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Thanks to all of our partners for their hard work and commitment to the EDI. A very special thanks to all of the teachers who have committed their time and energy to filling out EDI questionnaires over the years. Without you, none of this would have been possible.

About the EDI

A teacher-completed instrument called the Early Development Instrument (EDI) was developed at the Offord Centre for Child Studies at McMaster University to measure children's ability to meet age-appropriate developmental expectations at school entry. The EDI focuses on the overall outcomes for children as a health-relevant, measurable concept that has long-term consequences for individuals and populations. The data derived from the collection of the EDI facilitates and encourages community, provincial, national, and international monitoring of the developmental health of our young learners.

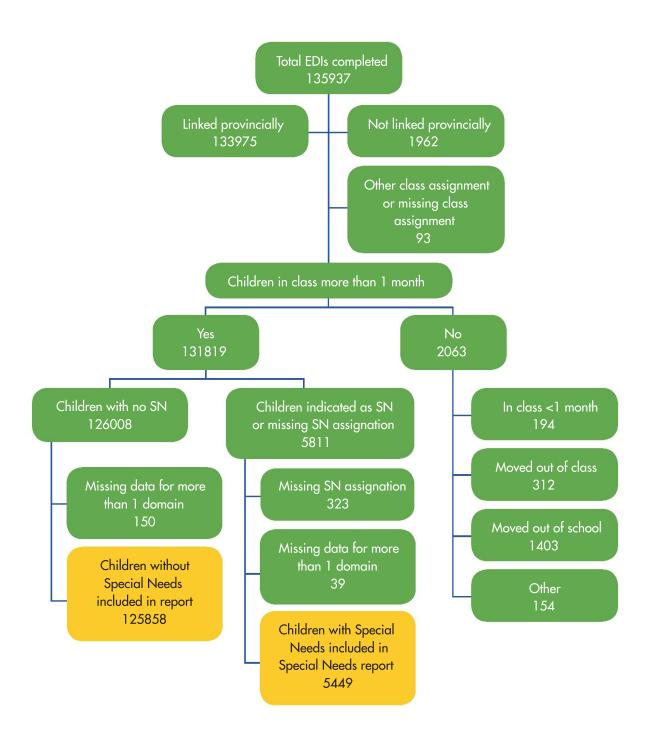
Data collection across Canada shows that in most jurisdictions 25% or more of children entering kindergarten are vulnerable in at least one aspect of their development. Further research linking EDI findings to later educational data demonstrate that, on average, kindergarten vulnerability predicts ongoing vulnerability in the school system. Numerous studies have shown that early vulnerability predicts a child's lifelong health, learning, and behaviour.

The EDI is designed to be a tool to increase the mobilization of communities and policy makers in order to have a positive impact on children's development in their local areas. Understanding the state of children's development at the population level, that is for all children, is foundational to mobilizing stakeholders towards change.



Number of Children in Analyses: From Received Questionnaires to Reports

Below is an illustration of the flow of EDI questionnaires from when they are received to the final valid number of questionnaires used for analysis.







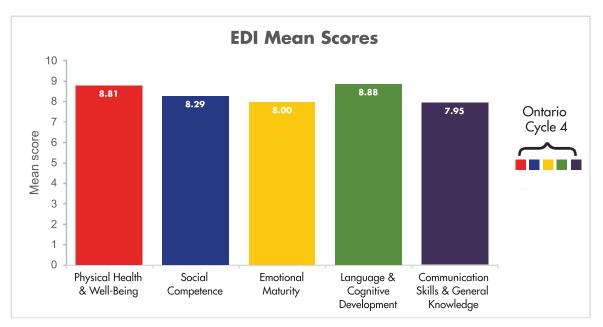
development.

EDI Domains

- Physical Health & Well-Being 13 questions includes physical readiness for the school day, physical independence, and gross and fine motor skills e.g., holding a pencil, running on the playground, motor coordination, and adequate energy levels for classroom activities.
- Social Competence 26 questions includes curiosity about the world, eagerness to try new experiences, knowledge of standards of acceptable behaviour in a public place, ability to control own behaviour, cooperation with others, following rules, and the ability to play and work with other children.
- Emotional Maturity 30 questions includes the ability to reflect before acting, a balance between too fearful and too impulsive, and the ability to deal with feelings at the age-appropriate level, and empathic response to other people's feelings.
- Language & Cognitive Development 26 questions includes reading awareness, age-appropriate reading, writing and numeracy skills, board games, and the ability to understand similarities and differences, and to recite back specific pieces of information from memory.
- Communication Skills & General Knowledge 8 questions includes skills to communicate needs and wants in socially appropriate ways, symbolic use of language, storytelling, and age-appropriate knowledge about life and the world around.





