

Hastings Prince Edward Public Health

2017 Population Health Assessment



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List of Acronyms

BMI CFG	body mass index Canada's Food Guide	KFL&A	Kingston, Frontenac and Lennox & Addington
cLPHU CMA	comparator local public health unit census metropolitan area	LRADG	Low-Risk Alcohol Drinking Guideline
COPD	chronic obstructive pulmonary	LPHU	local public health unit
	disease	PEC	Prince Edward County
ED	emergency department	PCC	Peterborough City and County
EDI	Early Development Index	PH	public health
HPE	Hastings and Prince Edward	PHO	Public Health Ontario
	Counties	PPH	Peterborough Public Health
HPEPH	Hastings Prince Edward Public	PYLL	potential years of life lost
	Health	rHC	rural Hastings County
HPV	human papillomavirus	uHC	urban Hastings County

Preface

This document presents key demographic and health information of the Hastings and Prince Edward Counties (HPE) region serviced by Hastings Prince Edward Public Health (HPEPH). Additionally, this document highlights key trends within the region or more broadly in Ontario. A detailed map of the region is included (page 9).

Specifically, where possible, comparisons are conducted within the region between sexes; ages; income levels; and urban and rural regions. Due to differences in data availability, two definitions of "urban" and "rural" are utilized in this document. In the Demographics section, urban is defined as the City of Belleville and the City of Quinte West, while the remainder of the townships in HPE are considered rural. Accordingly, HPE is further delineated as Prince Edward County (PEC) and Hastings County, specifically rural Hastings County (rHC), and urban Hastings County (uHC) (comprised of the Cities of Belleville and Quinte West). For the Health Behaviours and Well-Being section, Statistics Canada definitions of urban and rural are used. No urban/rural comparisons were possible for the remainder of the sections.

In addition, the region serviced by HPEPH was compared to the province of Ontario, as well as to several other similar local public health units (LPHUs). Statistics Canada has developed peer groups for health regions across Canada to allow for general comparison. HPEPH, along with 11 other LPHUs in the province, falls within Peer Group C, which designates regions with a population centre and rural mix. Two of these LPHUs were selected to compare with HPE (referred to as comparator LPHUs, or cLPHUs) based on similarity in total population and geographical region in Ontario; these are: (1) Kingston, Frontenac, and Lennox & Addington Public Health (representing the Kingston, Frontenac and Lennox & Addington (KFL&A) region) and (2) Peterborough Public Health (PPH; representing Peterborough City and County (PCC)). For health behaviour and outcome data, due to small sample size, comparisons were often between HPE and the entirety of LPHUs in Ontario Peer Group C¹. Where possible, age-standardized rates provided by the Public Health Ontario (PHO) Snapshots tool were used for comparisons across geographies; where these rates were used they are clearly stated in the text.

Again, due to the small sample sizes within HPE for health behaviour and outcome data, when investigating trends over time or between sub-groups, most comparisons are conducted at the Ontario level. For clarity and conciseness, when the trend applies to the Ontario level, it is identified at the end of the statement (i.e., Ontario).

The Appendix contains a detailed list of all references, including which populations are captured within each data source.

¹ The peer group definitions were changed in 2014. Not all data sources have been updated to include the new peer groups, and so this comparison data is not available for all sources.

Key Regional Differences

Table 1 summarizes indicators where the HPE region was **significantly different** from Ontario, the cLPHUs and/or all of Peer Group C in Ontario, based on the most recent data available (as described in the data sources in the Appendix). Given the number of potential indicators, only differences across the entire population are included in the table. Within the body of the report, more population subset comparisons are conducted.

Interpretation

- ↑ signifies the region has a significantly higher percentage, rate, etc. than HPE
- ↓ signifies the region has a significantly lower percentage, rate, etc. than HPE
- ≈ signifies the region has a comparable percentage, rate, etc. to HPE
- N/A signifies that for the region in question, the data was either not available, or was available but could not be used to provide meaningful analysis due to small sample sizes
- * signifies that the value should be considered with caution due to small sample size or due to missing data
- Note: Where no consistent trends exist between HPE and the regions serviced by cLPHUs (i.e., one cLPHU is higher and one is lower) no symbols are provided.

	Table 1. Summary table of key indicators				
	Indicator	HPE	Ontario	cLPHUs	Peer Group C
	Percentage of residents age 50+	47.0%	↓ 37.6%	↓ 41.2-45.8%	N/A
	Percentage population growth over next 5 years (per year)	0.1%	↑ 1.2%	↑ 0.5-0.9%	N/A
	Percentage of children (age 0-17) living in low income	21.1%	↓ 18.4%	↓ 16.0-19.2%	N/A
	Percentage of households with income greater than \$100,000	23.9%	↑ 34.9%	↑ 27.4-30.8%	N/A
Demographics	Percentage of couple census families with children	41.7%	↑ 54.5%	↑ 42.7-44.1%	N/A
	Percentage of census families that are common-law couples	16.9%	↓ 12.0%	↓ 15.4-16.3%	N/A
Dem	Percentage of residents (age 25-64) with less than high school diploma or equivalent	15.4%	↓ 11.0%	↓ 10.1-11.3%	N/A
	Percentage of residents (age 25-64) with university certificate, diploma or degree at bachelor level or above	13.7%	↑ 28.9%	↑ 20.9-25.3%	N/A
	Percentage of residents (age 15+) in the labour force	58.9%	♠ 65.5%	↑ 59.8-63.7%	N/A
	Percentage of residents (age 15+) employed	54.1%	↑ 60.1%	↑ 54.6-58.6%	N/A

Table 1. Summary table of key indicators

	Indicator	HPE	Ontario	cLPHUs	Peer Group C	
	Industries (by percentage of total labour force population):					
	Public administration ²	10.3%	↓ 6.7%	6.1-12.2%	N/A	
	Finance and insurance	1.9%	↑ 5.3%	↑ 2.8-3.0%	N/A	
	Professional, scientific, and technical services	3.5%	↑ 7.4%	↑ 4.4-4.7%	N/A	
nics	Retail trade	14.0%	↓ 10.9%	↓ 11.6-12.5%	N/A	
apt	Diversity (by percentage of residents who)	:				
Demographics	Identify as having an Aboriginal identity ³	5.4%	↓ 2.4%	₩ 3.4-3.6%	N/A	
ă	Have Registered or Treaty Indian status	2.7%	↓ 1.1%	♦ 0.9-1.7%	N/A	
	Have a non-official language as a mother tongue	4.7%	↑ 26.7%	↑ 5.4-7.8%	N/A	
	Identify as a visible minority	2.5%	↑ 25.9%	个 3.1-5.2%	N/A	
	Have immigrated to Canada	6.9%	个 28.5%	↑ 8.2-10.8%	N/A	
ase	Rate of Lyme disease (per 100,000 population)	13.4	↓ 2.3	1.4-30.9	N/A	
e Dise	Rate of <i>Campylobacter</i> enteritis (per 100,000 population)	19.6	↑ 24.6	↑ 23.6-24.2	N/A	
Communicable Disease	Rate of chlamydia (per 100,000 population)	275.6	↑ 299.7	↑ 371.4-463.2	N/A	
nmun	Rate of gonorrhoea (per 100,000 population)	21.4	↑ 48.6	19.9-23.1	N/A	
Cor	Rate of hepatitis C (per 100,000 population)	39.7	↓ 31.1	↑ 63.3-64.7	N/A	
zation	Percentage diphtheria vaccination coverage (age 7) ⁴	95.1%	↓ 84.3%	N/A	N/A	
	Percentage pertussis vaccination coverage (age 7) ⁴	95.1%	↓ 84.1%	N/A	N/A	
Immuni	Percentage tetanus vaccination coverage (age 7) ⁴	95.3%	↓ 84.3%	N/A	N/A	
urs g	Percentage of residents (age 20+) who are current smokers ⁵	28.3% (22.7-33.9)	↓ 19.6% (18.8-20.4)	≈ 23.8-32.4% (18.4-40.4)	N/A	
haviot -Bein	Percentage of residents (age 20+) who are daily smokers 5	25.9% (20.2-31.6)	↓ 14.4% (13.7-15.1)	≈ 19.0-25.0% (13.9-30.6)	N/A	
Health Behaviours and Well-Being	Percentage of non-smokers exposed to someone smoking in their homes every day or nearly every day	13.5% (9.7-17.4)	↓ 6.2% (5.8-6.6)	N/A	N/A	
Hea	Percentage of residents (age 12+) who have ever used an illicit drug ⁵	52.3% (48.4-56.3)	↓ 40.6% (40.0-41.3)	≈ 49.5-55.4% (46.1-58.8)	N/A	

 ² Public administration includes the Canadian Armed Forces and Correctional Services.
 ³ Aboriginal identity is used as defined by Statistics Canada's Census Dictionary (http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/index-eng.cfm).
 ⁴ HPE rates are for the 2016-2017 school year; Ontario rates are 2015-2016 school year.
 ⁵ Age-standardized values.

