OUR KIDS, THEIR STORY…

SNAPSHOT OF DEVELOPMENTAL HEALTH AT SCHOOL ENTRY IN RENFREW-NIPISSING-PEMBROKE

2005-2015

Image courtesy of Freepik.com/Pressfoto

HOW TO CITE THIS REPORT:

Millar, C., Lafrenière, A., Lebreton, J., de Quimper, C. 2016. Our Kids, Their Story…Snapshot of Developmental Health at School Entry in Renfrew-Nipissing-Pembroke 2005-2015. Data Analysis Coordinators, Parent Resource Centre, Ottawa, ON. 33pp + 3pp (Appendices).

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Report Released October 2016

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"Truly wonderful, the mind of a child is"

-Jedi Master Yoda

ACKNOWLEDGEMENTS

This report would not have been possible without the collaborative efforts of the four local school boards (the Renfrew County District School Board, the Renfrew Country Catholic District School Board, the Conseil des écoles catholiques de langue française du Centre-Est, the Conseil des écoles publiques de l'Est de l'Ontario), the Offord Centre for Child Studies, the Ministry of Children and Youth Services, the Ministry of Education, the Data Analysis Coordinators of Eastern Ontario and the Parent Resource Centre. Together, we were able to successfully implement four Early Development Instrument cycles in Renfrew-Nipissing-Pembroke (R-N-P) in 2005-06, 2008-09, 2010-11, and 2014-2015.

Furthermore, we wish to extend our gratitude and appreciation to all of the parents who allowed their children to be a part of the study, and to all the senior kindergarten teachers in R-N-P who participated in the four EDI cycles. Without your help, knowledge, and patience it would not have been possible. Your dedication and contribution to the healthy development of future generations is both exemplary and inspiring. As well, we would also like to thank the Offord Centre for Child Studies for their support. The EDI has been an invaluable tool in Early Years research, and the Offord team has been a reliable resource for clarification and direction.

We would like to take this opportunity to thank all the community service providers, front-line staff and community organizations that work tirelessly and selflessly to support and care for R-N-P's children. Your commitment to addressing the developmental needs of children is unwavering.

Finally, we are incredibly thankful to all those who provided feedback on the report's contents, and cannot express enough gratitude to those who support us in summarizing, disseminating, and facilitating the use of this local data to make community planning a priority to better serve all families.

Image courtesy of Stockvault.net/Val Lawless

R-N-P SNAPSHOT

The **EDI** is a measure of a child's **developmental health at school entry** within 5 developmental domains

OVER

10 YEARS

OF EDI DATA COLLECTED

The percentage of vulnerable children **over time** has:

- **No Significant Linear Trends**-

*EDI domain logos created by Knowledge Translation team at Human Early Learning Partnership

WHY CARE?

The EDI can help:

1. Adapt programs to children's needs
2. Inform **universal** service delivery
3. Assess local differences to help **target** priority areas

THE 4TH EARLY DEVELOPMENT INSTRUMENT (EDI) CYCLE IN RENFREW-NIPISSING-PEMBROKE

REPRESENTING 964 SENIOR KINDERGARTEN CHILDREN

71% of our children are **on track** as they enter school

1 in 3 Children in R-N-P are **vulnerable in one or more areas of their development**

PHYSICAL HEALTH AND WELL-BEING	
AT-RISK	6%
VULNERABLE	16%

SOCIAL COMPETENCE	
AT-RISK	16%
VULNERABLE	10%

EMOTIONAL MATURITY	
AT-RISK	17%
VULNERABLE	14%

LANGUAGE AND COGNITIVE DEVELOPMENT	
AT-RISK	12%
VULNERABLE	6%

COMMUNICATION SKILLS AND GENERAL KNOWLEDGE	
AT-RISK	14%
VULNERABLE	8%

LOCAL PLANNING IS IMPORTANT

The % of vulnerable children varies between **22% and 39%** across R-N-P communities.

As a community committed to addressing the critical developmental needs of children as early as possible, it is imperative that we use the EDI data along with other relevant sources to inform local planning and ensure **the best possible outcomes for all children**

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Communities where all children discover and develop skills to live the best life possible.

WHY ARE THE EARLY YEARS SO IMPORTANT?

Children's first years of life set the stage for later development, and are foundational to their success in school and well-being.[1,2]

From birth to six years there exist critical periods during which particular skills are developed (e.g., emotional regulation, peer social skills).[1]

Optimal development occurs when these skills are practiced in happy, healthy and stimulating environments.

WHAT IS DEVELOPMENTAL HEALTH AT SCHOOL ENTRY?

All children are born ready to learn, but not all children arrive at school ready to learn in a school environment. Children's early experiences can have a direct impact on their ability to meet the demands of school. Developmental health at school entry measures children's ability to meet age-appropriate expectations that would allow them to benefit from the educational activities provided at school. In this sense, it serves as an indicator of children's health in a community.

Children's first years in school are fundamentally important for their later learning. Children who are ready to learn at school perform better in early grades than children who are not, and in turn, are more likely to finish high school[3]. High school completion is subsequently directly related to employability, which has positive economic repercussions for society as a whole.[3]

THE DEMANDS OF SCHOOL[4]

- ✓ Being comfortable exploring and asking questions
- ✓ Being able to hold a pencil
- ✓ Playing and working with other children
- ✓ Remembering and following rules
- ✓ Listening to the teacher

Image courtesy of photo.elsoar.com

ENSURING ANONYMITY OF EDI RESULTS

- All results are compiled to a population level (neighbourhoods, cities, regions, or provinces)
- EDI scores are never analysed or discussed at an individual level (i.e., single student)
- EDI results for R-N-P communities with less than 40 children are not reported

Image courtesy of FreeImages.com/Omar Franco

WHAT IS THE EARLY DEVELOPMENT INSTRUMENT?

The Early Development Instrument (EDI) is a proven and comprehensive population-based measure of children's developmental health at school entry.[5,6] By using the EDI, we can:

1. monitor populations of children over time;
2. report on different communities; and
3. predict later school achievement.

The EDI was developed by Drs. Dan Offord and Magdalena Janus at the Offord Centre for Child Studies, McMaster University.[6] It is a 103-item questionnaire to be completed by Senior Kindergarten teachers during the winter months of the school year, after children have had a chance to familiarize themselves with their classrooms and teachers. It measures children's developmental health across five domains, which in turn are divided into 16 sub-domains (Figure 2, page 10).

EARLY DEVELOPMENT INSTRUMENT

Each question reflects developmental milestones rather than specific curriculum goals. The EDI also collects basic demographic information (e.g., age, first language, gender) for each student.

Although the EDI is completed for children individually, the results are compiled and interpreted based on groups of children (populations) who live in a shared geographic area, such as a neighbourhood or city. As such, the EDI serves as a population-based measure and is neither a diagnostic tool for individual children nor an indicator of a school's performance.

EDI results, in combination with other local data (e.g., housing, income, health), are meant to help inform communities about the development of their young children so that they can be proactive about providing the necessary supports for current and future generations.

CANADA

1.1 Million

CHILDREN HAVE COMPLETED THE EDI (1999-2015)

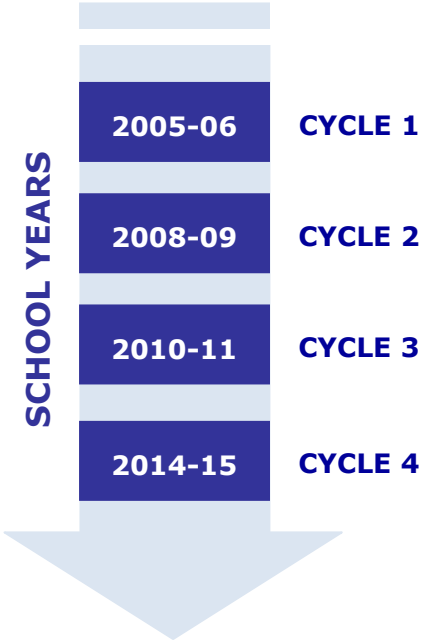
12 of 13

PROVINCES/TERRITORIES HAVE COMPLETED THE EDI

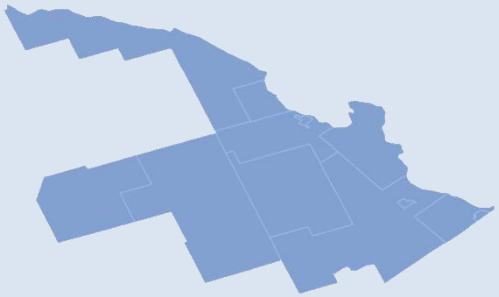
THE EDI IN RENFREW-NIPISSING-PEMBROKE (R-N-P)

Four EDI cycles have been completed in R-N-P, starting in 2005-06 and finishing in 2014-15 (Figure 1). The participating school boards were: Conseil des écoles catholiques de langue française du Centre-Est (CECCE), Conseil des écoles publiques de l'Est de l'Ontario (CEPEO), Renfrew County District School Board (RCDSB) and the Renfrew County Catholic School Board (RCSB).

FIGURE 1
EDI IMPLEMENTATION IN R-N-P



R-N-P



3749

CHILDREN HAVE COMPLETED THE EDI (2005-2015)

4 of 4

PUBLICLY FUNDED SCHOOL BOARDS HAVE PARTICIPATED

Image courtesy of FreeImages.com/Ehsan Namavar

FAMILY AS THE FIRST LEARNING ENVIRONMENT

"Early brain development benefits from activities that challenge young children and from interactions with adults who are responsive.

