

Cette présentation a été effectuée le 26 novembre 2014 au cours de la journée « Se mobiliser et agir pour le développement des jeunes enfants : inspirations d'ici et d'ailleurs » dans le cadre des 18es Journées annuelles de santé publique (JASP 2014). L'ensemble des présentations est disponible sur le site Web des JASP à la section Archives au : <http://jasp.inspq.qc.ca>.

Promising practical avenues and actions for child development

HUMAN
EARLY LEARNING
PARTNERSHIP

Martin Guhn
University of British Columbia



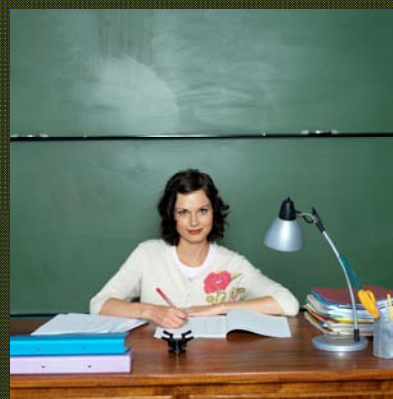
Overview

- EDI trends over time
- Differences that make a difference: connectedness, play, healthy habits
- Barriers
- Initiatives

Early Development Instrument
(Janus & Offord, 2007)



A teacher-administered
tool

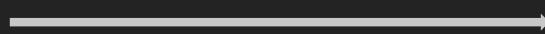


Trends over time

Unpacking trends over time

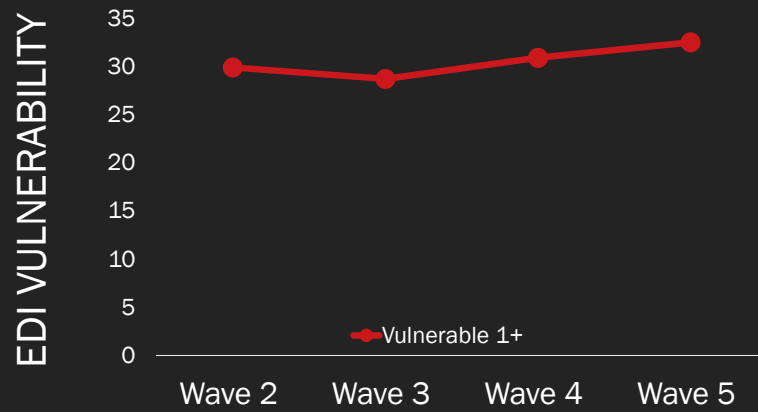


2002

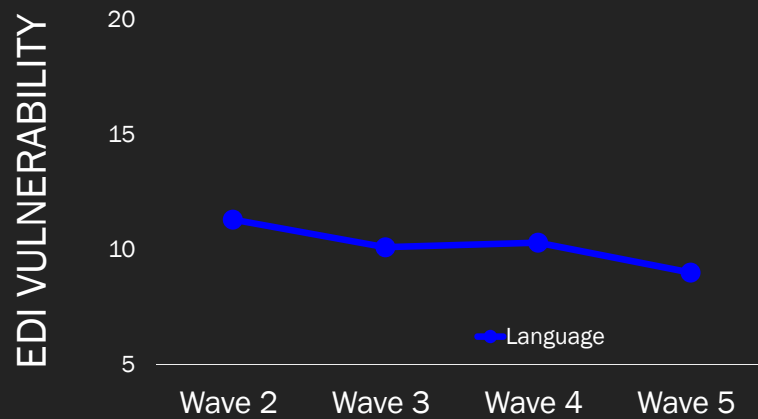


2014

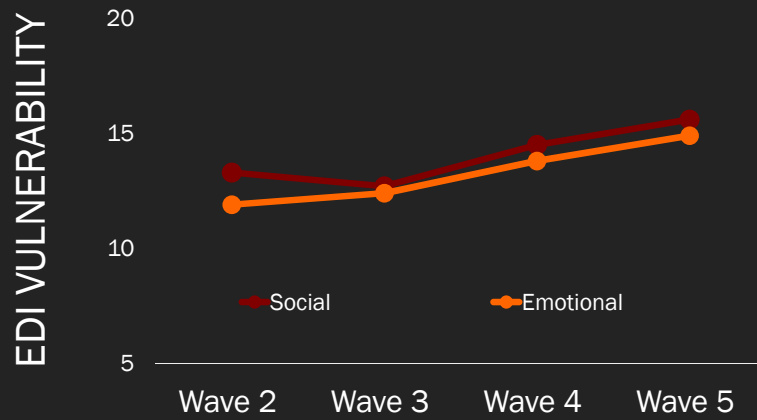
TRENDS IN EDI VULNERABILITY



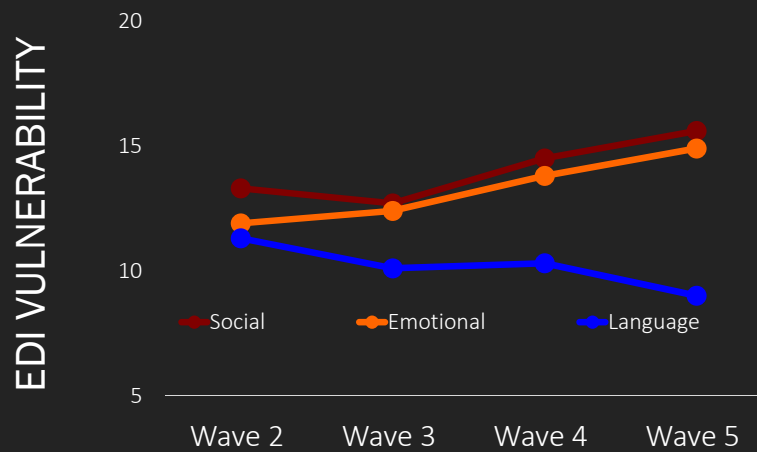
TRENDS IN EDI VULNERABILITY



TRENDS IN EDI VULNERABILITY



TRENDS IN EDI VULNERABILITY



Globe and Mail: Canada's Mental Health Crisis

Source:

[http://v1.theglobeandmail.com/servlet/story/RTGAM.20081122.wmhchildrendocsdiscussi
on1122/BNSStory/mentalhealth/](http://v1.theglobeandmail.com/servlet/story/RTGAM.20081122.wmhchildrendocsdiscussi
on1122/BNSStory/mentalhealth/)

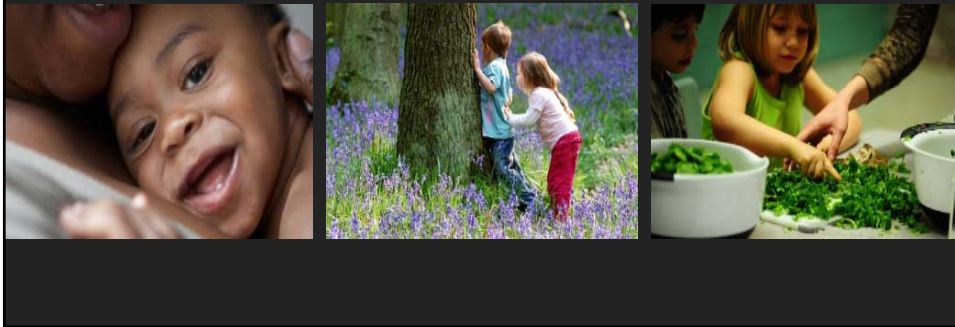
- Many adult patients with mental illness, asked to explain where they think it began, go back to their youth. At least 70 per cent of cases of mental illness in adults can be traced back to childhood.

Globe and Mail: Canada's Mental Health Crisis

- According to various studies, illnesses such as depression, anxiety and bipolar disorder affect 13 to 22 per cents of Canadian kids. But there is a lot of denial.
- "I'm amazed at how many people don't believe mental illness exists in children."

*(Prof. Dr. Ian Manion,
Ontario Centre of Excellence in Child and Youth Mental Health
& University of Ottawa.)*

What differences
can we make
that make a difference
in children's development?



Importance of the early years

Importance of social relationships and early experiences.

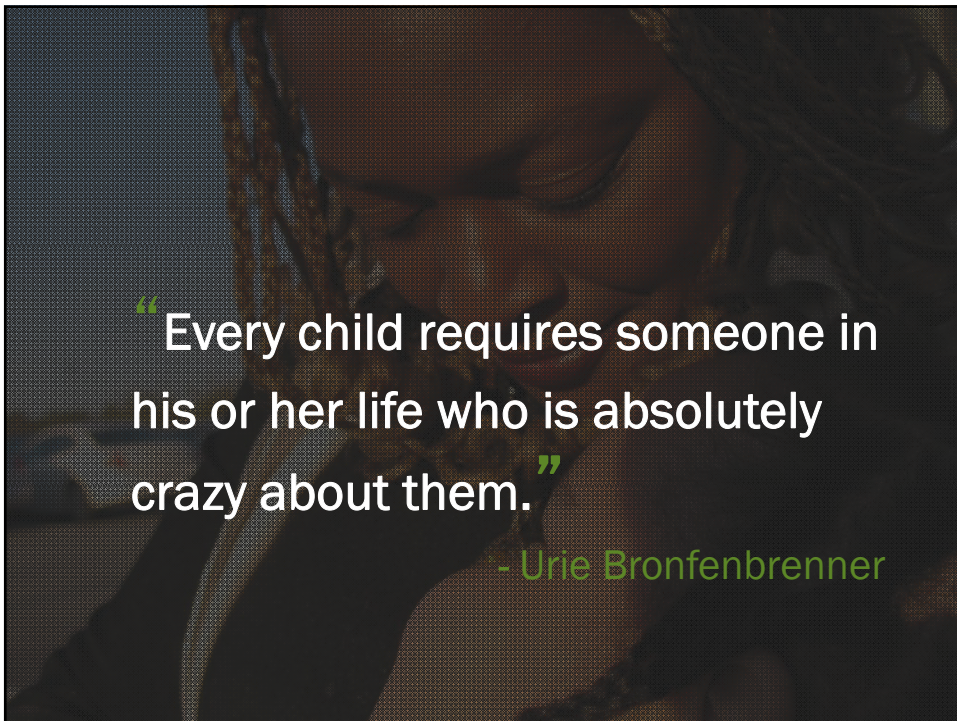
Heart-Mind Learning with Clyde Hertzman, Dalai Lama Centre

- <https://www.youtube.com/watch?v=xpJT7zpm60A>
- <https://www.youtube.com/watch?v=sFOjlyevWBO>





Connectedness



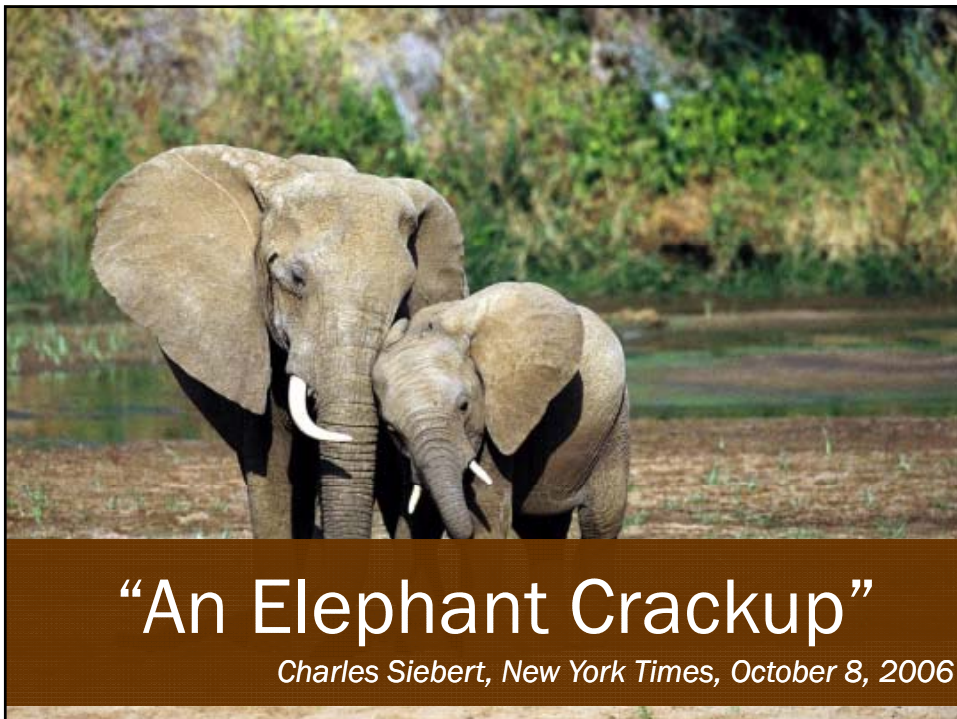
“Every child requires someone in his or her life who is absolutely crazy about them.”

- Urie Bronfenbrenner



“Love at Goon Park: Harry Harlow and the science of affection”

Deborah Blum, 2002



“An Elephant Crackup”

Charles Siebert, New York Times, October 8, 2006



“Owen & Mzee:
The true story of a remarkable friendship”



”
“The making and breaking of affectional bonds”
John Bowlby, 1977

Caring relationships

Children lacking warm, caring relationships are more likely to ...

... be aggressive;

... report lower wellbeing;

... develop brains that are not as effective in regulating stress, and negative feelings and emotions;

... have poor immune functioning;

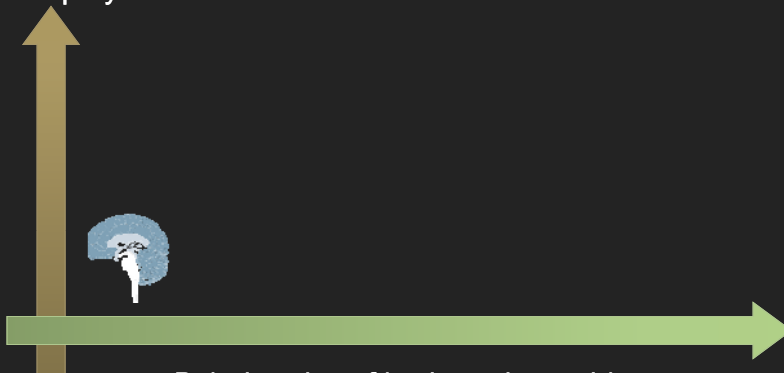
... have cognitive impairment.





Play & brain size across species

Social play

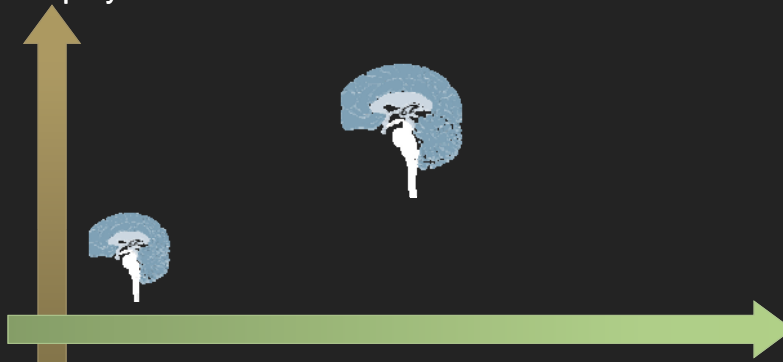


Relative size of brain regions with
socio-cognitive, motor, emotional, & visual functions

Lewis, 2003

Play & brain size across species

Social play

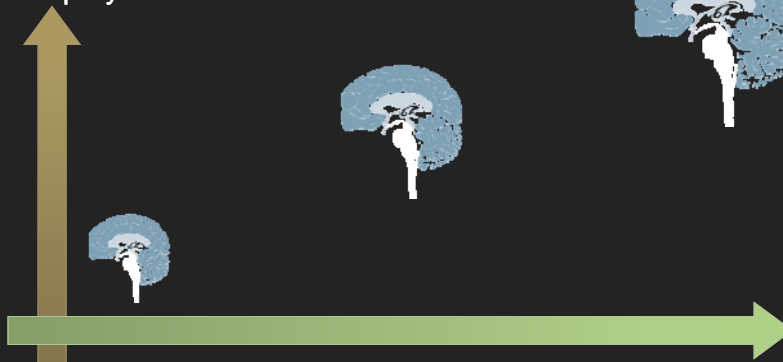


Relative size of brain regions with
socio-cognitive, motor, emotional, & visual functions

Lewis, 2003

Play & brain size across species

Social play



Relative size of brain regions with
socio-cognitive, motor, emotional, & visual functions

Lewis, 2003



Importance of Play

Play & human development

“ *Social pretend play and developmental theory-based programs* that integrate different forms of play have positive long-term associations with social, emotional, and cognitive skills, and behavioral outcomes. ”

*Lillard, Pinkham, & Smith, 2011
Konner, 2010*



Nutrition & Sleep



Dolinov, Weidman, & Jirtle. 2007

Identical genes, but different prenatal diet



Restricted diet:
More obesity
More diabetes
More cancers

Waterland & Jirtle, 2003

Nutrition

In humans, mothers' nutrition is also associated with risk for obesity, diabetes, cancers, and other health outcomes.

Nutrition

Eating/drinking less (refined) sugar, and eating more fresh fruit and vegetables reduces obesity rates and dental caries, and improves immune function and cardiovascular health.

Family meals

More family meals are associated with less tobacco and alcohol use, better school performance, less depression symptoms, and fewer eating disorders.

Eisenberg et al., 2004

Neumark-Sztainer et al., 2004



Sleep loss or deprivation

Obesity & Diabetes

Hypertension & Cardiovascular disease

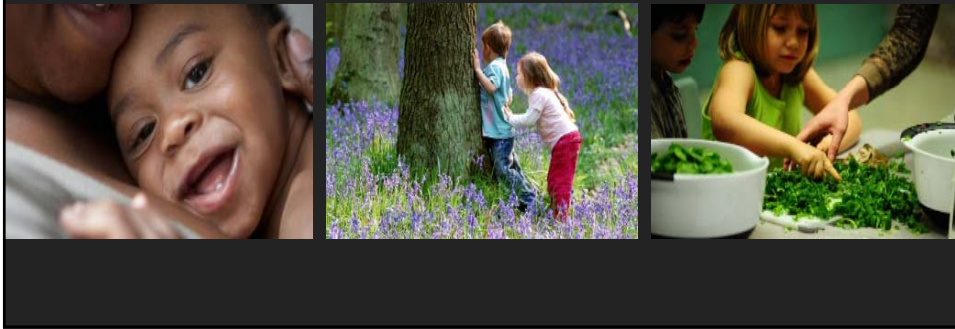
Anxiety & Depression

Cognitive functioning

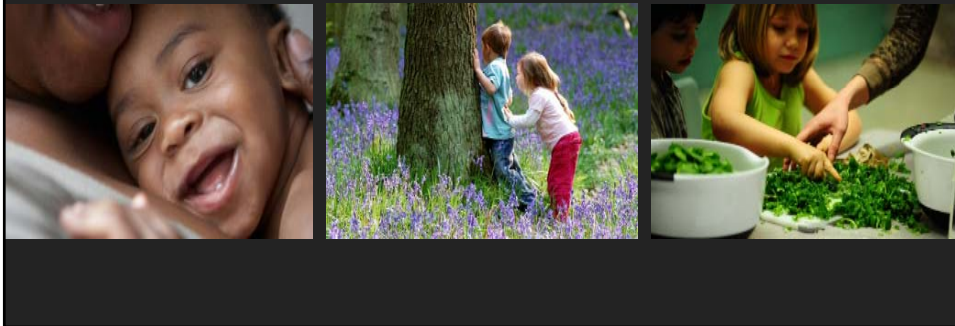
Smaldoen et al., 2007

Sadeh et al., 2002

Focus on differences
we can make



Focus on differences
*we can make,
or can we?*



Barriers



Something very large

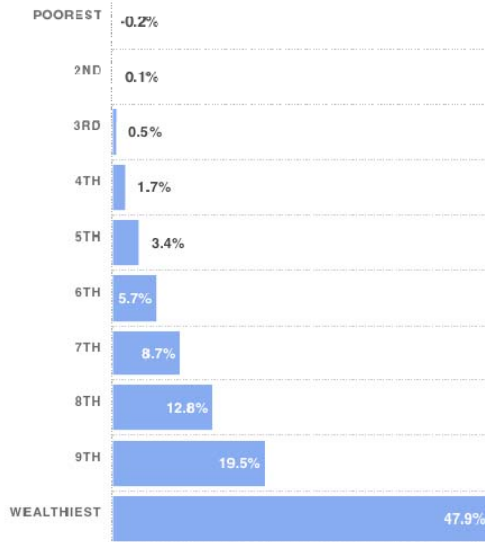
“There is something very large happening to family life.”

Families with children are squeezed for time, money, and access to programs and services.



THE GAP BETWEEN THE RICH AND POOR

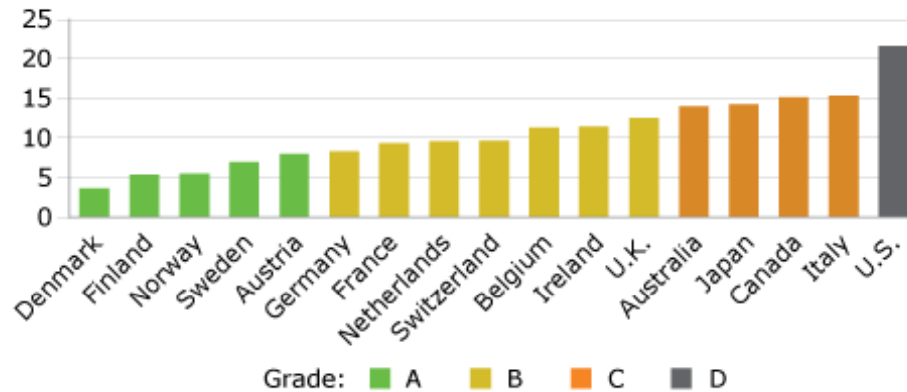
Stats Canada divided households into ten segments by networth, then broke out what percent of total wealth they owned.