	Indicator	HPE	Ontario	cLPHUs	Peer Group C
ell-Being	Percentage of residents (age 12+) who have ever used cannabis 5	51.9% (47.9-55.8)	↓ 40.1% (39.5-40.8)	≈ 48.9-55.1% (45.6-58.5)	N/A
	Percentage of sexually active residents (age 15-49) who had sexual debut at age 15 or under	30.8% (22.4-39.2)	↓ 17.3% (16.2-18.4)	N/A	N/A
	Percentage of residents (age 12+) who report visiting a dentist in the past year ⁵	64.9% (59.7-70.1)	↑ 71.6% (70.8-72.4)	70.6-76.2% (65.5-80.4)	N/A
's and W	Percentage of residents (age 12+) who usually visit the dentist for a check-up at least once per year ⁵	64.4% (58.9-69.9)	↑ 73.8% (73.0-74.6)	≈ 73.6-74.9% (68.5-79.3)	N/A
Behaviours and Well-Being	Percentage of employed residents (age 15+) with a usual place of work or no fixed work place who use public transit to get to work	1.9%	个 14.0%	↑ 3.2-4.4%	N/A
Health	Percentage of residents (age 20+) who are overweight or obese (adjusted) ^{5,6}	68.2% (63.2-73.2)	↓ 61.7% (60.7-62.7)	≈ 67.3-69.2% (60.9-74.8)	N/A
T	Percentage of residents (age 12+) with self-perceived fair or poor general health	16.9% (13.0-20.8)	↓ 11.7% (11.2-12.3)	N/A	N/A
	Percentage of residents (age 12+) with self-perceived fair or poor mental health	12.1% (8.8-15.4)	↓ 6.9% (6.5-7.3)	N/A	N/A
	Overall average age of mother at birth	28.4 (28.1-28.7)	↑ 30.6 (30.6-30.6)	↑ 29.2-29.5 (28.9-29.8)	≈ 28.4 (28.3-28.5)
	Average age of mother at birth of first infant	26.4 (26.0-26.9)	↑ 29.2 (29.1-29.2)	↑ 27.5-28.3 (27.1-28.6)	≈ 26.7 (26.6-26.9)
Reproductive and Child Health	Rate of large-for-gestational-age birth (per 100 live births)	11.9 (10.1-13.7)	↓ 9.8 (9.6-10.0)	≈ 12.0-12.2 (10.1-13.9)	≈ 13.1 (12.5-13.7)
	Percentage of women who gave birth who reported smoking at first prenatal visit	24.7% (22.1-27.2)	↓ 10.5%* (10.3-10.7)	17.0-20.0% (15.1-22.4)	N/A
	Percentage of women who gave birth who reported smoking at admission for birth	21.1% (18.7-23.4)	↓ 8.4%* (8.2-8.5)	14.9-16.5% (13.1-18.8)	N/A
	Percentage of women who gave birth who reported drug use ⁷ during pregnancy	2.8% (2.0-3.7)	↓ 1.9% (1.9-2.0)	≈ 2.9-3.6% (2.0-4.5)	N/A
Repro	Percentage of women who gave birth who reported anxiety during pregnancy	14.3% (12.4-16.2)	↓ 7.8% (7.6-7.9)	9.7-17.1% (8.2-19.4)	N/A
	Percentage of women who gave birth who reported depression during pregnancy	14.0% (12.1-15.9)	↓ 7.3% (7.1-7.4)	≈ 11.1-14.8% (9.5-16.9)	N/A
	Percentage of women who gave birth who reported a history of postpartum depression	7.6% (5.7-9.4)	↓ 3.4% (3.3-3.6)	≈ 5.1-5.5% (3.7-7.2)	N/A

 ⁶ Calculated using a BMI adjustment factor to account for biases in self-reporting as recommended by Statistics Canada.
 ⁷ Refers to the use of street drugs and the inappropriate use of prescription and non-prescription drugs.

Indicator	HPE	Ontario	cLPHUs	Peer Group C
Percentage of women who gave birth who reported mental health concerns	26.8% (24.2-29.5)	↓ 14.7% (14.5-14.9)	20.1-27.2% (18.0-30.0)	N/A
Percentage of women who gave birth who reported taking folic acid prior to and during pregnancy	19.9% (17.6-22.2)	↑ 29.7% (29.4-30.0)	↑ 37.2-39.4% (33.8-42.4)	N/A
Percentage of women who gave birth who intend to breastfeed	85.8% (81.8-90.6)	↑ 93.4% (92.9-94.0)	≈ 90.7-91.5% (86.2-96.8)	N/A
Percentage of infants with families who have concerns about money	5.2% (3.9-6.4)	↓ 3.4% (3.3-3.6)	N/A	N/A
Percentage of infants with parent/parenting partner with mental illness	26.3% (23.5-29.0)	↓ 16.1% (15.8-16.3)	N/A	N/A
Percentage of infants with parent/parenting partner with disability	6.2% (4.8-7.5)	↓ 1.1% (1.0-1.2)	N/A	N/A
Overall rate of ED visits due to injuries per 100,000 population ⁵	14,720.7 (14,526.6- 14,914.8)	 ✓ 10,030.8 (10,014.0- 10,047.6) 	 	≈ 14,899.2 (14,833.8- 14,964.6)
Rate of ED visits due to all intentional injuries per 100,000 population ⁵	519.1 (481.4-556.8)	↓ 346.9 (343.8-350.0)	447.1-579.9 (417.2-622.4)	↑ 641.8 (627.9-655.7)
Rate of ED visits due to all unintentional injuries per 100,000 population ⁵	14,162.0 (13,971.8- 14,352.2)	↓ 9,647.7 (9,631.3- 9,664.1)	 ↓ 12,901.9- 13,579.0 (12,705.1- 13,743.4) 	≈ 14,178.1 (14,114.4- 14,241.8)
Rate of ED visits for injuries due to falls per 100,000 population ⁵	4,141.8 (4,042.8-4,240.8)	↓ 3,049.5 (3,040.3-3,058.7)	3,786.9- 4,251.5 (3,683.3-4,342.8)	≈ 4,174.8 (4,141.0-4,208.6
Overall rate of injury-related hospitalizations attributable to alcohol per 100,000 population	202.3	↓ 126.1	↓ 132.1-182.2	↓ 188.5
Rate of injury-related hospitalizations attributable to alcohol for self-inflicted harm per 100,000 population	95.3	↓ 60.3	♦ 62.0-88.5	↓ 90.3
Rate of hospitalization due to cerebrovascular disease per 100,000 population ⁵	166.7 (149.2-184.2)	↓ 136.0 (134.1-137.8)	104.3-157.7 (89.5-173.7)	≈ 160.5 (154.5-166.6)
Rate of hospitalization due to COPD per 100,000 population ⁵	323.3 (299.6-346.9)	↓ 183.6 (181.4-185.7)	225.5-324.5 (206.6-349.8)	≈ 294.4 (286.4-302.5)
Rate of hospitalization due to respiratory disease per 100,000 population ⁵	759.9 (720.5-799.4)	↓ 605.1 (601.1-609.2)	675.4-856.3 (641.1-901.4)	↑ 844.7 (830.3-859.0)
Rate of hospitalization due to lower respiratory disease per 100,000 population ⁵	359.4 (333.7-385.0)	↓ 220.4 (218.0-222.8)	281.0-390.5 (259.3-419.6)	≈ 341.1 (332.2-349.9)
Rate of hospitalization due to stroke per 100,000 population ⁵	191.4 (170.2-212.6)	↓ 114.1 (112.4-115.8)	↓ 87.9-126.3 (74.6-140.7)	↓ 132.6 (127.1-138.1)
Percentage of residents (age 12+) who reported having a mood disorder ⁵	15.8% (10.7-20.8)	↓ 8.4% (7.9-8.9)	≈ 13.4-14.3% (10.2-18.0)	N/A

Reproductive and Child Health

	Indicator	HPE	Ontario	cLPHUs	Peer Group C
c Disease Injury	Incidence of all malignant cancers per 100,000 population ⁵	446.9 (419.8-474.1)	↓ 413.0 (409.9-416.1)	≈ 411.4-416.9 (382.9-441.3)	N/A
Chronic and I	Incidence of prostate cancer per 100,000 population ⁵	126.7 (107.5-145.8)	↓ 101.9 (99.7-104.1)	↓ 73.7-85.6 (59.3-103.0)	N/A
	Life expectancy at birth	79.0 (78.6-79.4)	↑ 81.5 (81.4-81.5)	↑ 80.4-80.9 (80.0-81.4)	↑ 79.9 (79.8-80.0)
	Mortality from avoidable causes ⁸ per 100,000 population ⁵	251.0 (227.6-274.4)	↓ 194.4 (192.0-196.9)	≈ 210.3-235.7 (186.8-256.9)	≈ 252.6 (244.5-260.8)
Mortality	PYLL from avoidable causes ^{5,8}	4,465.7 (4,359.5-4,571.8)	↓ 3,358.1 (3,347.9-3,368.3)	↓ 3,738.0- 4,178.2 (3,632.3-4,270.9)	↑ 4,694.9 (4,657.9-4,732.0)
Σ	PYLL from respiratory diseases ⁵	165.6 (147.1-184.1)	↓ 83.4 (81.8-85.0)	88.1-131.8 (73.4-147.5)	↓ 118.2 (112.7-123.7)
	PYLL from treatable causes ^{5,9}	1,657.4 (1,592.0-1,722.8)	↓ 1,304.5 (1,298.1-1,310.9)	↓ 1,206.4- 1,415.0 (1,145.9-1,469.7)	↓ 1,556.1 (1,534.7-1,577.5)

⁸ Mortality from avoidable causes is the combination of mortality from preventable causes and mortality from treatable causes.
⁹ Mortality from treatable causes is deaths that are potentially avoidable through secondary and tertiary prevention methods, such as screening and treatment.