Access to shelter, clean water and food, and to developmental opportunities such as parks, high-quality early childhood programs and libraries increases families' abilities to be responsive and stimulating."[7]

Best Start Expert Panel on Early Learning, 2007

THE IMPORTANCE OF FAMILY AND COMMUNITY

The EDI provides information on children's developmental health at school entry but does not show how various home and community factors might influence overall results.

Differing social and cultural contexts, including quality of stimulation, availability of resources, and preferred patterns of interactions within communities, interact with each child's potential for development.[8,9,10,11]

The home is the first and most important learning environment to which a child is exposed. The second learning environment is the surrounding community, including early learning programs and childcare. Research shows that strong relationships between families and their community are essential.[7]

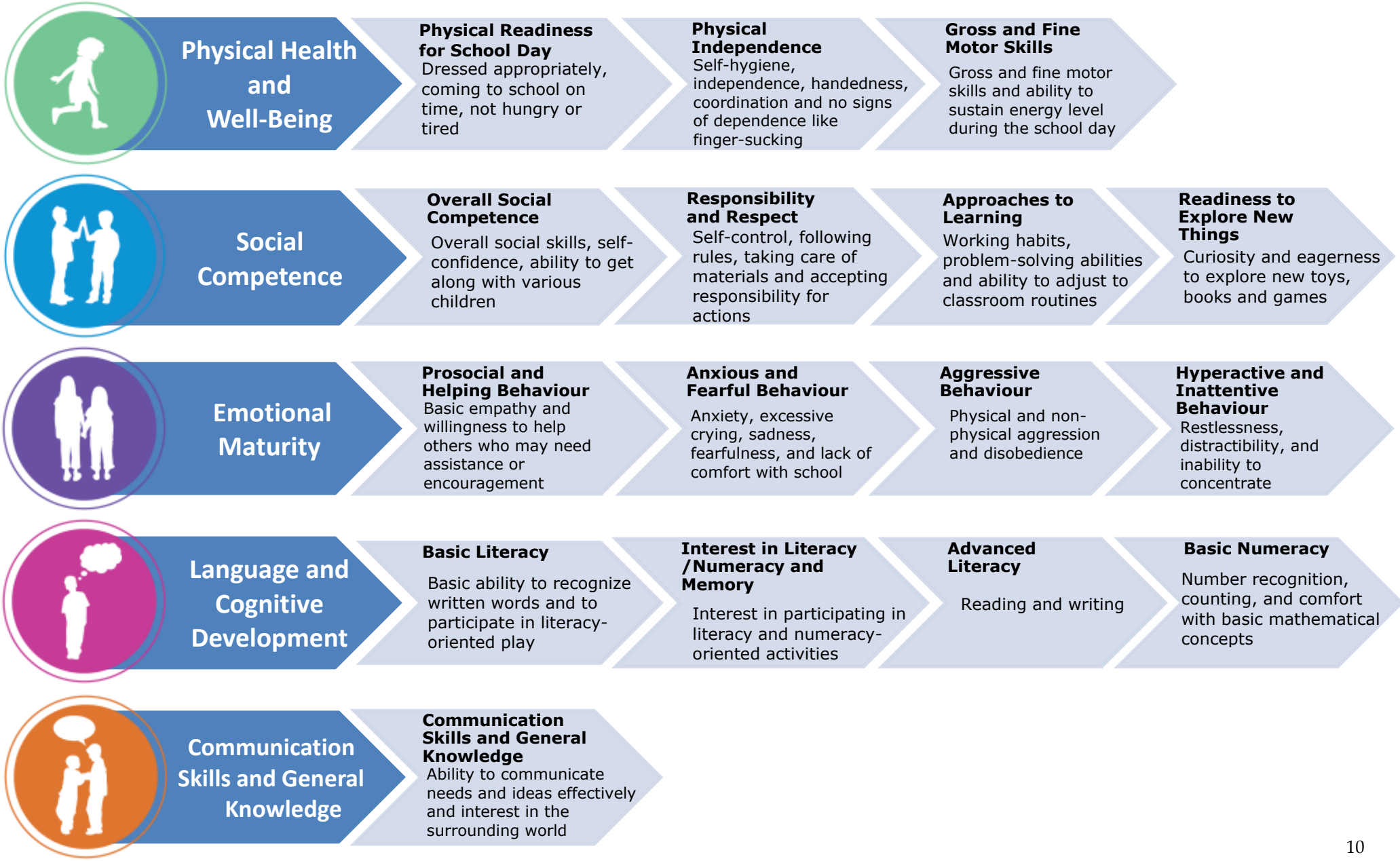
Compiling information from tools such as the EDI and contextualizing the results using additional socio-demographic and health data can help professionals and service organizations to identify children's developmental needs and protective and risk factors at home and in the community. This approach is consistent with an ecological model, which accounts for the many factors that can impact healthy development.

LOOKING FOR IDEAS TO SUPPORT HEALTHY CHILD DEVELOPMENT AT HOME OR WORK?

Check out the **Early Literacy Specialist** resources on the Parent Resource Centre website:

PRC CRP
parentresource.ca

FIGURE 2
DESCRIPTION OF EDI DOMAINS AND SUB-DOMAINS



R-N-P

-CYCLE 4-

964

EDI QUESTIONNAIRES WERE USED IN OUR ANALYSIS

Image courtesy of FreeImages.com/Varyamo

DATA SOURCES

The data presented in this report were collected during the 4th Early Development Instrument cycle in R-N-P (Figure 1, page 8). A total of **1052** EDI questionnaires were filled out by Senior Kindergarten (SK) teachers across all four R-N-P School Boards in the 2014-15 school year and sent to the Offord Centre for Child Studies, McMaster University. Of the 1052 questionnaires submitted, **964** were valid and subsequently included in the analysis for **children without special needs**. Questionnaires were considered valid if at least four of the five domains had data and the children had been in class for more than one month.[13]

EDI DOMAINS

Each of the five domains on the EDI is scored on a scale of 0 to 10 based on teachers' answers to questionnaire items. Each question falls within one of five domains. The higher the score, the more that child is considered developmentally on track at school entry. A perfect score in any EDI domain is a score of 10.

When reporting results, EDI scores for each domain are divided into four categories: "on track, top"; "on track, middle"; "at risk"; and "vulnerable" (Figure 3, page 12). These categories are based on percentile cut-offs established using provincial baseline data provided by the Offord Centre for Child Studies[14] (Table 2, page 12).

STUDY SITE

The EDI data from Cycle 4 are reported for the R-N-P region and all twelve of its communities (see page 17). For confidentiality reasons, EDI results were suppressed for communities with less than 40 participating children.

Check out our detailed community road maps on the Parent Resource Centre website:

PRC CRP
parentresource.ca

WHAT IS A PERCENTILE?

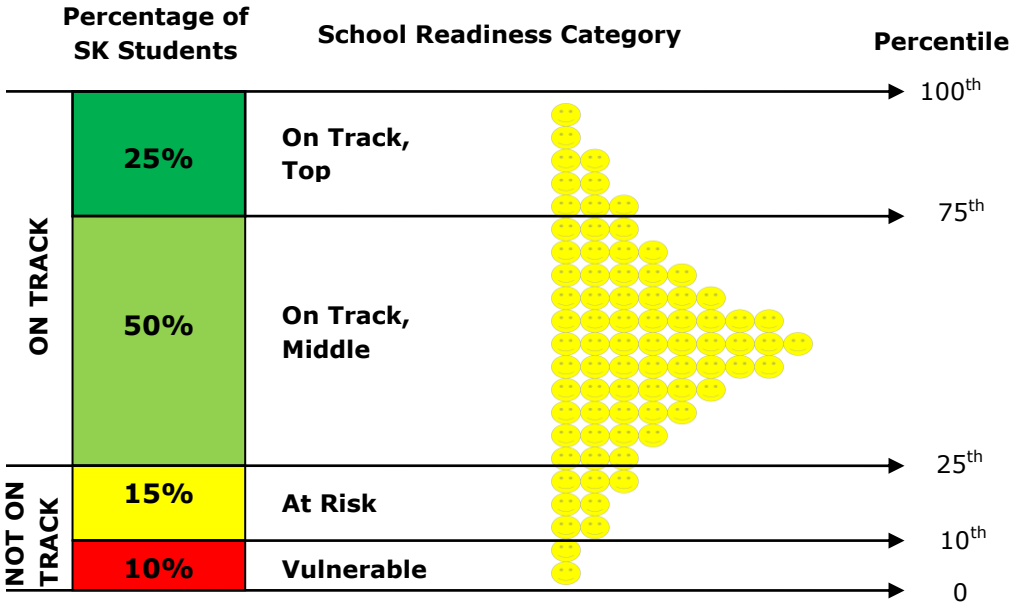
A percentile is the value of a variable (e.g., EDI score) below which a certain percent of observations fall. For example, the 10th percentile is the EDI score below which 10% of the SK students in Ontario scored (Figure 3). Using these cut-offs we can compare the developmental health at school entry of SK students in one community with those of another community, as well as to all SK students in the region, and to those from previous EDI cycles (Table 1).