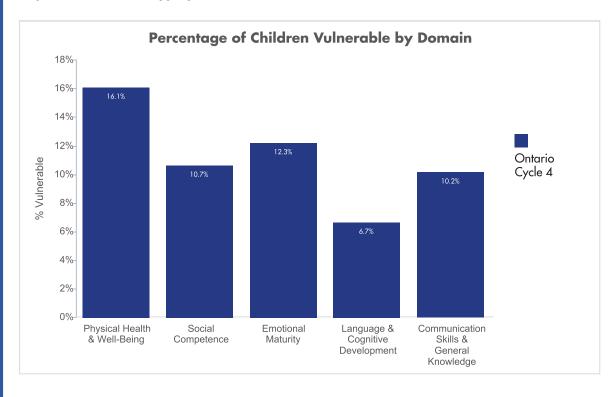




The EDI uses the 10th percentile for vulnerability because it captures all the children who are struggling, even those whose struggles may not be apparent.

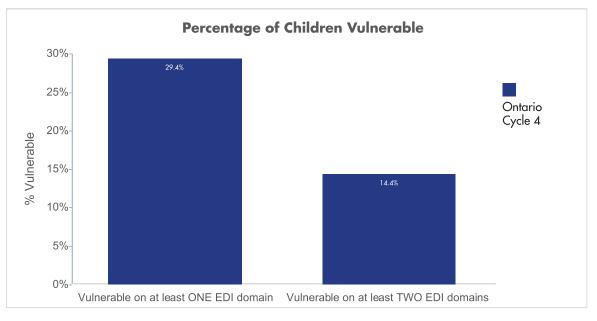
Vulnerable Children

"Vulnerable" describes the children who score low (below the 10th percentile cut-off of the Ontario Baseline population) on any of the five domains. Higher vulnerability indicates that a greater percentage of children are struggling.



The graph below illustrates Ontario 2014/2015 results for the percentage of children vulnerable on at least one and at least two domains.





Ontario Cycle 4 School year 2014/2015







EDI research across Canada shows that vulnerability at school entry is associated with poorer scores on provincial standardized tests in Grades 3 and 4. Research also shows an association between vulnerability and the likelihood of having some form of Special Needs status by Grade 9.

(Brown & Parekh, 2010; Calman & Crawford, 2013; D'Angiulli, Warburton, Dahinten, & Hertzman, 2009)

Distribution of EDI Scores

The graph below illustrates the percentage of Ontario children who fall in the Vulnerable, At Risk, and On Track categories for each domain.

Ontario Cycle 4 (n = 125858)

Physical Health & Well-Being (n = 125781)

Physical He	alth & Well-Bei	ng (n = 125/81)
16.1%	4.3%	79.5%
Social Com	petence (n = 12	(5852)
10.7%	15.6%	73.7%
Emotional /	Maturity (n = 12	5515)
12.3%	14.5%	73.0%
Language &	& Cognitive Dev	elopment (n = 125705)
6.7%	1.2%	82.0%
Communico	ation Skills & Ge	eneral Knowledge (n = 125825)
10.2%	15.7%	74.1%

Vulnerable



On Track

Children who score below the 10th percentile

Children who score between the 10th and 25th percentiles

Children who score above the 25th percentile

Note: Distributions may not equal 100% due to missing values in a domain.





Please note:

For the age composition frequency graph, months were rounded down for ages less than 15 days, and up for more than 15 days. For example, children aged less than 6 years 1.5 months are included in the 5-11 to 6-1 category, and children aged from 5 years 1.5 months to 5 years 4.5 months are included in the 5-2 to 5-4 category.

