

Perché investire sulla prima infanzia

Stefania Maggi, Lead Investigator Kids in Places Initiative



Kids in Places

- Importanza della prima infanzia
- Modelli concetualli sui determinanti del benessere nella prima infanzia
- Ruolo chiave del monitoraggio e misure di popolazione

Kids In Places

Perchè fare attenzione ai primi anni di vita?

- Intervention in the early years are more cost effective than those at later times
- Investments in the early years lead to saving in several sectors (health, social, labour, etc.)
- Children are a society's vital signs
- Healthy children make healthy societies
- Children can only be as healthy as the society in which they live

Kids in Places

Il mondo della prima infanzia è di interesse a varie discipline/approcci

- Psychology, neuroscience, education: outcomes and processes within the children
- Sociology, social work, political sciences social/political: systems
- Epidemiology, population health, interdisciplinary: groups of children within systems
- Advocacy and children's rights: protection, prevention and participation



Cosa sappiamo della prima infanzia?

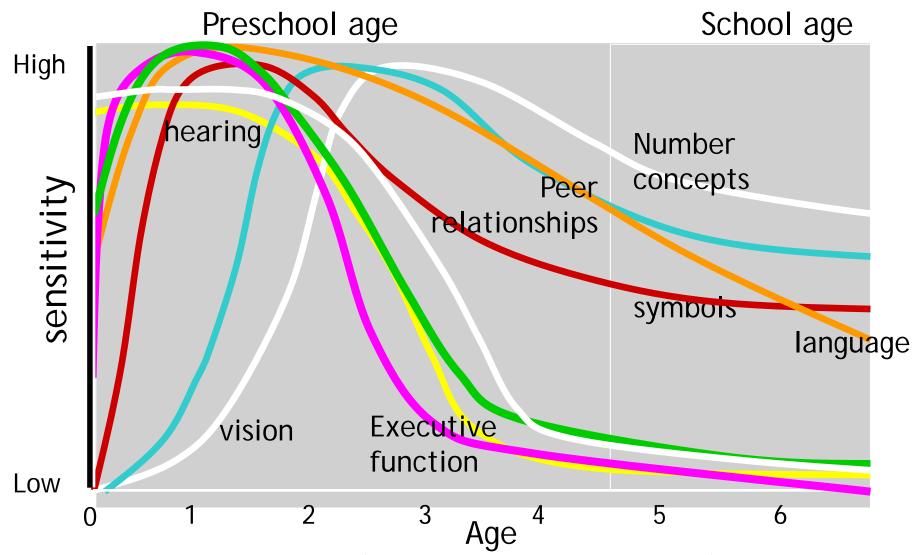
- Early childhood indicators are predictive of life trajectories
- Children are susceptible to influences at multiple levels (family, neighborhood, policy)
- Most factors impairing healthy child development are preventable
- Important/sensitive window for effective intervention

Kids in Places

Signs that children are not well

- Early years: behavioral, cognitive, communication and relational problems
 - ADHD/ODD, aggression, anxiety, withdraw (mental health)
 - Gross/fine motor skills, pre-literacy, language
 - Empathy, prosocial behaviors,
- School age and adolescence:
 - Academics
 - Depression/anxiety, aggression/bullying, substance use, criminal behavior, suicidal behavior (mental health)

Critical periods of brain development



Graph developed by Council for Early Child Development (ref: Nash, 1997; Early Years Study, 1999; Shonkoff, 2000.) Slide presented by Clyde Hertzman, Human Early Learning Partnership in Reggio Emilia, Italy, September 2011.

Problems that originate in early childhood

1st two decades

2nd and 3rd decade 5th and 6th decade

Old age

- academic problems
- teenpregnancy
- criminal behaviour

- obesity
- high blood pressure
- depression

- heart diseaseearly ageing
- diabetes

memory problems

Kids in Places

Different discourses of how social conditions determine health/wellbeing

- Social inequality framework: socioeconomic factors/distribution of wealth
- Civil society/social capital framework: ground-up aggregation/affiliation, collective contribution from nongovernmental groups/agents
- Rights and liberties framework: democracy and freedom, greater participation in society and decision making processes



Cosa promuove il benessere nella prima infanzia?

