



EARLY DEVELOPMENT INSTRUMENT

Halton Community Profile

2003, 2006, 2009 and 2012 Results



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About this report

In 2011, Our Kids Network (OKN) released *A Vision for Children in Halton Report Card* to show how the well-being of children and health of communities are promoted, supported, and protected in each neighbourhood. The Report Card included a remarkable collection of community indicators by which the progress of Halton children is measured. The indicators are organized by seven key results, known as the **Halton 7**, which represent ideal living conditions for children, youth and families in Halton.

This report focuses on one of the Halton 7 results, **Children are Learning** - of which one of the indicators is the rate of developmental vulnerability in five-year old children. The data for this indicator is gathered through the Early Development Instrument (EDI), a population-based tool used to assess children's development in five key domains (see page 3). Examining results by these domains helps identify developmental strengths and needs

within a population of children. It can also assist in determining if and where additional resources or assistance may be required. Sharing these results will help schools, communities and governments to develop policies to support healthy child development in all families. This report provides 2012 EDI data that are not found in the 2011 Vision for Children in Halton Report Card.



Key Findings of the 2012 EDI Data

<p>KEY FINDING 1 Halton children continue to do well on the EDI measure and are doing better than the Ontario average. Halton's rate of vulnerability is lower than the provincial rate by about 4%.</p>	<p>KEY FINDING 2 Halton's rate of developmental vulnerability is 24%, which represents 1,355 children.</p>
<p>KEY FINDING 3 Physical health and well-being is the area of child development with the highest vulnerability in Halton.</p>	<p>KEY FINDING 4 The language and cognitive development vulnerability rate has steadily decreased since 2003 from 9% to 5%, and continues to be the area with the fewest children scoring below the vulnerability cut-points in Halton.</p>
<p>KEY FINDING 5 While there has been little change in the percent of vulnerable children since 2003, there has been an increase in the number of vulnerable children. The number has increased from 1,000 in 2003 to 1,355 in 2012 which represents a 36% increase in the number of vulnerable children, which is expected given the population growth in children in Halton.</p>	<p>KEY FINDING 6 There are some differences in the rate of vulnerability between the four Halton municipalities. The highest rate is found in Halton Hills (30%) and the lowest rate is found in Burlington (20%). Vulnerability rates do differ across the 21 Halton neighbourhoods. The highest rate is found in South Central Oakville (47%) and the lowest rate is found in North West Burlington (14%).</p>
<p>KEY FINDING 7 The percent of children considered developmentally strong in Halton continues to grow (67%).</p>	<p>KEY FINDING 8 There has been an increase in the percentage of children with English as a second language.</p>

Description of children assessed with the EDI

Table 1 shows the characteristics of the children that were assessed with the EDI in 2003, 2006, 2009 and 2012. These characteristics include birth date, English as a Second Language (ESL), gender and attendance in kindergarten.

Look at the characteristics by year for any changes in the population of children from 2003 to 2012. If there are large differences in any of these characteristics, this could explain differences in the EDI scores between the years.

Table 1. Description of Children Assessed with the EDI

Description of Children	Halton							
	2003		2006		2009		2012	
	Num ¹	Pct ²	Num	Pct	Num	Pct	Num	Pct
Number of children with a valid EDI ³	4169		4430		5096		5726	
Percent of children born between July and December	2366	57%	2085	47%	2586	51%	2895	51%
Percent of children with English as a Second Language ⁴	138	3%	135	3%	201	4%	493	9%
Percent of girls	2095	49%	2151	49%	2547	49%	2848	50%
Percent of children attending Junior Kindergarten	2467	61%	3989	93%	4738	94%	5293	94%

1 Number

2 Percent

3 An EDI score is only included in the results if children have minimal missing data, the teacher was able to observe the children for at least six weeks and children with no identified special needs.

4 Children are considered ESL or are identified as having ESL status if English is not their first language and they are not fluent enough in English to easily follow the classroom educational activities.

Table 1: What to Look For and Why?

