

THE EARLY DEVELOPMENT INSTRUMENT YORK REGION RESULTS — 2018

Summary Report

INTRODUCTION

The early years of life, from birth up to the age of six, represent the most significant period of growth and development throughout life.

The Early Development Instrument (EDI) is a community-based measure of young children's developmental health and early learning. It is based on a questionnaire that senior kindergarten teachers complete for all children in their classrooms. It offers a population measure that is based on developmental rather than curriculum benchmarks, by assessing five general areas of child development, known as domains.

Understanding and using the EDI results helps to assess how well neighbourhoods are supporting young children and their families. It assists neighbourhoods in program, service and policy development/planning for young children and their families. It also raises awareness of the importance of the early years and encourages advocacy for young children and their families.

This report provides a summary of the EDI results from the six implementations in York Region (every three years from 2003 to 2018) and highlights the 2018 results. Both Regional and neighbourhood results are discussed. The report presents a snapshot of the developmental health and early learning of York Region's senior kindergarten children.

Agencies and organizations across York Region are encouraged to use the results in this report, along with other early child development indicators, to assist in program and service planning and the identification of strategies and interventions aimed at improving outcomes for all our young children so that they may achieve their full potential.

BACKGROUND

There are five domains of early child development that are assessed by the EDI. Each of the five domains assesses different aspects of child development. All domains except "Communication Skills and General Knowledge" are further divided into subdomains. The subdomain results indicate which aspects of the overall domain present the greatest challenges to young children. The domains and their respective subdomains are as follows:

- Physical Health and Well-Being Domain
 - Physical Readiness for School Day Subdomain
 - Physical Independence Subdomain
 - Gross and Fine Motor Skills Subdomain

- Emotional Maturity Domain
 - o Pro-social and Helping Behaviour Subdomain
 - o Anxious and Fearful Behaviour Subdomain
 - o Aggressive Behaviour Subdomain
 - Hyperactivity and Inattention Subdomain
- Social Competence Domain
 - Overall Social Competence Subdomain
 - o Responsibility and Respect Subdomain
 - Approaches to Learning Subdomain
 - Readiness to Explore New Things Subdomain
- Language and Cognitive Development Domain
 - o Basic Numeracy Subdomain
 - Basic Literacy Subdomain
 - Advanced Literacy Subdomain
 - o Interest in Literacy/Numeracy and Memory Subdomain
- Communication Skills and General Knowledge Domain

Detailed descriptions of the aspects of child development relevant to each domain and respective subdomains are provided in Appendix A.

Three measures of children's developmental health, that are included in the analysis of the York Region EDI results, are as follows:

- "Scoring Low" (EDI vulnerability)
- Average Domain Scores
- Meeting "Few/No" Developmental Expectations (subdomain results)

All measures are assessed separately for each of the five developmental domains.

This report focuses on the results for children meeting "few/no" developmental expectations and those "scoring low", since the EDI is intended to identify areas within the community (developmentally and geographically) in which children have the greatest need and require the most support.

RESULTS

Cohort Statistics

EDI Sample Size

In 2018, over 10,000 senior kindergarten children were surveyed with the EDI in York Region. A total of 10,343 surveys were considered "valid" for use in the analysis of results. Surveys for children with identified special needs were excluded as were those with too much information missing and those for children not living in York Region.

The number of valid EDI surveys continued to increase with each subsequent implementation, from 7,587 in 2003 to 10,622 in 2015 for an overall increase of 40%. However, between 2015 and 2018, there was a 2.6% decrease in the total number of valid EDI surveys.

Gender

The split between female and male children surveyed by the EDI has been relatively consistent across all EDI implementations. In 2018, 49.4% of valid surveys were for female children whereas 50.6% were for male students. Historically, female students tend to score higher in the EDI than male students.

English Language Learners (ELL)

"English Language Learners" refer to students in provincially funded English language schools in Ontario whose first language is a language other than English, or is a variety of English that is significantly different from the variety used for instruction in Ontario's schools, and who may require focused educational supports to assist them in attaining proficiency in English.

The percentage of children identified as ELL in the EDI has continued to increase over time, reaching a total of 22.7% in the 2018 implementation, up from 12.3% in 2003.

The summary of the cohort statistics is presented in the table below.

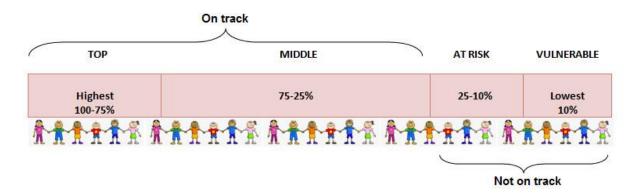
	York Region								
Statistic	2003	2006	2009	2012	2015	2018			
EDI Sample Size (n-size)	7,587	8,439	9,091	9,931	10,622	10,343			
Gender - % female	51.0	49.9	49.6	49.0	50.4	49.4			
Gender - % male	49.0	50.1	50.4	51.0	49.6	50.6			
English Language Learners (ELL)	12.3	16.7	12.8	15.0	16.1	22.7			

"Scoring Low" (EDI Vulnerability)

EDI results are categorized according to how children score in each of the five developmental domains for the geographic area of interest (i.e. neighbourhood, region, or province).