Demographics

1. Population Demographics

- The total population for the HPE region in 2016 was 161,180.
- The expected population growth for the next five years is approximately 0.1% per year.
- 58.5% of the HPE population lives in an urban area (Belleville or Quinte West) while 41.5% lives in rural areas.



Figure 1. Population by age and sex, HPE and Ontario, 2016

↓	The population growth of HPE in the next 5 years is estimated to be less than the growth in Ontario and cLPHUs.	•	Population growth for the next 5 years for HPE is 0.1% per year, compared to 1.2% for Ontario, 0.9% for KFL&A, and 0.5% for PCC.
↑	There are more residents age 50+ in HPE (especially in PEC) than in Ontario.	•	47.0% of the population in HPE is age 50 years and older, compared to 37.6% for Ontario, 41.2% in KFL&A, and 45.8% in PCC.
		•	57.3% of the population in PEC is age 50 years and older, 49.8% in rHC, and 43.5% in uHC.

2. Map of Region





3. Family Structure and Income

- 15.9% of HPE residents live in low income while 21.1% of HPE children (age 17 and under) are living in low income.¹⁰
- 60.6% of HPE residents (age 16+) are married (and not separated) or living with a common-law partner.
 22.4% of HPE residents are single (never legally married). In the Belleville Census Metropolitan Area (CMA; includes the City of Belleville and the City of Quinte West), 0.4% of married residents have same-sex spouses, while 2.4% of common-law residents have same-sex partners.
- ✤ 74.6% of HPE households live in dwellings that they own.
- 21.2% (15.3-27.2) of residents have strong or very strong sense of community belonging in HPE. 51.0% (45.5-56.4) of residents have somewhat strong sense of community belonging in HPE.





Key Trends

 ↓ with high income in HPE than Ontario and the cLPHUs. In HPE, 23.9% of households have an income greater than \$100,000, compared to 34.9% for Ontario, and 27.4-30.8% for the cLPHUs.

¹⁰ According to the Low Income Measure (i.e., a fixed percentage (50%) of adjusted family income where adjusted indicates a consideration of family needs, and adjustment reflects that family needs increase with family size), a family is considered to be low income when their income is below the Low Income Measure for their family type and size; see http://www.statcan.gc.ca/imdb-bmdi/4105-eng.htm.

↑	More children in HPE (especially in Hastings County) live in low income compared to Ontario and cLPHUs.	O to 5 O to 5 O to 17 O to 15 O to 17 O to
1	More residents in rHC make less than \$20,000 compared to PEC and uHC.	In rHC, 39.3% of residents report an income less than \$20,000, compared to 33.4-33.7% in PEC and uHC. Additionally, more households in PEC make more than \$100,000 compared to Hastings County (i.e., 27.2% for PEC, 24.5% for uHC, 20.7% for rHC).
↓	Fewer males than females in HPE make under \$20,000.	29.8% of males in HPE earn under \$20,000 compared to 40.1% of females.
↓	Fewer couples in HPE • (especially in PEC) have children compared to Ontario.	Overall, 41.7% of couples in HPE have children, compared to 54.5% in Ontario, and 42.7-44.1% in cLPHUs. The lowest percentage of couples with children live in PEC (34.0%), whereas 44.7% in uHC and 40.6% in rHC have children.
1	More couples in HPE are living common-law compared to Ontario.	16.9% of HPE couples are common-law compared to 12.0% in Ontario.Comparable rates are observed in cLPHUs (15.4-16.3%).Additionally, marriage rates are highest in PEC (74.1% of couples are married), and lower in uHC (65.3%) and rHC (69.5%).
1	More males than females [•] in HPE have never been married. •	25.6% of males in HPE have never been married compared to 19.3% of females. Additionally, more females (11.0%) are widowed compared to males (3.5%).
↑	More households in uHC are renters compared to rural areas of HPE.	31.3% of households are renters in uHC, compared to the rural areas of HPE (17.3-17.6%).
\checkmark	Fewer same-sex couples [•] are married in Belleville.	In the Belleville CMA, 20.8% of residents in an opposite-sex couple are common-law, while 62.0% of residents in a same-sex couple are common-law.

4. Education

- 55.5% of HPE residents (age 25-64) have a postsecondary certificate, diploma or degree; 13.7% have a university certificate, diploma or degree at bachelor level or above.
- ◆ 15.4% of HPE residents (age 25-64) have less than a high school diploma or equivalent.



5. Labour Force and Industry

- The labour force participation rate (i.e., the percentage of residents age 15+ in the labour force) in HPE is 58.9%. The unemployment rate (i.e., the percentage of the labour force that is unemployed) is 8.1%.
- The most common occupations in HPE for residents age 15+ are:
 - Sales and service (22.8%);
 - Trades, transport and equipment operators (17.3%);
 - Education, law and social, community and government services (13.0%); and,
 - Business, finance and administration (12.2%).
- The largest industries in HPE, based on the percentage of residents age 15+ employed in them, are:
 - Retail trade (14.0%);
 - Health care and social assistance (11.6%);
 - Manufacturing (10.4%); and,
 - Public administration² (10.3%).
- English is the language used at work by 99.0% of the labour force in HPE.

\checkmark	Fewer HPE residents (age 15+) are in the labour force and fewer are employed compared to Ontario and cLPHUs.		58.9% of HPE residents are in the labour force compared to 65.5% in Ontario, 63.7% in KFL&A, and 59.8% in PCC. 54.1% of HPE residents are employed, compared to 60.1% of residents of Ontario, 58.6% in KFL&A, and 54.6% in PCC.
↑	More males in HPE are employed than females and the occupations they are employed in are often different.		Of HPE residents (age 15+), 57.1% of males are employed while 51.2% of females are employed. 81.2% of the male labour force work full-time compared to 63.8% of the female labour force. Additionally, a greater percentage of males are self- employed (12.8% of the male labour force compared to 8.1% of the female labour force).
	 <u>Greater Percentage of Males</u> Management Manufacturing and utilities Trades, transport and equipment operators 		 <u>Greater Percentage of Females</u> Business, finance and administration Education, law and social, community and government services Health Sales and service

↑	More residents in uHC are employed than residents of the rural regions.	•	are e rHC. Addit	We of uHC residents (age 15+ and in the labour force) employed, compared to 50.4% in PEC and 53.0% in itionally, fewer uHC residents are self-employed (8.1% HC, 13.8% in rHC, and 15.6% in PEC).
	More members of the HPE labour force have occupations in trades,	•	as tra	3% of the labour force in HPE is employed in trades, or ransport and equipment operators compared to 12.7% intario, 12.9% in KFL&A, and 14.4% PCC.
1	transport and as equipment operators than Ontario or cLPHUs.	•	HPE	itionally, a lower percentage of the members of the E labour force have jobs in business, finance and ninistration, and natural and applied science than ario.
			0	 Retail trade: 14.0% in HPE, 10.9% in Ontario, 11.6- 12.5% in cLPHUs.
1	More members of the HPE labour force have occupations in retail trade and public administration compared		0	 Business, finance and administration: 12.2% in HPE, 16.6% in Ontario, and 13.3-14.3% in cLPHUs.
	to Ontario.		0	 Public administration: 10.3% in HPE, 6.7% in Ontario, 6.1% in PCC, and 12.2% in KFL&A.
			0	 Natural and applied science: 4.3% in HPE, 7.2% in Ontario, and 5.5-5.6 in cLPHUs.
\checkmark	Fewer members of the HPE labour force have occupations in finance and insurance, and professional,		0	 Professional, scientific, and technical services: 3.5% in HPE, 7.4% in Ontario, and 4.4-4.7% cLPHUs.
	scientific and technical services.		0	 Finance and insurance: 1.9% in HPE, 5.3% in Ontario, and 2.8-3.0% in cLPHUs.

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6. Language

- ✤ 99.6 % of HPE residents know English.
- ♦ 6.5% of HPE residents know French.

- ✓ Fewer HPE residents know both official languages compared to Ontario and KFL&A.
- 6.4% of HPE residents know both official languages, compared to 11.2% of Ontario residents, 11.1% of KFL&A, and 6.8% of PCC.

7. Diversity

Diversity includes measures on ethnic origin, visible minorities, immigration and citizenship, religion, Aboriginal status and knowledge of languages other than English and French.