- Various models and frameworks have been proposed
- They acknowledge the interaction between biological predispositions and environment
- They acknowledge the multiple levels of influence
- They recognize the need for interdisciplinary debates
- They emphasize the need to monitoring and evidence based decision making



Esempi di modelli di riferimento

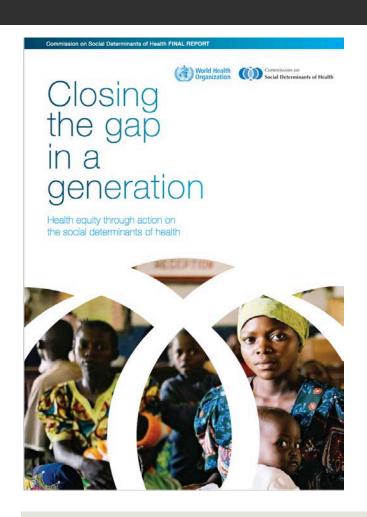
- Bronfenbrenner's bio-ecological model
- Social determinants of health
- Child rights framework (UNCRC)



2005: WHO Commission on the Social Determinants of Health

- Formal recognition that health is socially determined
- Extensive review of the interdisciplinary literature
- It integrates different frameworks

Social determinants of health



"Social justice is a matter of life and death. It affects the way people live, their consequent chance of illness, and their risk of premature death. We watch in wonder as life expectancy and good health continue to increase in parts of the world and in alarm as they fail to improve in others."

Social determinants of health

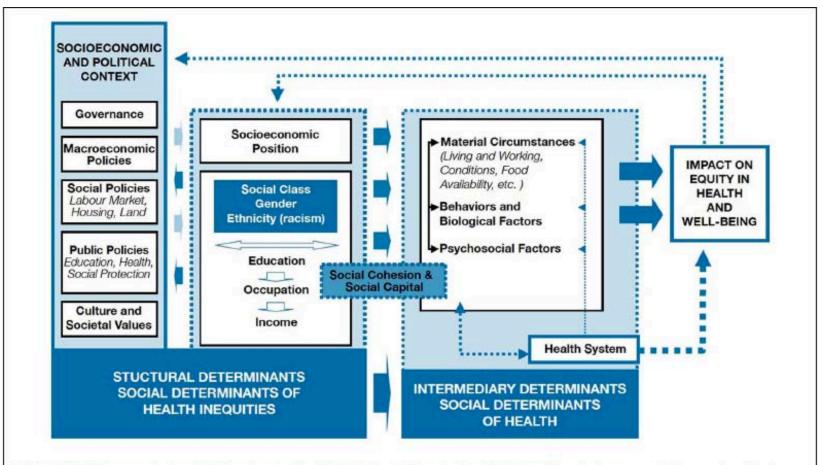


FIGURE 1 | WHO framework of social determinants of health [World Health Organization (WHO), 2010]. Permission was granted to reproduce this diagram as it was originally published by the World Health Organization (WHO; 2010) on page 6 in A Conceptual Framework for Action on the Social Determinants of Health.



How are Canadian children doing?

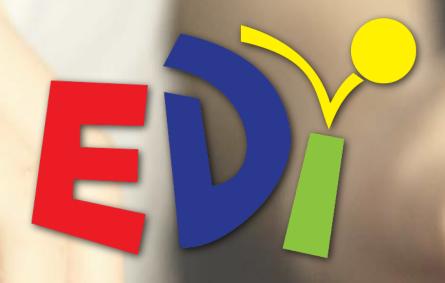
- In some Canadian regions vulnerability is as high as 35%
- In some Canadian neighborhoods vulnerability in specific areas of development are as high as 70-90%
- Some studies report that one in five teenagers have experienced a major mental health problem
- Suicide accounts for 24% of all deaths among 15-24 year olds

Sources: Human Early Learning Partnerships; (McGee R, Feehan M, Williams S, Partridge F Silva P, Kelly J (1990) DSM-III disorders in a large sample of adolescents. J Am Acad Child Adolesc Psychiatry 29:611–619); Canadian Mental Health Association



How do we know about children's vulnerabilities?