"on track" scoring at or above the 25th percentile scoring below the 25th percentile

"at risk" scoring between the 10th and 25th percentiles "vulnerable" scoring in the lowest 10th percentile ("scoring low")



Analysis of EDI results focus on the group of children that falls in the "vulnerable" category, these are children who "score low" (below the 10th percentile of the distribution). This group of children is considered to be vulnerable for problems in later childhood.

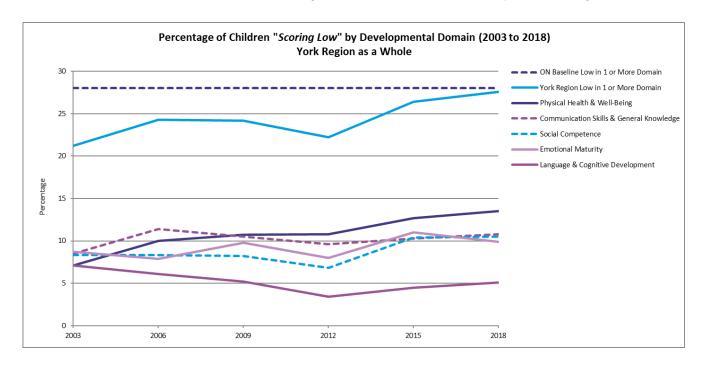
The percentage of children "scoring low" in the EDI are reported by developmental domain, as well as in one or more domain.

Results for York Region as a Whole

The following chart presents results for children "scoring low" in York Region as a whole, over the six EDI implementations, indicating how results have changed over time. Results are provided for each of the five developmental domains as well as for one or more domain. Appendix B provides data in tabular format.

The Ontario Baseline for percent of children "scoring low" in one or more domain is also shown on the chart. This baseline includes results for all implementations in Ontario from 2004 through 2006 (Cycle 1) and provides a reference point from which to compare local results.

The desired trend over time is a decrease in the percentage of children that are developmentally vulnerable. As is evident on the chart, the percentages of children "scoring low" increased in four of the five domains as well as in one or more domain since 2012. Only in the Emotional Maturity domain has the percentage of children "scoring low" decreased in the 2018 implementation. Furthermore, the percentage of children "scoring low" in one or more domain in York Region in 2018 approached the Ontario Baseline. These results indicate a negative trend in EDI vulnerability in York Region as a whole.



Results by EDI Neighbourhood

The daily world in which a preschool child lives, provides unique influences that significantly impact early learning and development. The neighbourhood perspective emphasizes the community's responsibility to support young children and their families.

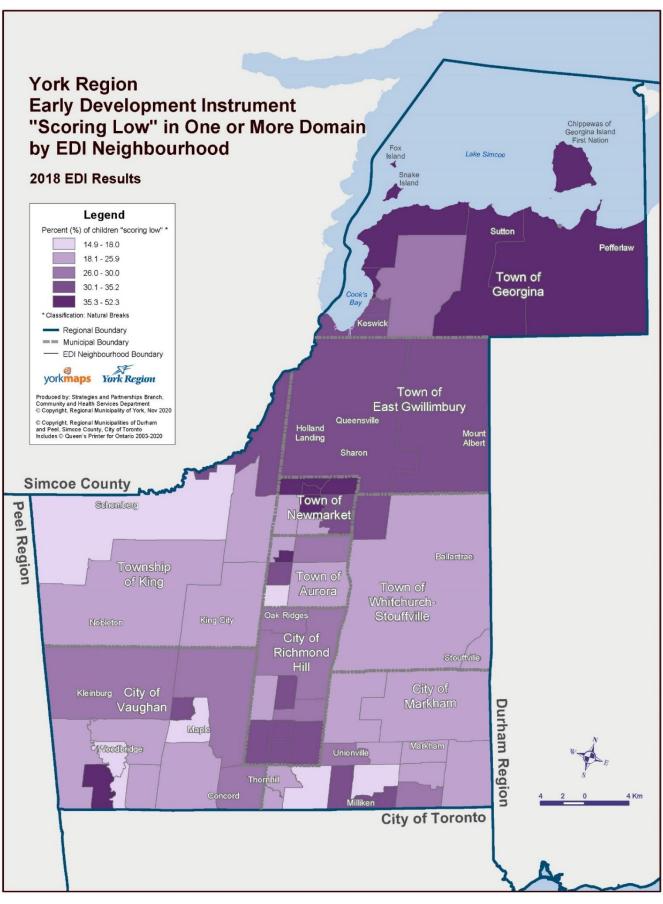
In York Region, EDI data are analyzed for each of the 64 EDI neighbourhoods that were specifically delineated for the purpose of analysing EDI results. EDI results for each neighbourhood include all children that live within the neighbourhood regardless of which school they attend.

The following map presents the 2018 results for "scoring low" in one or more domain by EDI neighbourhood. Appendix B provides these data in tabular format.

Darker coloured neighbourhoods have higher percentages of children that "scored low" than lighter coloured neighbourhoods. It is these neighbourhoods that require greatest attention to improve early years outcomes. In 2018, neighbourhoods of greatest concern are located within Georgina, Newmarket, Aurora and Vaughan.

Maps presenting 2018 neighbourhood results for "scoring low" by domain are provided in Appendix C.

Care should be taken when comparing percentages of children "scoring low" between domains for a given neighbourhood, since variables assessed by the EDI are not equivalent from domain to domain, and each domain has a different baseline level for "scoring low". Rather, comparisons should be made amongst the different neighbourhoods within a domain to assess which neighbourhoods are those of greater concern.



