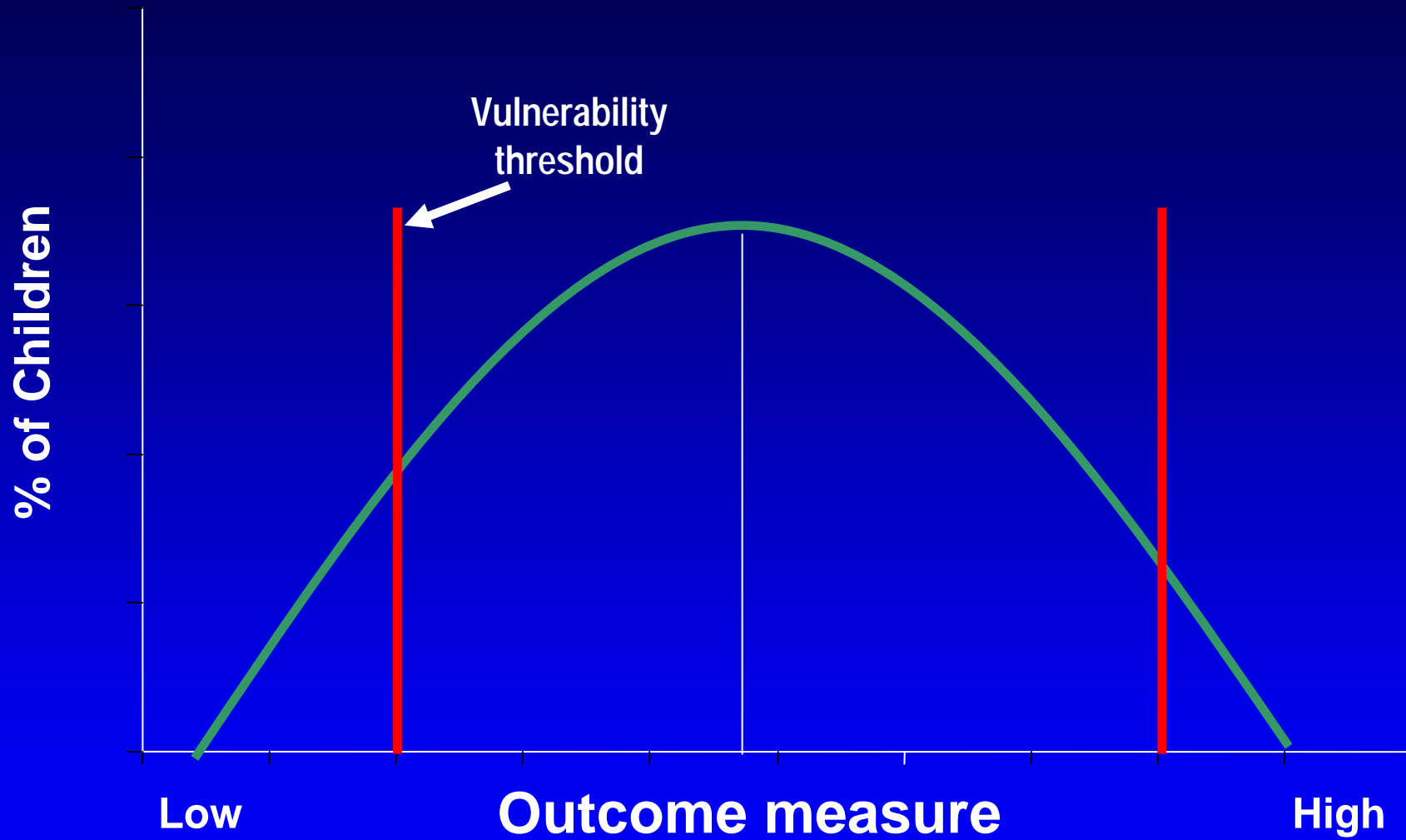
---

- ◆ Teacher-completed
- ◆ 104 questions grouped into the five domains
- ◆ Indicators of special problems and special skills
- ◆ Up to 10 questions about the child's pre-school experience