- Several data banks with various data (health, education)
- In Canada the Early Development Instrument (EDI) is used nationally
- The EDI is implemented on a regular basis (at 3-4 years cycles)
- The EDI provides a snapshot of the wellbeing of children in the most important aspects of their development



A teacher completed instrument which measures children's development

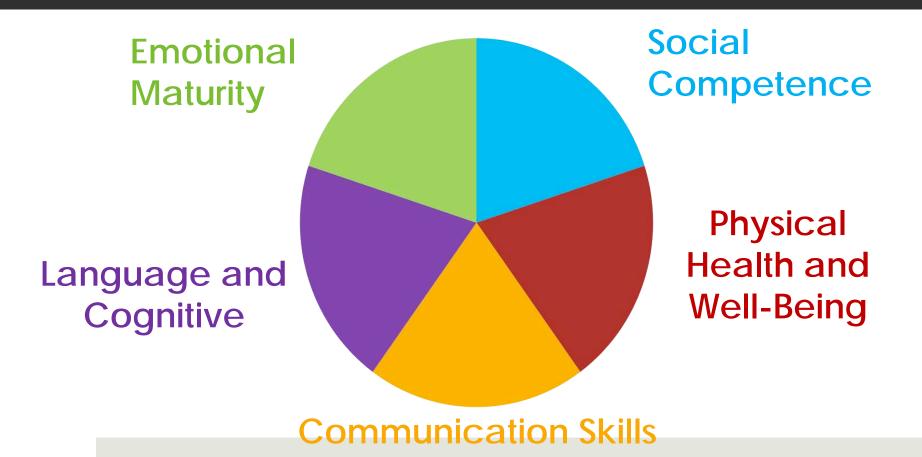
-Offord Centre for Child Studies



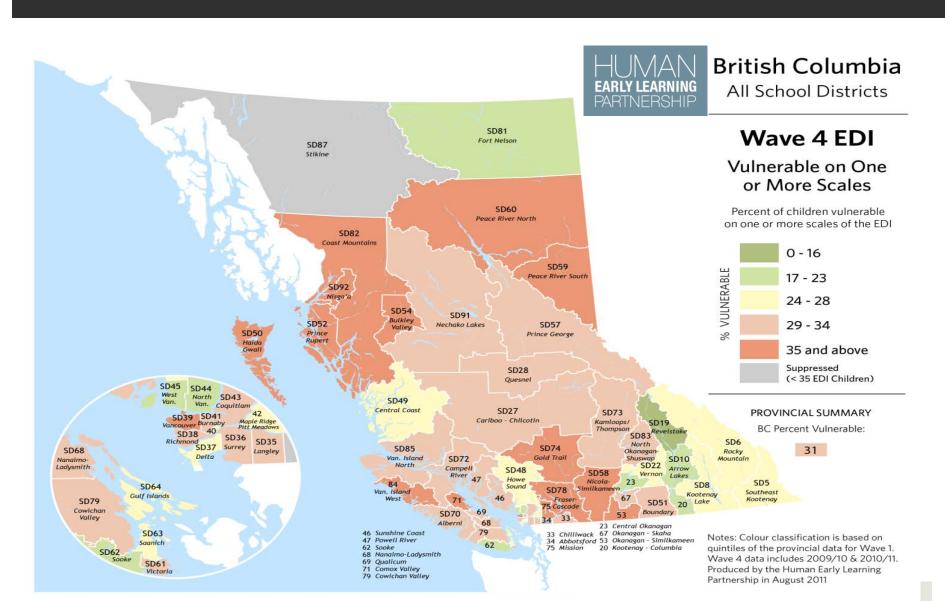


Kids in Places

What does the EDI measure?



Rates of Vulnerability



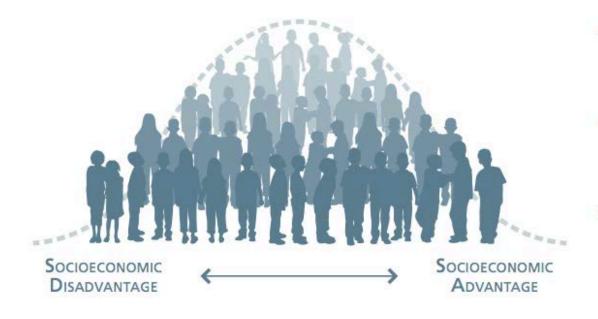
Who is most vulnerable?



