

2018

Child Health Report



Haliburton, Kawartha, Pine
Ridge District Health Unit

Published October 2018

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Executive Summary



Healthy child development is the foundation for a prosperous and sustainable future society.¹ When children get a healthy start in life, they develop a wide range of abilities that are necessary to become contributing members of a successful society.^{2,3}

Children's social, physical, and economic environments, as well as the environments of their parents, can greatly impact their health. This includes demographics, care giver capacity and health behaviours, community capacity, supportive and safe environment, nutrition, health care utilization, health status, risk behaviours among children and youth, and the social determinants of health (SDOH), such as income, which affect children's growth and development. These factors were evaluated in the current report using various indicators, to assess the health and well-being of children living within the boundaries of the Haliburton, Kawartha, Pine Ridge (HKPR) District Health Unit.

The highlighted information below summarizes key findings that can influence the growth and development of children. The data from this report can be used to plan, develop, implement and advocate for policies, programs and services that will positively impact the health of our children, youth, families, and the community.

Highlights

Demographics

- The total population in the HKPR District Health Unit area increased by 7,415 from the 2006 to the 2016 census, although the number of children and youth 19 years and under has decreased by 6,530;
- 28.2% of census families with children were lone-parent families, the majority of which (76%) were female-led.

Caregiver Capacity and Health Behaviours

- 16.4% of children and youth, ages 0-17, are living in low-income households (LIM-AT), which is higher than any other age-group;
- Only half (50.3%) of parents reported their general health as excellent or very good, which is lower than the provincial proportion; 31.5% of parents within the HKPR District Health Unit area reported “quite a bit” of life stress, which was significantly higher than Ontario (23.5%);
- Approximately seven out of ten parents (71.2%) self-reported their mental health as excellent or very good, which was similar to that reported provincially (72.8%);
- 24.2% of parents were current smokers, significantly higher than for Ontario.

Community Capacity

- Of children 1-2.5 years of age, 41% were cared for by their parents and 59% were cared for by licensed or unlicensed child care centres or homes;
- There are limited childcare spaces available for children 12-18 months of age within the HKPR area;
- Only 45% of eligible children received their 18-months well baby visit during the fiscal years 2012-2013 and 2016-2017;
- 37% of senior kindergarteners were considered vulnerable, regarding developmental outcomes and milestones;
- Across the three counties in the HKPR area, the per cent of vulnerable children was highest for Haliburton (43.5%), followed by Northumberland (36.8%), and Kawartha Lakes (30.9%).

Safe and Supportive Environments

- In the HKPR and nearby areas, there were 1,073 investigations conducted by Children’s Aid Societies (CAS) regarding concerns around caregiver capacity in 2013-2014;
- The second most common category of maltreatment investigated by CAS organizations was physical or sexual harm with 938 investigations;
- 5.6% of grade 7-12 students disagreed that they felt safe at school;
- 27% of grade 7-12 students reported being bullied since the school year began (2016-2017).

Nutrition

- Less than a third (37%) of new mothers exclusively breastfed their infants for at least 5 months, in 2016;
- 18.0% of toddlers drank juice or flavoured drinks more than 2 times a day (2016), and 14.2% of grade 7-12 students drank at least one sugar-sweetened beverage a day;

- 68.0% of toddlers consumed fruits and vegetables 3 or more times a day (2016), and 46.8% of 12-19-year-old youth consumed fruits and vegetables more than 5 times a day;
- 3.9% of grades 7-12 students reported being “always” or “often” hungry at school or at bed time;
- 10.0% of parents of toddlers and preschoolers report eating fast food or at restaurants two to three times a week.

Health-care Utilization

- Among children 0-18 years of age, 0-6-year-olds had the highest number of emergency department visits and hospitalizations;
- The leading cause of emergency department visits, excluding injuries, for all child age-groups was upper respiratory infections;
- Mental Health was the second most frequent cause of emergency department visit among 12-18-year age-group
- The leading cause of injury-related visits was falls;
- Two-in-three (65%) grade 7-12 students reported that they did not wear a helmet “all the time” while riding a bicycle in the past year;
- One-in-five (20.7%) grade 7-12 students reported that they did not always use a seatbelt while in a vehicle.

Health Status and Disease Conditions

- Two-in-three (66%) grade 7 to 12 students in the HKPR District reported their self-rated health as “excellent” or “very good”;
- One-in-two students (49%) reported that their mental health status as “excellent” or “very good”;
- About one in ten (9%) grade 7 to 12 students in the HKPR District indicated a serious consideration of suicide in the previous 12-months
- 58.8% of grade 7-12 students had a healthy weight for their age and sex; 12.5% of babies were large for their gestational age, and 8.1% were small
- Only 84% of children 12-18 years of age had dental insurance coverage;
- One-in-three children 0-6 years of age who were screened showed signs of tooth decay—50% of whom had untreated tooth decay;
- 47% of elementary school-aged children had tooth decay
- The age-specific incidence rate for pertussis was highest among children 0-to-6 years of age; Human papilloma virus (HPV), meningococcal C (MCV) and hepatitis B (Hep B) immunization coverage rates in the HKPR District area are lower than their corresponding provincial average;
- The highest incidence of influenza and enteric diseases among children was the 0-6 age-group;
- Chlamydia was the most prevalent sexually-transmitted infection among 15-19-year-olds (2005-2016), the age-group with the second highest rate of Chlamydia among all age-groups

Risk Behaviours among Children and Youth

- Alcohol is by far the most common substance used by youth, about one-in-two grade 7–12 students reporting drinking alcohol in the previous 12-months;
- Cannabis is the second most common substance used by youth, about one-in-five grade 7–12 students reporting smoking cannabis at least once in the previous 12-months;

- Tobacco ranked as the third most used substance, approximately one in ten grade 7-12 students self-reporting they had smoked a whole cigarette in the past 12-months;
- The majority (74%) of grade 7-12 students did not meet the 60-minute requirement for daily physical activity, and more than 50% spent 2-hours or more of their leisure time on screen-time use each day

Introduction



Healthy child development is the foundation for a prosperous and sustainable future society.¹ When children get a healthy start in life, they develop a wide range of abilities that are necessary to become contributing members of a successful society.^{2,3}

Children's health is affected by their social, physical, and economic environments. The social determinants of health (SDOH), which include income, education and literacy, employment and working conditions, the physical environment, social support and connectedness, culture, and access to health care, have a tremendous impact on children's growth and development.

SDOH inequities can lead to unfair differences in health and well-being. If not addressed, inequities can lead to poor child health which has a significant impact on both the individual and society. For example, poor health in childhood can lead to higher rates of chronic disease later in life, such as diabetes, hypertension, cardiovascular disease and various forms of cancer, as well as depression, anxiety disorders, addictions, and other mental health impairments. The higher burden of chronic disease can result in disability, subsequent demand on the health care system, and reduced workforce productivity.¹

For children and youth to reach their optimal physical, social, emotional and cognitive development they need to be nurtured in healthy, supportive families and communities. This requires individuals, families, communities and the various levels of government to create safe and caring environments for our children, and to implement strategies to optimize children's growth and development.

This report examines the health and well-being of children living in the Haliburton, Kawartha, Pine Ridge (HKPR) District Health Unit area. By analyzing a variety of indicators, including the SDOH that relate to children's health and well-being, we were able paint a picture of the health inequities impacting the growth and development of children.

The information in this report can be used to plan, develop, implement and advocate for policies, programs and services that will positively impact the health of our children, youth, families, and the community. Through monitoring health and addressing the needs of children living in the HKPR area, we can have a lasting impact on the health of our communities' children.

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Demographics



Who are the children and youth in the HKPR District Health Unit Area?

Age and Sex

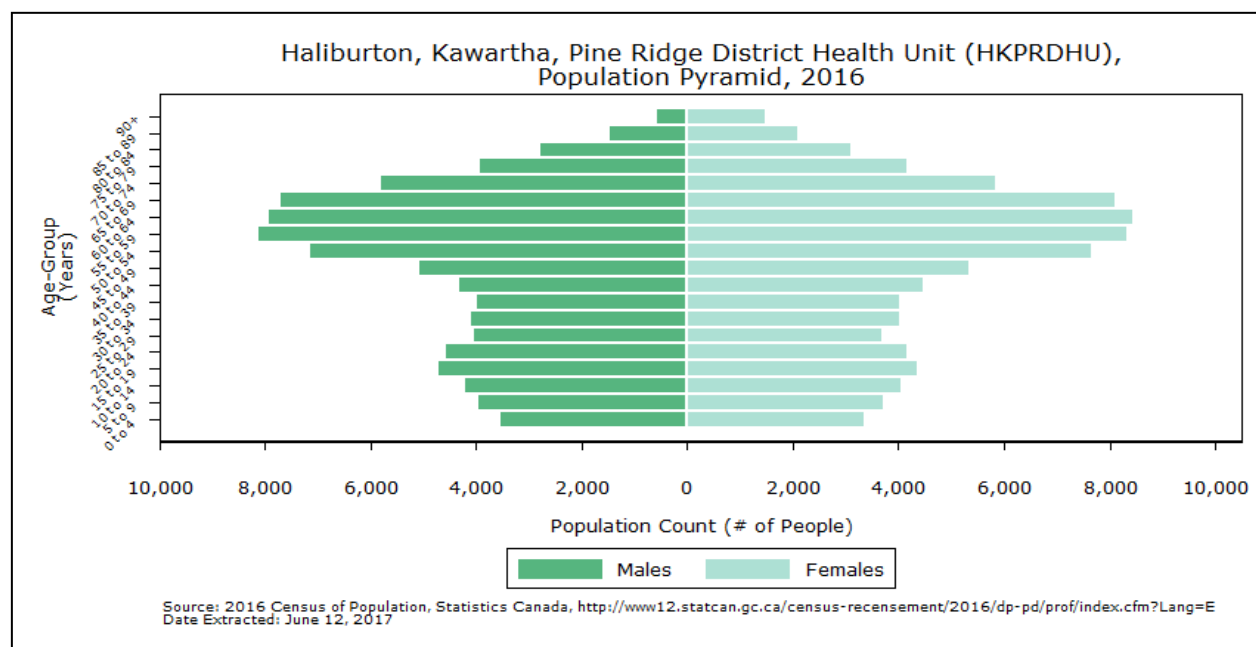
The overview of the population ages 0-19 incorporates population count, population growth and family characteristics. In 2016, there were approximately 32,095 children and youth aged 0-19 living in the HKPR District Health Unit jurisdiction. While the total population in our area has increased by 7,415 from the 2006 census to the 2016 census, the number of children 19 years and under has decreased by 6,530. Of all the children and youth in the region, 21.6% were under five years of age. Fifty percent (50%) were school-age children 5-14 years of age. Twenty-eight percent (28%) were youth, 15-19 years of age. The Proportion of children ages 0-19 decreased from 22.5% in 2006 to 17.9% of the Health Unit area population in 2016. This fall in the proportion of the 0-19 years age group can be attributed to a rapidly growing senior population in the area.

Table 2.1 Population by age group and sex, HKPR District Health Unit, 2016

Age group	Number	Percentage	Male (Number)	Female (Number)
0 - 4 years	6940	21.6	3565	3405
5 - 9 years	7730	24.1	3985	3735
10 - 14 years	8300	25.8	4225	4370
15 - 19 years	9125	28.4	4750	4170
0 - 19 years	32,095	100	16,525	15,680

Source: 2016 Census of Population, Statistics Canada, Date Extracted August 2017

Figure 2.1 Population pyramid by age and sex in 5 year intervals, HKPR District Health Unit, 2016



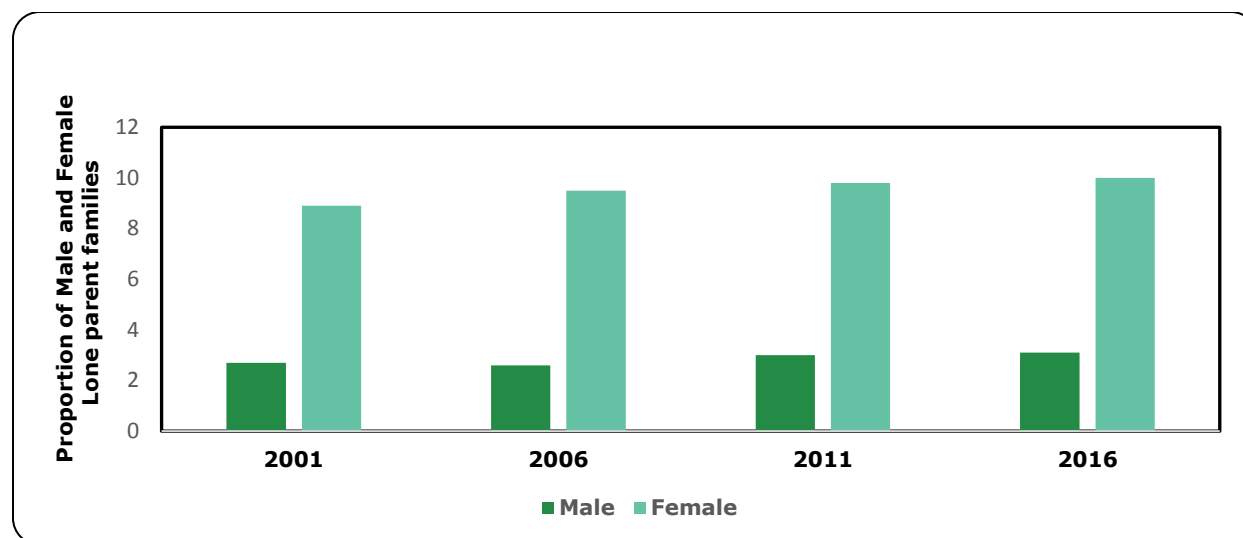
Lone-Parent Families

In 2016, the majority of census families with children living in the HKPR District Health Unit area were two-parent families. Lone-parent families accounted for approximately 28.2% of census families with children and 13.1% of all census families¹. Lone-parents often struggle in our society to provide the optimum resources for healthy child development.¹ In Canada, the majority of lone parents live in poverty, and are often unable to access the resources in the community that their children need.²

Of the 7,265 lone-parent families, 76% were female-led. Female lone-parents are more likely to live in poverty than male lone-parents. Research shows that the majority of part-time workers are women and many of them work in precarious employment which often pays low wages.³ The cost of childcare and limited availability of licensed childcare spaces also impacts their employment opportunities. Lone-parent-female-led families may also have more limited career choices and their ability to earn extra income such as working overtime can be limited as they try to balance employment, child-rearing and other household responsibilities.³ For example in 2006, female lone-parents had a median income of approximately 12,000 dollars less than male lone-parents.⁴

Since 2001, there has been a higher percentage (of all census families) of female lone-parent families than male lone-parent families reported for all census years. The percentage of lone-parent families with children (both male and female lone-parent families) slightly increased over time. Female lone-parent families with children increased from 8.9% in 2001 to 10% in 2016 and male lone-parent-families with children increased from 2.7% to 3.1%.

Figure 2.2 Proportion of male and female-lone-parent families of all census families, HKPR District Health Unit, 2001-2016



Source: 2001, 2006, 2011, 2016 Census of Population, Statistics Canada, Date Extracted August 2017

Table 2.2 Proportion of male and female lone-parent families of all census families, HKPR District Health Unit, 2001-2011

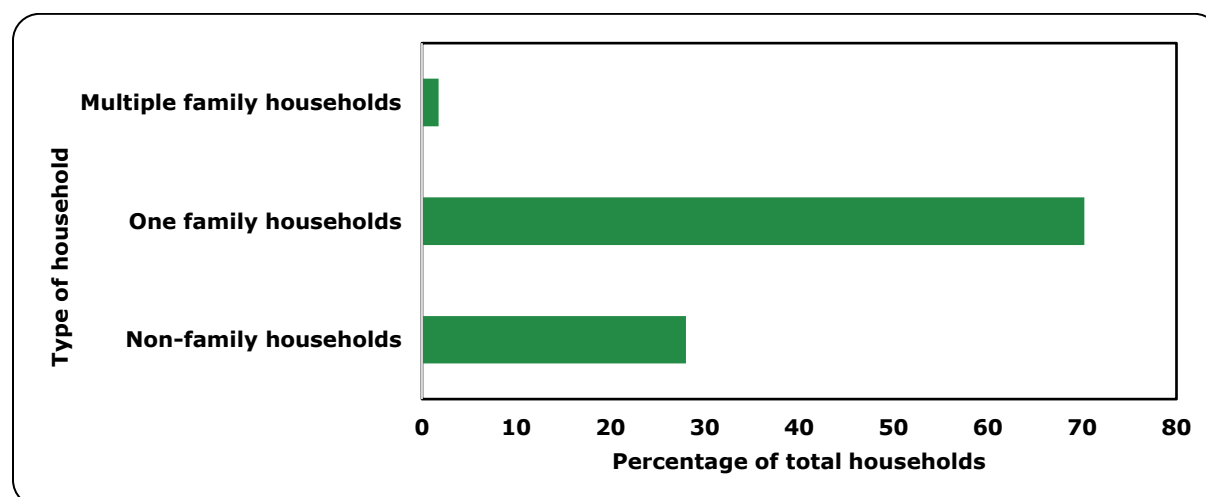
Census year	Percentage female lone-parent (of all census families)	Percentage male lone-parent (of all census families)
2016	10.0	3.1
2011	9.8	3.0
2006	9.5	2.6
2001	8.9	2.7

Source: 2016 Census of Population, Statistics Canada, Date Extracted August 2017

Household Characteristics

Household characteristics such as the number of people living in a household, and the relationships among those who reside in the same dwelling may impact childcare roles. For instance, grandparents or other relatives living in the same household may act as additional caregivers for children. Among the three defined census household types, the majority (70%) of households in the HKPR District Health Unit area were one-census-family householdsⁱⁱ. Only 1.8% of households were multiple family householdsⁱⁱⁱ (Figure 2.3). Approximately 34% of the total private households were census families with children.

Figure 2.3 Type of private households, HKPR District Health Unit, 2016



Source: 2016 Census of Population, Statistics Canada, Date Extracted August 2017

Table 2.3 Type of private households, HKPR District Health Unit, 2016

Type of private household	Number of households	Percentage (of total private households)
One-census-family households	52,825	70.2
Multiple-census-family households	1,335	1.8
Non-census-family households	21,070	28.0

Source: 2016 Census of Population, Statistics Canada, Date Extracted August 2017

Definitions

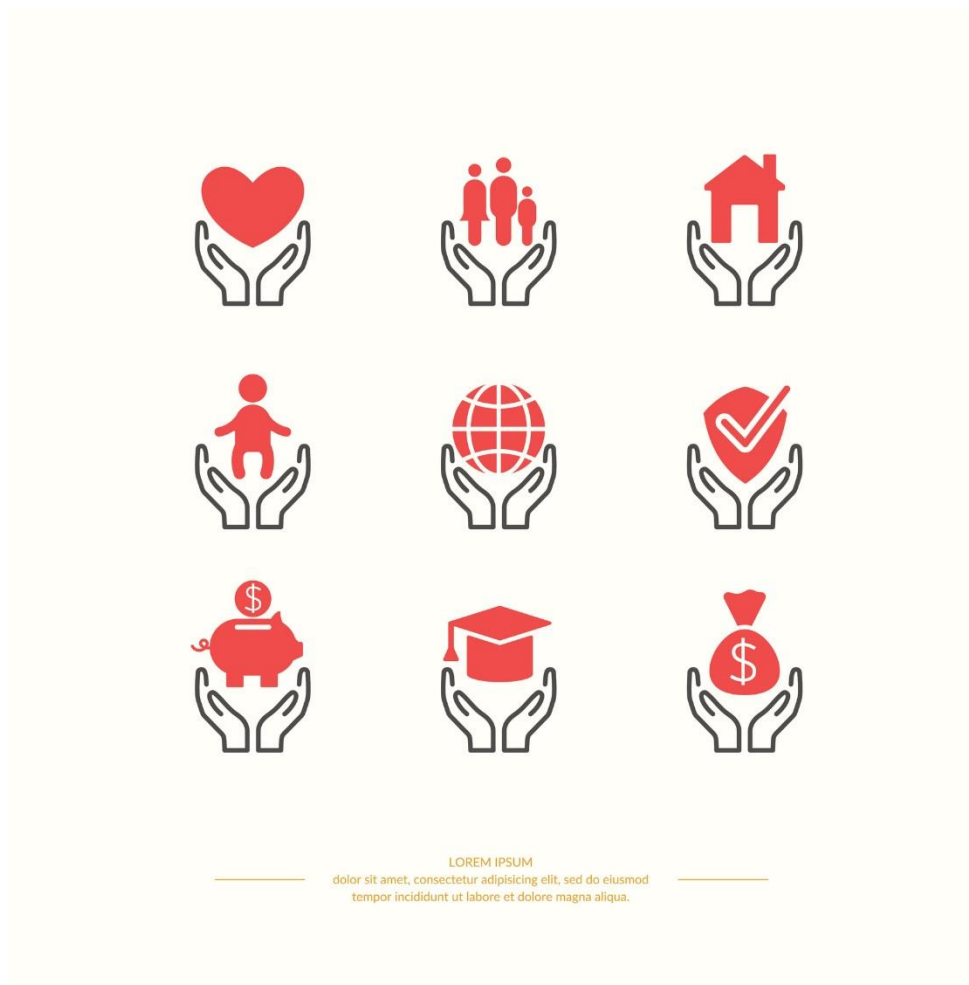
- i. A census family is a couple living together, with or without children, or lone-parents living with their children (not including foster children).
- ii. A one-census-family household consists of a single family (e.g., a couple with or without children).
- iii. A multiple-family household is made up of two or more families occupying the same dwelling.
- iv. Non-family household refers to either one person living alone in a private dwelling or to a group of two or more people who share a private dwelling, but who do not constitute a census family

References

1. Best Start Resource Centre. "I'm Still Hungry" Child and family poverty in Ontario. Toronto (ON). 2010. Available from: https://www.beststart.org/resources/anti_poverty/pdf/child_poverty_guide_rev.pdf
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Care Giver Capacity and Health Behaviours



The capacity of a parent or caregiver to provide a positive environment for their child can be defined as caregiver capacity. The social determinants of health such as education, income and social support, have a direct impact on the capacity of the parent to provide a positive, healthy and safe environment for their child. They also affect the parent's risk behaviours and health status. Analyses exploring the association between income and child health have also shown a strong association between child health and parent income and education. The outcomes for our children can be improved by addressing the determinants of health such as income, employment and education, and by building capacity of caregivers.

Prevalence of low income

Child poverty is increasingly recognized as a significant public health concern.¹ Children's early experience with poverty affects their health not only when they are young, but also later in adulthood.¹ Lower family income is associated with poorer outcomes for children. Children from less well-off families are at greater risk than wealthier children for poor cognitive, behavioral and health outcomes.² Median after-tax incomeⁱⁱ for all economic families, couple economic familiesⁱⁱⁱ with children, as well as lone-parent families for the HKPR District Health Unit area were lower than the provincial median (Table 3.1).

Table 3.1: Median after-tax income by type of family for Northumberland County, City of Kawartha Lakes, Haliburton County, HKPR District Health Unit and Ontario, 2016

Type of family	Northumberland	City of Kawartha Lakes	Haliburton	Ontario
All economic families	\$73,343	\$70,801	\$62,684	\$79,531
Couple economic families with children	\$94,843	\$92,873	\$80,299	\$99,205
Lone-parent families	\$47,449	\$46,513	\$43,093	\$50,317

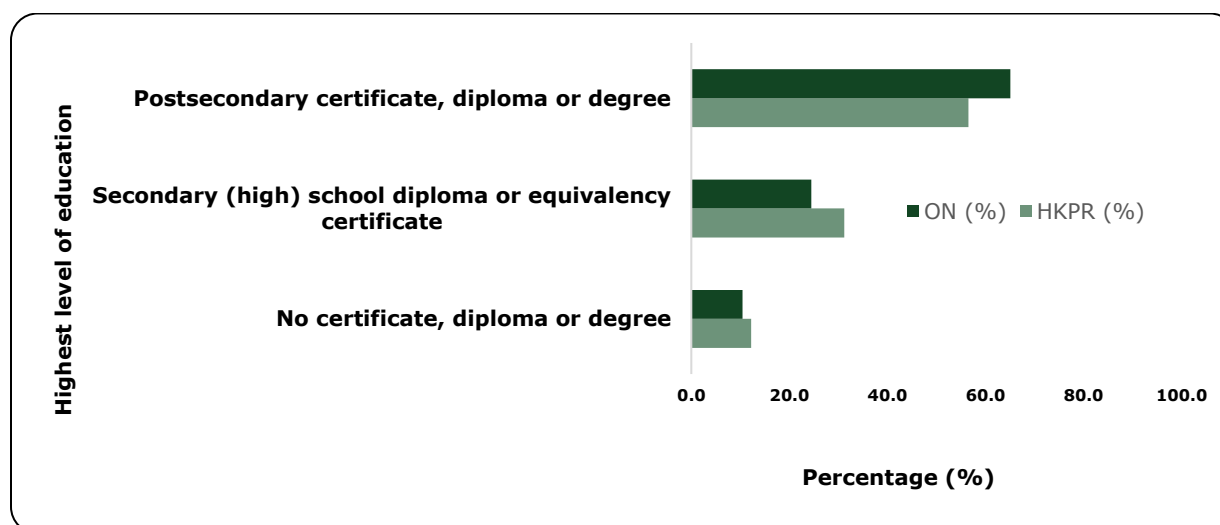
Source: 2016 Census of Population, Statistics Canada, Date Extracted October 2017

The prevalence of low-income based on the Low-income measure-after taxⁱ (LIM-AT) was 16.4% and 16.9% for 0-17 years and 0-5 year-old age-groups, respectively. The prevalence for both groups was slightly lower than the provincial prevalence of 18.4% for 0-17 years and 19.8% for 0-5 years. Those under 18 years of age have a higher prevalence of low-income than any other age-group.