- 2.7% of HPE residents have Registered or Treaty Indian status. 5.4% of HPE residents have an Aboriginal identity, while 7.4% have Aboriginal ancestry.
- 6.9% of HPE residents are immigrants, approximately half of whom immigrated before 1971; they most frequently emigrated from Europe (4.7% of all residents in HPE emigrated from Europe).
- 2.5% of HPE residents identify as being a visible minority. 75.7% of HPE residents identify their ethnic origin as European (predominantly British Isles).

↑	More HPE residents have Registered or Treaty Indian status and Aboriginal identity than		A greater percentage of HPE residents have Registered or Treaty Indian status than Ontario residents and cLPHUs (i.e., 2.7% in HPE, 1.1% in Ontario, and 0.9-1.7% in cLPHUs).		
	Ontario and cLPHUs.	•	Similarly, a greater percentage of HPE residents report Aboriginal identity (5.4%) than Ontario (2.4%) and cLPHUs (3.4-3.6%).		
	More residents in rHC have Registered or Treaty Indian status, Aboriginal	•	A greater percentage of rHC residents report Registered or Treaty Indian status (7.1%) than in uHC (1.6%) and PEC (1.2%).		
1	identity and ancestry compared to residents of PEC and uHC.	•	Similarly, more rHC residents report Aboriginal identity (11.3%) and Aboriginal ancestry (13.4%) than uHC (4.0% and 6.0%, respectively) and PEC (2.5% and 4.6%, respectively).		
		•	Fewer HPE residents have mother tongues and/or languages spoken most often at home that are non-official languages compared to residents of Ontario (4.7% of HPE residents compared to 26.7% of Ontario residents). cLPHUs see slightly higher rates (5.4-7.8%).		
↑ ↑	HPE residents are far less	•	1.5% of HPE residents have a non-official language spoken at home compared to 14.4% of Ontario residents, and 1.7-2.8% of residents in cLPHUs.		
\checkmark	diverse than residents of Ontario, and generally less diverse than of PHUs	•	2.5% of HPE residents identify as a visible minority compared to 25.9% in Ontario and 3.1-5.2% in cLPHUs; specifically, HPE has fewer residents that identify as South Asian, Chinese, and Black.		
	than cLPHUs.	•	Additionally, fewer HPE residents are immigrants (6.9%) compared to 28.5% of Ontario residents, 8.2% of PCC residents, and 10.8 % of KFL&A residents; Ontario has had much higher percentages of immigrants than HPE since 1991.		
		٠	0.8% of HPE residents are Buddhist, Hindu, Jewish, Muslim, or Sikh compared to 11.8% of Ontario residents and 1.4-2.1% of cLPHUs.		

More HPE residents have no religious affiliation

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 - compared to residents of Ontario, especially males.
- 28.9% of HPE residents have no religious affiliation compared to 23.1% of Ontario residents and 28.3-28.7% in cLPHUs.
- 31.4% of HPE males have no religious affiliation compared to 26.5% of HPE females.

8. Mobility

- 10.9% of HPE residents have moved residences within the past year and 34.5% have moved residences within the past five years.
- In the past year, 5.8% of HPE residents have moved to a new city/town. Five percent of all HPE residents moved within the province and 0.5% moved from a different province.
- In the past five years, 18.5% of HPE residents have moved to a new city/town. 15.7% of all HPE residents moved within the province and 2.1% moved from a different province.

\checkmark	Fewer HPE residents have moved in the past 5 years than residents of Ontario.	•	34.5% of HPE residents moved in the past 5 years compared to 37.5% of Ontario residents, 39.5% of KFL&A residents, and 35.7% of PCC residents.
•	More uHC residents have moved in the past	٠	In the past year, 12.8% of uHC residents have moved, compared to 7.7% of rHC and 8.6 of PEC residents.
	year than residents of rural areas.	•	In the past 5 years, 38.6% of uHC residents have moved, compared to 27.3% of rHC residents and 30.2% of PEC residents.

Communicable Diseases

9. Communicable Diseases

Reportable Diseases with Highest Incidence	2016 Rate (per 100,000 population)
chlamydia	275.6
hepatitis C	39.7
gonorrhoea	21.4
Campylobacter enteritis	19.6
salmonellosis	17.7
Lyme disease ¹¹	13.4
giardiasis	10.4
pertussis	8.6
Streptococcus pneumoniae, invasive	7.9
group A streptococcal disease, invasive	4.9
cryptosporidiosis	4.9

Table 2. Reportable disease incidence, 2016

- In 2016, 21.6% of black-legged ticks captured through passive tick surveillance¹² in Hastings County carried the bacterium that causes Lyme disease. By 2016, it had been determined that PEC had established black-legged tick populations, so ticks in PEC were no longer being tested for Lyme disease.
- In 2016, there were 475 suspected human rabies exposures reported in HPE; 100.0% of these were investigated within one calendar day of public health notification.

Key Trends

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Rates of chlamydia,

gonorrhoea and Lyme

disease are increasing.

- Rates of chlamydia were 135.1 per 100,000 population in 2006, 247.3 in 2011, and 275.6 in 2016.
- Rates of gonorrhoea were 5.5 per 100,000 population in 2006, 10.4 in 2011, and 21.4 in 2016.
- Rates for Lyme disease were 0.6 per 100,000 in 2006, 2.4 in 2011, and 13.4 in 2016. The percentage of black-legged ticks that tested positive for the bacterium that causes Lyme disease has increased since 2013.
- Additionally, pertussis increased from 3.1 per 100,000 in 2015 to 8.6 in 2016.

¹¹ Rates of Lyme disease are expected to be underestimated due to stringent case definition criteria.

¹² Passive tick surveillance, not to be relied on for medical diagnosis, involves the testing of black-legged ticks removed from a human source for the bacterium that causes Lyme disease.

HPE has lower rates of <i>Campylobacter</i> enteritis and chlamydia than Ontario and	Rates of <i>Campylobacter</i> enteritis in 2016 for HPE were 19.6 per 100,000 population for HPE, 24.6 for Ontario, and 23.6-24.2 for cLPHUs.	
1	chlamydia than Ontario and cLPHUs. HPE has lower rates of gonorrhoea than	Chlamydia rates (per 100,000 population) in 2016 were 275.6 for HPE, 299.7 for Ontario, 371.4 for PCC, and 463.2 for KFL&A.
	Ontario.	Rates of gonorrhoea in 2016 for HPE were 21.4 per 100,000 population, 48.6 for Ontario, 19.9 for PCC, and 23.1 KFL&A.
	• HPE has higher rates of	Lyme disease rates (per 100,000 population) in 2016 were 13.4 for HPE and 2.3 for Ontario. Additionally, HPE had higher Lyme disease rates than PCC (1.4), but lower rates than KFL&A (30.9).
\uparrow	Lyme disease than Ontario. • HPE also has higher rates of	Pertussis rates in 2016 were 8.6 per 100,000 population for HPE, 3.0 for Ontario, and 0.7-2.9 for cLPHUs.
	pertussis than Ontario and cLPHUs.	Additionally, HPE had lower rates of hepatitis C than cLPHUs in 2016, but higher rates than Ontario (39.7 per 100,000 population for HPE, 31.1 for Ontario, and 63.3-64.7 for cLPHUs).
•	Females have higher rates of chlamydia and	Rates of chlamydia are 350.9 per 100,000 population for females and 197.6 for males.
I	cryptosporidiosis.	Rates for cryptosporidiosis are 9.6 per 100,000 for females and 0.0 for males.
	•	Rates for Campylobacter enteritis are 27.3 per 100,000 population for males and 12.0 for females.
$\mathbf{\uparrow}$	Males have higher rates of Campylobacter enteritis, hepatitis C and Lyme	Rates for hepatitis C are 49.7 per 100,000 population for males and 30.0 for females.
	disease than females.	Rates for Lyme disease are 22.4 per 100,000 population for males and 4.8 for females.
•	Rates of chlamydia are • highest in age group 15-24	Rates of chlamydia are 2,107.4-2,552.8 per 100,000 population for females in the age ranges of 15-19 and 20-24.
I	for females, and 20-24 for 🔹 males.	Rate of chlamydia for males is 1,427.5 per 100,000 population in the age range of 20-24.
	Rates of hepatitis C are • highest for females in the	Rates of hepatitis C are 62.0-71.9 per 100,000 population for females in the age ranges of 20-24 and 25-29.
1	age group 20-29, and for male age groups 35-44 and 60-64.	Rates of hepatitis C are 118.1-162.6 per 100,000 population for males in the age range of 35-44, and 133.7 per 100,000 population for males in the age range of 60-64.