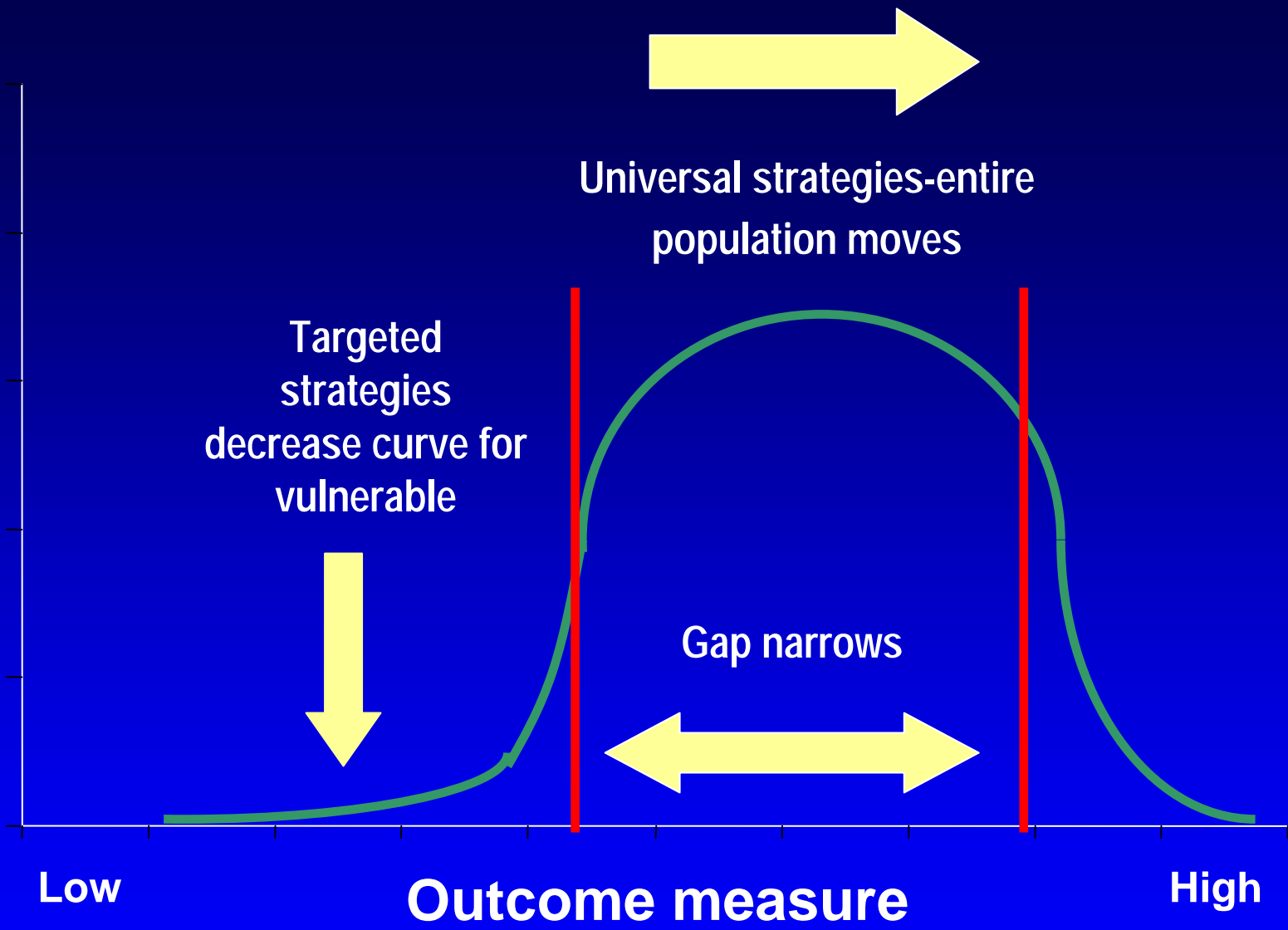
# Purposes of the EDI

---

- ◆ Report on populations of children in different communities
- ◆ Monitor populations of children over time
- ◆ Predict how children will do in elementary school



