

- Measuring School Readiness in Manitoba

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immigrated to Canada within the last two years? O Yes O No O Don't know 6. Class Type: O K	O Yes O No 11. Other Immersion: O Yes O No 12. Aboriginal:	15. Student Status: O in class more than 1 m (See Guide) O in class less than 1 mo (Do not complete) O moved out of class O moved out of school O other
O K/1	Yes O No O Don't Know (North American Indian, Métis, or Inuit)	16. Student is repeating this grade: O Yes O No

- A census of children's school readiness
- Collected by K teachers on K students
- 120 questions
- 5 developmental areas
- Biennial collection
- 4 waves of provincial data (2005/06, 06/07, 08/09, 10/11)

http://www.offordcentre.com/readiness/files/EDI_2009-2010_EN.pdf



EDI Background



- A partnership among:
 - -Healthy Child Manitoba Office
 - -Manitoba's 37 School Divisions
 - -Manitoba Education
 - -Manitoba's 26 Parent Child Coalitions
 - Offord Centre for Child Studies, McMaster University
- Developed by Drs. Dan Offord and Magdalena Janus at the Offord Centre for Child Studies in 1998
- Objective a tool to report on populations of children in different communities, assess strengths and needs, and predict how children will do in school



EDI Background



- Collected on a biennial basis within all of Manitoba's 37 school divisions (and some independent schools)
- Kindergarten teachers complete the EDI questionnaire on each Kindergarten student in their classroom
- Parents are informed of the EDI collection and may request to withdraw their child from the EDI
- It takes a Kindergarten teachers 20 minutes to complete the 180 item questionnaire on each child
- The EDI is collected between February and March which allows the teacher enough time to get to know each child in the classroom



What does the EDI measure?



- It provides a snapshot of children's school readiness as they prepare to begin grade one
- The EDI is intended to measure children's school readiness at a group level – it is not an individual assessment tool
- Readiness for school is influenced by children's early years – and the family and community factors that shape children's early years



What is School Readiness?



A reflection of children's early years and the family and community factors that shape early childhood development





EDI Background National & Global Implementation



- Used in Canada since 1999
 with the *Understanding the Early Years* project (HRSDC), and province-wide in MB,
 BC, Ontario, Sask and Alberta
- First ever Pan-Canadian EDI conference held in Winnipeg (2009) and International EDI conference (2010)



 Used nationally in Australia; partially in the US (Washington and Seattle), Jamaica, Kosovo, Chile, Mexico, and New Zealand



EDI Background



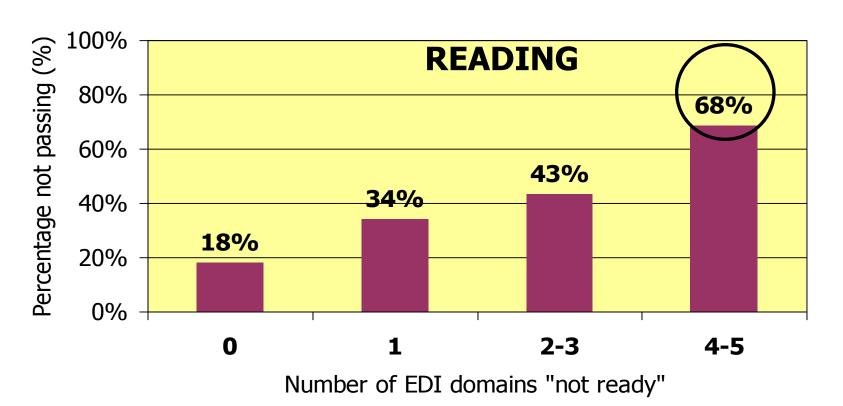
- Population-based measurement of children's readiness for school at a group level – not an individual assessment tool
- Readiness for school refers to children's readiness to learn as they transition from K to grade one
- Readiness for school is influenced by children's early years and the family and community factors that shape children's early years
- EDI results reflect the strengths and needs of children's communities, related to how they prepare children for school





The EDI - forecasting school-age vulnerability

Not Ready on the EDI (2000-2001) and Grade 4 Foundational Skills Assessments (FSAs) in British Columbia, 2004-2005





Conclusion: Prevention is the key!

- 'Not ready for school' is closely tied to poor school performance in later years, and it is very difficult to reverse this pathway of vulnerability over the subsequent school years
- Quality investments in early childhood are critical to 'leveling the playing field', so that all children have the same best start in school



The evidence is clear and strong

- Everything in a newborn's environment contributes to brain development
- Brain plasticity is selective and time limited
- Language acquisition begins in early infancy
- Quality relationships between infant and caregiver promote secure attachment and brain development
- Genes need nurturing and predispositions for developmental problems can be positively altered through nurturing caregiver/child relationships (Early Years 2 – Putting Science into Action)



The EDI makes early childhood count

"The UN Convention on the Rights of the Child commits Canada and 191 other countries to doing all they can to help young children thrive. But how do we know if we are succeeding? In our world, what gets counted, counts and the EDI makes early childhood count. Better than anything else, it tells us if we are fulfilling our promise to our youngest children."

Dr. Clyde Hertzman
President, National Council on Early Child Development



Are our children ready?... Are we ready for our children?

Research tells us that children who begin school ready to learn will have future successes in learning throughout their lives. So how do we help children get this best start to school? The answer is what societies have known for generations – it takes a village to raise a child.

Ready parents & families
+
Ready communities & schools
+
Ready governments & leaders
= Ready children!



Manitoba's Village...Rooted in The HCM Act, 2007

Bridging Government and Community:

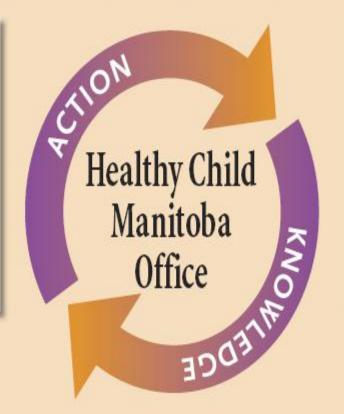
Intersectoral Structures in Manitoba

Healthy Child Committee of Cabinet

Healthy Child Deputy Ministers' Committee

Healthy Child Interdepartmental Committees





Citizens and communities

Parents and families

Children and youth

Community agencies

Provincial Healthy Child Advisory
Committee

Parent-Child Coalitions and Council of Coalitions





Healthy Child Manitoba

HCM Vision:

The best possible outcomes for Manitoba's children

HCM Strategy:

Evidence-based decision making to support healthy childhood development. The EDI steers, monitors and evaluates Manitoba's work in supporting our Strategy

- How are our children doing?
- Are our ECD investments working?
- What could we do better?