Image courtesy of Stockvault.net/Guillermo Ossa

TABLE 1
EDI DOMAIN SCORE CUT-OFFS (ONTARIO BASELINE, 2004-06)

EDI DOMAINS	PERCENTILE CUT-OFFS 10TH	25TH	75TH
Physical Health And Well-Being	7.3077	8.0769	10.0000
Social Competence	5.5769	7.3077	9.8077
Emotional Maturity	6.0000	7.3214	9.1667
Language And Cognitive Development	6.1538	8.0769	9.6154
Communication Skills And General Knowledge	4.3750	5.6250	10.0000

FIGURE 3
DEVELOPMENTAL HEALTH CATEGORIES



WHO IS VULNERABLE?

Children who scored below the 10th percentile, based on province-wide data are considered **vulnerable** with regards to their developmental health at school entry. These children have the lowest EDI scores in their community and in R-N-P.

With early years program planning and prioritization in mind, this report focuses primarily on the percentage of children that are considered **vulnerable** in each EDI domain and **not on track** in each EDI sub-domain.

These children represent those experiencing the greatest difficulties and, consequently, those in need of the most support.

EDI SUB-DOMAINS

Each EDI domain is divided into one or more sub-domains, for a total of 16 EDI sub-domains. Each of these sub-domains represents a relatively homogenous aspect of child development (Figure 2, page 10).

Sub-domain results were analyzed differently than domain-level results. Instead of being scored out of 10, students were subdivided into three groups based on their developmental skills and abilities. Teachers' answers to sub-domain questions helped to identify whether children met:

- ✓ **All/Almost All** developmental expectations
- ✓ **Some** developmental expectations

ON TRACK

- ✓ **Few/None** of the developmental expectations

NOT ON TRACK

For the purpose of this report, children who met **all/almost all** and **some** of the developmental expectations have been grouped together as "**on track**". Children who have met **few/none** of the developmental expectation are considered "**not on track**".

VULNERABLE IN ONE OR MORE (1+) DOMAINS

Another way of assessing children's developmental health at school entry using EDI results is by calculating the percentage of children that are "vulnerable" in 1+ domains. This measure provides an overall view of vulnerability and captures all the children who are struggling, even those whose struggles may not be apparent.

DID YOU KNOW?

Looking at family and community characteristics such as:

- **Income;**
- **Lone parent status;**
- **Education; and,**
- **Rate of employment**

along with EDI data is key when planning for children as they influence a child's development. [3, 5, 8, 15-21]

Image courtesy of Freepik.com/Pressfoto

COMMUNITY COMPARISONS

Renfrew-Nipissing-Pembroke region encompasses a variety of modern community settings: from the urban community of Pembroke to the rural landscapes of Whitewater Region.

Previous research has demonstrated that family demographics (e.g., income, lone parent status, education) and the socio-economic status of communities (e.g., rate of unemployment) are correlated with early child development indicators.[3, 5, 8, 15-21]

Therefore, with such a wide geographical range of communities in R-N-P, it is reasonable to assume that children from different types of communities will enter grade school with different levels of readiness.

HOW ARE THE EDI SURVEYS FILLED OUT?

Children did not complete any tests or perform any tasks explicitly for the purpose of obtaining EDI data. Rather, SK teachers were asked to use their best judgment and fill in a survey for each child in their classroom based on their observations.

Thus, scores are somewhat subjective (i.e., the same child may have slightly different EDI results if evaluated by a different teacher) and biases may exist between classes (i.e., certain teachers may be more positive in their assessment of their students than others).

Despite this inherent subjectivity, objective data (e.g., Grade 3 testing) have been correlated with EDI results. [2, 6, 15]

EDI CYCLE 4

64

CHILDREN WITH SPECIAL NEEDS PARTICIPATED

52

CHILDREN WERE ON WAITLISTS FOR ASSESSEMENT

13%

CHILDREN, NON-SPECIAL NEEDS, WITH TEACHER OBSERVED DIFFICULTITES

REPORTING ON SUB-GROUPS

SPOKEN LANGUAGES

It was of interest to examine the developmental health over time for two specific subgroups: Francophone children and children whose first languages do not include French or English. Unfortunately, R-N-P has so few children who speak a language other than French or English that it would be impossible to report on this group without risking their identification. Thus, only results on Francophone children were discussed in this report.

SPECIAL NEEDS

Although the EDI collects additional information describing children's special needs, we have not included the results due to several methodological and ethical concerns. Firstly, special needs children are only identified if teachers are aware of a medically diagnosed exceptionality. Often, however, children with special needs remain undiagnosed until Grades 1 and 2, which may lead to a rather large underestimate of the size of this subgroup. Furthermore, there are so few children within each special needs category, and most categories are very broad, that it would be impossible to report the groups separately without risking their identification.

STATISTICAL TESTS

Comparisons were made between groups using Pearson's chi-square test, independent samples *t*-test, and independent samples analysis of variance (ANOVA). Fisher's exact test was used instead of Pearson's chi-square if the minimum expected count was below five. To examine vulnerability trends over time, the Mantel-Haenszel chi-square test for trends was performed. All statistical tests were considered significant if $p < 0.05$. Keppel's adjustment of the Bonferroni correction was used to calculate critical *p*-values for post-hoc tests. In the absence of homogeneity of variance when performing a One-Way ANOVA, Welch's adjusted F-ratio was used. An asterisk (*) indicates significant differences between groups in figures.

CYCLE 4

964

CHILDREN

5 Years and 8 Months

AVERAGE AGE

1:1

RATIO OF GIRLS TO BOYS

Image courtesy of Freepik.com/Asierromero

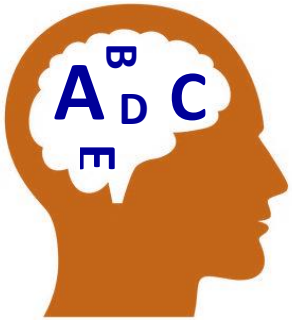
CYCLE 4 DEMOGRAPHICS

The R-N-P non-special needs Cycle 4 cohort consisted of 964 Senior Kindergarten (SK) students. The average age was 5 years 8 months, give or take 3 months.

In the fourth EDI cycle, most students were learning in their first language (Figure 4). This is not surprising, considering most students had one of Canada's official languages as a first language (Figure 4). It is important to note, however, that a sizeable minority (15%) were learning in a second language (Figure 4).

FIGURE 4

CHILDREN'S SPOKEN LANGUAGES IN CYCLE 4 IN R-N-P



First Languages

91.3%	English
2.0%	French
0.8%	Other Languages Only
5.0%	English and French

Learning in a 2nd Language

15% YES

85% NO

DID YOU KNOW?

Previous research has shown that children's

- **age**[6]
- **gender**[6, 10, 22]
- **learning in second language**[6, 10, 22]

can significantly influence their EDI results.

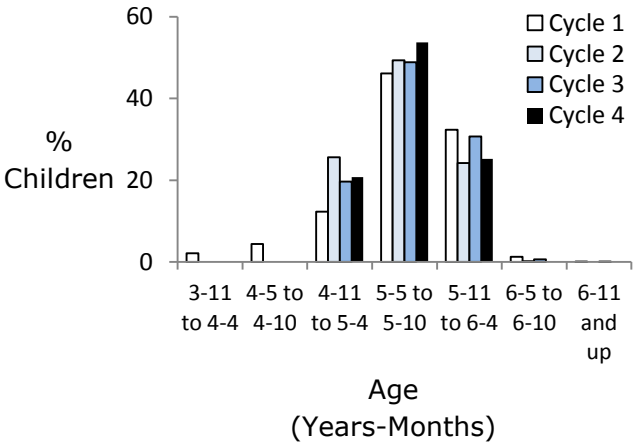
Image courtesy of FreeDigitalPhotos.net/David Castillo Dominici

DEMOGRAPHICS

AGE AT COMPLETION

When children are between five and six years old, a few months can translate into wide differences in social, emotional, and academic development.[6] For this reason, it is important to note that there were significant age differences between cycles (Appendix I - Table 1). Children were significantly older in cycle 4 compared to cycle 2, and similarly aged compared to cycles 1 and 3 (Figure 5).

FIGURE 5
AGE OVER TIME IN R-N-P



GENDER

Girls have been shown to outperform boys in most EDI domains and sub-domains.[6, 22-24] The ratio of girls to boys, however, was not significantly different between cycles (**50:50**) (Appendix I - Table 1).

FIRST LANGUAGE(S)

Differences between cycles were found in reports of children's language of instruction. The percentage of children learning in a second language was significantly **higher** in Cycle 4 than in previous cycles (Appendix I - Table 1).

Previous studies have shown that children who do not speak EN or FR as a first language are more likely to be vulnerable in the *Language and Cognitive Development* and the *Communication Skills and General Knowledge* domains and sub-domains.[6, 23, 24, 25]

CYCLE 4

71%

CHILDREN ON TRACK

TRENDS IN VULNERABILITY (C1-C4)

No Significant Linear Trends

R-N-P RESULTS

Overall, the majority of children (71.2%) in R-N-P were on track developmentally at school entry in 2015.

VULNERABLE IN ONE OR MORE (1+) DOMAINS

The percentage of children in R-N-P vulnerable in 1+ domains has not changed significantly over time (Appendix I - Table 2). When comparing results to the provincial Baseline from 2004-06, R-N-P's children fared worse in Cycle 4, and slightly better in all other cycles (Figure 6).

THE 5 DEVELOPMENTAL DOMAINS

The percentage of children classified as "Not on track" (i.e., "at risk" and "vulnerable") in R-N-P was lower than the provincial Baseline in all but two EDI domains, *Emotional Maturity* and *Social Competence* (Figure 7, page 19).