Policy Brief | 2011

Proportionate Universality

FIG 3: THE SOCIAL GRADIENT FOR VULNERABLE CHILDREN



- Child vulnerability exists in every socio-economic strata of our society;
- The majority of vulnerable children are in the middle SES range; and
- Children in the lowest SES range are proportionately more likely to be vulnerable

Who is most vulnerable?



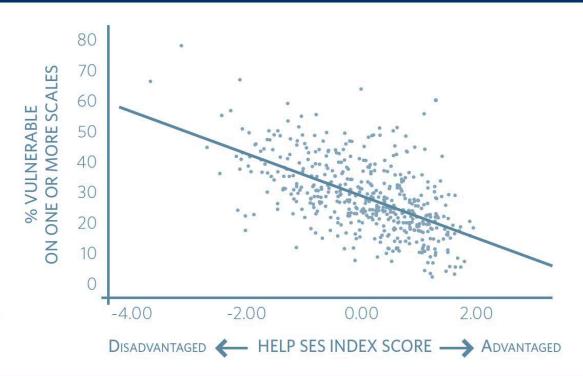
Policy Brief | 2011

Proportionate Universality

FIG 2: THE SOCIAL GRADIENT IN NEIGHBOURHOOD RATES OF VULNERABILITY

Looking at the data, we can clearly see the child development social gradient.

Note: EDI Data from British Columbia Wave 3 data collection (2007/08 - 2008/09), Human Early Learning Partnership. SES data from 2006 Canadian Census and 2004 Taxfiler.





Who is most vulnerable in Canada?

- Indigenous and immigrant children
- Children from single families
- Children from ethnic and visible minorities
- Children living in poverty
- Children in the care of the state (foster children)
- Children raised by nannies ("the nanny's syndrome")

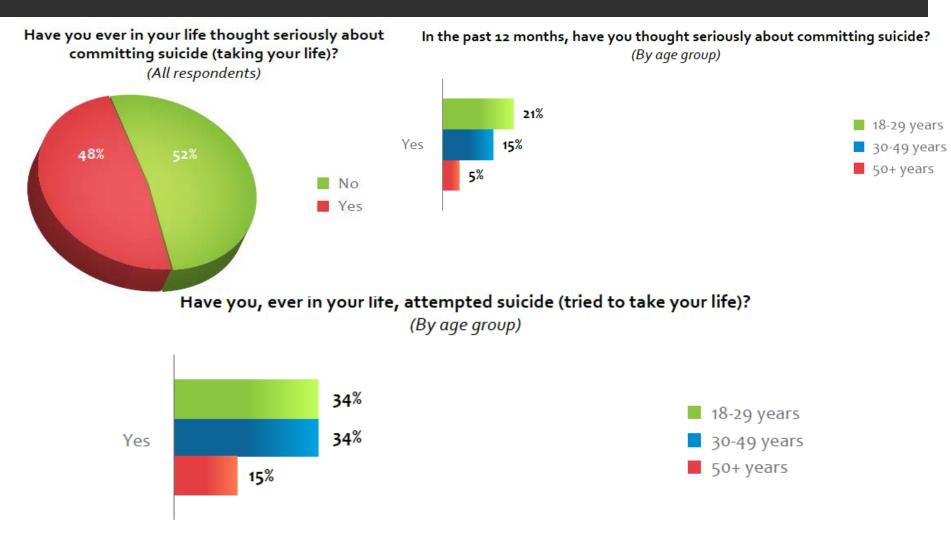


Inuit infant wellbeing

In 2009, the Northwestern Territories and Nunavut had the same infant mortality rate as Syria, Turkey, Tunisia, Tajikistan, Sri Lanka, Libya, El Salvador, and Belize (15/1000)

Canada as a whole (with 5/1000 deaths) is amongst the world countries with the lowest infant mortality rate