1. On average, girls score better on the EDI than boys. If the percent of girls changes substantially between EDI cycles, this could explain differences in EDI scores over time.
2. Children with ESL status are more likely to do poorly on sections of the EDI.
3. Children who are born in the last half of the year (July - December) are more likely to score lower on the EDI.
4. Children who attended JK are more likely to score better on the EDI than those who did not.
5. Look at both the number of and the percent of children. In the case of a small number of children, large differences in percents may occur between the years. Sometimes a 20% difference can translate into only one or two children. Use caution when interpreting large percent differences.
6. Lower EDI scores have been found in children showing signs of chronic absenteeism.

Understanding EDI results

Each of the five domains is scored from 0 to 10; higher scores indicate stronger developmental skills. The scores are then categorized using “cut-points” to determine how well children are doing. The cut-point is the EDI score that distinguishes the children who scored in the top or bottom of the distribution. To be consistent with the rest of the province, Ontario baseline cut-points are used.⁵ All Ontario communities are included in the calculation of the Ontario baseline cut-points. We use the same cut-points for all four cycles of data to allow for comparisons across time.



EDI domains

Physical Health and Well-Being

Children must be healthy, have access to adequate and appropriate nutrition and be ready to participate in school each day. A child needs to possess the necessary gross and fine motor abilities to competently complete common kindergarten and Grade One tasks, which include things such as controlling a pencil, turning pages without tearing pages, running on the playground, motor coordination, independence in looking after their own needs, and daily living skills.

Social Competence

Children need to meet general standards of acceptable behaviour in public places, control their behaviour, cooperate with others, show respect for adult authority, and communicate feelings and needs in a socially acceptable manner.

Emotional Maturity

Emotional maturity is characterized by a balance between a child’s curiosity about the world, an eagerness to try new experiences, and some ability to reflect before acting. A child who is fearful and reluctant to engage in new activities misses learning opportunities that are seized upon by a child with a positive approach to life.

Language and Cognitive Development

Language and cognitive development skills refer to vocabulary size and a child’s ability to name letters and attend to the component sounds within words. Cognitive skills involve the ways in which children perceive, organize, and analyze information in their environment.

Communication and General Knowledge

Children must be able to understand verbal communications with other adults and children, as well as verbally communicate experiences, ideas, wishes, and feelings in a way that can be understood by others.

⁵ Data from reports previous to 2006 may not be the same as reported in this profile because in previous reporting of EDI results, Halton-specific cut-points have been used.

Defining vulnerability

Most Vulnerable Cut-Point

Children whose EDI results fall below this cut-point are said to be vulnerable in that area of development. The Developmentally Vulnerable cut-point represents the children scoring in the bottom ten percent of all children. Children who score below this cut-point are more likely to be limited in their development on the identified EDI domain than children who score above the cut-point.

Low on 1 Domain or Low on 2 or More Domains: What Does this Mean?

In order to better understand EDI results, two key summary measures of vulnerability are calculated based on the five domains of development.

Vulnerable on 1 or More Domains

Children who score below the most vulnerable cut-point on 1 out of 5 domains are considered to be vulnerable on 1 or more domains.

Vulnerable on 2 or More Domains

Children who score below the most vulnerable cut-point on 2 or more domains are at an elevated risk for developmental difficulties. They may experience on-going social, emotional, behavioural and/or academic problems.

Low on 1 or Low on 2 Domains: What is the Difference?

Children who score low on 1 domain are vulnerable in that domain and may require additional support to catch up with their peers. Children who score low on 2 or more domains are experiencing serious developmental issues. Longitudinal research in British Columbia has shown that increasing numbers of vulnerabilities across the five EDI domains predicts an increasing probability of failure to achieve basic competencies by Grade Four.





Table 2 shows the percent of children by EDI domain that scored below the vulnerability cut-points and the number and percent of children that scored below the vulnerability cut-points on two or more of the EDI domains. More tables by municipality and neighbourhoods are shown on pages 7 and 8.