When examining change over time, the percentage of vulnerable children did not change significantly in 4 of the 5 domains (Appendix I - Table 2). Although showing significant changes over time in the *Language and Cognitive Development* domain, there was no significant linear trend (Appendix I - Table 2).

FIGURE 6
CHILDREN VULNERABLE IN ONE OR MORE DOMAINS OVER TIME

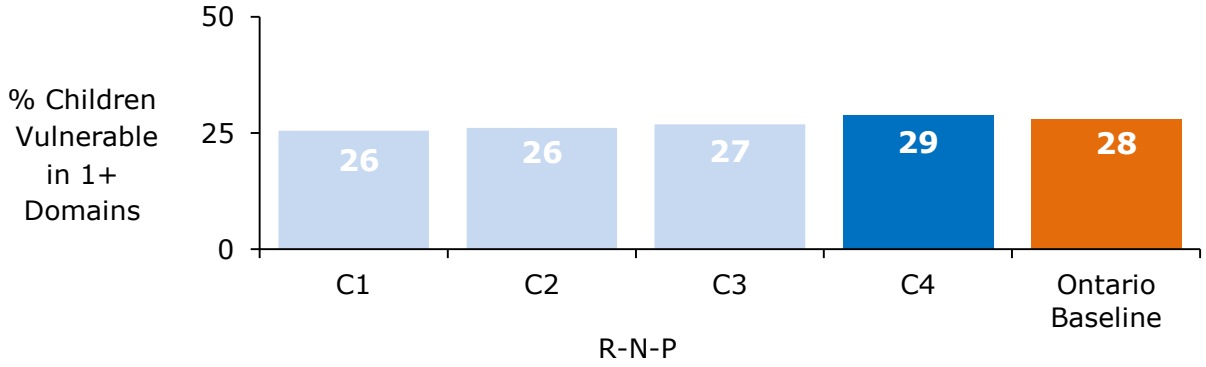
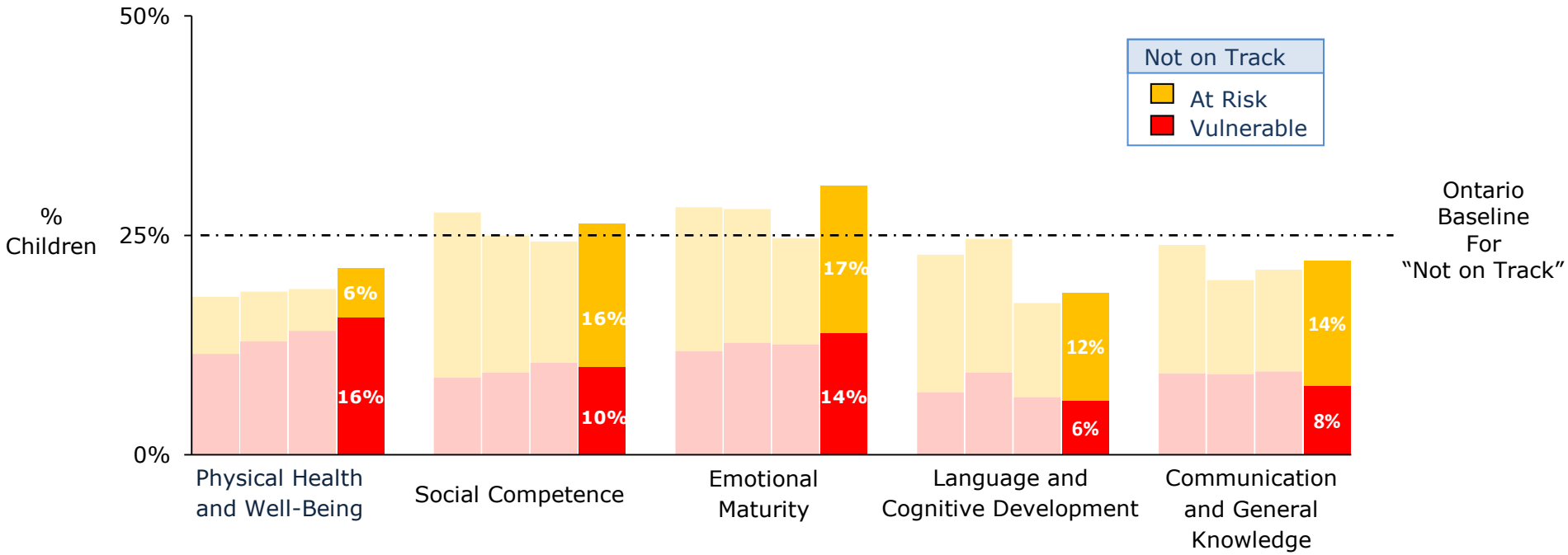


FIGURE 7
CHILDREN NOT ON TRACK BY EDI DOMAIN IN CYCLES 1 TO 4 (LEFT TO RIGHT)



THE 16 DEVELOPMENTAL SUB-DOMAINS

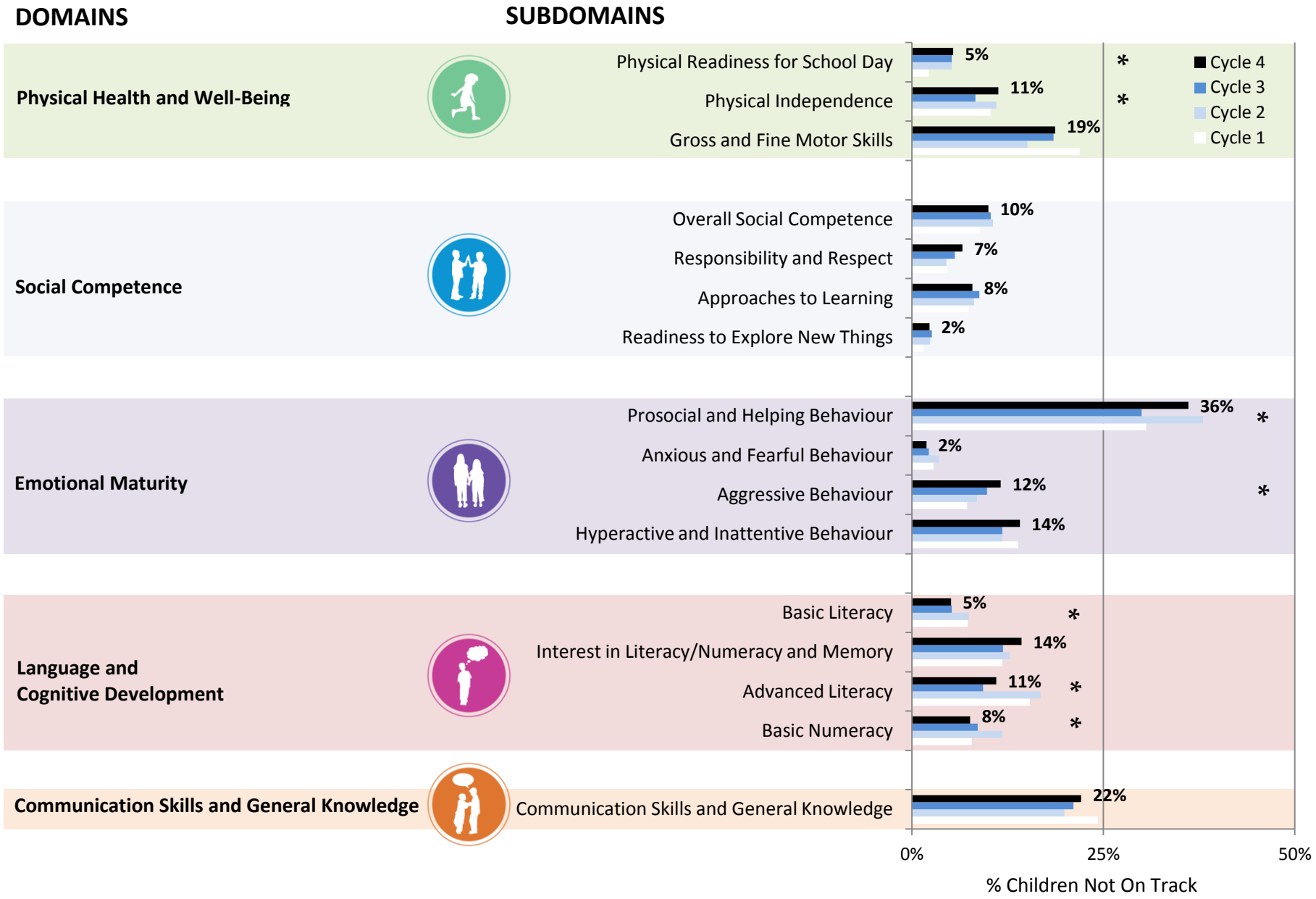
Over the past four cycles, there were significant changes to results in 7 of the 16 EDI sub-domains (Figure 8; Appendix I - Table 3). Showing signs of improvement, the percentage of children not on track is decreasing significantly over time in *Basic Literacy* and *Advanced Literacy* (Figure 8).

On the other hand, the percentage of children not on track is increasing significantly over time in *Physical Readiness for School day,* and *Aggressive Behaviour* (Figure 8; Appendix I - Table 3).

Despite significant changes over time, there were no significant linear trends for the *gross and Fine Motor Skills, Prosocial and Helping Behaviour* and *Basic Numeracy* sub-domains.