**% of Children**

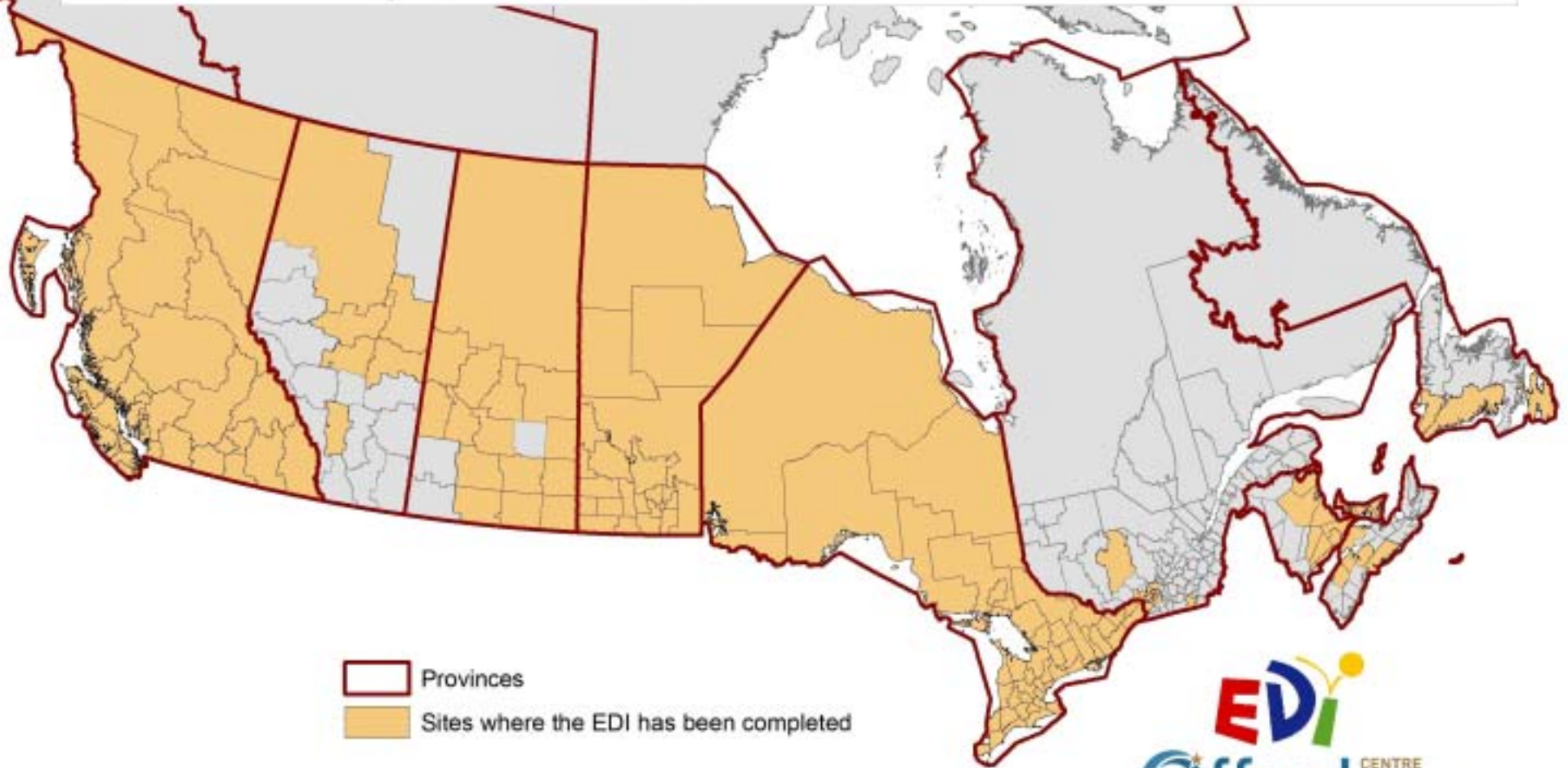


# Current status

---

- ◆ EDI in Canada (map)
- ◆ Several provincial coverages
- ◆ Customised EDI Guide
- ◆ Critical level of data
- ◆ Increased accountability
- ◆ EDI Internationally