Table 2. Number and Percent of Children Falling Below the Most Vulnerable Cut-Points

EDI Domain	Halton							
	2003		2006		2009		2012	
	Num	Pct	Num	Pct	Num	Pct	Num	Pct
Physical Health and Well-Being	357	8%	558	13%	628	12%	736	13%
Social Competence	353	8%	350	8%	382	7%	464	8%
Emotional Maturity	400	9%	403	9%	452	9%	507	9%
Language and Cognitive Development	395	9%	304	7%	292	6%	280	5%
Communication and General Knowledge	331	8%	424	10%	440	9%	464	8%
Vulnerable on 1 or more domains	1000	24%	1122	26%	1220	24%	1355	24%
Vulnerable on 2 or more domains	469	11%	503	11%	547	11%	621	11%

Table 2: What to Look For and Why?

1. Look at the numbers and percents in the table. Higher numbers and percents are less favourable as they indicate there are more children who do not have the developmental skills they need as they begin school.
2. Look to see if the number and percent of vulnerable children has changed across the years. There may be little change in the percent but large changes in the number of vulnerable children. For example, Halton had 1,220 vulnerable on 1 or more domains in 2009; in 2012, 1,355 were identified as vulnerable. This represents an 11% increase in the number of vulnerable children. There was an approximate 12% increase in the number of children assessed with an EDI from 2009 to 2012, so the increase in the number of vulnerable children is accounted for by an increase in the population.
3. The percent of children in Ontario developmentally vulnerable on 1 or more domains is 28%, and vulnerable on 2 or more domains is 14%.

Table 3 shows the vulnerability rates across the four Halton municipalities. There are only small differences in vulnerability at a municipal level.

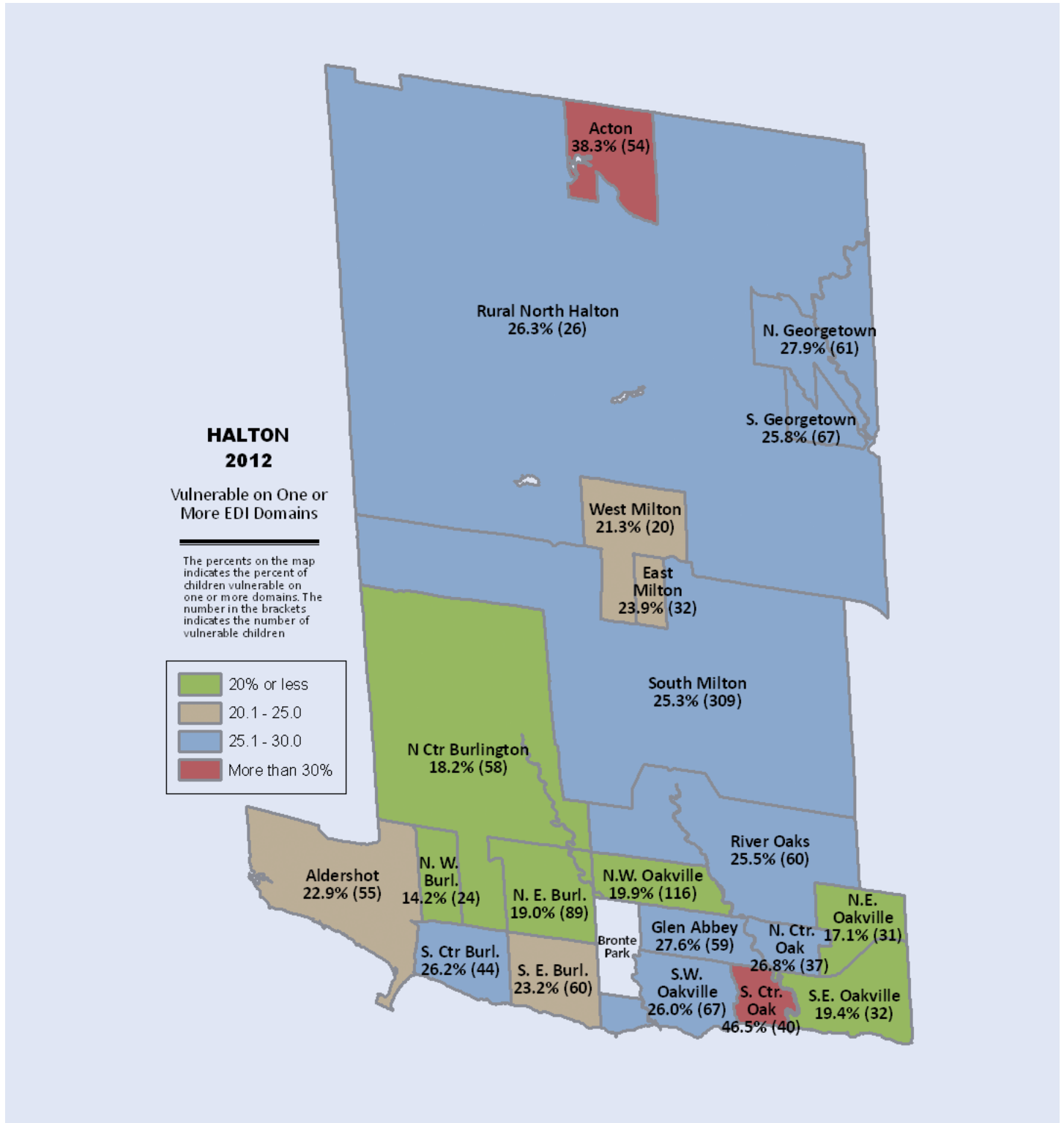
Table 3. Number and Percent of Children Falling Below the Developmentally Vulnerable Cut-Points by Municipality