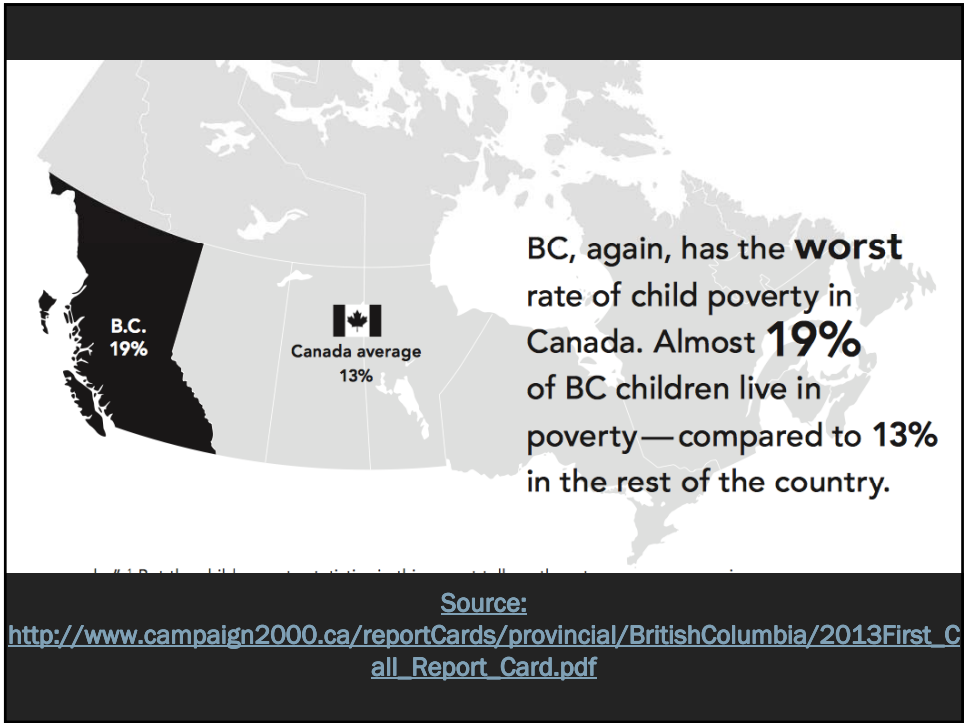
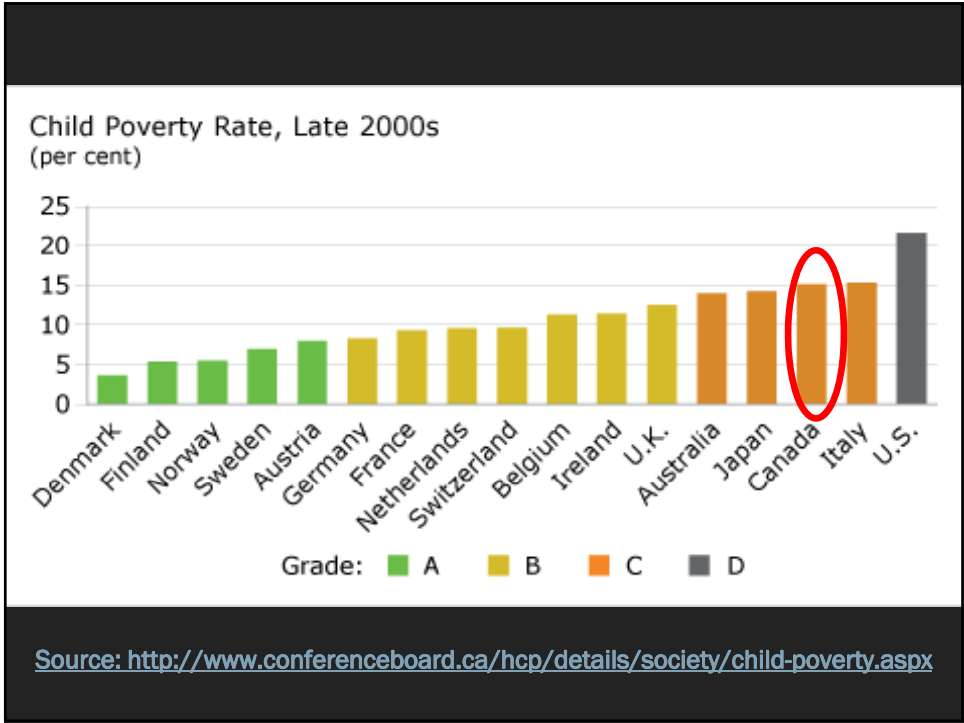
2012 DATA

Source:
http://www.thestar.com/business/personal_finance/investing/2014/09/11/rich_gaining_more_wealth_study_shows.html

Child Poverty Rate, Late 2000s (per cent)



Source: <http://www.conferenceboard.ca/hcp/details/society/child-poverty.aspx>



40% of Indigenous children in Canada
live in poverty

2013 study released by the Canadian
Centre for Policy Alternatives (CCPA)
and Save the Children Canada

Source: <https://www.policyalternatives.ca/newsroom/news-releases/40-indigenous-children-canada-live-poverty-study>

Priorities

- Government spending on medical care and pensions has grown by billions since 1976, but spending on families with young children has not changed.

Priorities

- Canadian governments spend as much subsidizing livestock and agriculture as child care and parental time at home with a new baby.

End child poverty in Canada now: Editorial

Twenty-five years after Parliament voted unanimously to end child poverty, the numbers have grown even larger and there's no excuse for lack of action.

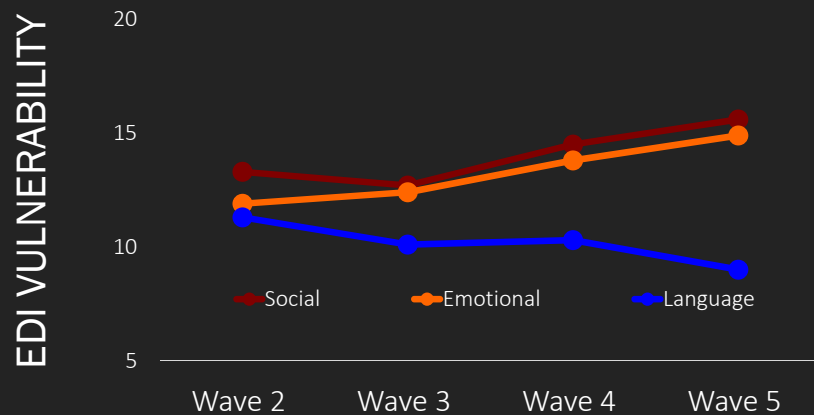
http://www.thestar.com/opinion/editorials/2014/11/21/end_child_poverty_in_canada_now_editorial.html

HOW INCOME INEQUALITY HURTS EVERY CANADIAN'S CHANCE OF BUILDING A BETTER LIFE

- The Globe and Mail
- Published Friday, Nov. 08 2013

Source: <http://www.theglobeandmail.com/news/national/time-to-lead/our-time-to-lead-income-inequality/article15316231/>

TRENDS IN EDI VULNERABILITY



Declines in Emotional Maturity and Social Competence

- Do these trends reflect the 'squeeze' for time, resources, and services that affects families with young children?



Overcoming barriers

- Making children and families a priority

Generation Squeeze

(Paul Kershaw, HELP, UBC)

THE GENERATIONS RAISING YOUNG KIDS ARE SQUEEZED FOR...



TIME
AT HOME WITH CHILDREN
SERVICES
AFFORDABLE CHILD CARE
MONEY
HIGHER STUDENT DEBTS,
HIGHER HOUSING COSTS,
& STAGNANT INCOMES

Website: <http://gensqueeze.ca>

Rights of the Child

Rights of the Child; Article 12

You have the right to an opinion and for it to be listened to and taken seriously.



Rights of the Child; Article 31

You have the right to play and relax by doing things like sports, music and drama.



Convention on the Rights of the Child

Sources:

<http://www.ohchr.org/en/professionalinterest/pages/crc.aspx>

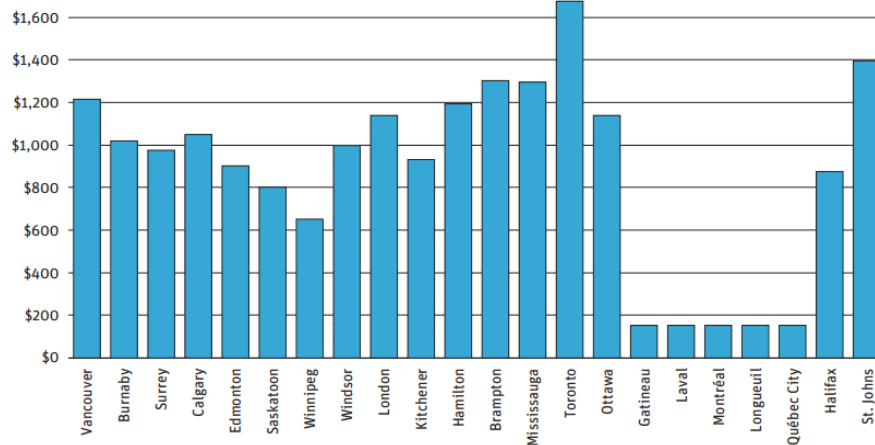
<http://www.scyofbc.org/#!uncrc-simplified-version/c1vtj>

La Convention des droits de l'enfant

[http://www.unicef.org/rightsite/files/Frindererklarfr\(1\).pdf](http://www.unicef.org/rightsite/files/Frindererklarfr(1).pdf)

**Promising
practical avenues and actions
for child development**

Monthly daycare costs

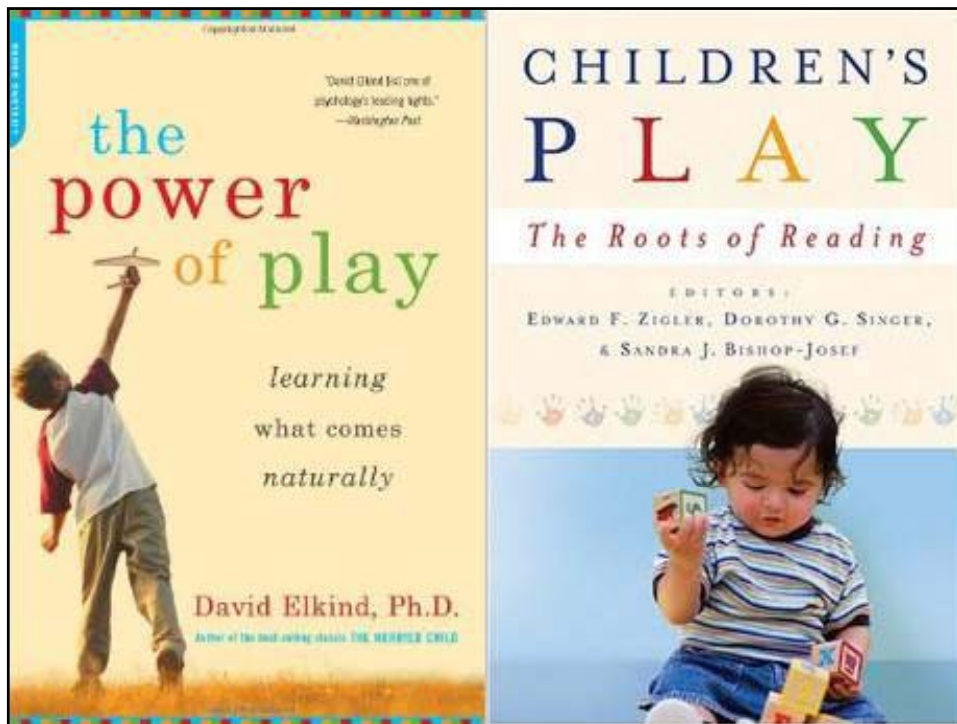


Source: <https://www.policyalternatives.ca/publications/reports/parent-trap>

Play-based daycare and kindergarten

Ontario Kindergarten

- http://www.edu.gov.on.ca/eng/curriculum/elementary/kindergarten_english_june3.pdf



Better beginnings, better futures

Highlights

- <http://bbbf.ca/Portals/15/pdfs/BB-Highlights.pdf>

Key findings

- <http://bbbf.ca/ReportsPublications/ShortTermFindingsReport/tabid/553/Default.aspx>

Child-friendly communities

Plan H

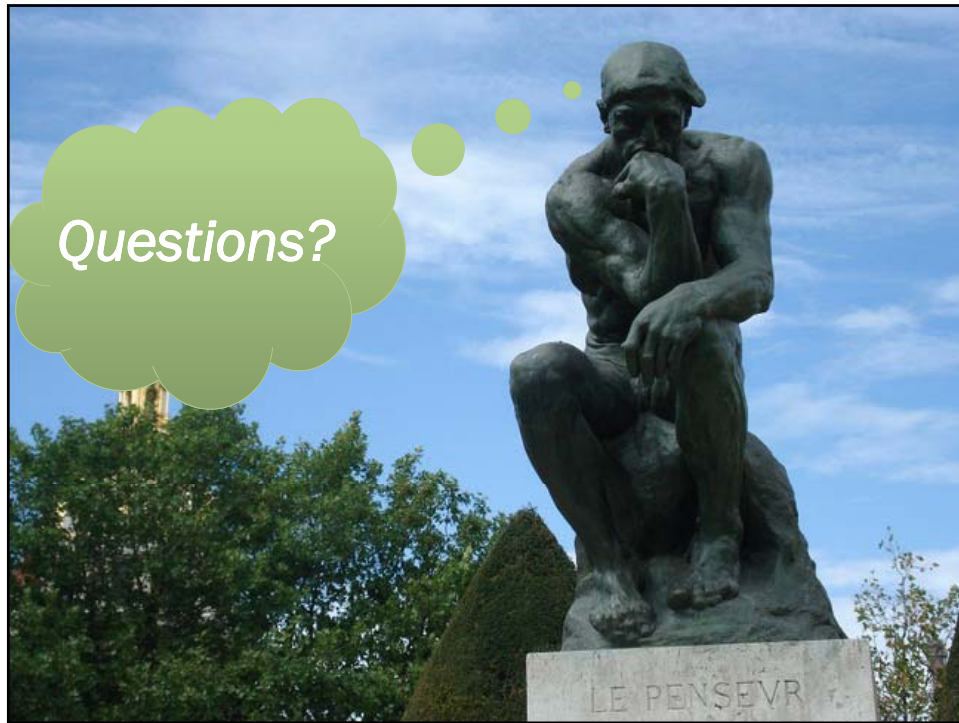
- <http://planh.ca>

Society for Children and Youth of BC

- <http://www.scyofbc.org/#!cyfc/cvy8>

Key lessons learned

- Local control
- Inter-sectoral coalitions
- Access to resources
- Evidence-based
- *Involvement of children and families*



**HUMAN
EARLY LEARNING
PARTNERSHIP**

Thank you



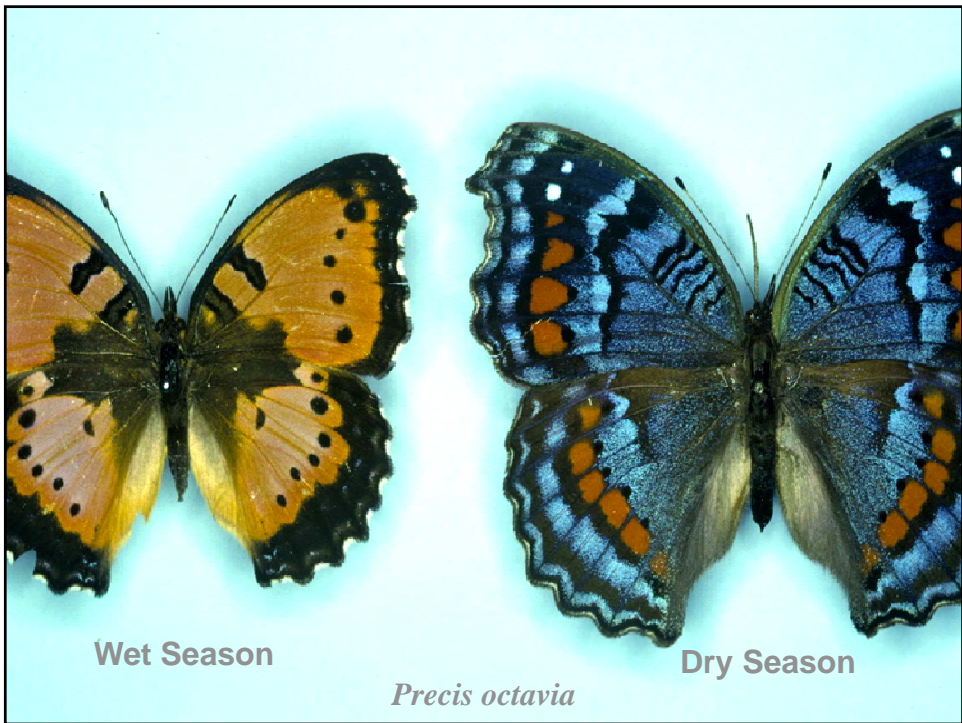
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Website

earlylearning.ubc.ca

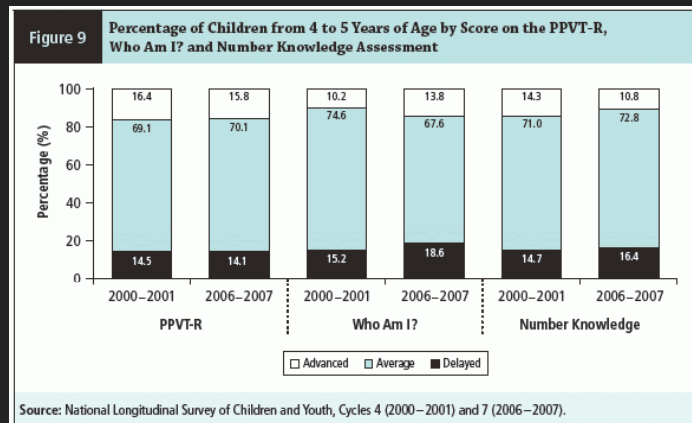


Wet Season

Precis octavia

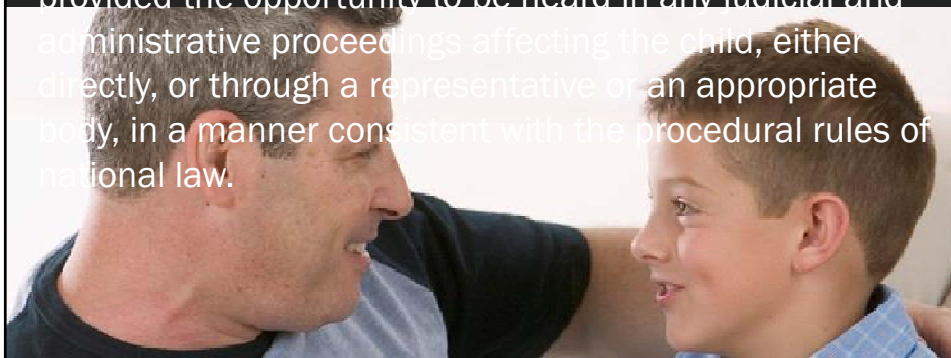
Dry Season

<http://www.dpe-agje-ecd-elcc.ca/eng/ecd/well-being/page06.shtml>



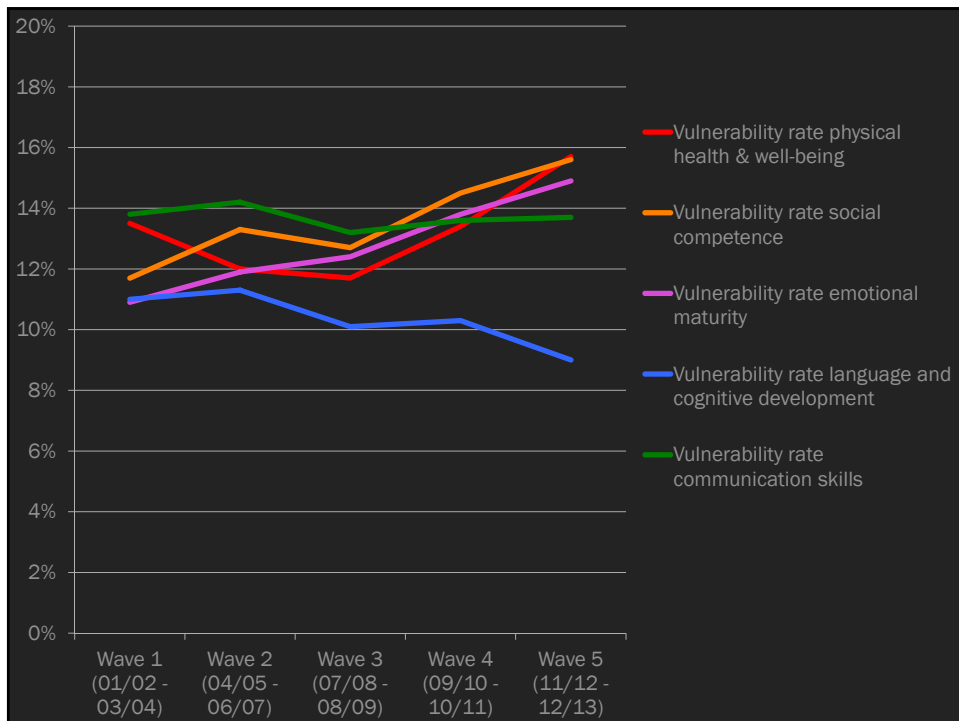
1. States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.