Highest Education 25 - 64 years

A parent's highest level of education is one of the most important family characteristics associated with child health. Parents with higher education may be better informed about the availability and use of health care or have better health behavior that confers benefits to their children.³ Within the HKPR District Health Unit area, about 12% of those aged 25-64 did not have any certificate, diploma or degree, which was similar to Ontario (10.5%). The proportion of residents 25-64 who had a secondary school diploma or equivalency certificate as their highest level of education was slightly higher for the HKPR region compared to Ontario (Figure 3.1, Table 3.2). The proportion of those who had a postsecondary certificate, diploma or degree was lower than the province.

Figure 3.1 Highest level of education attained among 25-64 years of age, HKPR District Health Unit (HKPR) and Ontario (ON), 2016



Source: 2016 Census of Population, Statistics Canada, Date Extracted October 2017

Table 3.2 Highest level of education attained among people 25-64 years of age, HKPR District Health Unit (HKPR) and Ontario, 2016

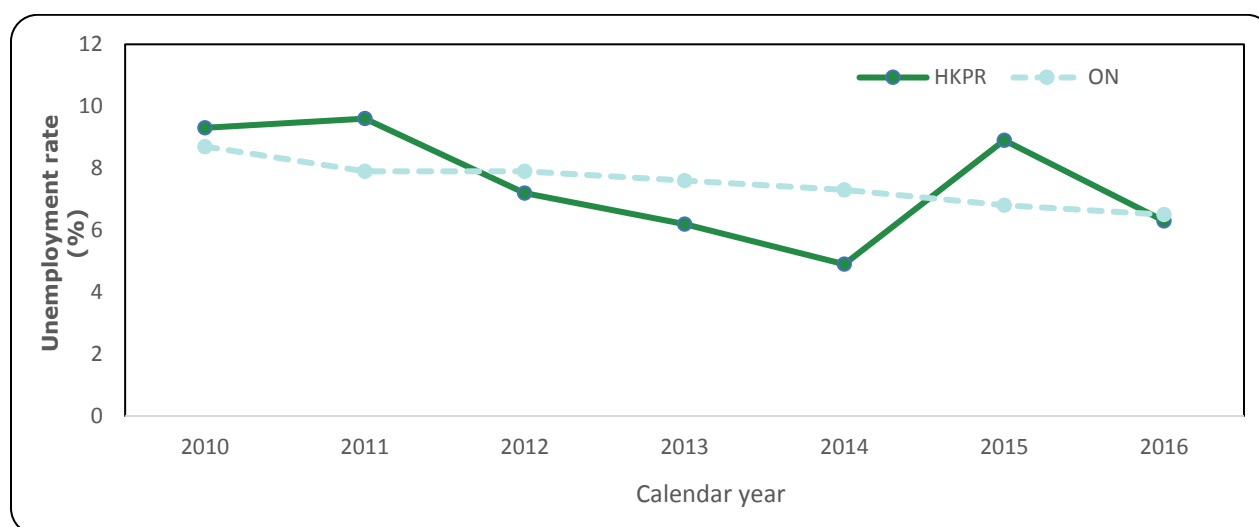
Highest level of education	HKPR (%)	Ontario (%)
No certificate, diploma or degree	12.2	10.4
Secondary (high) school diploma or equivalency certificate	31.2	24.5
Postsecondary certificate, diploma or degree	56.6	65.1

Source: 2016 Census of Population, Statistics Canada, Date Extracted October 2017

Unemployment rate

Employment has a significant influence on the health of parents and children. Chronic unemployment, including the precariously employed (people employed in jobs that often pay low wages, offer few or no benefits and the hours of work are often unstable), creates stress in the family which can negatively affect the health and well-being of parents and their children.⁴ Higher variability in the unemployment rates was observed from year to year for the HKPR region due to a smaller sample size (Figure 3.2, Table 3.3).

Figure 3.2 Unemployment rate reported through Labour Force Survey, HKPR District Health Unit (HKPR) and Ontario (ON), 2010-2016



Source: The unemployment rate for the region 3535-Haliburton, Kawartha, Pine Ridge District Health Unit, Ontario is based on the Labour Force Survey, which is a household survey as opposed to a census

Table 3.3 Unemployment rate reported through labour force survey, HKPR District Health Unit (HKPR) and Ontario, 2010-2016

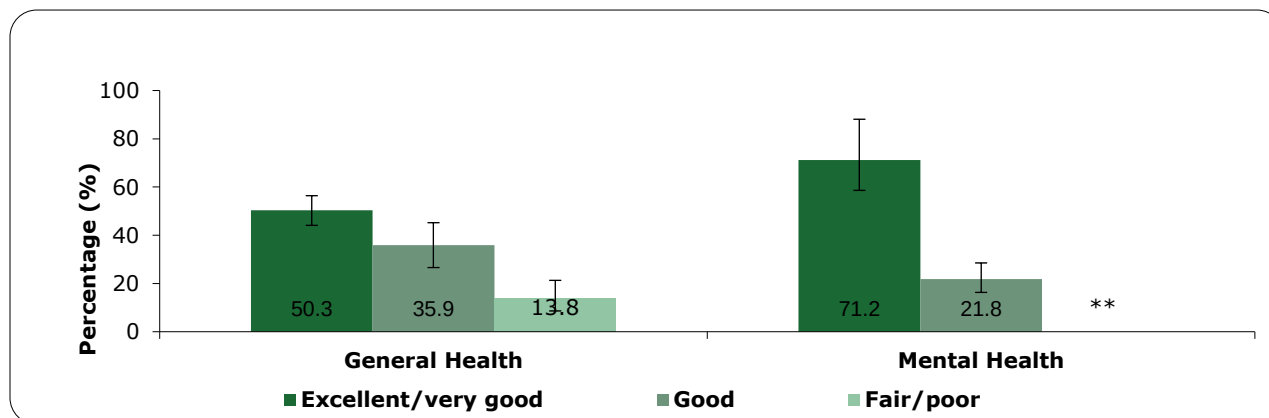
Calendar year	HKPR (%)	Ontario (%)
2010	9.3	8.7
2011	9.6	7.9
2012	7.2	7.9
2013	6.2	7.6
2014	4.9	7.3
2015	8.9	6.8

Source: The unemployment rate for the region 3535-Haliburton, Kawartha, Pine Ridge District Health Unit, Ontario is based on the Labour Force Survey, which is a household survey as opposed to a census

Health Status of Parents

Parents' physical and emotional health can affect their ability to care for their children and influence the health and well-being of the family. Demands of parenting can have an impact on general physical and mental health of parents. In the HKPR District Health Unit area, approximately half (50.3%; 95% CI: 44.1, 56.4) of parents self-perceived their general health as excellent or very good which was significantly lower than the provincial rate (59.5%; 95% CI 58.1, 60.8) (Figure 3, Table 4). Approximately seven out of ten parents (71.2%) self-reported their mental health as excellent or very good, which was similar to that reported provincially (72.8%; 95% CI:71.6, 74.0).

Figure 3.3 Self-perceived general health and mental health status among parents, HKPR District Health Unit, 2007-2014



Source: Canadian Community Health Survey, 2007-2014

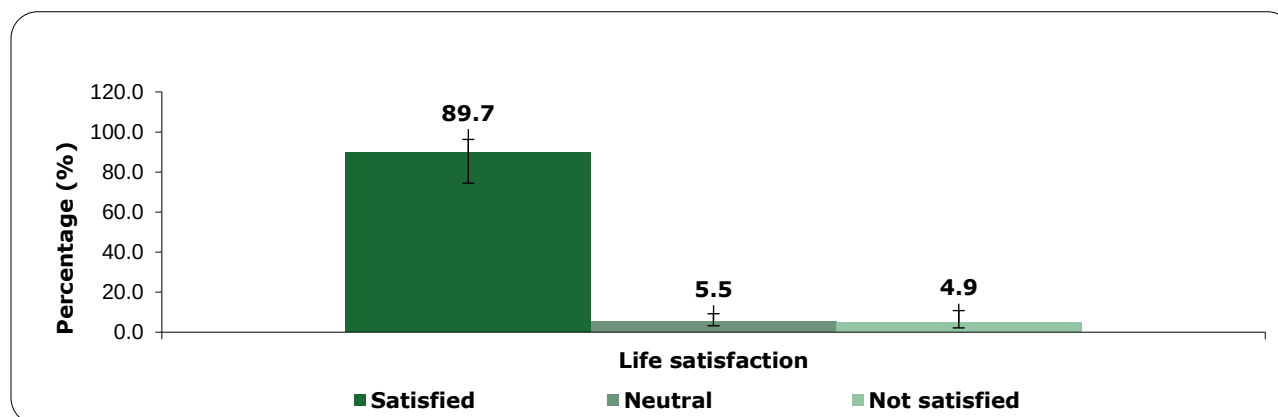
Table 3.4 Self-perceived general health and mental health status among parents, HKPR District Health Unit, 2007-2014

	General health Percentage (Lower Confidence Interval, Upper Confidence Interval)	Mental health Percentage (Lower Confidence Interval, Upper Confidence Interval)
Excellent/very good	50.3 (44.1, 56.4)	71.2 (58.6, 88.1)
Good	35.9 (26.6, 45.2)	21.8 (16.3, 28.5)
Fair/poor	13.8 (8.6, 21.3)	Not releasable

Source: Canadian Community Health Survey, 2007-2014

The majority of HKPR parents (89.7%, 95% CI: 74.4, 96.3) self-reported being generally satisfied with life, similar to what was observed provincially (91.2%; 95% CI 90.4, 94.2) (Figure 4, Table 5). The self-perceived life-stress reported among HKPR area parents (31.5%, 95% CI: 24.4, 39.6) was significantly higher than Ontario (23.5%; 95% CI 22.5, 24.5) (Figure 3.5, Table 3.6).

Figure 3.4 Self-perceived general life satisfaction among parents, HKPR District Health Unit, 2007-2014



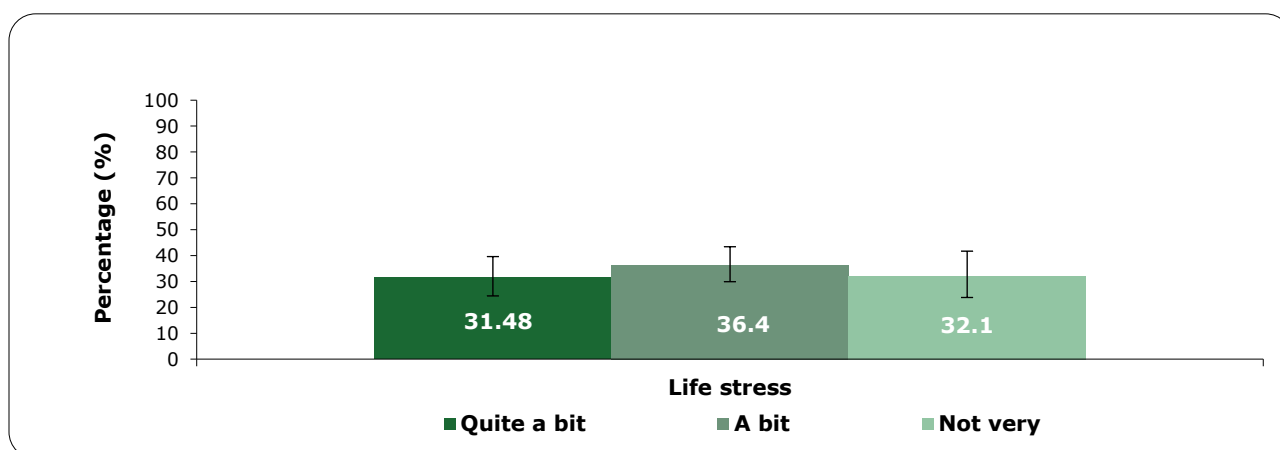
Source: Canadian Community Health Survey, 2007-2014

Table 3.5 Self-perceived general life satisfaction among parents, HKPR District Health Unit, 2007-2014

	Life satisfaction	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Satisfied	89.7	74.4	96.3
Neutral	5.5	3.2	9.2
Not satisfied	4.9	2.1	10.8

Source: Canadian Community Health Survey, 2007-2014

Figure 3.5 Self-perceived general life stress among parents, HKPR District Health Unit, 2007 - 2014



Source: Canadian Community Health Survey, 2007-2014

Table 3.6 Self-perceived general life stress among parents, HKPR District Health Unit, 2007-2014

	Life stress	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Quite a bit	31.5	24.4	39.6
A bit	36.4	29.9	43.4
Not very much	32.1	23.8	41.7

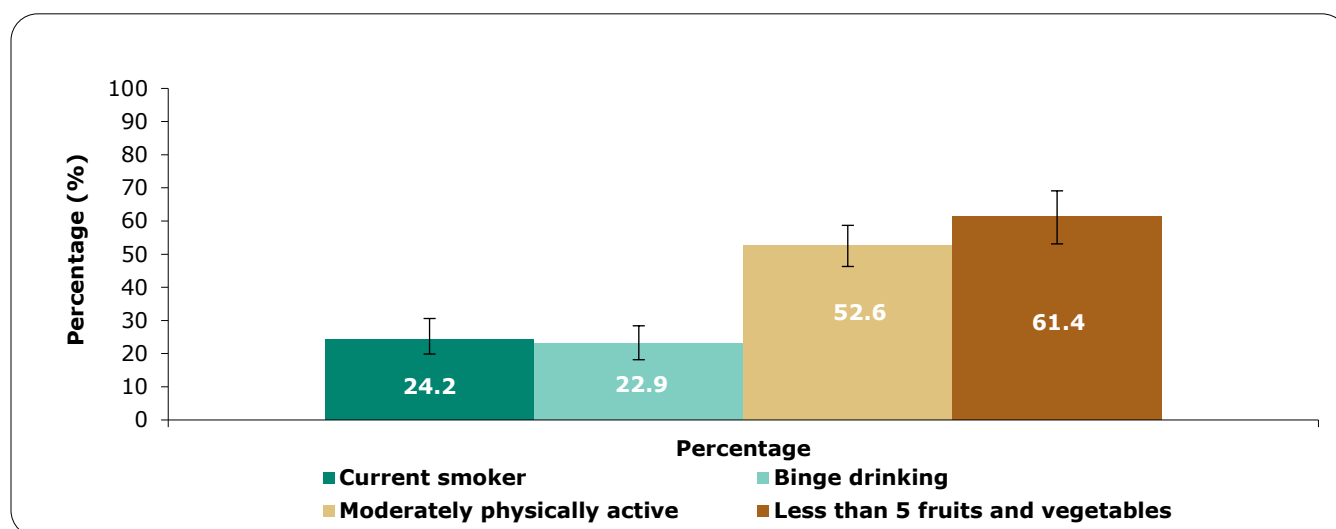
Source: Canadian Community Health Survey, 2007-2014

Health Behaviours of Parents

Children usually consider their parents as role models and hence the risk behavior of parents has a significant impact on the risk behaviours of children.

In the HKPR District Health Unit area, from 2007 to 2014, 24.2% (95% CI:19.9, 30.6) of parents reported that they were current smokers (Figure 3.6, Table 3.7), which was significantly higher than that reported for Ontario (15.7%). However, the following estimates were not significantly different compared to Ontario estimates: approximately one-quarter (22.9%, 95% CI: 18.2, 28.4) reported that they engaged in binge drinking; approximately 60% (61.4%, 95% CI: 53.1, 69.1) reported that they consumed less than five servings of fruits and vegetables a day; and only a half (52.6%, 95% CI: 46.3, 58.7) of parents reported they were at least moderately physically active.

Figure 3.6 Self-reported risk factors among parents, HKPR District Health Unit, 2007-2014



Source: Canadian Community Health Survey, 2007-2014

Table 3.7 This table displays the Self-reported risk factors among parents, HKPR District Health Unit, 2007-2014

Risk factor	Percentage (%)	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Current smoker	24.2	19.9	30.6
Binge drinking	22.9	18.2	28.4
Moderately physically active	52.6	46.3	58.7
Less than 5 servings of fruits and vegetables	61.4	53.1	69.1

Source: Canadian Community Health Survey, 2007-2014

Definitions⁵

- The Low-income measure-after taxⁱ (LIM-AT) is half (50%) of the median household after-tax income of private households, after adjusting income by an equivalence scale (the square root of the number of persons in the household) which accounts for increased needs as the number of household-members increases
- After-tax income is the total income less income taxes of the statistical unit during a specified reference period. Income taxes refers to the sum of federal income taxes, provincial and territorial income taxes, less abatement where applicable.
- Economic Families are a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law or adoption. A couple may be of opposite or same sex.

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Community Capacity



The physical and social environment of the community (community capacity) has a very important influence on the well-being of children and their caregivers. When the community supports the needs of caregivers and children, there can be an overall improvement in health and well-being of the family and the community.

In the HKPR District area, we have a wide variety of community supports that foster healthy child development such as libraries, social, recreational and arts programs, and child care centres. Although community support is available, there is a need to identify the gaps in service provision to ensure the equitable distribution of supports that are available and offered to children and caregivers.

Child Care

There are various options for child care within the HKPR jurisdiction. Options include care provided by family or friends, licensed child care centres, licensed home-based care or unlicensed home-based child care. In 2016, there were 28 licensed child care centres in the HKPR area that provided care to children 6 months to four years of age. The kindergarten parent survey (2012) shows that 86.6% of children under 12-months of age in the City of Kawartha Lakes (CKL) and Haliburton County did not use childcare services (i.e. children were cared for by parents or grandparents). The majority of children aged 1-2.5 years (59%) were being cared for either through licensed or unlicensed child care centres or homes. Also, 41% of children aged 1-2.5 years were cared for by their own parents. The steep decline in parents that stay home is likely influenced by the duration

of government supported pregnancy/parental leave. Other factors such as increasing household costs, debts, housing prices and the need for dual income households also possibly influence this deadline.

There are barriers to accessing child care in the HKPR area. The Kindergarten Parent Survey (KPS) (2012) noted that cost was identified as the biggest barrier for parents (41%) not enrolling their children in licensed child care, followed by concerns about quality (30%) of the child care centres. It has been identified that "Ontario has the most expensive child care costs in Canada and incredibly long waiting lists for spots".¹ For example, in CKL and Haliburton there were only 12.5 licensed spaces per 100 children reported in 2016.² The "lack of an accessible and affordable child care system creates gaps in care for Ontario's children at one of the most important times in their lives".¹

Of particular concern, there are only a few licensed childcare spaces for children age 0 – 18 months in the HKPR area, (Haliburton County (0), CKL (42), and Northumberland County (46)) in licensed child care centres and licensed homes. All three counties are working to increase the availability of licensed infant childcare spaces.

In the meantime, since the demand exceeds supply, many parents access non-licensed childcare for their infants when the parent returns to work or school following a maternity/paternity leave.³

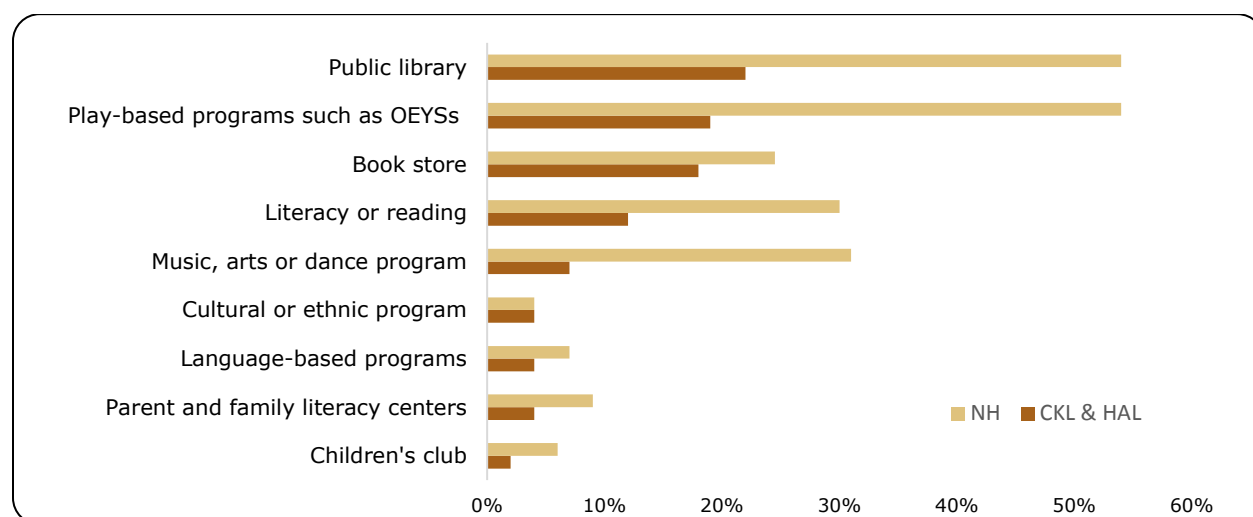
Other factors that impact accessibility to licensed child care centres are the hours of operation. Typically, they operate from around 7 am until around 6 pm and they are not open on weekends. For parents who work shift-work, evenings, or week-ends, there are minimal licensed childcare options that meet parents' needs.⁴

Early Learning Programs

Effective early child development programs that involve parent participation influence children's behaviour, learning, and future health. Investing in early learning programs and ensuring they are accessible to all families supports healthy child development and optimal social outcomes. The data presented in this section are based on the 2012 KPS for Northumberland County, the City of Kawartha Lakes, and Haliburton County, conducted by the area Ontario Early Years Centres (OEYC).

The KPS provides information about parents' involvement/interactions with their child(ren) before they begin regularly attending school. Libraries, play-based children programs (e.g. drop-ins, Moms & Tots, Ontario Early Years Centres), visits to a book store, participating in literacy or music programs, and arts or dance programs were popular among those community programs that were accessed at least once a month (Figure 4.1).

Figure 4.1 Use of community programs 12-months before starting kindergarten, at least once a month, for Northumberland County (NH) and City of Kawartha Lakes-Haliburton County (CKL & HAL), HKPR District Health Unit, 2012



Source: Kindergarten Parent Survey report, Ontario Early Years Centre, 2012 **Table 4.1 Use of community programs 12-months before starting kindergarten, at least once a month, for Northumberland County and City of Kawartha Lakes and Haliburton County, HKPR District Health Unit, among parents who responded to the Kindergarten Parent Survey, 2012**

Type of program	City of Kawartha Lakes and Haliburton County (%)	Northumberland County (%)
Children's club	2	6
Parent and family literacy centres	4	9
Language-based programs	4	7
Cultural or ethnic program	4	4
Music, arts or dance program	7	31
Literacy or reading	12	30
Book store	18	25
Play-based programs such as OEYSs	19	54
Public library	22	54

Source: Kindergarten Parent Survey report, Ontario Early Years Centre, 2012

There are a number of factors found to be associated with attendance at the early learning programs during the first year of life, including parents—especially the mother’s—education and household income. Nearly 16% of parents of senior kindergarten (SK) students reported a pre-tax household income less than \$30,000, and 5% reported a pre-tax household income less than \$17,000. In CKL and Haliburton combined, approximately 76% of parents responding to the KPS reported having attained some form of post-secondary education (trades certificate, undergraduate degree, graduate degree). Other factors that influence participation in community programs include availability of the service in the community, not having transportation to get to the program, and

the costs associated with participation in some programs, such as arts, music, dance and recreation; these factors are barriers to participation for some families.