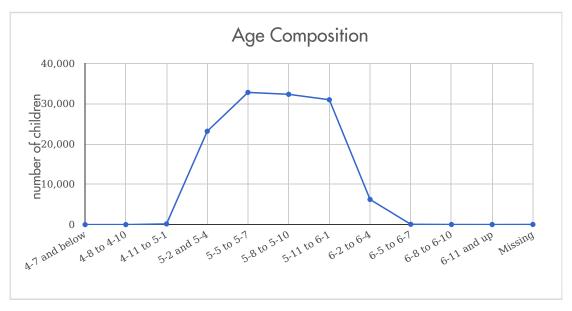




Descriptive characteristics of the Ontario 2014/2015 cohort (N=125858)

	Number	%
Gender		
Girl	62328	49.5%
Воу	63530	50.5%
Missing	0	0.0%
English Language Learner / French as a Second Langua	ge	
ELL	11598	9.2%
FSL	2799	2.2%
No ELL/FSL	111375	88.5%
Missing	86	0.1%
French Immersion		
French Immersion	15663	12.4%
Non-French Immersion	110085	87.5%
Missing	110	0.1%

These are some examples of the contextual variables that may influence EDI scores. Communities are encouraged to explore other contextual factors that may help better explain EDI data.





Special Problems:

Minimum: 0

Maximum: 11

- physical disability
- visual impairment
- hearing impairment
- speech impairment
- learning disability
- emotional problem
- behavioural problem
- home environment/ problems at home
- chronic medical/ health problems
- unaddressed dental needs
- other

Special Skills:

Minimum: 0

Maximum: 7

- Demonstrates special numeracy skills or
- Demonstrates special literacy skills or talents
- Demonstrates special skills or talents in art
- Demonstrates special skills or talents in music
- Demonstrates special skills or talents in athletics/dance
- Demonstrates special skills or talents in problem solving in a creative way
- Demonstrates special skills or talents in other areas



Section D - Special Concerns

Special 11.7% Problems 14779	Yes, Obse	erved	Yes, Parents Info/Diagnosis		Yes, B	Both	
Yes	Number	%	Number	%	Number	%	
Physical Disability	324	0.3%	294	0.2%	183	0.1%	
Visual Impairment	233	0.2%	346	0.3%	223	0.2%	
Hearing Impairment	233	0.2%	336	0.3%	169	0.1%	
Speech Impairment	3355	2.7%	696	0.6%	1638	1.3%	
Learning Disability	2770	2.2%	211	0.2%	186	0.1%	
Emotional Problem	3327	2.6%	283	0.2%	485	0.4%	
Behavioural Problem	4700	3.7%	304	0.2%	<i>7</i> 13	0.6%	
Home Environment / Problems at Home	2627	2.1%	494	0.4%	361	0.3%	
Chronic Medical / Health Problems	382	0.3%	432	0.3%	230	0.2%	
Unaddressed Dental Needs	278	0.2%	173	0.1%	41	0.0%	
Other	2092	1.7%	410	0.3%	409	0.3%	

	Yes		No		Missing	
	Number	%	Number	%	Number	%
Child Receiving School Based Support	6161	4.9%	114852	91.3%	4845	3.8%
Child Currently Receiving Further Assessment	5030	4.0%	117862	93.6%	2966	2.4%
Child Currently on Wait List to Receive Further Assessment	4740	3.8%	117682	93.5%	3436	2.7%
Do You Feel that this Child Needs Further Assessment	14458	11.5%	107558	85.5%	3842	3.1%

Children with 1 **Special Skill**

14.3%

Children with 1 **Special Problem**

7.5%



Early Intervention Program:

Includes: speech/ language therapy, a parent who attended a parenting program, a Head Start program, a School's Cool program, etc., or if child has had similar in-home services



Recognizing the contextual factors in your community, like a child's experiences before school entry, may help explain EDI vulnerability. In addition to the variables on the EDI, all communities are encouraged to explore locally relevant factors that may affect children's development.



