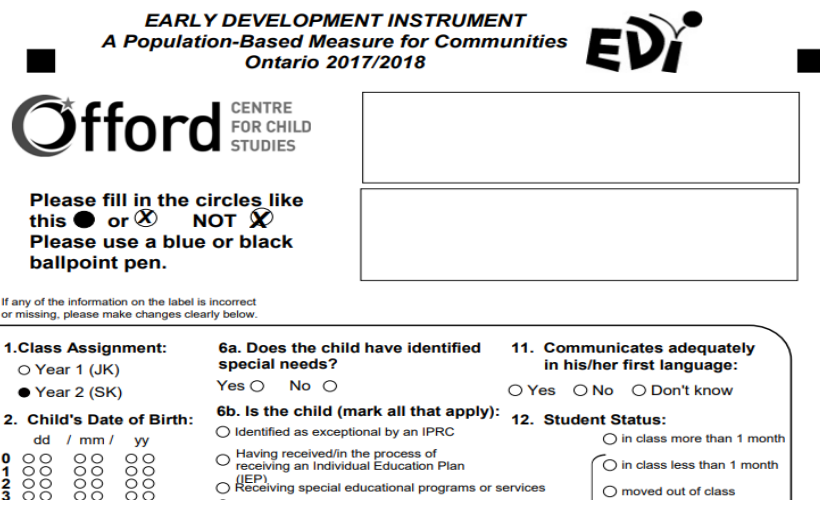




Early Development Instrument

2017/2018 Simcoe County Results
Cycle 5

Introduction



- 103-item questionnaire completed by teachers, during 2nd half of year 2 Kindergarten, every 3 years
- Developed at the Offord Centre for Child Studies at McMaster University
- Measures children’s ability to meet age-appropriate developmental expectations at school entry

Domains:

- Asks questions covering **five different areas** of early development

Physical Health & Well-Being

Social Competence

Emotional Maturity

Language & Cognitive Development

Communication Skills & General Knowledge



Subdomains

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

Inclusion Criteria



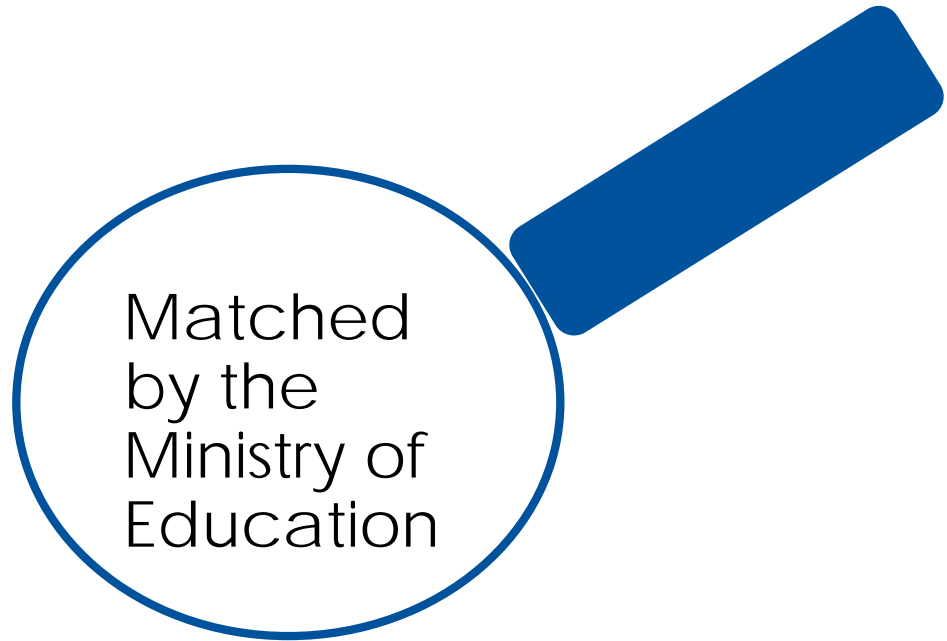
Has Special Needs?

No

Yes

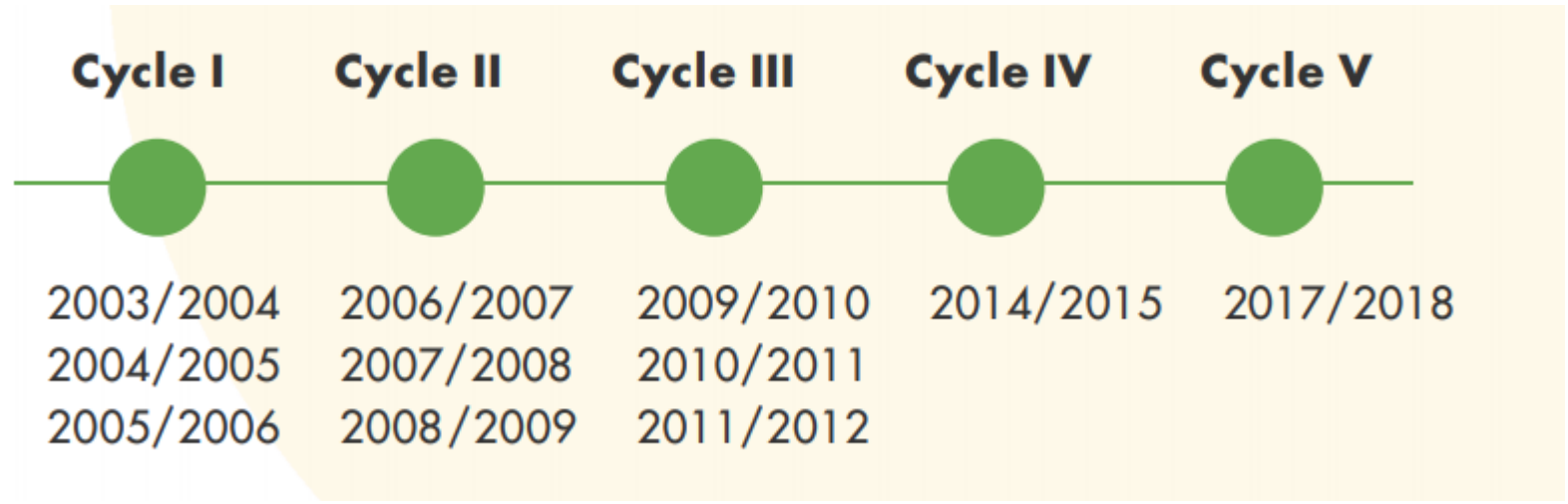


A minimum number of questions completed



Cycles

- Simcoe County did not participate in the Cycle 2 data collection



Graphic taken from 'Summary Report. Senior Kindergarten Students in the province of Ontario. Simcoe. School year 2017/2018'

- Offord Centre provided two reports this year:
 - Results from Cycle 5 (school year 2017/2018)
 - 5 cycles of the EDI in Ontario and Simcoe



Descriptive Characteristics

	Cycles			
	5	4	3	1
Valid Sample (#)	4,545	4,677	4,273	4,041
Girl	50.9%	49.0%	49.7%	49.2%
Boy	49.1%	51.0%	50.3%	50.8%
Language Status (ELL, ALF, PANA, FSL)	14.6%	6.1%	4.2%	2.7%
French Immersion	0.2%	0.2%	0.4%	0.8%
Average Age	5.7	5.7	5.9	5.8
Average Days Absent	10.9	8.7	5.4	4.0
Student is Repeating this Grade	1.0%	1.2%	0.8%	1.6%
Special Concerns	10.1%	13.8%	14.9%	8.2%
Children Requiring Further Assessment	11.2%	14.3%	14.0%	11.7%

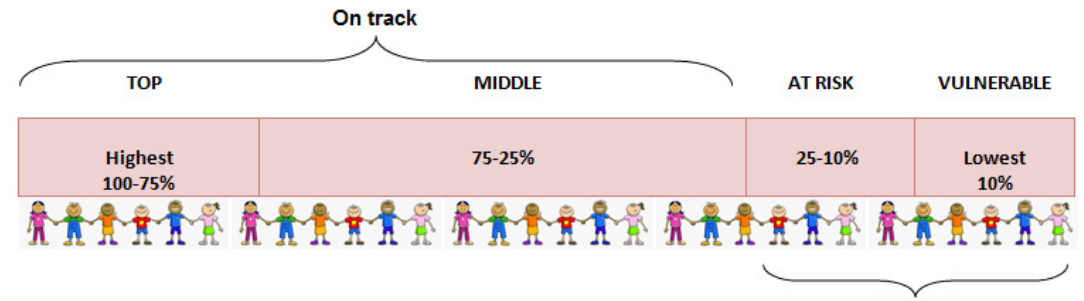
Pre-Kindergarten Experiences

	Cycles			
	5	4	3	1
Attended an Early Intervention Program	5.0%	6.8%	5.4%	6.0%
Had Been in Non-Parental Care	36.0%	38.4%	36.6%	34.3%
Attended other Community Learning Programs (ex: language classes, religion classes, cultural programs, music classes, sports etc.)	30.0%	4.7%*	4.0%*	5.8%*
Attended Year 1 (JK)	95.8%	92.9%	94.4%	91.4%

*Questionnaires only asked about 'other language or religion classes'