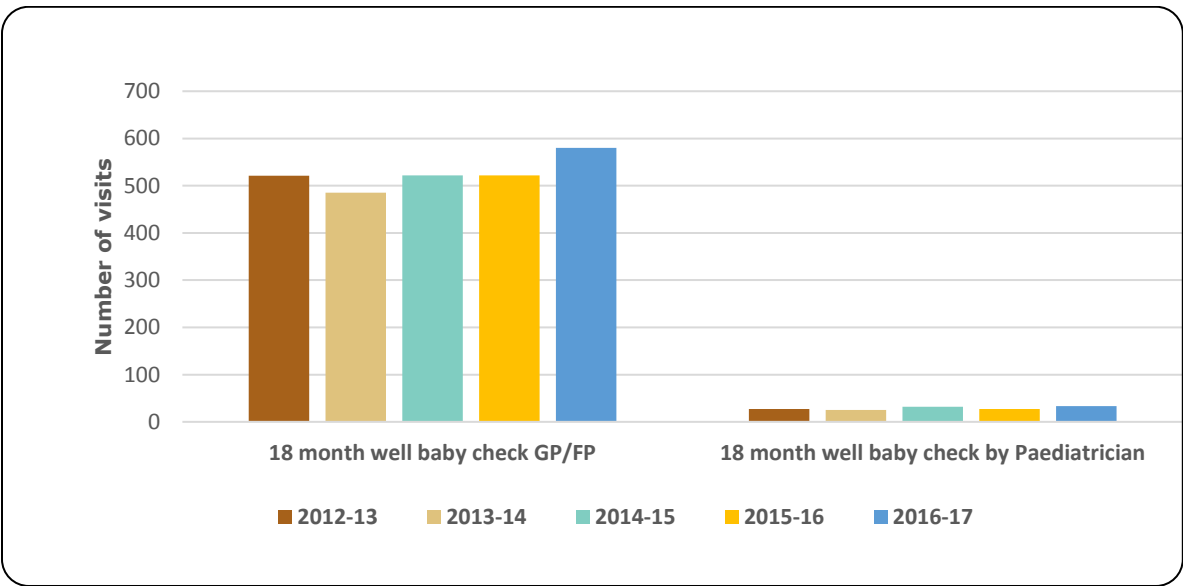
Child Development Indicators

Brain development in the first three years of life affects learning, behaviour and health throughout life.⁵ Child development is one of the fourteen social determinants of health.⁶ The age of 18 months is a key stage in healthy child development. It is the age when children are starting to speak so it is possible to detect early signs of speech and language or other communication problems. It is the age when children are becoming more independent and assertive, and parents may start to experience difficulties managing their children's behaviour. Early detection of speech, language, or other communication problems at 18 months can make a difference for many children with speech delays and disorders and is the last point in time when primary care providers will see most young children in their practice⁷, until entry to school.

With approximately 1,200 births occurring annually in the HKPR District, on average approximately 45% of eligible children were reported to have received the 18 months well baby visit during the years 2012-2013 to 2016-2017.

In 2014-2015, 554 enhanced well baby visits were provided to HKPR children at 18 months old. This was similar to the number provided in 2012/2013 and slightly higher than the number provided in 2013/2014 (Figure 4.2). The data do not provide any information about the quality of the visit (use of tools/suggested tools), other health professionals delivering the visit, or physicians who may have completed the enhanced well baby visit but did not bill with either fee code.

Figure 4.2 Number of well baby visits by fiscal year and billing code by General Practitioner (GP)/Family Practitioner (FP) and Paediatrician, HKPR District Health Unit, 2017



Source: Data provided by the Ministry of Child and Youth Services, 2017

Table 4.2 Number of 18 month well baby visits by fiscal year, by General Practitioner (GP)/Family Practitioner (FP) and Paediatrician, HKPR District Health Unit, 2017

Fiscal Year	18-month well baby visits to GPs/FPs (Number)	18-month well baby visits to Paediatricians (Number)
2012-13	521	27
2013-14	485	25
2014-15	522	32
2015-16	522	27
2016-17	580	33

Source: Data provided by the Ministry of Child and Youth Services, 2017

School Readiness

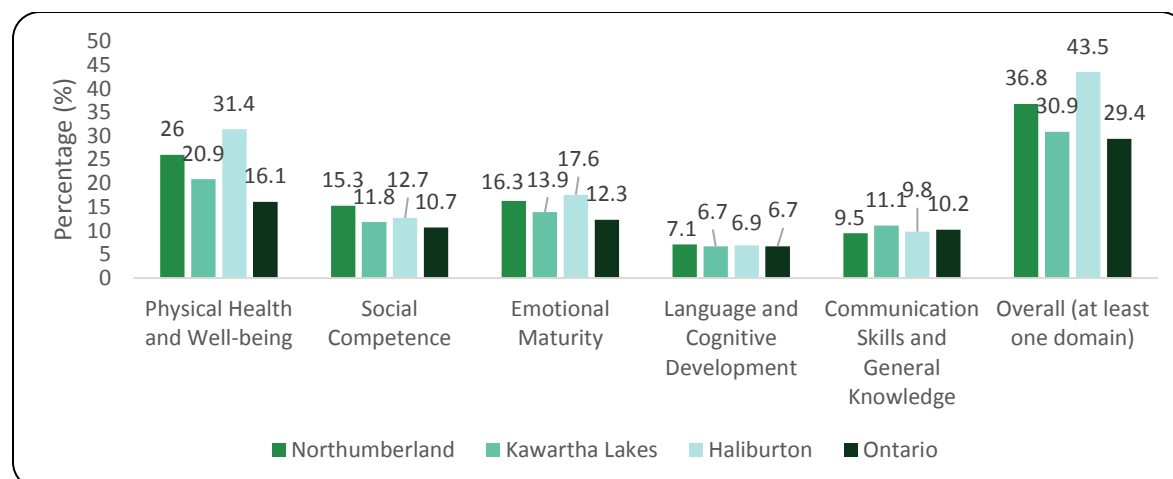
The Early Development Instrument (EDI)ⁱ reflects developmental outcomes and milestones that children should be able to achieve under optimal circumstances in physical and socio-emotional health as well as in their cognitive development.

It gives a picture of a child's development in five domains (physical health and well-being, social competence, emotional maturity, language and cognitive development, communication skills and general knowledge) before a child enters grade one. The EDI, completed by kindergarten teachers, is based on their judgment and their observation of children for at least 5 months. Thus, measured outcomes reflect the definition of children's developmental health by assessing progress on all developmental milestones.

The EDI mean scores are calculated for each of the five domains. "Vulnerable" describes the children who score low (below the 10th percentile) in any of the five domains. Higher vulnerability indicates a greater percentage of children are struggling.

An average of 37% of HKPR area senior kindergarteners assessed on the EDI in 2015 were vulnerable in one or more of the domains (vulnerable for at least one domain). For the City of Kawartha Lakes, the percent of vulnerable children slightly increased from 28.8% in 2012 to 30.9% in 2015 (Figure 4.3). For Haliburton County, the per cent of vulnerable children increased from 25.8% (2012) to 43.5% (2015). For Northumberland County, the per cent of children who were considered vulnerable increased from 28% to 36.8%. Provincially, the overall per cent of children considered vulnerable increased slightly from 28% to 29.4%. The overall percentage of vulnerable children was higher for Haliburton County than Northumberland and the City of Kawartha Lakes. This may be due to a lower sample size for Haliburton County when compared to Northumberland County and the City of Kawartha Lakes. Overall vulnerability for Northumberland County and the City of Kawartha Lakes were comparable with the Ontario scores, whereas the scores for Haliburton County were higher compared to Ontario.

Figure 4.3 Percentage of children vulnerable by domain for Northumberland County, City of Kawartha Lakes, Haliburton County, HKPR District Health Unit and Ontario, 2015



Source: Early Development Instrument report, Ontario Early-Years Centre, 2015

Table 4.3 Percentage of children vulnerable by domain for Northumberland County, City of Kawartha Lakes, Haliburton County, HKPR District Health Unit and Ontario, 2015

	Northumberland (%)	City of Kawartha Lakes (%)	Haliburton (%)	Ontario (%)
Physical Health and Well-being	26.0	20.9	31.4	16.1
Social Competence	15.3	11.8	12.7	10.7
Emotional Maturity	16.3	13.9	17.6	12.3
Language and Cognitive Development	7.1	6.7	6.9	6.7
Communication Skills and General Knowledge	9.5	11.1	9.8	10.2
Overall (at least one domain)	36.8	30.9	43.5	29.4

Source: Early Development Instrument report, Ontario Early-Years Centre, 2015

Definitions

i. Early Development Instrument (EDI) was developed at the Offord Centre for Child Studies, McMaster University, Ontario. For more information, see <https://edi.offordcentre.com/>

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Parent Child Relationship



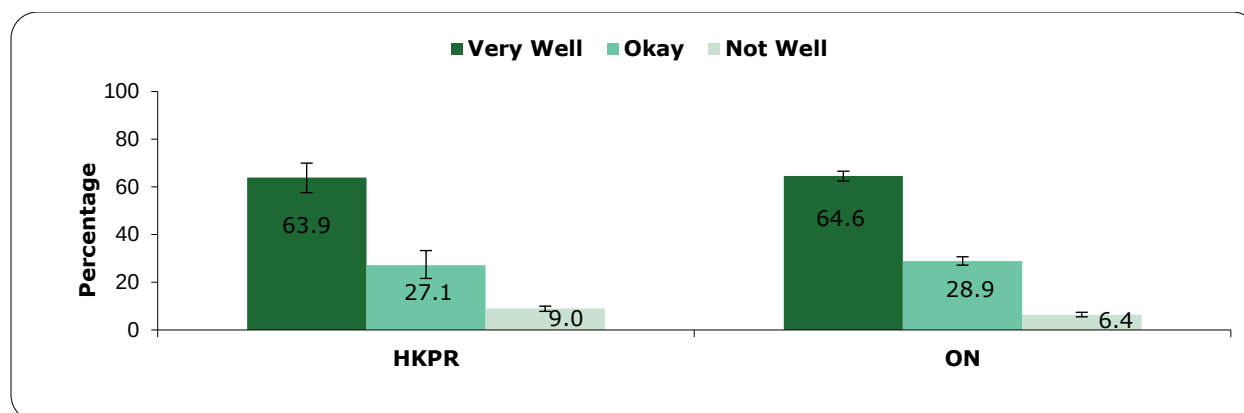
Safe and Supportive Environment

A safe and supportive environment is a setting in which all children can feel socially, emotionally and physically safe and valued. Safe and supportive environments in the early years of life, including positive relationships with parents and caregivers, influence learning and developmental outcomes in babies and children.¹ Safe and supportive environments should be a priority in our community.

Young children experience their world through their relationships with parents and other caregivers. Safe, stable, nurturing relationships and environments between children and their caregivers are fundamental to healthy brain development and help create resiliency to better cope with life stressors. Parent-child relationships influence positive well-being indicators, such as happiness, life satisfaction, and positive psychological functioning in adolescence and beyond.¹ Young children need consistent, nurturing, and protective interactions with adults that enhance their learning and behavioural self-regulation as well as help them develop adaptive capacities that promote well-regulated stress response systems.²

In the HKPR District, there are only limited data available regarding the type and nature of relationship(s) between children and their parent(s) or caregiver(s). In 2013/14, 64% (95% CI: 57.6, 70.0) of grade 7 to 12 students self-reported that they got along very well with their father (Figure 5.1, Table 5.1) and 70% (95% CI: 65.4, 73.9) got along very well with their mother (Figure 5.2, Table 5.2); these values are similar to what was observed provincially.

Figure 5.1 Percentage of grade 7 to 12 students who got along very well with their father, HKPR District Health Unit (HKPR) and Ontario (ON), 2013-2014



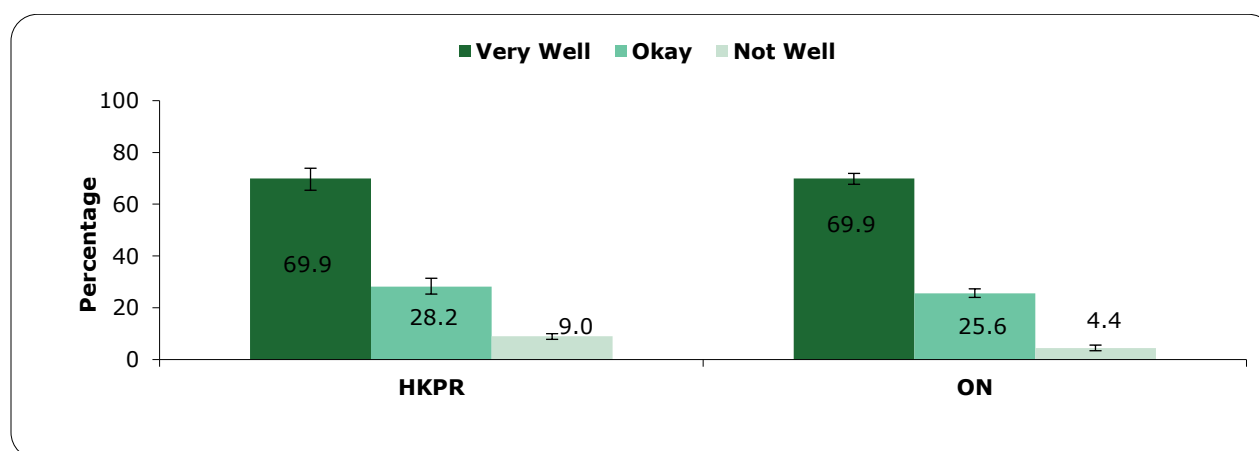
Source: Centre for Addictions and Mental Health (CAMH), Ontario Student Drug Use and Health Survey (OSDHUS), 2013

Table 5.1 Percentage of grade 7 to 12 students who got along very well with their father, HKPR District Health Unit (HKPR) and Ontario, 2013-2014

	HKPR	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Ontario	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Very Well	63.9	57.6	70.0	64.6	62.5	66.6
Okay	27.1	21.6	33.3	28.9	27.2	30.7
Not Well	9.0	7.8	10.0	6.4	5.5	7.4

Source: Centre for Addictions and Mental Health (CAMH), Ontario Student Drug Use and Health Survey (OSDHUS), 2013

Figure 5.2 Percentage of grade 7 to 12 students who got along well with their mother, HKPR District Health Unit (HKPR) and Ontario (ON), 2013-2014



Source: Centre for Addictions and Mental Health (CAMH), Ontario Student Drug Use and Health Survey (OSDHUS), 2013

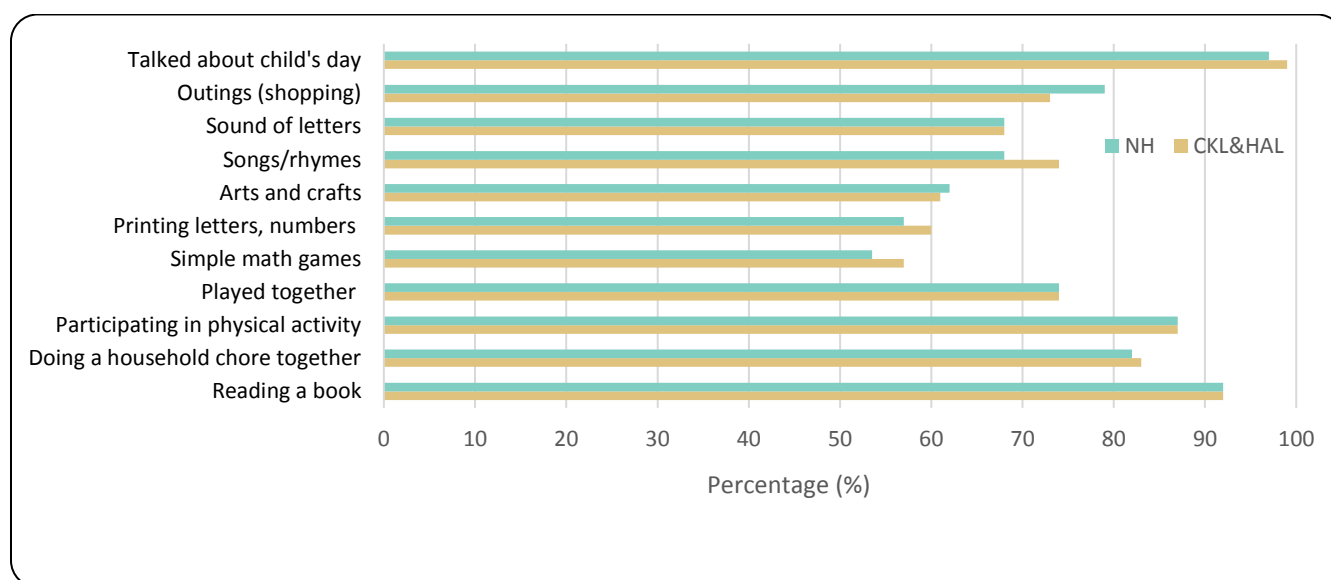
Table 5.2 Percentage of grade 7 to 12 students who got along very well with their mother, HKPR District Health Unit (HKPR) and Ontario, 2013-2014

	HKPR	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Ontario	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Very Well	69.9	65.4	73.9	69.9	67.7	71.9
Okay	28.2	25.3	31.4	25.6	24.0	27.3
Not Well	9.0	7.8	10.0	4.4	3.4	5.6

Source: Centre for Addictions and Mental Health (CAMH), Ontario Student Drug Use and Health Survey (OSDHUS), 2013

Positive relationships between children and parents can be nurtured through participating in various activities with each other. The majority of kindergarten parents self-reported that they took part in various types of activities with their child at home (Figure 5.3, Table 5.3). Most reported activities included reading a book, participating in physical activity, or doing household chores together. Almost all parents (99%) reported talking to their child about their day.

Figure 5.3 Type of activities that parents did with their child at home in the past week for Northumberland County (NH) and City of Kawartha Lakes-Haliburton Counties (CKL & HAL), HKPR District Health Unit, 2012



Source: Kindergarten Parent Survey report, Ontario Early Years Centres (Haliburton, Victoria, Brock and Northumberland), 2012

Table 5.3 Type of activities that parents did with their child at home in the past week for Northumberland County and City of Kawartha Lakes-Haliburton Counties, HKPR District Health Unit, 2012

Type of activity	City of Kawartha Lakes and Haliburton County (%)	Northumberland (%)
Talked about child's day	99	97
Outings (shopping)	73	79
Sound of letters	68	68
Songs/rhymes	74	68
Arts and crafts	61	62

Printing letters, numbers	60	57
Simple math games	57	54
Played together	74	74
Participating in physical activity	87	87
Doing a household chore together	83	82
Reading a book	92	92

Source: Kindergarten Parent Survey report, Ontario Early Years Centres (Haliburton, Victoria, Brock and Northumberland), 2012

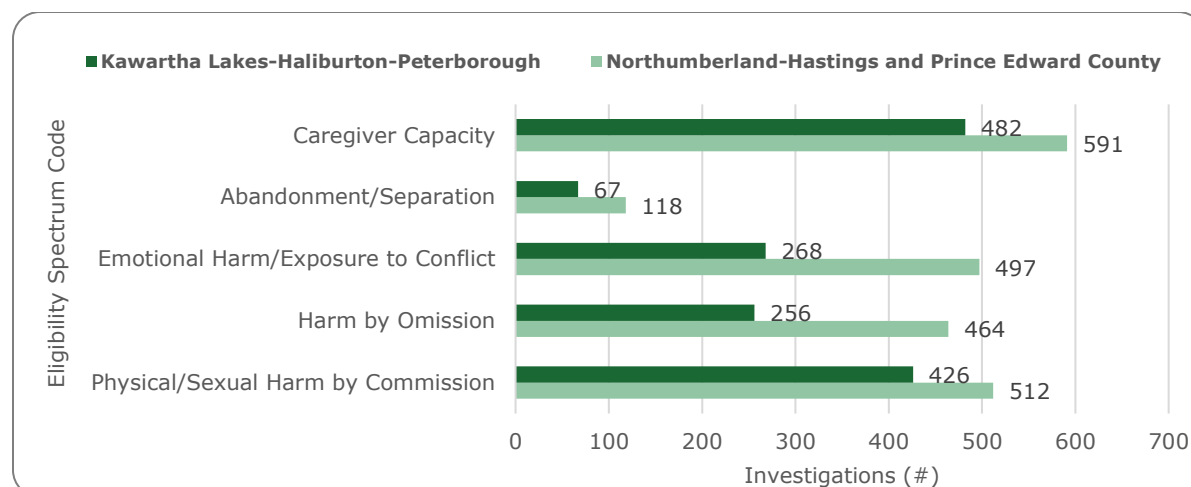
Child Maltreatment

Safe, stable, nurturing relationships and environments are essential to prevent child maltreatment and to assure that children reach their full potential. Research had shown that there is a link between parenting style and children's health behaviors such as physical activity, eating behavior and risk-taking behavior. Parenting constructs "overprotection" and "coercive control" were shown as negative parenting constructs and "nurturance", "structure" and "behavioral control" as positive parenting constructs.³

Child maltreatment includes all types of abuse and neglect of a child under the age of 18 by a parent, caregiver, or another person in a custodial role (e.g., clergy, coach, teacher) that results in harm, potential for harm, or threat of harm to a child. It is a significant public health problem in North America and around the world.^{4,5} Abused children often suffer physical injuries including cuts, bruises, burns, and broken bones. Physical injury is not the only negative impact of maltreatment—all forms of child abuse and neglect affect broader health outcomes, mental health, social development, and risk-taking behaviour into adolescence and adulthood.

In the HKPR District Health Unit area, there are two children's aid societies (CAS), the Kawartha-Haliburton Children's Aid Society (KHCAS) and the Highland Shore Children's Aid Society (HSCAS). Both CAS's in the HKPR region also serve areas within neighbouring health unit jurisdictions, therefore it should be noted that the data provided in Figure 4 include data for regions outside of the HKPR District (the City and County of Peterborough, (including Curve Lake and Hiawatha First Nations), Hastings County, and Prince Edward County). In 2013-14 there were 1,073 investigations conducted due to concerns about caregiver capacity (Figure 5.4, Table 5.4). The second most common maltreatment category investigated was physical or sexual harm with 938 investigations during the specified time frame. Exposure to conflict or harm by omission and emotional harm were the next most commonly investigated referral at 768 and 720 investigations, respectively. For both the KHCAS and the HSCAS, the least commonly investigated cases were due to abandonment or separation.

Figure 5.4 Number of investigations conducted by the Haliburton-Kawartha Children's Aid Society and the Highland Shores Children's Aid Society, by eligibility spectrum code, 2013-2014



Source: Children Aid Society (CAS) data provided by Highland Shores CAS and the Kawartha-Haliburton CAS. Child exposure to domestic and partner violence are included in Emotional Harm/Exposure to conflict spectrum.

Table 5.4 Number of investigations conducted by the Kawartha-Haliburton Children's Aid Society and the Highland Shores Children's Aid Society, by eligibility spectrum code, 2013-2014

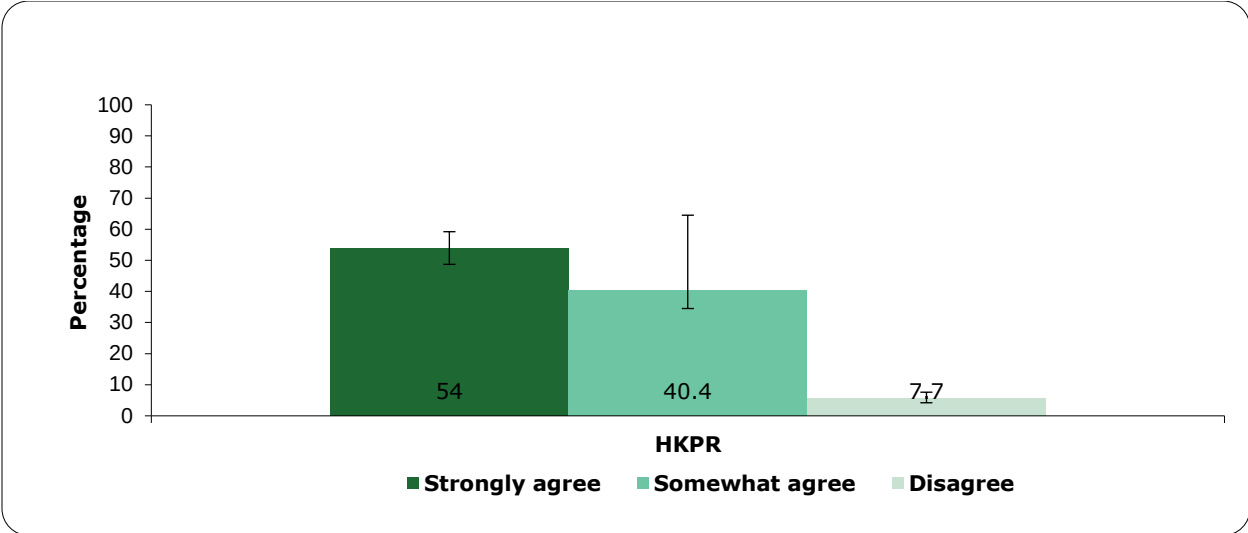
Type of Investigation	Northumberland-Hastings and Prince Edward County	City of Kawartha Lakes-Haliburton-Peterborough
Physical/Sexual Harm by Commission	512	426
Harm by Omission	464	256
Emotional Harm/Exposure to Conflict	497	268
Abandonment/Separation	118	67
Caregiver Capacity	591	482

Source: Children Aid Society (CAS). Data provided by Highland Shores CAS and the Kawartha-Haliburton CAS. Child exposure to domestic and partner violence are included in Emotional Harm/Exposure to conflict spectrum, 2013-2014.