Section E - Additional Questions

Child attended an early intervention program

5.2% 74.4% 20.4% 6578 93590 25690 Yes

No Missing

Child attended any other language or religion classes

6.1% 55.6% 7619 69928 48311 Yes No Missing

Child attended an organized part-time pre-school/nursery school

43.7% 47.4% 8.8% 11132 59674 Yes No Missing

Non-parental care

29.3% 38.5% 36876 48449 40533 Yes No Missing

Centre-based, licensed, 7.6% non-profit arrangement

9581 Yes

Centre-based, licensed, for profit arrangement 8.1% 10170 Yes

Other home-based, licensed arrangement 1.5% 1861

Yes

Other home-based, unlicensed, non-relative arrangement 3.5% 4379 Yes

Other home-based, unlicensed, relative arrangement 1.4% 1761

Yes

Child's home, nonrelative arrangement 1.0% 1227

Yes

Child's home, relative arrangement 3.9% 4876 Yes

5.2% Other 6518 Yes

Type of arrangement

21.8%

7288

72.4% 91158

27412 Full-time

Part-time

Missing





Some of the group comparisons may be labeled as Not Applicable (N/A) or are missing from the analyses because the groups were too small (under five students) to retain confidentiality.

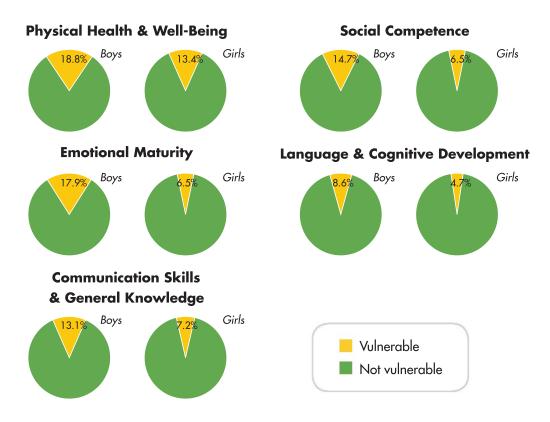


Although understanding overall vulnerability for your site is important, it does not tell the whole story. Comparing children based on certain demographics, such as gender, age, ability to speak English or French, to name a few, is an effective way of understanding how contextual factors in your site may be influencing EDI vulnerability rates.

Gender









Older children are defined as those above the mean age and younger children are defined as those below the mean age.

ELL: English language learner. Child in Anglophone school whose first language is not English AND who needs additional instruction in English.

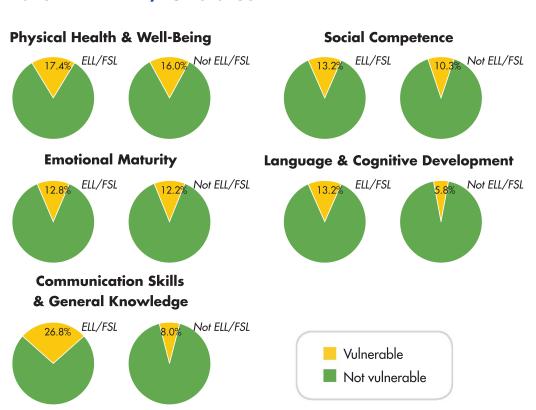
FSL: French as second language. Child in Francophone school whose first language is not French AND who needs additional instruction in French.



Age of child



Children with ELL/FSL status



School year 2014/2015

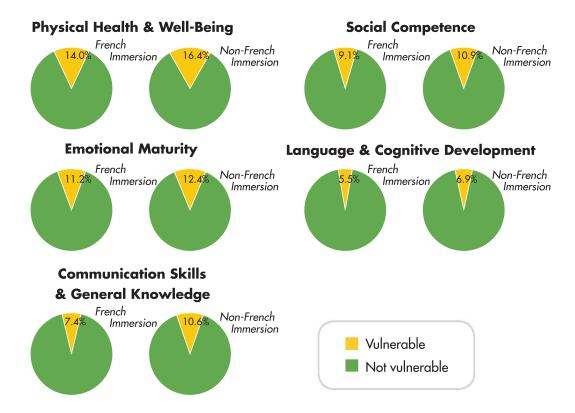


"If we can address needs of children early, rather than later, we can help each child reach their maximum potential. It also means we can equal the playing field for all children."

- Dr. Fraser Mustard



Children who attended French Immersion







Exploring subdomains is an important step in determining the areas of development that are influencing vulnerability rates in various domains. Subdomains in which a large percentage of children are doing poorly can be used to inform the action needed to address children's weaknesses.





Subdomain Profiles

Each of the five domains is divided into subdomains, except for Communication Skills and General Knowledge. The subdomains were originally identified using factor analysis. The table below shows the breakdown of subdomains for each domain.