10. Immunizations

Disease	Born in 2009 (7 year olds)	Born in 2000 (17 year olds)	Target				
diphtheria	95.1%	93.3%	99.0%				
measles	95.9%	96.3%	99.0%				
mumps	95.9%	96.3%	99.0%				
pertussis	95.1%	93.2%	90.0%				
polio	95.5%	96.1%	99.0%				
rubella	95.9%	96.7%	97.0%				
tetanus	95.3%	93.4%	99.0%				

Table 3. Immunization of School Pupils Act (ISPA) immunization coverage by disease, 2016-2017

Table 4. Grade 7 School Immunization Program coverage by disease, 2016-2017

Disease	Born in 2004 (12 year olds)	Target
hepatitis B	59%	95%
human papillomavirus (HPV)	49%	90%
meningococcal disease	83%	90%

1	HPE has higher rates of coverage than Ontario for diphtheria, pertussis, tetanus and polio.	The coverage rates for these vaccines are approximately 10% higher in HPE than they are in Ontario.
\checkmark	HPV immunization rates for • Grade 7 students (12 year olds) are decreasing.	Rates of HPV immunization were 59% in 2013-2014 compared to 49% in 2016-2017. Eligibility for the HPV immunization changed during these years to include male students.
1	Meningococcal immunization rates for Grade 7 students (12 year olds) are increasing.	Rates of meningococcal immunization were 71% in 2013-2014 compared to 83% in 2016-2017.

Environmental Health

11. Inspections

Table 5. Inspection rates of facilities inspected according to Ontario Public Health Standards and Protocols, 2016

Facility Type		# of Facilities in HPE	% of Facilities Inspected
High-risk food premises		134	100%
Moderate-risk food pre	emises	333	99.4%
Class A pool Year round		8	100%
	Seasonal	2	100%
Public spa	Year round	8	100%
	Seasonal	3	100%
Personal service settin	ngs	201	100%

Table 6. Complaints, inspection rates, warnings and closures, 2016

Facility Type		# Complaints	% Complaints Inspected	# Tickets or Warnings	# Closures (and Type)
High-risk food premises		20	100%	1	0
Moderate-risk for	od premises	25	100%	1	0
Class A pool	Year round	3	100%	0	0
	Seasonal	0	N/A	N/A	N/A
Public spa	Year round	0	N/A	N/A	1 ¹³
	Seasonal	2	100%	0	0
Personal services settings		10	100%	0	0

 Additionally, all (100%) high-risk small drinking water systems (2) due for inspection were re-inspected in 2015 and 2016.

¹³ Health Protection and Promotion Act order: insufficient chloride levels.

Health Behaviours and Well-Being

12. Smoking and Exposure to Second-Hand Smoke

- 24.9% (19.8-30.1) of HPE adult residents (age 20+) are current smokers. 22.7% (17.6-27.8) of HPE adult residents are daily smokers. 45.1% (39.1-51.2) of HPE residents are former smokers.
- 52.1% (45.5-58.7) of ever smokers¹⁴ in HPE had their first whole cigarette before the age of 16; 24.0% (18.7-29.2) had their first whole cigarette between the ages of 16 and 17, and 15.2% (12.0-18.4) had their first whole cigarette between the ages 18 and 20.
- In Ontario, 81.7% (79.6-83.7) of daily smokers began smoking before the age of 21. There were similar percentages in all age groups (age 20 and under) for starting smoking: age 15 and under (27.6% [25.6-29.7]), age 16-17 (24.4% [22.3-26.5]), and age 18-20 (29.8% [27.6-32.0]).
- In Ontario, 6.6% (5.5-7.8) of youth (age 12-19) are current smokers. 14.4% (12.8-16.1) of youth reported having smoked a whole cigarette. In HPE, 89.0% (80.0-98.1) of youth (age 12-19) had never smoked.
- 13.5% (9.7-17.4) of non-smokers in HPE (age 12+) are exposed to someone smoking in their homes every day or nearly every day.
- 10.9% of Ontario residents (age 18+) reported using electronic cigarettes in the past 12 months.



Key Trends

Figure 6. Current smokers (age 12+) in HPE and Ontario, over time

• In addition to declining smoking rates, the average number of cigarettes smoked by daily smokers is declining over time, and the proportion of youth who reported having smoked a whole cigarette is decreasing. The age at which youth smoke their first whole cigarette is increasing (Ontario).

¹⁴ An ever smoker is someone who has ever smoked a whole cigarette.

HPE has higher current and

↑ daily smoking rates than Ontario but comparable to cLPHUs. • The proportion of current and daily adult smokers is higher in HPE (and cLPHUs) than it is in Ontario.

↓	Smoking rates decrease as income increases.	•	The proportion of current smokers (age 12+) decreases as income increases (Ontario).
↑	Smoking rates are higher in males than females.	•	The proportion of males (age 12+) who are current smokers is higher than the proportion of females (age 12+) who are current smokers (Ontario).



Figure 7. Non-smokers (age 12+) exposed to someone smoking in their homes every day or nearly every day over time, HPE and Ontario, over time

More HPE non-smokers are exposed to smoke in their home than Ontario nonsmokers.

There is a higher proportion of non-smokers in HPE (age 12+) who are exposed to someone smoking in their homes every day or nearly every day than in Ontario.

More rural non-smokers

↑ are exposed to smoke in their home than urban non-smokers.

 There is a higher proportion of non-smokers (age 12+) exposed to someone smoking in their homes every day or nearly every day in rural areas as compared to urban areas (Ontario).

Exposure to second-hand smoke in the home

- decreases as income increases.
- The proportion of non-smokers (age 12+) exposed to someone smoking in their homes every day or nearly every day decreases as income increases (Ontario).

13. Alcohol Consumption

- 44.4% (40.0-48.7) of HPE adults (age 19+) exceeded Guideline 1¹⁵ and/or Guideline 2¹⁶ of the Low-Risk Alcohol Drinking Guidelines (LRADGs) in the past year.
- 41.6% (37.4-45.8) of HPE adults are binge drinkers (exceeded Guideline 2 on at least one occasion in the previous year).
- 29.2% (26.4-32.1) of youth (12-18) in Ontario had 1+ drinks in the previous year, while 16.9% (15.2-18.7) binge drank at least once in the previous year. 64.8% (51.3-78.4) of youth in HPE did not drink in the previous year.

Key Trends

Rates of binge drinking are increasing over time.

There are higher rates of drinking in the following groups: males age 19+, individuals ages 19-29, and individuals living in rural areas.

- The proportion of adults (age 19+) who are binge drinkers has been increasing over time (Ontario).
- Compared to females, males are more likely to be regular drinkers (at least one drink a month), everyday drinkers, heavy drinkers (binge drinking at least once a month during the previous year), and to exceed Guideline 1 from the LRADGs. For example, there are twice as many male heavy drinkers than female heavy drinkers (Ontario).
- Those ages 19-29 are more likely to be regular drinkers, binge drinkers, heavy drinkers and exceed Guidelines 1 and/or Guideline 2 from the LRADGs (Ontario).
- Of those living in rural environments, higher proportions of the population are regular drinkers, everyday drinkers, binge drinkers and heavy drinkers than those living in urban environments (Ontario).

¹⁵ Guideline 1: Reduce your long-term health risks by drinking no more than 10 drinks a week for women, with no more than 2 drinks a day on most days and 15 drinks a week for men, with no more than 3 drinks a day on most days. There should be non-drinking days (2 days a week for this analysis) every week to avoid developing a habit.

¹⁶ Guideline 2: Reduce your risk of injury and harm by drinking no more than 3 drinks for women and 4 drinks for men on any single occasion.

The percentage of regular drinkers increases as income increases (Ontario).
 The percentage of those living in lower income who exceeded Guide

Adults living in lower income have lower rates of drinking.

 $\mathbf{1}$

The percentage of those living in lower income who exceeded Guideline 1 and/or Guideline 2 was less than those in higher income levels (HPE and Ontario).



Figure 8. Youth (age 12-18) who had 1 or more drinks in the previous 12 months, HPE and Ontario, over time

14. Illicit Drug Use

- In 2009 to 2012, 49.0% (44.1-53.1) of HPE residents (age 12+) reported ever using an illicit drug (including one-time cannabis use). 48.6% (44.5-52.7) reported ever using cannabis including one-time use; 7.1% (4.7-9.5) reported ever using cocaine or crack; and 8.5% (6.0-10.9) reported ever using hallucinogens or LSD.
- In 2009 to 2012, 12.8% (10.1-15.6) of HPE residents (age 12+) had used any illicit drug (including one-time cannabis use) in the previous 12 months. 12.7% (10.0-15.3) had used cannabis in the previous 12 months (including one-time use).
- Of Ontario Grade 9-12 students in 2015, 12.1% (11.0-13.4) had used a prescription drug for non-medical use in the past year. More specifically, 10.0% (6.0-11.0) of Grade 7 to 12 students reported using an opioid pain reliever for non-medical use, the majority of whom (59.0%) obtained the drug from someone at home. Additionally, 6.4% (5.3-7.6) used over-the-counter cough and cold medication containing the drug dextromethorphan to "get high."
- In 2016, over 95,000 needles were turned into the HPEPH Needle Exchange Program and nearly 379,000 needles were distributed.
- In the first year of the HPEPH Naloxone Program, which was launched on August 31, 2016, 188 kits and 19 refills were distributed.
- From January 2011 to December 2013, Hastings County and PEC each had an annual prescribing rate of approximately 1,300 prescriptions per 1,000 beneficiaries over age 65. For the age group 15-64, the prescribing rate was much higher, with approximately 13,700 prescriptions per 1,000 beneficiaries in Hastings County, and approximately 9,000 prescriptions per 1,000 beneficiaries in PEC.
- In 2016, there were 12 potential opioid-related deaths in HPE.
- In 2015 in Ontario, there was 1 opioid-related death for every 18,797 people living in the province, for a total of 734 deaths. Since 2014, fentanyl has been the opioid most commonly involved in opioid-related deaths.