Safety at School

In the 2016/17 Ontario Student Drug Use and Health Survey, only about 54% of students, grade 7 to 12, strongly agreed that they felt safe at school and 40% somewhat agreed that they felt safe at school (Figure 5.5). About 8% of the students surveyed disagreed that they felt safe at school. The question asked to the students was whether or not they felt safe at school; the details around the reason for not feeling safe were not asked. It is not clear whether safety at school was interpreted differently by students who "somewhat agreed" and "disagreed" that they were safe at school, as some might have taken bullying or picking on by other students as "not safe". During the 2016/17 school year within the HKPR District, about 27% (95% CI:21.7%, 33.5%) of students reported being bullied since the school year began.

Figure 5.5 Percentage of grade 7 to 12 students who felt safe at school, HKPR District Health Unit (HKPR), 2016-2017



Source: Center for Addiction and Mental Health (CAMH), Ontario Student Drug Use and Health Survey (OSDHUS), 2017.

Table 5.5 Percentage of grade 7 to 12 students who felt safe at school, HKPR District Health Unit (HKPR), 2016-2017

	HKPR	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Strongly agree	54.0	48.7	59.2
Somewhat agree	40.4	34.5	46.5
Disagree	5.6	4.2	7.7

Source: Center for Addiction and Mental Health (CAMH), Ontario Student Drug Use and Health Survey (OSDHUS), 2017

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Childhood Nutrition



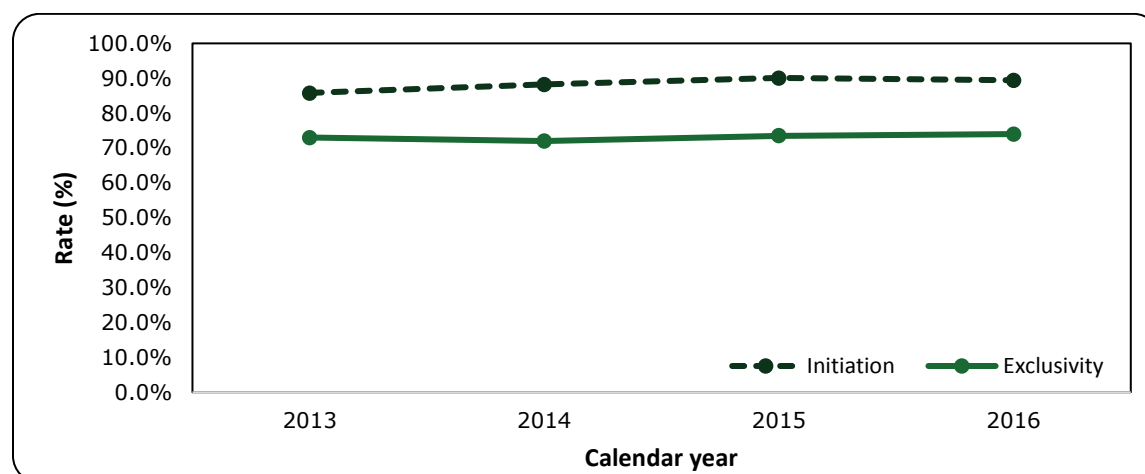
Children need a nutritious diet that provides all the energy and nutrients they need to be healthy, to learn and to reach their optimal growth and development. Poor nutrition increases the risk of illness in children and inappropriate nutrition can also lead to childhood obesity.¹ Daily physical activity is also important to children's physical development. When healthy eating habits and physical activity are established in childhood, these habits are likely to continue into adulthood and support health and well-being throughout the lifespan.²

Breastfeeding

Breast milk is the optimal food for babies. All that babies need for their first six-months of life is breast milk. Breast milk continues to be important for their first two-years of age and beyond. Breastfeeding has several known health benefits for infants, toddlers, and mothers.^{1,3} Breastfeeding may decrease the chances that a baby will develop asthma, chest and ear infections, obesity, diabetes, and sudden infant death syndrome (SIDS).^{1,3} Breastfeeding mothers also have lower rates of breast and ovarian cancer, and osteoporosis later in life.⁴

In 2016, approximately 85% of the new mothers in the HKPR area reported initiating breastfeeding. However, only 37% continued to do so exclusively for at least the first 5-months (unpublished data, HKPRDHU Infant Feeding Survey). Rates of breastfeeding initiation and exclusivity at discharge from a hospital or midwifery practice remained relatively consistent for new mothers in the HKPR region from 2013 to 2016 (Figure 6.1, Table 6.1).

Figure 6.1 Breastfeeding initiation and exclusivity rate, HKPR District Health Unit, 2013-2015



Source: Initiation and Exclusivity, Better Outcomes Registry and Network (BORN) 2013-2016

Table 6.1 Breastfeeding initiation and exclusivity rate, HKPR District Health Unit, 2013-2016

	2013	2014	2015	2016
Initiation	85.8%	88.2%	90.1%	89.4%
Exclusivity	73.0%	72.0%	73.5%	74.0%

Source: Initiation and Exclusivity, Better Outcomes Registry and Network (BORN) 2013-2016

Healthy Eating

Healthy eating and active living are most effective when established in early childhood.^{5,6} There are minimal provincial data on healthy eating for children less than 12 years of age and a lack of local data especially for children less than 6 years of age. Some data are available through the nutrition screening tool (NutriSTEP®) for toddlers and preschoolers. NutriSTEP® is a parent-administered, nutrition screening questionnaire intended to identify feeding, activity, weight, and nutrition concerns in toddlers (18-35 months of age) and preschoolers (3-5 years of age). However, the data should be interpreted with caution as the sample-size was low, which increases the variability of the estimate and results in lower precision. There is also a potential for selection bias as there are chances that high-risk families opt-out of completing the survey when offered. Data regarding healthy eating collected from HKPR grade 7 to 12 students through the Ontario Student Health and Drug Use Survey (OSHDUS) are also reported in this section along with NutriSTEP data.

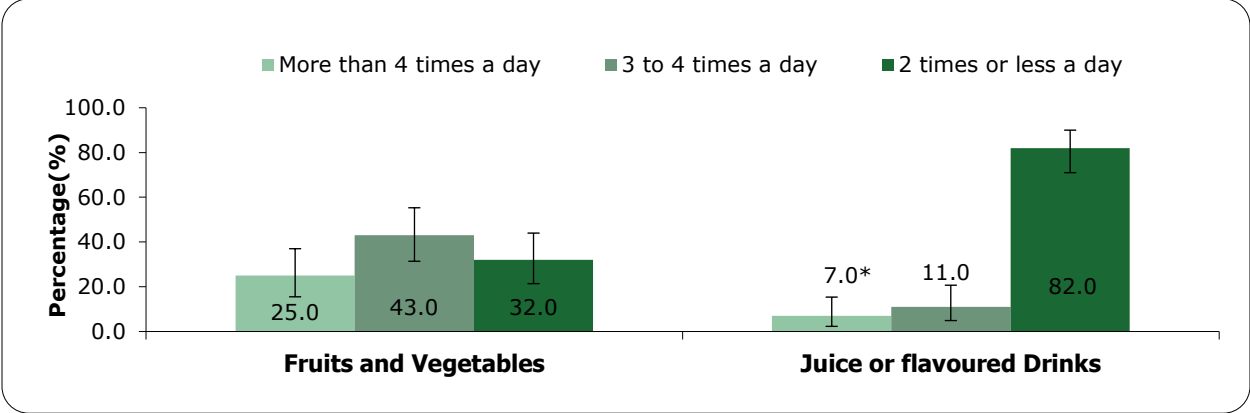
1. Fruit, Vegetable Consumption and Juice or Flavoured Drinks Consumption

In 2016, 77.4% of toddlers and preschoolers screened through NutriSTEP® were categorized as a low-nutrition risk. Figure 6.2 and Table 6.2 show the percentage of toddlers' parents who reported their child's frequency of fruits and vegetable consumption as well as drinking juice or flavored beverages. The majority of toddlers drank juice or flavored drinks two or less than two times a day. About 43% (95% CI: 31.4, 55.3) of toddlers ate fruits and vegetables 3 to 4 times a day and a quarter (95% CI: 15.5, 37.0) of toddlers consumed fruits and vegetables more than four times a day.

As per Canada's Food Guide, it is recommended that toddlers have 4-servings of fruits and vegetables per day. In terms of fruit juice, children should not have more than one-half (½) cup of

fruit juice per day, and flavoured drinks are not recommended as they are high in sugar and have no nutritional value.⁷

Figure 6.2 Frequency of eating fruits and vegetables and juice or flavoured drinks among toddlers, HKPR District Health Unit, 2016



* Interpret with caution, high variability.
Source: NutriSTEP®, 2016

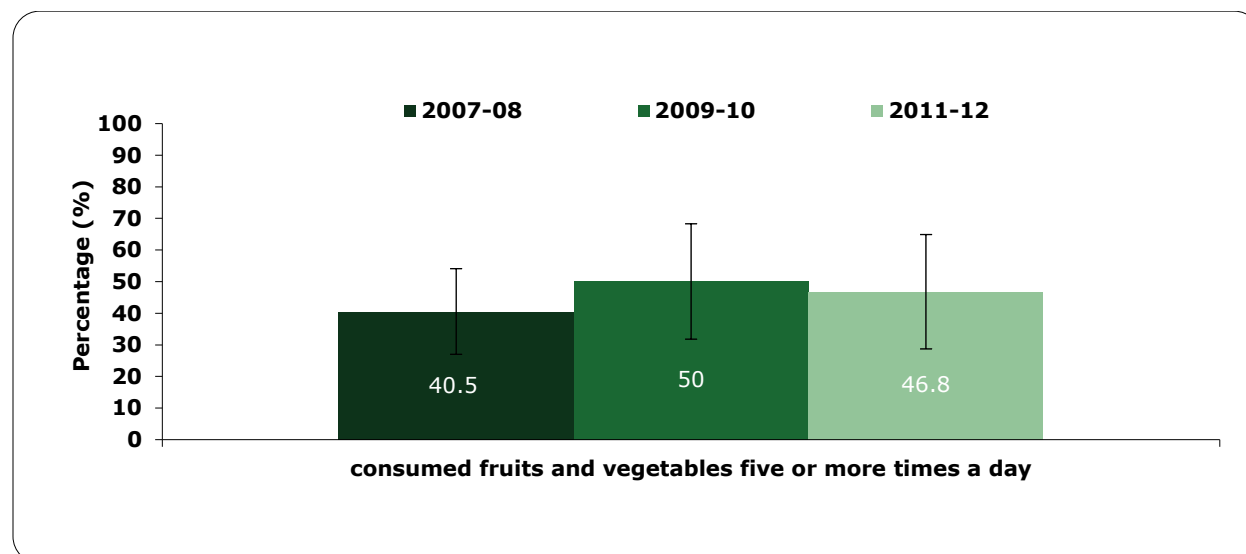
Table 6.2 Frequency of eating fruits and vegetables and juice or flavoured drinks among toddlers, HKPR District Health Unit, 2016

Frequency	Fruits and Vegetables (%)	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Juice or flavoured Drinks (%)	Lower 95% Confidence Interval	Upper 95% Confidence Interval
More than 4 times a day	25.0	15.5	37.0	7.0*	2.3	15.4
3 to 4 times a day	43.0	31.4	55.3	11.0*	4.9	20.7
2 times or less a day	32.0	21.4	44	82.0	71	90

* Interpret with caution, high variability.
Source: NutriSTEP®, 2016

Canada’s Food Guide recommends that children age 5 and older consume at least 5-servings of fruits and vegetables a day.⁷ In 2011-12, approximately 47% (95% CI: 27.0, 54.1) of 12-19 year-old youth self-reported consuming fruits and vegetables more than five times a day (Figure 6.3, Table 6.3). This was similar to previous years (2010-11 and 2011-12). The HKPR area rate was similar to the Ontario rate for 2011-12 (43.1%; 95% CI: 40.7, 45.6).

Figure 6.3 Age-specific rates of 12-19 year age-group, both sexes, who reported consuming fruits and vegetables five or more times a day, HKPR District Health Unit, 2007-2008, 2009-2010 and 2011-2012



* Interpret with caution, high variability.

Source: Public Health Ontario. Snapshot: Haliburton, Kawartha, Pine Ridge District Health Unit: Self-Reported Consumption of Vegetables and Fruits Five or More Times per Day, Age-Specific Rate (age 12-19). Toronto, ON: Ontario Agency for Health Protection and Promotion; 30 Nov 2016. [cited 2018 Feb 20]. Available from: <http://www.publichealthontario.ca/en/DataAndAnalytics/Snapshots/Pages/Health-Behaviours---Nutrition-and-Healthy-Weights.aspx>

Table 6.3 Age-specific rates of 12-19 year age-group, both sexes, who reported consuming fruits and vegetables five or more times a day, HKPR District Health Unit, 2007-2008, 2009-2010 and 2011-2012

	12-19 years old who reported consuming fruits and vegetables five or more times a day (%)	Lower 95% Confidence Interval	Upper 95% Confidence Interval
2007-2008	46.8*	28.7	64.9
2009-10	43.1*	40.7	45.6
2011-12	40.5*	27.0	54.1

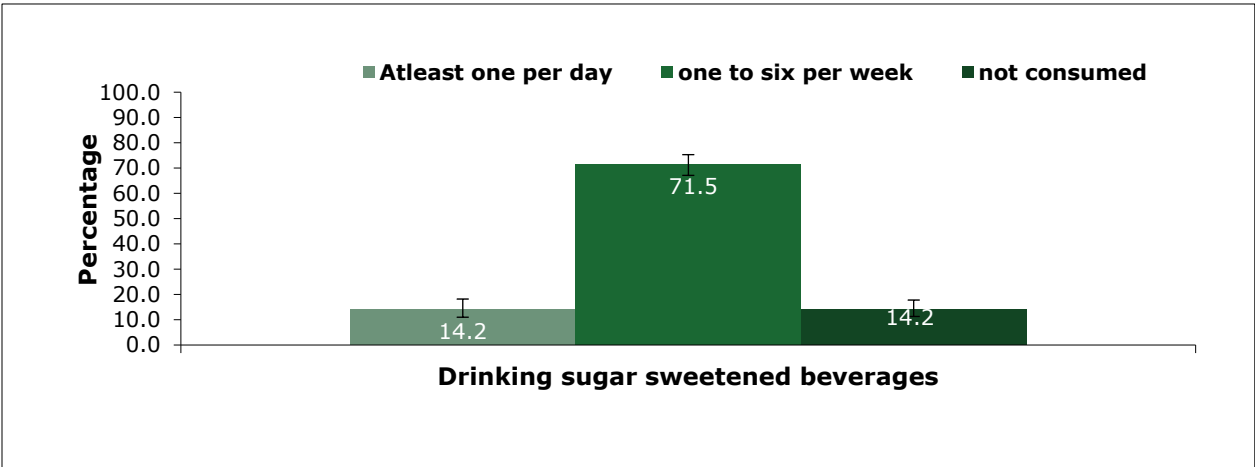
* Interpret with caution, high variability.

Source: Public Health Ontario. Snapshot: Haliburton, Kawartha, Pine Ridge District Health Unit: Self-Reported Consumption of Vegetables and Fruits Five or More Times per Day, Age-Specific Rate (age 12-19). Toronto, ON: Ontario Agency for Health Protection and Promotion; 30 Nov 2016. [cited 2018 Feb 20]. Available from: <http://www.publichealthontario.ca/en/DataAndAnalytics/Snapshots/Pages/Health-Behaviours---Nutrition-and-Healthy-Weights.aspx>.

Among grade 7 to 12 students in the 2016/17 school-year, 71.5% (95% CI: 65.9, 76.6) reported consuming one to six sugar-sweetened beverages (SSBs) in the past 7 days (Figure 6.4, Table 6.4). Consumption of SSBs, particularly carbonated soft drinks, may be a key contributor to the epidemic of overweight and obesity. This is due to the high added sugar content, a decreased feeling of fullness, and incomplete compensation for total energy caused by SSBs.⁸ SSBs, particularly soda, provide no nutritional benefit and can increase weight gain and the risk of diabetes, fractures, and dental caries (cavities). Given that the global incidence rates of overweight and obesity are on the rise, particularly among children and adolescents, it is imperative that current public health strategies include education about SSB intake. Consumption of SSBs, such as

soda and fruit drinks, should be discouraged and efforts to promote the consumption of healthier beverages, such as water and milk, should be made a priority.

Figure 6.4 Frequency of drinking sugar sweetened beverages among grade 7 to 12 Students, for the Past 7-Days, HKPR District Health Unit, 2016-2017



Source: Centre for Addiction and Mental Health (CAMH), Ontario Student Health and Drug Use Survey, 2016-2017

Table 6.4 Frequency of drinking sweetened beverages (SSBs) among grade 7 to 12 students, for the past 7 days, HKPR District Health Unit, 2016-2017

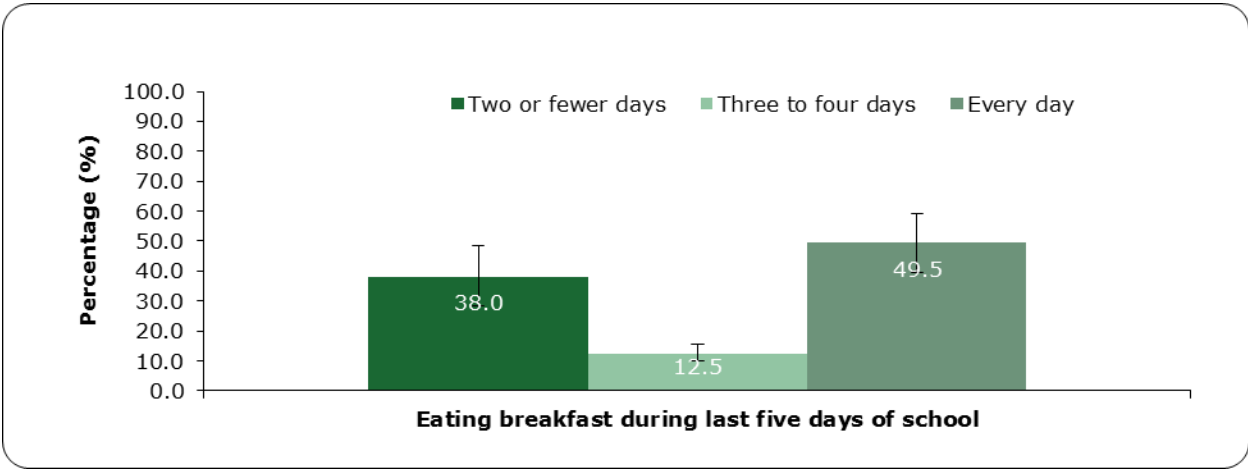
	Consumption of SSBs among grade 7 to 12 students (%)	Lower 95% Confidence Interval	Upper 95% Confidence Interval
At least one per day	14.2	10.9	18.2
One to six	71.5	65.9	76.6
Not consumed	14.2	11.3	17.9

Source: Centre for Addiction and Mental Health (CAMH), Ontario Student Health and Drug Use Survey, 2016/17

2. Eating Breakfast

Eating breakfast is associated with overall health and well-being. Children who do not consume breakfast are more likely to be less physically active.⁹ Moreover, there is evidence that breakfast positively affects learning in children in terms of behaviour, cognitive ability, and subsequent school performance.¹⁰ In the 2013/14 school year, only 50% (95% CI: 39.7, 59.4) of grade 7 to 12 students reported eating breakfast every day during the last five days of school, and slightly more than a third (38%, 95% CI: 28.6, 48.3) reported eating breakfast for only two days or less during the last five school days (Figure 6.5, Table 6.5). Among these students who reported eating breakfast two or fewer times in the previous week, we were unable to determine the proportion of children who did not eat breakfast due to lack of food at home. Some students may not be hungry first thing in the morning or have early bus rides and hence skip breakfast. However, research shows that kids who eat breakfast perform better at school. Considering the importance of eating breakfast for school performance, a student nutrition breakfast or morning meal program at schools is an important option to ensure breakfast is accessible to all students.

Figure 6.5 Frequency of eating breakfast among grade 7 to 12 Students, for the Past 7-Days, HKPR District Health Unit, 2016-2017



Source: Centre for Addiction and Mental Health (CAMH), Ontario Student Health and Drug Use Survey, 2012-2013

Table 6.5 Frequency of eating breakfast during the last five days of school among grade 7 to 12 students, HKPR District Health Unit, 2012-2013

	Ate breakfast during last five days of school (%)	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Two or fewer days	38.0	28.6	48.3
Three to four days	12.5	9.92	15.6
Every day	49.5	39.7	59.4

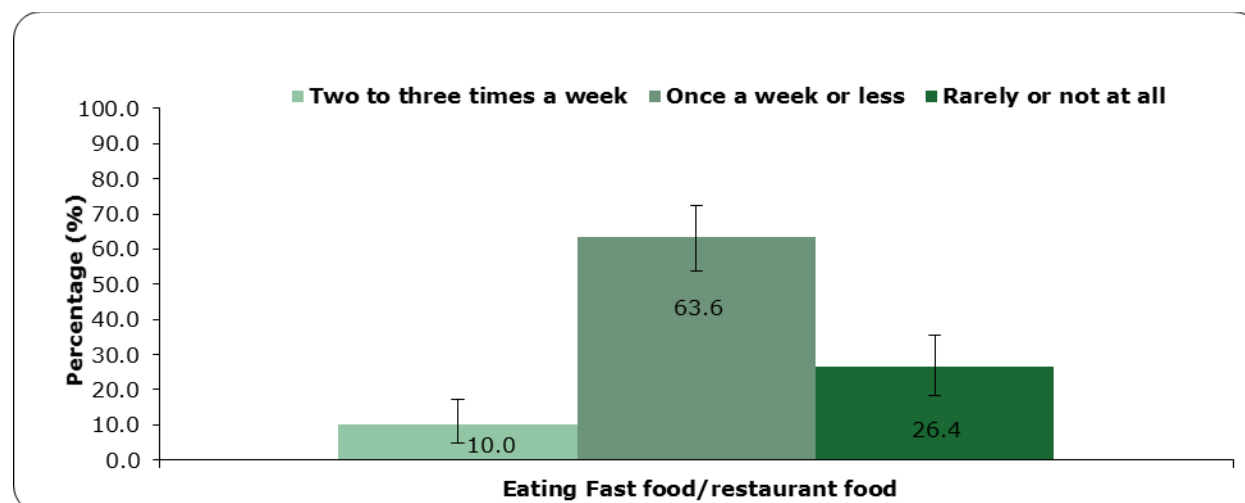
Source: Centre for Addiction and Mental Health (CAMH), Ontario Student Health and Drug Use Survey, 2012-2013

Longitudinal studies in Canada have indicated that child hunger is a predictor of poor health outcomes, including a higher risk of depression and suicidal ideation in adolescents, and chronic conditions, particularly asthma.¹¹ In 2016/17, about 3.9% (95% CI: 2.8, 5.4) of the students among grade 7 to 12 reported that they were hungry always or often at school or at bed time in HKPR District Health Unit region. Approximately 16.8% (95% CI: 30.9, 20.2) reported that they were sometimes hungry at school or at bed time. School-based nutrition programs and innovations such as subsidized food are very helpful to ensure that children are not hungry at school or home.

3. Eating at Fast Food or at Restaurants

Eating fast food at restaurants has become very common. A positive correlation between eating outside the home and obesity has been reported.¹² Eating outside the home (fast food, prepared food, or restaurants) has been associated with lower dietary quality and lower micronutrient intake.¹³ The majority of parents with toddlers and preschoolers self-reported that they rarely eat fast food or at restaurants (once a week or less, rarely or not at all); however, given the small sample size and the convenience sampling methods employed, the data should be interrupted with caution (Figure 6.6, Table 6.6).