Physical Health & Well-being	Social Competence	Emotional Maturity	Language & Cognitive Development	Communication Skills & General Knowledge
Physical readiness for school day	Overall social competence	Prosocial & helping behaviour	Basic literacy	Communication skills & general knowledge
Physical independence	Responsibility & respect	Anxious & fearful behaviour	Interest in literacy/numeracy & memory	
Gross and fine motor	Approaches to learning	Aggressive behaviour	Advanced literacy	
	Readiness to explore new things	Hyperactivity and inattention	Basic numeracy	

Scores for domains and subdomains on the EDI vary from 0 to 10. Some subdomains represent skills that a child in kindergarten, based on his or her developmental age, is expected to have mastered already (e.g., physical independence). Other subdomains represent areas of development that are still emerging (e.g., prosocial behaviour).

Based on skills and abilities that each subdomain represents, groups of scores were identified representing children who met all/almost all developmental expectations (reach the expectations for all or most of the subdomain items), some of the developmental expectations (reach the expectations for some of the subdomain items), and met few/none of the developmental expectations (reach expectations for none or few of the subdomain items). In contrast to the "on track", "at risk", and "vulnerable" groups identified for domains in the EDI Descriptive Report, which are based on the distribution of scores in the province/territory or in Canada, the subdomain categories are distribution-free.

In this report, detailed descriptions of children who met all/almost all and of those who met few/none of the developmental expectations are given for each subdomain. There is no detailed description for the "some" category because these children vary widely in their skills and abilities. An investigation of percentages of children who fall into the "few/none" category will identify areas of the greatest weakness in the population. The following section outlines the percentage of your children who are meeting all/almost all, some, or few/none of the developmental expectations in each of the five domains.

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If you wish to receive the detailed numbers for the subdomain graphs please contact the Offord Centre.

edi.offordcentre.com



Physical Health & Well-being

Physical readiness for school day

All/Almost all - never or almost never experienced being dressed inappropriately for school activities, or coming to school tired, late, or hungry. Few/None - have at least sometimes experienced coming unprepared for the school day by being dressed inappropriately, or by coming to school late, hungry, or tired.

0% 25% 50% 75% 100% 4.8 Few/None All/Almost all Few/None 10.1 All/Almost all Few/None 20.5

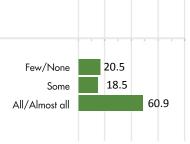
Physical independence

All/Almost all - independent in looking after their needs, have an established hand preference, are well coordinated, and do not suck a thumb/finger. Few/None - vary from those who have not developed one of the three skills (independence, handedness, coordination) and/or suck a thumb to those who have not developed any of the skills and suck a thumb.

Gross and fine motor skills

All/Almost all - have an excellent ability to physically tackle the school day and have excellent or good gross and fine motor skills.

Few/None - range from those who have an average ability to perform skills requiring gross and fine motor competence and good or average overall energy levels, to those who have poor fine and gross motor skills, poor overall energy levels, and poor physical skills.

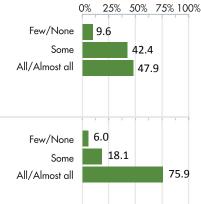


Social Competence

Overall social competence

All/Almost all - have excellent or good overall social development, very good ability to get along with other children, and play with various children; usually cooperative and self-confident.

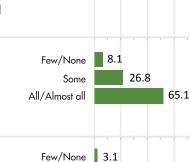
Few/None - have average to poor overall social skills, have low selfconfidence, and are rarely able to play with various children or interact cooperatively.



Responsibility and respect

All/Almost all - always or most of the time show respect for others and for property, follow rules and take care of materials, accept responsibility for actions, and show self-control.

Few/None - only sometimes or never accept responsibility for actions, show respect for others and for property, demonstrate self-control, follow rules, and take care of materials.



Approaches to learning

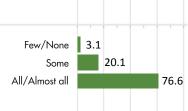
All/Almost all - always or most of the time work neatly, work independently, solve problems, follow instructions and class routines, and easily adjust to changes.

Few/None - only sometimes or never work neatly, work independently, solve problems, follow class routines, and adjust to changes in routines.



All/Almost all - curious about the surrounding world and eager to explore new books, toys, and games.

Few/None - only sometimes or never show curiosity about the world and are rarely eager to explore new books, toys, and games.