# EDI Completion in Canada - 2000 to 2007

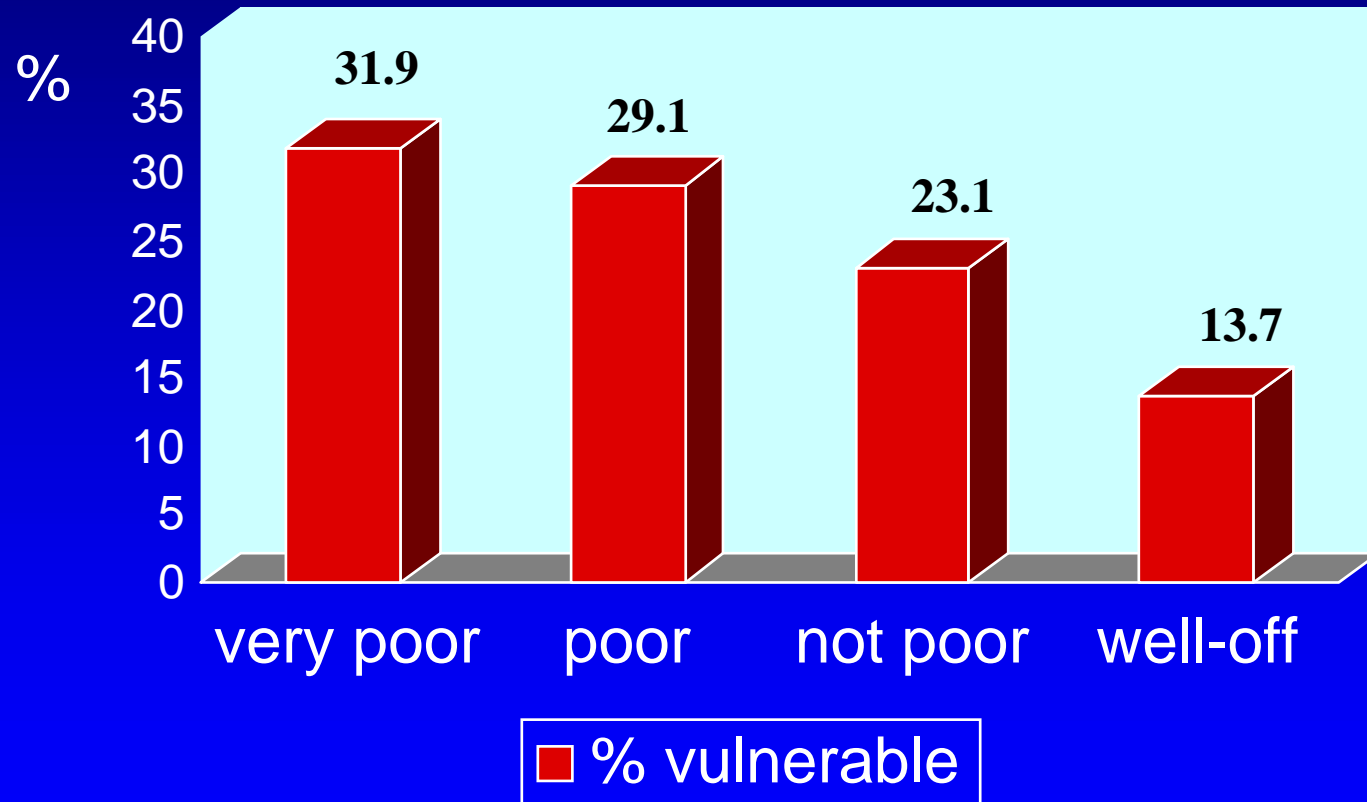


# Definition of vulnerable (not ready)

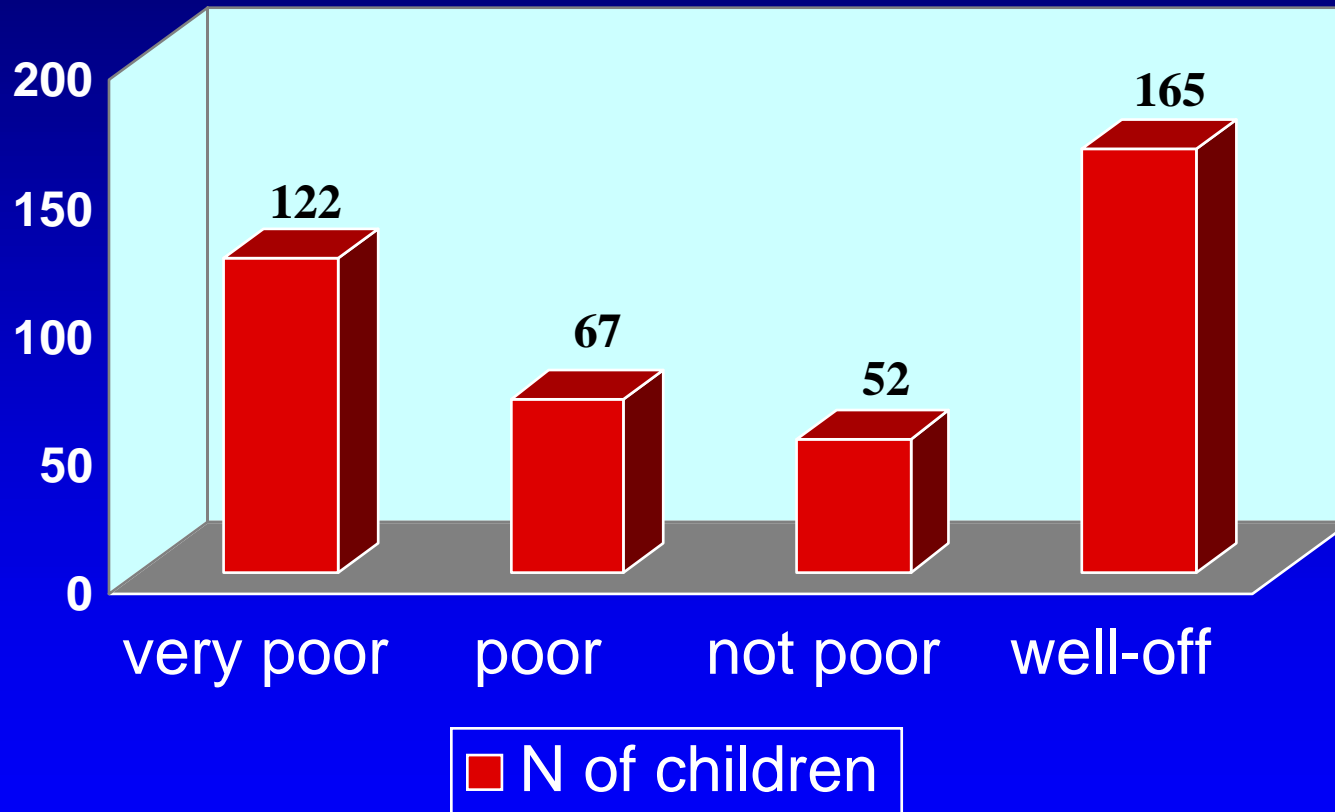
---

- ◆ Children who score low in **one or more** of the five domains of the EDI
- ◆ “Low” - in the lowest 10 percent of the population within their site
- ◆ Specific for domain
- ◆ Specific for site
- ◆ Canadian population-based norms available for comparison