Domain Results

Distribution of the EDI Domain Scores



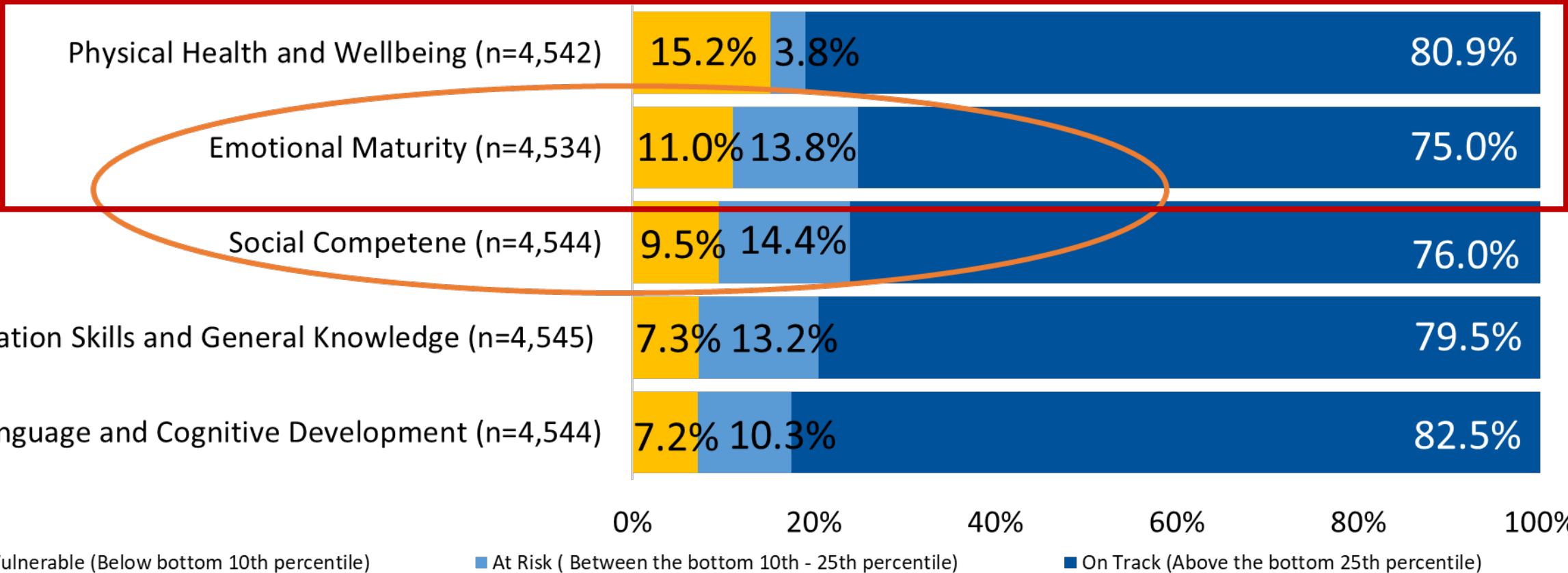
Graphic from <https://edi.offordcentre.com/researchers/how-to-interpret-edi-results/>

- **On Track** = percentage of children with scores above the bottom 25% of baseline scores
- **At Risk** = percentage of children with scores between the bottom 10-25% of baseline scores
- **Vulnerable** = percentage of children with scores below the bottom 10% of baseline scores
 - Captures the children who are struggling, but not only those who are doing so visibly to have already been identified
 - Research shows that without support, these children are more likely to experience poorer outcomes later in life: academically, emotionally, and in their relationships with peers

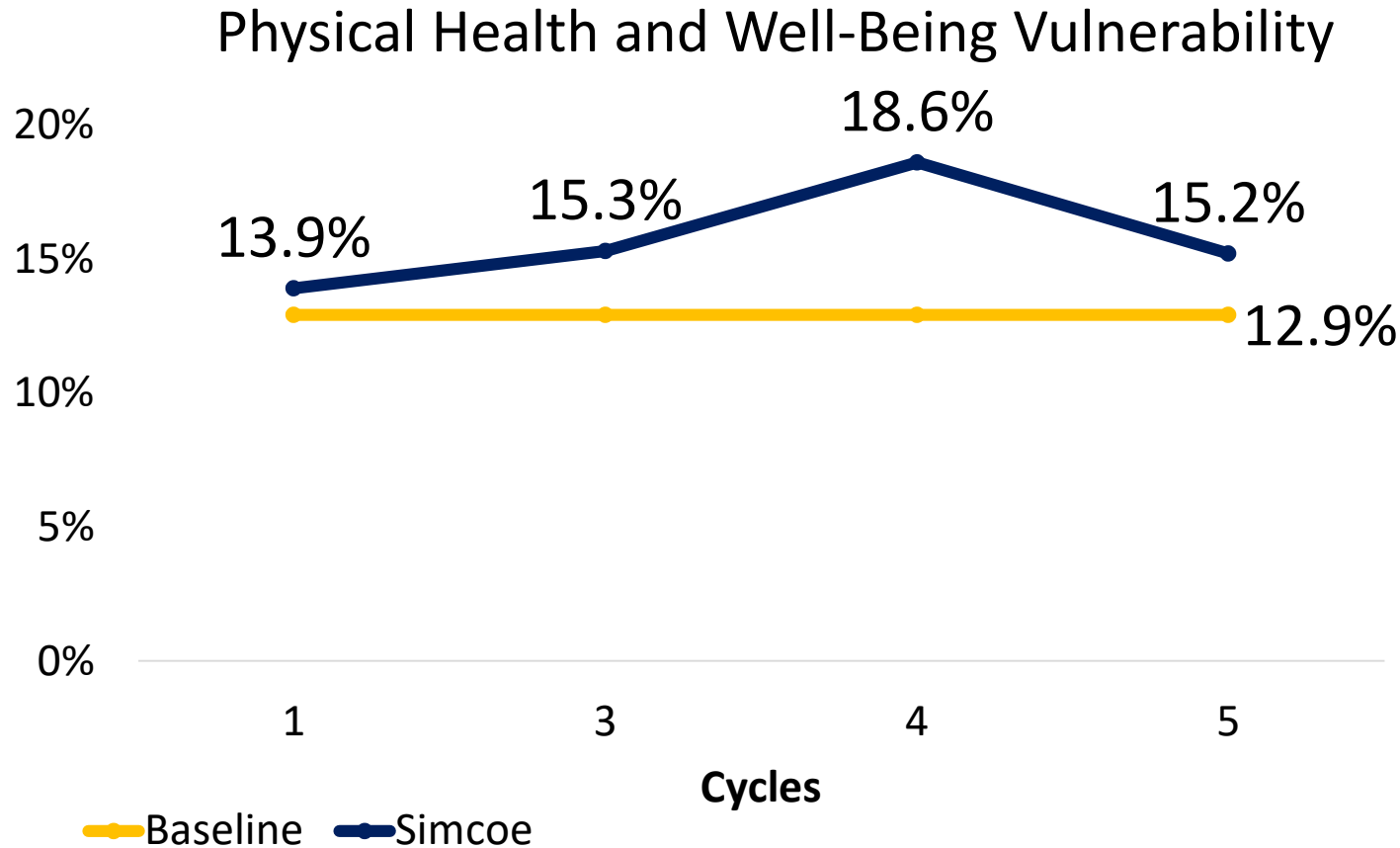
* Baseline scores: 2004-2006 Ontario EDI Collection

Domain Results

Simcoe County Domain Results



Vulnerability: Compared to the Baseline

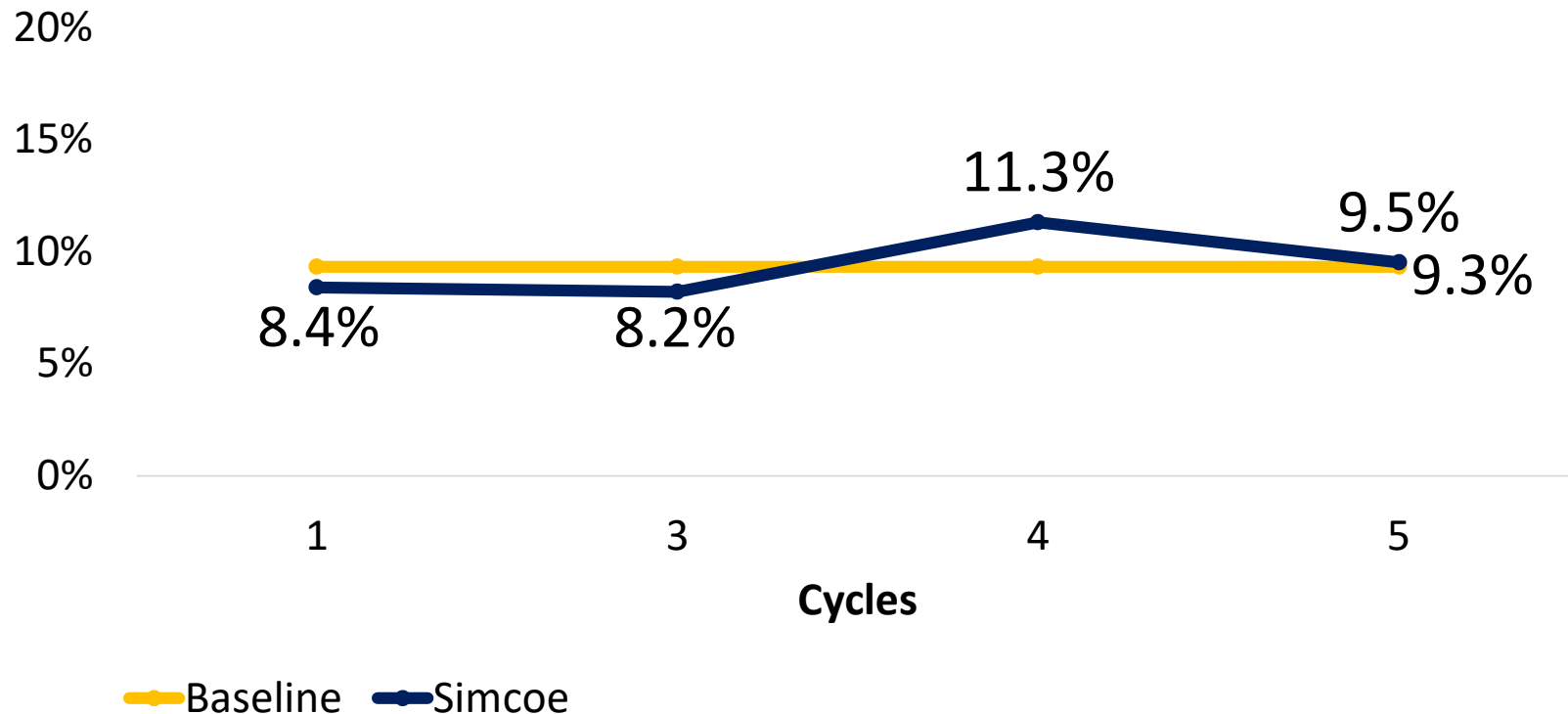


- Vulnerability has decreased since the last cycle
- Vulnerability is greater than the Ontario baseline