EDI Domain	Burlington								Oakville							
	2003		2006		2009		2012		2003		2006		2009		2012	
	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct
Physical Health and Well-Being	130	9%	184	12%	191	12%	175	11%	119	7%	192	12%	194	11%	229	12%
Social Competence	158	11%	115	8%	122	7%	111	7%	92	6%	116	7%	124	7%	166	9%
Emotional Maturity	144	10%	141	10%	141	9%	114	7%	133	8%	141	9%	156	9%	180	10%
Language and Cognitive Development	167	11%	98	7%	102	6%	67	4%	110	7%	95	6%	86	5%	90	5%
Communication and General Knowledge	125	8%	146	10%	146	9%	123	8%	102	6%	152	10%	159	9%	150	8%
Vulnerable on 1 or more domains	398	27%	371	25%	395	24%	330	20%	320	20%	393	25%	400	23%	442	24%
Vulnerable on 2 or more domains	183	12%	171	12%	174	11%	152	9%	140	9%	179	11%	180	10%	212	11%

EDI Domain	Milton								Halton Hills							
	2003		2006		2009		2012		2003		2006		2009		2012	
	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct
Physical Health and Well-Being	34	10%	55	10%	134	14%	194	13%	67	9%	116	16%	104	14%	131	19%
Social Competence	25	7%	45	8%	78	8%	116	8%	70	10%	62	9%	53	7%	66	10%
Emotional Maturity	38	11%	45	8%	84	9%	125	8%	77	11%	65	9%	68	9%	78	12%
Language and Cognitive Development	44	12%	51	9%	67	7%	80	5%	67	9%	47	7%	31	4%	40	6%
Communication and General Knowledge	31	9%	46	8%	83	9%	125	8%	67	9%	66	9%	49	7%	63	9%
Vulnerable on 1 or more domains	90	26%	132	23%	244	26%	370	25%	172	24%	191	27%	169	24%	199	30%
Vulnerable on 2 or more domains	44	13%	60	11%	116	12%	160	11%	90	13%	77	11%	73	10%	91	14%

Map 1 shows the percent of Halton children vulnerable on one or more EDI domains in 2012. The lowest rate of vulnerability is found in the neighbourhood of North West Burlington (14%) and the highest rate is found in South Central Oakville (47%).