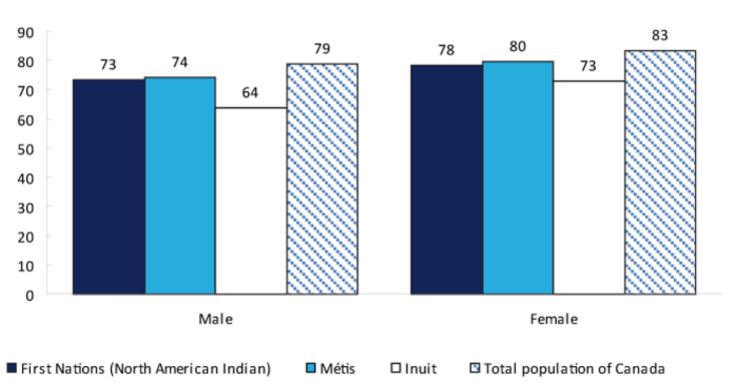
Inuit youth wellbeing



Source: Inuit Health Survey 2007-2008, Nunavut Community and Personal Wellness

Kids in Places

Inequality from the start is inequality for life



Estimated data/ **Note(s)**: 'Life expectancy' is an estimate of the number of years a person is expected to live, for a given year. Most often reported as life expectancy at birth, but it can be reported at any age, for different population groups. **Source(s)**: Statistics Canada, *Projections of the Aboriginal Populations, Canada, Provinces and Territories, 2001 to 2017* (catalogue number <u>91-547-XIE)</u>.



Importanza del monitoraggio

- Misure di popolazione sono essenziali per la programmazione dei vari enti che promuovono il benessere del bambino (aiutano a focalizzare interventi)
- Misure di popolazione sono essenziali per la valutazione dei programmi
- Misure di popolazione promuovono una pianificazione a lungo termine (invece che limitata nel tempo)
- Misure di popolazione aiutano a togliere l'onere dagli individui e porlo sulla responsabilità collettiva

Collectively, population counts by age group and population growth can help us to adapt to the needs of the population as it changes over time. Population density measures how closely people live together in a geographic area. The higher the number, the more people live within that area.

Why are Park Areas Important?

Green spaces, like park areas, can enhance the community's well-being in several areas: social, recreational, environmental, physical and mental health, educational and economic. They filter pollutants and dust from the air, they provide shade and lower temperatures in urban areas, and they even reduce erosion of soil into our waterways.

Why are Crime Rates and Civic Engagement Important?

Crime rates are one way to identify and monitor local safety concerns, and target areas of crime prevention. Chic engagement provides an indication of residents' interest and involvement in community affairs, youing is one opportunity to provide a decision-making voice.

Why is Family Composition Important?

Research suggests that marital status may be linked to household stability, as unmarried couples who live together are more likely to experience a breakdown in the relationship than married couples. Knowledge of family size can help services better design programs according to need, including targeted support for single or first-time parents, or programming for children of varying ages.

Note: Census Families constitutes at least two people living together; these totals do not include single people who do not have children. Therefore, if the % of families with children is calculated based on these totals. It will be inflated as compared to the true possibilities.



Why is Financial Well-Being Important?

Economic status is one of the largest external influences on a chiefs development. It can influence the ability to buy nutritious food, access safe and stable housing, participate in recreational activities, and access quality child care. A lack of financial resources has been linked to poorer health outcomes, and may force parents to work more and spend less time with their children. A family's finances are affected by their income, assets, credit history, shelter affordability and home coverathia, and retirement savings. Debt management reflects financial responsibility. Non-mortgage consumer debt indicates the amount of outstanding debt based on credit cards, personal loans, lines of credit, car loans, and consumer product financing. Risk Scores predict the likelihood that a person will miss at least 3 consecutive payments in the next vers based on their existing credit history.

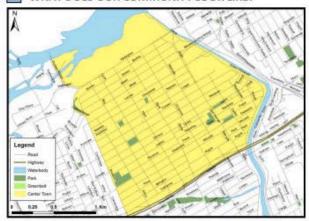


Why is Language Important?

Being able to communicate in at least one of Canada's official languages can influence an individual's ability to work, obtain services, and connect with their community. For services to effectively engage families from diverse communities they need to have policies, practices, and programs that are sensitive to language needs.

Community Profile for CENTRE TOWN, OTTAWA, ON

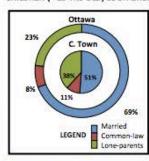
WHAT DOES OUR COMMUNITY LOOK LIKE?



Map prepared by the Program Effectiveness Data Analysis Coordinators, Parent Resource Centre, Ottawa, ON. (April 2013)

WHAT DO OUR FAMILIES LOOK LIKE?

WHAT DO OUR FAMILIES WITH CHILDREN (< 25 YRS OLD) LOOK LIKE?