FIGURE 8

CHILDREN NOT ON TRACK BY EDI SUB-DOMAIN IN CYCLES 1 TO 4 (BOTTOM TO TOP)



* Significant differences were observed over time

CYCLE 4

197

FRANCOPHONE CHILDREN PARTICIPATED

78%

DEVELOPMENTALLY ON TRACK AT SCHOOL ENTRY

1:1

RATIO OF GIRLS TO BOYS

Image courtesy of FreeDigitalPhotos.net/Phaitoon

FRANCOPHONE CHILDREN RESULTS

Overall, the majority (77.6%) of Francophone children in R-N-P were on track developmentally at school entry in 2015.

VULNERABLE IN ONE OR MORE (1+) DOMAINS

The percentage of Francophone children in R-N-P who were vulnerable in 1+ domains has not changed significantly over time (Appendix I - Table 5). When comparing results to the provincial Baseline from 2004-06, R-N-P's Francophone students fared considerably better across all cycles except for cycle 1 (Figure 9).

THE 5 EDI DOMAINS

The percentage of Francophone students classified as "Not on track" (i.e., "at risk" and "vulnerable") in R-N-P was lower than the provincial Baseline in all EDI domains except for the *Language and Cognitive Development* domain (Figure 10, page 22). The largest differences in vulnerability, favouring R-N-P's Francophone students against the Ontario baseline, were witnessed in the *Physical Health and Well-Being* and *Communication and General Knowledge* domains.

When examining change over time by domain, the percentage of vulnerable Francophone children has not changed significantly, with the exception of *Social Competence* (Appendix I - Table 5). Within this domain, however, there was no linear trend.

FIGURE 9

FRANCOPHONE CHILDREN VULNERABLE IN 1+ DOMAINS OVER TIME

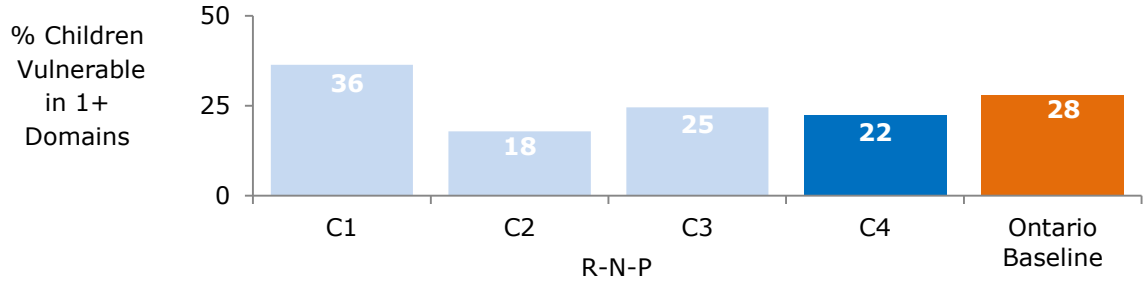
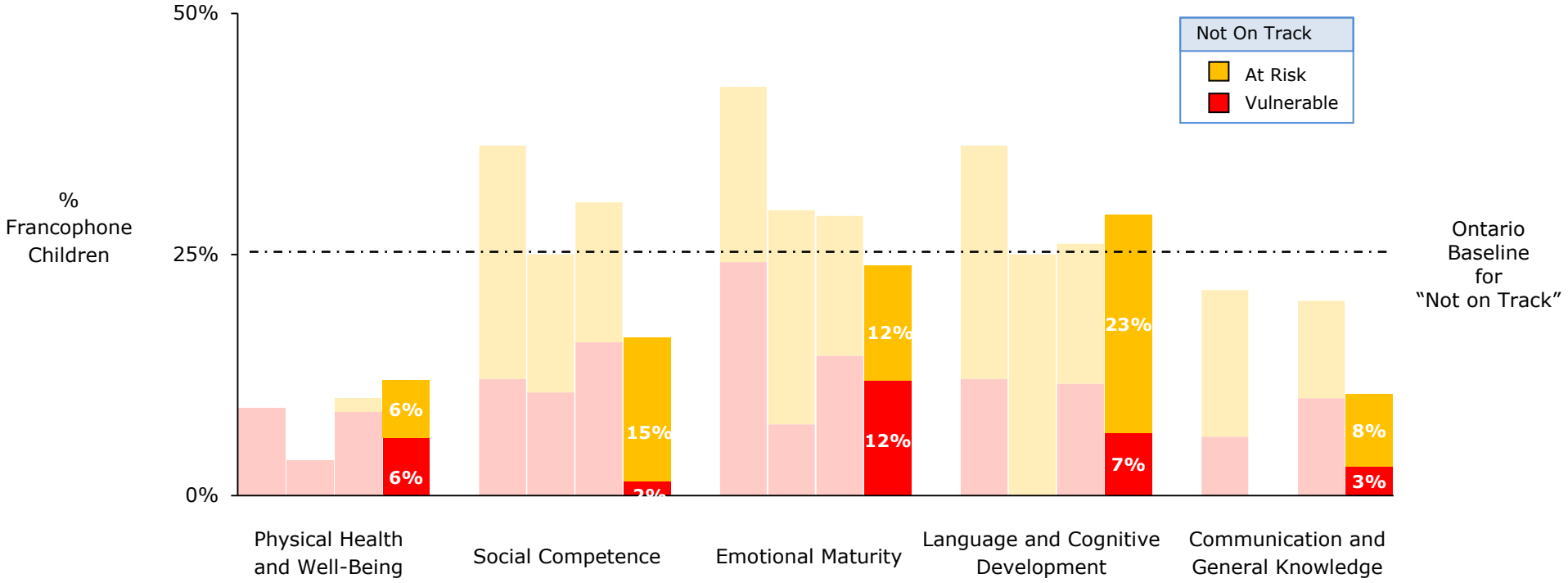


FIGURE 10

FRANCOPHONE CHILDREN NOT ON TRACK BY EDI DOMAIN IN CYCLES 1 TO 4 (LEFT TO RIGHT)



THE 16 DEVELOPMENTAL SUB-DOMAINS

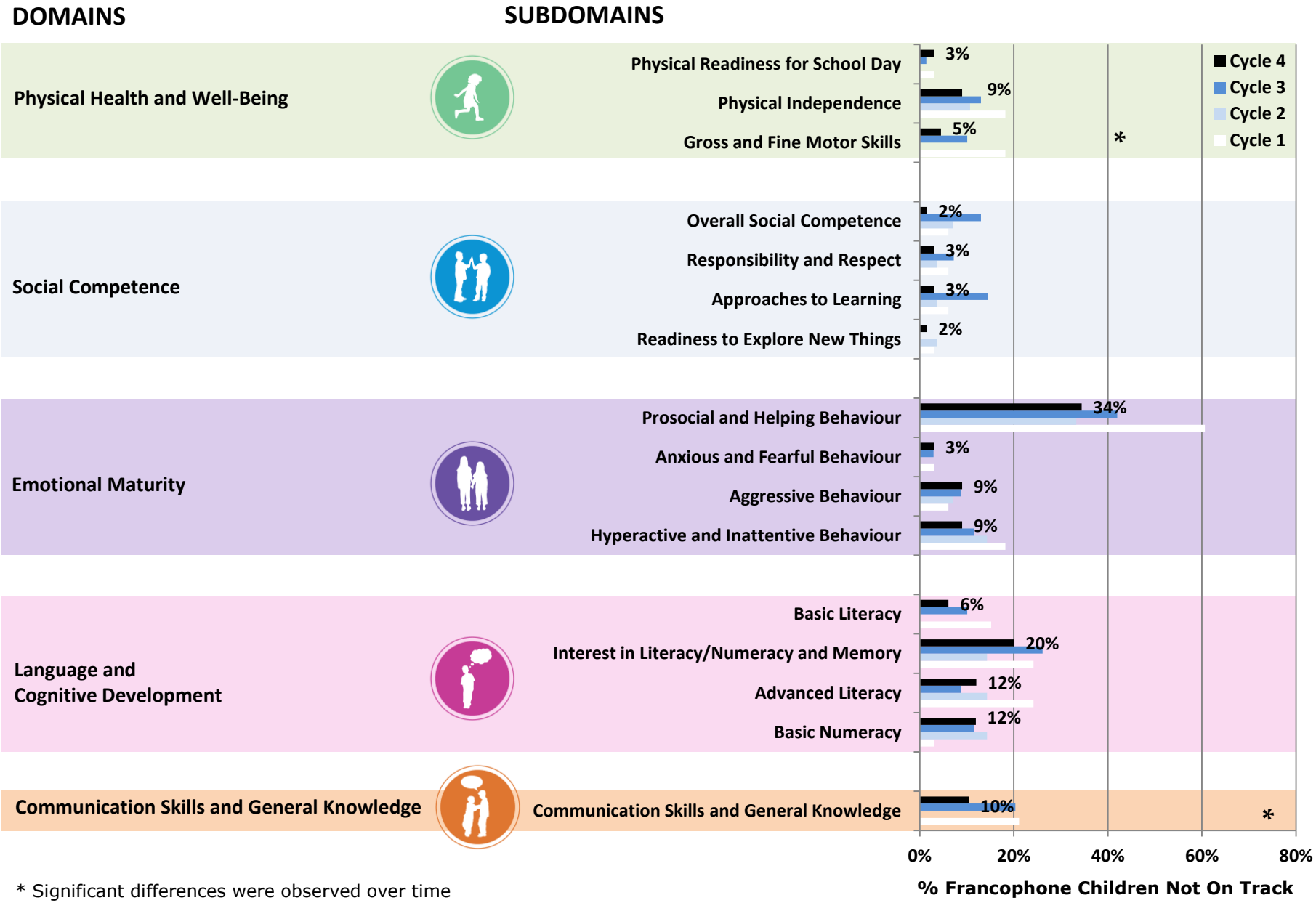
Over the past four cycles, there were significant changes in 2 of the 16 EDI sub-domains: *Gross and Fine Motor Skills* and *Communication and General Knowledge* (Figure 11; Appendix I - Table 6). Although showing significant changes over time, there were no significant linear trends in either of these sub-domains (Figure 11; Appendix I - Table 6).