* Vulnerability is based on cut-offs from the 2004-2006 Ontario EDI Collection

Vulnerability: Compared to the Baseline

Social Competence Vulnerability

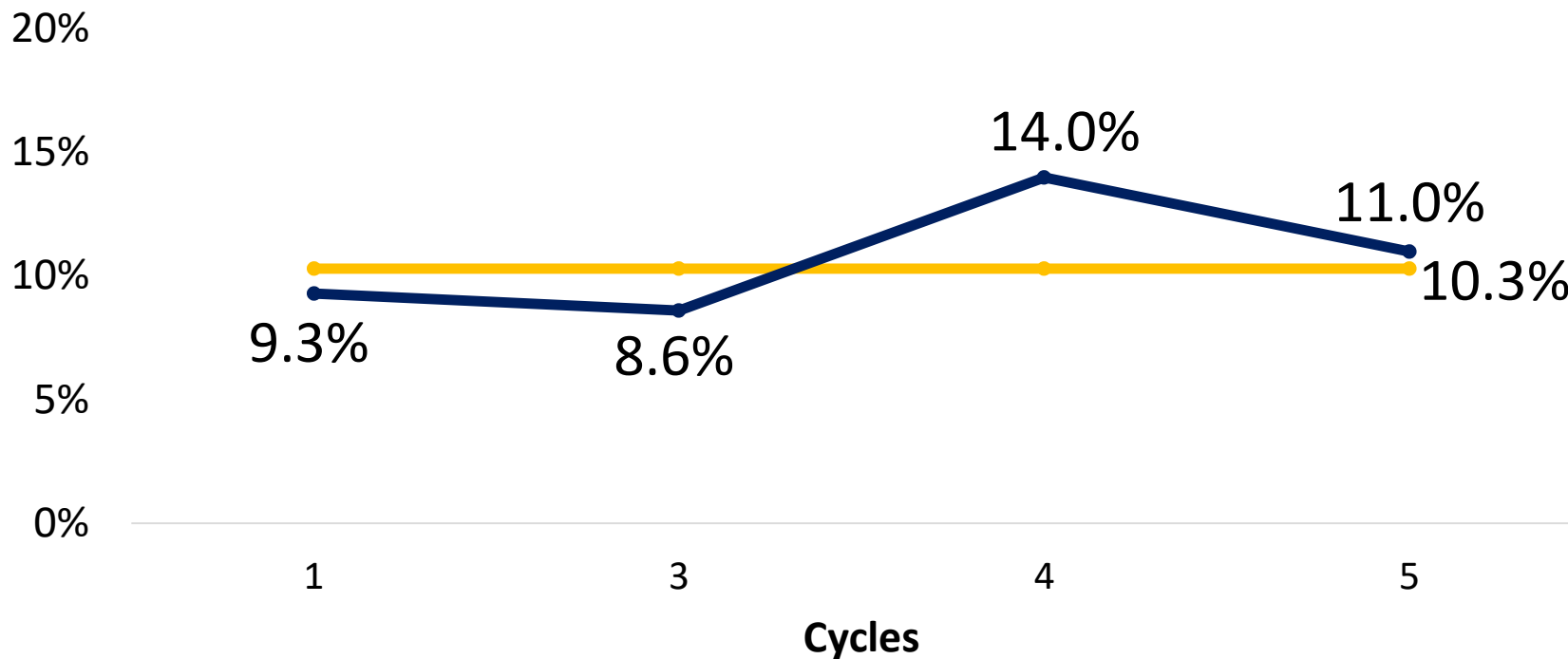


- Vulnerability has decreased since the last cycle
- Vulnerability is slightly greater than the Ontario baseline

* Vulnerability is based on cut-offs from the 2004-2006 Ontario EDI Collection

Vulnerability: Compared to the Baseline

Emotional Maturity Vulnerability

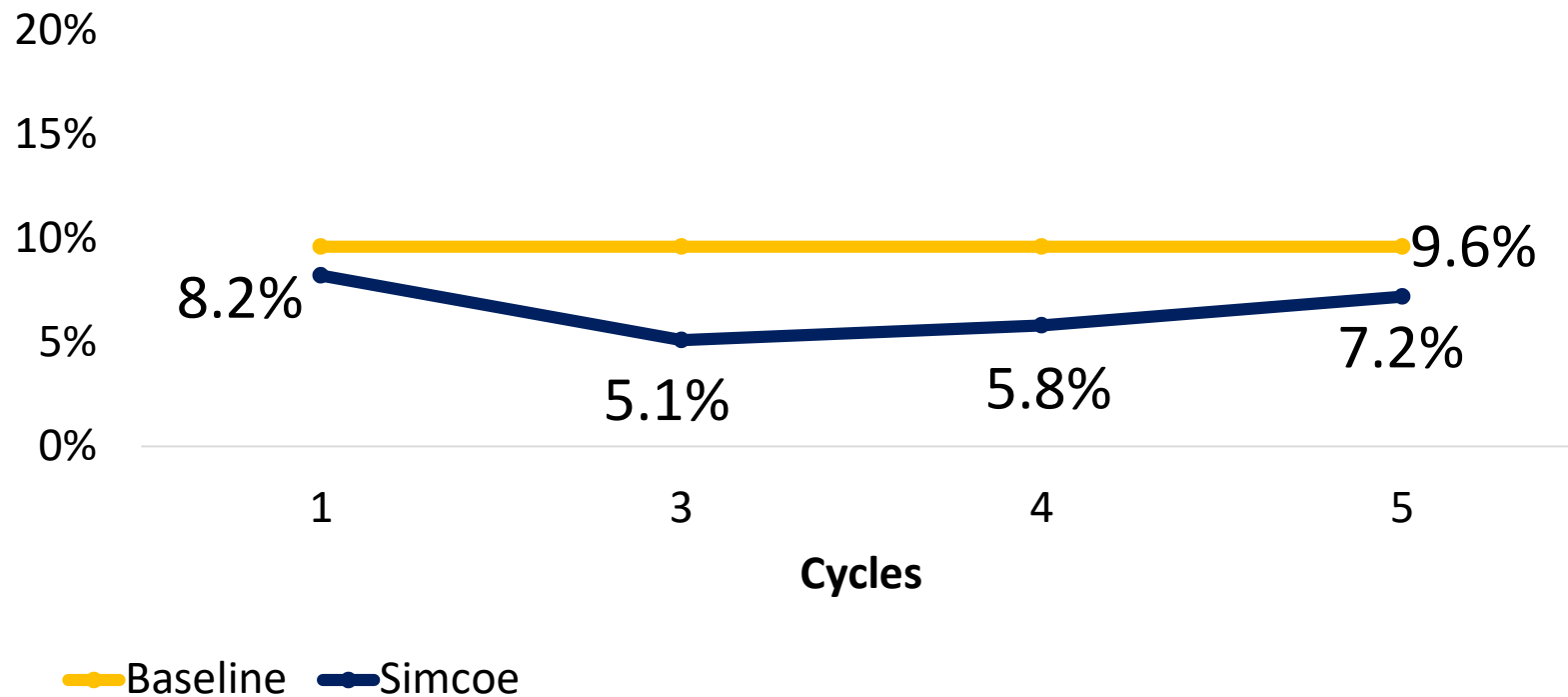


- Vulnerability has decreased since the last cycle
- Vulnerability is greater than the Ontario baseline