1	C. Town	
	5139	37%
	44% LEGEND	1 child 2 children 3 + children

HOW MANY CHILDREN (< 25 YRS

OLD) ARE THERE AT HOME?

Ottawa

Number of Census Families	C. Town	Ottawa
Total Families	4,750	239,320
Average # Persons Per Family	2.3	3.0
Total Families With Children < 25 yrs old	1,245	129,495
Average # Children Per Family	0.4	1.0

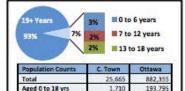
Source: 2011 Census, Family Characteristics.

DEMOGRAPHICS

Demographics	C. Town	Ottawa
Population in 2011	25,659	883,391
Population in 2006	24,231	812,129
Population change (%)	5.9%	8.8%
Land area (square km)	3.3	2,790
Population per km ²	7,661	317
Park area (square km)	0.06	43.1
Population per km ²	431,335	20,500

Source: 2011 Census, Population and Dwelling Counts.

AGE DISTRIBUTION



Source: 2011 Census, Age Characteristics

Aged 0 to 6 yrs

CRIME RATES AND CIVIC ENGAGEMENT

	2			Incid	lence of	Crime ¹				Municipal Election	
	Crimes	Against	the Person	Crimes	Agains	t Property	Drug Offences				
	20	2011 9		201	2011		20	26 Change		Voter	
	Actual	Rate*	since 2006	Actual	Rate*	since 2005	Actual	Rate*	since 2006	Turnout'	
C. Town	435	17.0	10.4%	1,905	74.2	-0.6%	84	3.3	-41.7%	43.9%	
Ottawa	6,381	7.2	22.7%	27,497	31.1	15.1%	1,497	1.7	-5.1%	44.3%	

Source: Ottawa Police Service. *Note: Rates calculated based on actual counts per 1,000 of population for a given geographic area.
Source: City of Ottawa, 2010.

A H

HOW ARE OUR FAMILIES DOING FINANCIALLY?

	10.000	Approx. % Low Income Families with Children ¹		Debt Management For Those with A Credit History ²		
	All Families	Couple Families	Lone Parent Families	Average Non-Mortgage Consumer Debt	Average Risk Score*	
C, Town	24%	17%	33%	\$20,646	752	
Ottawa	11%	7%	26%	\$25,450	759	

Source: 2010 Small Area and Administractive Data (SAAD) '15 Family File ("LIFF) released by Statistics Canada in 2013.

"Source: TransUnion 2012, QL Data used by permission from Trans Union of Canada, Inc. @2013 TransUnion. All rights reserved.

"Note: The higher the risk score, the lower the likelihood of missing three consecutive payments in the next year.

WHAT LANGUAGES DO OUR FAMILIES SPEAK?

What language(s) are used at home?	C. Town	Ottawa
English and French / English, French and Other	1.5%	1.6%
English Only / English and Other	82.2%	77.7%
French Only / French and Other	7.7%	10.1%
Other Only	8.5%	10.5%
What language(s) can residents speak?	C. Town	Ottawa
English and French	43.2%	37.2%
English Only	54.3%	59.9%
French Only	0.7%	1.5%
Other Only	1.7%	1.4%
Total Population	25,440	871,455

Source: 2011 Census, Knowledge of Official Languages; Detailed Language Spoken Most Often At Home. *Note: Census estimates are rounded. Top "Other" Languages
Spoken at Home for C.
Town:
1. Arabic.
2. Chinese n.o.s.
3. Spanish
4. Cantonese

Parent
Resouro
Centre

For more Information, please contact the Program Effectiveness Data Analysis Coordinators: www.parentresource.ca

A child's early development is shaped by different sectors of influence:

77	
\wedge	FAMI
-	E-PHONE II

90	COMMUNITY
_	

Why are Early Health Risks Important?

child health and well-being

Swit
swet

variables can be used as early indicators of healthy development. Note: Data for cells containing less than six counts are suppressed. To provide an index of prevalence, despite suppression, we have listed the maximum value possible for that indicator (in %). This value is the maximum count of 5 divided by the total number of births in that



Why are Child Injury Rates Important?

Unintentional injury is the leading cause of death and hospitalization for Canadian children between the ages of 1 and 14 years. Child injury rates are a way of identifying and monitoring local health and safety concerns, which can support public education, local injury prevention, and healthy public policy development.