Figure 9. Lifetime illicit drug and cannabis use in residents age 12+, HPE and Ontario, 2009-2012

\checkmark	Over time, fewer youth are using prescription drugs for non-medical purposes, including opioids.	•	From 2007 to 2015, the percentage of Grade 7 to 12 students who had used prescription drugs non-medically (including opioid pain relievers, attention deficit/hyperactivity disorder drugs, tranquillizers and sedatives), decreased by about half (23.5% to 12.1%) (Ontario).	
•		•	From 2007 to 2015, the proportion of Grade 7 to 12 students who had used opioid pain relievers non-medically decreased by about half (20.6% to 10.0%) (Ontario).	
•	In HPE, more males than females have ever used an illicit drug, including cannabis.	•	The proportion of males (age 12+) who have ever used an illicit drug is higher than the proportion of females (age 12+).	
		•	The same trend is true for the proportion of males (age 12+) who have ever used cannabis as compared to females.	
↓	Rates of ever using illicit drugs or ever using cannabis are lowest in those age 65+ in HPE.	•	The proportion of the population that reported ever using any illicit drug or ever using cannabis is higher in the 20-64 age group.	
Υ	The number of needles being distributed from the Needle Exchange Program has increased.	•	In 2009, approximately 75,000 needles were distributed, increasing to approximately 183,000 in 2012, and approximately 379,000 in 2016. ¹⁷	
1	Opioid prescribing rates have increased over time in both Hastings County and PEC.	•	In both Hastings County and PEC, annual opioid prescribing rates for age groups 15-64 and 65+ increased between study periods (i.e., January 2006 to December 2010 and January 2011 to December 2013).	
	Opioid-related deaths have increased over time.	•	From 1991 to 2015, the rate of opioid-related deaths in Ontario increased from 14 per 1,000,000 population to 53 per 1,000,000 population.	
1		•	Additionally, the opioid most commonly involved in opioid-related deaths has changed over time, with oxycodone most commonly used in 2005 to 2014, at which point fentanyl became the most commonly involved opioid in related deaths (Ontario).	
↑	More males, low income individuals and urban residents die from opioid overdoses.	•	Two-thirds of opioid-related deaths occurred in males in 2015; 51% of individuals lived in the two lowest income quintiles, and 86% lived in an urban setting (Ontario).	
		•	Additionally, opioid overdose deaths of females were more likely to be reported as suicides (19%) compared to opioid overdoses in males (9%) (Ontario).	

¹⁷ The number of needles included in the kits increased within this time frame, potentially explaining the increase in the number of needles; nevertheless, the rate of increase has been consistent regardless of the change in kit contents.

15. Road Safety

- 96.4% (94.7-98.2) of HPE residents (age 16+ who drove a motor vehicle in the past 12 months) always wear a seat belt when driving a car.
- 95.1% (92.0-98.2) of HPE residents (age 12+) always wear a seat belt while a front or back seat passenger.
- 80.8% (76.4-85.1) of HPE residents (age 16+ who drove a motor vehicle in the past 12 months) never use a non-hands-free cell phone while driving, 10.7% (7.4-14.0) rarely use a non-hands-free cell phone.
- 18.4% (14.3-22.4) of HPE residents (age 16+ who drove a motor vehicle in the past 12 months) often or sometimes use a hands-free device while driving.
- 4.9% of drivers age 18+ in Ontario reported driving after 2 or more drinks in the previous hour in the past 12 months, whereas 2.9 % of the same drivers reported driving after using cannabis in the previous hour in the past 12 months.

↑	Wearing a seat belt is increasing over time.	•	The proportion of those who always wear a seat belt, both as a driver (age 16+ who drove in the past 12 months) and as a passenger (age 12+), has increased since 2003 (Ontario).
↑	More females wear a seat belt while in a car.	•	The proportion of females who always wear a seat belt both as a driver (age 16+ who drive in the past 12 months) and as a passenger (age 12+) is higher than the proportion of males who always wear a seat belt while a driver or a passenger (Ontario).
↑	Urban residents are more likely to wear a seatbelt while driving than rural residents.	•	The proportion of urban residents (age 16+ who drove in the past 12 months) who always wear a seatbelt while driving is higher than the proportion of rural residents who always wear a seatbelt while driving (Ontario).
\checkmark	Ontario residents age 16-34 are less likely to wear a seatbelt as a passenger.	•	The proportion of residents age 16-34 who wear a seat belt as a passenger is lower than the proportion of other age groups who wear a seatbelt as a passenger (Ontario).


16. Sexual Health

- 30.8% (22.4-39.2) of sexually active HPE residents (age 15 to 49) had their sexual debut at age 15 and under; 31.7% (23.9-39.5) had their sexual debut between ages 16 to 17.
- 63.9% (49.6-78.1) of HPE residents (age 15 to 49 who were sexually active with more than one partner in the past year and not married or in a common-law relationship) used a condom that last time they had sex.
- 87.0% (81.9-92.0) of HPE residents (age 15 to 49 who were sexually active in the past 12 months) had one partner in the past year.

Key Trends

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Figure 11. Percentage of sexually active residents (age 15 to 49) who had their sexual debut at 15 or under, HPE and Ontario, 2013 and 2014

↑ More females had one partner in the past year.

More males used a condom the last time they had sex and had their sexual debut at age 17 and under.

- A higher proportion of sexually active females (age 15-49) than males had one sexual partner in the past year (Ontario).
- The proportion of males (age 15-49 who were sexually active with more than one partner in the past year and not married or in a common-law relationship) who used a condom the last time they had sex is higher than the corresponding proportion of females (Ontario).
- The proportion of males (age 15-49) who had their sexual debut at age 17 and under is higher as compared to females (Ontario).



More rural residents had their sexual debut earlier.

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• A greater proportion of rural residents (age 15-49) had their sexual debut at age 17 and under compared to urban residents (Ontario).

17. Oral Health

- ✤ 76.5% (71.4-81.5) of HPE residents (age 12+) reported brushing their teeth at least twice per day.
- ✤ 51.3 % (46.8-55.8) of HPE residents (age 12+) reported having oral or facial pain in the past month.
- ✤ 62.9% (58.4-67.3) of HPE residents (age 12+) have insurance for dental expenses.
- 65.1% (59.9-70.3) of HPE residents (age 12+) reported visiting a dentist in the past year, while 64.3% (58.6-70.0) report usually visiting the dentist for a check-up at least once per year.

Key Trends

\checkmark	Fewer HPE residents visited a dentist in the past year.	•	The percentage of HPE residents (age 12+) who reported visiting a dentist in the past year and the percentage who reported usually visiting a dentist for a check-up in the past year is lower than the corresponding percentages for Ontario.
1	More HPE residents age 12-19 have visited a dentist in the past year.	•	The percentage of HPE residents age 12-19 who reported visiting a dentist in the past year and the percentage who reported usually visiting a dentist for a check-up in the past year is higher than the corresponding percentages for older age groups.
1	Oral or facial pain is increasing in HPE over time.	•	The percentage of HPE residents who reported experiencing oral or facial pain in the past month has increased over time.
1	More females than males in HPE brush their teeth at least twice a day.	•	The percentage of females (age 12+) who report brushing their teeth at least twice a day is higher than the percentage of males (HPE).

18. Healthy Eating and Active Living

- 40.4% (34.9-45.9) of HPE residents (age 12+) did not meet Canada's Food Guide (CFG) recommendations for vegetables and fruit.
- In HPE, 89.4% (85.1-93.7) of residents (age 12+) live in food secure households. In Ontario, 8.7% (8.2-9.3) of households are food insecure.
- In 2016 in HPE, the weekly cost for a nutritious food basket for a family of four was \$204.87.
- 34.8% of HPE residents surveyed (n=262), reported using a community or school-based meal program or community/collective kitchens.
- 9% of Belleville, Quinte West and PEC residents surveyed (n=262) reported using food banks or soup kitchens, while 28% of North and Central Hastings residents reported doing so. 80.5% of HPE residents surveyed used convenience stores for meals/food; 89.0% used farmers' markets; 23% used community gardens; 98.8% used restaurants or fast food locations.
- Just over 60% of HPE residents from a community survey (n=1,245) agreed that there are too many unhealthy food choices available. 65% agreed that municipalities should make it harder for fast food restaurants to be located near schools.
- 64% of community organizations surveyed (n=70) reported having on-site amenities to support healthy eating. 65% reported having established policies or practices to encourage children to drink healthier beverages, while 68% have policies or practices to support healthier food choices for children.
- 74.8% of parents/guardians surveyed (n=262) thought it was very important to develop food skills related to food preparation, handling and safety.
- 29.9% (25.0-34.8) of HPE residents (age 12+) are active during leisure time, while 43.6% (37.4-49.8) are inactive.
- In Ontario, 48.6% (46.4-50.7) of youth (age 12-19) are active during leisure time, while 30.6% (28.6, 32.8) are inactive.
- In 2011 and 2012, 79.5% (75.6-83.4) of HPE residents (age 12+) spent more than 14 hours per week on computers, watching television/videos or reading (excluding work/school).
- 43% of a convenience sample (i.e., Grade 7 and 8 students in rural Eastern Ontario) reported having screen time between the end of the school day and supper time. More than three quarters reported participating in both sedentary activities and some level of physical activity during the after-school period.
- In 2011, 6.2% of the employed population (with a usual place of work or no fixed place of work address) in HPE walked to work, while 0.8% cycled and an additional 1.9% used public transit.
- 61% of HPE residents from a community survey (n=1,245) agreed that they would walk more often if sidewalks were better connected to the places they go, while 65% agreed that they would cycle more often if there were cycling lanes and/or paved shoulders on roads.



