EDi

EARLY DEVELOPMENT INSTRUMENT
a population-based measure for communities

Summary Report

Kindergarten Students in
Prince Edward Island

School year 2022/2023

*A snapshot of children's
developmental health at school entry*

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 facilitate and encourage 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.

This report is complimented by the Interpretation Guide, which provides in depth information regarding the history of the EDI, development of scores, and working with data. Please be sure to refer to this Guide for assistance.
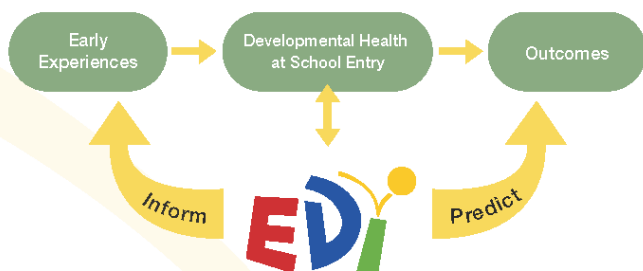
Thanks to all of our partners for their hard work and commitment to the EDI. A very special thanks to all of the teachers who have committed their time and energy to filling out EDI questionnaires over the years. Without you, none of this would have been possible.

Questionnaire Information

The table below describes the number of EDI questionnaires completed, the number of questionnaires which did not meet the criteria for analysis (excluded) for both the entire population (report pages 1-10) and for the special needs report (pages 11-13). Because of the unique challenges associated with helping children with special needs, a special needs report is provided to address the unique needs individually.

	Students without Special Needs	Students with Special Needs
Completed EDI Questionnaires	1386	90
Excluded EDI Questionnaires*	66 (4.8%)	2 (2.2%)
Questionnaires Valid for Analysis (VFA** & VFA-SN***)	1320 (95.2%)	88 (97.8%)

Descriptive characteristics of the Prince Edward Island 2022/2023 cohort (N=1320)

	Number	%
Sex		
Girl	643	48.7%
Boy	677	51.3%
Missing	0	0.0%
Language Status		
EAL/FAL	236	17.9%
No EAL/FAL	1074	81.4%
Missing	10	0.8%
Language Immersion		
French Immersion	389	29.5%
Other Immersion	3	0.2%
No Language Immersion	921	69.8%
Missing	7	0.5%
Age		
Average Age	5.6	-

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.

On average, older children have better EDI scores than younger children.

EDI Outcomes

The EDI measures childrens' ability to meet age-appropriate developmental expectations across five domains: Physical Health and Well-being, Social Competence, Emotional Maturity, Language and Cognitive Development, and Communication Skills and General Knowledge. Please see the glossary at the end of this report, as well as the Interpretation Guide on the EDI website for more detailed information about the domains.

The groups below are based on the distribution of scores, however they do not represent a total overall of each category of the distribution.

Note: Children will fall into only one of these three groups, therefore total should be approximately 100%.