TRENDS IN VULNERABILITY (C1-C4)

- No Trend -

FIGURE 11

FRANCOPHONE CHILDREN NOT ON TRACK BY EDI SUB-DOMAIN IN CYCLES 1 TO 4 (BOTTOM TO TOP)



* Significant differences were observed over time

CYCLE 4

42%

COMMUNITIES HAD A HIGHER % OF CHILDREN VULENRABLE THAN ONTARIO

22%- 39%

MIN-MAX % OF CHILDREN VULNERABLE IN COMMUNITIES

Image courtesy of Freepik.com/Kstudio

COMMUNITY RESULTS

In R-N-P, EDI results have been linked to such local factors as prenatal health, nutrition, education, employment, income, mobility, neighbourhood cohesion, and family structure.

In communities across Canada, developmental vulnerability generally follows a gradient such that as one goes from communities with lower social-economic status (SES) to communities with higher SES, the percentage of children vulnerable in at least one EDI domain decreases (Figure 12).[15, 18-20]

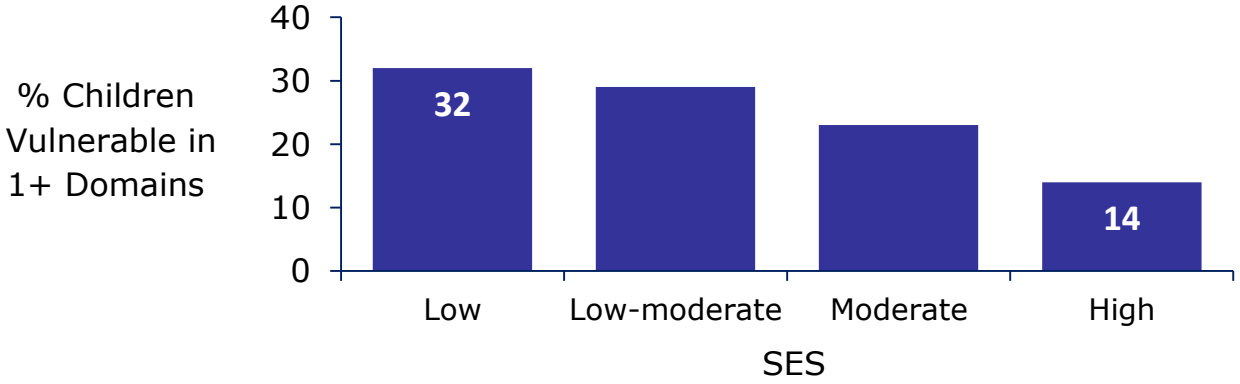
VULNERABLE IN ONE OR MORE (1+) DOMAINS

In Cycle 4, almost half (42%) of the 12 R-N-P communities had a higher percentage of children vulnerable in 1+ domains as compared to the 2004-06 Ontario Baseline (Table 2, page 27).

Community vulnerability on the EDI is colour coded in Table 2 (Page 27) from dark green to orange, representing the lowest and highest overall vulnerability in the region.

FIGURE 12

PERCENTAGE OF VULNERABLE CHILDREN IN CANADA BY SOCIO-ECONOMIC STATUS (SES) (ADAPTED FROM: JANUS & DUKU, 2007)



Best Start

"Helping Children and Families Grow in Renfrew County"

In 2001, the Renfrew County Best Start Network formed as a part of a provincial initiative working with children 0-6 years of age to ensure Ontario's children are arriving to school healthy and ready to learn.

Their aim is to create a system of services that seamlessly support families and children from birth through their transition into grade one - right in their own communities.

EDI DOMAINS AND SUB-DOMAINS

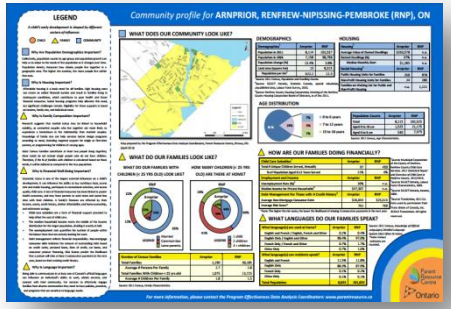
Even in less vulnerable communities, particular EDI domains and sub-domains appear to present regular challenges. It is therefore important that community-specific difficulties experienced by R-N-P children are identified, understood and, if possible, addressed at a local level.

In order to identify and address specific community difficulties, it is necessary to examine the individual conditions and forces that exist within each community. For these reasons, EDI results are often contextualized with other child and youth indicators, such as the social determinants of health. Together, the social determinants define the conditions in which people are born, grow, live, work and age.[26]

CHECK OUT *YOUR* COMMUNITY PROFILES!

Community profiles featuring socio-demographic, health, and EDI results for Cycles 1 to 4 are available on the Parent Resource Centre's website for all twelve Best Start communities in R-N-P.

To preserve student anonymity, the EDI results for communities with less than 40 SK students were suppressed.



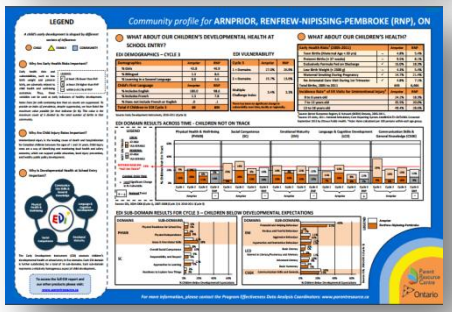
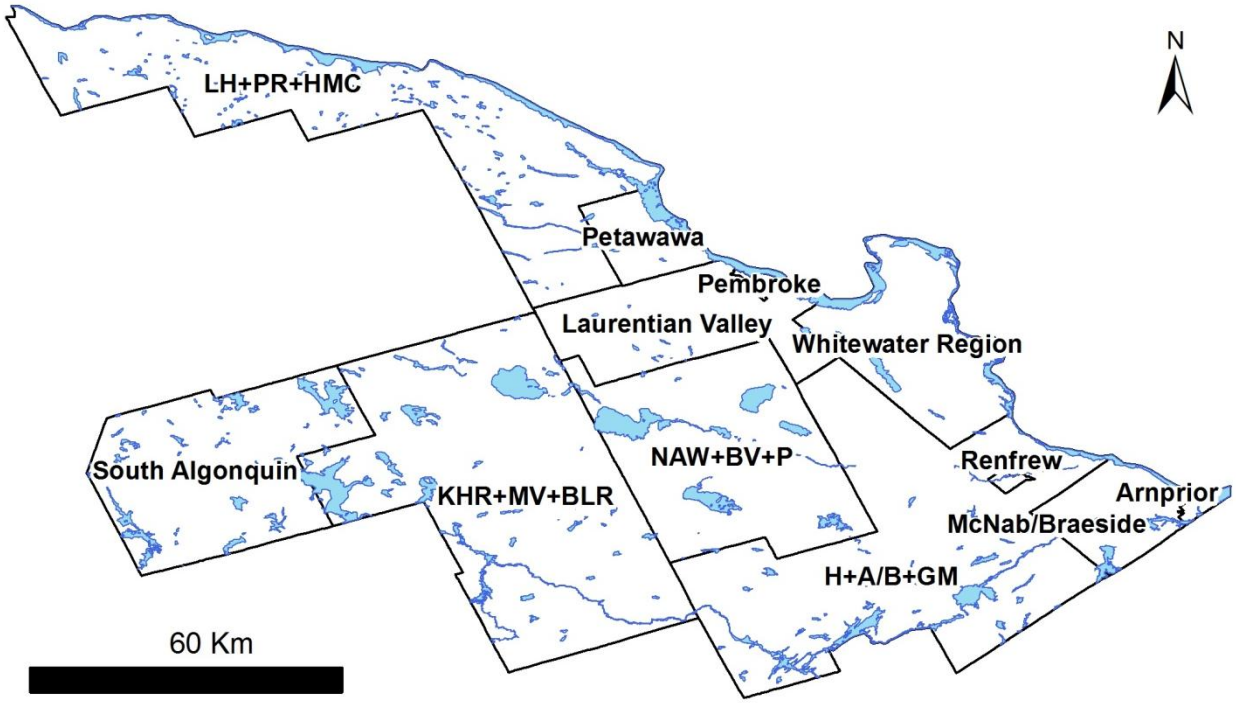


FIGURE 13
R-N-P BEST START COMMUNITY BOUNDARIES



R-N-P BEST START COMMUNITIES

	Acronym	Full Name
1.	Arnprior	Arnprior
2.	H + A/B + GM	Horton + Admaston/Bromley + Greater Madawaska
3.	K/H/R + MV + BLR	Killaloe/Hagarty/Richards + Madawaska Valley + Brudenell/Lyndoch/Raglan
4.	Laurentian Valley	Laurentian Valley
5.	LH + DR + HCM	Laurentian Hills + Deep River + Head/Clara/Maria
6.	Mcnab/Braeside	McNab/Braeside
7.	NAW + BV + P	North Algona Wilberforce + Bonnechere Valley + Pikwàkanagàn
8.	Pembroke	Pembroke
9.	Petawawa	Petawawa
10.	Renfrew	Renfrew
11.	Whitewater Region	Whitewater Region
12.	South Algonquin	South Algonquin

TABLE 2

PERCENTAGE OF CHILDREN IN R-N-P VULNERABLE IN 1+ DOMAINS IN CYCLES 1 TO 4.