Figure 13. Percentage of adults and youth (age 12+) who met the CFG vegetables and fruit recommendations in HPE and Ontario, over time

\checkmark	Males (age 12+) are less likely to meet the CFG vegetables and fruit recommendations.	•	The percentage of youth and adult males who meet the vegetables and fruit recommendations of CFG is less than the percentage of youth and adult females (Ontario).
↓	Energy drink consumption in Grade 7-12 students is decreasing.	•	High-caffeine energy drink ¹⁸ consumption decreased from 49.5% in 2011 to 34.8% in 2015 (Ontario).

¹⁸ Highly caffeinated energy drinks (e.g., Red Bull, Rockstar, Monster, Amp) are one type of sugar-sweetened beverage.



¹⁹ Screen time includes time on computers, watching television or videos, playing video games and reading.

19. Overweight and Obesity

- 37.7% (32.3-43.1) of HPE adults (age 18+) are overweight and 30.4% (25.1-35.7) are obese.²⁰
- In Ontario, 17.8% (15.7-20.0) of youth (age 12-17) are overweight and 7.6% (6.3-9.1) are obese.²¹

Key Trends



40-49 who are overweight or obese (Ontario).

HPE has higher rates of overweight and obesity than in the province.

The proportion of adults (age 20+) in HPE who are overweight or obese is 68.2%; this is higher than that of the province at 61.7%.

²⁰ Calculated using a body mass index (BMI) adjustment factor to account for biases in self-reporting, as recommended by Statistics Canada.

²¹ Calculated using the World Health Organization's age-/sex-specific BMI cut-offs for children age 5-19.



There are higher rates of overweight and obesity in adults in rural areas.

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 In rural areas, a greater proportion of the population (18+) is overweight or obese compared to urban areas (Ontario).

20. Self-Perceived Mental and Overall Health

- 54.8% (50.1-59.4) of HPE residents (age 12+) have excellent or very good self-perceived general health. 16.9% (13.0-20.8) have fair or poor self-perceived general health.
- 64.1% (58.8-69.4) of HPE residents (age 12+) have excellent or very good self-perceived mental health.
 12.1 % (8.8-15.4) have fair or poor self-perceived mental health.

+ 6.9 Mental health 12.1 ++ 11.7 **Residents in HPE** General health have poorer self-16.9 perceived general and 0 5 10 15 20 25 mental health than in Percentage the province. HPE Ontario Figure 17. Residents (age 12+) with self-perceived fair or poor general or mental health, HPE and Ontario, 2013 and 2014 Over time, fewer people have self-The percentage of Ontario residents who report excellent selfperceived excellent or perceived mental health is decreasing; correspondingly, the very good mental percentage who report fair or poor self-perceived mental health is health. increasing (Ontario). Males have better Males are more likely to perceive their mental health as excellent or self-perceived mental very good compared to females (Ontario). health than females. The percentage of Ontario residents who perceive their mental health • as excellent or very good decreases with decreasing income (Ontario). Self-perceived mental Additionally, youth (age 12-19) are more likely to perceive their mental and general health $\mathbf{1}$ health as excellent or very good compared to those age 65+ (Ontario). decline with As income decreases, the percentage of residents who report their decreasing income. • self-perceived general health as excellent or very good decreases (Ontario).

Key Trends

21. Healthcare Utilization



Figure 18. Density of comprehensive primary care physicians (per 100,000 population) for HPE by census subdivision, 2014-2015²²

²² Green ME, Gozdyra P, Frymire E, Glazier RH. *Geographic Variation in the Supply and Distribution of Comprehensive Primary Care Physicians in Ontario, 2014/15.* Toronto, ON: Institute for Clinical Evaluative Sciences; 2017.



Figure 19. Density of comprehensive primary care physicians (per 100,000 population) for HPE by census subdivision, 2014-2015²²

✤ 78.0% (74.3-81.6) of HPE residents (age 12+) had contact with a doctor in the past 12 months.

Key Trends

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Most townships in HPE have lower

- primary care physician density than Ontario.
- Madoc and Bancroft have primary care physician density on par with the Ontario average of 107 per 100,000 population. Nine townships have no primary care physicians.



Figure 20. Residents (age 12+) who had contact with a doctor in the past 12 months by age, HPE and Ontario, 2013 and 2014

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More females than males had contact with a doctor in the past 12 months.

The proportion of females (age 12+) who had contact with a doctor in the past 12 months is higher than the corresponding proportion of males (Ontario).

Reproductive and Child Health

22. Maternal and Infant Health

- In HPE, the 2015 average maternal age was 28.4 (28.1-28.7) years, while the average age of first-time mothers was 26.4 (26.0-26.9) years. The 2014 rate of teenage (age 15-19) pregnancy was 30.5 per 1,000 females.
- In 2014, the rate of therapeutic abortions in HPE was 9.9 per 1,000 women.
- The small-for-gestational-age rate in HPE was 9.3 (7.7-10.9) per 100 live births in 2015; the large-forgestational-age rate was 11.9 (10.1-13.7) per 100 live births in 2015.
- In 2015, the crude birth rate in HPE was 9.0 (8.5-9.4) per 1,000 population, and the pre-term birth rate was 9.3 (7.8-10.9) births per 100 live births.
- In 2014, 4.3% (3.2-5.3) of HPE mothers reported using alcohol or drugs during pregnancy; specifically, 2.0% (1.3-2.7) consumed alcohol and 2.8% (2.0-3.7) used drugs.²³
- In 2014, 24.7% (22.1-27.2) of pregnant women in HPE were smokers at the first prenatal visit, while 21.1% (18.7-23.4) were smokers at admission for birth.
- In 2014, 14.3% (12.4-16.2) of HPE mothers reported experiencing anxiety during pregnancy; 14.0% (12.1-15.9) reported experiencing depression during pregnancy; and 7.6% (5.7-9.4) reported a history of postpartum depression. Overall, 26.8% (24.2-29.5) reported mental health concerns.
- In 2015, 19.9% (17.6-22.2) of HPE mothers reported taking folic acid prior to and during pregnancy.
- In 2014, 56.2% (51.9-60.5) of HPE mothers gained above the recommended weight gain for pregnancy, while 15.9% (13.6-18.2) gained less than the recommended weight gain.²⁴
- In 2014, 85.8% (81.8-90.6) of mothers in HPE intended to breastfeed.
- In 2016, 57.4 % of infants were exclusively breastfed at entry to public health service, and 44% were exclusively breastfed at 6 months, according to local surveillance data.



Key Trends

Figure 21. Average maternal age, overall, and at birth of first infant, HPE and Ontario, 2015

• The overall maternal average age in HPE is lower than in cLPHUs.

 ²³ This refers to the use of street drugs and the inappropriate use of prescription and non-prescription drugs.
 ²⁴ Interpret with caution due to missing data.

HPE has a higher rate of large-forgestational-age births than Ontario.

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 The large-for-gestational-age birth rate is 11.9 (10.1-13.7) per 100 live births in HPE, compared to 9.8 (9.6-10.0) per 100 live births in Ontario; comparable rates to HPE are observed for cLPHUs.



Figure 22. Substance use and mental health concerns during pregnancy, HPE and Ontario, 2014

- Additionally, for most of the measures shown in Figure 22, HPE has higher rates than KFL&A.
- Folic acid use and intention to breastfeed is lower in HPE than in Ontario.

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- In 2014, 19.9% (17.6-22.2) of pregnant woman in HPE took folic acid prior to and during pregnancy, compared to 29.7% (29.4-30.0) in Ontario and 37.2-39.4% in cLPHUs.
- In HPE, 85.8% (81.1-90.6) of mothers intend to breastfeed, compared to 93.4% (92.9-94.0) in Ontario. The rates in cLPHUs are comparable to HPE.



Drug use, smoking and mental health concerns in HPE are higher in younger mothers.

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Figure 23. Drug use and smoking during pregnancy in HPE by age, 2014

- Depression rates during pregnancy in HPE are approximately double for mothers under age 25 (20.3% (15.7-24.9)) compared to age 25-34 (11.8% (9.6-14.0)). Rates of mental health concerns during pregnancy for those under age 25 are higher at 34.8% (28.7-40.8), compared to 24.5% (21.3-27.6) for age 25-34.
- Additionally, consumption of alcohol during pregnancy is higher in mothers in HPE under age 25 (8.2% (5.2-11.1)) than age 25-34 (3.0% (1.9-4.1)).