Figure 6.6 Frequency of eating fast food or restaurant food among toddlers and pre-schoolers, HKPR District Health Unit, 2016



Source: NutriSTEP®, 2016

Table 6.6 Frequency of eating fast food or restaurant food among toddlers and pre-schoolers, HKPR District Health Unit, 2016

	Families with infants and toddlers consuming fast food/eating at a restaurant on a weekly basis (%)	Lower 95% Confidence Interval	Upper 95% Confidence Interval
Two to three times a week	10.0	5.0	17.1
Once a week or less	63.6	53.9	72.5
Rarely or not at all	26.4	18.4	35.6

Source: NutriSTEP®, 2016

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Health Care Utilization



Health services play an important role in the healthy growth and development of children. Regular and routine health care is very important for early detection of health concerns and for the prevention of disease. The family physician is one of the primary health care providers to support the health needs of families. The Ministry of Health and Long-Term Care has identified a shortage of family physicians in various municipalities in the Health Unit area such as Highlands East, Kawartha Lakes, Minden Hills, North Kawartha, Port Hope, and Trent Hills.¹ Due to this shortage there could be numerous families within the HKPR District who might not have access to a family physician, and instead rely on community walk-in clinics, if available, and emergency departments to meet their health care needs.

The Health Unit area has a low availability of after-hours urgent care centres and/or walk-in clinics, therefore most of the after-hour health care needs are seen at the emergency departments of local hospitals. This may have an impact on the increased rate of emergency department visits in the HKPR District, as indicated later in this report.

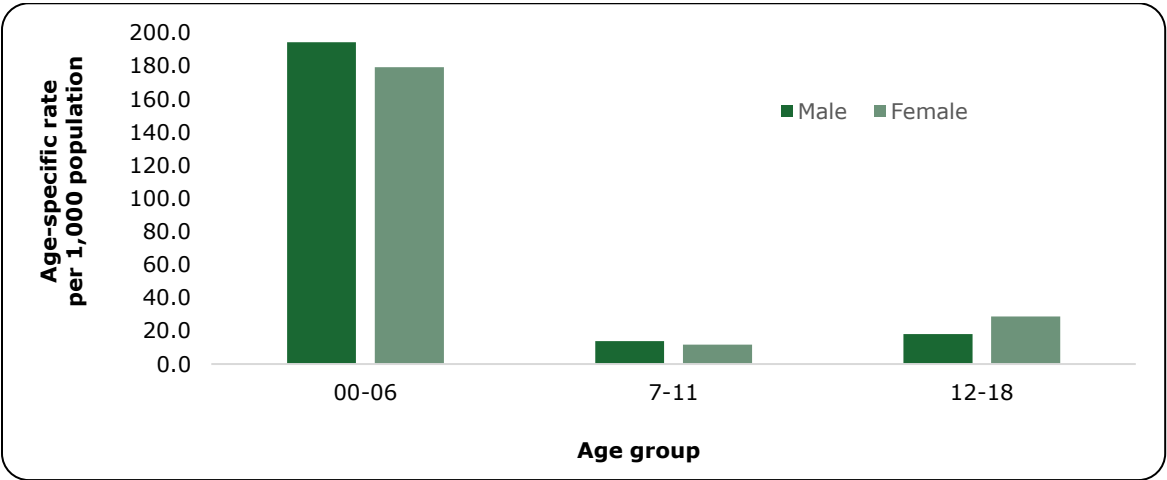
Service locations such as emergency departments and walk-in clinics are meant to address urgent health care needs and do not provide the routine services (such as immunizations, and well baby assessments) that are important to ensuring ongoing healthy growth and development of children and youth. Additionally, because families accessing these services see only the physician who is on duty at the time, they do not establish an ongoing relationship with a physician who would be

knowledgeable about the child’s medical history. This lack of a consistent family physician may increase the risk of medical or developmental problems not being identified as early as they should.

Hospitalizations, Excluding Injuries

In 2015, there were 2,261 hospitalizations (excluding injuries) reported for children and youth, 0-18 years of age. Approximately 83% (1,870) of these hospitalizations were reported among the 0-6 age-group. Age-specific rates were slightly higher among males than females for age groups 0-6 and 7-11 years (Figure 7.1, Table 7.1). Among those 12-18 years of age, the rate of hospitalization was higher among females than males. The overall rates of hospitalization (excluding injuries) were similar to the provincial rates for all age groups for both males and females.

Figure 7.1 Age-specific rate of hospitalization (except injury) per 1,000 population, by sex, HKPR District Health Unit, 2015



Source: Canadian Institute for Health Information (CIHI) Discharge Abstract Database (DAD), 2015 made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care.

Table 7.1 Age-specific rate of hospitalization (except injury) per 1,000 population, by sex, HKPR District Health Unit, 2015

Age-group	Hospitalizations (#)		Age-specific rate per 1000 population (95% Confidence Interval)	
	Male	Female	Male	Female
0-6	1002	868	194.26 (190.2, 199.2)	179.23 (173.5, 184.6)
7-11	54	45	13.93 (10.8, 15.9)	11.70 (9.1, 13.5)
12-18	117	175	18.16 (13.3, 22.4)	28.69 (24.2, 32.1)

Source: Canadian Institute for Health Information (CIHI) Discharge Abstract Database (DAD), 2015 made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care.

Leading Causes of Hospitalizations, Excluding Injuries

Among the 0-6 age-group, approximately 1,870 hospitalizations were reported, excluding live births. The leading causes of hospitalization reported in 2015 for children in the 0-to-6 age-group included lower and upper-respiratory infections, allergic sinusitis, Influenza and pneumonia, asthma, and gastroenteritis (Table 7.2). Children 7-11 years of age had the lowest rate of

hospitalizations (approximately 13 hospitalizations per 1,000 population) among children and youth (0-18 year-olds) in the HKPR District for 2015. Appendicitis and allergic sinusitis were among the leading causes of hospitalization for children 7-11 years old (Table 7.2). Among 12-18 year-olds, the rate of hospitalization was approximately 23 per 1,000 population, and the leading causes of hospitalization for those 12-18 years of age was related to mental health/behavioural disorders and appendicitis. In 2015, approximately 5.3 hospitalizations per 1,000 population (95% CI: 4.1, 6.6) were reported for mental health-related causes among 12-18 year-olds (Table 7.2), which was significantly lower than the provincial rate. For all other causes, the age-specific rates were not significantly different from the Ontario rates.

Table 7.2 Leading causes of hospitalization (except injury), aged 0 to 18, HKPR District Health Unit, 2015

Age-group (years)	ICD-10 Cause	Hospital discharges (#)	Age-specific rate / 1,000 population (95% Confidence Interval)
0-6	Allergic sinusitis	38	3.8 (2.6, 5.0)
	Asthma	24	2.4 (1.4, 3.4)
	Gastro-intestinal	22	2.2 (1.3, 3.1)
	Influenza and pneumonia	33	3.3 (2.2, 4.4)
	Lower Respiratory	33	3.3 (2.1, 4.4)
	Upper Respiratory	25	2.5 (1.5, 3.5)
7-11	Appendicitis	11	1.42 (0.6, 2.3)
	Allergic Sinusitis	8	1.03 (0.3, 1.7)
	Diabetes	less than 5	--
	Circulatory	less than 5	--
	Viral Infections	less than 5	--
12-18	Mental Health	67	5.34 (4.1, 6.6)
	Appendicitis	29	2.31 (1.5, 3.2)
	Diabetes	5	0.4 (0.1, 0.8)
	Circulatory	5	0.24 (0.1, 0.8)
	Influenza and Pneumonia	less than 5	--

Note: ICD-10 code contained in the Most Responsible Diagnosis field. The Most Responsible Diagnosis is the disease or conditions that is most responsible for the patient's stay in the facility.

Source: Canadian Institute for Health Information (CIHI) Discharge Abstract Database (DAD), 2015 made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care.

Injury Related Hospitalizations

Children and youth are vulnerable to specific injuries related to their stage of development and a variety of social determinants that may also influence their risk factors. Due to these reasons, children are a unique population of focus for injury prevention and hence interventions to reduce the risk of injuries must focus on children and parents/caregivers.²

There were 80 injury-related hospitalizations among 0-18 year-olds in the HKPR District in 2015 (Table 7.3). The majority of injury-related hospitalizations reported (80%) were due to an

unintentional injury. Table 7.4 lists the frequency and age-specific rates for hospital discharges among children 0-18 years of age, by leading causes of injury for the 2015 calendar year. The data reported are distinct counts for external cause codes indicating the mechanism of injury. In 2015, falls were the leading cause of hospitalizations for HKPR District Health Unit children and youth, 0–18 years of age.

Table 7.3 Frequency and age-specific rate of injury-related hospital discharges, by injury of intent, children aged 0 – 18, both sexes, HKPR District Health Unit, 2015

Injury type	Hospital discharges (#)	Age-specific rate / 1,000 population (95% Confidence Interval)
All Injuries	80	2.64 (2.06, 3.22)
Unintentional injury	64	2.11 (1.60, 2.63)
Intentional injury	16	0.53 (0.27, 0.79)

Source: Canadian Institute for Health Information (CIHI) Discharge Abstract Database (DAD), 2015 made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care

Table 7.4 Leading causes of injury, HKPR District Health Unit, 2015

Mechanism of injury	Hospital discharges (#)	Age-specific rate / 1,000 population (95% Confidence Interval)
Fall	27	0.89 (0.56, 1.23)
Self-harm	15	0.50 (0.24, 0.75)
Transport	10	0.33 (0.13, 0.54)
Foreign object	5	0.17 (0.02, 0.31)

Source: Canadian Institute for Health Information (CIHI) Discharge Abstract Database (DAD), 2015 made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care

The leading causes of injury-related hospital discharges for 2005 to 2015 are presented in Table 7.5. For all three age-groups, falls were the leading injury-related cause of hospitalization. For younger children, aged 0–6, injuries related to foreign objects, smoke/fire/heat, accidental poisoning, and struck by/against-related injuries occurred with similar frequencies over the 10 year period. For children aged 7–11, the injury pattern shifted towards injuries such as struck by/against, motor vehicle collisions (MVCs), and cutting/piercing-related injuries. For those aged 12–18, falls were followed closely by self-harm (e.g., para-suicide), struck by/against, MVCs, and cycling-related injuries.

Table 7.5 Leading causes of injury related hospitalization, by age-group, HKPR District Health Unit, 2005-2015

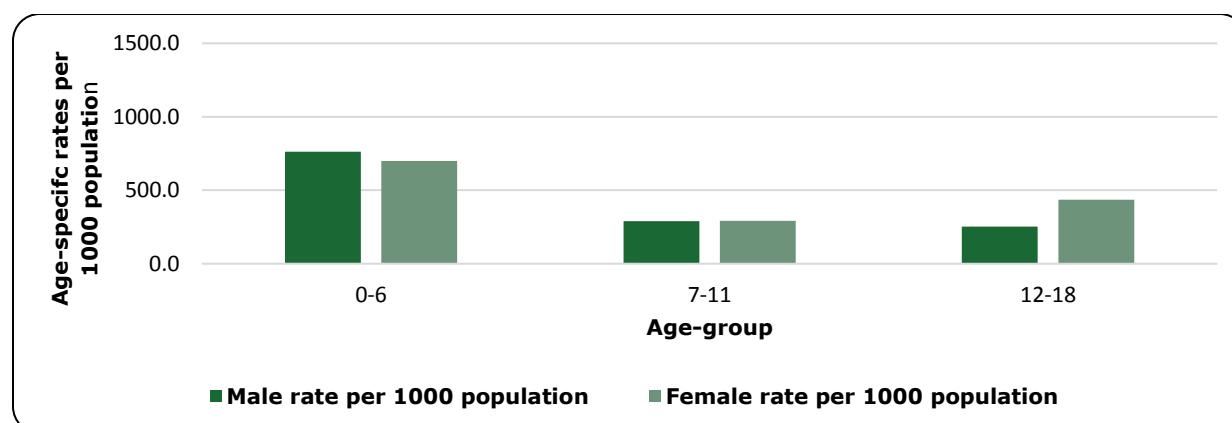
Age-group (years)	Mechanism of injury	Cumulative hospital discharges (#)	Age-specific rate / 1,000 person-years (95% Confidence Interval)
0-6	Fall	131	1.17 (0.97, 1.37)
	Foreign object	23	0.21 (0.12, 0.29)
	Smoke Fire Heat	19	0.17 (0.09, 0.25)
	Accidental poisoning	18	0.16 (0.09, 0.24)
	Struck by against	15	0.13 (0.07, 0.20)
7-11	Fall	77	0.82 (0.64, 1.01)
	Struck by against	22	0.24 (0.14, 0.33)
	Motor Vehicle Collision	20	0.21 (0.12, 0.31)
	Cycling	15	0.16 (0.08, 0.24)
	Cut Pierced	5	0.05 (0.01, 0.10)
12-18	Fall	137	0.83 (0.69, 0.97)
	Self-harm	116	0.7 (0.58, 0.83)
	Struck by against	98	0.59 (0.48, 0.71)
	Motor Vehicle Collision	83	0.5 (0.39, 0.61)
	Cycling	31	0.19 (0.12, 0.25)

Source: Canadian Institute for Health Information (CIHI) Discharge Abstract Database (DAD), 2015 made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care

Emergency Department Visits, Excluding Injuries

In 2015, 541 emergency department (ED) visits per 1,000 population (excluding injuries) were reported for the 0-18-year age-group in the HKPR District Health Unit area, which was higher than that reported for Ontario (382 visits per 1,000 population). The higher rate of ED visits within the HKPR District could be due to a lower availability of after-hours urgent care centres or walk-in clinics. Children among the 0-6 year-old group had the highest rate of ED visits reported, compared to other age groups (Figure 7.2, Table 7.6).

Figure 7.2 Number of emergency department visits per 1,000 population (excluding injuries), by sex and age-group, HKPR District Health Unit, 2015



Source: Canadian Institute for Health Information (CIHI) National Ambulatory Care Reporting System, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care

Table 7.6 Number of emergency department visits and rate per 1,000 population (excluding injuries), by sex and age-group, HKPR District Health Unit, 2015

Age-group (years)	Visits (Number)		Rate per 1,000 population (95% Confidence Interval)	
	Males	Females	Males	Females
0-6	3934	4432	762.7 (759.1, 774.3)	699.2 (686.2, 712.1)
7-11	1867	1879	289.1 (274.9, 303.4)	292.1 (277.7, 306.4)
12-18	1629	2656	252.83 (242.2, 263.5)	435.4 (423, 447.9)

Leading Causes of Emergency Department Visits, Excluding Injuries

Upper respiratory infections were the leading causes of ED visits for all age-groups. This excluded ED visits due to injury (Table 7.7). Other leading causes for ED visits for all age-groups included infections of ear and mastoid as well as skin and sub-cutaneous infections. For the 12-18 year-old age-group, the second most frequent cause of ED visits were mental health causes. The age-specific rates of ED visits for each leading cause, within each age-group, were significantly higher than the provincial rates for nearly all leading causes (Table 7.7).

Table 7.7 Leading causes of emergency department visits (excluding injuries), by age-group, HKPR District Health Unit, 2015

Age-group (years)	Cause	Emergency department visits (Number)	Rate per 1000 population (95% Confidence Interval)
0 to 6	Upper respiratory infections	2,395	239.5* (231.1, 247.8)
	Ear and mastoid	1,348	134.8* (128.1, 141.5)
	Viral Infections	458	45.8* (41.7, 49.9)
	Skin and sub cut	442	44.2* (40.2, 48.2)
	Gastrointestinal	342	34.2* (30.6, 37.8)
	Lower Respiratory Infections	267	26.7* (23.5, 29.9)
	Influenza and pneumonia	245	24.5* (21.5, 27.5)
7 to 11	Upper respiratory	730	93.9* (87.4, 100.4)
	Ear and mastoid	266	34.2* (30.2, 38.3)
	Skin and sub cut	222	28.7* (24.9, 32.3)
	Viral	102	13.2 (10.7, 15.8)
	Influenza and pneumonia	70	9.0* (6.9, 11.1)
	Gastrointestinal	64	8.2 (6.2, 10.2)
12 to 18	Upper Respiratory Infections	832	66.3* (62, 70.7)
	Mental Health	478	38.1* (34.76, 41.5)
	Skin and sub cut	441	35.2* (31.9, 38.4)
	Ear and mastoid	237	18.9* (16.5, 21.3)
	Viral	146	11.6* (9.8, 13.5)
	Gastrointestinal	118	9.4* (7.7, 11.1)
	Asthma	84	6.7* (5.3, 8.1)
	Influenza and pneumonia	63	5.0* (3.8, 6.3)

*Significantly higher than the provincial rates.

Source: Canadian Institute for Health Information (CIHI) National Ambulatory Care Reporting System, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care

Injury Related Emergency Department Visits

Injuries are one of the leading causes of ED visits among children and youth (Table 7.8). In 2015, there were approximately 6,242 ED visits reported for children and youth, 0-18, residing in the HKPR District.

Table 7.8 Frequency and Age-Specific Rate of Emergency Department visits, by Injury Type, 2015

Injury type	Emergency department visits (Number)	Age-specific rate / 1,000 population (95% Confidence Interval)
All Injuries	6,242	206.24* (201.68, 210.80)
Unintentional injury	6,090	201.22* (196.70, 205.73)
Intentional injury	152	5.02* (4.23, 5.82)

*Significantly higher than the provincial rates.

Source: Canadian Institute for Health Information (CIHI) National Ambulatory Care Reporting System, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care

Fall-related injuries were the leading cause of all injury-related-ED visits (Table 7.9). Among the 0-6 years and 7-11 years age-groups, fall-related injuries were the leading cause of all injury-related ED visits, however the leading cause of injury-related ED visit for the older age-group (12-18 years-old) was for struck by/against injuries (Table 7.10). Other leading causes of injury-related ED visits reported were for cut/piercing injuries across all three age-groups. Motor vehicle collisions (MVCs) were identified as one of the five-leading causes of ED visits among the 12-18 age-group. Cycling injuries were among the leading causes of ED visits for children 7-11 years of age. Accidental poisoning was among the five-leading causes of ED visits among 0-6 years old age-group.

Table 7.9 Emergency department visits due to injury or related causes, 0 to 18 Years, HKPR District Health Unit, 2015

Mechanism of injury	Emergency department visits (Number)	Age-specific rate / 1,000 population (95% Confidence Interval)
Fall	1,738	57.42* (54.80, 60.05)
Struck by against	1,620	53.53* (50.99, 56.06)
Overexertion	395	13.05* (11.77, 14.33)
Cut Pierced	384	12.69* (11.43, 13.95)
Foreign object	188	6.21* (5.33, 7.10)
MVC	173	5.72* (4.87, 6.57)
Caught Crushed	156	5.15* (4.35, 5.96)
Transport	156	5.15* (4.35, 5.96)
Cyclist	131	4.33* (3.59, 5.07)
Dog bites	101	3.34* (2.69, 3.99)
Accidental poisoning	83	2.74* (2.15, 3.33)
Assault	79	2.61* (2.04, 3.19)
Self-harm	73	2.41* (1.86, 2.96)

*Significantly higher than the provincial rates.

Source: Canadian Institute for Health Information (CIHI) National Ambulatory Care Reporting System, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care; Statistics Canada Population estimates, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term care

Table 7.10 Frequency and age-specific rate of injury-related emergency department visits, leading causes by age-group, both sexes, HKPR District Health Unit, 2005–2015 Combined

Age-group (years)	Mechanism of injury	Emergency department visits (Number), 2005-2015	Average age-specific rate / 1,000 population, 2005-2015
0-6	Fall	7,227	64.69 (63.25, 66.13)
	Struck by/against	2,845	25.47 (24.54, 26.39)
	Foreign object	1,190	10.65 (10.05, 11.25)
	Cut / Pierced	856	7.66 (7.15, 8.17)
	Accidental poisoning	700	6.27 (5.80, 6.73)
7-11	Fall	5,034	53.88 (52.43, 55.33)
	Struck by/against	3,802	40.69 (39.43, 41.96)
	Overexertion	1,080	11.56 (10.87, 12.24)
	Cut Pierced	1,017	10.88 (10.22, 11.55)
	Cyclist	698	7.47 (6.92, 8.02)
12-18	Struck by/against	12,080	73.22 (71.97, 74.48)
	Fall	8,535	51.74 (50.67, 52.81)
	Overexertion	3,999	24.24 (23.50, 24.98)
	Cut / Pierced	3,058	18.54 (17.89, 19.19)
	MVC	1,718	10.41 (9.92, 10.90)

Source: National Ambulatory Care Reporting System, 2015, IntelliHealth Ontario, Ministry of Health and Long-Term Care; Population estimates, 2015, IntelliHealth Ontario, Ministry of Health and Long-Term Care.

Use of Protective Equipment

In the 2013/2014 school year, two (2) out of three (3) grade 7 –12 students (65%; 95%CI: 42.50, 82.31) in the HKPR District reported that they did not wear a helmet ‘all the time’ while riding a bicycle, in the past year. In 2016/17 one (1) out of five (5) (20.7%; 95%CI: 16.9, 25.1) HKPR District grade 7–12 students reported that they did not always use a seatbelt when traveling in a vehicle.³ These behavioural characteristics of children such as not wearing a helmet while riding a bike or scooter, skating, skiing, snowboarding, or driving a recreational All-terrain vehicle (ATV), and not wearing a seat belt increase both the risk and severity of injury.

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Health Status and Disease Conditions



"Health" is a broad concept and difficult to capture with any single measure. Health care utilization gives only a small picture of chronic and infectious diseases within the HKPR District. For this reason, a variety of indicators should be considered to help describe the "state of complete physical, mental, and social well-being" as defined by the World Health Organization.¹

General Health Status and Mental Status

Self-assessed health status is a measure of how an individual perceives their health rating as excellent, very good, good, fair, or poor. These indicators can be subjective and can be asked to either parents, children, or youth directly. Self-assessed health status has been validated as a useful indicator of health for a variety of populations and allows for broad comparisons across different conditions and populations.²

In the 2016/17 school year, approximately 65% of local grade 7 to 12 students in the HKPR District reported their self-rated health as "Excellent" or "Very good" and approximately 49% reported that their mental health status as "Excellent" or "Very good".³

Approximately 8% (95% CI: 6.2, 10.3) of students self-reported feeling depressed either 'all of the time' or 'most of the time' over the past 4-weeks. About 9% (95% CI: 6.3, 14.9) of HKPR District students indicated a serious consideration of suicide in the previous 12-months. Approximately 27.2% of students reported being bullied since the school year began (95% CI: 21.7, 33.5)

Healthy Weights

Excess weight in childhood has been linked to various disease conditions such as insulin resistance, type-2 diabetes, hypertension, poor emotional health, and diminished social well-being.⁴ In the 2016/17 school year, only 58.8% (95%CI: 52.3, 64.9) of HKPR District grade 7 to 12 students had a healthy weight for their corresponding age and sex.⁵

Infant Size for Gestational Age

Approximately 12.5% of the babies born to residents of the HKPR District in 2016 were large for their gestational age (LGA), slightly higher than the provincial percentage of 9.8%. LGA babies can be at an increased risk of diabetes, obesity, asthma and cancer later in life.⁶ About 8.1% of infants born to HKPR District mothers were small for their gestational age (SGA), slightly lower than the average reported for Ontario (9.7%). SGA babies can be at an increased risk for short- and long-term health problems and even immediate death.⁷

Chronic Health Conditions.

a. Asthma

Asthma continues to be the major cause of hospitalization in children in Canada.⁷ Asthma is most common during childhood and affects at least 13% of Canadian children. The self-reported age-standardized prevalence of asthma among HKPR District youth 12-18 years of age, reported through Canadian Community Health Survey (CCHS) between 2007 to 2014 was 13.5% (95% CI: 8.8, 19.8). This was not significantly different compared to Ontario (10.8%, 95% CI: 10.6, 11.8).

*Interpret with caution

b. Diabetes

Chronic disease surveillance conducted by the Public Health Agency of Canada shows that nationally around 0.2% of children 0–10 years of age and 0.5% of children 10-18 years of age have been diagnosed with diabetes. The self-reported prevalence of diabetes reported among HKPR District youth, 12-18 years of age, between 2007 to 2014, cannot be released due to the low small sample size.