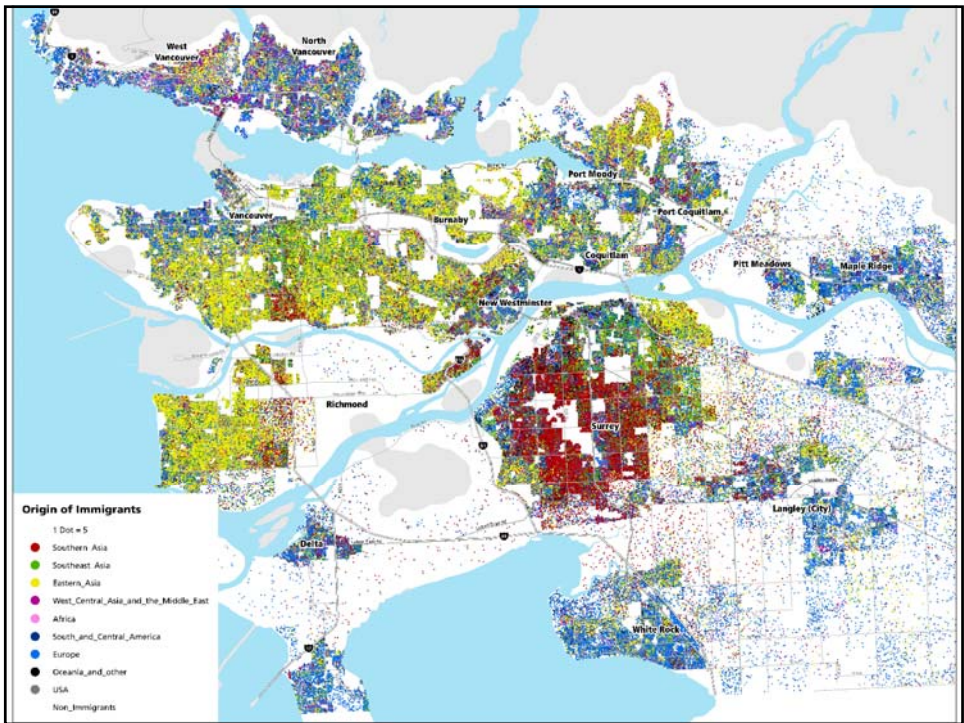
2. For this purpose, the child shall in particular be provided the opportunity to be heard in any judicial and administrative proceedings affecting the child, either directly, or through a representative or an appropriate body, in a manner consistent with the procedural rules of national law.



Rights of the Child; Article 31

States Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.





Language and cognitive skills

(excerpts/examples)

Basic literacy	Reading and writing	Numeracy
handles a book	reads simple words	sorts and classifies
identifies letters	reads complex words	1 to 1 correspondence
sounds to letters	reads sentences	counts to 20
rhyming awareness	write simple words	recognizes 1-10
experiments writing	write simple sentences	compares numbers
writes own name		recognizes shapes

Social competence

(excerpts/examples)

Overall social competence
gets along with peers
is cooperative
plays with various children
self-confidence
tolerance for mistake

Emotional maturity

(excerpts/examples)

Hyperactive and inattentive behavior

restless

distractible

fidgets

impulsive

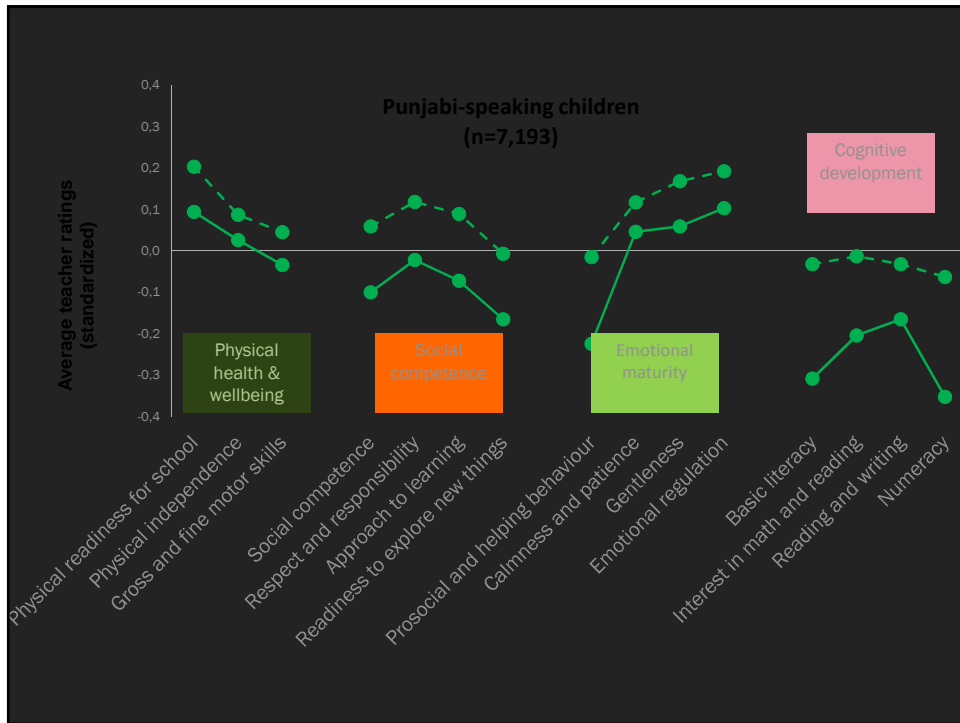
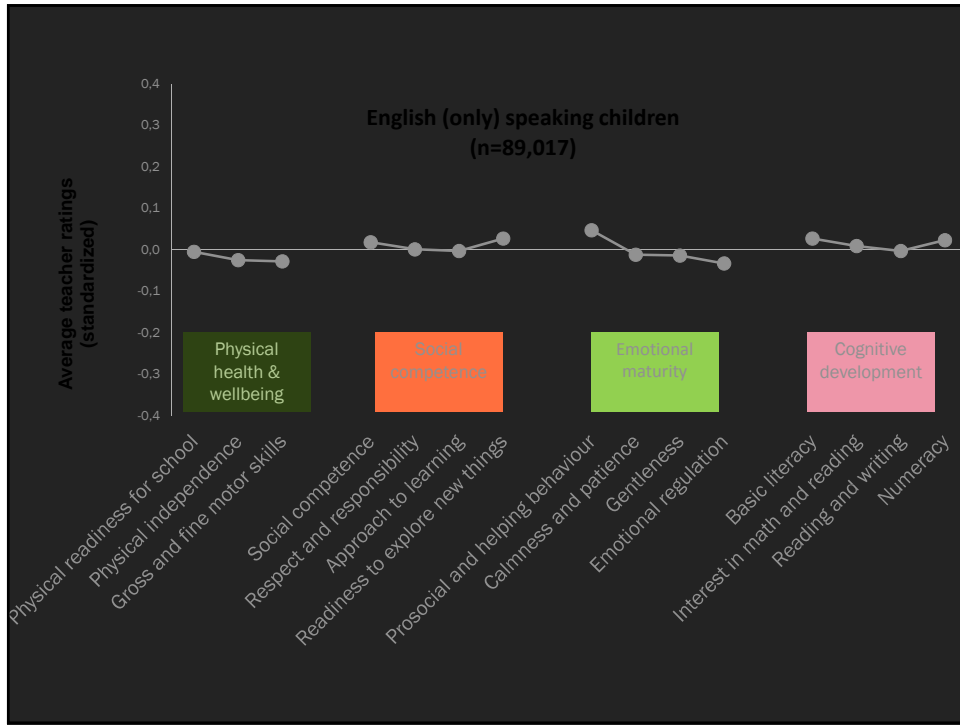
difficulty awaiting turns

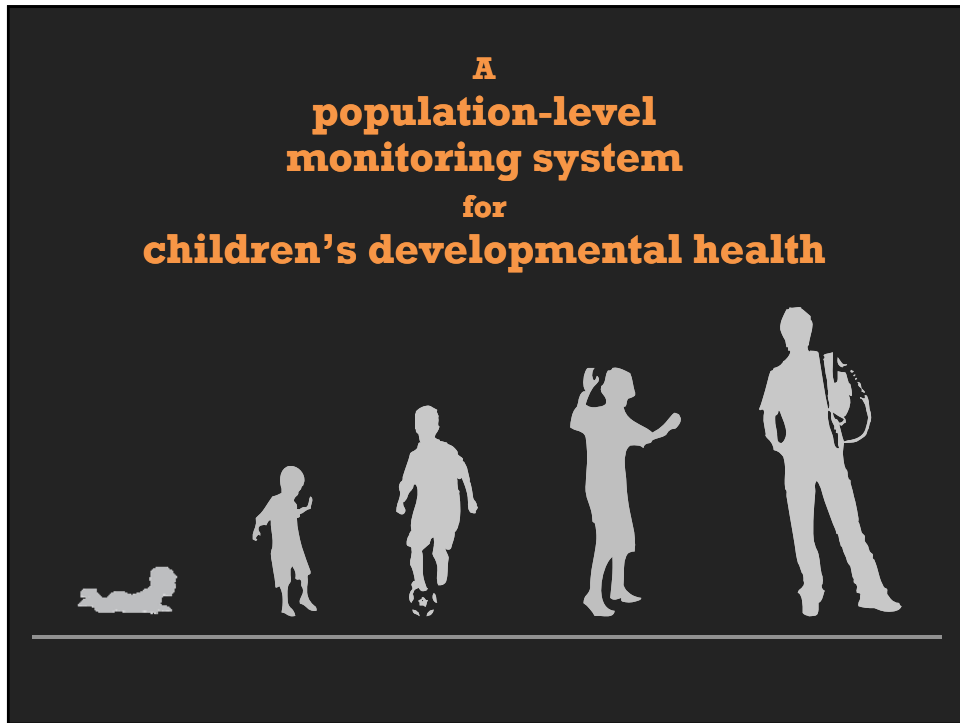
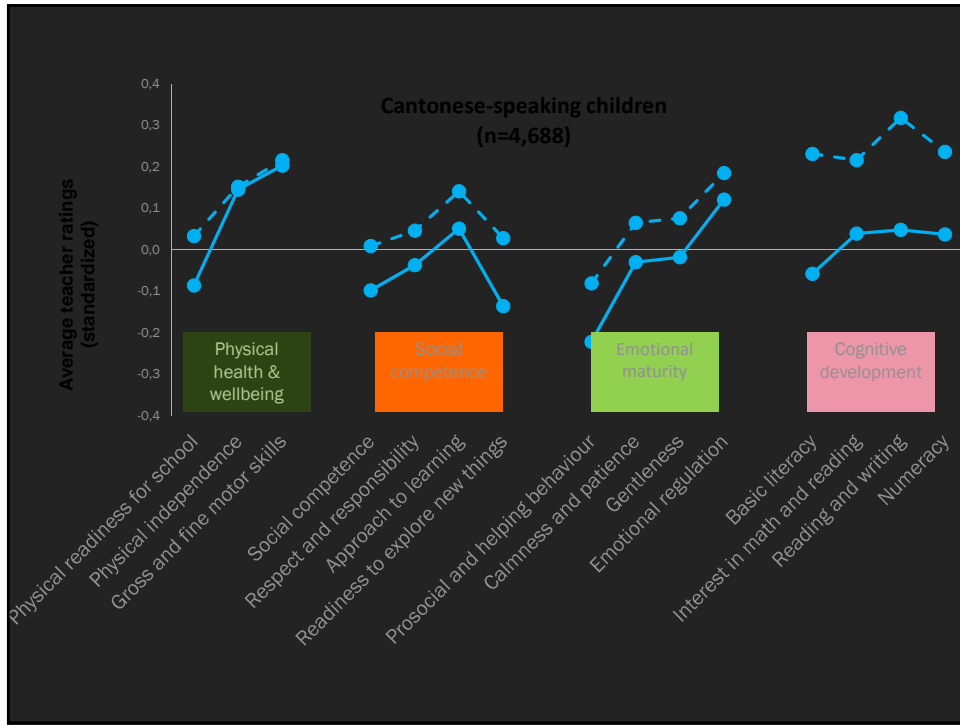
can't settle

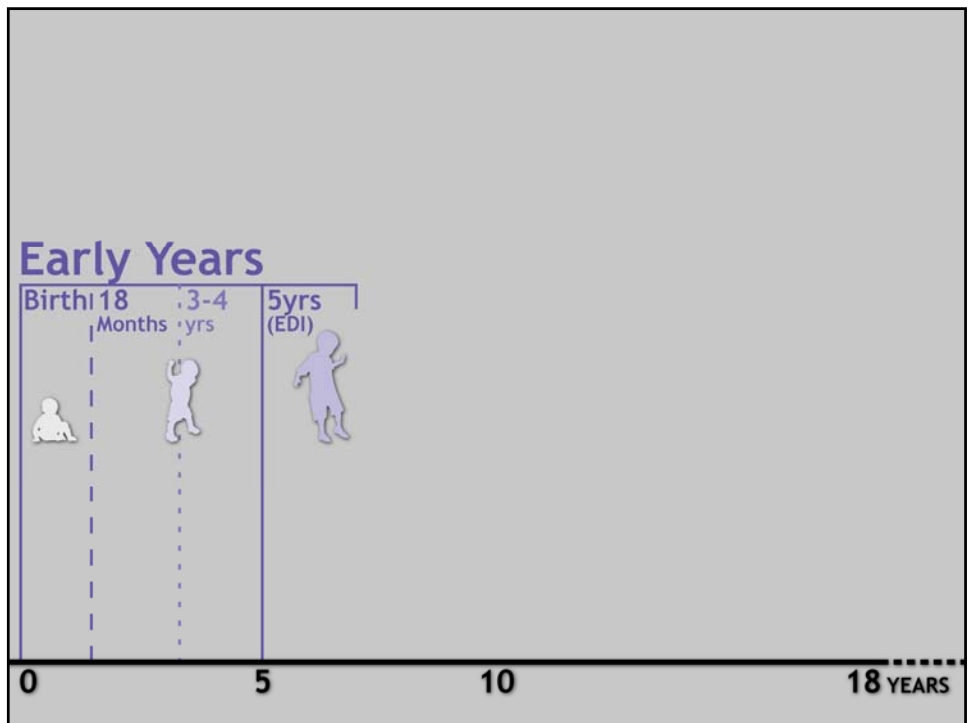
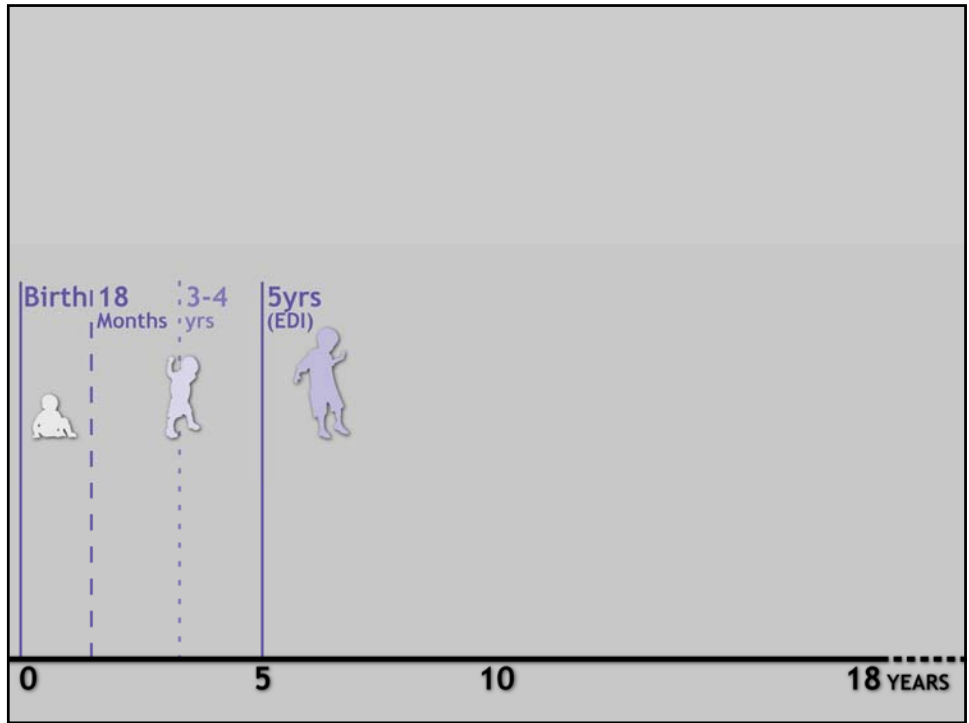
inattentive

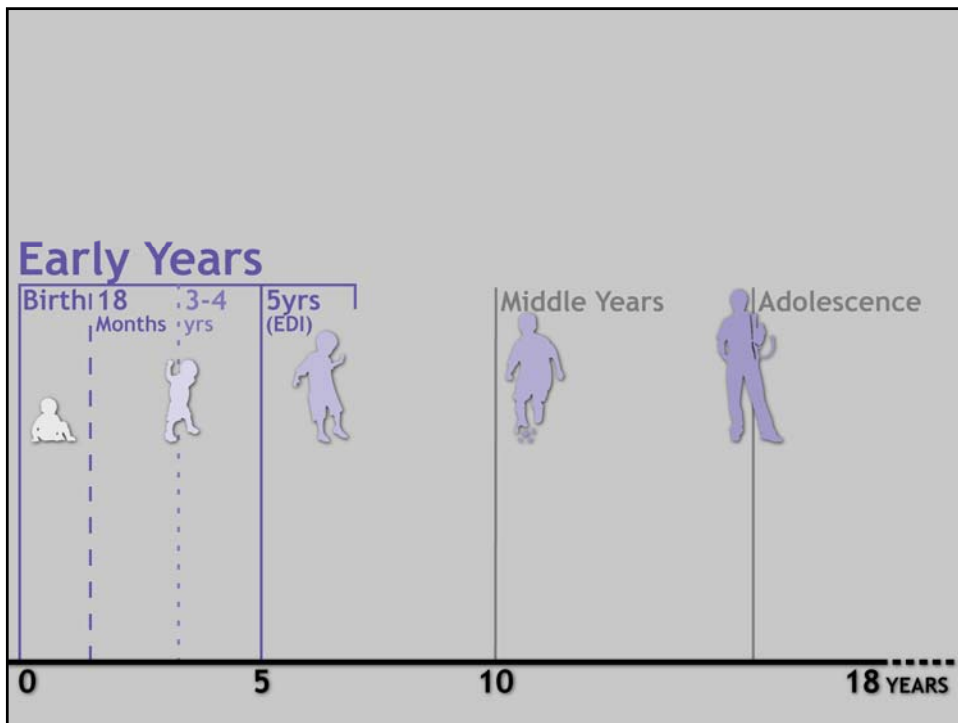
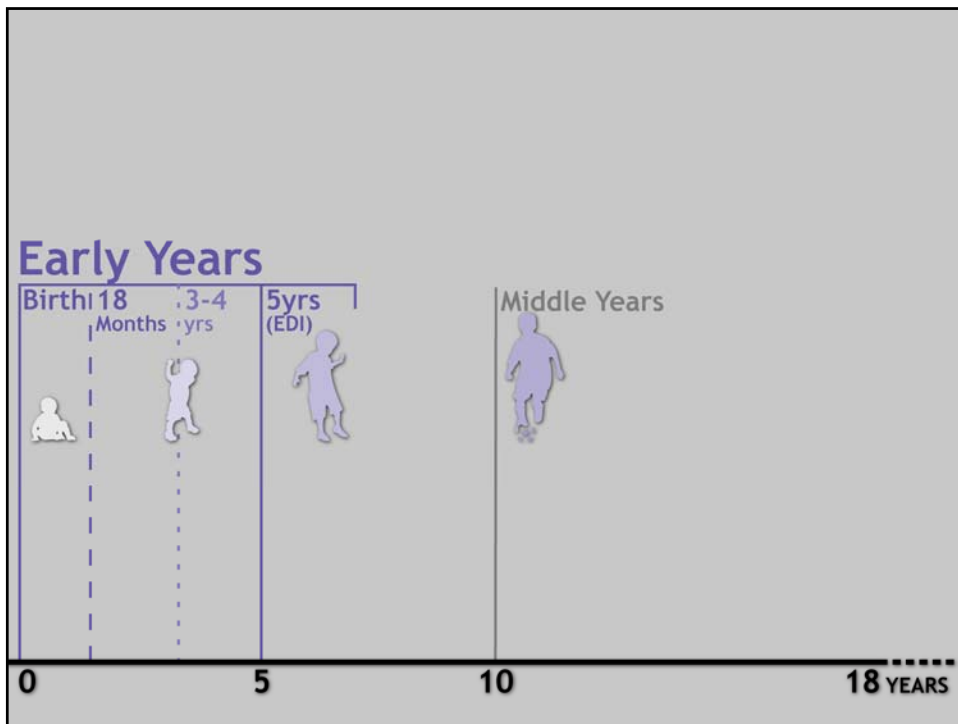
EDI profiles by language background