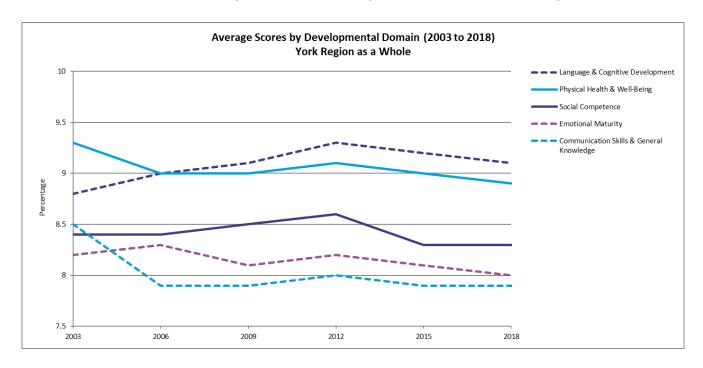
Average Domain Scores

Results for York Region as a Whole

The following chart presents the average score of all valid EDI surveys in York Region for each domain in each of the six EDI implementations, indicating how results have changed over time. Appendix B provides data in tabular format.

Average domain scores range from 0 to 10 and essentially represent a "class average". The desired trend is an increase in average domain score over time, which would indicate that outcomes for young children in York Region as a whole are improving in the domain. Note that domain scores are not cumulative in nature and should be interpreted independently.

As is evident in the chart, the average domain score has decreased in four of the five domains since 2012. These results indicate a negative trend in average domain scores in York Region as a whole.



Meeting "Few/No" Developmental Expectations (Subdomain Results)

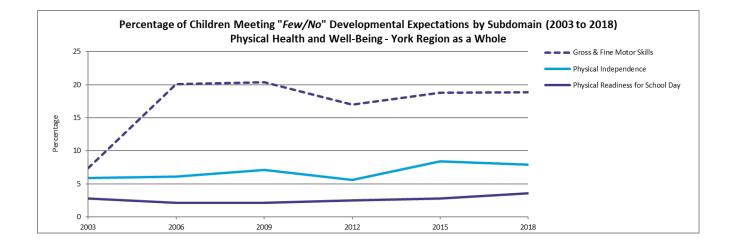
Results for York Region as a Whole

Subdomain results presented in this report indicate the percentages of children in York Region that meet "few/no" developmental expectations in each subdomain. The following charts present subdomain results for each of the five domains, indicating how results have changed over time. Appendix B provides data in tabular format.

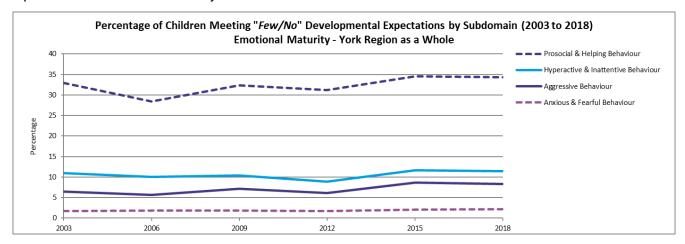
The desired trend is a decrease in the percentage of children meeting "few/no" developmental expectations. This would indicate that outcomes for young children in York Region are improving in the subdomain.

Note that the percentages of children meeting "few/no" developmental expectations are historically much higher in the subdomains of "Gross and fine motor skills", "Prosocial and helping behaviour" and in the "Communication skills and general knowledge" domain, not only in York Region but in other jurisdictions worldwide.

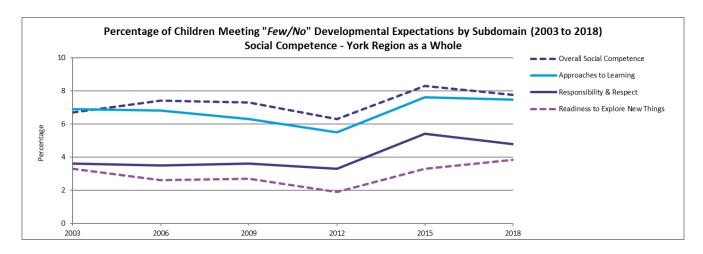
In the Physical Health and Well-Being domain percentage of children meeting "few/no" developmental expectations increased between 2015 and 2018 in "physical readiness for school day", decreased in "physical independence" and remained the same in "gross and fine motor skills".



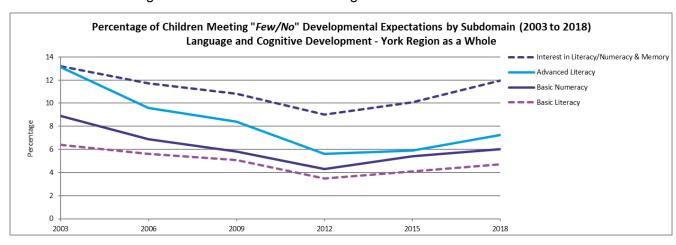
In the Emotional Maturity domain, the percentages of children meeting "few/no" developmental expectations remained relatively constant in all subdomains between 2015 and 2018.