VULNERABLE IN 1+ DOMAINS

COHORT		C1	C2	C3	C4	Change Over Time
Ontario Baseline			28.0*			
R-N-P		25.5	26.1	26.9	28.8	*n.s.*
1	Arnprior	25.8	30.1	26.7	27.1	*n.s.*
2	H + A/B + GM	n/a	n/a	n/a	n/a	
3	KHR_MV_BLR	29.5	28.8	36.0	31.5	*n.s.*
4	Laurentian Valley	18.6	17.3	20.2	22.4	*n.s.*
5	LH_DR_HMC	19.2	27.9	33.9	29.0	*n.s.*
6	McNab/Braeside	n/a	n/a	n/a	n/a	
7	NAW+BV+P	27.9	33.3	18.2	30.2	*n.s.*
8	Pembroke	31.6	27.6	30.0	33.1	*n.s.*
9	Petawawa	28.9	25.7	30.4	26.3	*n.s.*
10	Renfrew	20.7	16.5	26.5	38.5	*Sig.*↑
11	South Algonquin	n/a	n/a	n/a	n/a	
12	Whitewater Region	25.0	43.9	22.0	28.4	Sig. --

Legend

Low Vulnerability

High Vulnerability

Community results for Cycles 1 to 4 were ranked into three groups. Communities in dark green had the lowest percentage of vulnerable students and communities in orange had the highest percentage of vulnerable students in a particular domain and cycle.

* The provincial baseline data from 2004-06 is used to determine the cut-offs for child vulnerability in each domain in R-N-P.
n/a = data not available; to preserve student anonymity, the results of communities with less than 40 SK students are not reported.
Sig. = significant effect of cycle ($p < 0.05$). Direction of change indicated by arrow (increasing vulnerability = ↑, decreasing vulnerability = ↓).
n.s. = effect of cycle not significant ($p > 0.05$)

TABLE 3

PERCENTAGE OF VULNERABLE CHILDREN IN R-N-P IN EACH DOMAIN IN CYCLES 1 TO 4.

		PHYSICAL HEALTH AND WELL-BEING					EMOTIONAL MATURITY					SOCIAL COMPETENCE					LANGUAGE AND COGNITIVE DEVELOPMENT					COMMUNICATION SKILLS AND GENERAL KNOWLEDGE				
COHORT		C1	C2	C3	C4	Change Over Time	C1	C2	C3	C4	Change Over Time	C1	C2	C3	C4	Change Over Time	C1	C2	C3	C4	Change Over Time	C1	C2	C3	C4	Change Over Time
Ontario Baseline (2004-06)		10*					10*					10*					10*					10*				
R-N-P		11.5	12.9	14.1	15.7	n.s.	11.8	12.8	12.6	13.9	n.s.	8.8	9.4	10.5	10.0	n.s.	7.1	9.4	6.6	6.2	Sig. --	9.3	9.2	9.5	7.9	n.s.
1	Arnprior	13.6	16.9	11.1	10.4	n.s.	12.4	16.9	13.3	14.6	n.s.	5.6	20.5	13.3	13.5	Sig. --	4.5	14.5	5.6	10.4	n.s.	5.6	8.4	10.0	9.4	n.s.
2	H + A/B + GM	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	
3	KHR_MV_BLR	10.2	20.0	26.0	24.1	n.s.	3.4	15.0	18.0	14.8	n.s.	12.5	7.5	18.0	7.4	n.s.	0.0	15.0	8.0	0.0	Sig. --	10.2	15.0	22.0	5.6	n.s.
4	Laurentian Valley	5.9	8.2	8.7	11.2	n.s.	9.4	2.7	4.8	9.3	Sig. ↑	9.3	3.6	5.8	11.2	n.s.	5.9	8.2	10.6	6.6	n.s.	8.1	6.4	8.7	10.3	n.s.
5	LH_DR_HMC	11.5	13.1	22.6	16.2	n.s.	9.6	16.7	16.1	7.2	n.s.	0.0	8.2	9.7	13.0	n.s.	5.8	11.5	6.5	4.3	n.s.	7.7	11.7	11.3	8.7	n.s.
6	McNab/Braeside	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	
7	NAW+BV+P	15.1	11.9	10.4	25.6	n.s.	14.0	14.3	9.2	16.3	n.s.	9.3	10.7	6.5	9.3	n.s.	11.6	11.9	3.9	2.3	n.s.	9.3	10.7	3.9	9.3	n.s.
8	Pembroke	13.2	14.7	13.0	18.2	n.s.	17.5	11.2	15.0	18.3	n.s.	14.9	6.9	15.0	11.6	n.s.	9.6	6.0	7.0	8.3	n.s.	14.0	9.5	7.0	7.4	n.s.
9	Petawawa	15.8	10.2	14.1	17.4	n.s.	15.8	16.2	13.0	12.9	n.s.	9.0	8.0	10.3	6.3	n.s.	10.1	7.5	8.7	5.9	n.s.	10.8	7.0	11.4	4.5	Sig. --
10	Renfrew	9.0	8.7	15.0	17.1	n.s.	10.8	8.7	13.3	19.7	n.s.	8.1	5.8	7.1	17.1	Sig. ↑	5.4	4.9	4.4	6.0	n.s.	6.3	6.8	7.1	13.7	n.s.
11	South Algonquin	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	
12	Whitewater Region	6.3	22.7	13.6	9.5	Sig. --	6.3	21.2	10.2	10.8	n.s.	9.4	24.2	8.5	2.7	Sig. ↓	9.5	13.6	3.4	9.6	n.s.	12.5	18.2	10.2	6.8	n.s.

* The provincial baseline data from 2004-06 is used to determine the cut-offs for child vulnerability in each domain in R-N-P. By definition, 10% of students in Ontario are rated as vulnerable in each domain.

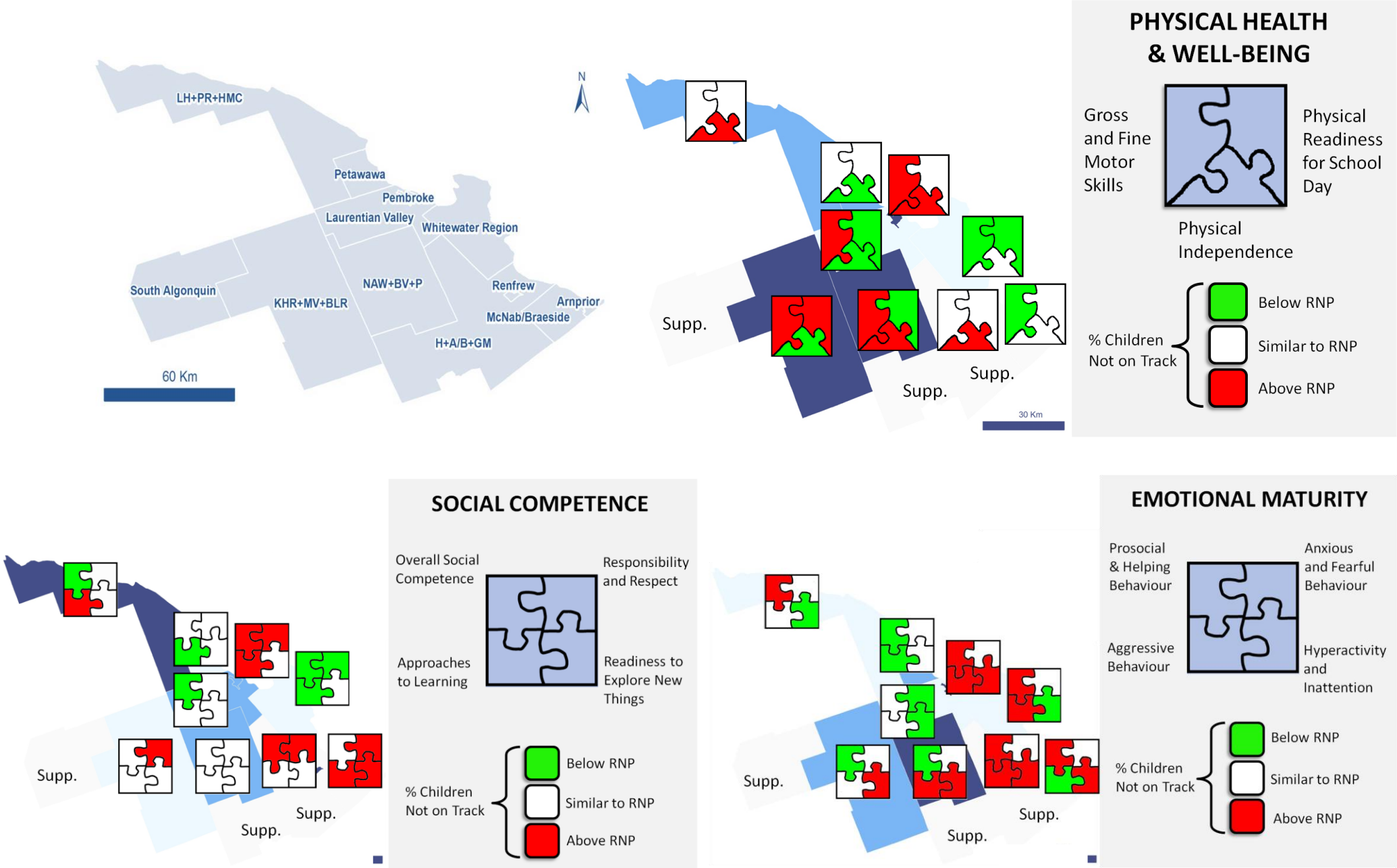
n/a = data not available; to preserve student anonymity, the results of communities with less than 40 SK students are not reported.