— Baseline — Simcoe

Vulnerability: Compared to the Baseline

Language and Cognitive Development Vulnerability

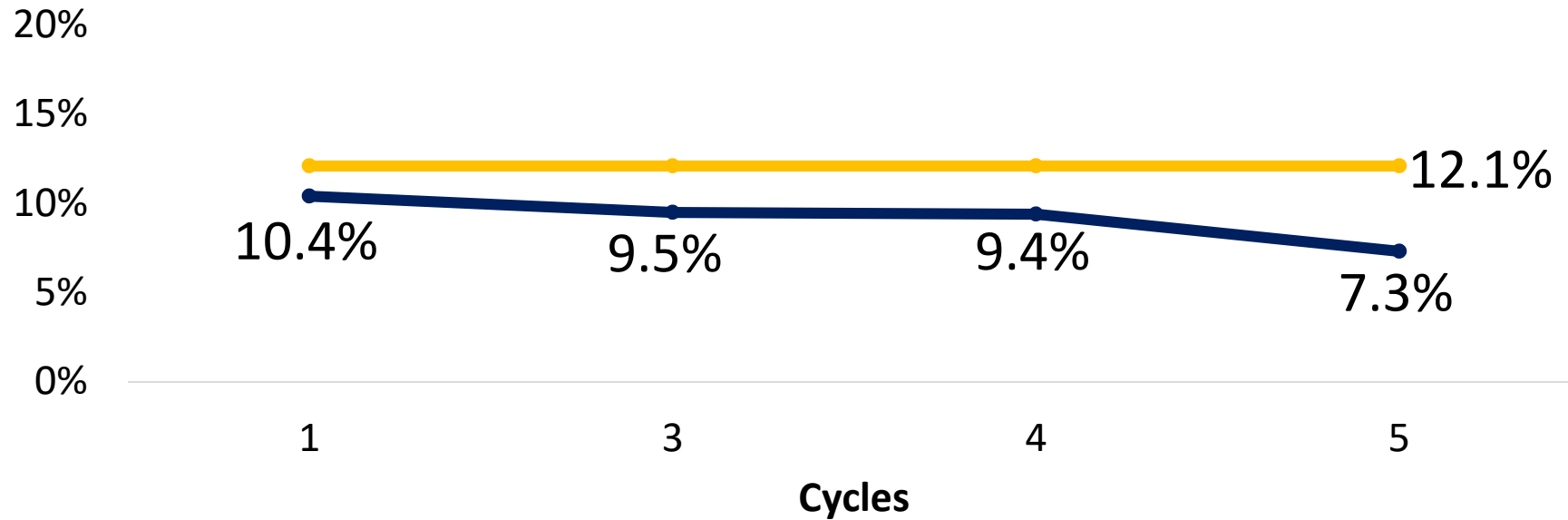


- Vulnerability has been **increasing** over the last 3 cycles
- Vulnerability is below the Ontario baseline

* Vulnerability is based on cut-offs from the 2004-2006 Ontario EDI Collection

Vulnerability: Compared to the Baseline

Communication Skills and General Knowledge Vulnerability

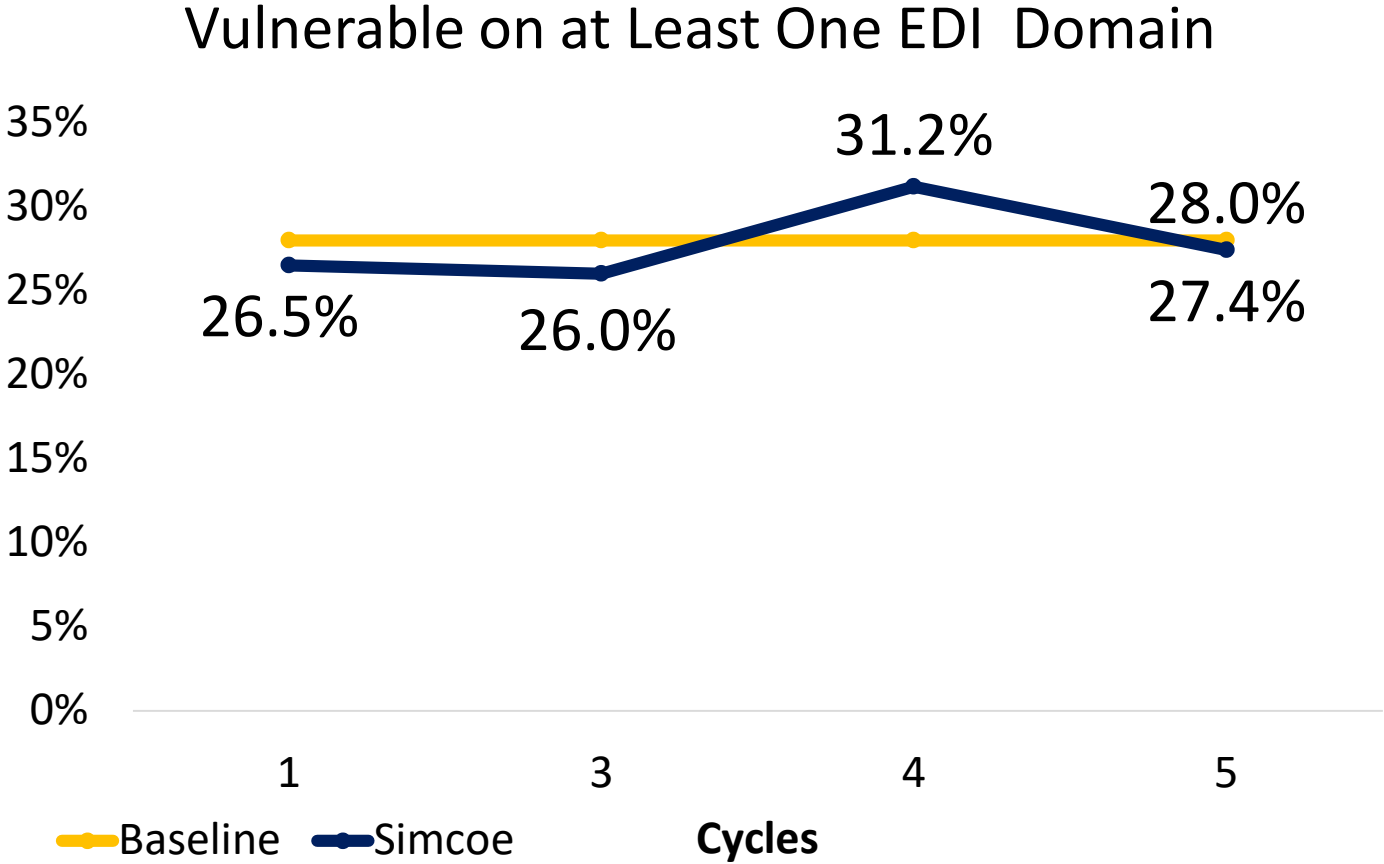


- Vulnerability has been decreasing over the past 4 cycles
- Vulnerability is below the Ontario baseline

— Baseline — Simcoe

* Vulnerability is based on cut-offs from the 2004-2006 Ontario EDI Collection

Vulnerable on at Least One EDI Domain



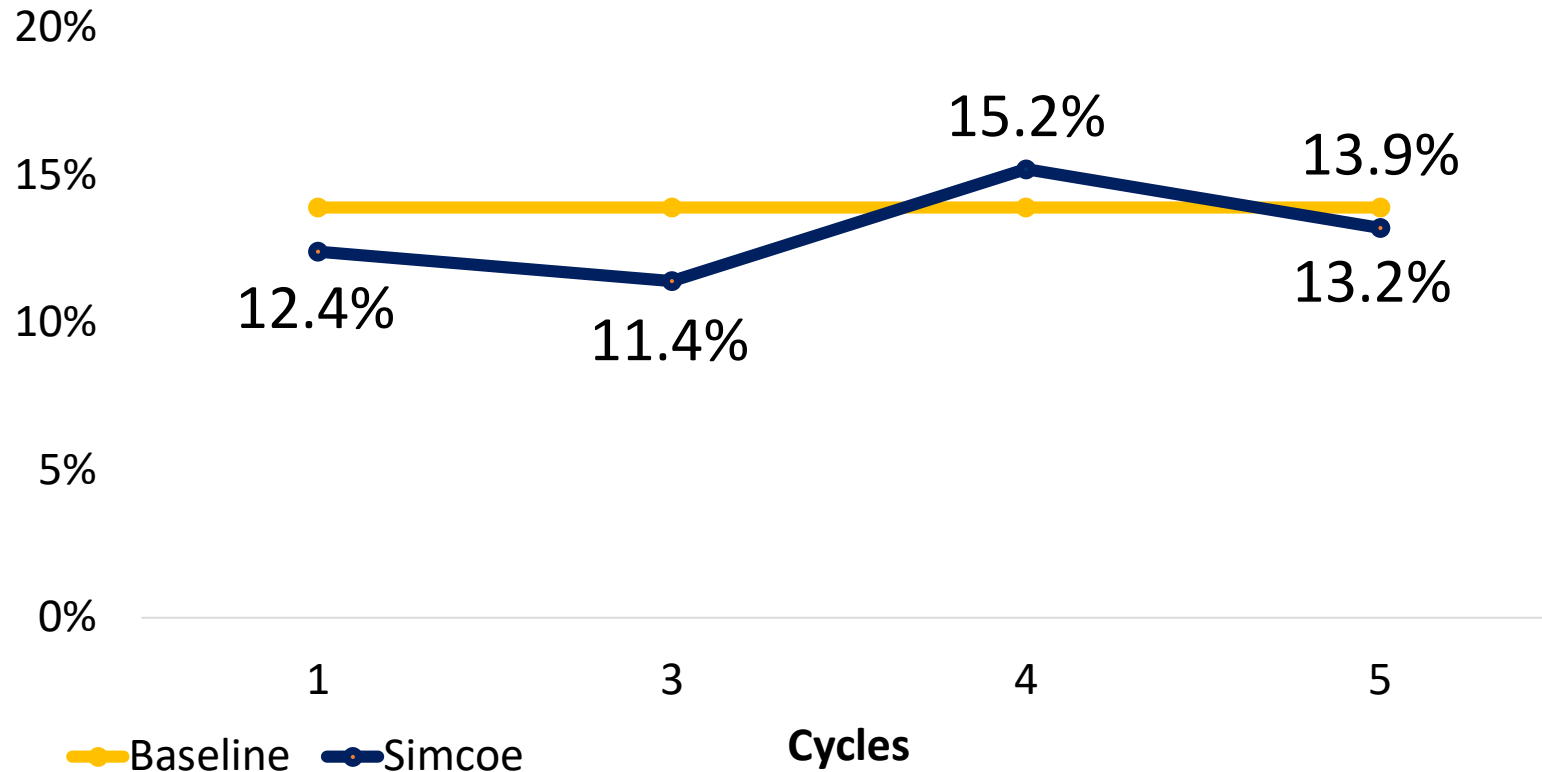
- The percentage of children vulnerable on at least one domain has decreased from the last cycle
- Vulnerability is just below the Ontario baseline