There are 5 EDI domains of school readiness:

- 1. Physical Health & Well-being
- 2. Social Competence
- 3. Emotional Maturity
- 4. Language & Thinking Skills
- 5. Communication Skills & General Knowledge





Physical Health & Well-being

EDI

- Physical readiness for school day
- Physical independence
- Gross and fine motor skills







Social Competence

- Overall social competence
- Responsibility and respect
- Approaches to learning
- Readiness to explore new things





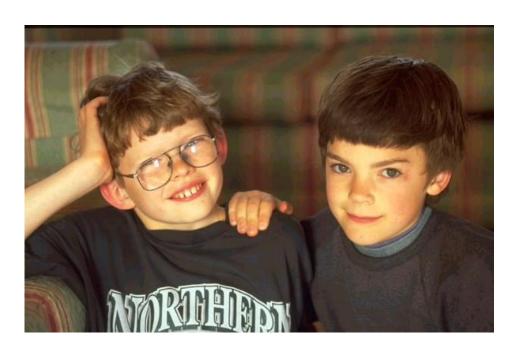




Emotional Maturity

- Prosocial and helping behaviour
- Anxious and fearful behaviour
- Aggressive behaviour
- Hyperactivity and inattention









Language & Thinking Skills

- Basic Literacy
- Interest & Memory
- Complex literacy
- Basic Numeracy









Communication Skills & General Knowledge



Communicates with adults and peers











What Do our School Readiness Data tell us?

Provincial EDI Data: 2005-06, 2006-07 and 2008-09





Reader's Tip:

Very Ready results reflect the proportion of children whose scores fall within the top 30th percentile of EDI scores

Not Ready results reflect the proportion of children whose scores fall within the bottom 10th percentile of EDI scores

Not Ready scores
Bottom
10th
Percentile

Ready
Mid-range scores

11th to 69th percentile

Very Ready scores
Top
30th
Percentile



How is Manitoba doing?

NOT READY (Vulnerable)

Each school year
28% of kids
(approximately 3100 children)
are not ready in one
or more of the 5 domains.

VERY READY

Each school year
63% of kids
(approximately 6990 children)
are very ready in
one or more of
the 5 domains



Demographic Background	2005/06	2006/07	2008/09
	Count (%)	Count (%)	Count (%)
EDI questionnaires completed	12,214	12,092	12,139
Students with special needs	643 (5.3)	532 (4.4)	543 (4.4)
Students who require further assessment	1,421 (11.6)	1,302 (10.8)	1,402 (11.5)
Students who are boys	6,300 (51.6)	6,141 (50.8)	6,229 (51.3)
Average age of student	5.6	5.7	5.7
Students with EAL	1,075 (9.1)	1,114 (9.6)	1,198 (10.2)
Students who identify as Aboriginal	2,165 (17.7)	2,181 (18.0)	2,376 (19.6)

Manitoba's Provincial-level EDI Results Average EDI Results

10 is best possible score	2005-06	2006-07	2008-09	3 Year Trend	Canadian Comparison
Physical	8.75	8.78	8.72	(stable)	8.80
Social	8.32	8.36	8.28	(stable)	8.32 🛧
Emotional	7.94	7.97	7.82	(stable)	8.04 🖖
Language	8.11	8.21	8.23	*(increasing)	8.44 🖊
Communication	7.57	7.64	7.52	(stable)	7.65

Manitoba's Provincial-level EDI Results Very Ready EDI Results

Top 30 th Percentile	2005-06 %	2006-07 %	2008-09 %	3 Year Trend	Canadian Comparison %
Physical	32.1	33.6	31.9	(stable)	33.5
Social	33.9	34.8	33.8	(stable)	34.2♠
Emotional	28.2	28.5	26.0	*(decreasing)	30.8♥
Language	30.0	32.5	33.1	*(increasing)	36.5♥
Communication	33.9	36.0	33.2	(no trend)	35.4∱

Manitoba's Provincial-level EDI Results Not Ready EDI Results

Bottom 10 th Percentile	2005-06 %	2006-07 %	2008-09 %	3 Year Trend	Canadian Comparison %
Physical	11.3	10.9	11.5	(stable)	9.8∱
Social	8.7	8.6	9.2	*(increasing)	9.3♥
Emotional	11.9	11.1	13.0	(no trend)	10.8
Language	12.5	11.8	11.2	*(decreasing)	8.8
Communication	11.2	11.0	11.6	(stable)	9.9∱

So what do we do?

Dig deeper!

Within each of the 5 domains, there are sub-domains. What proportion of children are vulnerable within each sub-domain?



Physical Health Sub-domains (Not Ready)

Not Ready	2005-06 %	2006-07 %	2008-09 %	3 Year Trend	Canadian Comparison
Physical readiness for school day	9.9	10.5	10.4	(stable)	9.1
Physical independence	10.0	10.3	11.2	*(increased)	9.6♠
Gross and fine motor skills	31.3	30.1	32.6	(stable)	30.9 ↑

Social Competence Sub-domains (Not Ready)

Not Ready	2005-06 %	2006-07 %	2008-09 %	3 Year Trend	Canadian Comparison
Overall social competence	9.2	8.9	9.5	(stable)	8.8
Responsibility and respect	4.4	4.2	4.6	(stable)	4.5
Approaches to learning	8.0	7.9	8.4	*(increased)	8.1
Readiness to explore new things	3.1	2.6	3.1	(stable)	3.1

Emotional Maturity Sub-domains (Not Ready)

Not Ready	2005-06 %	2006-07 %	2008-09 %	3 Year Trend	Canadian Comparison
Prosocial and helping behaviour	36.9	36.0	42.7	(no pattern)	33.1♠
Anxious and fearful behaviour	2.4	2.3	2.5	(stable)	2.3
Aggressive behaviour	7.8	7.4	8.2	(stable)	7.7 🏠
Hyperactivity and inattention	14.0	13.7	14.2	(stable)	12.8 🛧

Language Sub-domains (Not Ready)

Not Ready	2005-06 %	2006-07 %	2008-09 %	3 Year Trend	Canadian Comparison
Basic literacy	15.1	14.8	13.8	*(decreased)	10.7♠
Interest and memory	15.1	14.0	13.5	*(decreased)	15.3 ₩
Complex literacy	21.8	19.8	19.9	*(decreased)	17.4 春
Basic numeracy	20.5	19.3	18.8	*(decreased)	12.7 🛧

Communication Sub-domains (Not Ready)

Not Ready	2005-06 %	2006-07 %	2008-09 %	3 Year Trend	Canadian Comparison
Communication	39.1	38.1	39.5	(stable)	38.4♠

Multiple Challenges on 9 or more sub-domains

Not Ready	2005-06 %	2006-07 %	2008-09 %	3 Year Trend	Canadian Comparison
Multiple Challenges	5.3	4.8	5.2	(stable)	4.5

So what do we do?

Dig deeper!

Group comparison analyses tell us how different aspects of children's background (age, gender) are related to school readiness. Which aspects are most related to EDI scores?