Map 1. Percent of Children Vulnerable on 1 or More EDI Domains: Halton 2012



Defining developmentally strong

Developmentally Strong Cut-Point

This cut-point is the EDI score that distinguishes the top 25 percent of children in Halton from the other 75 percent. Children who score above this cut-point are doing well in a specified area of development or identified EDI domain. Generally speaking, there is not a concern for later developmental difficulties for these children and they are referred to as developing

well in the identified EDI domain. Table 4 shows the percent of children by EDI domain that scored above the Developmentally Strong cut-point. In addition, the number and percent of children that scored above the Developmentally Strong cut-point on 2 or more of the EDI domains are shown.

Table 4. Number and Percent of Children Falling Above the Developmentally Strong Cut-Points

EDI Domain	Halton							
	2003		2006		2009		2012	
	Num	Pct	Num	Pct	Num	Pct	Num	Pct
Physical Health and Well-Being	2221	53%	1539	35%	1835	36%	2190	38%
Social Competence	758	18%	773	17%	928	18%	1144	20%
Emotional Maturity	1018	24%	989	22%	1210	24%	1454	25%
Language and Cognitive Development	680	16%	872	20%	1475	29%	1906	33%
Communication and General Knowledge	2063	49%	1606	36%	1784	35%	2319	41%
Developmentally Strong on 1 or more domains	2931	70%	2630	60%	3159	62%	3804	67%
Developmentally Strong on 2 or more domains	1930	46%	1587	36%	1991	39%	2499	44%

Table 4: What to Look For and Why?

1. Look at the numbers and percents in the table. Higher numbers and percents are favourable as this indicates that more children have good developmental skills as they begin school.
2. Examine these results in the same manner as examining the most vulnerable results.
3. Look at the change in the percent of children in the Developmentally Strong categories across the four time points.



Distribution of scores: EDI domains and percentiles

It is important to look at the distribution of EDI scores to understand how many children are at the low, middle or high end of the developmental continuum. The example below is a representation of the distribution of vulnerability in children across Ontario. We can use the provincial average as a reference to see how Halton is doing in comparison

to the province. Figures 1 - 5 show the distribution of scores in Halton and the four municipalities, by Most Vulnerable (lowest 10th percentile), At-Risk (11th to 25th percentile), Developing Well (26th to 74th percentile) and Developmentally Strong (top 25 percentile).



Figures 1 - 5: What to Look For and Why?

Observe the percent of children in each category. Ideally, a community is expected to have 10% of children scoring in the lowest 10th percentile, 15% scoring in the 11th – 25th percentile, 50% scoring in the 26th – 74th percentile and 25% of children scoring at the 75th percentile and above.

The distribution of scores for your municipality is unlikely to fall as expected. When examining the distribution, look for over and under-representations of scores along the continuum. For example, the number in the **red** area represents the percent of children in the most vulnerable category. If this value is greater than 10 percent, then there is more

‘vulnerability’ than expected. The number in the **yellow** area represents the percent of children at-risk. If this value is less or greater than 15 percent, then there are fewer or more children ‘at-risk’ than expected. The number in the **green** area represents the percent of children who are developing well. If this value is less or greater than 50 percent, then there are fewer or more children who are ‘developing well’ than expected. The number in the **blue** area represents the percent of children who are developmentally strong. If this value is less or greater than 25 percent, then there are fewer or more children who are ‘developmentally strong’ than expected.

Figure 1. Halton Region - Percent of Children by Percentile Ranges and by EDI Domains (2012)