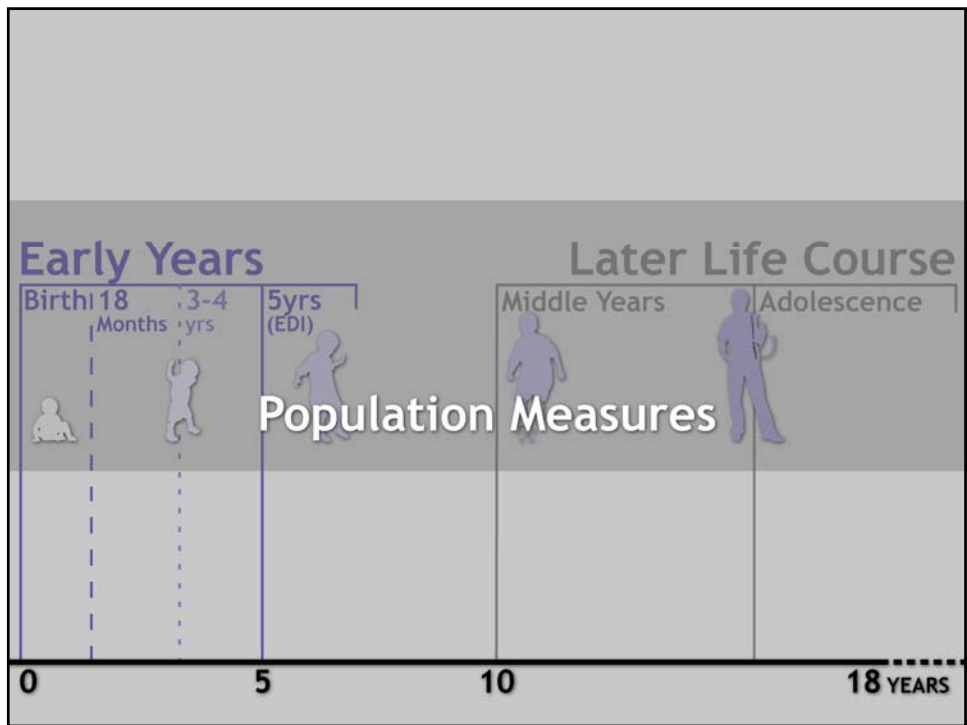
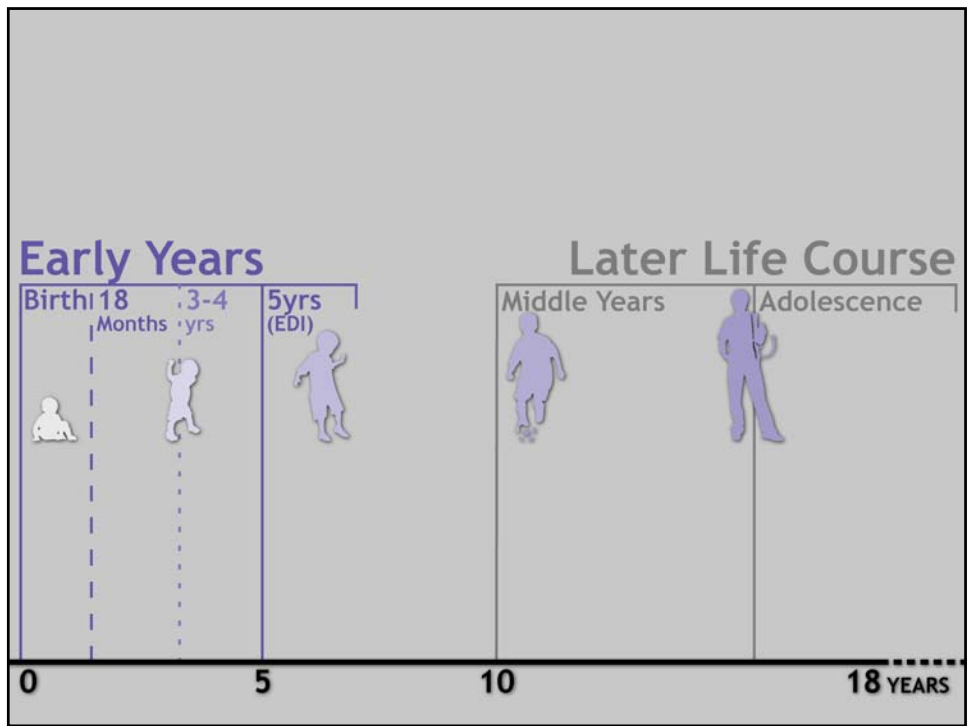


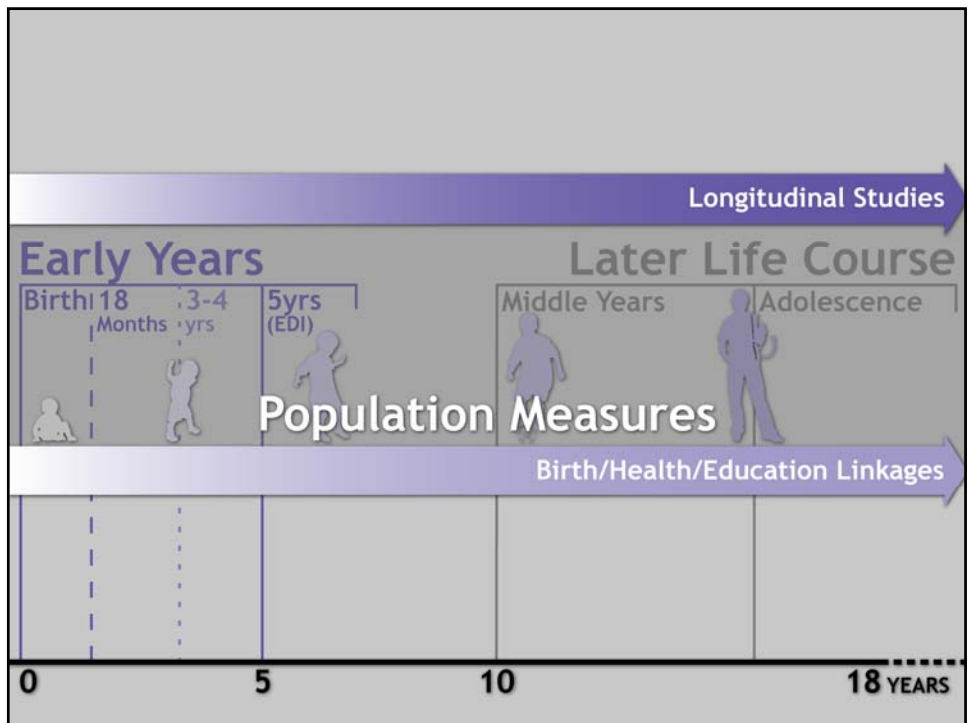
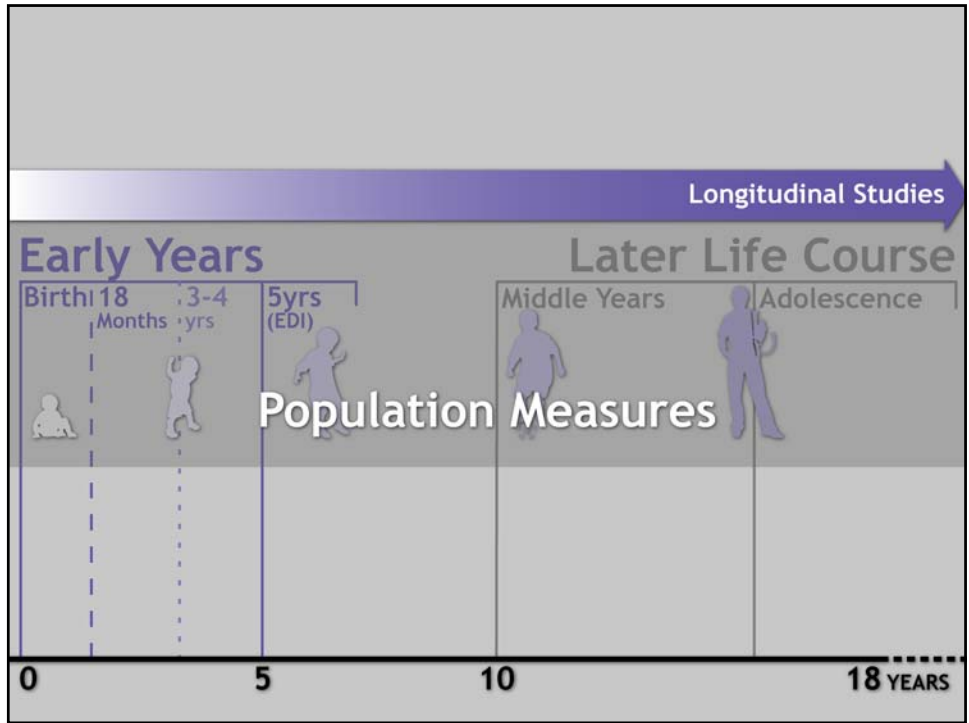


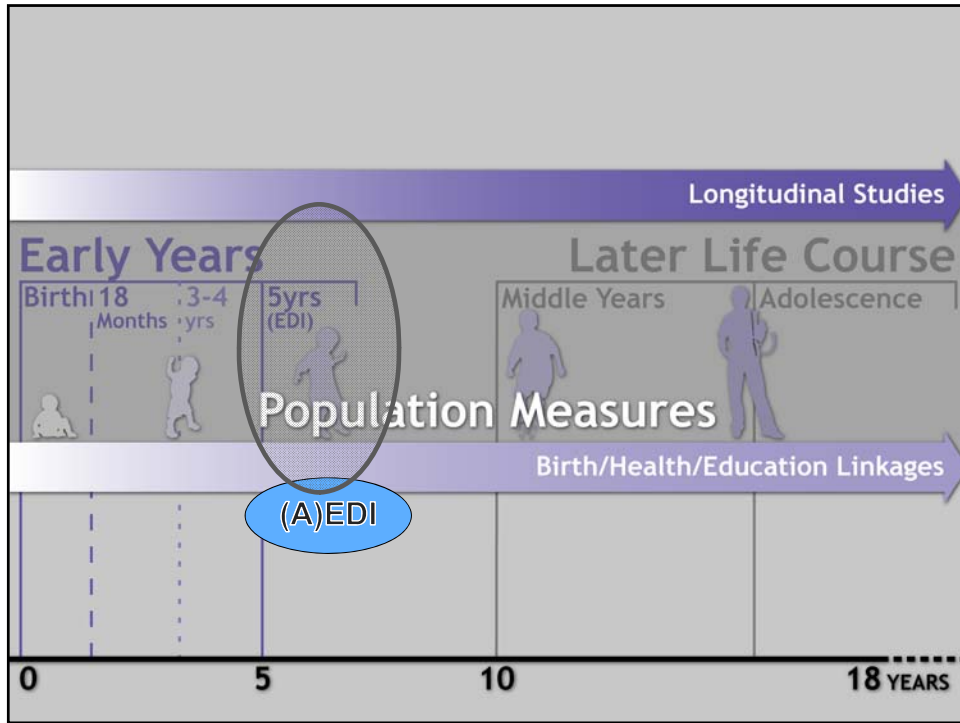












School connectedness

Students who feel connected to people at their school report higher wellbeing and are less likely to abuse substances and engage in violence, than students who do not.

McNeely et al., 2002

Teacher-student relationships

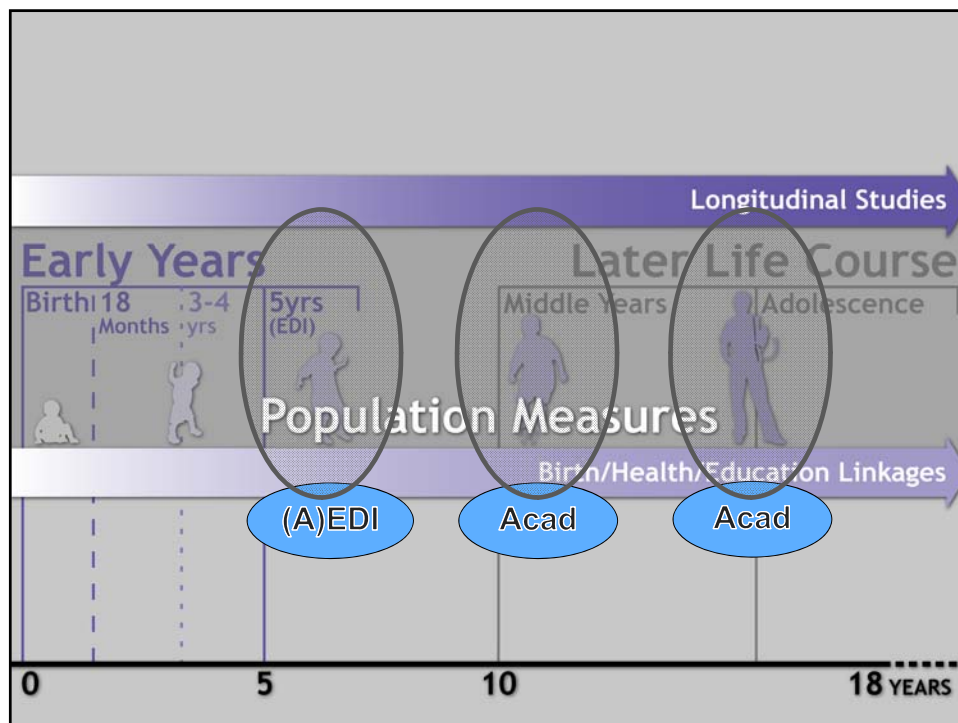
Positive teacher-student relationships are associated with better learning outcomes.

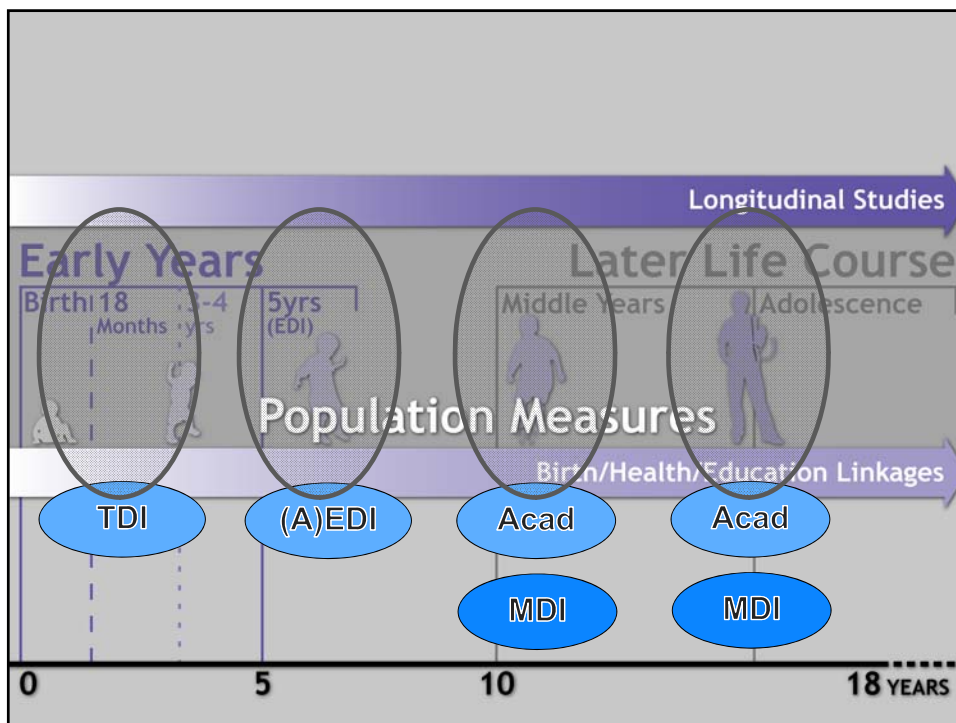
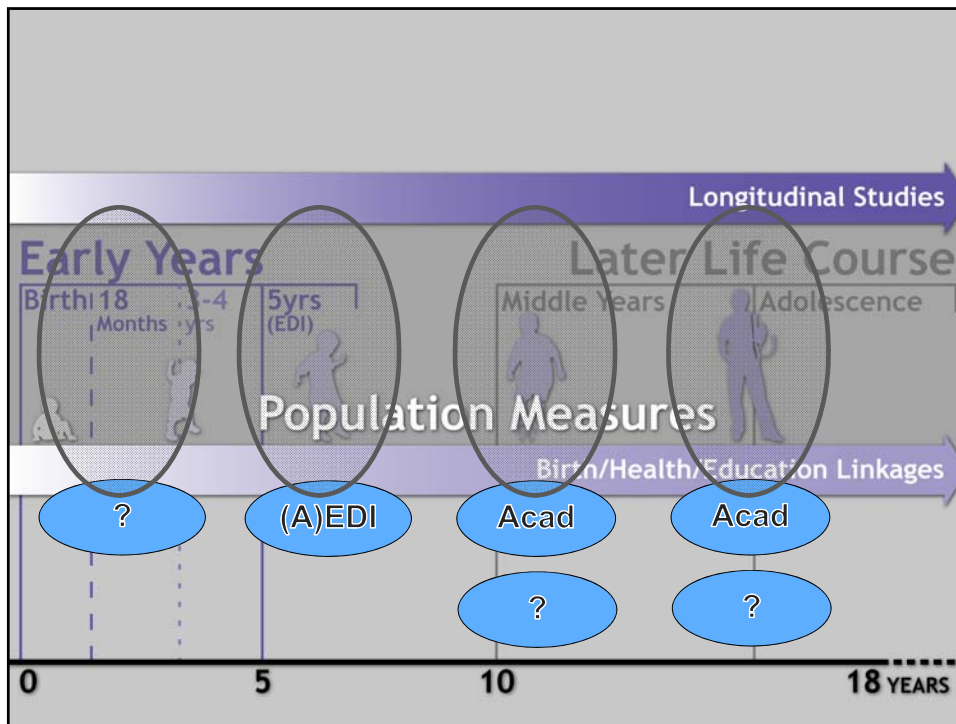
Pianta et al., 2004

Being victimized

Being victimized several times a week is associated with anxiety, depressive symptoms, lower self-esteem, lower optimism, and lower happiness.

Guhn et al., 2012

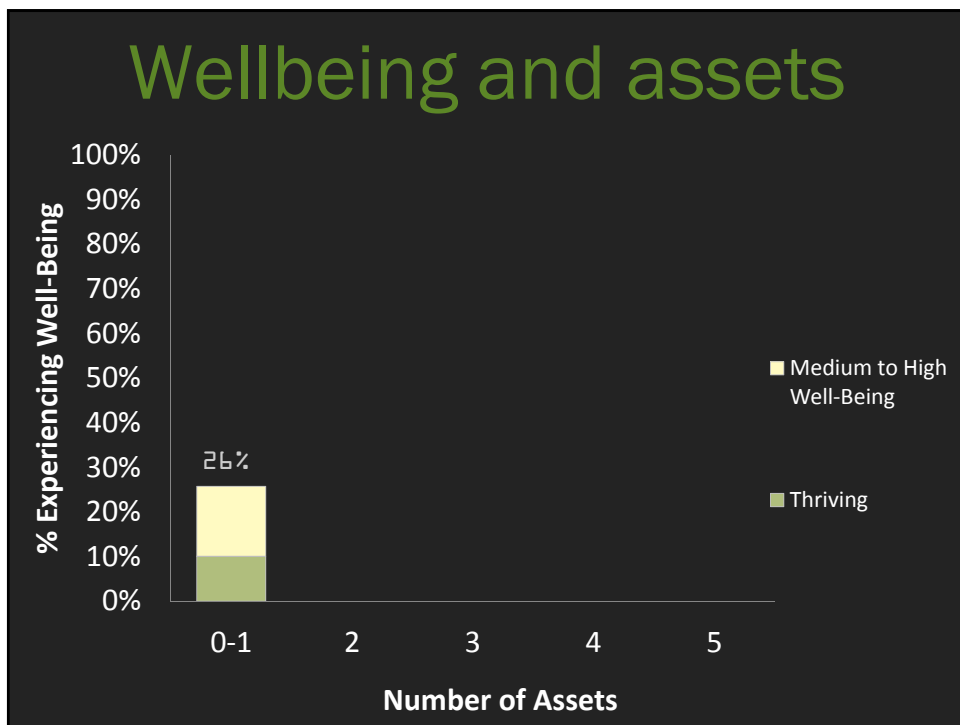
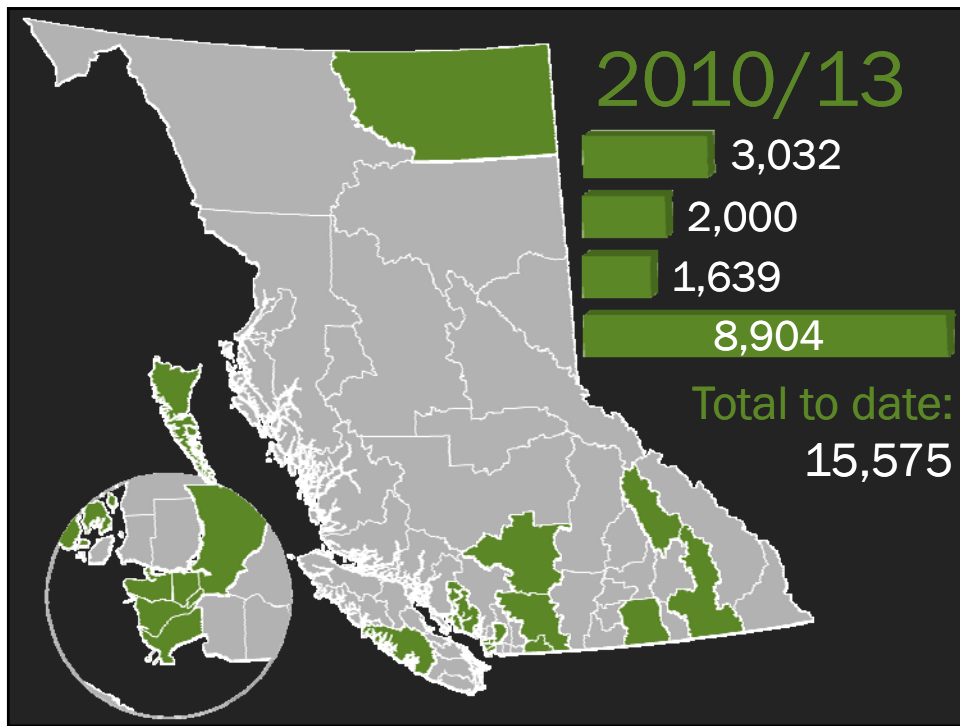