Gender Group Comparisons (Not Ready)

Average Score	Girls 05/06 & 06/07 & 08/09	Boys 05/06 & 06/07 & 08/09
Number of children	16,406	16,707
Physical	8.93	8.58
Social	8.69	7.95
Emotional	8.28	7.55
Language	8.49	7.88
Communication	7.94	7.22

Manitoba's Provincial-level EDI Results

Age Group Comparisons (Not Ready)

Average Score	Older than 5.6 yrs 05/06 & 06/07 & 08/09	Younger than 5.6 yrs 05/06 & 06/07 & 08/09
Number of children	18,122	14,945
Physical	8.87 🛧	8.60
Social	8.49 🛧	8.12
Emotional	8.03	7.77
Language	8.42 🔨	7.90
Communication	7.84 🛧	7.26

Manitoba's Provincial-level EDI Results

Language Group Comparisons (Not Ready)

Average Score	Without EAL	With EAL
	05/06 & 06/07 & 08/09	05/06 & 06/07 & 08/09
Number of children	29,055	3,039
Physical	8.74 🛧	8.68
Social	8.35 🛧	7.98
Emotional	7.94 🛧	7.64
Language	8.27 🛧	7.40
Communication	7.86 🛧	4.93

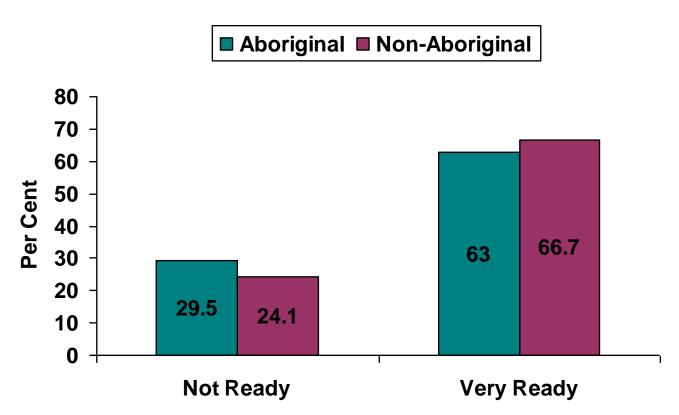
Manitoba's Provincial-level EDI Results Aboriginal Identity Group Comparisons

Average Score	Non-Aboriginal 05/06 & 06/07 & 08/09	Aboriginal 05/06 & 06/07 & 08/09
Number of children	26,499	5,649
Physical	8.89 🛧	8.16
Social	8.46 🛧	7.72
Emotional	8.00 1	7.52
Language	8.41 🛧	7.17
Communication	7.78 🛧	6.64

Manitoba's Provincial-level EDI Results Aboriginal Identity Group Comparisons

Average Score	Non-Abor inal	Aboriginal
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Number of		
children	100 miles (100 miles (F C40
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Physical		
1 Hyoloui	Not the who	e 8.16
	ctory	
Social	story	
Oociai		7.72
		1112
Emotional		
Linotional		7.52
Language		
Languago	8.4	7.17
Communication		
	7.78 🛧	6.64

When controlling for socio-economic variables, differences between the aboriginal and non-aboriginal children decreased and were no longer significant



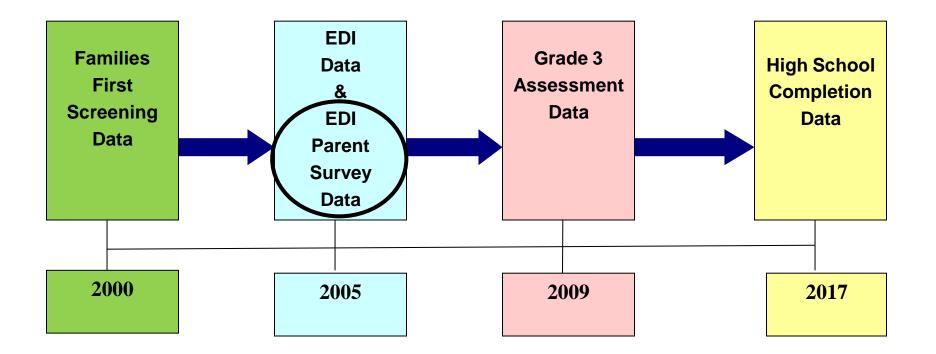


Conclusion:

- EDI results illustrate the strengths and needs of communities related to how they promote the school readiness of their children
- The EDI alone cannot tell the whole story of childhood development – other data must be used in companion with the EDI (asset mapping, school performance data, perinatal data, parent survey data, community-level census data)



The whole story...linked together





EDI Parent Survey Data

- Piloted in 2003, full provincial collection in 2005
- Random selection of 1000 Manitoba parents
- Representative of all geographies, incomes, family structures
- 1 hour telephone interview
- Based on National Longitudinal Survey of Children and Youth questionnaire

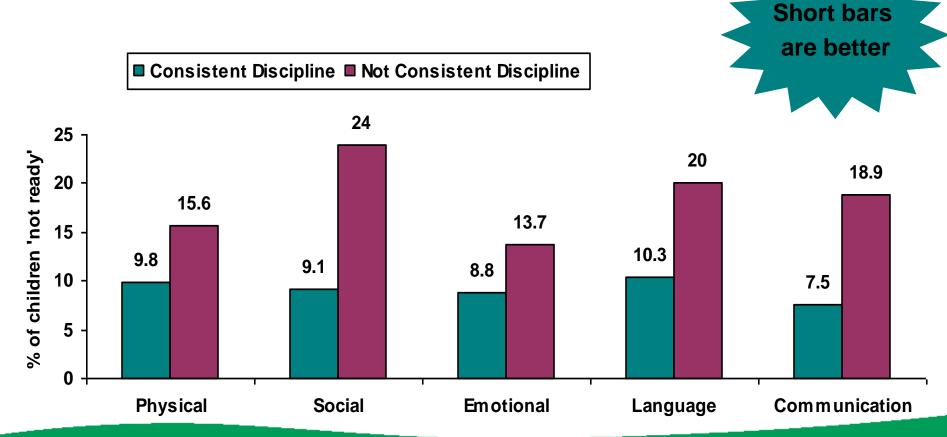


EDI Parent Survey Data

- Parenting Factors
- Maternal Mental Health Factors
- Family Factors
- Community Factors
- Socio-economic Factors
- ECD opportunities