* Vulnerability is based on cut-offs from the 2004-2006 Ontario EDI Collection



Overall Vulnerability

Vulnerable on at Least Two EDI Domains



- Overall vulnerability has decreased since the last cycle
- Overall vulnerability is just below the Ontario baseline

* Vulnerability is based on cut-offs from the 2004-2006 Ontario EDI Collection

Subdomain Results

- For each subdomain, the percentage of children who are meeting:



- All/almost all of the developmental expectations



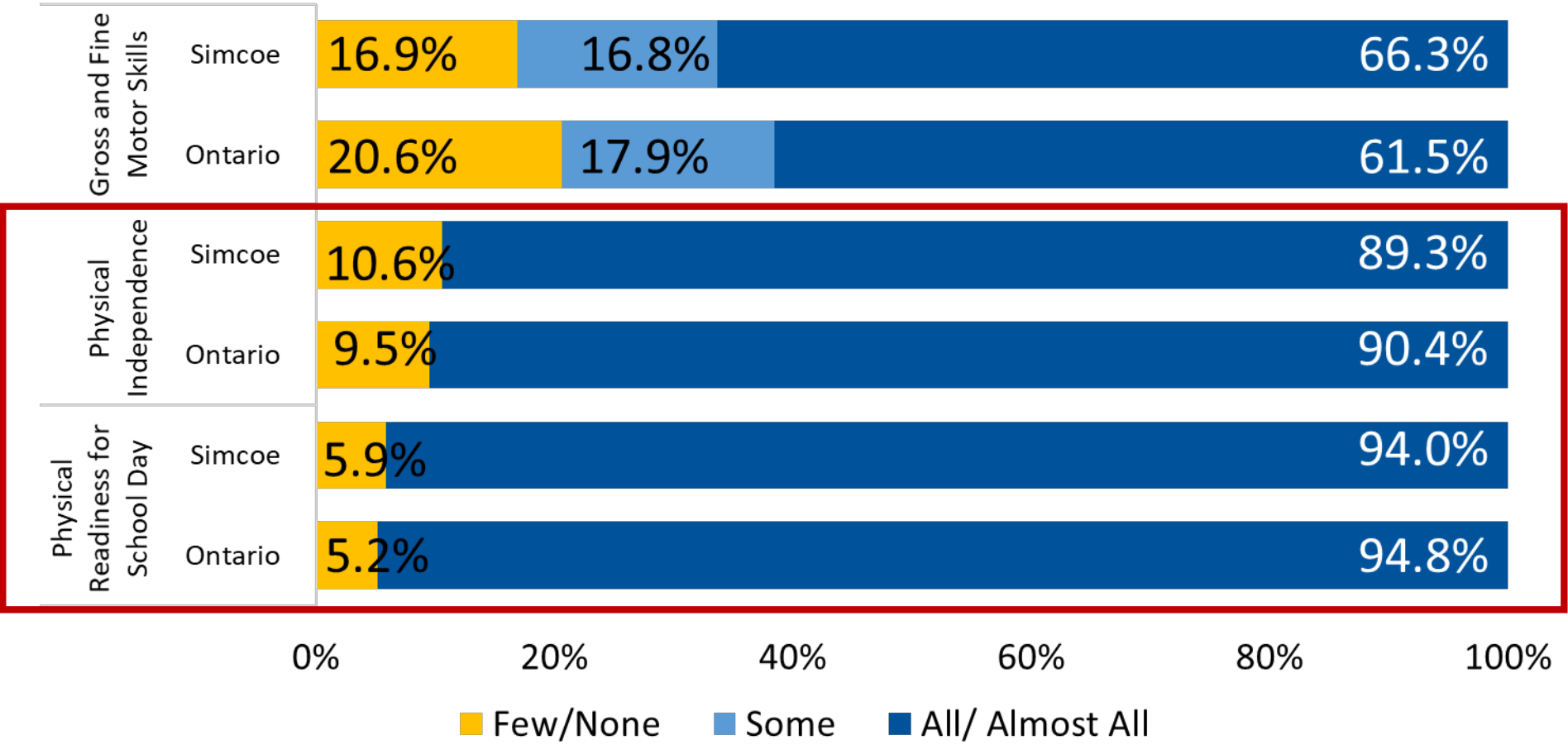
- Some of the developmental expectations



- Few/none of the developmental expectations
 - Will identify areas of the greatest weakness in the population

Physical Health & Well-being Subdomain Results

Physical Health and Well-being



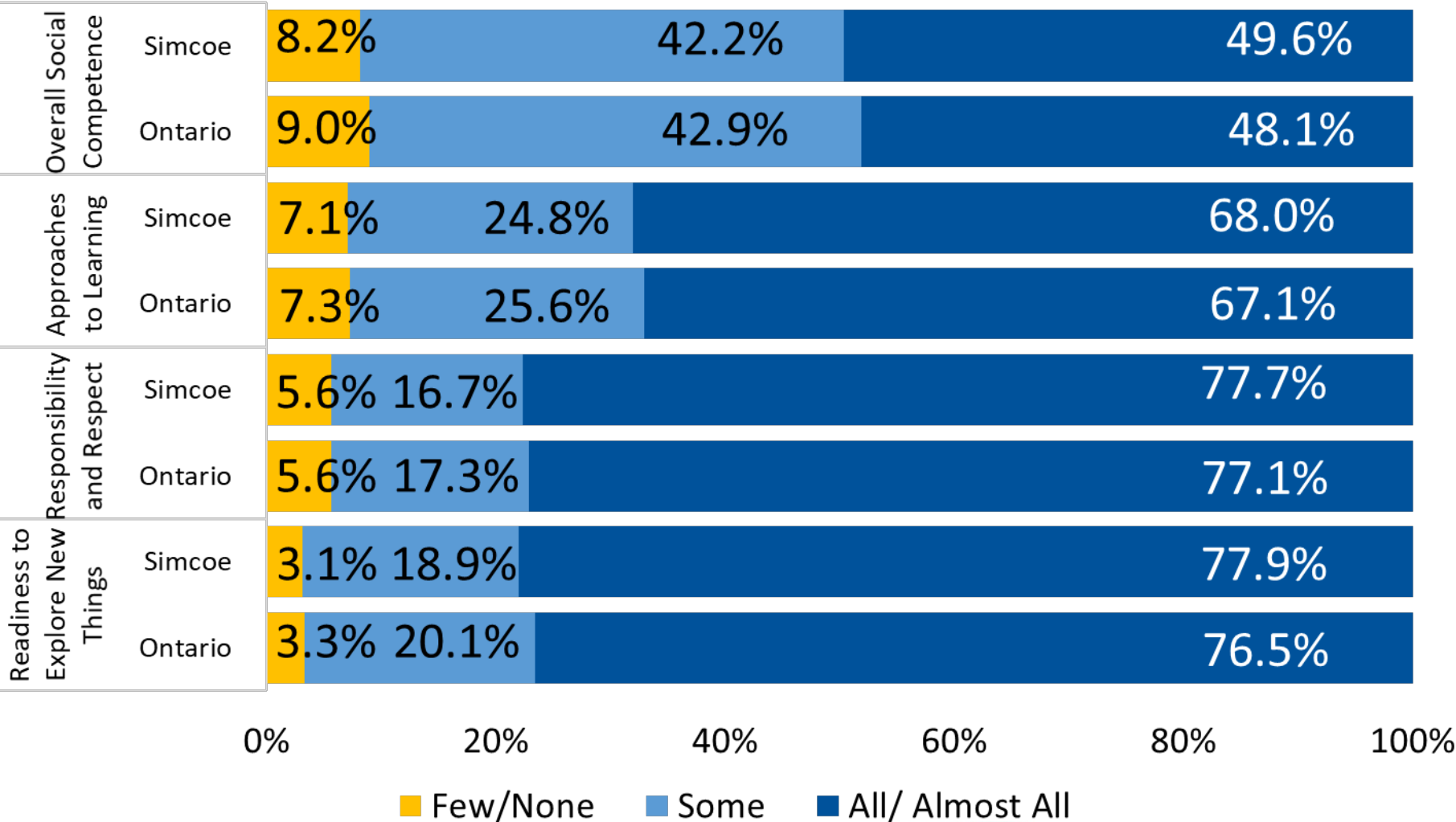
- The subdomain with the highest percentage of children meeting few/none of the expectations was 'Gross and Fine Motor Skills'