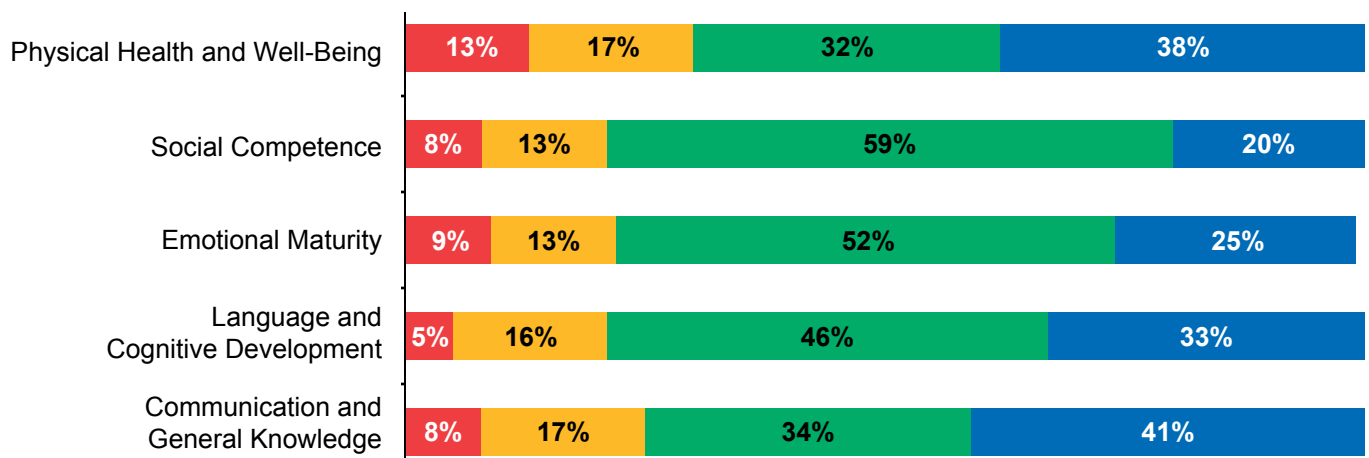


Figure 2. Burlington - Percent of Children by Percentile Ranges and by EDI Domains (2012)

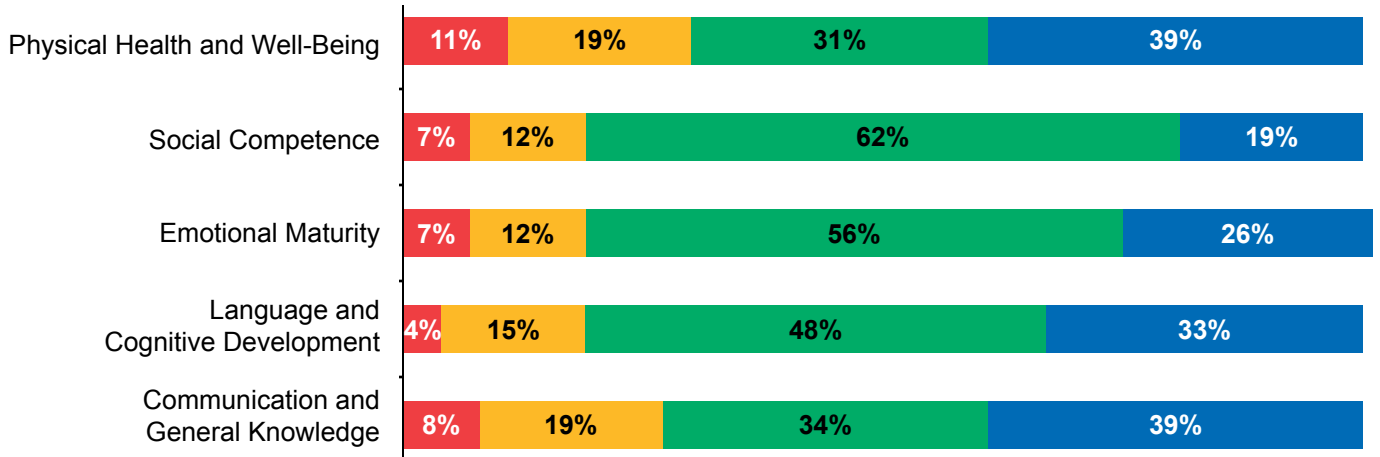


Figure 3. Oakville - Percent of Children by Percentile Ranges and by EDI Domains (2012)