Why is Developmental Health at School Entry



The Early Development Instrument (EDI) assesses children's developmental health at school entry in five domains. Each EDI domain is further subdivided, for a total of 16 sub-domains. Each sub-domain represents a relatively homogenous aspect of child development

> To access the full EDI report and our other products please visit:

Community Profile for CENTRE TOWN, OTTAWA, ON

WHAT ABOUT OUR CHILDREN'S DEVELOPMENTAL HEALTH AT SCHOOL ENTRY?

EDI DEMOGRAPHICS – CYCLE 3

Demographics	C. Town	Ottawa
% Girls	48.8	49.7
% Bilingual	22.5	21.3
% Learning in a Second Language	36.7	21.3
Child's First Language	C. Town	Ottawa
% Includes English	62.5	77.3
% Includes French	16.3	19.0
% Does not include French or English	30.0	12.6
Total # Children in EDI Cycle 3	80	8,417

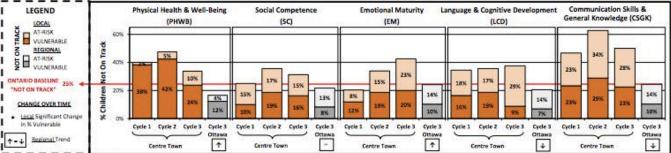
WHAT ABOUT OUR CHILDREN'S HEALTH?

Early Health Risks ¹ (2005-2011)		C. Town	Ottawa
Teen Births (Maternal Age < 20 yrs)	-	1.4%	2.2%
Preterm Births (< 37 weeks)	-	9.4%	8.6%
Exclusively Formula Fed on Discharge	4	4.1%	7.2%
Low Birth Weight (< 2500 g)	х	8.3%	6.2%
Maternal Smoking During Pregnancy	+	6.7%	5.8%
No Antenatal Care Visit During 1st Trimester	Х	8.4%	5.6%
Total Births, 2005 to 2011		1,270	63,472
Incidence Rate* of ER Visits for Unintentional	Injury ²	C. Town	Ottawa
0 to 6 years old		13.1	10.4
7 to 12 years old		8.3	9.7
13 to 18 years old		12.0	12.2

Source: ER visits, 2011. National Ambulatory Care Reporting System. IntelliHEACTH ONTARIO. Extracted September 2013 by Ottawa Public Health. *Note: Rates calculated per 100 persons within each age group.

Ottawa

EDI DOMAIN RESULTS ACROSS TIME - CHILDREN NOT ON TRACK



EDI VULNERABILITY

otherwise change is non-significant

1 + Domains

Challenge

Index

C. Town

46.3%

7.5%

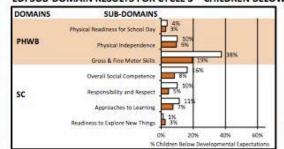
Ottawa

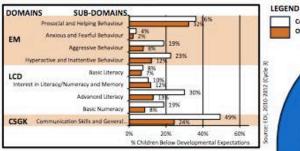
25.6%

3.1%

Source: Early Development Instrument, 2005-2006 (Cycle 1), 2008-2009 (Cycle 2) & 2010-2012 (Cycle 3)

EDI SUB-DOMAIN RESULTS FOR CYCLE 3 - CHILDREN BELOW DEVELOPMENTAL EXPECTATIONS





ast Updated: January, 2014

For more information, please contact the Program Effectiveness Data Analysis Coordinators: www.parentresource.ca



Role of community of service

- Best results are achieved with initiative that **cut across sectors** (e.g., health, education, social services)
- Best results are achieved when programs are proactive instead of reactive
- Best results of community initiatives are obtained when strong leadership and clear purposes are in place

Role of university

- Universities are key partners for community organizations because:
 - They can provide expertise in a wide range of discipline/issues and therefore can inform evidence based decision making
 - They have the expertise to support in program evaluation
 - They are a neutral sounding board for ideas and to explore feasibility
 - They can help with knowledge mobilization and dissemination of findings

Reflections

- Ample interdisciplinary evidence points to the importance of the early years
- Inter-sector collaborations are best suited to reduce developmental vulnerabilities
- Use of monitoring tools (e.g., census, EDI) is essential for evaluation of programs and to guide in program development