- Simcoe's 'Few/None' percentage greater than Ontario's



Social Competence Subdomain Results

Social Competence

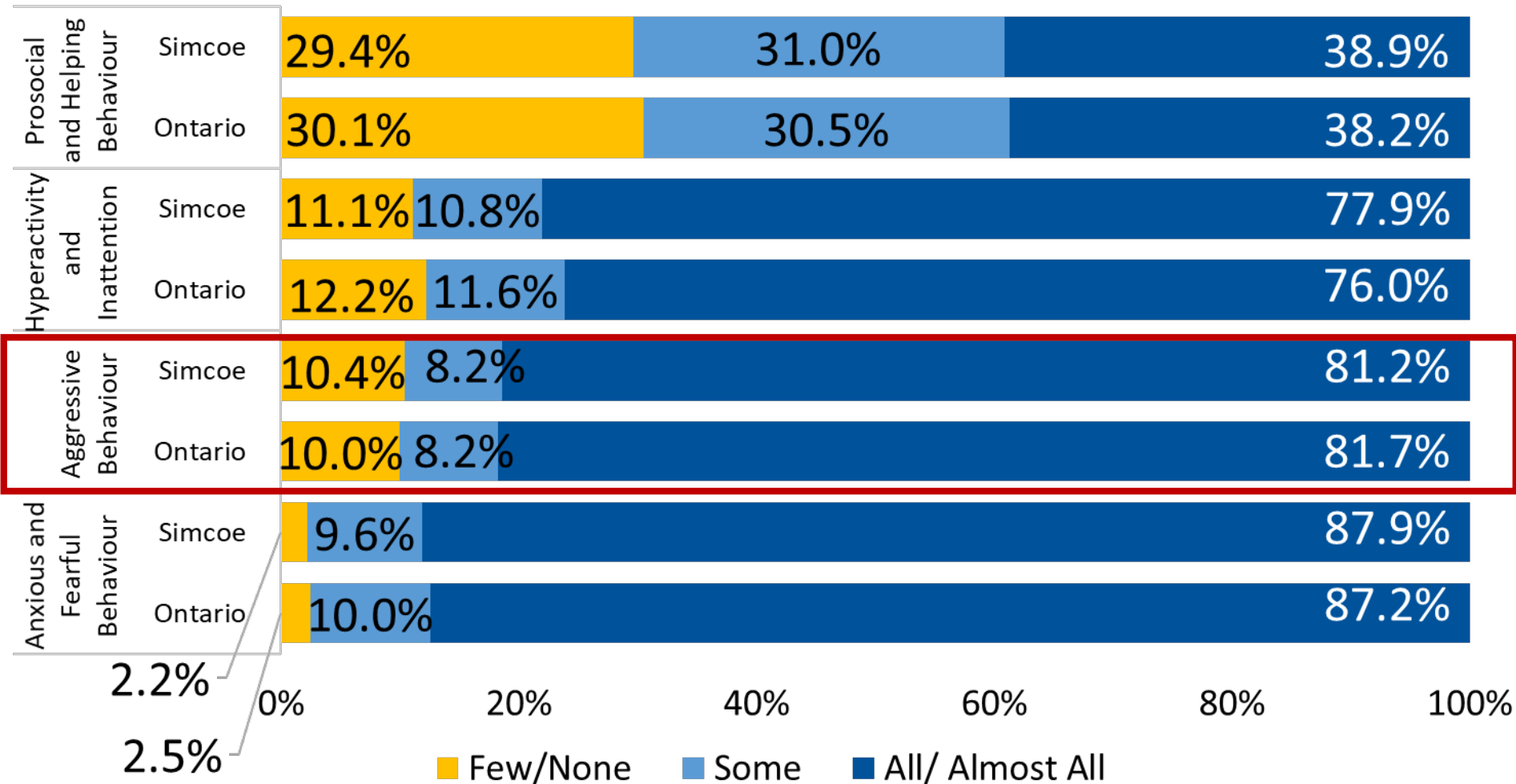


- The subdomain with the highest percentage of children meeting few/none of the expectations was 'Overall Social Competence'



Emotional Maturity Subdomain Results

Emotional Maturity

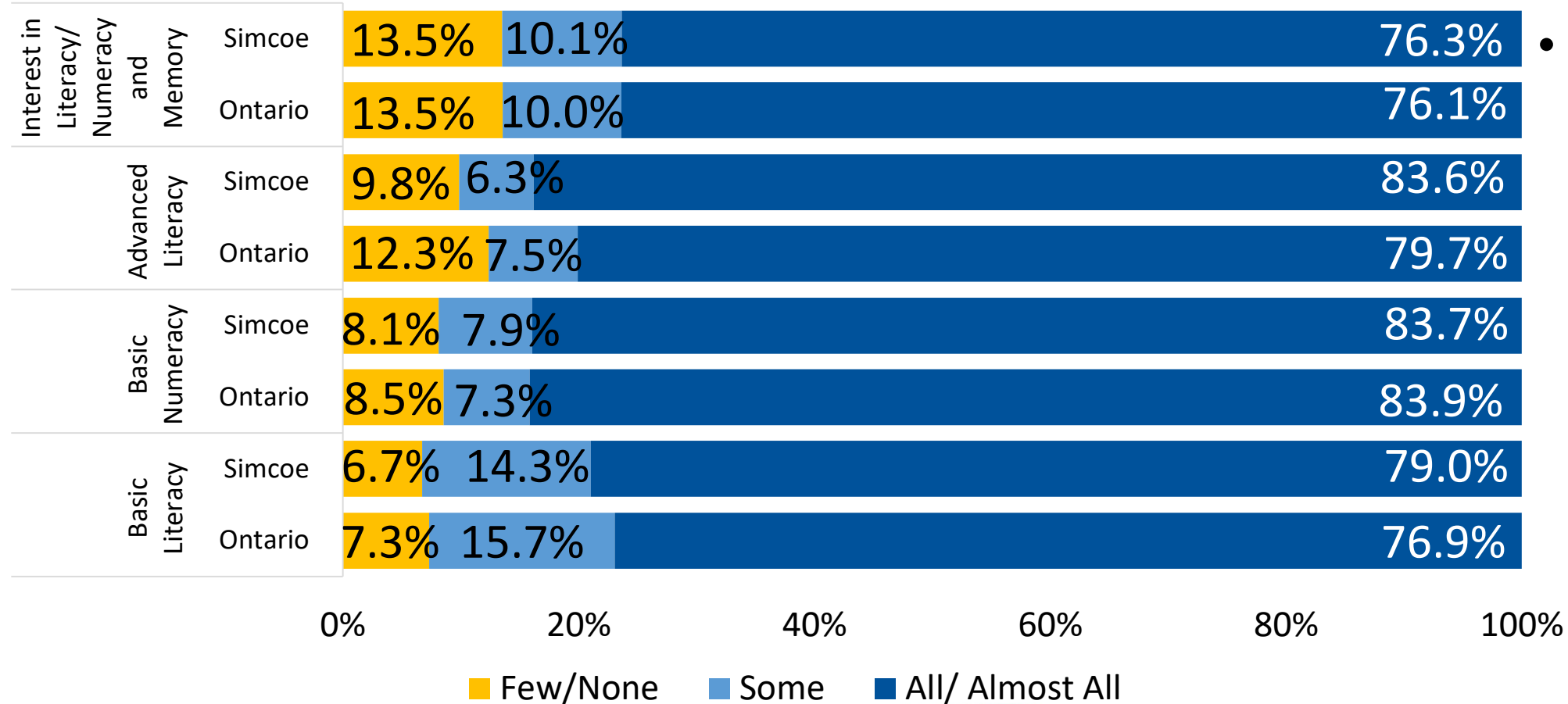


- The subdomain with the highest percentage of children meeting few/none of the expectations was 'Prosocial and Helping Behaviour'

- Simcoe's 'Few/None' percentage greater than Ontario's

Language and Cognitive Development Subdomain Results

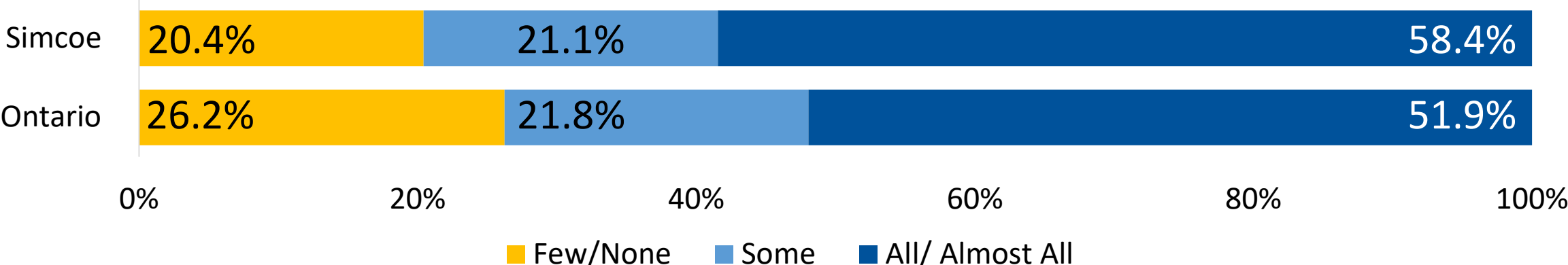
Language and Cognitive Development



- The subdomain with the highest percentage of children meeting few/none of the expectations was 'Interest in Literacy/Numeracy and Memory'