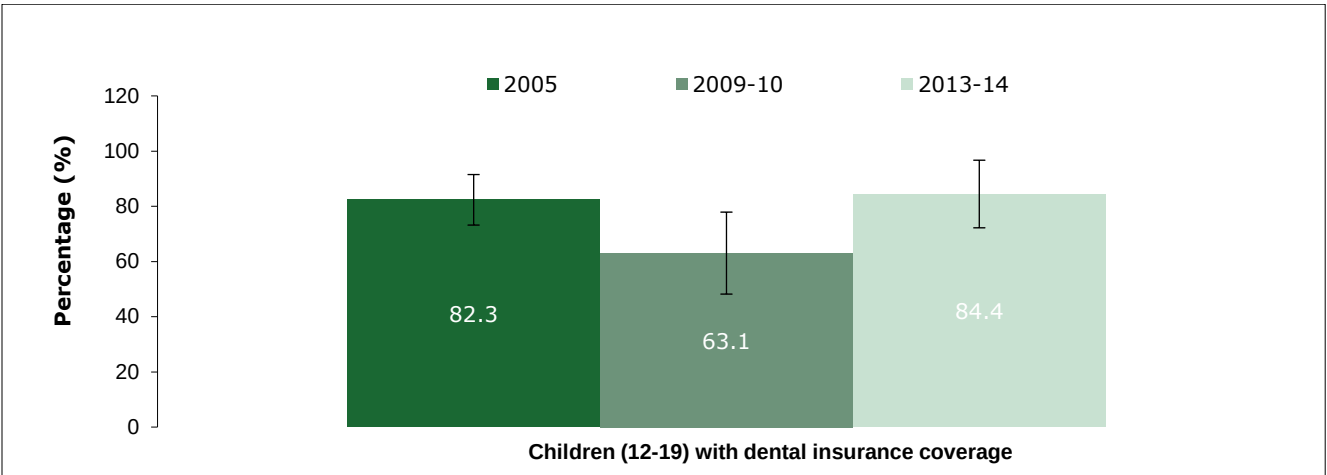
Oral Health

a. Dental Decay

Dental decay is one of the most common disorders of childhood affecting 60% of 5-17 year-olds.⁸ Early childhood caries are defined as one or more decayed, missing or filled tooth surfaces in any primary tooth in a preschool-age child or a child 0-6 year of age.⁹ Contrary to what some may believe, baby teeth are important. In addition to being space savers for adult teeth, they have a direct impact on a child's ability to eat healthy foods like fruits and vegetables, and impact speech and language development. Therefore, dental decay can have a negative impact on a child's development. The pain and infection experienced from untreated dental disease can negatively affect a child's ability to thrive, performance at school, and their self-esteem.^{10,11} Among 5-17 year-olds, dental decay is five times more common than asthma and seven times more common than hay fever.^{12,13}

Access to oral health care is mostly private in Canada as opposed to access to other primary health care. In the HKPR District in 2013-14, 91.5% of children 12-18 year-old self-reported that they had visited a dentist in the past year.¹⁴ Approximately 93% of 12-18 years old children reported visiting a dentist once a year for regular check up.¹⁵ Among 12-18 year-olds, only 84% (95% CI: 72.2, 96.7) were covered by some form of dental insurance (Figure 8.1, Table 8.1). Ninety four percent (94%) of children 12-19 years of age self-reported that they brushed their teeth twice a day and approximately 54% reported having had oral or facial pain in the past month.¹⁴

Figure 8.1 Self-reported prevalence of having dental insurance coverage among children aged 12-19, HKPR District Health Unit, 2005, 2009-2010, 2013-2014



Source: Canadian Community Health Survey, 2005, 2009-10, 2013-14

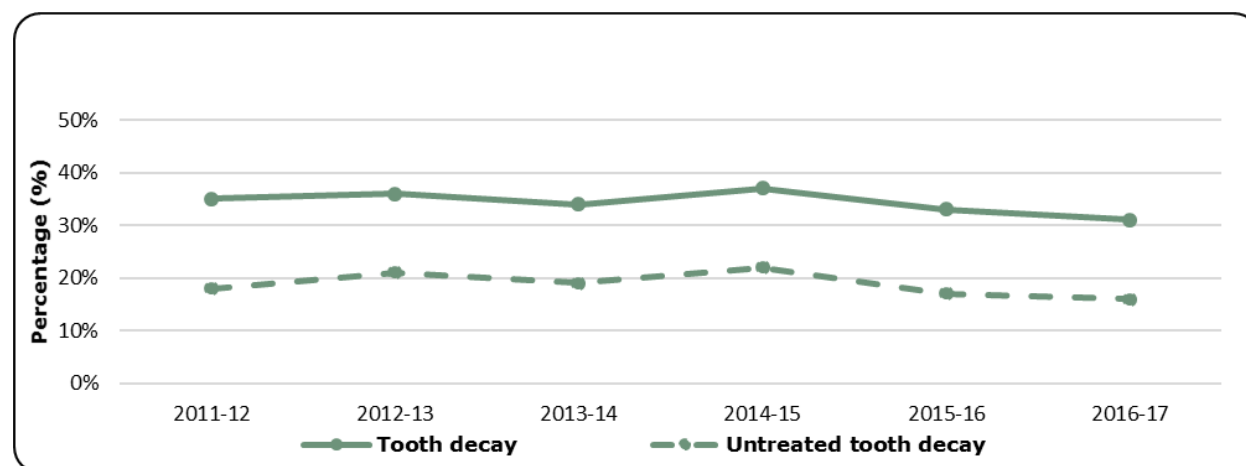
Table 8.1 Self-reported prevalence of having dental insurance coverage among children aged 12-19, HKPR District Health Unit, 2005, 2009-2010, 2013-2014

Year	Percentage (%)	Lower 95% Confidence Interval	Upper 95% Confidence Interval
2005	82.3	73.2	91.5
2009-10	63.1	48.2	77.9
2013-14	84.4	72.2	96.7

Source: Canadian Community Health Survey, 2005, 2009-10, 2013-14

The prevalence of tooth decay (including decay, missing and filled teeth) as well as the prevalence of untreated decay are assessed through oral health screenings. Within the HKPR District, the prevalence of tooth decay as well as untreated tooth decay among 0-6 year-olds remained relatively stable from 2011-12 to 2016-17 (Figure 8.2, Table 8.2). Approximately one-third of the screened children, 0-6 years of age, in the HKPR District exhibited signs of tooth decay (decay, missing or filled teeth), with approximately 50% of these children having untreated tooth decay. The prevalence of tooth decay (decay, missing or filled teeth) among elementary school-aged children was approximately 47% from 2011-12 through 2016-17 (Figure 8.3, Table 8.3).

Figure 8.2 Prevalence of tooth decay and untreated tooth decay among children aged 0-6, HKPR District Health Unit, 2011-2012 to 2016-2017



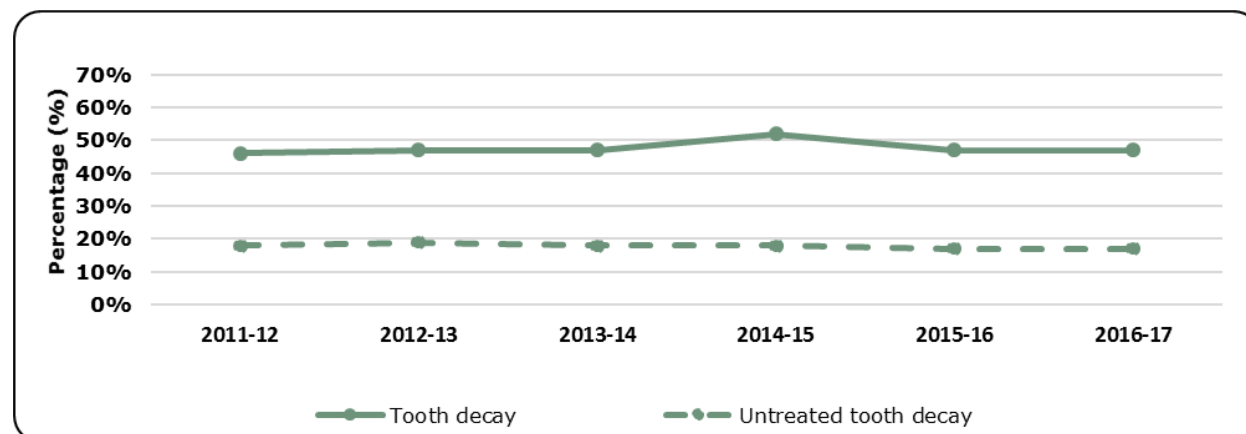
Source: Oral Health Information Support System (OHISS), extracted October 2017

Table 8.2 Prevalence of tooth decay and untreated tooth decay among children aged 0-6, HKPR District Health Unit, 2011-2012 to 2016-2017

School year	Tooth decay (%)	Untreated tooth decay (%)
2011-12	35	18
2012-13	36	21
2013-14	34	19
2014-15	37	22
2015-16	33	17
2016-17	31	16

Source: Oral Health Information Support System (OHISS), extracted October 2017.

Figure 8.3 Prevalence of tooth decay among children in grades junior kindergarten (JK), senior kindergarten (SK), 2, 4, 6 and 8, HKPR District Health Unit, 2011-2012 to 2016-2017



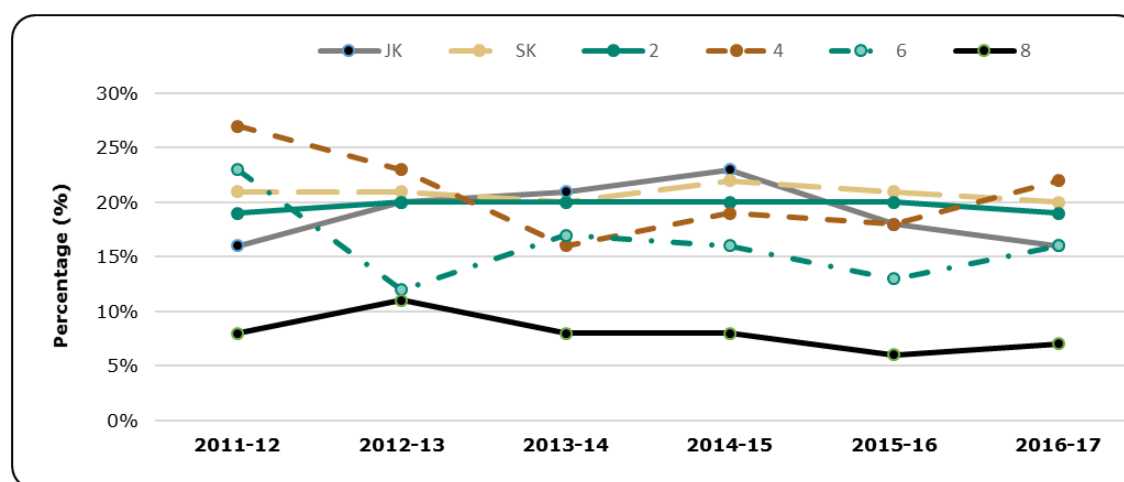
Source: Oral Health Information Support System (OHISS), extracted October 2017

Table 8.3 Prevalence of tooth decay among students in grades junior kindergarten (JK), senior kindergarten (SK), 2, 4, 6 and 8, HKPR District Health Unit, 2011-2012 to 2016-2017

School year	Tooth decay (%)	Untreated tooth decay (%)
2011-12	46	18
2012-13	47	19
2013-14	47	18
2014-15	52	18
2015-16	47	17
2016-17	47	17

Source: Oral Health Information Support System (OHISS), extracted October 2017

The prevalence of untreated dental decay among junior kindergarten (JK), senior kindergarten (SK), and grades 2, 4, 6, and 8 are shown in Figure 4 and Table 4. In general, the percentage of untreated dental decay was higher among students in the lower grades (JK, SK, and grade 2) compared to higher grades. Untreated dental decay was lowest among grade 8 students. **Figure 8.4 Prevalence of untreated tooth decay among children in grades junior kindergarten (JK), senior kindergarten (SK), 2, 4, 6 and 8, HKPR District Health Unit, 2011-2012 to 2016-2017**



Source: Oral Health Information Support System (OHISS), extracted October 2017

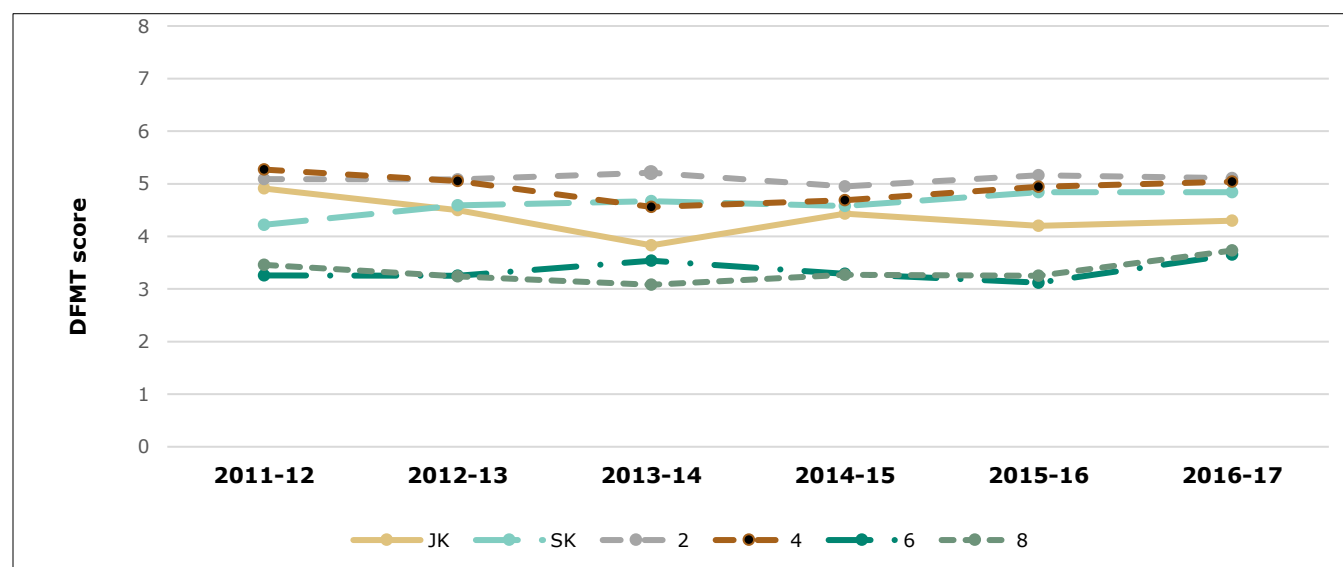
Table 8.4 Prevalence of untreated tooth decay among children in grades junior kindergarten (JK), senior kindergarten (SK), 2, 4, 6 and 8, HKPR District Health Unit, 2011-2012 to 2016-2017

School year	Grade JK (%)	Grade SK (%)	Grade 2 (%)	Grade 4 (%)	Grade 6 (%)	Grade 8 (%)
2011-12	16	21	19	27	23	8
2012-13	20	21	20	23	12	11
2013-14	21	20	20	16	17	8
2014-15	23	22	20	19	16	8
2015-16	18	21	20	18	13	6
2016-17	16	20	19	22	16	7

Source: Oral Health Information Support System (OHISS), extracted October 2017

The severity of tooth decay within a population is indicated by the deft/decayed, missing, and filled teeth (DMFT) score (primary/permanent dentition). Average deft/DMFT per person is the average number of teeth which are decayed (untreated), missing/extracted (due to decay) or filled due to decay per child examined at school screening. Overall, the average DMFT among school-aged children in the HKPR District has been relatively stable over time (Figure 8.5, Table 8.5). For most of the school years, the DMFT score was highest for grade 2 students, compared to other grades, except in 2011-12. The lowest average scores reported were for children in grades 6 and 8.

Figure 8.5 Average decayed, missing, and filled teeth (DMFT) score among school aged children in grades junior kindergarten (JK), senior kindergarten (SK), 2, 4, 6 and 8, HKPR District, 2011-2012 to 2016-2017



Source: Oral Health Information Support System (OHISS), extracted October 2017

Table 8.5 Average decayed, missing, and filled teeth (DMFT) score among school aged children in grades junior kindergarten (JK), senior kindergarten (SK), 2, 4, 6 and 8, HKPR District Health Unit, 2011-2012 to 2016-2017

School-year	Grade JK	Grade SK	Grade 2	Grade 4	Grade 6	Grade 8
2011-12	4.91	4.22	5.09	5.27	3.26	3.46
2012-13	4.50	4.59	5.08	5.05	3.25	3.24
2013-14	3.83	4.67	5.21	4.56	3.54	3.08
2014-15	4.43	4.58	4.95	4.69	3.29	3.27
2015-16	4.20	4.84	5.16	4.94	3.12	3.25
2016-17	4.30	4.84	5.11	5.04	3.65	3.73

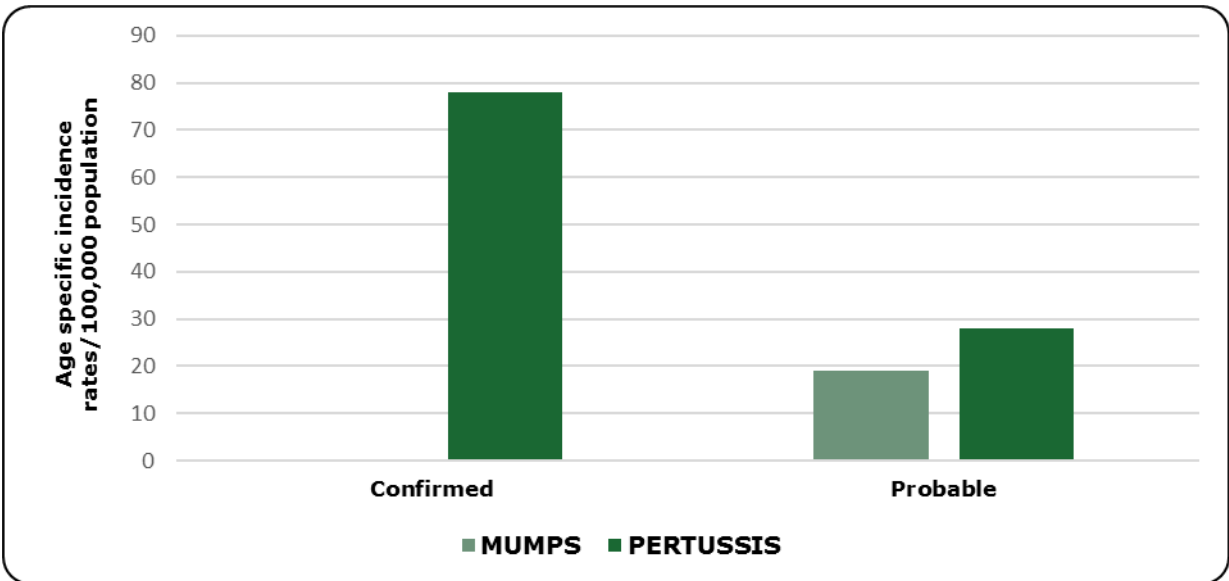
Source: Oral Health Information Support System (OHISS), extracted October 2017

Communicable Diseases

a. Vaccine Preventable Diseases

The incidence of vaccine preventable diseases (VPDs) has decreased significantly in Canada and globally due to immunization. VPD cases still reported in Ontario include measles, mumps, pertussis, rubella and haemophilus influenza type B. In the HKPR District, both confirmed and probable cases were reported for mumps and pertussis between 2010 to 2016 (Figure 8.6, Table 8.6). No confirmed cases were reported for mumps, however, an age-specific incidence rate of 19 probable cases per 100,000 population was reported for 0-18 year-olds, and the majority were among those 12-18 years old. An age-specific incidence rate of 78 confirmed and 28 probable cases of pertussis per 100,000 population were reported in the HKPR District for 0-18 year-olds from 2010 to 2016. The highest number of confirmed and probable cases of pertussis was reported among children 0-6 years of age.

Figure 8.6 Age-specific incidence rate (per 100,000 population), 0-18 Years, confirmed and probable cases of vaccine preventable diseases, HKPR District Health Unit, 2010-2016



Source: Integrated Public Health Information System (iPHIS) Ontario, extracted May 2017

Table 8.6 Age-specific incidence rates (per 100,000 population), 0-18 Years, confirmed and probable cases of vaccine preventable diseases, HKPR District Health Unit, 2010-2016

Disease	Cumulative Rate per 100,000 population, 2010-2016	
	Confirmed	Probable
Mumps	0	19
Pertussis	78	28

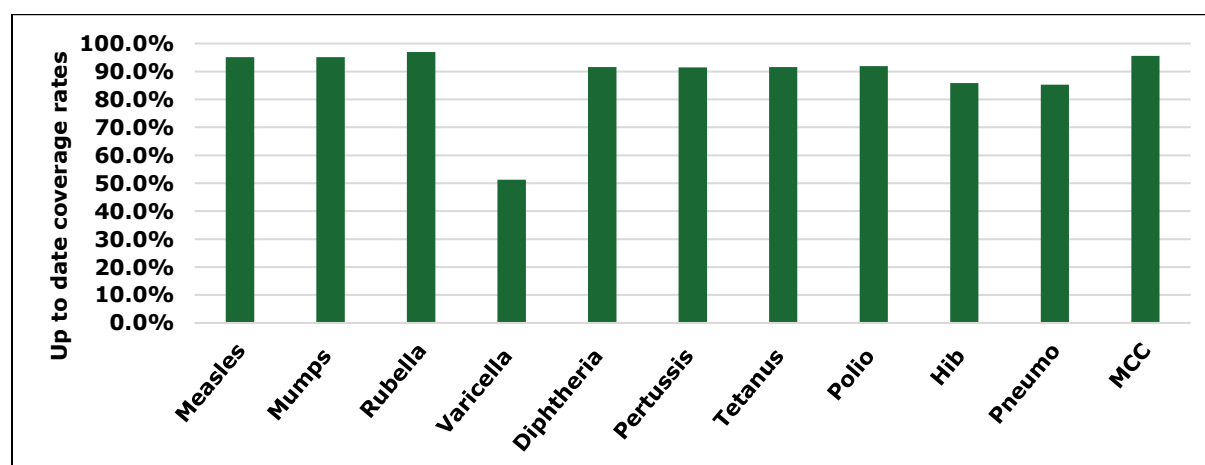
Data source: Integrated Public Health Information System (iPHIS) Ontario, extracted May 2017

b. Immunization Coverage Rates

Vaccination has greatly reduced the burden of infectious diseases. A series of selected vaccines are provided to all eligible Ontario residents, free of cost, through a publicly-funded Immunization Program. Vaccines such as human papilloma virus (HPV), meningococcal C (MCV) and hepatitis B (Hep B) are also made available through school-based immunization programs offered by the HKPR District Health Unit.