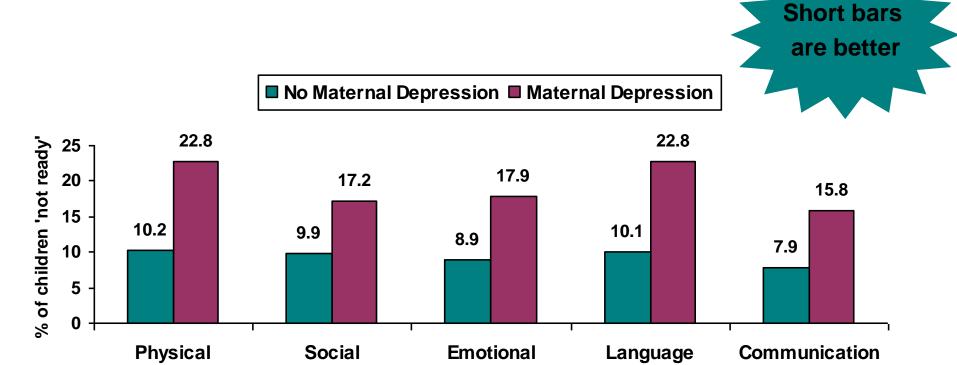


EDI Parent Survey Data Parenting Factors



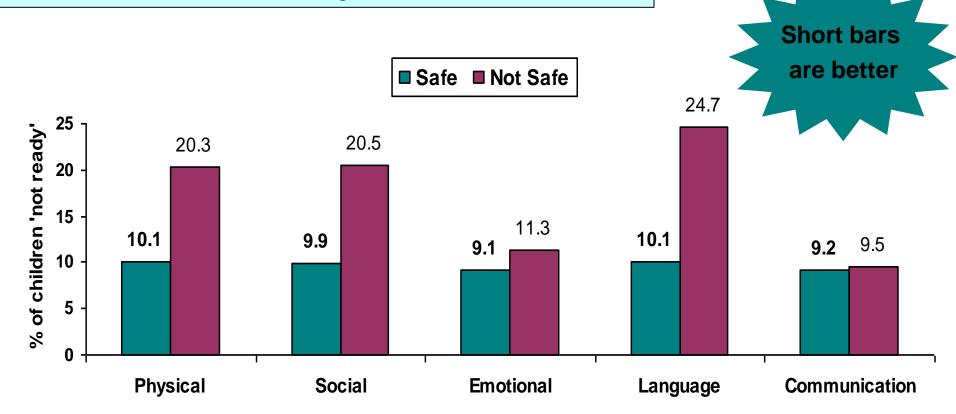


EDI Parent Survey Data Maternal Mental Health





EDI Parent Survey Data Community Factors

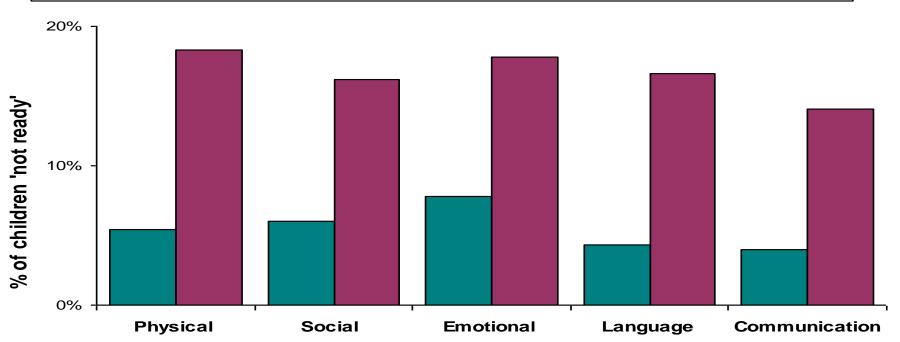




EDI Parent Survey Data *Quality ECD Opportunities*

Short bars are better

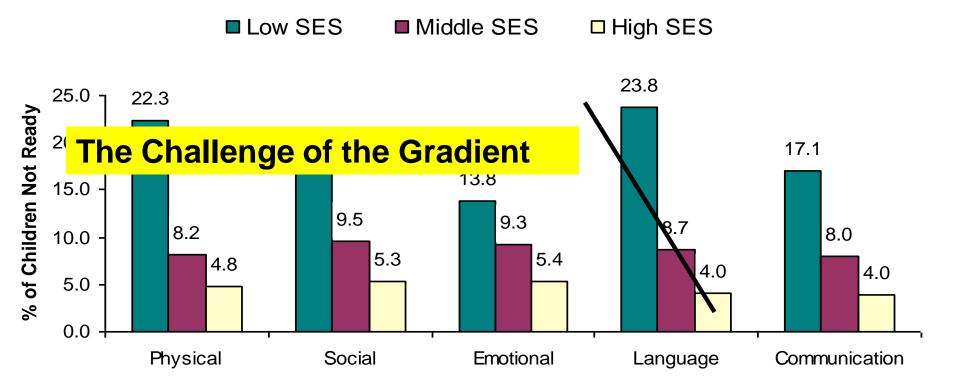
■ In organized physical activities ■ Not in organized physical activities





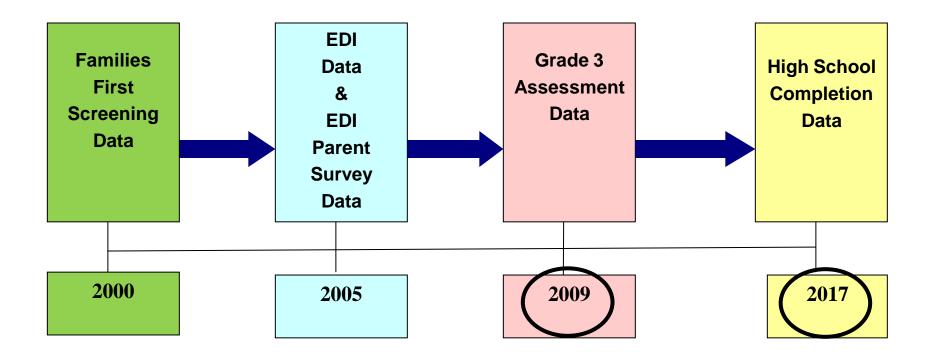
EDI Parent Survey Data Socio-economic Factors