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"Children grow according to the qualities of stimulation, support, and nurturance they get on a moment to moment basis throughout their waking hours."

- Dr. Clyde Hertzman



Emotional Maturity

Prosocial and helping behaviour

All/Almost all - show most of the helping behaviours: helping someone hurt, sick or upset, offering to help spontaneously, invite bystanders to join in. Few/None - never or almost never show most of the helping behaviours; they do not help someone hurt, sick or upset, spontaneously offer to help, do not invite bystanders to join in.

Anxious and fearful behaviour

All/Almost all - rarely or never show most of the anxious behaviours; happy and able to enjoy school, and are comfortable being left at school by

Few/None - often show most of the anxious behaviours; they could be worried, unhappy, nervous, sad, or excessively shy, indecisive; and they can be upset when left at school.

Aggressive behaviour

All/Almost all - rarely or never show most of the aggressive behaviours: get into physical fights, kick or bite others, take other people's things, are disobedient or have temper tantrums.

Few/None - often show most of the aggressive behaviours: get into physical fights, kick or bite others, take other people's things, are disobedient or have temper tantrums.

Hyperactivity and inattention

All/Almost all - never show most of the hyperactive behaviours; they are able to concentrate, settle to chosen activities, wait their turn, and most of the time think before doing something.

Few/None - often show most of the hyperactive behaviours; they could be restless, distractible, impulsive; they fidget and have difficulty settling to activities.

25% 50% 75% 100% Few/None 32.2 30.7 Some All/Almost all 35.5 Few/None 10.1 Some All/Almost all Few/None 10.2 8.7 Some 80.9 All/Almost all

13.0

12.5

74.3

Few/None

All/Almost all

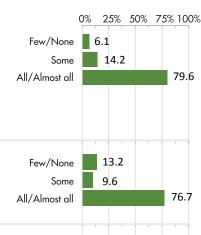
Some

Language & Cognitive Development

Basic literacy

All/Almost all - have all the basic literacy skills: know how to handle a book, can identify some letters and attach sounds to some letters, show awareness of rhyming words, know the writing directions, and are able to write their own name.

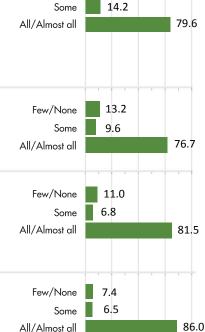
Few/None - lack most of the basic literacy skills; they have problems with identifying letters or attaching sounds to them, rhyming, may not know the writing directions or how to write own name.



Interest in literacy / numeracy and memory

All/Almost all - show interest in books and reading, math and numbers, and have no difficulty with remembering things.

Few/None - may not show interest in books and reading, or math and number games, or both, and may have difficulty remembering things.



Advanced literacy

All/Almost all - have at least half of the advanced literacy skills: reading simple, complex words or sentences, writing voluntarily, writing simple words or sentences.

Few/None - have only up to one of the advanced literacy skills; who cannot read or write simple words or sentences, and rarely write voluntarily.

Basic numeracy

All/Almost all - have all the basic numeracy skills: can count to 20 and recognize shapes and numbers, compare numbers, sort and classify, use oneto-one correspondence, and understand simple time concepts.

Few/None - have marked difficulty with numbers, cannot count, compare or recognize numbers, may not be able to name all the shapes, and may have difficulty with time concepts.

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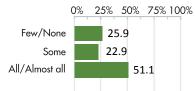


Communication Skills & General Knowledge

Communication skills and General knowledge

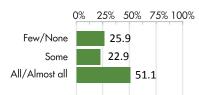
All/Almost all - have excellent or very good communication skills; can communicate easily and effectively, can participate in story-telling or imaginative play, articulates clearly, show adequate general knowledge, and are proficient in their native language.

Few/None - can range from being average to very poor in effective communication, may have difficulty in participating in games involving the use of language, may be difficult to understand and may have difficulty understanding others; may show little general knowledge and may have difficulty with the native language.











The rate of special needs amongst kindergarten children in the EDI Normative II sample is 3.8%. This is comparable to the rate of 4.2% of children ages 5 to 9 with disabilities found on the 2006 Statistics Canada Participation and Activity Limitation Survey.