Among HKPR District children 7 years of age and 17 years of age, the up-to-date coverage rates for all vaccines (Figure 8.7, Table 8.7, and Figure 8.8, Table 8.8, respectively) were higher than the provincial rates, in the 2015-16 school year.¹⁶ However, the rates for vaccine coverage are below the targeted goals. The immunization coverage rates for HPV (52.6%), MCV (73.7%) and Hep B (62.6%) were lower than the provincial average.¹⁶

Figure 8.7 Up-to-date coverage rates for infant and childhood vaccines for 7-year-olds, HKPR District Health Unit, 2015/2016 school year



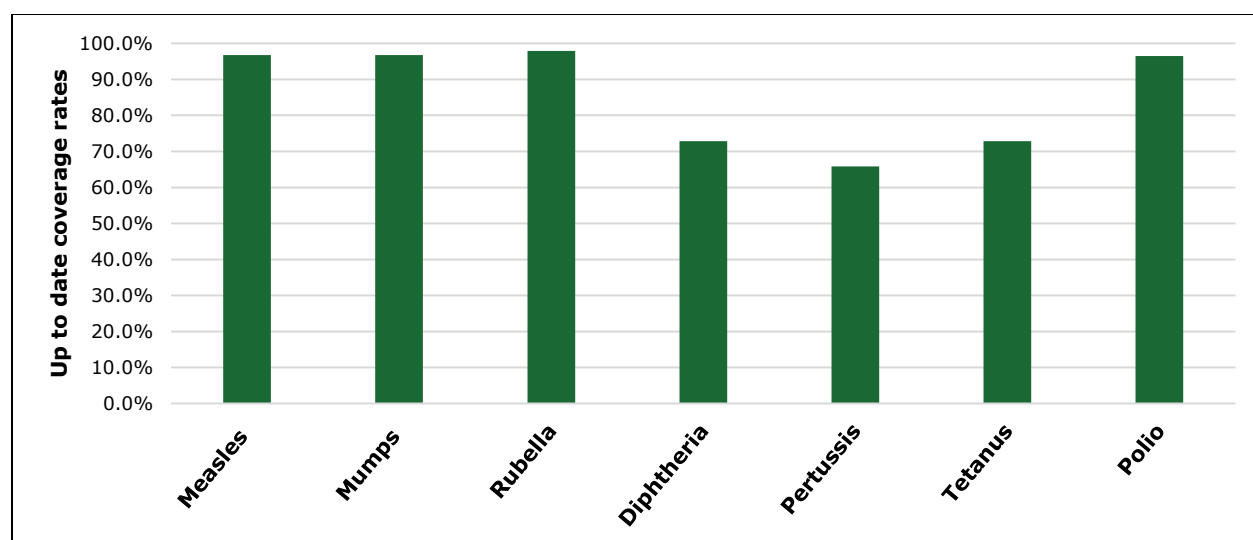
Source: Public Health Ontario, Vaccination Coverage report 2017

Table 8.7 Up-to-date coverage rates for infant and childhood vaccines for 7-year-olds, HKPR District Health Unit and Ontario, 2015/2016 school year

Disease	Coverage rate		Goal (%)
	HKPR (%)	Ontario (%)	
Measles	95.1	91.8	99.0
Mumps	95.1	91.6	99.0
Rubella	97.0	95.9	97.0
Diphtheria	91.6	84.3	99.0
Pertussis	91.5	84.5	90.0
Tetanus	91.6	84.3	99.0
Polio	91.9	84.1	99.0
Hib	85.9	81.3	97.0
Pneumonia	85.3	79.0	90.0
MCC	95.6	92.1	97.0
Varicella	51.3	46.4	85.0

Source: Public Health Ontario, Vaccination Coverage report 2017

Figure 8.8 Up-to-date coverage rates for childhood vaccines for 17-year-olds, HKPR District Health Unit, 2015/2016 school year



Source: Public Health Ontario, Vaccination Coverage report 2017

Table 8.8 Up-to-date coverage rates for childhood vaccines for 17-year-olds, HKPR District Health Unit, 2015/2016 school year

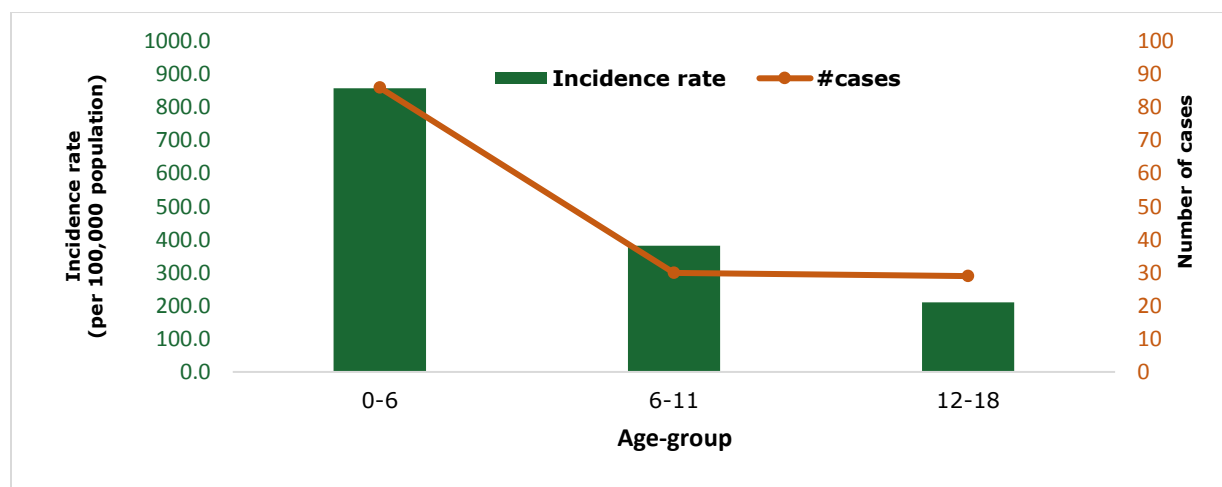
Disease	Coverage rate		Goal (%)
	HKPR (%)	Ontario (%)	
Measles	96.7	94.6	99.0
Mumps	96.7	94.0	99.0
Rubella	97.9	96.9	97.0
Diphtheria	72.8	71.5	99.0
Pertussis	65.8	65.0	90.0
Tetanus	72.8	71.5	99.0
Polio	96.5	92.9	99.0

Source: Public Health Ontario, Vaccination Coverage report 2017

c. Influenza

A total of 145 cases of Influenza were reported among children 0-to-18 years-old during 2010 to 2016. The highest incidence rate was observed among the 0-6 year-old age-group, followed by the 6-11 year-olds (Figure 8.9, Table 8.9). The incidence rate was approximately 858 cases per 100,000 population for 0-6 year-old children during 2010 to 2016. Vaccination is the most effective way to prevent influenza. Each year there is a new vaccine to protect against the circulating influenza virus strain. Even if the circulating strain(s) have not changed, getting the influenza vaccine every year reinforces optimal protection. Therefore, it is recommended that children 6-months of age and older be vaccinated against influenza each year. Influenza vaccination is provided for free to all Ontario residents 6-months of age and older.

Figure 8.9 Cumulative number of cases and incidence rates (per 100,000 population) for influenza among children and youth, HKPR District Health Unit, 2010-2016



Source: Integrated Public Health Information System (iPHIS), extracted May 2017

Table 8.9 Cumulative number of cases and incidence Rates (per 100,000 population) for influenza among children and youth, HKPR District Health Unit, 2010-2016

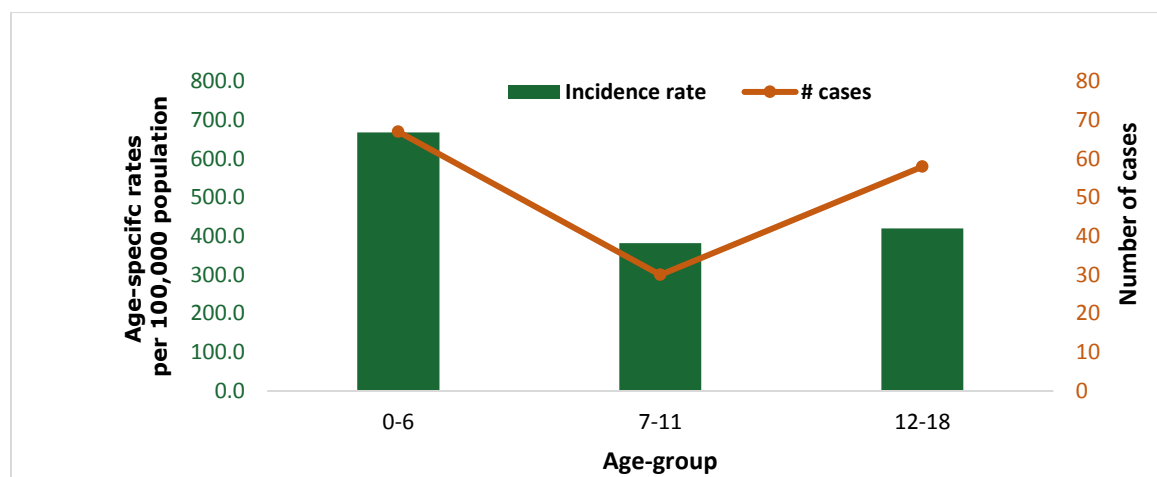
Age-group (years)	Cumulative reported cases (Number), 2010-2016	Age-specific rate (per 100,000), 2010-2016
0-6	86	857.9
7-11	30	381.8
12-18	29	210.2

Source: Integrated Public Health Information System (iPHIS), extracted May 2017

d. Enteric Diseases

Enteric diseases are the most common type of communicable disease reported among children residing in HKPR District. In the HKPR District, 155 cases of enteric diseases, were reported among 0-18 year-olds from 2010 to 2016. The most common enteric diseases reported were Campylobacter enteritis, Salmonellosis, Giardiasis and Cryptosporidiosis. The highest incidence rates were observed among children 0-6 years of age (Figure 8.10, Table 8.10). Younger children are more prone to enteric diseases due to poorer hygiene practices, such as inadequate hand washing.

Figure 8.10 Frequency and incidence rates of reported enteric illness among children and youth, HKPR District Health Unit, 2011-2016



Source: Integrated Public Health Information System (iPHIS), extracted May 2017

Table 8.10 Frequency and incidence rates of reported enteric illness among children and youth, HKPR District Health Unit, 2011-2016

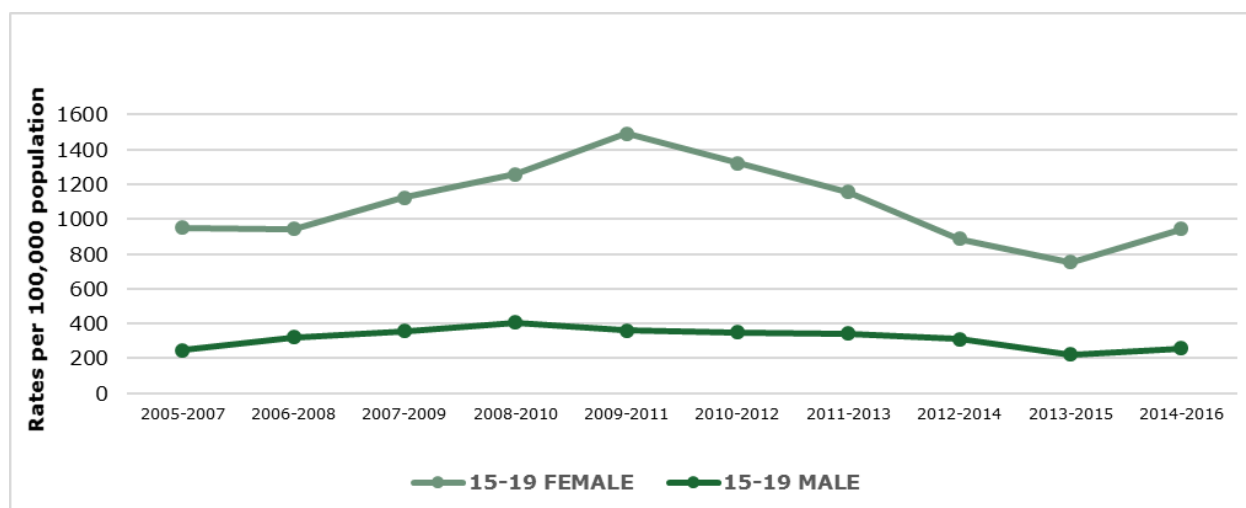
Age-group (years)	Cumulative reported cases (Number), 2010-2016	Age specific rate per 100,000 population, 2010-2016
0-6	67	668.3
7-11	30	381.8
12-18	58	420.4

Source: Integrated Public Health Information System (iPHIS), extracted January 2017

e. Sexually-Transmitted Infections (STI): Chlamydia

Chlamydia was the number one reported sexually-transmitted infection (STI) among 15-to-19-year-olds, accounting for 96% of all lab-confirmed STI cases reported to the HKPR District Health Unit from 2005 to 2016.¹⁷ Chlamydia is a bacterial, sexually-transmitted infection, caused by the *Chlamydia trachomatis* bacterium.¹⁹ Chlamydia can be transmitted by vaginal, anal, or oral sex, and infection can occur in any of these locations (e.g., cervix, urethra, rectum, or pharynx (throat)).¹⁸ Symptoms may include pain, redness, swelling, itching, bleeding and unusual discharge.^{17,18} In many cases, a person with a chlamydial infection does not show any symptoms.^{17,18} Up to 7 out of 10 females with a chlamydial infection do not show any symptoms.^{18,19} In these situations, infection can spread unknowingly between sexual partners. Among all age-groups, 15-19 year-olds had the second highest rate of chlamydia reported to the Health Unit from 2005 to 2016. Among the 15-to-19 year-olds, the incidence rate per 100,000 population was significantly higher in females compared to males. After the incidence rates peaked in 2009-11, the incidence rate among 15-19 year-old females appear to have had a steeper decline until 2013-15, compared to males, followed by an increase in the rate from 2014-16. Reports indicate that increased screening among females, for instance when doing a routine physical exam or pap smear, may be leading to a higher likelihood of detecting an infection than seen in males.^{20,21} Additional details on Chlamydia in the HKPR District Health Unit are available at http://www.hkpr.on.ca/Portals/0/PDF%20Files%20-%20CDC/Infographic_Chlamydia_2016.pdf¹⁶

Figure 8.11 Chlamydia incidence rates (3-year moving average), 15–19 year-olds, by sex, HKPR District Health Unit, 2005-2016



Source: Integrated Public Health Information System (iPHIS), extracted January 2017

Table 8.11 Chlamydia incidence rates (3 year moving average), 15-19 year-olds by sex, HKPR District Health Unit, 2005-2016

Report year	Females 15–19 years-old	Males 15–19 years-old
2005-2007	950.8	247.9
2006-2008	943.4	320.7
2007-2009	1,124.8	356.3
2008-2010	1,258.3	405.2
2009-2011	1,489.8	361.5
2010-2012	1,320.1	351.4
2011-2013	1,156.2	341.1
2012-2014	887.7	311.6
2013-2015	751.7	222.3
2014-2016	944.5	259.4

Source: Integrated Public Health Information System (iPHIS), extracted January 2017

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Risk Behaviours among Children and Youth



Adolescence and young adulthood is a period of biological, intellectual, and psychosocial development. Many lifelong skills and behaviour patterns are established during this time. Various risk behaviours such as the use of alcohol and illicit drugs usually start during adolescence. Youth with lower resiliency and developmental strengths (such as low self-esteem, low self-control) are more likely to engage in risk-taking activities and less likely to adapt to change, cope with challenges, or make healthy choices.¹ The onset of multiple risk behaviours, such as smoking, anti-social behaviour, hazardous alcohol consumption, and unprotected sexual intercourse, cluster in adolescence.²⁻⁵ These risk behaviours also increase the risk of poor educational attainment, morbidity, and premature mortality.⁶

The Ontario Student Drug Use and Health Survey (OSDUHS) gives us an understanding of what is happening locally in the HKPR District related to risk behaviours. It is a biennial population survey of Ontario students from grade 7 through grade 12 that is distributed within publicly-funded schools within Ontario.⁷ This survey helps identify local epidemiological trends in student drug use, mental health, gambling, bullying, other risk behaviours, physical activity, as well as identifying other protective factors.

Substance Use

Substance use behaviour is complex, and a wide range of risk factors has been identified and classified with reference to the individual, the family, the peer group, school and environment.⁸ Certain individual characteristics have consistently been associated with a greater risk of use and abuse. Age is perhaps the strongest determinant.

Alcohol

Alcohol is by far the most common substance used by youth. In 2017, about 54.1% (95% CI: 48.05, 60.11) of grade 7-12 students reported using alcohol in the previous 12-months. The estimate for HKPR District students is significantly higher than for other Ontario students. Most students first consumed alcohol in high-school (28.7%; 95% CI: 23.66, 34.39; $p > 0.05$); however, an additional 25.1% (95% CI: 19.84, 31.31) of students had first consumed alcohol in grade 7 or 8, which is significantly higher for HKPR District students, compared to the rest of Ontario students ($p < 0.05$). Additional details on alcohol use among grade 7 to 12 students can be accessed at <http://www.hkpr.on.ca/DataStats/StudentLifeHealth.aspx>

Cannabis

Cannabis is the second most common substance used by youth. About 22.2% (95% CI: 16.8, 28.9) of grade 7 - 12 students reported smoking cannabis at least once in the previous 12-months. The estimate for HKPRDHU students is not significantly different than the rest of Ontario students ($p > 0.05$). About 24.6% (95%CI: 18.32, 32.12) of HKPR District grade 9 - 12 students reported using a drug excluding cannabis (marijuana) (synthetic cannabis, inhalants, LSD, mushrooms/mescaline, cocaine, crack, methamphetamine, heroine, ecstasy, methoxetamine, jimson weed, salvia divinorum, BZP pills, mephedrone, tranquilizers/sedatives (non-medical (NM)), prescription opioid pain relievers (NM), Attention Deficit Hyperactivity disorder drugs (NM), and over-the-counter cough/cold medication (to "get high"), in the previous 12-months. The estimate for HKPRDHU students is not significantly different than the rest of Ontario students ($p > 0.05$). Additional details on alcohol use among grade 7 to 12 students can be accessed at <http://www.hkpr.on.ca/DataStats/StudentLifeHealth.aspx>

Tobacco

Tobacco ranked as the third most used substance in 2017. Approximately 12% of grade 7 to 12 students (95% CI: 8.4, 17.6) self-reported that they have smoked a whole cigarette in the past 12-months. The estimate for HKPR District students is statistically higher than other Ontario students. Additional details on tobacco use among grade 7 to 12 students can be accessed at <http://www.hkpr.on.ca/DataStats/StudentLifeHealth.aspx>

Sexual Activity

Sexual activity at an early age, having multiple sexual partners, and unprotected sex put teens at risk of sexually transmitted infection (STI) and at risk of unplanned pregnancy. Between 2005 and 2014, 36% (95% CI: 27.5, 46.0) of 15-19 year-olds in the HKPR District reported that they had sexual intercourse at least once. In 2015, there were 80 teen pregnancies in the HKPR area.⁹ The HKPR teen pregnancy rate of 17.2 per 1,000 females, 15-19 years of age, was not significantly different from the provincial rate of 15.8 per 1,000 females, 15-19 years of age.

Among all age-groups, the 15-19 year-olds had the second highest rate of confirmed chlamydia cases reported to the Health Unit from 2005 to 2016. Chlamydia specific details for the HKPR District Health Unit are provided under "Health status and disease conditions" chapter, available at http://www.hkpr.on.ca/Portals/0/PDF%20Files%20-%20CDC/Infographic_Chlamydia_2016.pdf.

Physical Activity

A lack of physical activity and excessive screen time can have negative effects of children's long-term health.¹⁰ Opportunities to support children and families to be physically active and reduce screen time are essential. Physical activity is an important part of healthy living at any age. It is especially essential for children. Physical activity helps children develop both fine and gross motor skills, improve cardiovascular fitness, and increase strength, flexibility, and bone density. Physical activity also helps maintain a healthy body weight and reduces the risk of chronic disease and other health-related problems. Maintaining a physically active lifestyle can also decrease the likelihood of using tobacco, alcohol, and drugs. Physical activity also contributes to mental health and well-being.

The Canadian Physical Activity Guidelines and the Canadian 24-Hour Movement Guidelines for the Early Years (0-4) recommend that (i) children under 1-year-old are active "several times daily – particularly through interactive floor-based play", and (ii) that children 1-4 years old receive "at least 180 minutes of physical activity *at any intensity*".¹¹ Additionally, the Canadian 24-Hour Movement Guidelines for Children and Youth (5-11) recommend that (i) children 5-11 years old receive 60 minutes of daily activity at moderate- to vigorous-intensity, and (ii) that youth aged 12-17 years old receive "at least 60 minutes of moderate- to vigorous-intensity physical activity daily."¹²

In the 2016/17 school year, the majority of grade 7 to 12 students (74.1%; 95% CI: 69.1, 78.6) in the HKPR District did not meet the 60 minute requirement for daily physical activity.¹² Additionally, 47.5% (95% CI: 40.8, 54.3) of local grade 7-12 students reported not participating in physical activity or physical education class while at school.¹³ Some of the reasons given by Ontario parents for decreased physical activity of children include "time pressures, changes in kids' activities because of technology, costs, concerns about safety, physical environments, and social disparities".¹³

Screen Time

Screen time for children aged 5–11 and 12–17 years old, when replaced with physical activity, may lead to positive social behaviours, increased academic achievement, improved self-esteem, body composition, and fitness.¹⁴ The Canadian Sedentary Behaviour guidelines that recommend limits on recreational screen time are as follows,

- a) under 2 years old: not recommended;
- b) 2-to-4 years old: under 1 hour per day;
- c) 5-to-11 years old: 2 hours or less per day; and
- d) 12-to-17 years old: less than 2 hours per day; lower levels are associated with additional health benefits.¹⁴

Analysis of the Kindergarten Parent Survey (KPS) for the City of Kawartha Lakes and Haliburton County revealed local Senior Kindergarten (SK) children spent significantly more time watching TV, using the computer or playing computer games (at home on school days) than the Ontario average

for SK children in 2006. This was similar in 2012 as well, with local children spending 1.7 hours in front of a screen at home on school days.¹⁵ The KPS Data for Northumberland County was unavailable and therefore not included.

In the 2016/17 school year, approximately 53% (95% CI: 47.3, 58.8) of grade 7 to 12 students reported having more than 2 hours of screen time a day.¹³

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What HKPR is Doing About Child Health



We all play a role in ensuring optimal well-being for children and youth across the HKPR District. As outlined in the Ontario Public Health Standards¹, the Health Unit has the mandate to implement and advocate for programs, services, health, and social policies to support optimal growth and development so that children and youth can reach their full potential. This section highlights several, albeit not all, of the programs, services, and advocacy initiatives that address child and youth health.

Families with Children 0-6 Years

The [HKPR District Health Unit](#) supports local families to ensure children (birth to age 6) get a healthy start to life and are ready for entry into school and beyond. These programs and services help nurture families and promote optimal well-being. The Health Unit works closely with community partners to offer a variety of programs and services.

Prenatal Education

Prenatal classes are offered for expectant parents and cover topics including labour and delivery, infant care and safety, breastfeeding, and preparation for parenthood. Additionally, in partnership with local agencies, targeted prenatal classes are available to expectant parents up to 24-years of age and anyone who prefers a more informal or smaller class size. Registration and participation in HKPR District Health Unit prenatal classes are free to participants.

Support for Mothers

Programs related to parenting skills and health education are delivered in all three counties for young mothers. More specifically, in partnership with the [Kawartha Pine Ridge District School Board \(KPRDSB\)](#), the Public Health Nurses support the [Teen Education and Mothering \(TEAM\)](#) program in Cobourg. Additionally, in partnership with the [Ontario Early Years Centre](#) in Lindsay and [Supportive Initiative for Residents in the County of Haliburton](#) (SIRCH Community Services in Haliburton), the Canada Prenatal Nutrition Program and the Community Action Program for Children are also supported by Public Health Nurses.

Healthy Babies Healthy Children (HBHC) Program

Healthy Babies Healthy Children (HBHC) is a prevention and early intervention program that supports expectant parents, young children and their families who are experiencing risk factors (such as economic, psychosocial, behavioural, lifestyle) to improve their well-being and long-term health. Through the HBHC program, Public Health Nurses and Home Visitors work with individuals and families who are pregnant and/or have children up to 6-years of age. This voluntary, no-cost, home visiting program offers information, supports, and links to community resources and services for individuals and families.

The HBHC program also provides in-home support to families experiencing parenting difficulties by teaching effective strategies, role modelling positive responses to challenging behaviours, empowering and encouraging parents, and linking them to appropriate programs and services. Other examples of topic areas include: healthy pregnancy and birth, parent-child attachment, healthy growth and development, breastfeeding, food and healthy nutrition.

Breastfeeding Supports and Advocacy

The HKPR District Health Unit works towards increasing breastfeeding rates. Support and education are offered to parents and caregivers to make informed decisions about feeding their infant(s) and young children. Public Health Nurses provide one-on-one breastfeeding support to families over the telephone, in person at breastfeeding clinics or through home visits.

The HKPR District Health Unit collaborates with community partners to influence the development and implementation of healthy breastfeeding policies, and the creation or enhancement of supportive environments. The Health Unit participates on the Ontario Public Health Association (OPHA) Breastfeeding Promotion Workgroup, and locally works with breastfeeding coalitions in the City of Kawartha Lakes (CKL) and Northumberland County.

The CKL Breastfeeding Coalition has partnered with the Lindsay Downtown Business Improvement Association (Lindsay Downtown BIA) in the *We Support Breastfeeding* campaign. The *We Support Breastfeeding* campaign encourages local businesses in Lindsay to become breastfeeding-friendly places, where women are welcome and feel comfortable breastfeeding their children. The information packages include *We Support Breastfeeding* window clings that business operators are asked to post in shop windows or entryways to note breastfeeding is supported on their premises.

In Northumberland County, the Health Unit has partnered with Northumberland Hills Hospital to develop baby-friendly policies and practices as part of the Baby-Friendly Initiative (BFI) Working Group and the Northumberland Hills Hospital Perinatal Committee.

The HKPR District Health Unit Board of Health has shown its support for the creation of supportive environments for families in its approval of the Baby-Friendly Initiative (BFI), and advocated to the federal government to enact legislation to ensure that the *International Code of Marketing of Breastmilk Substitutes* is honoured.

Parenting Support Programs

Parenting education programs, presentations, and support groups are offered to parents and caregivers throughout the HKPR District Health Unit. Health Unit staff work with community partners to address the needs of local families. Positive parenting messaging and strategies for parents are promoted through individual client interactions, group education, parenting support groups, community events, news releases, and social media.

For example, the Health Unit implements public awareness campaigns that inform our communities how physical punishment harms child development, and promote effective positive discipline parenting strategies. Various campaigns include: *Children See, Children Learn*; *Healthy Baby, Healthy Brain*; *My Child and I*, *Attachment for Life* from the Best Start Resource Centre; *What's Wrong with Spanking*, from the Department of Justice Canada and the Public Health Agency of Canada; *Think Twice, Your actions today affect a lifetime*, in collaboration with the Ontario Early Years Centres within the HKPR District, Peterborough, Peterborough Public Health, Kinark Child and Family Services of Peterborough and Northumberland; and the *Purple Ribbon Campaign* in association with the Children's Aid Societies in our district.