Short bars are better





The whole story...linked together



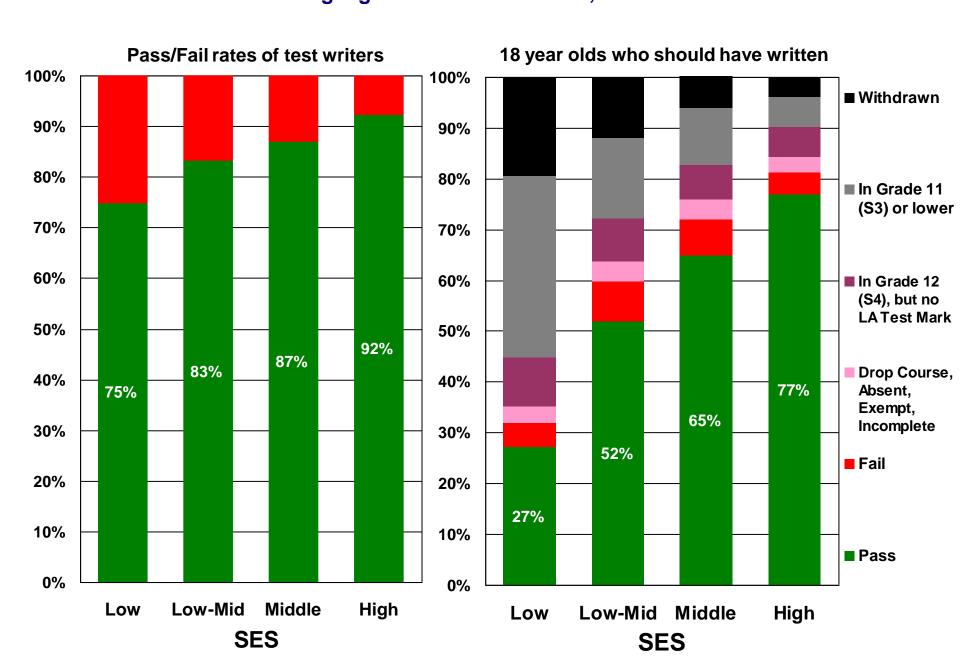


What Does our School Performance Data tell us? Data from Manitoba Centre for Health Policy

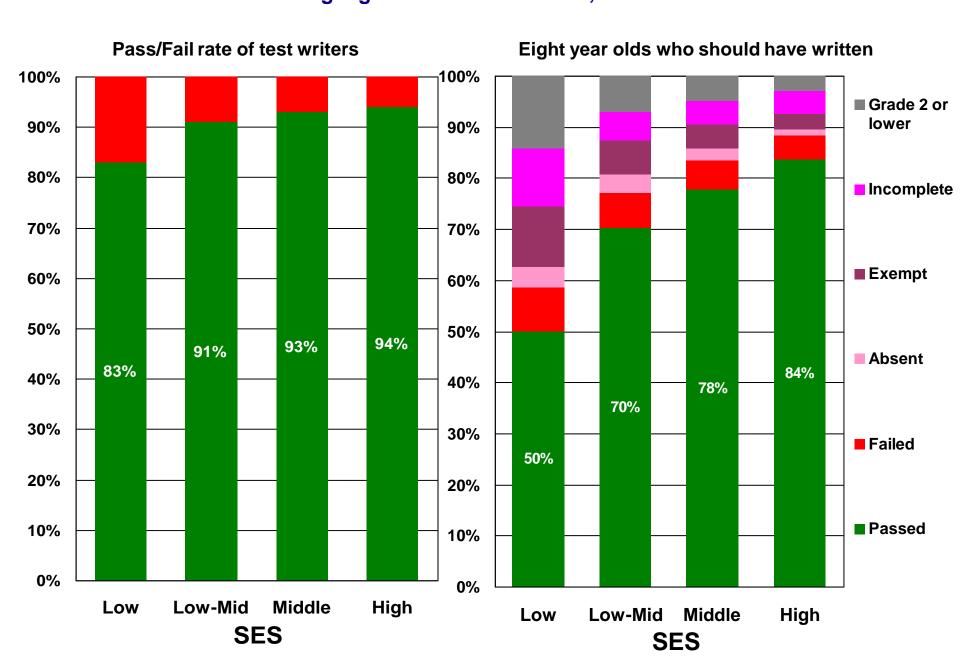




Manitoba Centre for Health Polity: Grade 12 (S4) Performance, by Winnipeg SES Group Language Arts Standards Test, 2001/02



Manitoba Centre for Health Policy: Grade 3 Performance, by Winnipeg SES Group Language Arts Standards Test, 1998/99



Conclusion:

A large proportion of children from low SES families have learning and educational vulnerabilities. These vulnerabilities can be detected as early as Kindergarten (EDI), and continue throughout school, and throughout life.

SES is associated with social and developmental outcomes: academic achievement, physical and mental health, literacy, criminal behaviour and life expectancy (Early Years 2 – Putting Science into Action)



However...

Wealth does not equal health!

"It is not wealth, but equality that produces healthy populations. Consistently, countries demonstrating high health and literacy outcomes show a fairly flat socioeconomic gradient. Countries with healthy, more literate populations, invest heavily in young children and their families" (EY2 – Putting Science into Action).

 E.g. Manitoba's Families First Program, Perry Preschool Program, Abecedarian Project, Ontario Better Beginnings, Better Futures

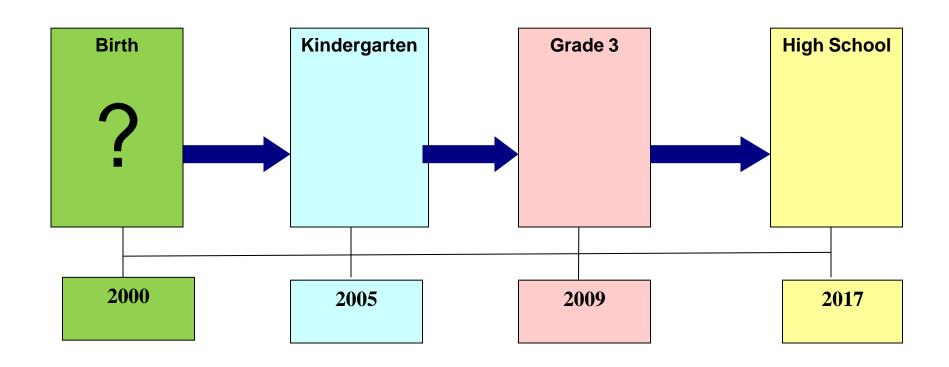


Conclusion:

- Children from all SES backgrounds can be vulnerable – we need a mix of both universal and targeted programs
- Children from low SES backgrounds have a far greater risk for vulnerability, but with enhanced quality early learning opportunities, much of this vulnerability can be prevented!



So when does the gradient first begin to emerge?





Families First Screen Birth Data

- HCM, in partnership with regional Public Health Nurses, attempts to screen all families with newborns for 38 risk factors associated with poor child outcomes (2003 – present)
- Administered through Regional Health Authorities
- The screening process does not include families from First Nations communities, which are under federal jurisdiction



Families First Screen Birth Data

Number of Births Screened in Manitoba:

2003 11,529

2004 11,353

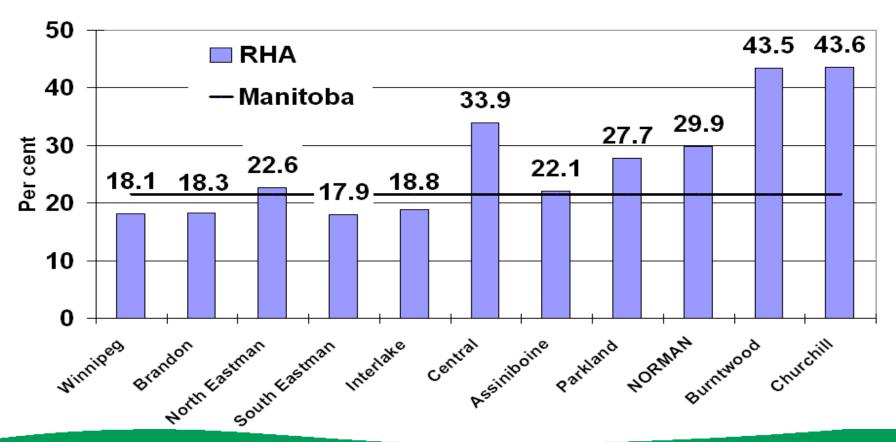
2005 11,839

2006 12,132

Families First Screen Data collections are on-going

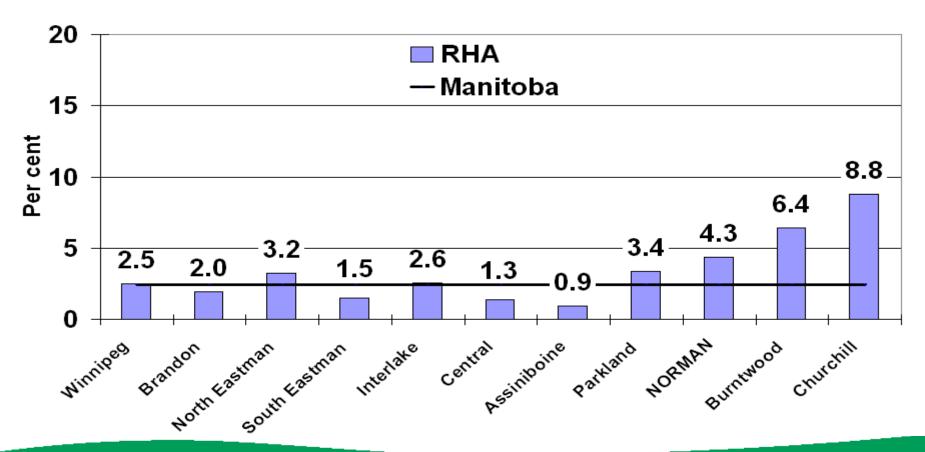


Prevalence Rates of Mothers with Less than High School Education by RHA (*Includes mothers of newborns who are currently working on their Grade 12 or equivalency*)



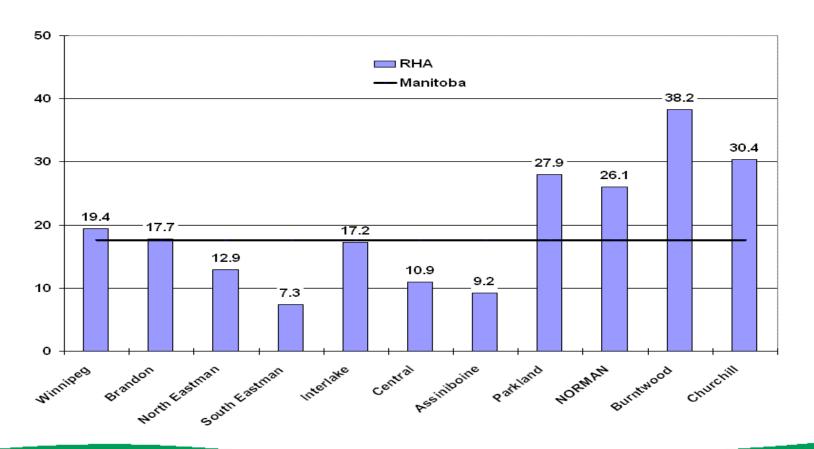


Prevalence Rates Teenage Pregnancy by RHA (*Includes all births where the age of mother was less than 18 years old at birth of child*)



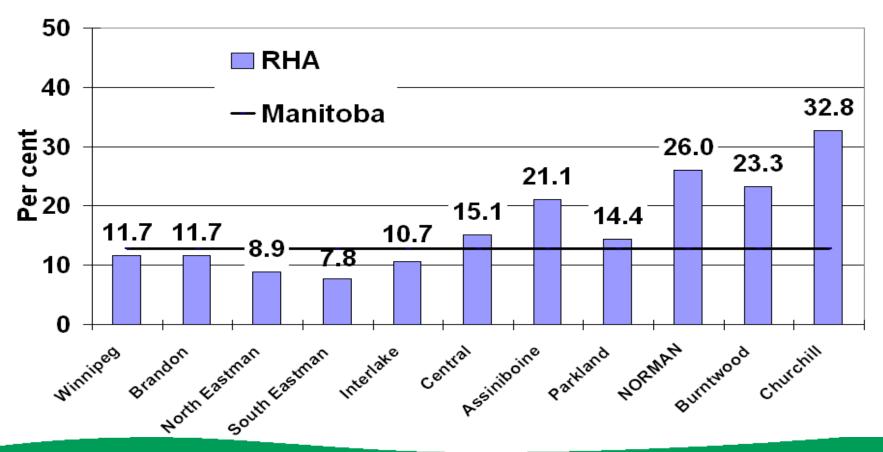


Prevalence Rates of Social Assistance or Financial Difficulties by RHA (Includes mothers of newborns on social assistance or income support. Financial difficulties are defined as having insufficient monies available to meet basic needs after meeting financial commitments)



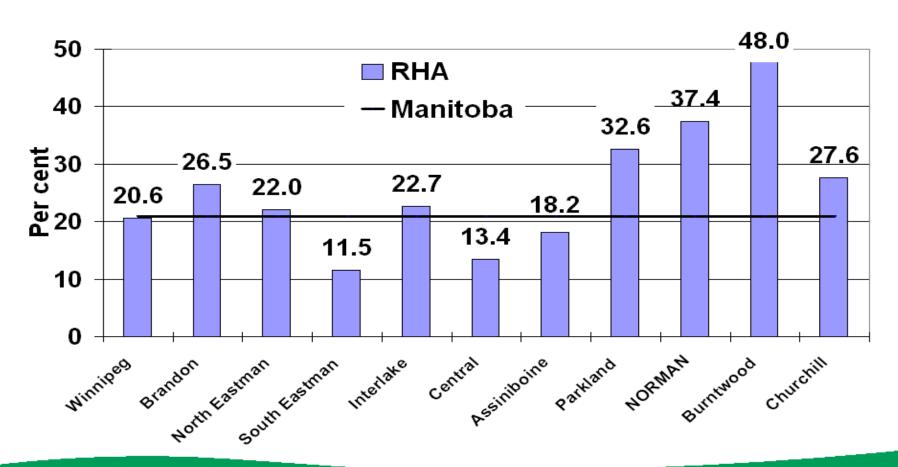


Prevalence Rates of Alcohol Use During Pregnancy by RHA (Assessed by PHN who is instructed to ask mothers of newborns about alcohol use during pregnancy)