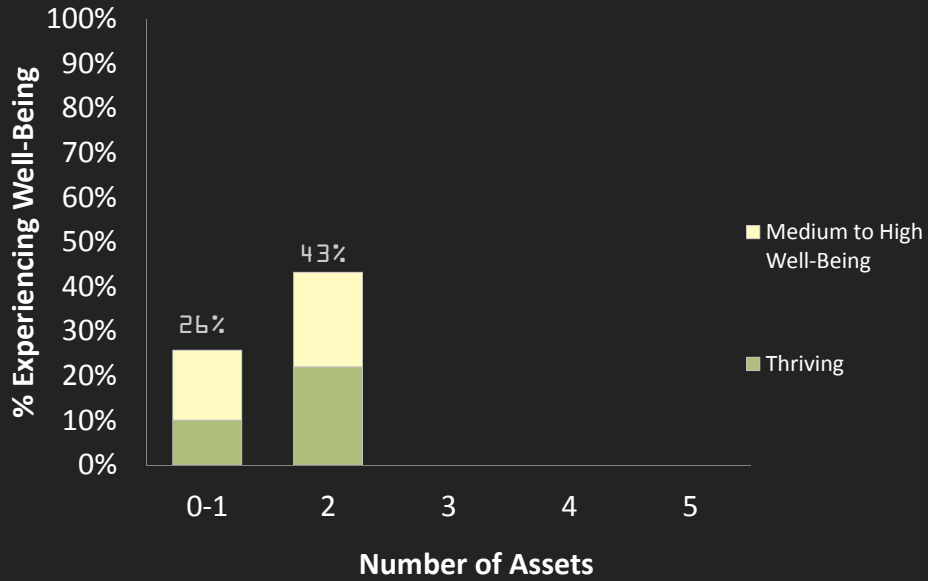
Middle Years Development Instrument (MDI)
Guhn et al., 2012
Schonert-Reichl et al., 2012

Self-report survey for
 Grade 4 & Grade 7 students

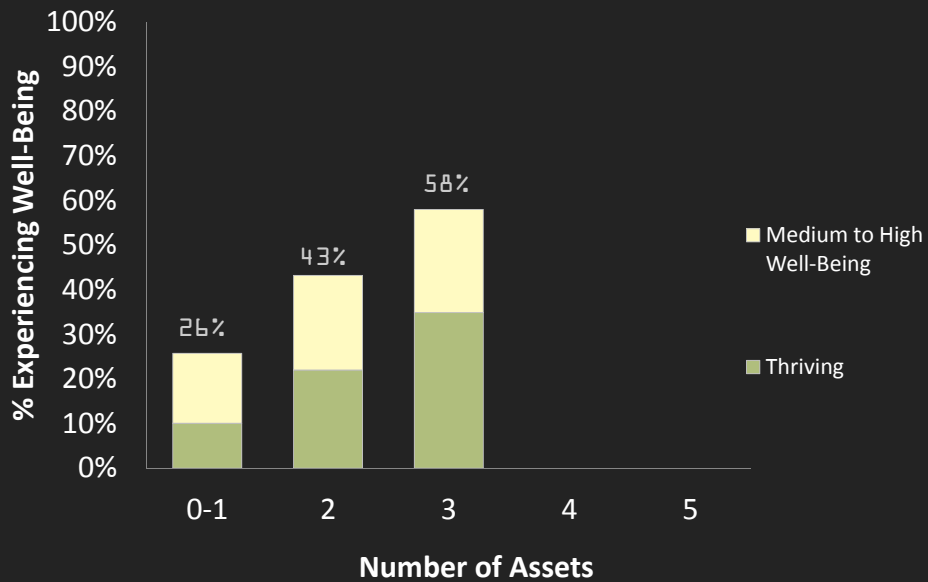
<p>Health & Well-Being</p>	<p>5 Dimensions of the MDI</p>	
<p>Connectedness</p>		<p>Nutrition & Sleep</p>
<p>School experiences</p>		<p>Use of Time</p>



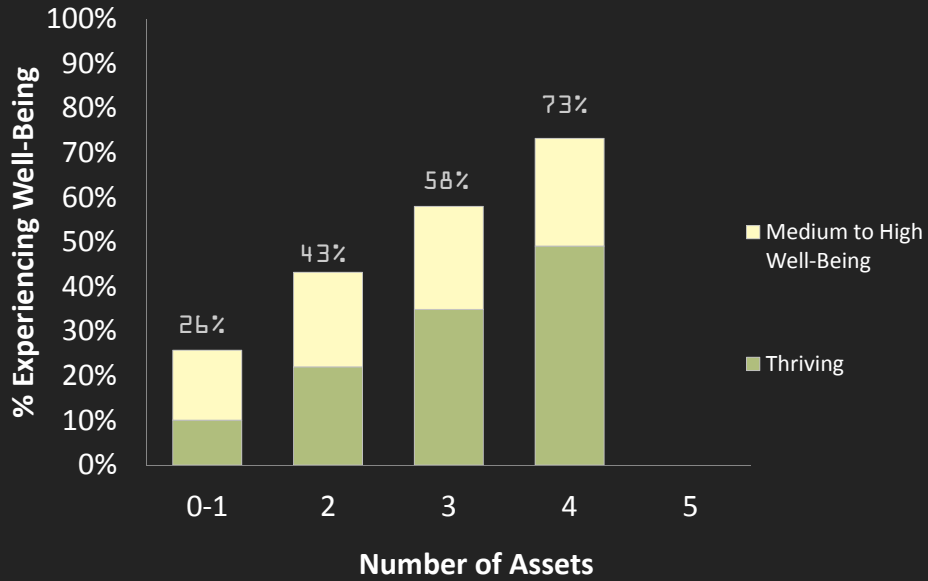
Wellbeing and assets



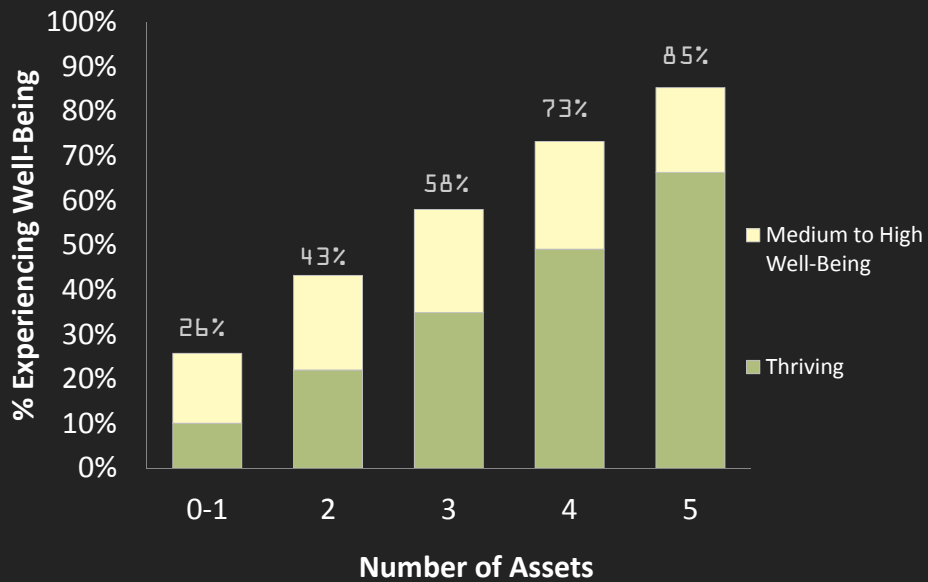
Wellbeing and assets



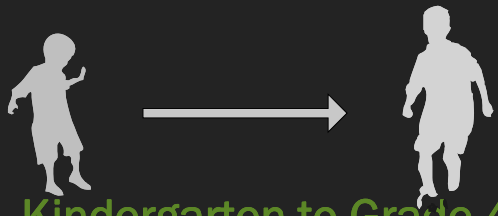
Wellbeing and assets



Wellbeing and assets



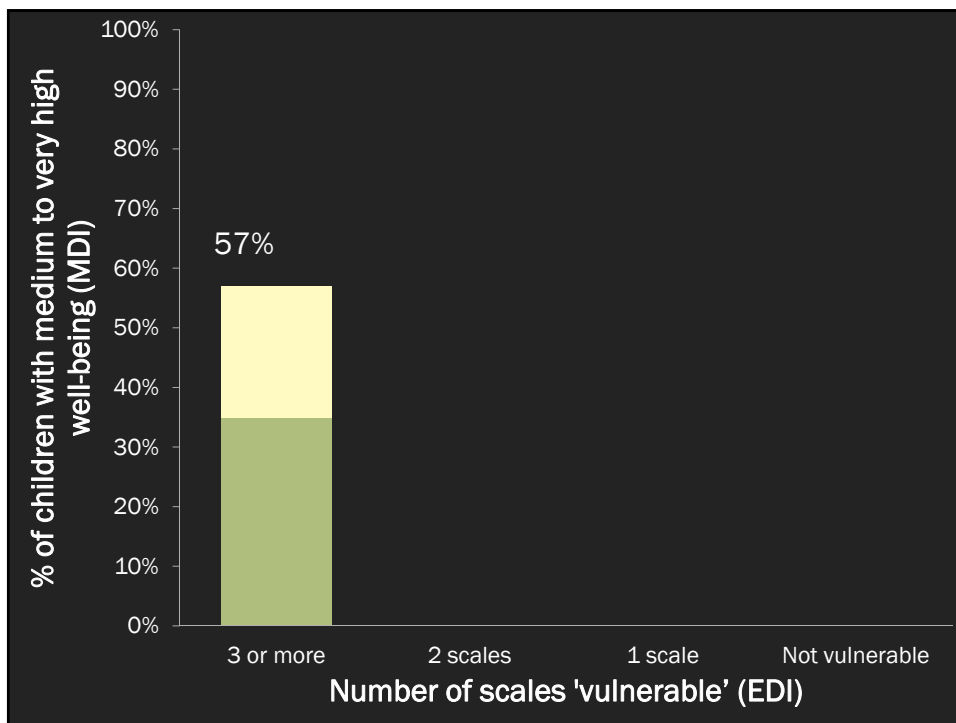
EDI to MDI

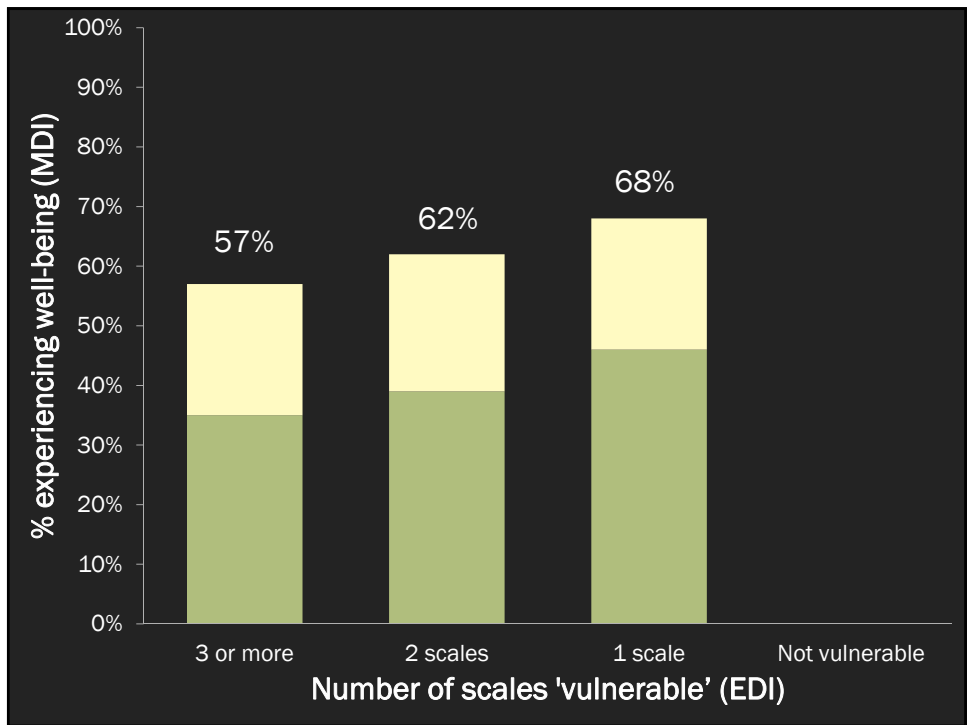
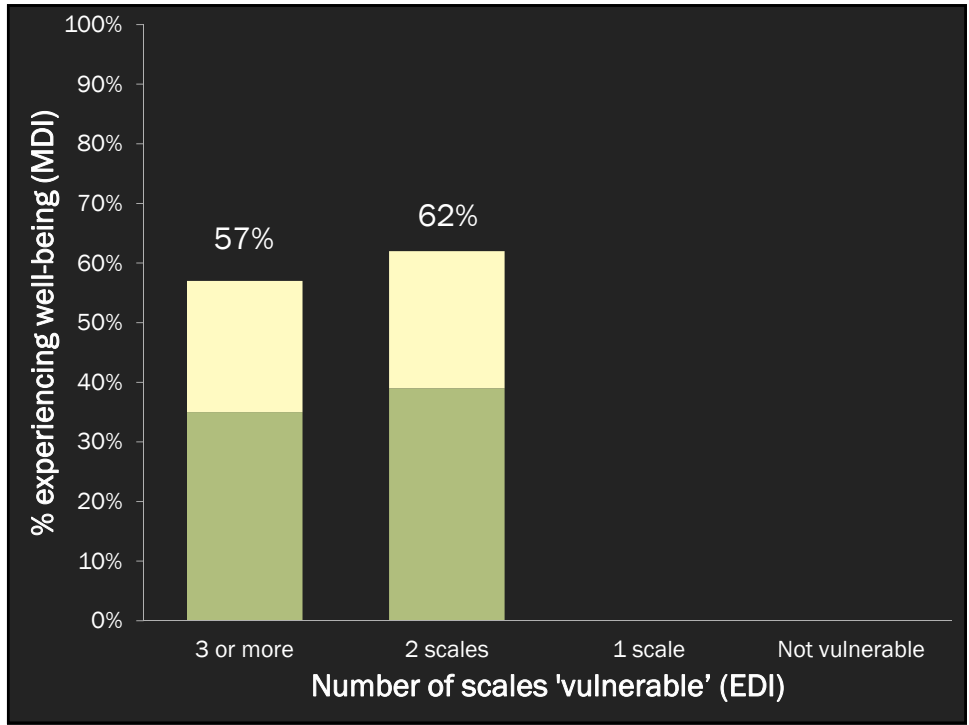


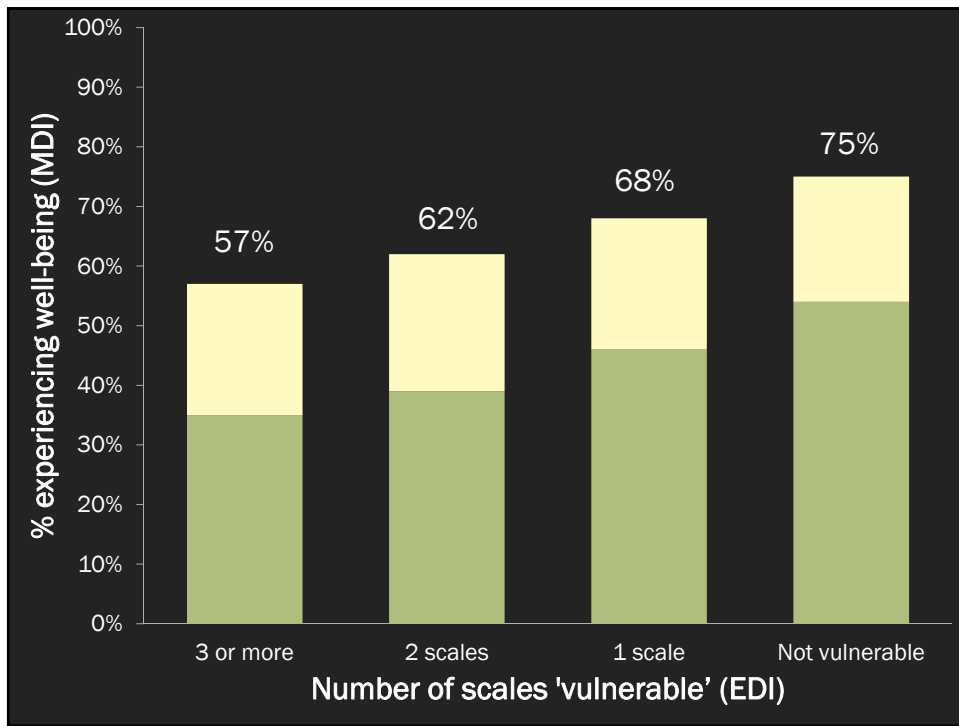
Kindergarten to Grade 4

$N_{\text{study 1}} = 909$

$N_{\text{Study 2}} = 5,874$

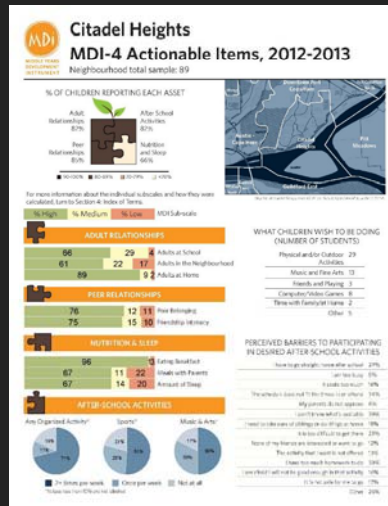
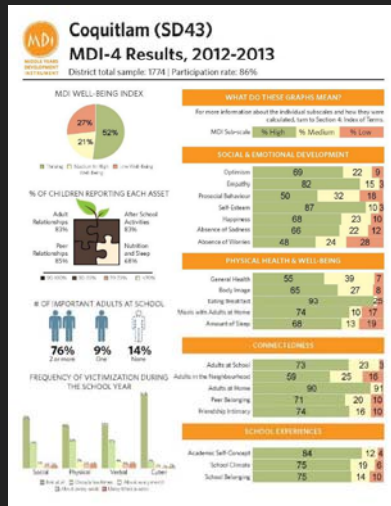




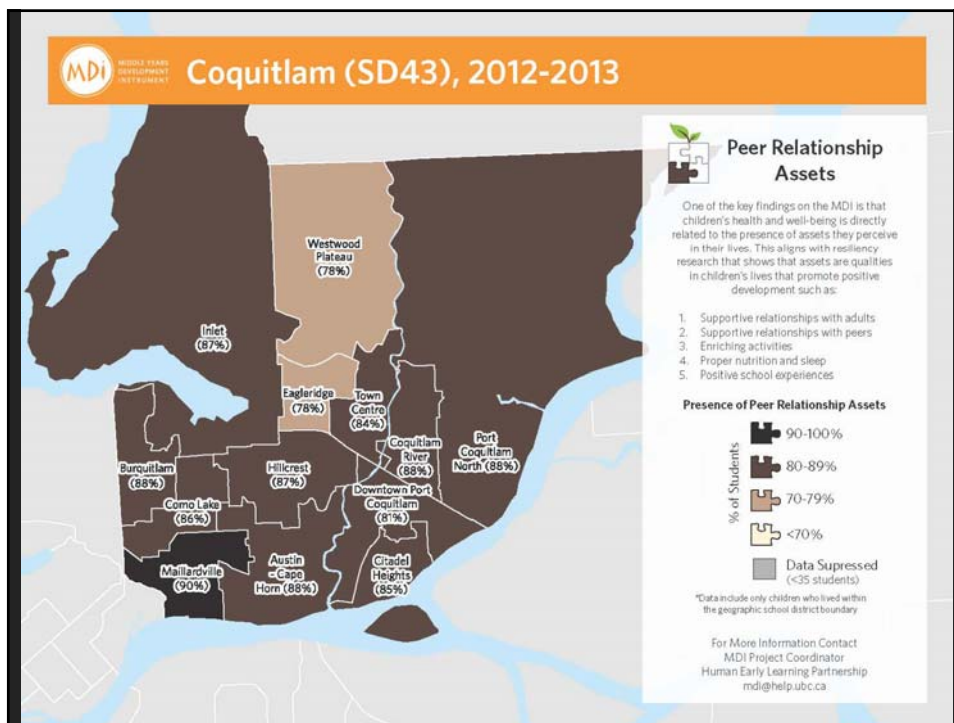
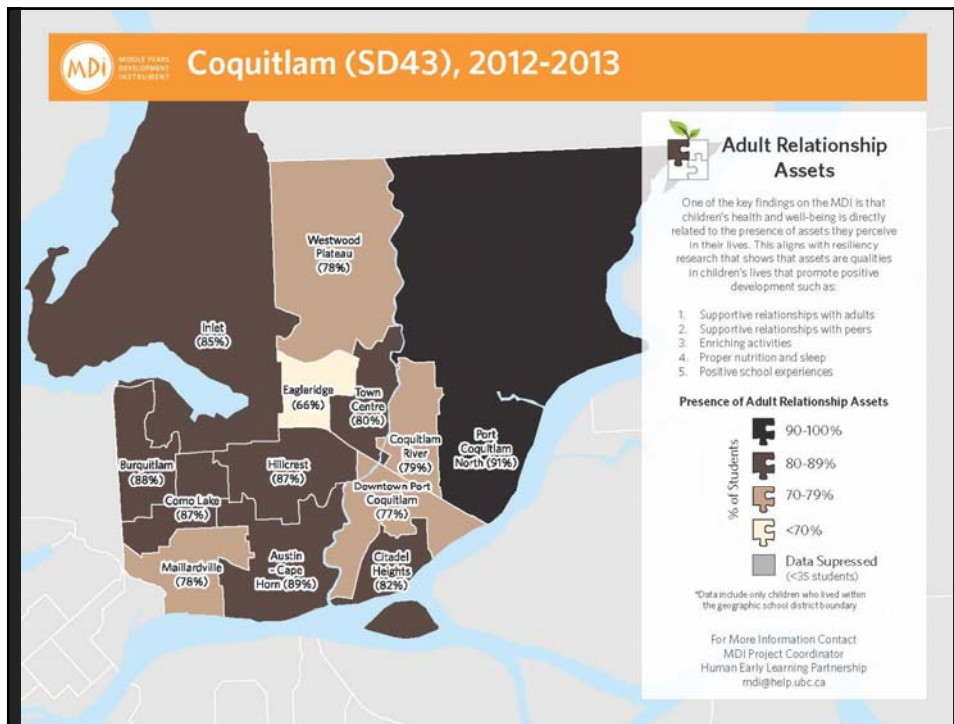