38.5%
Overall on track

26.7%
Overall in flux

34.7%
Overall vulnerable
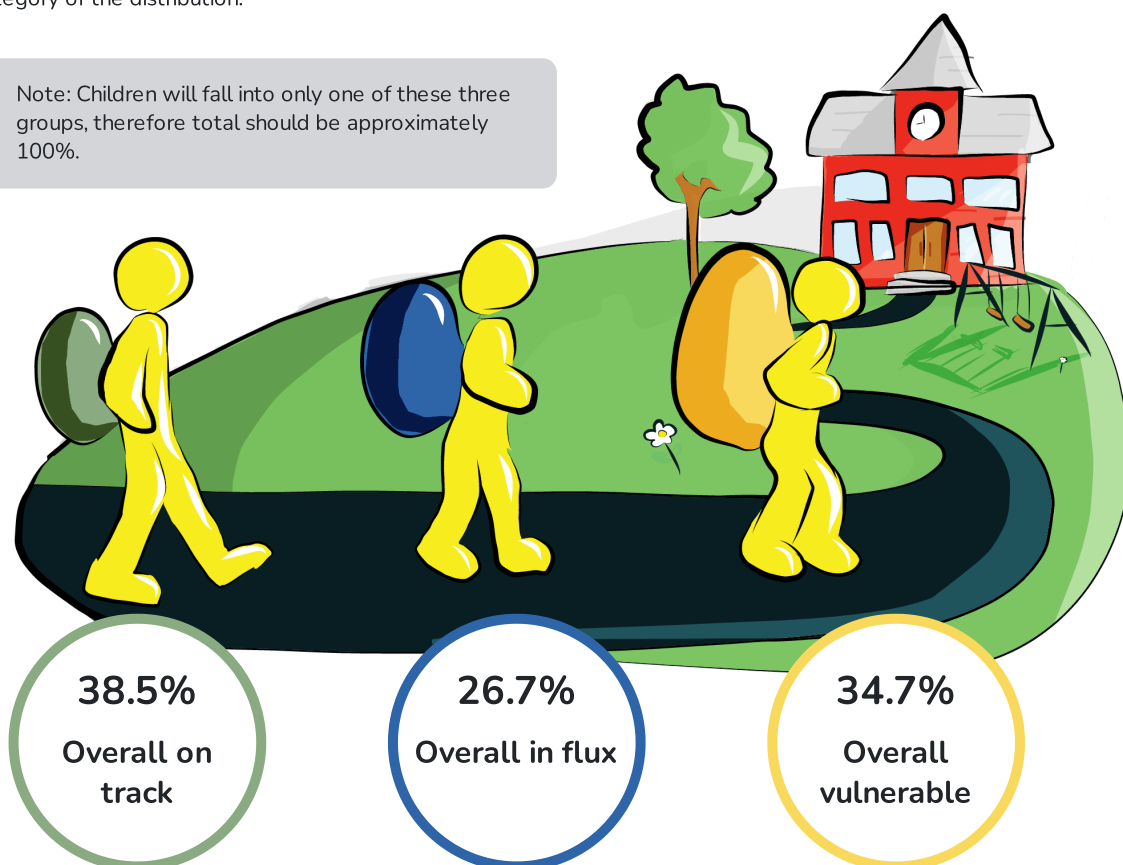
Children with scores above the 25th percentile cut-off on all five domains. These children are considered to be developing well in all areas of developmental health for their age.

These children are not vulnerable on any of the domains, however they are not on track on all five domains. This group of children falls above the 10th percentile on all 5 domains, but below the 25th percentile on at least one domain. These children may need more support or may catch up with their peers. (These children are not all in the at risk category, they may fall into the at risk category on some domains, but on track in others).

Children with scores below the 10th percentile cut-off on any of the five domains. Being vulnerable means that children are at an increased risk of difficulties and, without additional support, may continue to experience challenges.
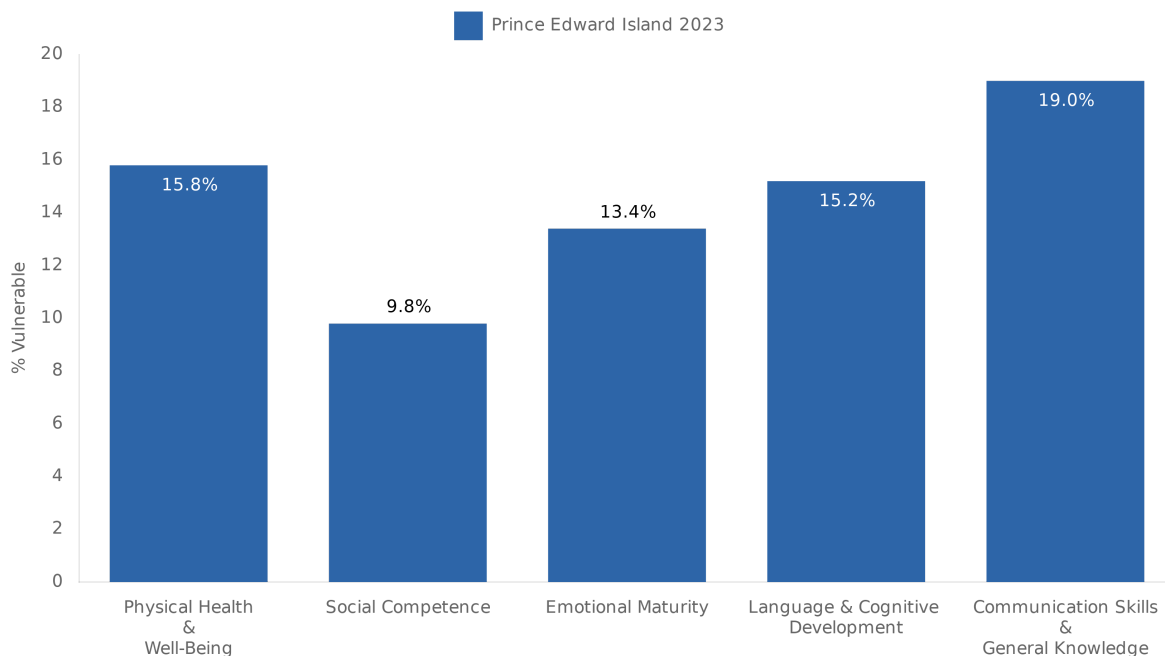
Vulnerable Children