Sig. = significant effect of cycle ($p < 0.05$). Direction of change indicated by arrow (increasing vulnerability = ↑, decreasing vulnerability = ↓).

n.s. = effect of cycle not significant ($p > 0.05$)

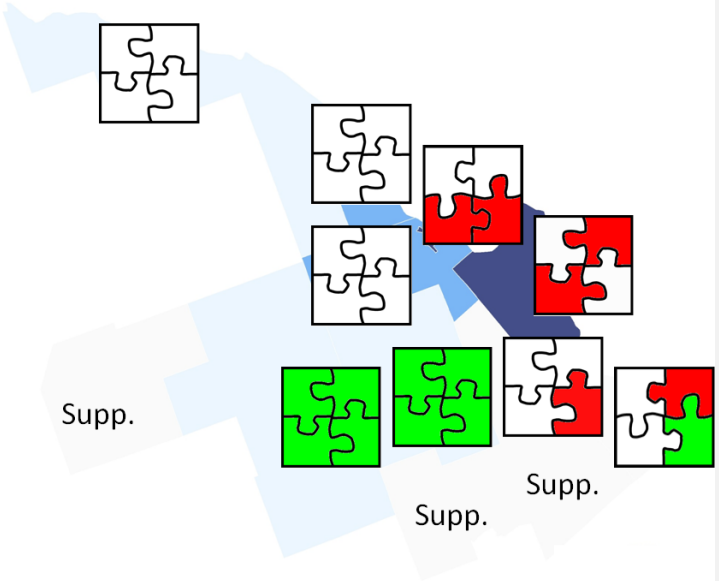
FIGURE 14

PERCENTAGE OF CHILDREN NOT ON TRACK IN EACH SUB-DOMAIN IN CYCLE 4 IN R-N-P.

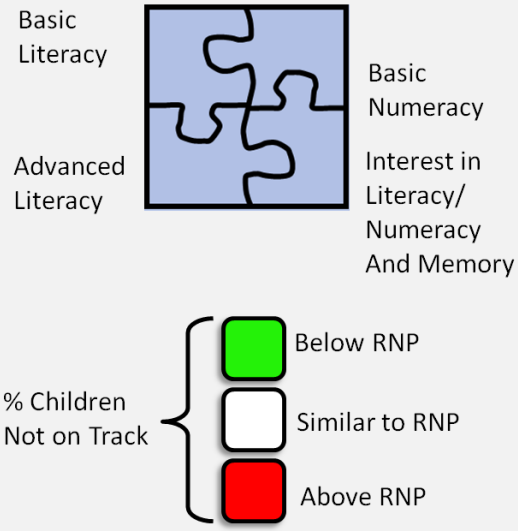


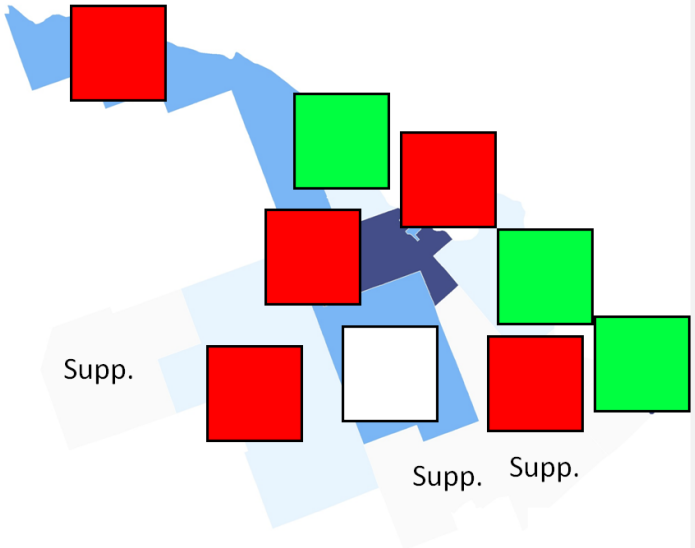
RESULTS AND DISCUSSION

EMERGING TRENDS - COMMUNITIES

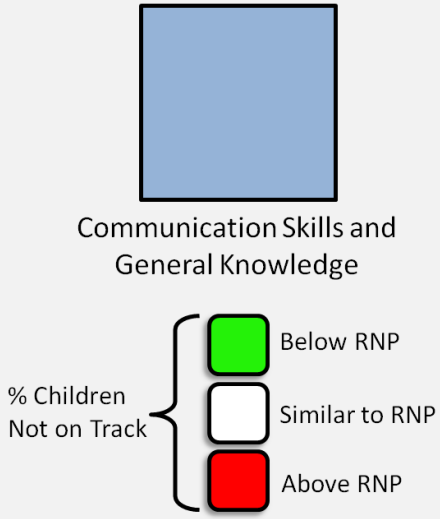


LANGUAGE & COGNITIVE DEVELOPMENT





COMMUNICATION SKILLS & GENERAL KNOWLEDGE



WORKING TOGETHER AS A COMMUNITY

The EDI offers us a glimpse into the developmental health and early experiences of children in our community; the challenge becomes translating this knowledge into action. This responsibility lies with all of us: parents, child care providers, early years researchers, educators, service agencies, policy makers, and members of the community alike. By both recognizing and attempting to address children's developmental health needs early and as a community, we can help to ensure the best possible outcomes for our children.

By subsequently adding other local socio-economic, health, and program/service information to EDI data, it becomes possible to paint a more comprehensive picture of children's lives in our communities. This can facilitate the identification of challenges and the planning of personalized and targeted programs to be delivered locally. It is hoped that this report provides agencies and initiatives, at both the regional and neighbourhood level, with data that will help to inform policy and programming, and foster engagement.

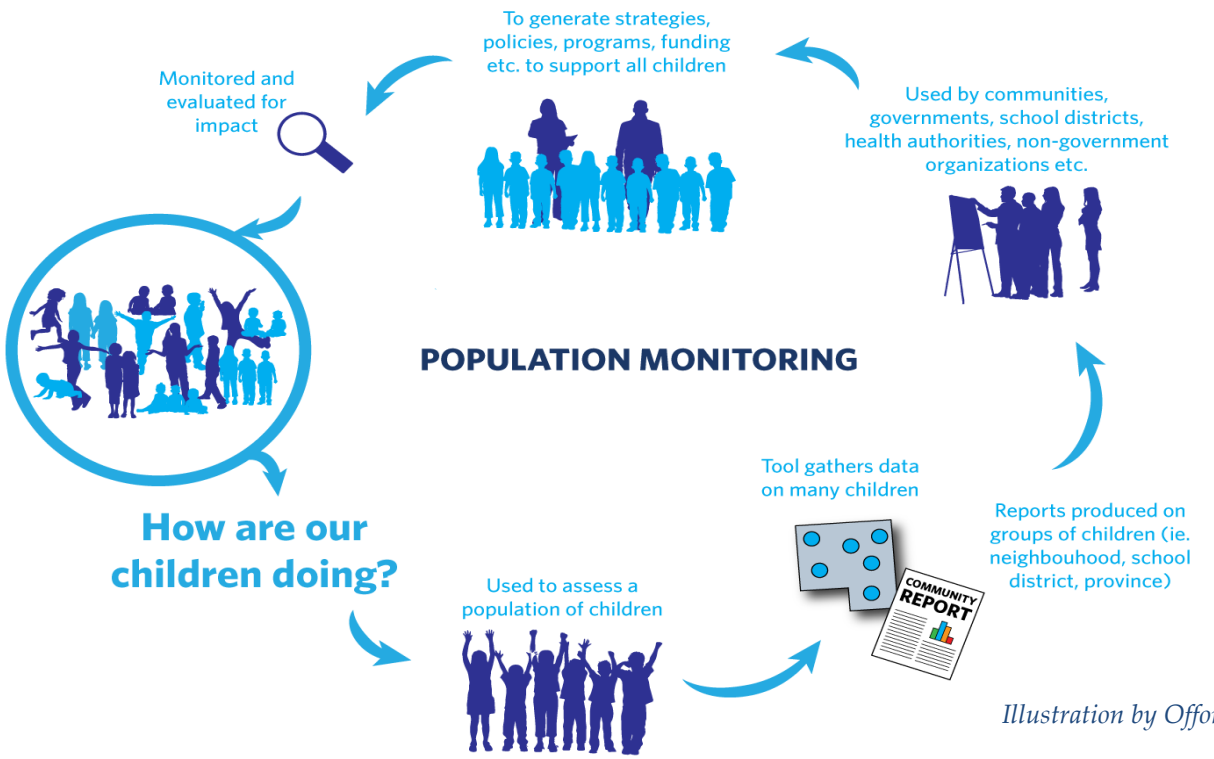


Illustration by Offord Centre for Child Studies, 2015.

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