(Janus, Hughes, & Duku, 2010; Statistics Canada, 2008).





Special Needs Report

Under the definition of special needs is a broad range of disorders affecting behaviour, communication, as well as physical or intellectual development. Children with special needs often contend with multiple problems, which require tailor-made, flexible support. These children may also have above average abilities in certain areas, adding to the complexity of providing appropriate support to help them reach their optimal development.

Because of the unique challenges associated with helping children with special needs, the following report is provided so not to lose the individuality of the results of these children. The more specific needs of this group must be addressed individually – a school-based intervention won't help a child with autism. Providing the following Special Needs Report allows for the school boards and communities to focus on these children's needs and to plan better for future years.

Children with Special Needs: General Guidelines

Yes - Child identified already as needing special assistance due to chronic medical, physical, or mental disabling conditions (e.g., autism, fetal alcohol syndrome, Down syndrome)

Child requires special assistance in the classroom

No - Gifted or talented children

Children only suspected to be suffering from a disabling condition, or having a condition not severe enough to be classified as "special needs"

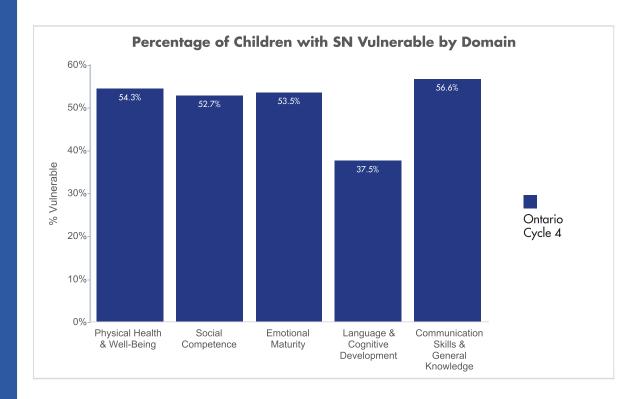


"In a civic community, all children deserve the right of full participation in community life.
Adults must take responsibility for more than their own children."

- Dr. Dan Offord

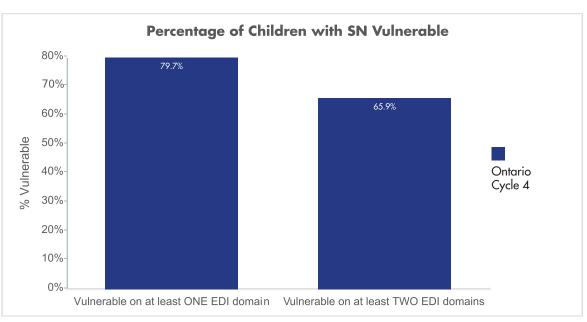


"Vulnerable" describes the children who score low (below the 10th percentile cut-off of the Ontario baseline population) on any of the five domains. Higher vulnerability indicates that a greater percentage of children are struggling.



The graph below illustrates Ontario 2014/2015 results for the percentage of children with special needs vulnerable on at least one and at least two domains.











For the age composition frequency graph, months were rounded down for ages less than 15 days, and up for more than 15 days. For example, children aged less than 6 years 1.5 months are included in the 5-11 to 6-1 category, and children aged from 5 years 1.5 months to 5 years 4.5 months are included in the 5-2 to 5-4 category.

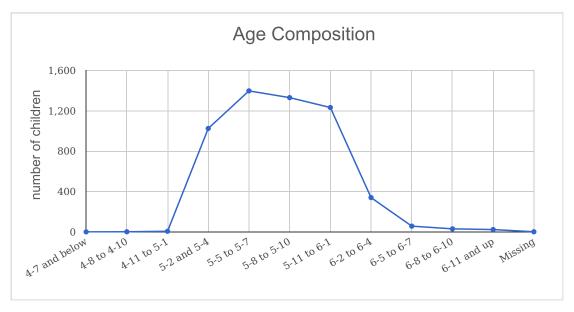




Descriptive characteristics of the Ontario 2014/2015 Special **Needs cohort (N=5449)**

	Number	%
Gender		
Girl	1647	30.2%
Воу	3802	69.8%
Missing	0	0.0%
English Language Learner / French as a Second Language	ge	
ELL	539	9.9%
FSL	199	3.7%
No ELL/FSL	4702	86.3%
Missing	9	0.2%
French Immersion		
French Immersion	461	8.5%
Non-French Immersion	4975	91.3%
Missing	13	0.2%

It is important to remember that children with special needs do not constitute a uniform group, and much can be learned by examining EDI scores across categories of impairment.