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



# Number of “Vulnerable” children



# Factors increasing the vulnerability risk

---

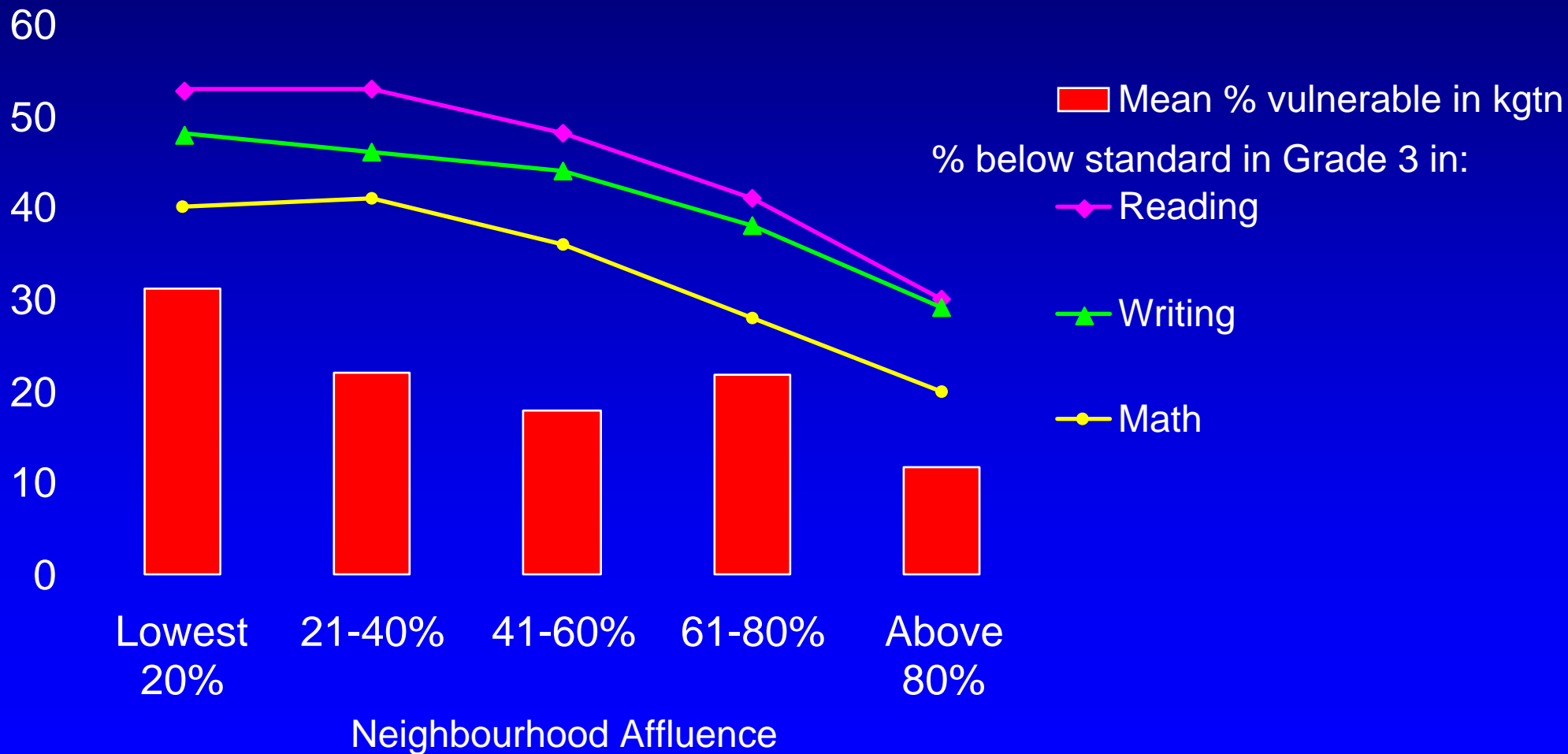
◆ Child health (low)	2.35
◆ Gender (boy)	2.32
◆ Income (low)	2.02
◆ Family status (not intact)	1.83
◆ Age (younger half)	1.36
◆ Literacy (looking at books)	1.35
◆ Parent smoking	1.29

# Important neighbourhood variables

---

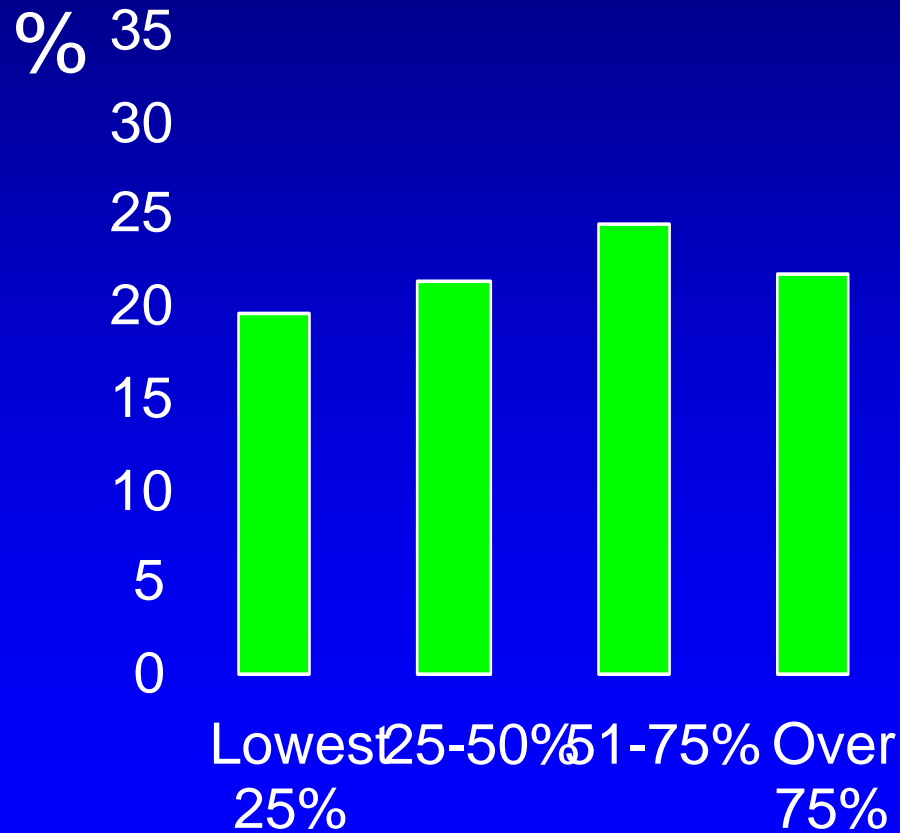
- ◆ Parent-reported neighbourhood quality (includes playground, safety, health, transport, presence of families with children etc.)
- ◆ Parent-reported frequency of contacts with neighbours (talking, visiting)