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

Percentage of Children Vulnerable by Domain

Legend: Prince Edward Island 2023

Domain	% Vulnerable
Physical Health & Well-Being	15.8%
Social Competence	9.8%
Emotional Maturity	13.4%
Language & Cognitive Development	15.2%
Communication Skills & General Knowledge	19.0%

The graph below illustrates Prince Edward Island 2022/2023 results for the percentage of Kindergarten children vulnerable on at least one and at least two domains.

Percentage of Children Vulnerable

Legend: Prince Edward Island 2023

	% Vulnerable
Vulnerable on at least ONE EDI domain	34.7%
Vulnerable on at least TWO EDI domains	20.5%
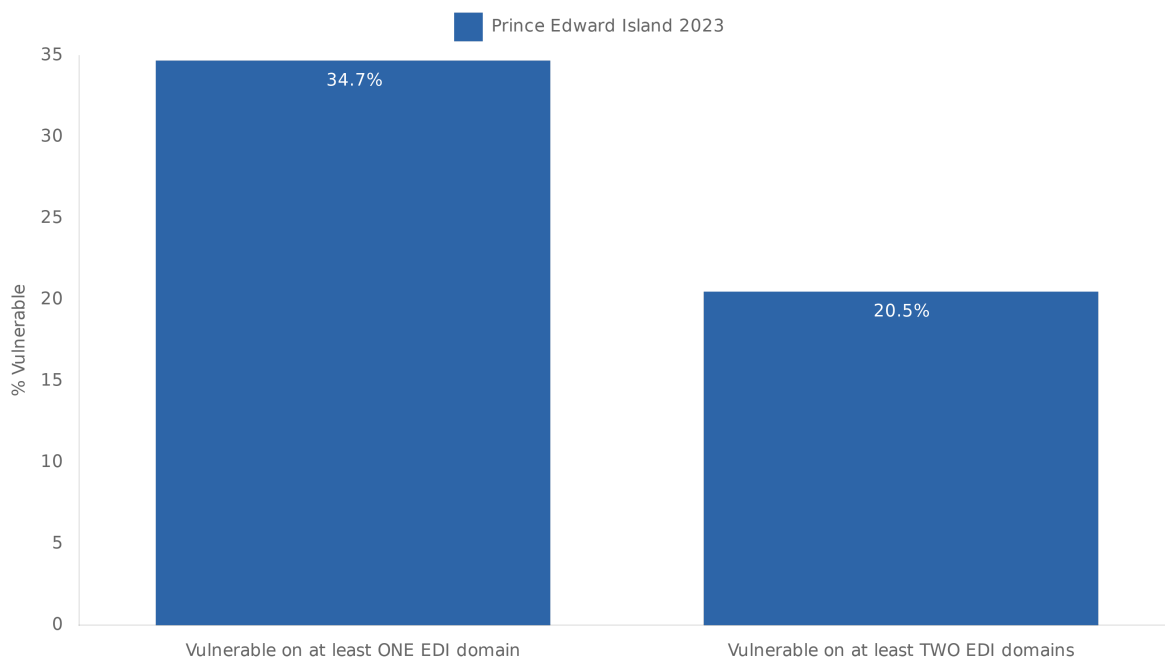
EDI research across Canada shows that vulnerability at school entry is associated with poorer scores on provincial standardized tests in Grades 3 and 4. Research also shows an association between vulnerability and the likelihood of having some form of Special Needs status by Grade 9.

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

Distribution of EDI Scores

The graphs below illustrate the percentage of Prince Edward Island Kindergarten children who fall in the Vulnerable, At Risk, and On Track categories for each domain.