Communication Skills and General Knowledge Subdomain Results

Communications Skills and General Knowledge



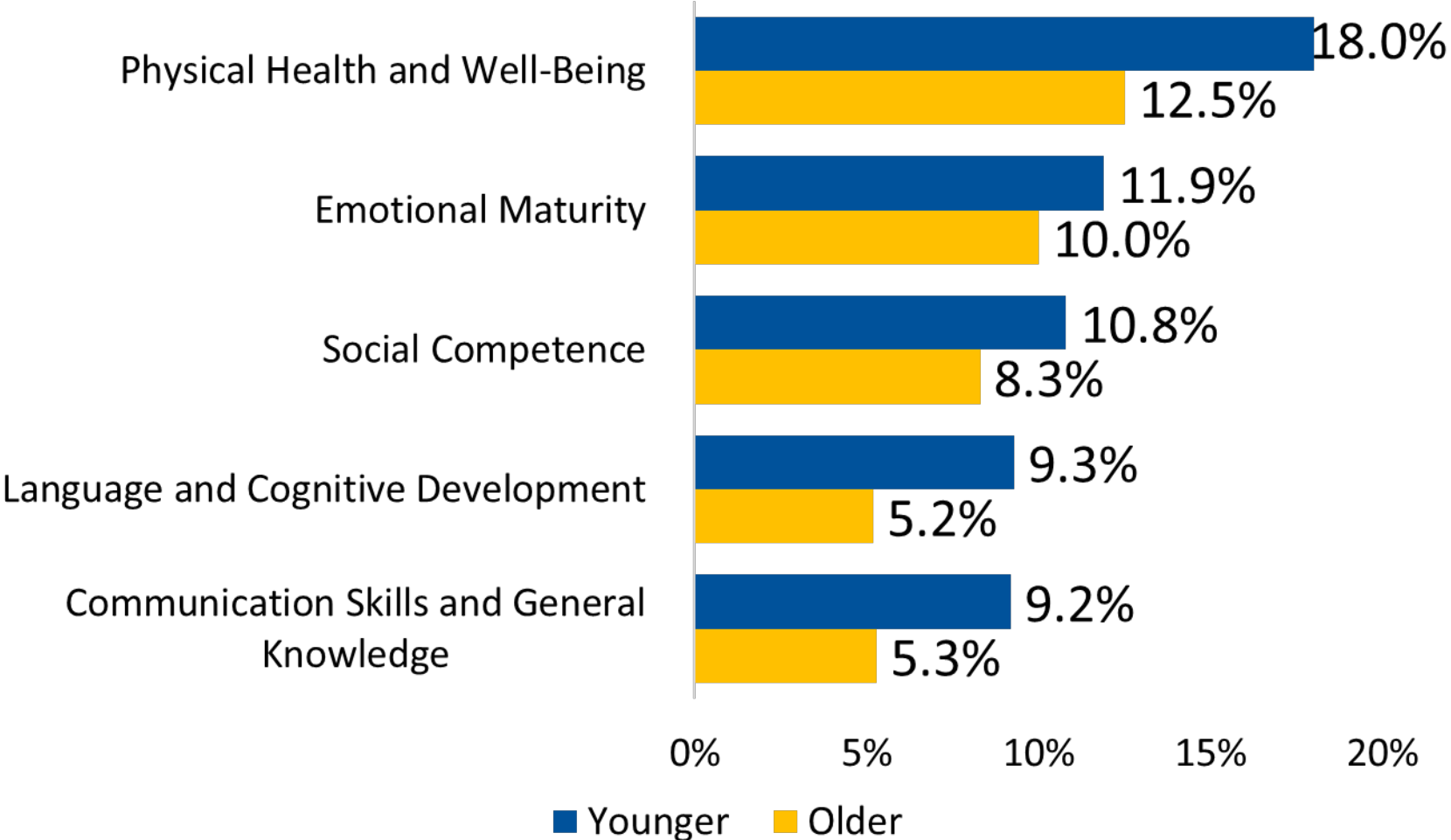
Group Comparisons

- *“Comparing children based on certain demographics, such as sex and age, is an effective way of understanding how contextual factors in your site may be influencing EDI vulnerability rates.”*
- In the next two slides we will look at vulnerability differences between older and younger children as well as boys and girls.

Summary Report. Senior Kindergarten Students in the province of Ontario. Simcoe. School year 2017/2018.



Vulnerability: Older VS. Younger Children

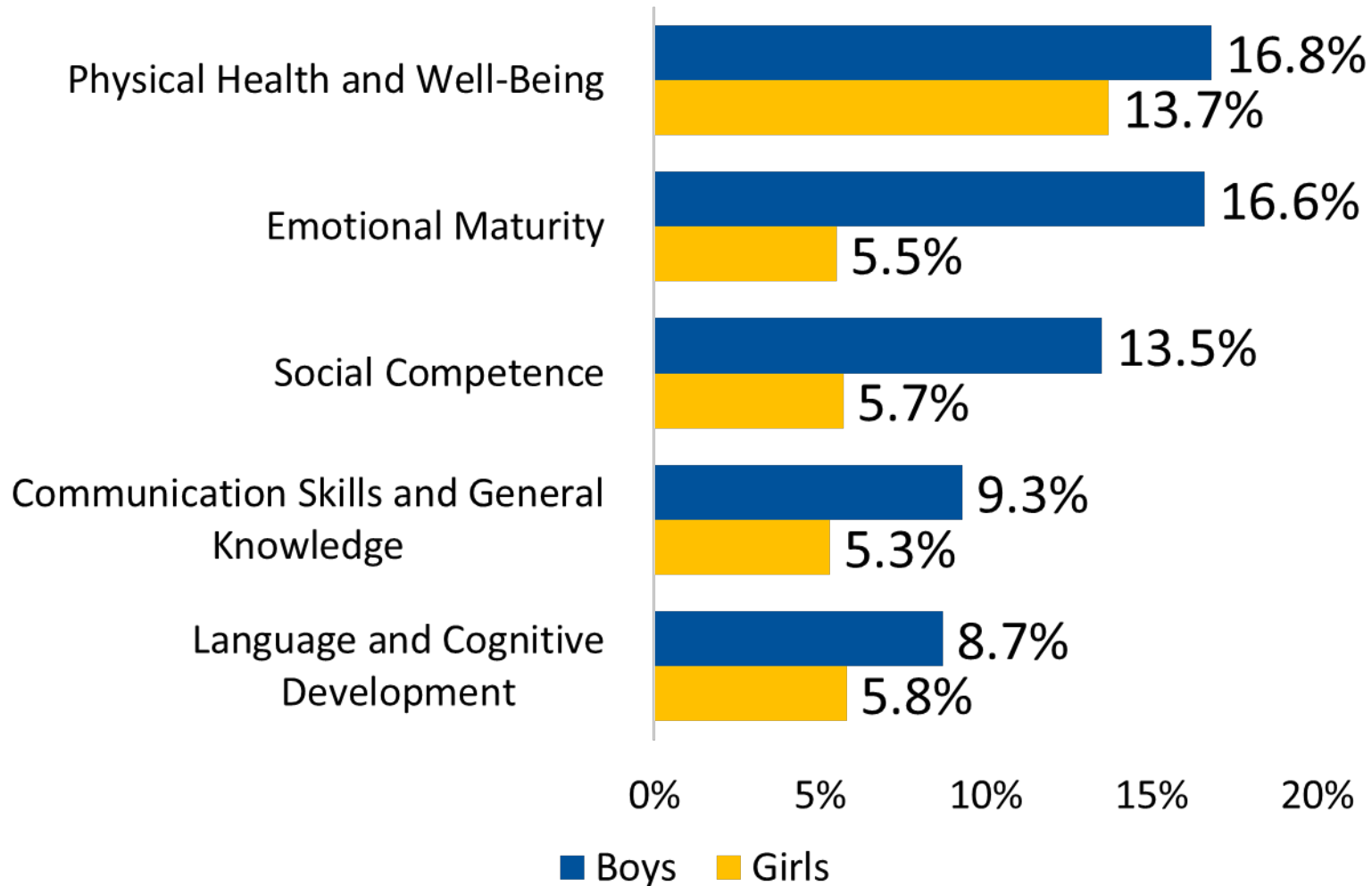


- A higher percentage of younger children were found to be vulnerable than older children

* Older children are defined as those above the mean age (5.7 years old) and younger children are defined as those below the mean age.



Vulnerability: Boys VS. Girls



- A higher percentage of boys were found to be vulnerable than girls

Additional Factors that Influence EDI Scores

- During an Early Years Data Group meeting (Nov 11, 2019) some of the questions that arose related to factors affecting EDI scores
 - To answer those questions, informal literary searches were conducted
- The following slides show information on additional factors that influence EDI scores taken from reports found on the EDI Offord Centre website

Factor	Influence on EDI Scores/ Vulnerability
Mother's Chronic Illness (Australia) (1)	<ul style="list-style-type: none"> • Daughters of chronically ill mothers had increased odds of worse physical, social, emotional, and communicative health. • Sons of chronically ill mothers had increased odds of language and cognitive difficulties.
Household Poverty (Manitoba) (2)	<ul style="list-style-type: none"> • More likely to be vulnerable on the EDI. • For children born into household poverty, transitions out of poverty at any age were associated with a lower probability of EDI vulnerability. • Associated with higher odds of externalizing mental conditions and asthma • Placement in out-of-home care rate (17.4%).
Neighbourhood Poverty (Manitoba) (2)	<ul style="list-style-type: none"> • More likely to be vulnerable on the EDI. • For children transitioning out of neighbourhood poverty, EDI outcomes were only better if the move happened before age 2. • Placement in out-of-home care rate (3.1%).
Both Household and Neighbourhood Poverty (Manitoba) (2)	<ul style="list-style-type: none"> • More likely to be hospitalized for an injury (2.1%) than children not born into poverty (0.6%). • Had the highest rates of placement in out-of-home care (24.2%). • Transitioning into either neighbourhood or household poverty was associated with worse EDI vulnerability.

Factor	Influence on EDI Scores/ Vulnerability
1. Maternal health, 2. Child's health at birth, 3. Family risk (child welfare service involvement etc.), 4. Neighbourhood socioeconomic status (Manitoba) (3)	<ul style="list-style-type: none"> Family risk factors emerged as the key driver of language and cognitive development outcomes in kindergarten. Family risk factors were strongly influenced by neighbourhood SES.
Maternal age at childbirth (Australia) (4)	<ul style="list-style-type: none"> 40% of children born to mothers 15 or younger were developmentally vulnerable, compared to only 17-18% of children born to mothers 30-35. Overall, the risk of a child being developmentally vulnerable decreases as maternal age increases, until a certain point. Once a mother becomes 35 the risk of their child being developmentally vulnerable increases with maternal age, roughly equivalent to the risk for children born to mothers in their early 20s. Socioeconomic disadvantage explained almost half of the increased risk of developmental vulnerability associated with younger motherhood.