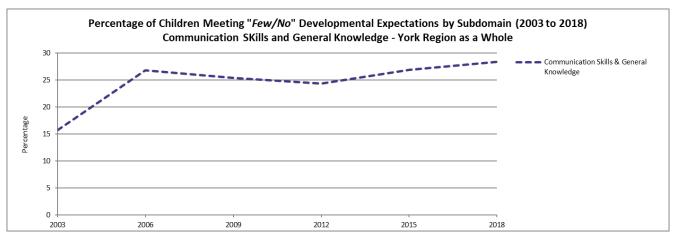


In the Social Competence domain, the percentages of children meeting "few/no" developmental expectations decreased in three of the four subdomains between 2015 and 2018. This indicates a positive trend.



The percentages of children meeting "few/no" developmental expectations increased between 2012 and 2018 in all Language and Cognitive Development subdomains as well as in Communication Skills and General Knowledge domain. This is a notable negative trend.





Overall, the analysis of the 2018 EDI implementation results in York Region reveals an increase in EDI vulnerability, seen through increase in percentage of children "scoring low" in four of the five domains, as well as in one or more domain, since 2012. Findings vary when scores are examined at the neighbourhood level. It is crucial for program and service planners to consider the neighbourhood EDI results as well as the community factors that have impact on the development of young children.

APPENDICES

APPENDIX A - ASPECTS OF CHILD DEVELOPMENT BY DOMAIN/SUBDOMAIN

Physical Health and Well-Being Domain

Includes gross and fine motor skills (e.g. holding a pencil, running in the playground, motor coordination), adequate energy levels for daily activities, independence at looking after their own needs, and daily living skills.

Physical Readiness for School Day Subdomain - Is the child dressed appropriately for daily activities? Does the child arrive at school tired, late or hungry?

Physical Independence Subdomain - Is the child independent in looking after their own needs? Has the child established a hand preference? Is the child physically well-coordinated?

Gross and Fine Motor Skills Subdomain - Does the child have the ability to physically participate in daily activities? Does the child have age-appropriate gross and fine motor capabilities?

Social Competence Domain

Includes curiosity about the world, eagerness to try new experiences, knowledge of standards of acceptable behaviour in a public place, the ability to control their own behaviour, appropriate respect for adult authority, cooperation with others, following rules, and the ability to play and work with other children.

Overall Social Competence Subdomain - Does the child have age-appropriate overall social development, the ability to get along with and play with other children? Is the child cooperative and self-confident?

Responsibility and Respect Subdomain - Does the child show respect for others and for property, follow rules, take care of materials, accept responsibility for their actions, and show self-control?

Approaches to Learning Subdomain - Does the child work neatly and independently, solve problems, follow instructions and routines, and easily adjust to changes?

Readiness to Explore New Things Subdomain - Is the child curious about the surrounding world and eager to explore new books, toys, and games?

Emotional Maturity Domain

Includes the ability to reflect before acting, a balance between too fearful and too impulsive, the ability to deal with feelings at the age-appropriate level, and empathic response to other people's feelings.

Pro-social and Helping Behaviour Subdomain - Does the child exhibit helping behaviours (i.e. helping someone who is hurt, sick or upset), offer to help without encouragement, invite other children to join in activities?

Anxious and Fearful Behaviour Subdomain - Does the child exhibit anxious behaviours? Is the child happy and able to enjoy daily activities? Is the child comfortable being left by caregivers?

Aggressive Behaviour Subdomain - Does the child exhibit aggressive behaviours? Does the child use aggression as a means of solving a conflict? Does the child have temper tantrums? Is the child mean to others?

Hyperactivity and Inattention Subdomain - Does the child exhibit hyperactive behaviours? Is the child able to concentrate, settle to chosen activities, wait their turn, and think before doing something?

Language and Cognitive Development Domain

Includes age-appropriate reading, writing and numeracy skills, board games, the ability to understand similarities and differences, and the ability to recite back specific pieces of information from memory.

Basic Literacy Subdomain - Does the child have basic literacy skills (i.e. know how to handle a book, identify some letters and attach sounds to them, show awareness of rhyming words, know the writing directions, is able to write their name)?

Interest in Literacy/Numeracy and Memory Subdomain - Does the child show interest in books and reading, math and numbers, and have the ability to remember things?

Advanced Literacy Subdomain - Does the child have advanced literacy skills (i.e. reading simple and complex words or sentences, writing voluntarily, writing simple words or sentences)?

Basic Numeracy Subdomain - Does the child have basic numeracy skills (i.e. can count to 20, recognize shapes and numbers, compare numbers, sort and classify, use one-to-one correspondence, and understand simple time concepts)?

Communication Skills and General Knowledge Domain

Includes the skills to communicate their needs and wants in socially appropriate ways, symbolic use of language, storytelling, and age appropriate knowledge about life and the world around them. Does the child have age-appropriate communication skills (i.e. can they communicate easily and effectively, participate in storytelling or imaginative play, articulate clearly, show adequate general knowledge, and demonstrate proficiency in their native language)?