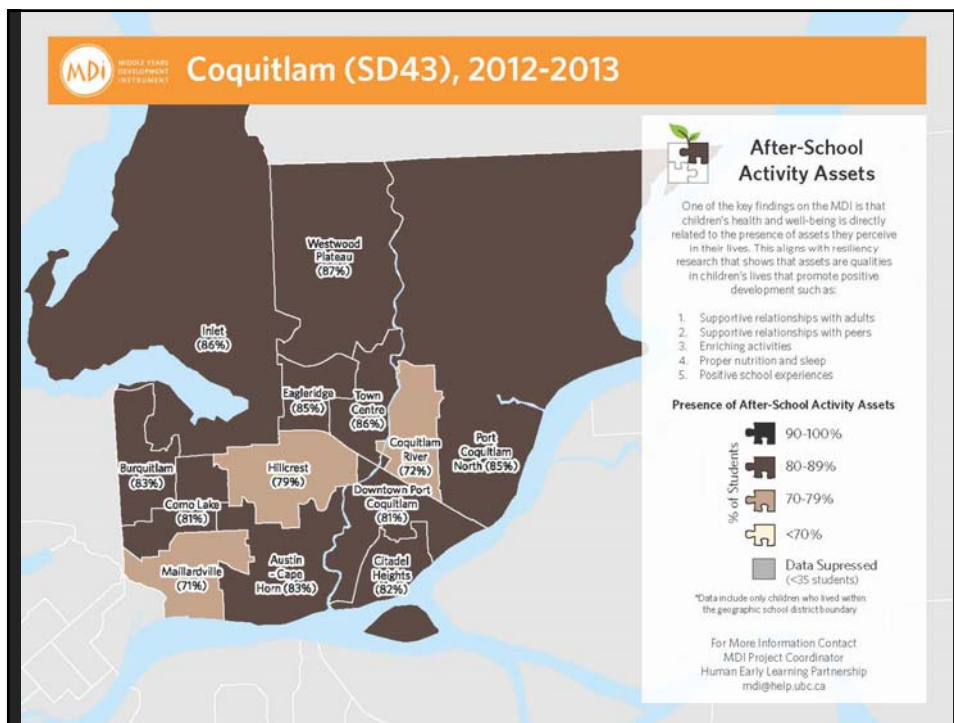
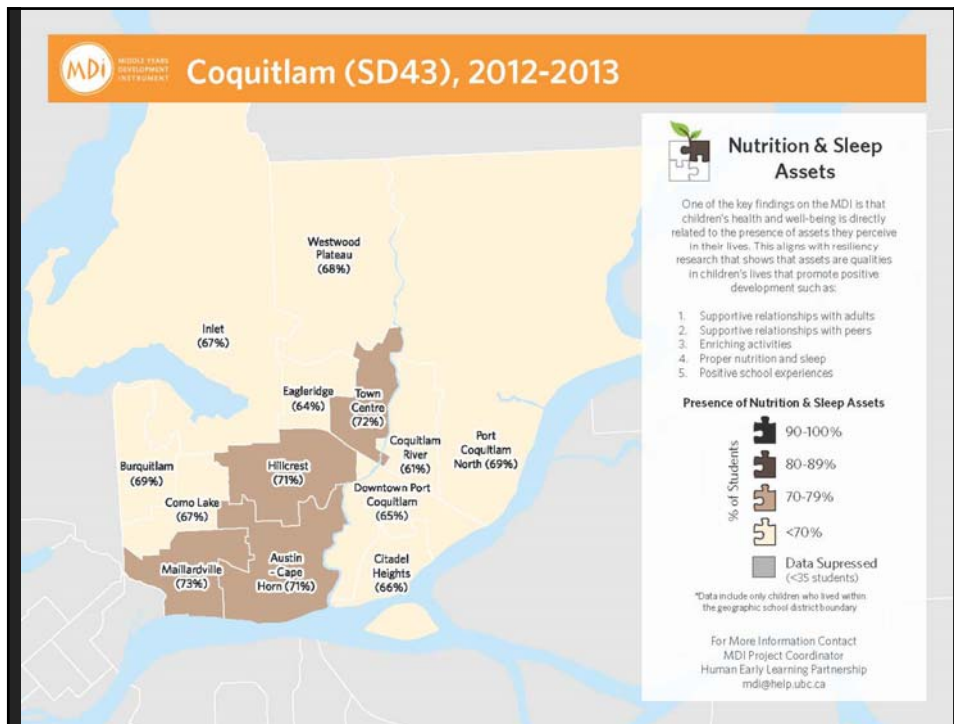
MDI reports

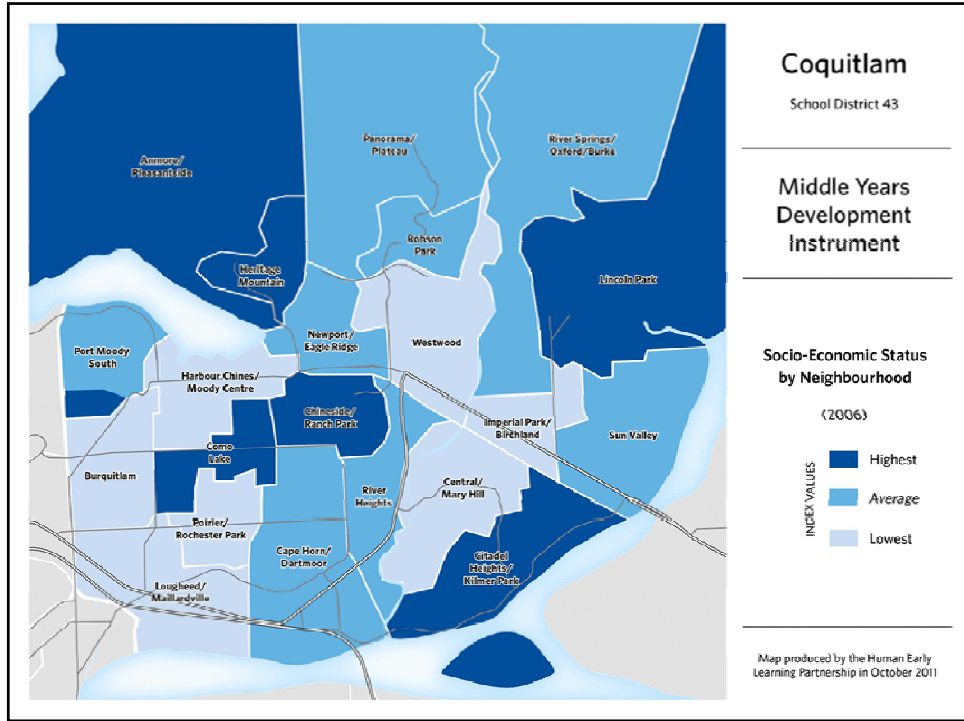
Community reports School reports



MDI mapping







Inter-sectoral coalitions

ECD Roundtables

Early Childhood Development Roundtables
in British Columbia.

Funded by Ministry of Children and Family
Development, Credit Unions, United Way.

Includes local government, school boards,
community organizations, parent groups,
business sector, etc.

Findlay (2011)

Community School Teams

Community School Teams in BC school
districts.

Funded by Ministry of Education.

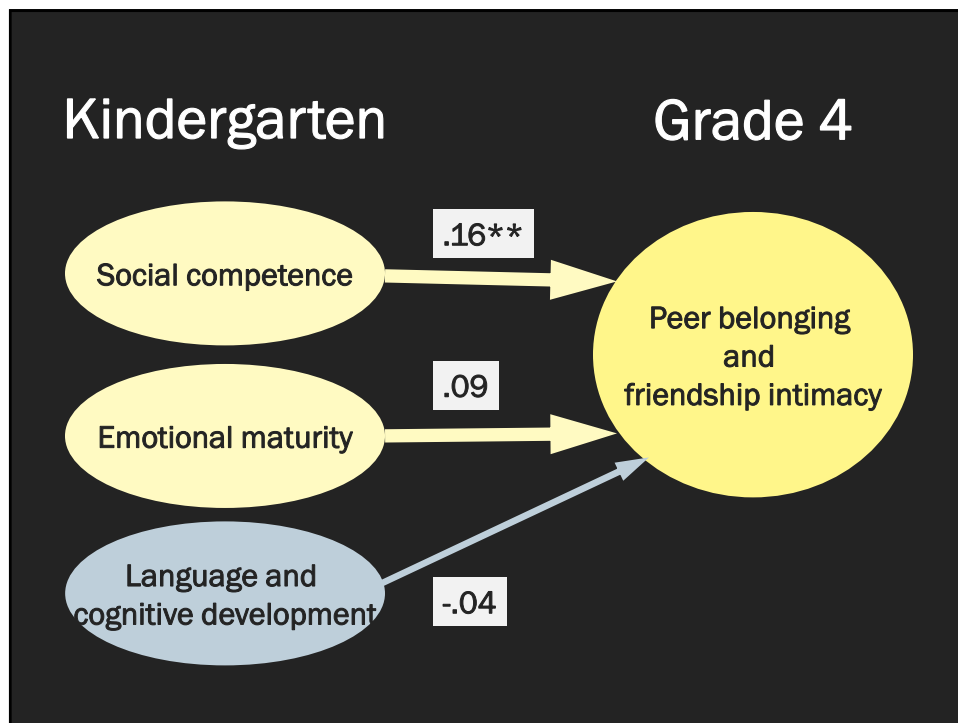
Collaboration with community organizations
to provide after-school services and
programming for children and youth.

<http://www.vsb.bc.ca/communityschoolteams>

Study 2

EDI to MDI

$N_{\text{Sample 1}} = 909$
 $N_{\text{Sample 2}} = 5,874$

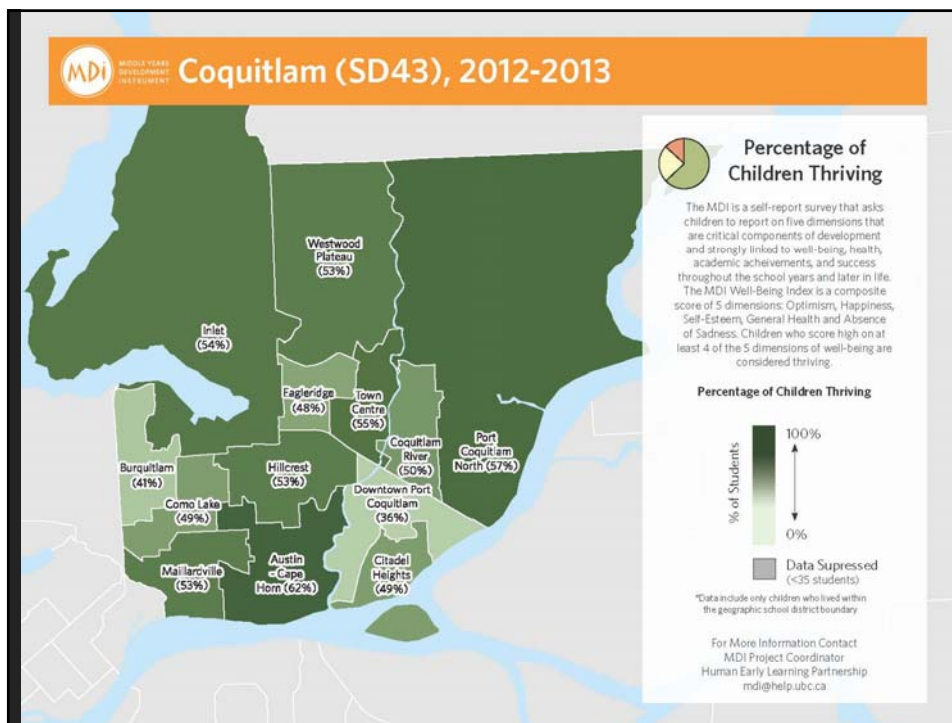


Previous research

Meta-analytic findings by Achenbach et al.

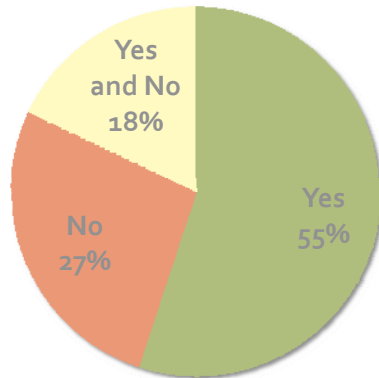
Mean correlation was $r = .22$ between child subjects and informant (e.g. teacher) rating for the same, relatively specific behavior variables.

Achenbach, T.M., McConaughy, S.H., Howell, C.T. (1987).
Child/adolescent behavioral and emotional problems:
implications of cross-informant correlations for situational
specificity. Psych Bulletin, 101, p. 213-232.

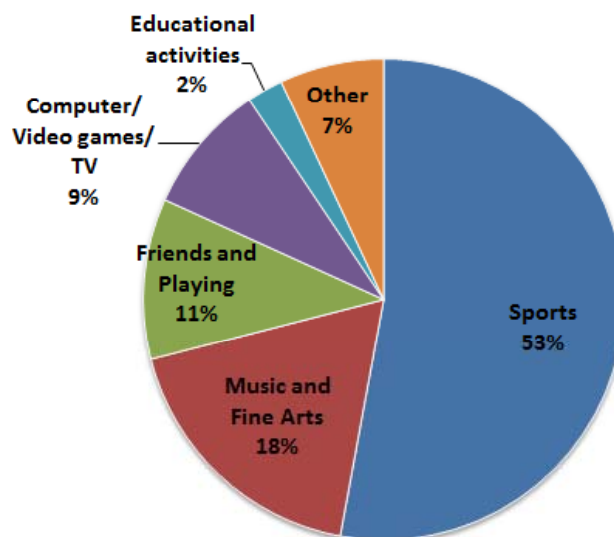


After-School Activities

Are you already doing activities you wish to be doing?



What Children Want to Be Doing...



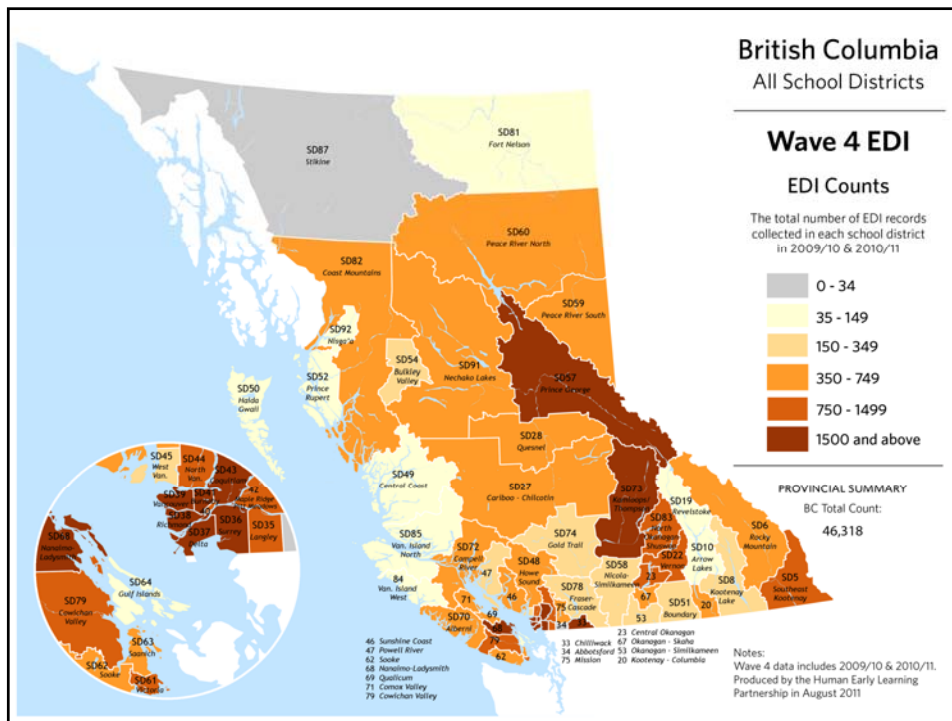
Early Development Instrument (Janus & Offord, 2007)



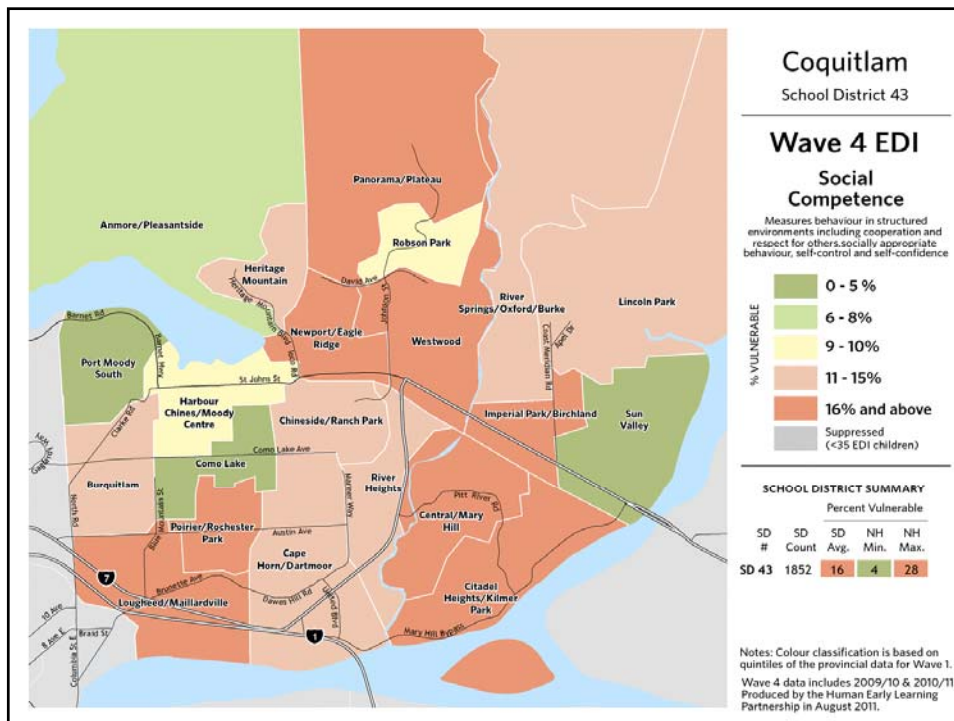
A teacher-administered tool to rate children's school readiness in kindergarten on five domains:

- Physical health and wellbeing (13 items)
- Social competence (26 items)
- Emotional maturity (30 items)
- Language and cognitive development (26 items)
- Communication skills (8 items)

http://www.offordcentre.com/readiness/EDI_viewonly.html

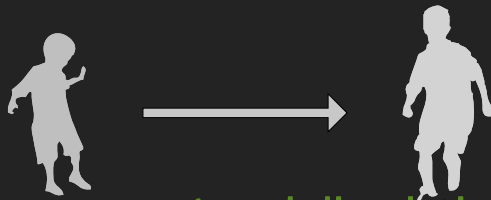


Geographical variability



Representative for
different subgroups

EDI to FSA and MDI



Convergent and discriminant
predictive validity

Study 1

EDI to FSA

$N_{\text{Sample 1}} = 1,024$

Kindergarten

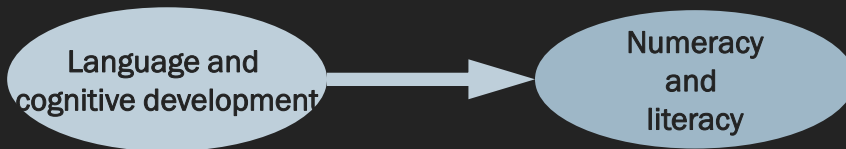
Grade 4

Language and
cognitive development

Numeracy
and
literacy

Kindergarten

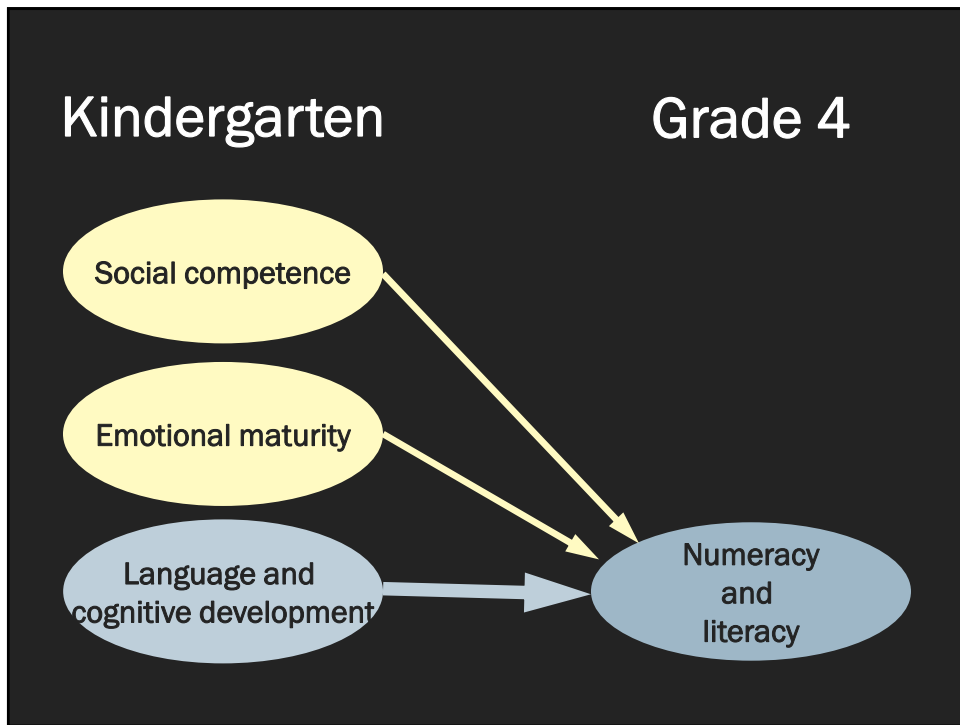
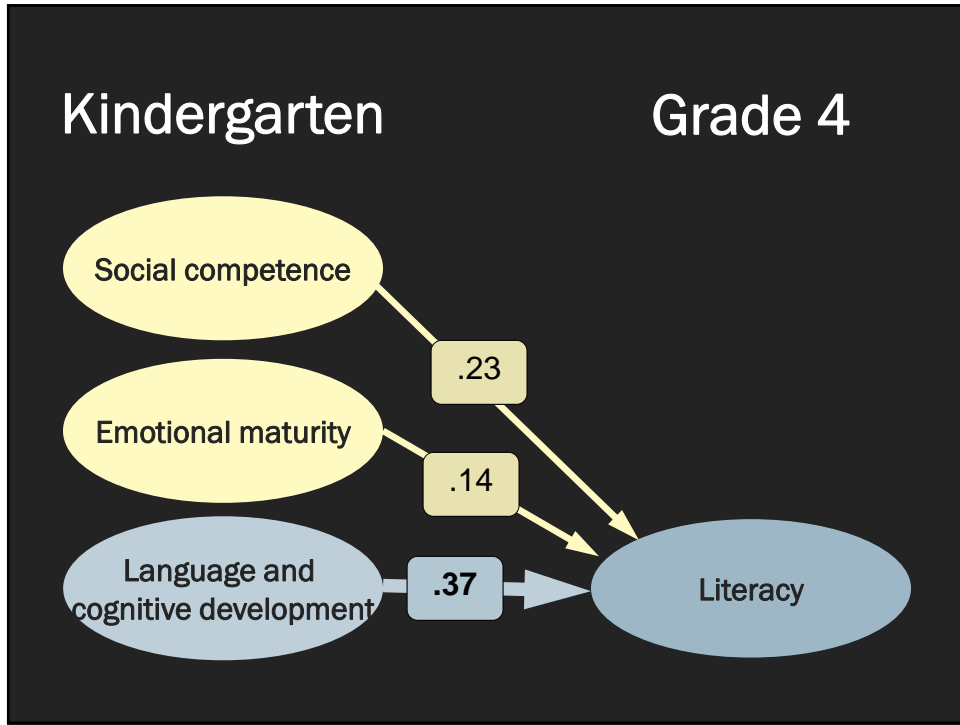
Grade 4

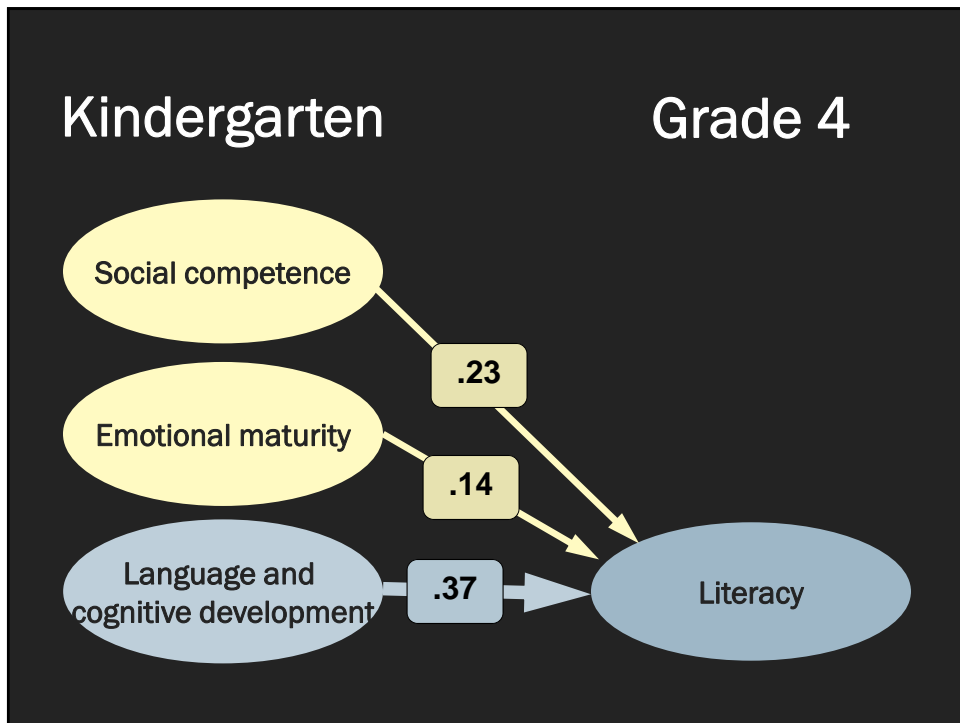
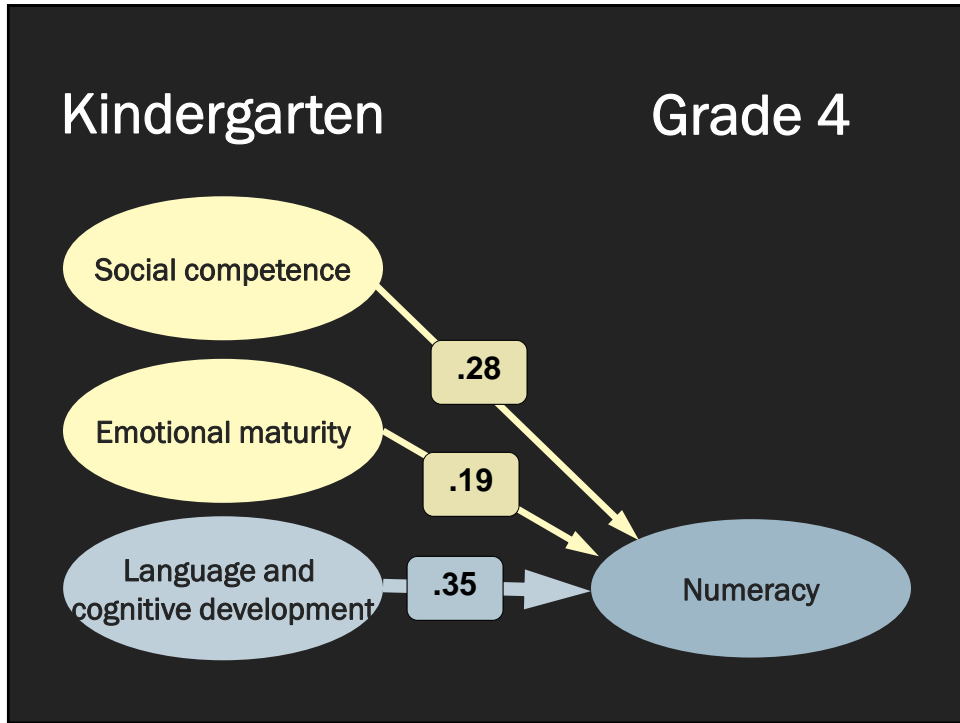


EDI → academics

$N_{\text{Sample 1}} = 1,024$

$N_{\text{Sample 2}} = 6,104$





Previous research: Concurrent Teacher-child ratings (N = 1,246)

Teacher rating	Child rating		
	Empathic concern	Prosocial goals	Social responsibility
Empathy	.24**	.26**	.26**
General social skills	.20**	.25**	.34**

Physical health and wellbeing

Physical readiness for school	Physical independence	Gross and fine motor skills
dressed inappropriately	washroom	proficient at holding pen
too tired	hand preference	manipulates objects
late	well coordinated	climbs stairs
hungry	(sucks thumb)	level of energy
		overall physical

Social competence

Social competence	Respect and responsibility	Approach to learning	Readiness to explore new things
overall soc/emotional	follows rules	listens	curious
gets along with peers	respects property	follows directions	eager new toy
cooperative	self-control	completes work on time	eager new game
plays with various children	respect for adults	works independently	eager new book
self-confidence	respect for children	works neatly	
tolerance for mistake	accept responsibility	independent solve problems	
	takes care of materials	follow simple instructions	
		follow class routines	
		adjust to change	

Emotional maturity

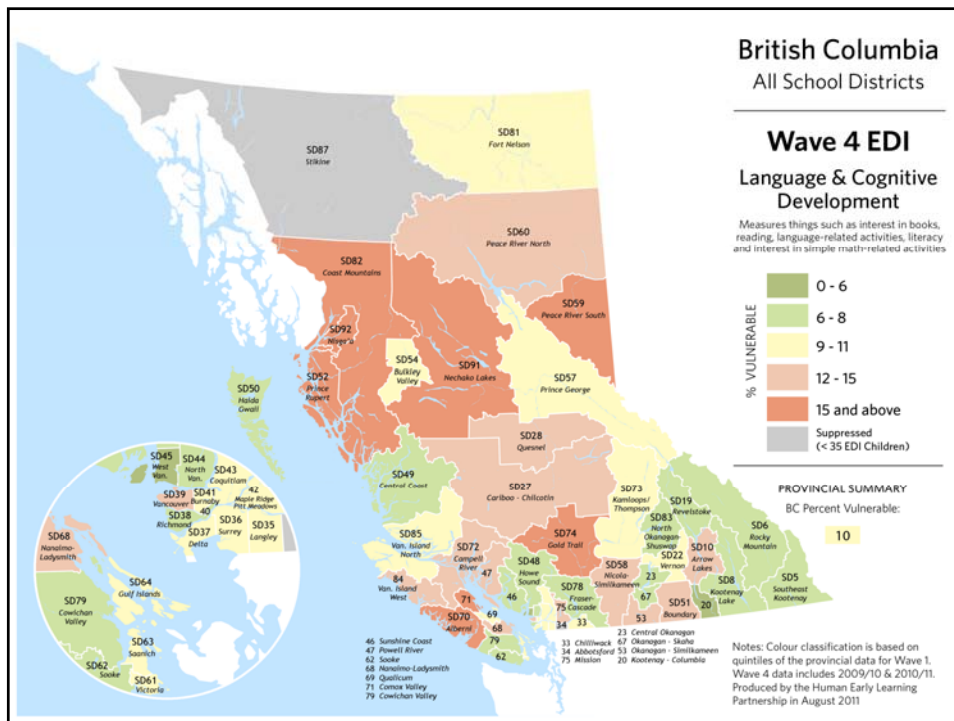
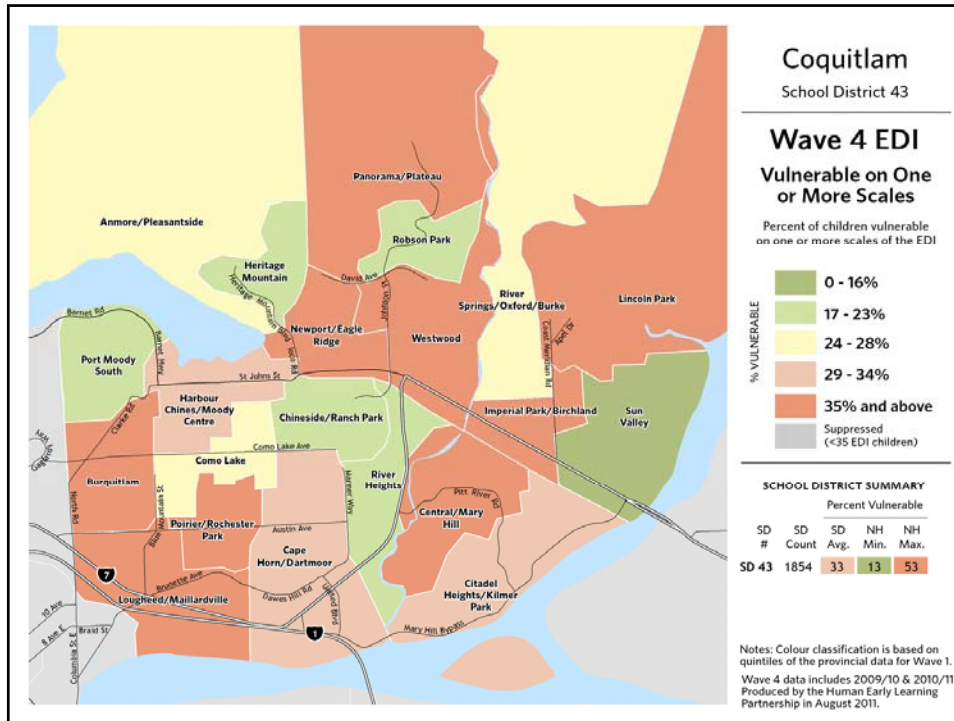
Prosocial and helping behaviour	Calmness and patience	Gentleness	Emotional regulation
help hurt	restless	gets into fights	seems unhappy
clear up mess	distractible	bullies or mean	fearful
stop quarrel	fidgets	kicks etc.	worried
offers help	impulsive	takes things	cries a lot
comforts upset	difficulty awaiting turns	laughs at others	nervous
spontaneously helps	can't settle	disobedient	indecisive
invite bystanders	inattentive	temper tantrums	shy
helps sick			upset when left

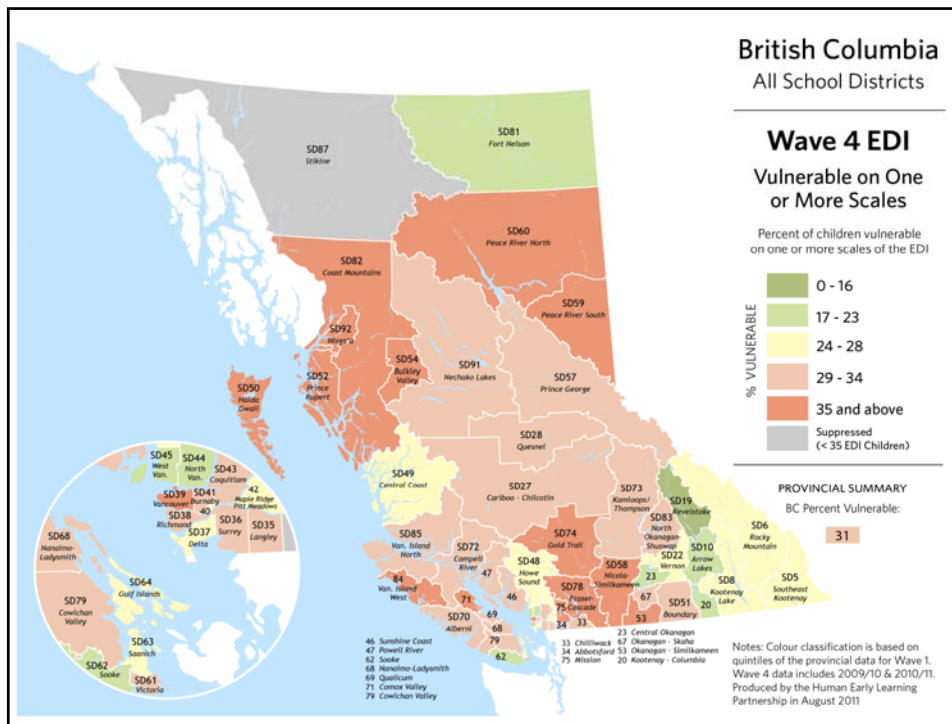
Language and cognitive skills

Basic literacy	Interest in math and reading	Reading and writing	Numeracy
handles a book	interested in books	reads simple words	sorts and classifies
identifies letters	interested in reading	reads complex words	1 to 1 correspondence
sounds to letters	interested in maths	reads sentences	counts to 20
rhyming awareness	interested in number games	writing voluntarily	recognizes 1-10
group reading		write simple words	compares numbers
write own name		write simple sentences	recognizes shapes
experiments writing			time concepts
writing directions			(remembers things)

Communication (in English)

effective use - English
listens - English
tells a story
imaginative play
communicates needs
understands
articulates clearly
knowledge about world





Early Development Instrument (Janus & Offord, 2007)

Offord CENTRE FOR CHILD STUDIES

Please fill in the circles like this ● or ○. NOT ✕.
Please use a blue or black ballpoint pen.

1. Class Assignment
 Kindergarten

2. Child's Date of Birth:
 dd / mm / yy
 0 1 2 3 4 5 6 7 8 9

3. Sex: F M

4. Postal Code:
 [] [] [] [] [] []

5. Class Type:
 Kindergarten
 Preschool/Kindergarten
 Kindergarten
 Other

6. Date of Completion:
 dd / mm / yy
 0 1 2 3 4 5 6 7 8 9

7. Exceptional/Special Needs:
 Yes No

8. Child considered ESL:
 Yes No

9. French Immersion:
 Yes No

10. Other Immersion:
 Yes No

11. Aboriginal:
 Yes No DON'T KNOW
(from American Indian, First Nations, Métis, Inuit)

12. Child's First Language(s):
 English only
 French only
 Other only [] []
 English & French
 English & Other [] []
 French & Other [] []
 [] [] & [] []

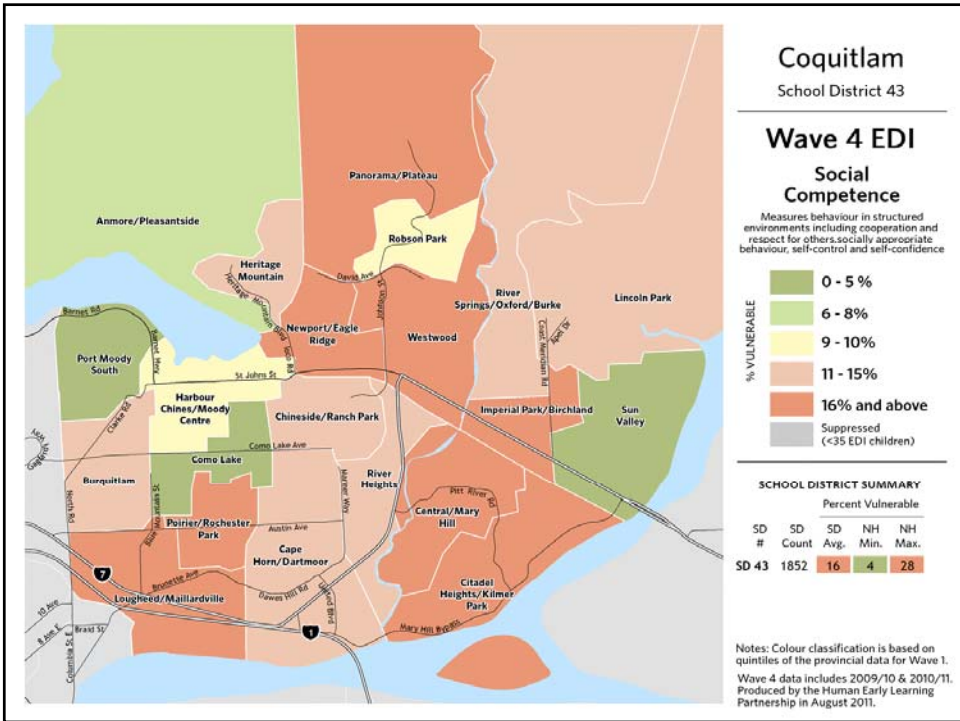
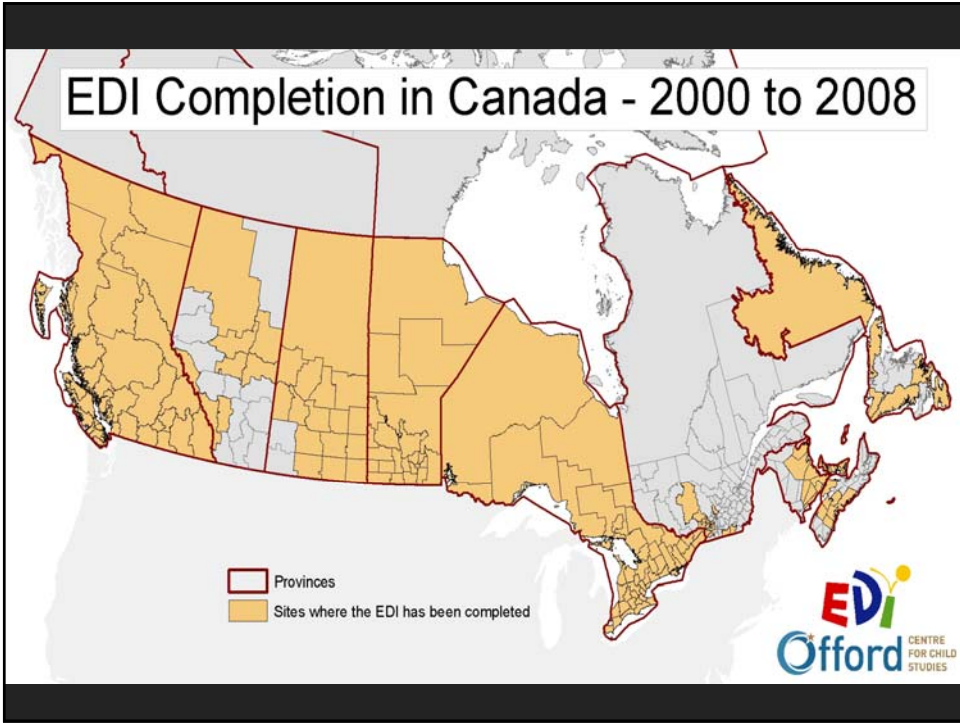
13. Communicates adequately in teacher first language:
 Yes No Don't know