Public Health Nurses have received training in the *Positive Discipline in Everyday Parenting* program. This is an evidence-based and evaluated program that was founded on the rights of children and healthy child development principles. The program will be offered in our communities.

Parenting support groups include *Baby's Own* and *Parent and Tot Time*. Topic areas within these support groups may include: positive discipline, postpartum adjustment, parent self-care, healthy relationships, growth and development, nutrition, physical activity, and keeping children safe.

Early Identification

The HKPR District Health Unit offers screening for the early identification of any concerns in children. If appropriate, referrals to appropriate community resources and supports are completed. For example, referrals are made to the following community support agencies when needed: Five Counties Children's Centre, Northumberland Child Development Centre, Kinark Child and Family Services, CHIMO Youth and Family Services, Point in Time, and Supportive Initiative for Residents in the County of Haliburton (SIRCH Community Services in Haliburton).

Haliburton, Kawartha, Pine Ridge District Preschool Speech and Language Program

The HKPR District Preschool Speech and Language Program is a network of community partners (including HKPR District Health Unit) that provide speech and language services to children, aged 0 to 6 years. The focus of the program is on prevention, early identification, and treatment of speech and language problems. Other activities include the maintenance and promotion of the KidTalk Preschool Speech and Language Services website (www.kidtalk.on.ca).

The Health Unit also promotes campaigns such as a *Book on Every Bed*, which is designed to encourage families to give children books, and participates in Family Literacy Day and Speech Month promotion and screening events.

Roots of Empathy

In partnership with [Trillium Lakeland District School Board](#) (TLDSB), Public Health Nurses run the Roots of Empathy program in the City of Kawartha Lakes and Haliburton County (Grades K to 8). This evidence-based elementary classroom program has been shown to significantly reduce levels of aggression and bullying among students by increasing social and emotional skills.^{2,3}

Injury Prevention

The HKPR District Health Unit collaborates with community partners to provide injury prevention information to parents and caregivers, as well as agencies working with parents. One example is the campaign *Safe Sleep for Your Baby*, by Health Canada, which explains the steps to create a safe sleep environment for babies and reduce the risk of Sudden Infant Death Syndrome (SIDS). The Health Unit also provides information on falls and injury prevention and participates in Safe Kids Week promotion. Information is also distributed related to product recall and consumer product safety.

Children and Youth 7-19 Years

Injuries and Substance Misuse

The HKPR District Health Unit works with our local school boards to incorporate safety and substance misuse prevention into healthy school programming, and offers curriculum support to local teachers. Health Unit staff partner with community organizations to increase access to safety equipment and low-cost sports equipment. The Health Unit participates in the Safe Communities Northumberland partnership, including offering the *No Regrets* injury survivor program to local high schools. The Health Unit has hosted a Community Connections Expo to link youth and caregivers to local services and supports. The *Brighten Up* campaign focused on pedestrian and cycling safety. HKPR District Health Unit staff participate in multiple community partnerships that address road safety, falls, self-harm/violence, and substance misuse among youth.

Healthy Eating and Physical Activity

The HKPR District Health Unit works with community partners to provide opportunities for skill development in healthy eating and food skills. The Health Unit supports school nutrition programs and the Good Food Box program to increase access to healthy foods. Staff also work with community partners regarding sustainable food systems. Staff provide support to municipal councils and recreation facilities to increase access to active transportation and physical activity. The Health Unit has also been involved in the Poverty Reduction Strategy initiatives in the City of Kawartha Lakes and Haliburton County to address food security and transportation (for more information see cklhpoverty.ca).

Tobacco Control

The HKPR District Health Unit provides support regarding prevention and cessation to residents and community groups, including schools and parent groups.

The *Smoke Free Movies* program targets parents of children and youth to educate them about the effects that smoking in movies has on their children such as increasing the likelihood of them trying smoking. It also advocates for parental support for changing the ratings of any movie with smoking in it to an 18A, which the Central East Tobacco Control Area Network (CETCAN) made a priority. The Health Unit promotes region-wide communication campaigns, and hosts local events where

families are invited to watch a smoke-free movie and are provided with information about the campaign and incentive items.

The *Change Connect Change* program is a smoking cessation program implemented in high schools. This program focuses on fostering school social connectedness, resiliency and smoking cessation.

The *Stay Bright Unlit* program, in the City of Kawartha Lakes, is a youth-led group that is supported by the Health Unit. This group plans and implements youth tobacco prevention programs and the annual community event called *BOOKFACE*, which focuses on youth health, resiliency and tobacco prevention.

The Health Unit also enforces the Smoke Free Ontario Act (SFOA),⁴ the provincial legislation that limits minors/youth access to tobacco and tobacco-products, including enforcement visits to schools and tobacco vendors.

School Health

Health and education are closely linked. Healthy schools support student well-being and success. Education is a key determinant of health. Research clearly shows that healthy students are better prepared to learn and develop the values, attitudes and skills necessary to be competent, effective and resilient adults^{5,6}

In partnership with local school boards and their respective schools, the Health Unit recognizes the importance of creating healthy learning environments in which students can attain and sustain optimal health and development potential. The three local school boards that the Health Unit works with are Kawartha Pine Ridge District School Board (KPRDSB), the Peterborough Victoria Northumberland Clarington Catholic District School Board (PVNCCDSB) and the Trillium Lakelands District School Board (TLDSB). These partnerships include review and feedback for revisions to various health-related policies, support of the Healthy Schools process and support of mental health for children and youth. For example, review and feedback were provided to Trillium Lakelands District School Board during revisions of its *Nutrition – Creating a Healthy Nutrition Environment* Policy and Procedure.

Other examples of work with schools are listed throughout various topic-specific sections in this report. For more detailed information, see school health reports found at www.hkpr.on.ca.

Healthy Schools is a comprehensive approach to address the health and well-being of students. Healthy Schools involves participation from and collaboration with students, staff, parents and community partners and focuses on the health issues specific to individual school communities. It is based on the Ontario Ministry of Education's *Foundations for a Healthy School* framework. The Healthy Schools approach enhances the physical, emotional, social and spiritual health of the whole school community and can strengthen a school's capacity as a healthy setting for living, learning and working.

The Ontario Public Health Standards mandate that health units promote and support school communities to become Healthy Schools. By the end of 2016, the HKPR District Health Unit was supporting seven elementary schools to become Healthy Schools. For many of these schools, mental health was identified as a priority issue.

Mental Health

The HKPR District Health Unit works with community partners to provide mental health resources and support to local youth. The HKPR District Health Unit supports schools and school boards in promoting mental health, well-being and resilience in several ways. The Health Unit also promotes and supports school communities who use the Healthy Schools approach to identify mental health issues, develop and implement action plans and evaluate their effectiveness. The program staff: support school boards in developing mental health strategic plans; collaborate on the development and implementation of mental health education events for students and professional development workshops for staff; provide education on the Healthy Schools process to address mental health needs; identify best practice, evidence-based programs and curriculum supports to promote mental health for students; and promote mentally healthy workplaces.

Oral Health

The HKPR District Health Unit offers oral health screening in elementary schools, at the Health Unit offices in Port Hope and Lindsay and in the community at the local Ontario Early Years Centres and at area daycares. Registered Dental Hygienists (RDHs) identify children with urgent dental problems and inform parents of the need for dental treatment and the financial assistance for dental care that is available. Certified Dental Assistants (CDAs) follow up to ensure dental work has been done and also identify children who would benefit from one or more dental preventive services and promote these services to parents. Identifying children with oral health problems early is essential since oral health pain and untreated dental infection in childhood can negatively impact healthy growth and lead to trouble eating, sleeping, learning, and speech development. Oral health pain can also have a poor impact on socialization and self-esteem (<https://www.cps.ca/en/documents/position/oral-health-care-for-children>)

Registered Dental Hygienists also offer screening to students in high schools and kids during non-school screening events organized outside of regular office hours at non-Health Unit locations.

CDA's identify which schools have higher dental needs, or have higher intensity levels, as defined in the oral health program protocols and obtain local data to be used and analyzed for program planning, promotion, evaluation and reporting purposes.

The HKPR District Health Unit offers free preventive clinics at the Port Hope and Lindsay offices for children 17 years of age and under who are clinically and/or financially eligible. Staff recommend preventive services including pit and fissure sealants, scaling, fluoride varnish application and oral hygiene instruction to kids identified as having a clinical need during dental screenings.

The Health Unit offers a free universal program, *Fluoride Varnish (FV) for Children*, which includes two applications per year, to all children in local daycares and has done so since September 2013. In September 2015, the Health Unit began offering the same FV program to all kindergarten (JK/SK) students in all area elementary schools. As of January 2016, all children are now clinically eligible for FV since municipalities within the HKPR District do not add fluoride to their drinking-water sources. Families who do not have dental insurance or would find it a financial hardship to pay for these services, can make an appointment for their child to have one of these preventive services done at the Port Hope or Lindsay Health Unit office locations.

The dental secretary, along with CDAs and RDH's, provides client navigation and support, outreach and case management for the *Healthy Smiles Ontario* program to ensure that families enroll in the appropriate stream such as Core, Preventive and Emergency & Essential Services and can access dental care for their children.

The Health Promoter focuses on the oral health programs, together with the oral health staff provides oral health education, shares local dental statistics and promotes the *Healthy Smiles Ontario* program, dental screening and preventive services, including the free FV program to parents at Ontario Early Years Centres and other parent and child groups sponsored by the Government of Ontario. Staff also provide oral health education, to local and provincial partners and service providers as well as to the community through the local media.

To increase access to dental care, the HKPR District Health Unit has presented Resolutions to its Board of Health to gain support for the need to improve access to dental care for children and adults. The Health Unit works in partnership with the Northumberland Oral Health Coalition and provincially with the Ontario Oral Health Alliance (OOHA) and the Ontario Association of Public Health Dentistry to raise awareness and influence public health policy to enhance access to dental care for all Ontarians. In partnership with these groups, the HKPR District Health Unit has participated in an Ontario-wide postcard campaign and more recently a dental petition, which involved collecting signatures from hundreds of local members of the public who wish to see improved access to dental care for all and meets regularly with local members of provincial parliament. In 2017, the Health Unit sought support for a OOHA Resolution that calls for the need to improve access to dental care for low-income adults and seniors from the three local municipal councils. The Resolution was passed by the Councils of both Northumberland County and the City of Kawartha Lakes.

Childhood Immunization

To prevent the spread of vaccine-preventable diseases, the HKPR District Health Unit offers immunization clinics and services in a variety of settings. School-based Immunization clinics provide select publicly funded vaccines for grade 7 students. Vaccinations offered in the school setting include Hepatitis B, Menactra (Meningococcal) and Human papillomavirus (HPV) vaccines. The Health Unit also provides service to families who do not have, or cannot access, a family doctor by holding vaccination clinics once a month in our Port Hope and Lindsay offices, every other month in our Haliburton office and at a community location in Brighton.

Staff work with child care providers and schools in the HKPR District to monitor the records of all attendees to ensure the children are up-to-date for all their mandatory vaccinations, as required by the Child Care and Early Years Act⁷, the Immunization of School Pupils Act⁸, and in accordance with the Ontario Public Health Standards (2018).¹

Outbreak Investigation and Infection Control support to Child Care centres and Schools

Health Unit Infectious Diseases program staff provide resources and recommendations for any calls received from teachers, principals, or parents related to any reportable or non-reportable illnesses. In the event of an outbreak in child care facilities, the Health Unit conducts visits to child care centres and works with the staff to discuss outbreak management, isolation of ill children and staff, cleaning, and infection control measures. The Health Unit also offers resources and recommendations to child care centres in the form of fact sheets regarding the specific illness, a supportive outbreak letter for parents to explain an outbreak, symptoms to watch for, as well as details around the length of time to stay home for both ill children and staff. Other resources available to child care facilities include a laminated Diaper Changing Procedure poster, books such as *William Won't You Wash Your Hands*, Dr. Seuss's *Oh, the Things you can Do that are Good for you!*, *The Berenstain Bears Come Clean for School*, *Germs Are Not For Sharing*, and I Washed My Hands stickers. Teachers have also signed out the "Glow Germ" as a teaching aid for how to wash

your hands, and the Common Childhood Illnesses Reference Sheet was distributed to all child care centres and schools in the HKPR District Health Unit area, which has information and exclusion criteria regarding several non-reportable, common childhood illnesses.

The Health Unit also provides support to those who contact the Health Unit for any related questions and concerns. A child care manual is being put together that will contain information on infection control, outbreak management, relevant illness, fact sheets, and additional resources of interest.

For the past few years during Infection Control week, in October, the Health Unit has collaborated with child care centres in the HKPR area to have their children participate in a coloring contest, where names were drawn, and the contest winners received a package with coloring books, crayons, reading books based on illness and infection control concepts, as well as incentive items from the Oral Health Program.

Sexual Health

When making healthy sexual choices, it is important to know the potential risks related to sexual activity and precautions needed to be taken in order to lower the risk of unplanned pregnancies, sexually transmitted infections (STIs), and other problems.

Sexual Health Nurses provide classroom presentations on sexually transmitted infections (STI) and pregnancy prevention as requested by elementary (Grades 7 and 8) and secondary (Grades 9 to 12) school teachers. The *Sex Text for Educators* Newsletter is an electronic newsletter for educators, distributed two to three times annually. The newsletter provides educators with current information, classroom resources and links to credible websites on sexual health topics.

Sexual Health Nurses participated as facilitators in two performances of *Far From The Heart*, which is an educational, interactive performance by the professional theatre group Sheate, that addresses in a creative and engaging manner the tough issues of teenage dating violence, date rape, and abuse. This is done in partnership with the Trillium Lakelands District School Board.

Sexual Health Clinic services are offered in Lindsay, Haliburton, Fenelon Falls, Port Hope, Cobourg, Campbellford, and Brighton locations. At these clinics, the following services are offered: testing and treatment for sexually transmitted infections, low-cost birth control, free condoms, free pregnancy testing and counselling, emergency contraceptive pill, as well as information and resources about healthy sexuality. *Men's Sexual Health Clinics*, scheduled monthly, are well established in Lindsay and Northumberland Counties.

To expand the Health Unit's service reach to high-risk populations, the Health Unit is utilizing non-traditional social media platforms. In partnership with not-for-profit community partners, condoms are distributed to high-risk individuals.

Social Determinants of Health (SDOH)

The social determinants of health (SDOH) are the circumstances in which people are born, grow, live, work, and age. Environmental factors (such as where we live, work, and play), economic factors (such as income and level of education), and social factors (such as social supports and family structure) play a significant role in determining how healthy we are.⁹

The Health Unit has been involved in advocating for policies and programs in partnership with our community stakeholders for a variety of initiatives related to the SDOH of income, healthy child

development, employment and education. Within those determinants we primarily focus on poverty reduction, housing and homelessness, transportation, food security, and education.

Numerous awareness campaigns have been implemented in the District to build awareness about the SDOH such as the *Rethink Poverty: Change Minds Change Lives*, *Rethink Health*, and *Income is the Solution to End Poverty* initiatives. There have been many reports developed for the community such as the *InFocus Social Determinants of Health* report and *Addressing Food Insecurity Through Income* Summary Report. See www.hkpr.on.ca/InfoSet/Adults/Poverty.aspx and www.hkpr.on.ca for more information.

In partnership with our community stakeholders, a Poverty Reduction Strategy has been developed for Haliburton County and the City of Kawartha Lakes. We continue to work with our partners to implement the action plans. For more information, see the Poverty Reduction Strategy and action plans at cklhpoverty.ca.

The HKPR District Health Unit's Board of Health has passed resolutions advocating for a National Pharmacare Program and for the Basic Income Guarantee. In 2016, Health Unit staff in partnership with our community stakeholders, began advocacy efforts for the Basic Income Guarantee Pilot for Ontario. With Lindsay being selected as one of the pilot sites, the Health Unit continues to be involved with the promotion of the pilot and participates on the advisory committee to the Ministry of Community and Social Services which is responsible for the implementation of the pilot.

Finally, to engage youth in building awareness and capacity with the SDOH, Health Unit staff hold annual workshops for the high schools of Northumberland County. Each of the six high schools sends student representatives from their social justice or student government groups to hear guest speakers and to engage in workshop activities to determine creative ways to create inclusive, caring school environments, and bring about awareness to combat stigma related to issues of poverty and homelessness.

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Conclusion

Child health is essential for the physical, social, and emotional development of children, and is important to ensure that the HKPR District has a healthy and productive population, both now and in the future. Children and youth with higher levels of health and well-being learn better in school, are more likely to complete high school, can cope better with the stresses of everyday life, and are more likely to positively contribute to their communities.^{1,2}

This report provides local data for the HKPR District to illustrate the health and health needs of children in our communities based on available child health indicators. Health indicators provide a starting point to understand the various factors, including the inequitable distribution of the social determinants of health that influence child health and well-being.

Current available health indicators suggest that most children are healthy; however, there are several areas of concern related to the social determinants of health including the prevalence of poverty, parental unemployment, parental stress and risk behaviours, limited access to licensed childcare and community programs, children's readiness for school, and dental health concerns. The Health Unit along with parents, families, caregivers, and community partners are encouraged to address these concerns to optimize the health and well-being of our children.

Across the HKPR District, there is a continued need for the provision of programs and services. The HKPR District Health Unit will continue to deliver health protection, health promotion, and disease prevention programs, and its advocacy efforts to support policies that foster optimal child development. As we move forward, we will continue to monitor the indicators of child health to better understand the health status and trends among children as well as identify areas for health improvement. As we learn about the health needs of our children, together we can address the social determinants of health and build communities that enable children and youth to become contributing members of the HKPR District.

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Data Sources & Limitations

There are considerable gaps and limitations related to Ontario's ability to monitor child and youth health, primarily because Ontario lacks a coordinated surveillance system that collects child health data.¹ The limited availability of data as well as small sample sizes specifically for children under 12 years of age, pose challenges to the ability to conduct analysis with a health equity lens. Therefore, this report is not inclusive of all child health indicators. Provincial comparisons are made throughout the report where possible.

IntelliHealth

IntelliHealth is a data repository that contains clinical and administrative data from within the Ontario healthcare system.

- The population estimates used in this report were obtained from the Population Estimates, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO
- The hospitalization data used in this report were from the Canadian Institute for Health Information (CIHI) Discharge Abstract Database (DAD), 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care
- The Emergency department visits reported were from the National Ambulatory Care reporting system, 2015, made available through IntelliHealth Ontario, Ministry of Health and Long-Term Care

Limitations:

Emergency department and hospitalization data are influenced by the availability and accessibility of alternate care. This can also influence comparison between areas and time periods.

2016 Census, Statistics Canada

The Canadian Census is conducted by Statistics Canada and is mandated under the Statistics Act. 1970-71-72, c. 15, s. 1. The 2016 Census was used in this report.

Limitations:

The Census undercounts some groups, such as the homeless, young adults, and aboriginal people on reserves. Comparison between censuses is affected by changes in the wording of questions and in the definition of population concerned.

Canadian Community Health Survey

The Canadian Community Health Survey (CCHS) is a cross-sectional survey conducted by Statistics Canada that collects information related to health status, health care utilization, and health determinants for the Canadian population. Households are randomly selected as well as the individual within the household. As per Statistics Canada data release criteria, responses with a coefficient of variation (CV) between 16.6% and 33.3% are subject to high variability and should be interpreted with caution. Additionally, responses with a CV greater than 33.3% cannot be released. The data used for this report were collected between 2007 and 2014 and for respondents aged 12 years and over.

Limitations:

The target population for the CCHS is all Canadians aged 12 and over, and excludes individuals living on First Nations Reserves and Crown land, institutions such as correctional facilities, Canadian Forces bases, and some remote areas. Data from the CCHS included multiple survey years, and in some cases, were combined to obtain a sample-size that would allow for more

stable/reliable estimates. Depending on the question, data may be subject to recall bias, social desirability bias, non-response bias and errors from proxy reporting.

Ontario Student Drug Use and Health Survey (OSDUHS)

The Ontario Student Drug Use and Health Survey (OSDUHS) is a population survey of Ontario students from grades 7 to 12, conducted every two years, that is distributed within publicly-funded schools in Ontario.³ The survey is self-administered, anonymous, and considered representative of all Ontario students in both English and French language schools, within the Public and Catholic School Boards.² The data collected through the survey include data on risk-factors and behaviours of students in grades 7 to 12. In both the 2012/13 and the 2016/17 school years, the HKPR District Health Unit purchased an over-sample of the OSDUHS, from the Centre for Addiction and Mental Health, in order to obtain local estimates for youth in the HKPR District.

Limitations:

With self-administered surveys, there is a potential that some questions may be misinterpreted, which would inadvertently lead to errors. Additionally, some schools declined to allow their students to participate in the OSDUHS. If systematic differences exist between non-reporting students/schools, compared to the students/schools completing the question/survey, the data may be biased (over- or under-reported).

School Readiness/Early Development Instrument (EDI)

The Early Development Instrument (EDI) is a Canadian-designed tool that measures children's readiness for school in grade one. Development is measured in five domains: 1) Physical Health & Well-Being; 2) Social Competence; 3) Emotional Maturity; 4) Language & Cognitive Development; and 5) Communication Skills & General Knowledge. Teachers complete the EDI on senior kindergarten children (mostly 5 years old) in the second half of the school year. The EDI has been shown to be a strong predictor of children's development and school achievement later in life. The data used in this report were taken from the analyses and reports completed by the Ontario Early Years centres of CKL-HAL and NH counties.

Limitations:

The EDI data should be used in conjunction with other data such as census and family, health and community indicators. The EDI is meant to be used at the population-level and not at an individual-level.

Kindergarten Parent Survey (KPS)

Kindergarten Parent Survey (KPS) is a survey conducted on parents of local children prior to school-age and provides information about the experiences of local children and their families before entering school. The KPS gathers parents' perspectives, which provide contextual information to add to the knowledge of the strengths and vulnerabilities of local children that is understood through the EDI results. While the EDI provides part of the picture of developmental health in our community, the KPS fills in the picture to help us understand potential reasons of why we see the results we do in the EDI. The data used in this report were taken from analyses and reports completed by the Ontario Early Years centres of CKL-HAL and NH counties.

Limitations:

The response rate in general was very low due to convenience sampling.

Enhanced Well-Baby Visits

The 18-month enhanced well-baby visit occurs at a critical point in a child's growth and development and may be the last regularly-scheduled visit with a health care provider before a child enters school. This visit allows for early identification of any concerns and referral to specialized resources and supports if appropriate.

Limitations:

In rural communities, where a larger proportion of children may receive primary health care from providers other than physicians (i.e. nurse practitioners or registered nurses who do not use fee-for-service billing), there may be undercounting of the total volume of visits.

Data counts include the number of distinct patients with a valid health card number in the given time period. Children without a fixed address and recent newcomers to Ontario may be missed.

NutriSTEP®

Nutrition Screening Tool for Toddlers and Preschoolers (NutriSTEP®) is a self-administered, nutrition screening questionnaire completed by parents. The Toddler NutriSTEP® (ages 18-35 months) and Preschooler NutriSTEP® (ages 3-5 years) identifies feeding, activity, weight, and nutrition concerns in children.

Limitations:

The response rate was very low due to convenience sampling.

Also, this report does not represent the complete profile for children residing in the HKPR District due to the unavailability of local surveillance data on health behaviours or indicators among children, specifically for children 6-11 years-old.

Proportions, Confidence Intervals and Age-Standardization of Rates

Data were analyzed by gender and age-group when possible. Some survey questions of interest may not have had a large enough sample-size to provide reliable/reportable estimates at sub-group levels. The Coefficient of Variation (CV), indicates the size of the variance, compared to the estimate. For example, a CV of 30 indicates the size of the variation is 30% of the estimate itself. If the CV was greater than 16 and less than 33.3, then the data were released with a warning "interpret with caution" (marked with an asterisk in the charts). If the CV was greater than 33.3 then the data were not released.

When proportions were compared with the province, the difference between them was usually referred to in the text as either "significantly higher or lower" or "similar/not different".

A 95% confidence interval (95% CI) refers to the range of values that had a 95% chance of including the 'true' estimate. A large CI means that there is a large amount of variability or imprecision.

Statistically significant differences were determined by comparing 95% confidence intervals around percentages. If the intervals did not overlap, the difference was considered to be statistically significant and was not further tested using statistical methods. A non-statistically significant difference could be due either to chance alone or an insufficient sample-size to show a real difference. Confidence intervals were denoted in the charts as error bars. Small sample-sizes have a high probability of affecting the statistical comparisons.

In order to remove the effect of age and to allow comparison between geographies, the direct method of age-standardization ³ was applied for the analyses in the report (unless otherwise stated).

Indicators were calculated based on Association of Public Health Epidemiologists Ontario Core Indicators³ where available.

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