Prince Edward Island 2023 (n = 1320)

Physical Health & Well-Being (n = 1320)

15.8%	10.8%	73.5%

Social Competence (n = 1320)

9.8%	19.2%	71.1%

Emotional Maturity (n = 1320)

13.4%	20.6%	66.0%

Language & Cognitive Development (n = 1319)

15.2%	19.0%	65.7%

Communication Skills & General Knowledge (n = 1320)

19.0%	12.4%	68.6%

Vulnerable

At Risk

On Track

Children with scores below the 10th percentile

Children with scores between the 10th and 25th percentiles

Children with scores above the 25th percentile

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

Subdomain Profiles

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.

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 & fine motor skills	Approaches to learning	Aggressive behaviour	Advanced literacy	
	Readiness to explore new things	Hyperactivity & 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. Other subdomains represent areas of development that are still emerging.

Based on skills and abilities that each subdomain represents, groups of scores were identified representing children who met:

- All/almost all of the developmental expectations
- Some of the developmental expectations
- Few/none of the developmental expectations

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.

The following section outlines the percentage of your children who are meeting all/almost all, some, or few/none of the developmental expectations for each subdomain. An investigation of percentages of children who fall into the "few/none" category will identify areas of the greatest weakness in the population.

Few/None   Some   All/Almost All

Physical Health & Well-being

Physical readiness for school day
Children who never or almost never experienced being dressed inappropriately for school activities, coming to school tired, late or hungry.

P.E.I. 2023 — 5.9% | 94.1%

Physical independence
Children who are independent in looking after their needs, have an established hand preference, are well coordinated, and do not suck a thumb/finger.

P.E.I. 2023 — 16.2% | 83.8%

Gross & fine motor skills
Children who have an excellent ability to physically tackle the school day and have excellent or good gross & fine motor skills.

P.E.I. 2023 — 29.8% | 21.1% | 49.1%

Social Competence

Overall social competence
Children with 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.

P.E.I. 2023 — 9.3% | 45.1% | 45.5%

Responsibility and respect
Children who always or most of the time show respect for others, and other's property, follow rules and take care of materials, accept responsibility for actions, and show self-control.

P.E.I. 2023 — 7.0% | 20.4% | 72.6%

Appoaches to learning
Children who always or most of the time work neatly, independently, and solve problems, follow instructions and class routines, easily adjust to changes.

P.E.I. 2023 — 9.8% | 32.2% | 58.0%

Readiness to explore new things
Children who are curious about the surrounding world, and are eager to explore new books, toys and games.

P.E.I. 2023 — 1.4% | 15.6% | 83.0%

> "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

Few/None ■ **Some** ■ **All/Almost All**

Emotional Maturity

Prosocial and helping behaviour
Children who often show most of the helping behaviours: helping someone hurt, sick or upset, offering to help spontaneously, invite bystanders to join in.

P.E.I. 2023 | 39.9% | 30.8% | 28.9%

Anxious and fearful behaviour
Children who rarely or never show most of the anxious behaviours; they are happy and able to enjoy school, and are comfortable being left at school by caregivers.

P.E.I. 2023 | 4.4% | 13.7% | 81.8%

Aggressive behaviour
Children who rarely or never show most of the aggressive behaviours; they do not use aggression as a means of solving a conflict, do not have temper tantrums, and are not mean to others.

P.E.I. 2023 | 8.8% | 9.5% | 81.7%

Hyperactivity & inattention
Children who never show most of the hyperactive behaviours; they are able to concentrate, settle in to chosen activities, wait their turn, and most of the time think before doing something.

P.E.I. 2023 | 18.1% | 17.6% | 64.2%

Language & Cognitive Development

Basic literacy
Children who 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.

P.E.I. 2023 | 8.0% | 21.4% | 70.5%

Interest in literacy / numeracy and memory
Children who show an interest in books and reading, math and numbers, and have no difficulty with remembering things.

P.E.I. 2023 | 10.6% | 13.1% | 75.7%

Advanced literacy
Children who have at least half of the advanced literacy skills: reading simple, complex words or sentences, writing voluntarily, writing simple words or sentences.

P.E.I. 2023 | 20.2% | 10.6% | 68.7%

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

P.E.I. 2023 | 16.7% | 12.9% | 70.5%

Few/None Some All/Almost All

Communication Skills & General Knowledge

Communication Skills & General Knowledge

Children who 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.

| P.E.I. 2023 | 31.4% | 23.8% | 44.8% |

Section D – Special Concerns

Note: the following chart ONLY includes children who do not have Special Needs.