No subdomains

APPENDIX B — DATA TABLES

% "Scoring Low" (EDI Vulnerability)

"Scoring Low" means scoring below the 10th percentile (based on the relevant Ontario cutoff)

York Region % based on total # of EDIs = 10,343

			Ontario					
Domain	2003	2006	2009	2012	2015	2018	2018	Baseline
1 or more domain (1+)	21.2	24.3	24.2	22.2	26.4	27.6	29.6	28.0
Physical Health and Well- Being	7.1	10.0	10.7	10.8	12.7	13.5	16.3	12.9
Social Competence	8.3	8.3	8.2	6.8	10.4	10.5	9.9	9.3
Emotional Maturity	8.7	7.9	9.8	8.0	11.0	9.9	11.3	10.3
Language and Cognitive Development	7.1	6.1	5.2	3.4	4.5	5.1	7.5	9.6
Communication Skills and General Knowledge	8.5	11.4	10.5	9.6	10.3	10.8	10.0	12.1

Average Domain Scores (out of 10)

Averages based on total # of EDIs = 10,343

Domain averages are not available for Ontario

		York Region						
Domain	2003	2006	2009	2012	2015	2018	Baseline	
Physical Health and Well-Being	9.3	9.0	9.0	9.1	9.0	8.9	8.9	
Social Competence	8.4	8.4	8.5	8.6	8.3	8.3	8.3	
Emotional Maturity	8.2	8.3	8.1	8.2	8.1	8.0	8.1	
Language and Cognitive Development	8.8	9.0	9.1	9.3	9.2	9.1	8.6	
Communication Skills and General Knowledge	8.5	7.9	7.9	8.0	7.9	7.9	7.8	

Percent of children meeting "Few/No" Developmental Expectations (Subdomains)

"Few/No" means the percentage of children meeting few or no developmental expectations for the respective subdomain York Region % based on total # of EDIs = 10,343

	York Region							Ontario	
Subdomain	2003	2006	2009	2012	2015	2018	2018	Baseline	
Physical Readiness for School Day	2.8	2.1	2.1	2.5	2.8	3.6	5.2	3.1	
Physical Independence	5.9	6.1	7.1	5.6	8.4	7.9	9.5	8.8	
Gross and Fine Motor Skills	7.4	20.1	20.4	17.0	18.8	18.8	20.6	21.6	
Overall Social Competence	6.7	7.4	7.3	6.3	8.3	7.8	9.0	8.4	
Responsibility and Respect	3.6	3.5	3.6	3.3	5.4	4.8	5.6	4.7	
Approaches to Learning	6.9	6.8	6.3	5.5	7.6	7.5	7.3	8.2	
Readiness to Explore New Things	3.3	2.6	2.7	1.9	3.3	3.8	3.3	3.1	
Prosocial and Helping Behaviour	32.9	28.4	32.3	31.2	34.6	34.4	30.1	28.9	
Anxious and Fearful Behaviour	1.7	1.8	1.8	1.7	2.0	2.1	2.5	2.1	
Aggressive Behaviour	6.4	5.6	7.2	6.1	8.7	8.3	10.0	7.5	
Hyperactive and Inattentive Behaviour	11.0	10.0	10.4	8.9	11.6	11.4	12.2	12.4	
Basic Literacy	6.4	5.6	5.1	3.5	4.1	4.7	7.3	9.2	
Interest in Literacy/Numeracy and Memory	13.2	11.7	10.8	9.0	10.1	12.0	13.5	14.5	
Advanced Literacy	13.1	9.6	8.4	5.6	5.9	7.2	12.3	15.6	
Basic Numeracy	8.9	6.9	5.8	4.3	5.4	6.0	8.5	10.7	
Communication Skills and General Knowledge	15.7	26.8	25.4	24.3	26.9	28.4	26.2	27.4	

^{*} subdomains in green historically have high percentages of children meeting few/no developmental expectations

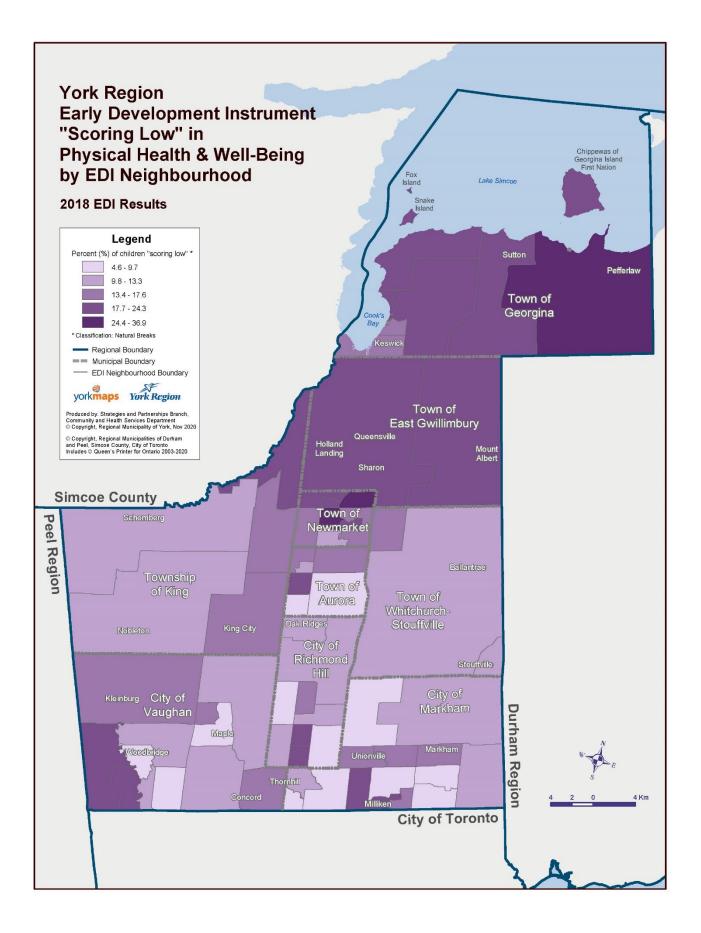
Percent of children "Scoring Low" (EDI Vulnerability) in 2018 by EDI Neighbourhood