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Special Problems:

Minimum: 0

Maximum: 11

- physical disability
- visual impairment
- hearing impairment
- speech impairment
- learning disability
- emotional problem
- behavioural problem
- home environment/ problems at home
- chronic medical/ health problems
- unaddressed dental needs
- other

Special Skills:

Minimum: 0

Maximum: 7

- Demonstrates special numeracy skills or
- Demonstrates special literacy skills or talents
- Demonstrates special skills or talents in art
- Demonstrates special skills or talents in music
- Demonstrates special skills or talents in athletics/dance
- Demonstrates special skills or talents in problem solving in a creative way
- Demonstrates special skills or talents in other areas



Section D - Special Concerns

Special 83.9% Problems 4569	Yes, Obse	erved		Yes, Parents Info/Diagnosis		oth
Yes	Number	%	Number	%	Number	%
Physical Disability	214	3.9%	180	3.3%	449	8.2%
Visual Impairment	95	1.7%	93	1.7%	1 <i>77</i>	3.2%
Hearing Impairment	83	1.5%	127	2.3%	1 <i>7</i> 9	3.3%
Speech Impairment	724	13.3%	344	6.3%	1076	19.7%
Learning Disability	<i>7</i> 11	13.0%	252	4.6%	669	12.3%
Emotional Problem	629	11.5%	128	2.3%	390	7.2%
Behavioural Problem	960	17.6%	231	4.2%	666	12.2%
Home Environment / Problems at Home	381	7.0%	114	2.1%	148	2.7%
Chronic Medical / Health Problems	152	2.8%	179	3.3%	286	5.2%
Unaddressed Dental Needs	58	1.1%	35	0.6%	21	0.4%
Other	352	6.5%	306	5.6%	506	9.3%

	Yes		No		Missing	
	Number	%	Number	%	Number	%
Child Receiving School Based Support	3828	70.3%	1601	29.4%	20	0.4%
Child Currently Receiving Further Assessment	2424	44.5%	2669	49.0%	356	6.5%
Child Currently on Wait List to Receive Further Assessment	1621	29.7%	3164	58.1%	664	12.2%
Do You Feel that this Child Needs Further Assessment	2225	40.8%	2724	50.0%	500	9.2%

Children with 1 **Special Skill**

11.7%

Children with 1 **Special Problem**

31.8%

Glossary

Developmental health: The full range of developmental outcomes, including physical and mental health, behavioural adjustment, literacy, mathematics achievement, and more.

Special Needs: Children identified as needing special assistance in the classroom due to chronic medical, physical, or mental disabling conditions.

On track: The total group of children who score above the 25th percentile of the distribution.

At risk: The total group of children who score between the 10th and 25th percentiles of the distribution.

Vulnerable: The total group of children who fall below the 10th percentile cut-off of the distribution.

French Immersion: Only for Anglophone communities; a program in which kindergarten students are introduced early to French language through immersion, however, the main language of the schools remains to be English.

Domains: Broad areas of development which include physical health and well-being, social competence, emotional maturity, language and cognitive development, and communication skills and general knowledge.

Subdomains: Each of the five EDI domains is comprised of subdomains that measure a more specific area of development. There are 16 subdomains in total. Children are rated as 'meeting few/no developmental expectations', 'meeting some developmental expectations', and 'meeting all/almost all developmental expectations' on each subdomain.

Ontario baseline: The first provincial EDI collection in Ontario from 2004-2006. Used as a reference for all subsequent EDI collections in Ontario. Vulnerability is based on cut-offs from this population.

Ontario Cycle 4: The fourth provincial collection that took place during the 2014-15 school year.

Linked provincially: EDI questionnaires that have been matched by the Ontario government to a student information database.

Missing: Question not answered by teachers.



Tel: (905) 525-9140 General Inquiries: ext. 21469 **Fax:** (905) 574-6665

Email: edisrl@mcmaster.ca www.edi.offordcentre.com

Mailing Address
McMaster University
1280 Main St. W. MIP 201A
Hamilton, Ontario L8S 4K1