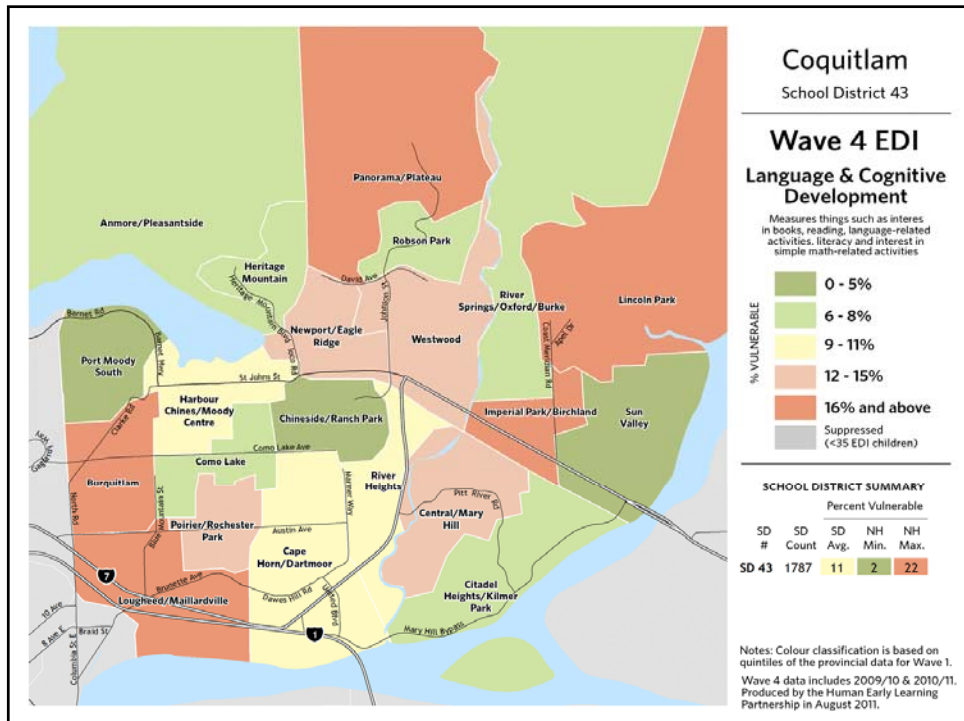
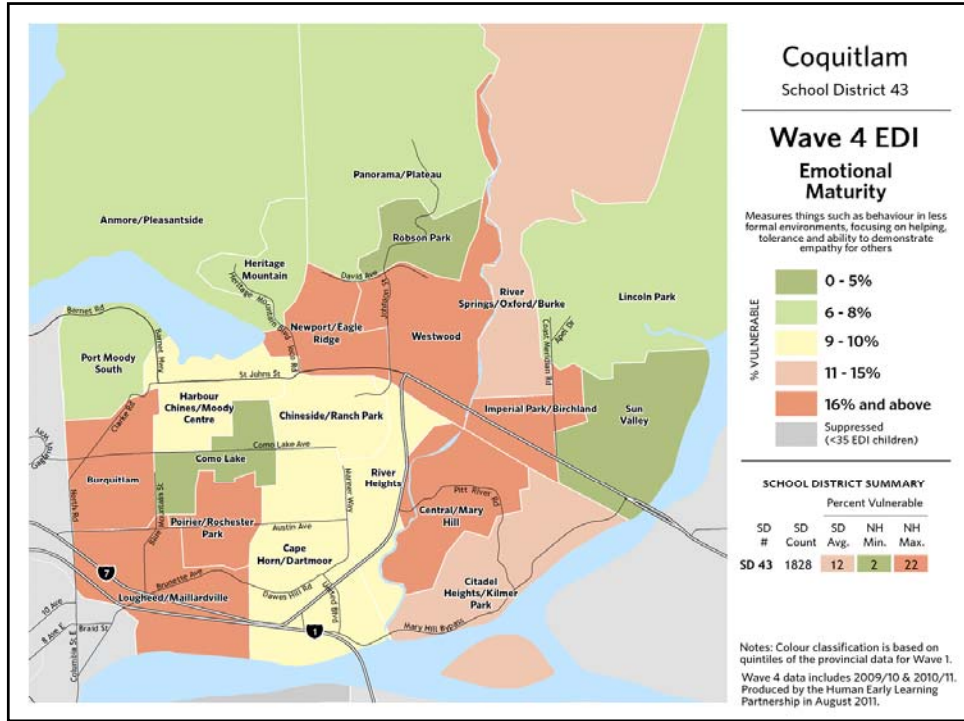
14. Child Status: in class more than 1 month
 moved out of class (skip pages 2-6)
 moved out of school
 other

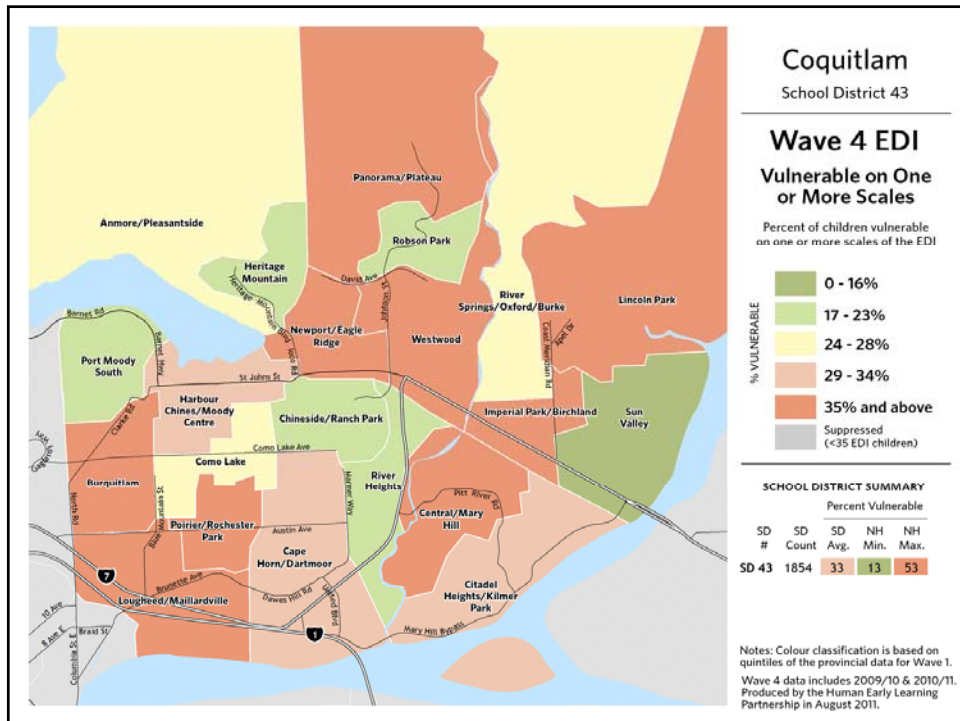
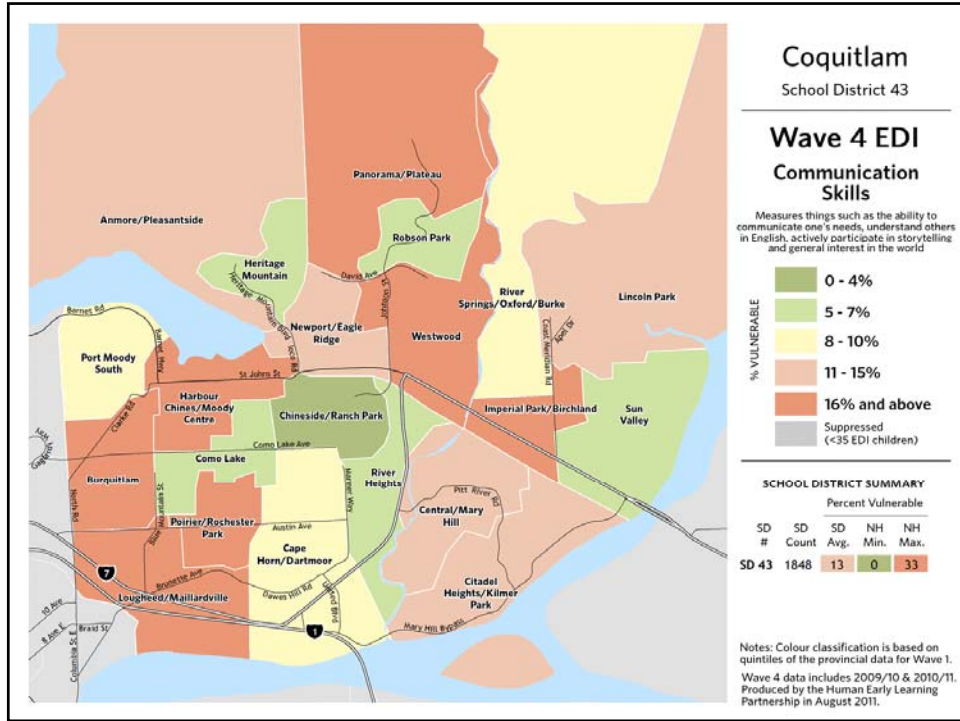
15. Child is repeating kindergarten:
 Yes No

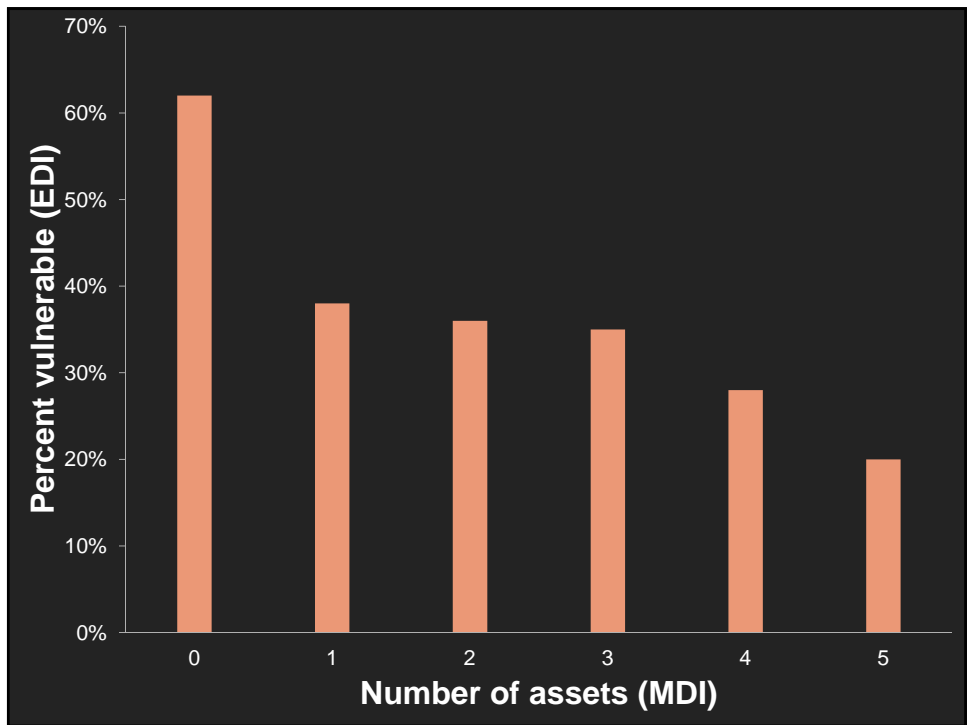
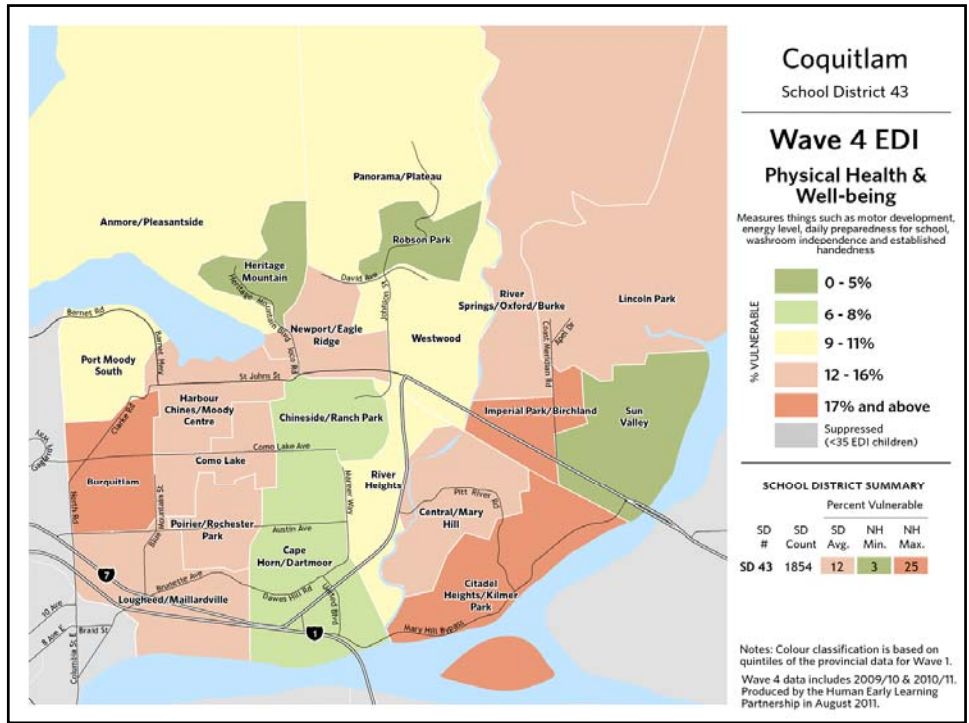
Page 1 © The Offord Centre for Child Studies
 McMaster University, Hamilton Health Sciences Corporation
 Tel. (905) 521-2100 ext. 74277

- EDI is a teacher rating scale, not a test
- Completed by kindergarten teacher half a year into the kindergarten/school year









Background

Caring relationships

Children lacking warm, caring relationships are more likely to ...

... be aggressive;

... report lower wellbeing;

... develop brains that are not as effective in regulating stress, and negative feelings and emotions;

... have poor immune functioning;

... have cognitive impairment.

School connectedness

Students who feel connected to people at their school report higher wellbeing and are less likely to abuse substances and engage in violence, than students who do not.

McNeely et al., 2002

Teacher-student relationships

Positive teacher-student relationships are associated with better learning outcomes.

Pianta et al., 2004

Being victimized

Being victimized several times a week is associated with anxiety, depressive symptoms, lower self-esteem, lower optimism, and lower happiness.

Guhn et al., 2012

Nutrition

In humans, mothers' nutrition is also associated with risk for obesity, diabetes, cancers, and other health outcomes.

Family meals

More family meals are associated with less tobacco and alcohol use, better school performance, less depression symptoms, and fewer eating disorders.

Eisenberg et al., 2004

Neumark-Sztainer et al., 2004

Sleep loss or deprivation

Obesity & Diabetes

Hypertension & Cardiovascular disease

Anxiety & Depression

Cognitive functioning

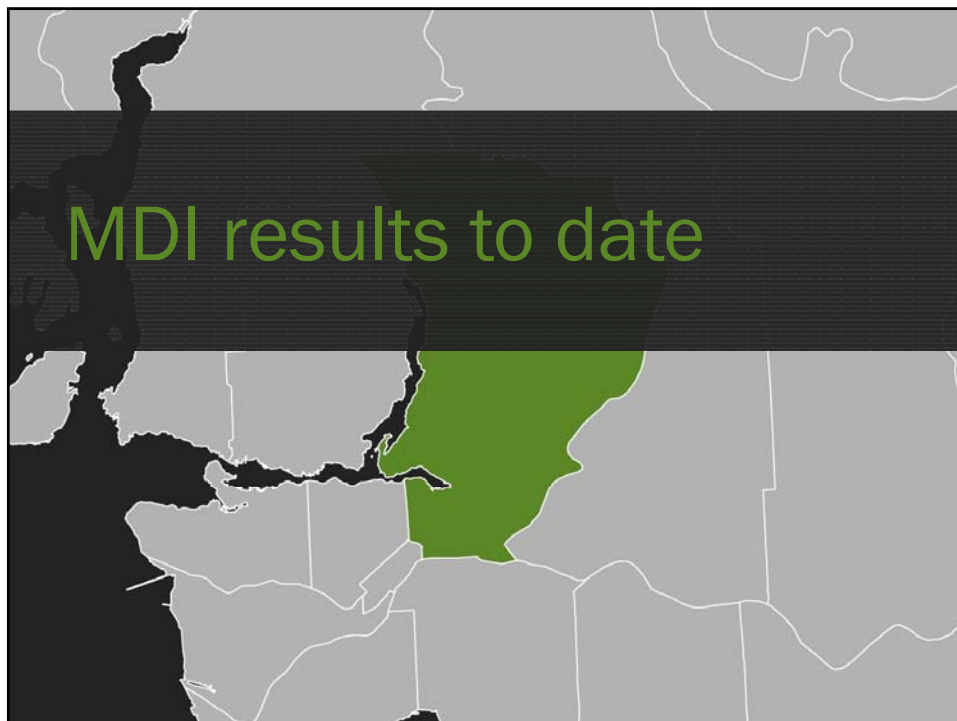
Smalldoen et al., 2007

Sadeh et al., 2002

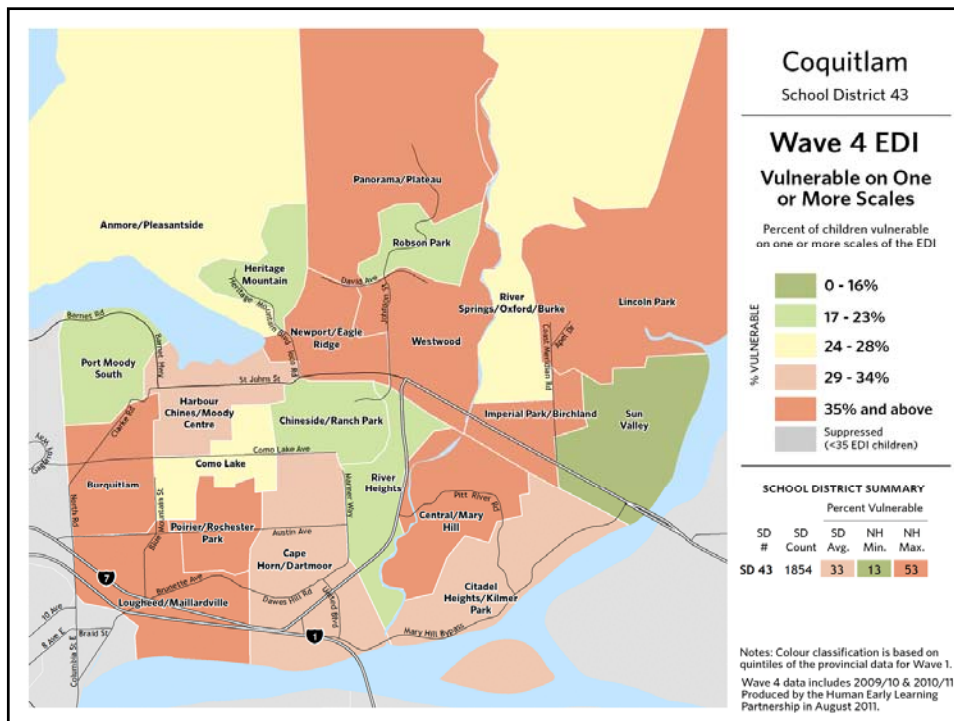
Play & human development

“ *Social pretend play and developmental theory-based programs* that integrate different forms of play have positive long-term associations with social, emotional, and cognitive skills, and behavioral outcomes. ”

- Lillard, Pinkham, & Smith, 2011 Konner, 2010



Data linkage to create population-level developmental trajectories



Middle Years Development Instrument (Schonert-Reichl et al.)



A student survey on that assesses children's developmental health and context factors in five domains:

- Health and wellbeing
- Connectedness
- Nutrition & Sleep
- School experiences
- Use of time

<http://earlylearning.ubc.ca/mdi/>