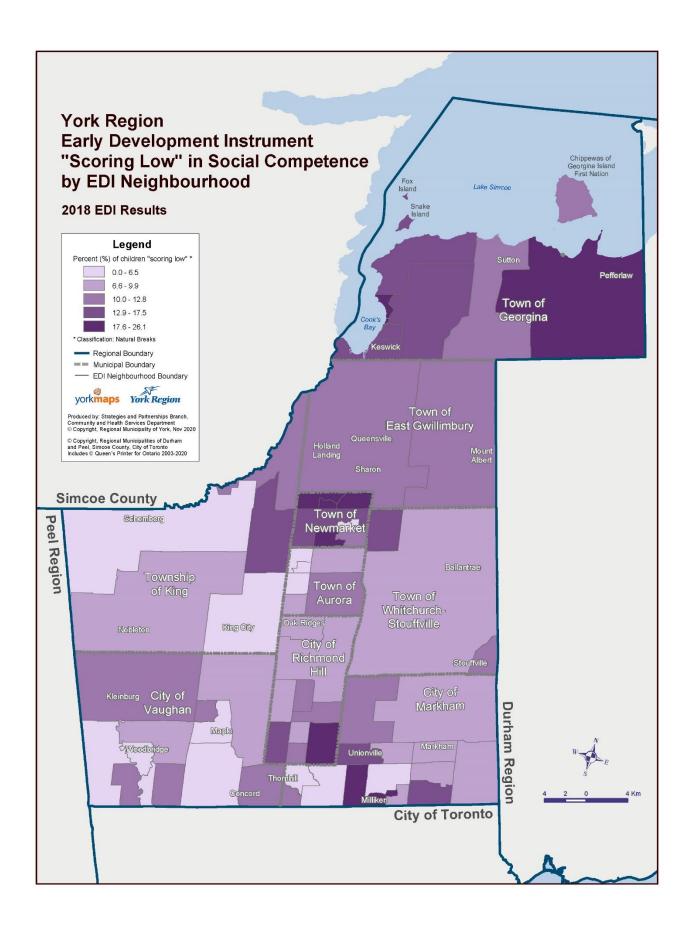
"Scoring Low" means scoring below the 10th percentile (based on the relevant Ontario cutoff)

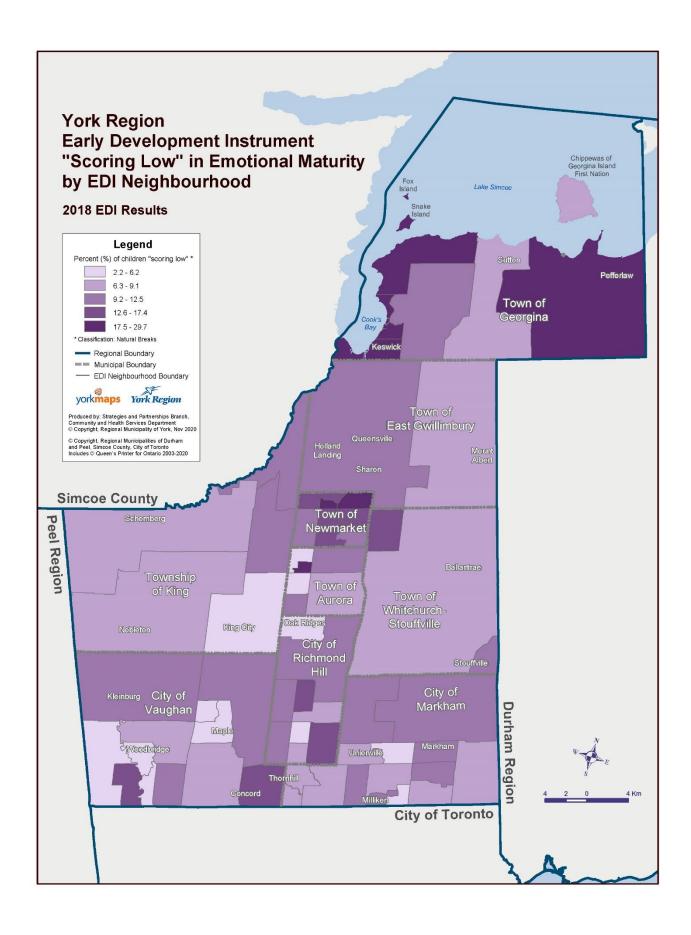
Neighbourhood			% "Scoring Low" in 2018 by Developmental Domain							
Name	Code	Physical Health & Well- Being	Social Compe- tence	Emotional Maturity	Language & Cognitive Develop- ment	Communi- cation Skills and General Knowledge	One or more domain (1+)			
Around Maple	AA	13.0	9.9	9.8	4.6	9.7	27.9			
Aurora Centre North	AB	17.0	9.0	10.8	5.0	10.5	28.2			
Aurora Centre South West	AC	19.6	4.9	4.9	9.8	14.7	34.3			
Aurora Centre West	AD	12.5	6.3	25.0	12.5	6.3	37.5			
Aurora North West	AE	17.6	5.9	5.9	2.9	5.9	23.5			
Aurora South East	AF	9.3	11.6	7.0	9.3	11.6	23.3			
Aurora South West	AG	6.5	8.7	10.9	2.2	2.2	15.2			
Ballantrae-Stouffville	АН	10.1	7.6	7.2	3.6	4.3	21.2			
Buttonville	Al	15.4	15.4	8.5	2.6	9.4	29.1			
Concord-Vaughan	AJ	14.1	12.5	14.4	2.3	9.9	30.0			
Cornell	AK	12.9	7.5	8.9	5.1	9.7	25.3			
East Gwillimbury Heights	AL	23.9	26.1	23.9	15.2	21.7	45.7			
Keswick East	AM	19.8	13.6	12.3	6.2	12.3	29.6			
Keswick South	AN	14.5	16.1	21.0	12.9	9.7	32.3			
Keswick West	AO	24.3	18.9	29.7	5.4	8.1	43.2			
King City	AP	14.3	6.0	6.0	3.6	7.1	23.8			
Kleinburg	AQ	14.0	10.9	10.9	6.2	8.6	27.0			
Maple	AR	9.7	5.0	4.0	2.9	8.6	18.0			
Maple Teston	AS	13.8	12.8	5.3	5.3	14.9	31.4			
Markham 16th	AT	12.0	9.0	9.4	5.3	11.5	24.9			
Markham Cathedral	AU	8.6	11.0	10.2	5.1	12.2	23.9			
Markham Central East	AV	4.6	8.4	9.9	4.6	14.5	24.4			
Markham East	AW	8.9	16.4	8.1	5.7	14.6	29.6			
Markham Hagerman	AX	7.9	5.8	8.6	3.6	6.5	18.0			
Markham Village	AY	13.6	8.4	11.2	2.8	6.5	24.8			
Markham West	AZ	6.5	5.2	6.5	2.6	5.2	14.9			
Milliken East	ВА	13.8	6.9	5.1	5.5	20.7	33.6			
Milliken West	ВВ	19.7	19.7	9.8	3.3	23.0	32.8			
Mount Albert	ВС	23.8	11.4	8.6	7.6	10.5	35.2			
Newmarket Armitage	BD	10.6	20.0	15.3	8.2	12.9	24.7			
Newmarket Clearmeadow/ Glenway	BE	13.8	14.4	11.4	3.6	6.6	25.7			
Newmarket College Manor	BF	20.5	4.5	13.6	2.3	13.6	31.8			