Factor	Influence on EDI Scores/ Vulnerability
Screen Time (China) (5)	<ul style="list-style-type: none"> • Any electronic device in the bedroom was linked with worse: <ul style="list-style-type: none"> • social competence • emotional maturity • language/cognitive skills • communication/general knowledge • TV and game consoles in the bedroom were correlated with worse physical well-being and social competence. • Families with higher SES were less likely to place electronic devices in their children’s bedrooms. They were even less likely to allow their use without parental restrictions. Children in these families had higher school readiness scores.
Preschool (Montreal) (6)	<ul style="list-style-type: none"> • Children from low-income families who attended high-quality early childhood centre daycares were less likely to be vulnerable in two or more EDI domains than their peers who did not attend any preschool. Other preschool services did not show any protective effects, regardless of family income. • Timing mattered as well. Children who started attending preschool before the age of 12 months were less likely to be vulnerable in two or more EDI domains.

Links to the reports referenced in the tables:

1. <https://edi.offordcentre.com/how-does-a-parents-chronic-illness-impact-their-child/>
2. <https://edi.offordcentre.com/poverty-and-early-childhood-outcomes/>
3. <https://edi.offordcentre.com/family-risk-factors-play-big-role-in-language-and-cognitive-development/>
4. <https://edi.offordcentre.com/what-happens-to-child-development-when-women-delay-pregnancy/>
5. <https://edi.offordcentre.com/restrict-screen-time-says-study-using-chinese-edi/>
6. <https://edi.offordcentre.com/does-preschool-benefit-everyone-equally/>

Special Needs Cohort: Inclusion Criteria

Grade of Senior Kindergarten

In class for at least one month

Has Special Needs?

No
 Yes

- The child has already been identified as having special needs (e.g., a medical, physical, mental health diagnosis by a doctor, pediatrician, psychologist, or assessment by a Speech and Language Pathologist, Audiologist, etc.)

EARLY DEVELOPMENT INSTRUMENT
 A Population-Based Measure for Communities
 Ontario 2017/2018

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:
 Year 1 (JK)
 Year 2 (SK)

2. Child's Date of Birth:
 dd / mm / yy
 0 0 0 0 0 0 0 0 0 0
 1 0 0 0 0 0 0 0 0 0
 2 0 0 0 0 0 0 0 0 0
 3 0 0 0 0 0 0 0 0 0

6a. Does the child have special needs?
 Yes No

6b. Is the child (mark all that apply):
 Identified as exceptional by a professional
 Having received in the process of receiving an Individual Education Plan (IEP)
 Receiving special educational services

A minimum number of questions completed

Matched by the Ministry of Education



Descriptive Characteristics (Special Needs Cohort)

	Cycle 5
Valid Sample (#)	331
Girl	23.3%
Boy	76.7%
Language Status (ELL, ALF, PANA, FSL)	19.0%
French Immersion	0.3%
Average Age	5.7
Average Days Absent	13.4
Student is Repeating this Grade	2.4%
Special Concerns	77.6%
Children Requiring Further Assessment	37.8%

Pre-Kindergarten Experiences (Special Needs Cohort)

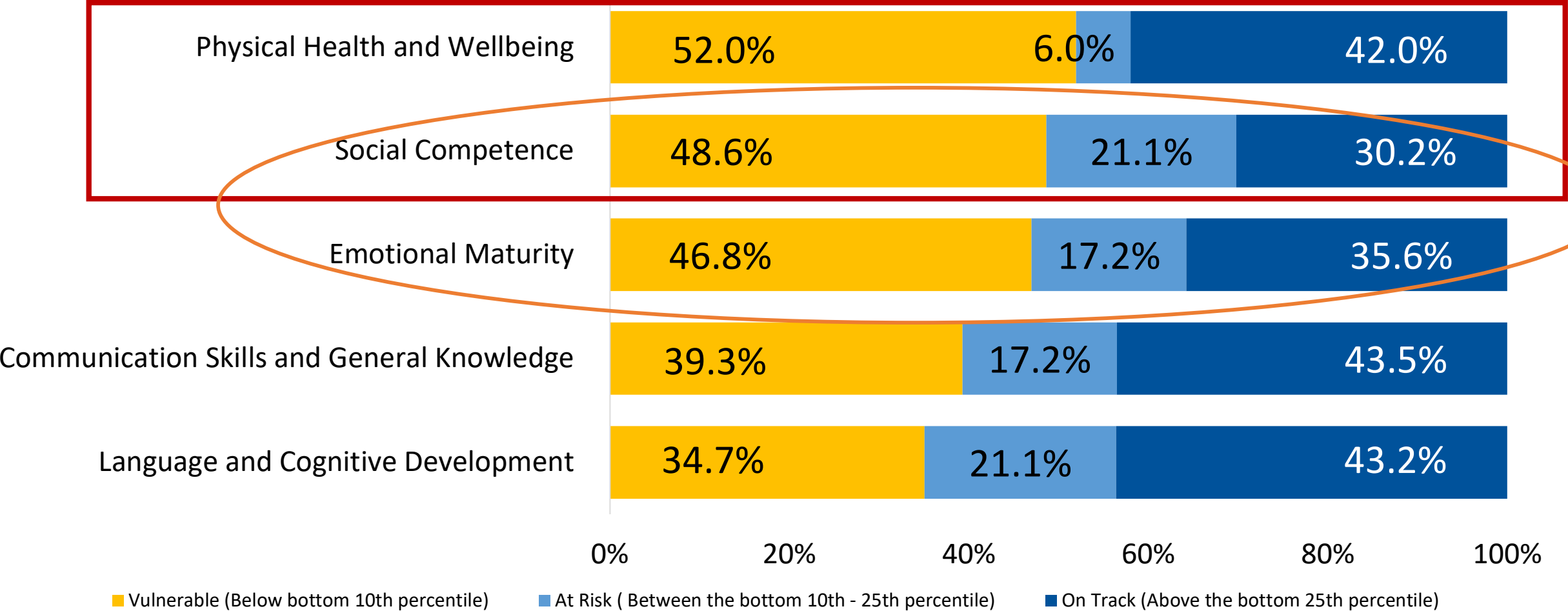
	Cycle 5
Attended an Early Intervention Program	45.0%
Had Been in Non-Parental Care	40.0%
Attended other Community Learning Programs (ex: language classes, religion classes, cultural programs, music classes, sports etc.)	23.9%
Attended Year 1 (JK)	94.0%

Special Concerns (Special Needs Cohort)

	Yes Observed	Yes Parent info/ Medical Diagnosis	Yes Both
Behavioural Problem	17.8%	5.1%	17.5%
Speech Impairment	13.9%	4.5%	18.1%
Learning Disability	15.1%	6.0%	13.6%
Emotional Problem	13.9%	3.0%	8.8%
Physical Disability	2.7%	3.6%	7.6%
Home Environment/ Problems at Home	8.2%	2.1%	3.0%
Other	3.9%	3.0%	5.4%
Chronic Medical/ Health Problems	2.1%	4.2%	3.9%
Visual Impairment	0.9%	1.5%	2.1%
Hearing Impairment	0.0%	1.2%	3.0%
Unaddressed Dental Needs	0.9%	0.3%	0.3%

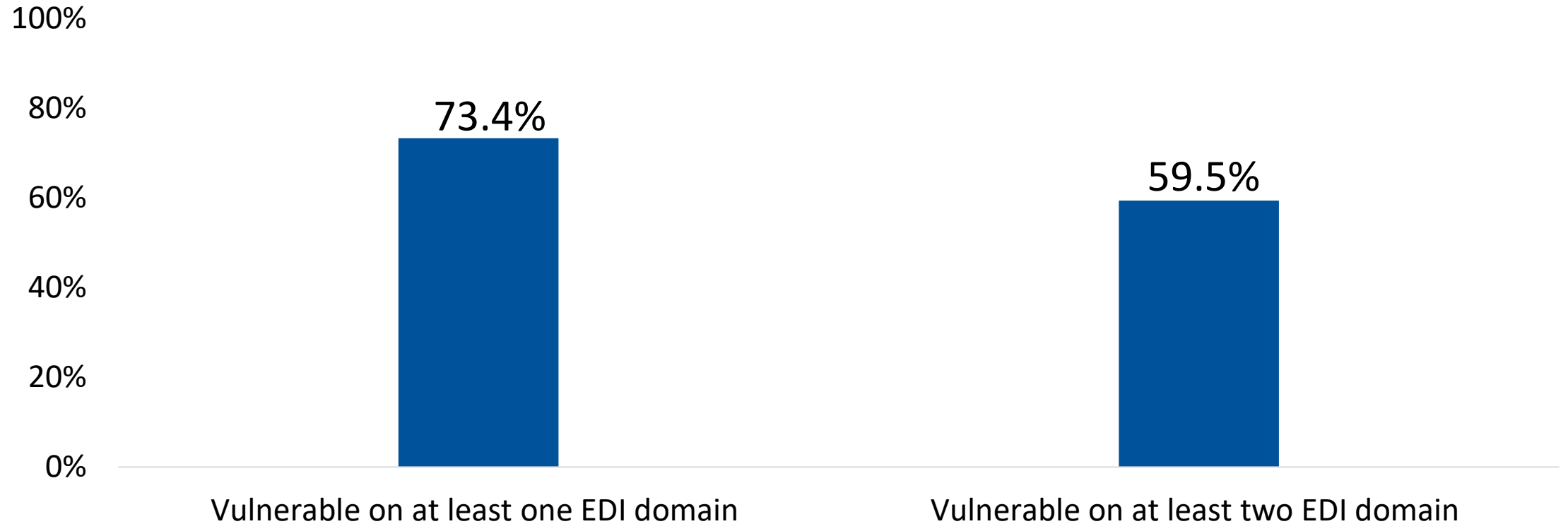
Domain Results

Simcoe County Special Needs Cohort's Domain Results



Domain Results

Simcoe County Special Needs Cohort's Domain Results



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For more information:

<https://edi.offordcentre.com/>

<https://www.simcoe.ca/early-development-instrument>