Special Concerns

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 talents
- 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

Special Concerns 15.2% (200) Yes	Yes, Observed		Yes, Parent Info/Diagnosis		Yes, Both	
	Number	%	Number	%	Number	%
Physical Disability	7	0.5%	3	0.2%	4	0.3%
Visual Impairment	4	0.3%	5	0.4%	2	0.2%
Hearing Impairment	5	0.4%	6	0.5%	4	0.3%
Speech Impairment	40	3.0%	7	0.5%	30	2.3%
Learning Disability	26	2.0%	0	0.0%	7	0.5%
Emotional Problem	44	3.3%	4	0.3%	15	1.1%
Behavioural Problem	60	4.5%	3	0.2%	19	1.4%
Home Environment / Problems at Home	29	2.2%	4	0.3%	6	0.5%
Chronic Medical / Health Problems	4	0.3%	11	0.8%	3	0.2%
Unaddressed Dental Needs	2	0.2%	1	0.1%	0	0.0%
Other	10	0.8%	6	0.5%	7	0.5%

	Yes		No		Missing	
	Number	%	Number	%	Number	%
Child Receiving School Based Support	195	14.8%	1118	84.7%	7	0.5%
Child Currently Receiving Further Assessment	78	5.9%	1222	92.6%	20	1.5%
Child Currently on Wait List to Receive Further Assessment	116	8.8%	1176	89.1%	28	2.1%
Child Needs Further Assessment	238	18.0%	1060	80.3%	22	1.7%

Children with 1+ Special Skills **18.5%** **Children with 1+ Special Concerns** **17.8%**

Section E - Additional Questions

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.

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

Child received early intervention supports

	Yes		No		Missing	
	Number	%	Number	%	Number	%
Prior to, or during pre-kindergarten and now does not	74	5.6%	1027	77.8%	219	16.6%
Beginning in kindergarten	101	7.7%	1176	89.1%	43	3.3%
Both prior to, and during kindergarten	43	3.3%	1148	87.0%	129	9.8%

Child has been in non-parental care on a regular basis prior to kindergarten entry

Yes	No	Don't Know
63.3%	**19.4%**	**17.3%**
835	256	229

	Yes	
	Number	%
Centre-based, licensed	770	58.3%
Other Home-based, licensed	26	2.0%
Home-based, unlicensed, non-relative	29	2.2%
Relative	40	3.0%
Other/Don't Know	121	9.2%

Full-Time		Part-Time		Missing	
Number	%	Number	%	Number	%
690	52.3%	110	8.3%	520	39.4%

Child attended organized social programs outside of child care such as: sports practices, music lessons, religion classes or formal language-learning opportunities.

Yes		No		Missing	
Number	%	Number	%	Number	%
602	45.6%	268	20.3%	450	34.1%

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. 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"

Descriptive characteristics of the Prince Edward Island 2022/2023 Special Needs cohort (N=88)

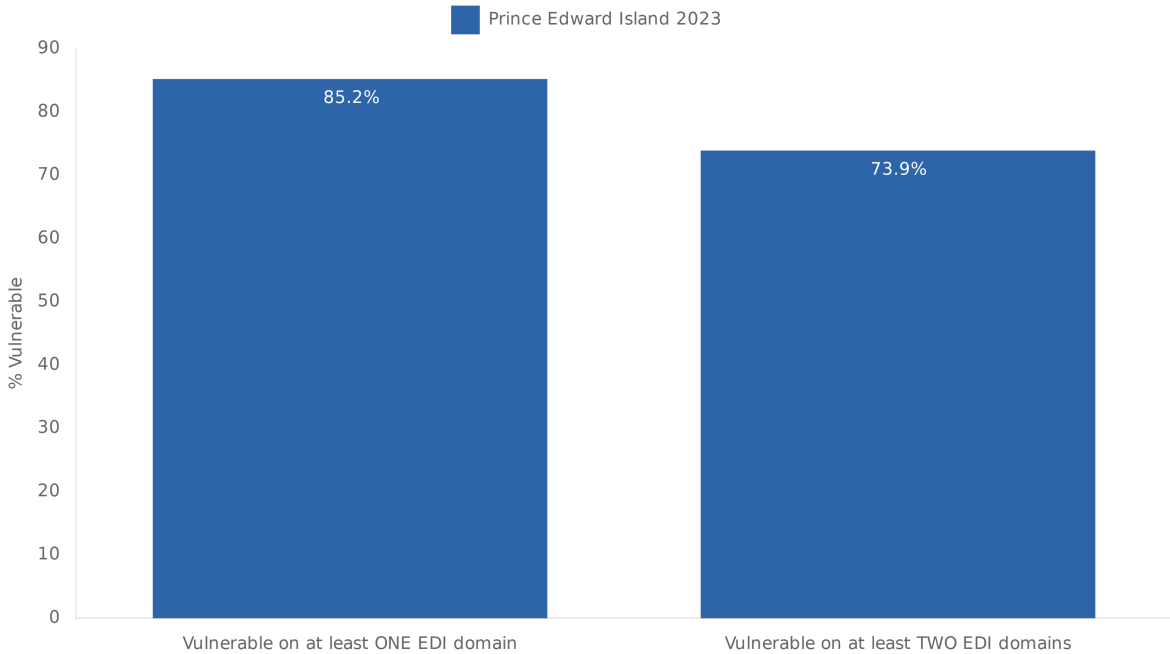|	Number	%
Sex		
Girl	21	23.9%
Boy	67	76.1%
Missing	0	0.0%
Language Status		
EAL/FAL	20	22.7%
No EAL/FAL	68	77.3%
Missing	0	0.0%
Language Immersion		
French Immersion	5	5.7%
Other Immersion	0	0.0%
No Language Immersion	83	94.3%
Missing	0	0.0%
Age		
Average Age	5.8	-