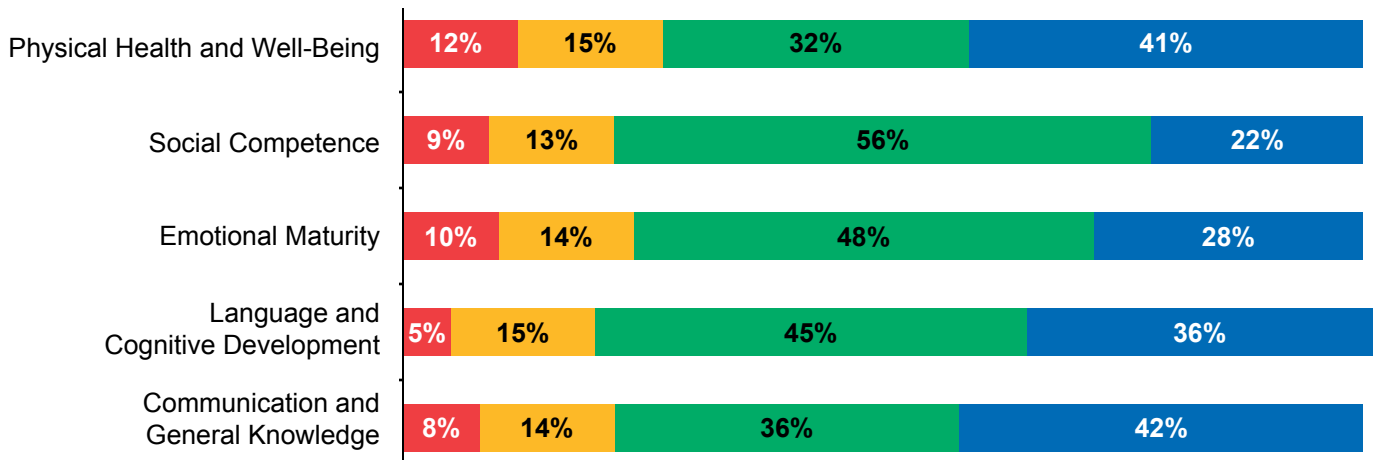




Figure 4. Milton - Percent of Children by Percentile Ranges and by EDI Domains (2012)

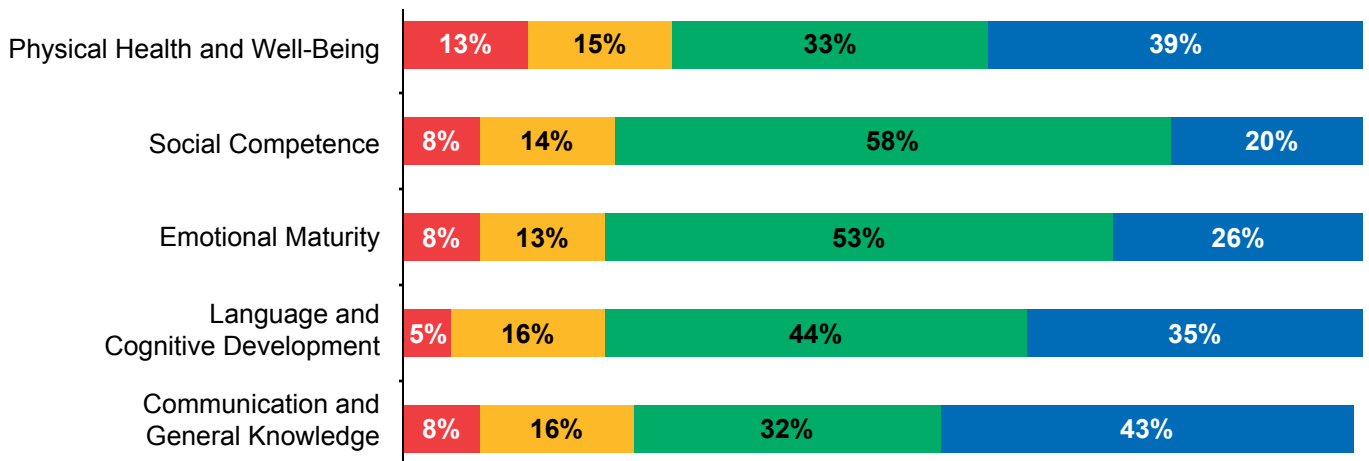


Figure 5. Halton Hills - Percent of Children by Percentile Ranges and by EDI Domains (2012)