# School readiness and Grade 3 by neighbourhood affluence

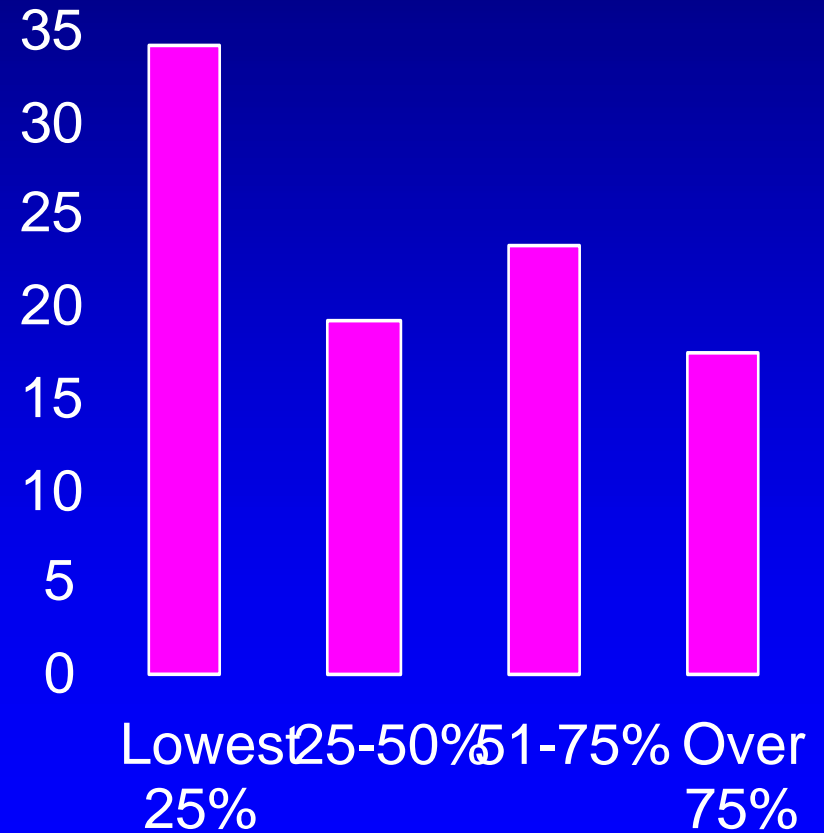


# % vulnerable in kindergarten

■ Communit



■ Communit



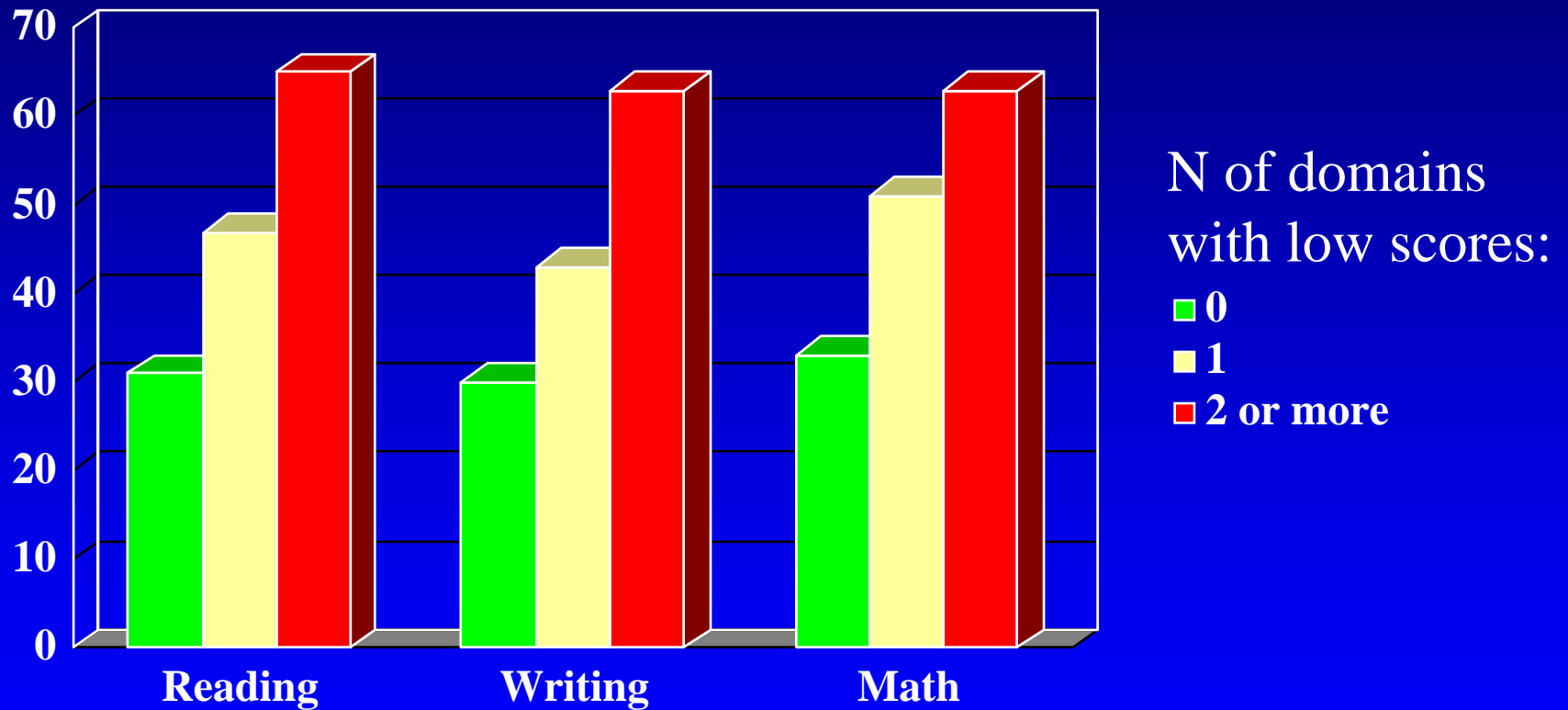
Neighbourhood affluence

# Predictor of Grade 1 achievement

---

	% variance	(Total)
◆ EDI to Grade 1	33.8%	(33.8%)
◆ EDI above age, sex, SES	23%	(36%)
◆ EDI above direct cognitive, language and “readiness” screen	5%	(50%)

# Vulnerability on EDI and Grade 6 outcomes



Percentage of Grade 6 students not meeting provincial standards in relation to number of vulnerabilities in Kindergarten (EDI)

# Information from the EDI results

---

- ◆ *Macro* level: for a City, Site, Province
- ◆ Provides a global picture - may not be applicable to all areas
- ◆ Provides means of comparison of larger areas

UEY 2006: 21 sites

Range: 25.2% - 32.4% children with  
low scores



# Multiple Challenge Index (MCI)

---

- ◆ Based on 16 subdomains
- ◆ Ability-determined “Challenge” level
- ◆ Below “Challenge” on 9 or more
- ◆ Percent
- ◆ High MCI percentage indicates area(s) where an individually-focused approach is needed
- ◆ Range in communities, level in national data

# Does the EDI generate useful data?

---

- ◆ Means of comparison in several crucial areas of child development outcomes
- ◆ Assessment how well a community is doing in combination with data from other sources:
  - Neighbourhood population demographics
  - Socioeconomic variables
  - Services for families with young children

# Take-back messages

---

- ◆ Interaction with young children is crucial (talking, playing, reading...)
- ◆ There are groups that are on average more vulnerable than others
- ◆ Neighbourhood makes a difference - not always in a predictable manner
- ◆ Differences may serve as a mobilisation tool

# Limitations

---

- ◆ One-time data point
- ◆ One part of the whole picture
- ◆ Data can only tell us so much - you are the real experts

EDI is:

- a survey
- a mobilisation tool
- a monitoring tool

EDI is not:

- an individual assessment
- a prescription for action
- perfect