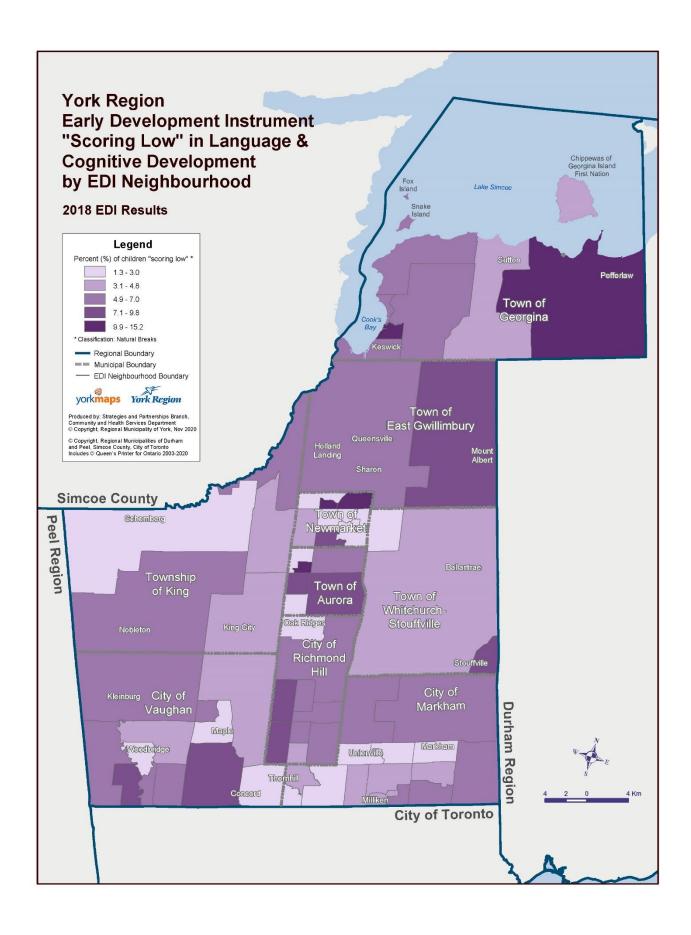
Neighbourhood		% "Scoring Low" in 2018 by Developmental Domain							
Name	Code	Physical Health & Well- Being	Social Compe- tence	Emotional Maturity	Language & Cognitive Develop- ment	Communi- cation Skills & General Knowledge	One or more domain (1+)		
Newmarket Leslie Valley	BG	36.9	20.0	21.5	12.3	26.2	52.3		
Newmarket Military	ВН	16.7	13.9	13.9	2.8	8.3	33.3		
Newmarket North West	ВІ	20.0	18.5	13.0	3.0	14.5	38.0		
Newmarket Quaker Hill/ Haskett Park	BJ	29.2	15.3	15.3	2.8	11.1	37.5		
Newmarket Stonehaven	BK	14.4	12.5	12.5	2.9	14.4	32.7		
Nobleton	BL	12.3	8.6	8.6	6.2	4.9	21.0		
Pefferlaw	BM	27.1	20.8	20.8	12.5	22.9	41.7		
Queensville-Sharon-HL	BN	19.9	10.9	10.0	6.0	13.4	31.8		
Ravenshoe West	ВО	14.9	13.9	21.8	5.0	8.9	30.7		
Richmond Hill B	BP	18.5	12.1	8.9	4.8	15.3	31.5		
Richmond Hill Bathurst	BQ	11.9	9.9	5.3	1.3	9.9	27.8		
Richmond Hill C	BR	21.6	7.2	6.2	5.2	12.4	30.9		
Richmond Hill Doncrest	BS	8.8	19.1	14.0	5.1	10.3	32.4		
Richmond Hill East	ВТ	13.0	12.4	6.8	5.7	13.0	27.7		
Richmond Hill North East	BU	15.2	12.0	17.4	6.5	12.0	31.5		
Richmond Hill North West	BV	8.3	8.9	11.9	9.5	13.1	25.6		
Richmond Hill Richvale	BW	12.6	14.2	9.4	7.9	13.4	33.9		
Roches Point	ВХ	20.0	17.5	20.0	5.0	12.5	40.0		
Schomberg	BY	11.3	6.5	6.5	1.6	4.8	17.7		
South of Maple	BZ	12.1	4.5	9.1	9.1	12.1	25.8		
Stouffville	CA	10.4	11.1	11.7	7.5	7.2	24.4		
Sutton	СВ	23.2	12.6	8.4	4.2	15.8	40.0		
The Hill	СС	11.0	8.7	11.0	5.1	11.5	27.3		
Thornhill North	CD	11.8	5.4	7.5	4.3	8.6	22.6		
Thornhill South	CE	9.2	11.8	6.6	1.3	5.3	23.7		
Unionville	CF	15.0	6.8	4.5	1.5	10.5	25.6		
Woodbridge Centre	CG	9.2	0.0	3.1	1.5	9.2	15.4		
Woodbridge East	СН	7.0	10.4	9.6	7.0	7.8	23.5		
Woodbridge North	CI	11.9	8.8	8.6	4.4	7.9	25.0		
Woodbridge South East	CJ	13.3	4.4	2.2	6.7	6.7	15.6		
Woodbridge South West	CK	23.2	11.6	17.4	8.7	12.3	39.9		
Woodbridge West	CL	22.2	5.6	5.6	5.6	5.6	25.9		
York Region	YR	13.5	10.5	9.9	5.1	10.8	27.6		