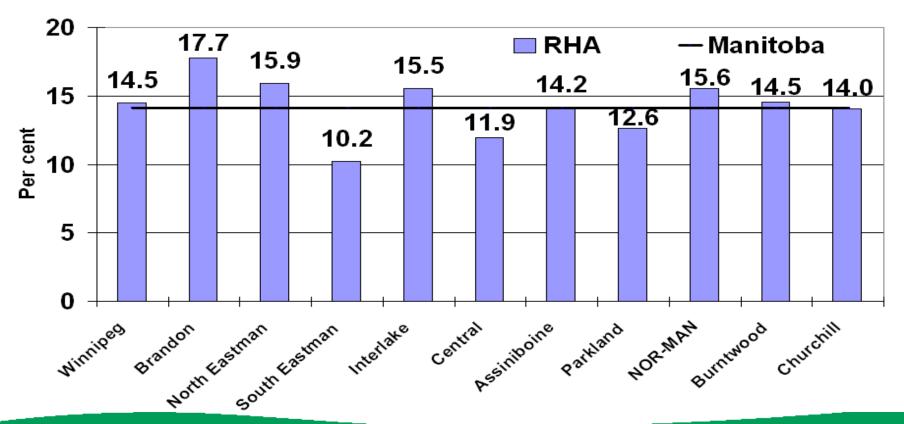


Prevalence Rates of Smoking During Pregnancy by RHA (Assessed by PHN who is instructed to ask mothers of newborns about cigarette smoking during pregnancy)





Prevalence Rates of Maternal Depression and Anxiety by RHA (Assessment of Maternal depression for mothers of newborns is made by the PHN who has knowledge of a professional diagnosis. This is sometimes determined by noting medication use)





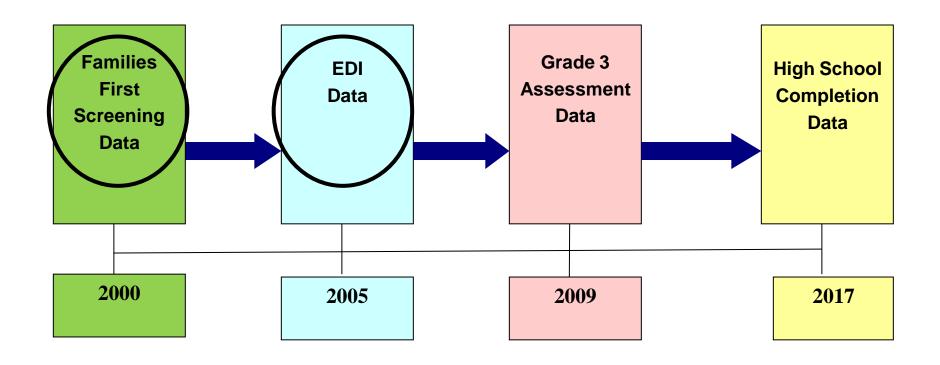
Conclusion:

The rates of these risk factors point to the need for interventions that meet the wide spectrum of needs of Manitoba's children and families, including...

Mental health services for expectant and new mothers, financial supports, alcohol abuse and addiction counseling, domestic relationship counseling, and outreach services to better connect new parents and families with their communities

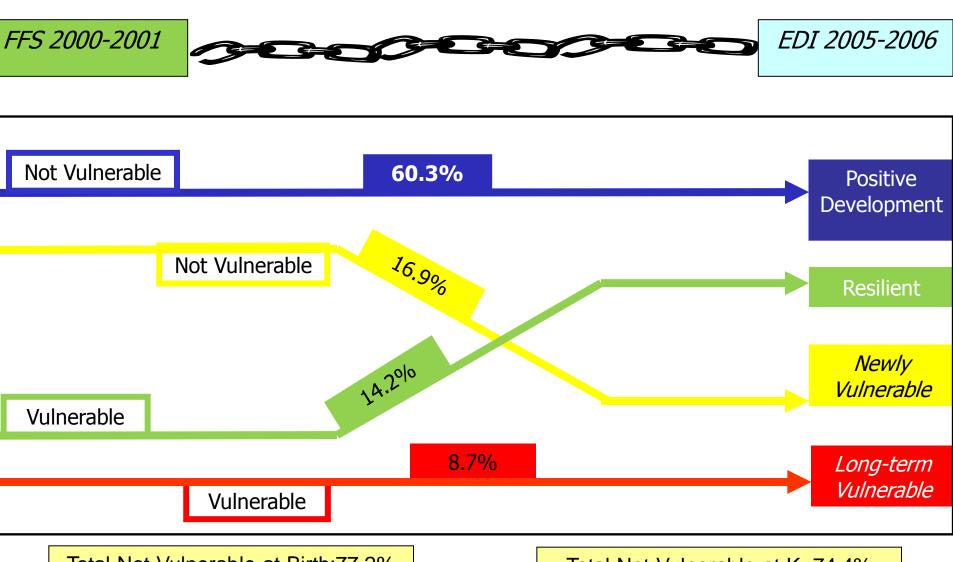


A piece of the story...linked together





No one single pathway of vulnerability!



Total Not Vulnerable at Birth:77.2%

Total Vulnerable at birth: 22.8%

Total Vulnerable at K: 74.4%

Total Vulnerable at K: 25.6%

Conclusion:

There is no one single pathway of healthy development or vulnerability in childhood.

So what do we do?



What do we do? Universal Programs and Services...

- Quality ECD programs and supports for all parents (including expectant parents), children and families, that are universal, accessible, and inclusive (e.g. outreach, referrals/partnerships)
- Integrated service delivery systems (e.g. early childhood learning and care / public education system / public health / FSCA / housing)



What do we do? Targeted Programs and Services...

- Early identification of vulnerability, and intervention services that meet the broad spectrum of needs of parents, children and families (e.g. parenting, mental health, financial, safety)
- Quality ECD programs that meet the needs of Aboriginal parents, children and families, both on-reserve and off-reserve



What do we do? Children first...