Vulnerable Children

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

Percentage of Children with SN Vulnerable by Domain

Prince Edward Island 2023

The graph below illustrates Prince Edward Island 2022/2023 results for the percentage of children with special needs vulnerable on at least one and at least two domains.

Percentage of Children with SN Vulnerable

Prince Edward Island 2023

Section D – Special Concerns

Note: the following chart ONLY includes children who have Special Needs.

Sidebar

Special Concerns
Minimum: 0
Maximum: 11

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

Special Skills
Minimum: 0
Maximum: 7

- Demonstrates special numeracy skills or talents
- 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

Special Concerns 88.6% (78) Yes	Yes, Observed		Yes, Parent Info/Diagnosis		Yes, Both	
	Number	%	Number	%	Number	%
Physical Disability	3	3.4%	3	3.4%	8	9.1%
Visual Impairment	1	1.1%	4	4.5%	7	8.0%
Hearing Impairment	0	0.0%	3	3.4%	3	3.4%
Speech Impairment	4	4.5%	11	12.5%	22	25.0%
Learning Disability	2	2.3%	7	8.0%	13	14.8%
Emotional Problem	10	11.4%	0	0.0%	11	12.5%
Behavioural Problem	9	10.2%	6	6.8%	21	23.9%
Home / Environment Problems	8	9.1%	1	1.1%	2	2.3%
Chronic Medical / Health Problems	1	1.1%	5	5.7%	6	6.8%
Unaddressed Dental Needs	0	0.0%	1	1.1%	0	0.0%
Other	2	2.3%	7	8.0%	10	11.4%

	Yes		No		Missing	
	Number	%	Number	%	Number	%
Child Receiving School Based Support	76	86.4%	12	13.6%	0	0.0%
Child Currently Receiving Further Assessment	38	43.2%	47	53.4%	3	3.4%
Child Currently on Wait List to Receive Further Assessment	26	29.5%	56	63.6%	6	6.8%
Child Needs Further Assessment	45	51.1%	40	45.5%	3	3.4%

Children with 1+ Special Skills **22.7%**   **Children with 1+ Special Concerns** **87.5%**

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 with scores above the 25th percentile of the distribution.

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

Vulnerable: The total group of children with scores 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: The EDI measures children's developmental health across five domains:

1. **Physical Health & Well-Being** - *13 questions*
   Children are healthy, independent, and rested each day.
2. **Social Competence** - *26 questions*
   Children play and get along with others, share, and show self-confidence.
3. **Emotional Maturity** - *30 questions*
   Children can concentrate on tasks, help others, show patience, and are not often aggressive or angry.
4. **Language & Cognitive Development** - *26 questions*
   Children are interested in reading and writing, can count, and recognize numbers and shapes.
5. **Communication Skills & General Knowledge** - *8 questions*
   Children can tell a story and communicate with adults and other children.

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.

Mean: The average of a set of numbers.

Missing: Question not answered by teachers.

Interpretation Guide: Can be found here https://edi-offordcentre.s3.amazonaws.com/uploads/2019/03/EDI-interpretation-toolkit.pdf