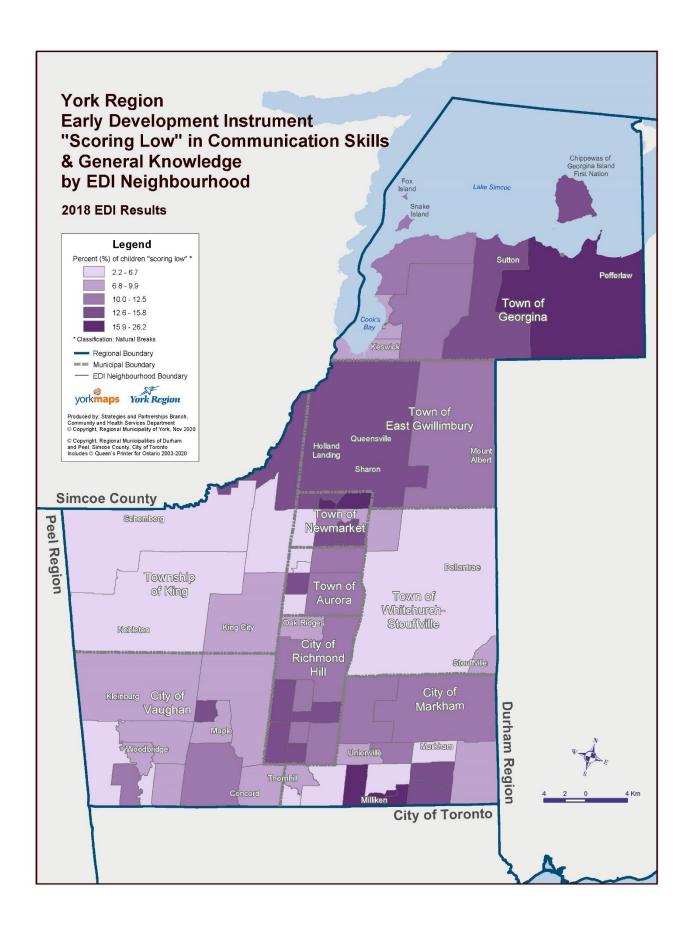
APPENDIX C - NEIGHBOURHOOD MAPS - "SCORING LOW" BY DOMAIN











Research and analysis prepared by the Strategies and Partnerships Branch, Community and Health Services Department, Regional Municipality of York. This information is not exhaustive of all research relevant to York Region. It is provided for reference purposes only. York Region accepts no liability for the consequences of any actions taken on the basis of the information provided. For all inquiries and questions regarding this information, its dissemination and use, please contact 1-888-256-1112 or visit vork.ca.

Organizations wishing to use any portion of this publication are requested to use the following citation when referencing this document:

The Regional Municipality of York, 2021. The Early Development Instrument (EDI) York Region Results - 2018. Newmarket, Ontario.