- Child-centered decision-making and policy development, inter-governmental collaboration (e.g. Healthy Child Manitoba, Healthy Child Committee of Cabinet, Healthy Child Deputy Minister's Committee of Cabinet)
- An established role for community stakeholders in child-centered decision-making (e.g. HCM Act, Parent Child Coalitions, Provincial Healthy Child Advisory Committee)
- Equitable investments in ECD



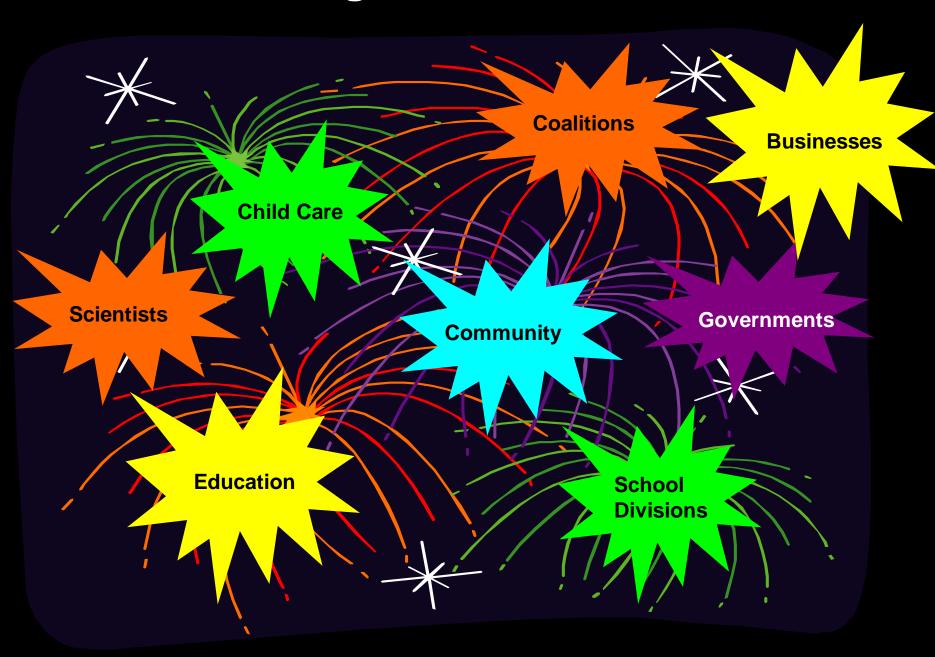
What do we do? It takes a village...

All children need:

- Positive parenting and consistent discipline
- Positive family functioning
- Safe and supportive communities
- Quality early childhood opportunities
- Financial stability
- Responsive governments and leaders



Turning data into action!



Schools and School Divisions

Looking Backward...

School Divisions use their Divisional and School-level EDI results to assist in their ECDI (Early Childhood Development Initiative) programming and planning decisions

Looking Forward...

School Divisions use their Divisional and School-level EDI results to align programs and services for students based on the identified strengths and needs of each school



School Divisions: Turning Data into Action

"In the Louis Riel School Division, we use the EDI in many ways with our programming needs and budget planning. And in our work with Parent-Child Coalitions, our EDI results help us to identify goals for our Parent Child Family Centres, and help us to monitor our community needs."

Sylvia Madill
Retired Student Services Coordinator, Louis Riel School Division



Schools: Turning Data into Action

"Our Kinderlinks program offers preschoolers and their parents a positive introduction to school and helps prepare them for the transition to Kindergarten.

The School's decision to develop this program, a partnership with the Elspeth Reid Family Resource Centre and the Brandon Parent-Child Coalition, came from the results of our EDI data, and the program goals of Kinderlinks are based around the five domains of the EDI's measurement of school readiness".

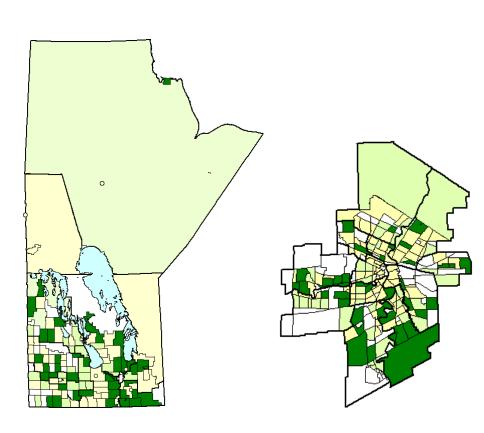
Shawn Lehman, Principal of Valleyview Centennial School



Community Data = Community Action

Community-level EDI data is mapped using student's residential postal code:

- By Region (RM level)
- By Winnipeg Community (Neighbourhood level)





Community Data = Community Action

- Parent-Child Coalitions and the Child Care
 Community use their local-level EDI results to assist
 in their early years programming decisions
- The EDI enables communities to align policies and programs for children and parents based on the identified strengths and needs of that community



Parent-Child Coalitions: Turning Data into Action

"We use the EDI in lots of ways. The decision to develop our Coalition's "Kit and Kaboodle" program, a literacy-focused preschool program, evolved from our EDI data which showed 'need' in the Language and Thinking Skills domain. Our Coalition Steering Committee consults with our EDI data in reviewing our grant applications, and the data is one of the factors we consider when making our funding decisions."

Kathy Wightman
Former Chair of the Central Region Parent-Child Coalition



Child Care: Turning Data into Action

"The SPLASH nursery school is one of the programs made possible by the enhanced nursery school funding strategy that is being further expanded in the Family Choices child care agenda. This nursery program is a great example of how we can address the evidence-based needs of communities, using EDI results, as we move forward with our 5 year plan to improve early learning and child care across Manitoba".

Lois Speirs
Former Director of the Manitoba Child Care Office



Healthy Child Manitoba: Turning Data into Action

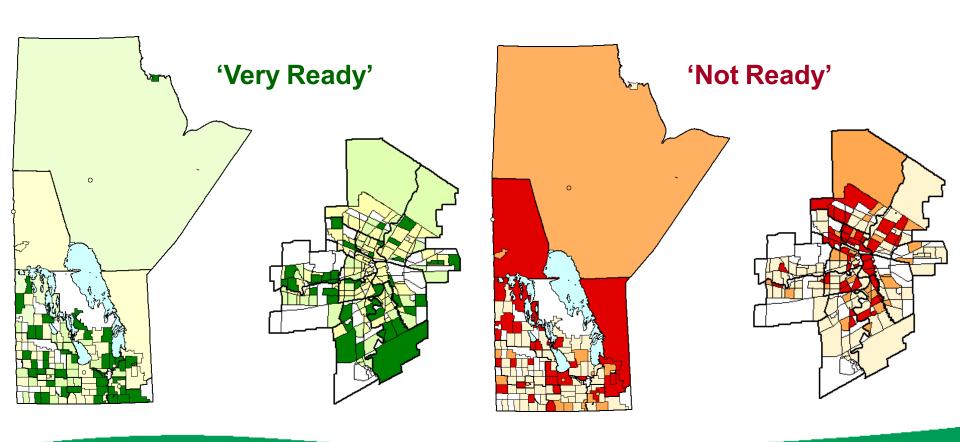
"The EDI helps us measure what matters most to Manitoba: the well-being of our children. As a province and in our communities, it helps us look back, to evaluate the outcomes of our investments in early childhood development. It also helps us look ahead, to improve our future decisions in policy and program development, to make the Manitoba we want for all of our children."

Dr. Rob Santos, Scientific Director & Senior Policy Advisor Healthy Child Manitoba Office, Healthy Child Committee of Cabinet



Community EDI Reports available on-line:

http://www.gov.mb.ca/healthychild/edi/edi_reports.html#comm





For additional resources:

Offord Centre for Child Studies www.offordcentre.com/readiness

Healthy Child Manitoba www.gov.mb.ca/healthychild/edi



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