Abortion rates in THPE are highest in age 20-24 years.

• Therapeutic abortion rates in HPE are highest in age 20-24 (24.9 per 1,000 females), followed by age 25-29 (14.8 per 1,000 females).

23. Risk Factors for Healthy Child Development

- ◆ 3.7% (2.7-4.8) of infants in HPE reported no primary care provider for mother and/or infant in 2015.
- ✤ 5.2% (3.9-6.4) of infants in HPE had families who had concerns about money in 2015.
- 26.3% (23.5-29.0) of infants in HPE had a parent or parenting partner with mental illness in 2015.
- ✤ 6.2% (4.8-7.5) of infants in HPE had a parent or parenting partner with disability in 2015.

Key Trends



Figure 24. Risk factors for healthy child development, HPE and Ontario, 2015

24. Early Childhood Development

Table 7. Early Development Index results for PEC and Hastings County, 2015

Early Development Index (EDI) ²⁵ Domain	% Vulnerable in PEC	% Vulnerable in Hastings County
One or More Domains	37.3%	36.6%
Physical Health and Well-Being	26.6%	21.9%
Social Competence	11.4%	14.6%
Emotional Maturity	18.4%	18.9%
Language and Cognitive Development	10.8%	11.1%
Communication Skills and General Knowledge	13.3%	13.9%

²⁵ The EDI is a teacher-completed questionnaire about a child's normal development and measures a child's ability to meet age appropriate expectations at school entry. It measures a child's vulnerability across five domains, where to be vulnerable means that a child is at increased risk of encountering difficulties in the school years and beyond. More information is available at http://www.edi.offordcentre.com.

Key Trends



- The communities that have the largest percentage of vulnerable kindergarteners in one or more domains are West Belleville (including Sidney, within city boundaries; 48.9%), South East Hastings (excluding Tyendinega Mohawk Territory; 47.3%), and North West Belleville (46.2%).
- The communities of Frankford and Sidney Wards (24.1% vulnerable in one or more domains) and Thurlow (north of Highway 401 with 26.1% vulnerable in one or more domains) have the lowest percentage of vulnerable kindergarteners.

25. Childhood Oral Health

- In the 2016-2017 school year, 70.0% of 1,242 screened junior kindergartners were cavity free. Of the screened junior kindergartners, there were:
 - 220 students with filled teeth;
 - 190 students with decayed teeth; and
 - 71 students with extracted or missing teeth.
- In the 2016-2017 school year, 38.7% of 1,413 screened second graders were cavity free. Of the screened second graders, there were:
 - 751 students with filled teeth;
 - 262 students with decayed teeth; and
 - 216 students with missing or extracted teeth.

Chronic Disease and Injury

Injuries 26.

The 2015 overall crude rate for emergency department visits for all injuries in HPE was 14,191.5 * (14,008.9-14,374.0) per 100,000 population.

	Table 8. Top five causes of injury in HPE (crude rates), age groups 0-4 to 45-49, 2012-2016									
	Crude	Emerger	ncy Depa	rtment V	isit Rates	(Percent	tage of A	II Visits fo	or Injury)	
Rank	0-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years
1	43.7% falls	39.6% falls	32.2% falls	22.1% sports and recreational injuries	20.5% <i>falls</i>	19.4% <i>falls</i>	21.6% falls	23.6% falls	25.2% falls	27.2% falls
2	8.1% non- venomous insect bites ²⁶	20.7% sports and recreational injuries	24.9% sports and recreational injuries	20.7% falls	13.5% cut or pierce	14.4% cut or pierce	14.4% over- exertion	15.8% over- exertion	14.8% over- exertion	13.5% over- exertion
3	7.2% foreign body in eye or natural orifice	6.5% cut or pierce	11.2% over- exertion	11.2% over- exertion	12.5% over- exertion	13.4% over- exertion	13.5% cut or pierce	13.1% cut or pierce	13.0% cut or pierce	11.7% cut or pierce
4	4.6% sports and recreational injuries	4.9% non- venomous insect bites ²⁶	8.1% struck by or against	8.8% cut or pierce	9.7% sports and recreational injuries	7.3% motor vehicle collisions	6.7% sports and recreational injuries	6.4% motor vehicle collisions	7.0% motor vehicle collisions	6.5% motor vehicle collisions
5	4.0% cut or pierce	4.9% other land transport collisions ²⁷	5.3% cut or pierce	6.7% motor vehicle collisions	8.8% motor vehicle collisions	7.1% sports and recreational injuries	6.6% motor vehicle collisions	5.9% sports and recreational injuries	5.4% foreign body in eye or natural orifice	5.5% foreign body in eye or natural orifice
Total # of all injuries	6,085	5,467	8,153	10,071	8,140	6,397	5,657	5,497	5,233	5,767

Table 8 Top five causes of injury in HPE (crude rates) are groups 0.4 to 45.49, 2012-2016

 ²⁶ Insect bites include non-venomous bites from insects and arthropods but do not include bites from bees or wasps.
 ²⁷ Other land transport collisions include all non-motor vehicle collisions, such as pedestrian, cycling and animal-rider collisions.

	Crude Emergency Department Visit Rates (Percentage of All Visits for Injury)										
Rank	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90+ years	Total (0+)	
1	31.5% falls	36.8% falls	40.0% falls	44.7% falls	53.5% falls	62.0% falls	72.8% falls	79.5% falls	86.2% falls	35.0% falls	
2	12.0% cut or pierce	11.1% cut or pierce	11.4% cut or pierce	10.4% cut or pierce	7.8% cut or pierce	5.4% cut or pierce	3.7% cut or pierce	2.7% over- exertion	1.8% over- exertion	10.1% over- exertion	
3	11.8% over- exertion	10.8% over- exertion	8.7% over- exertion	7.7% over- exertion	5.9% over- exertion	5.4% over- exertion	3.7% over- exertion	2.4% motor vehicle collisions	1.5% foreign body in eye or natural orifice	9.7% cut or pierce	
4	6.6% motor vehicle collisions	5.8% motor vehicle collisions	5.4% motor vehicle collisions	6.1% non- venomous insect bites ²⁶	5.0% motor vehicle collisions	4.6% motor vehicle collisions	2.9% motor vehicle collisions	2.3% cut or pierce	1.2% motor vehicle collisions	8.5% sports and recreational injuries	
5	5.5% foreign body in eye or natural orifice	4.8% foreign body in eye or natural orifice	5.2% foreign body in eye or natural orifice	4.5% motor vehicle collisions	4.4% non- venomous insect bites ²⁶	3.8% non- venomous insect bites ²⁶	2.3% foreign body in eye or natural orifice	1.7% foreign body in eye or natural orifice	1.1% cut or pierce	5.2% motor vehicle collisions	
Total # of all injuries	6,976	6,501	5,322	4,726	3,754	3,274	3,022	2,559	1,938	104,359	

Table 9. Top five causes of injury in HPE (crude rates), age groups 50-54 to 90+, 2012-2016

Key Trends²⁸

 HPE has a higher rate of emergency department visits for all injuries than Ontario or cLPHUs.

- The overall rate of emergency department visits in HPE is approximately 1.5 times higher than Ontario's overall rate.
- Additionally, residents of HPE have higher rates of visits for all intentional injuries than residents of Ontario and KFL&A.
- HPE also has a higher rate of visits for all unintentional injuries than Ontario and cLPHUs.

Males have higher rates of emergency department visits in HPE due to injuries than females.

 In HPE, males have an approximately 1.2 times higher rate of emergency department visits for injuries than females. Additionally, males have a higher rate of visits for all unintentional injuries, while females have a higher rate of visits for falls.



Figure 25. Emergency department visits due to injuries by age, HPE, 2015

²⁸ For comparisons across regions and sexes, age-standardized rates were used.

27. Hospitalizations Due to Alcohol-Attributable Injuries

Crude Hospitalization Rates (Percentage of Hospitalizations for Injury Attributable to Alcohol) **Total** 30-44 years 45-59 years Rank 15-29 years 60-69 years 15-69 years 45.2% 46.0% 45.0% 52.9% 47.1% 1 self-inflicted self-inflicted self-inflicted self-inflicted self-inflicted harm harm harm harm harm 19.6% 18.7% other other 23.1% 25.4% 17.6% 2 unintentional unintentional falls falls falls injuries injuries 14.3% 15.5% 13.1% 16.6% motor vehicle 11.9% other other other 3 collisions falls unintentional unintentional unintentional (traffic only) injuries injuries injuries 7.6% 9.1% 4.6% 3.2% 8.2% motor vehicle motor vehicle motor vehicle motor vehicle 4 falls collisions collisions collisions collisions (traffic only) (traffic only) (traffic only) (traffic only) 3.8% 3.3% 2.2% 3.2% 3.5% intentional 5 poisoning self-poisoning by poisoning poisoning poisoning alcohol Total # of 280 261 362 274 202 hospitalizations due to alcohol Total rate per 100,000 198.9 197.9 188.9 233.4 1,178 population per year

Table 10. Top five causes of injury resulting in hospitalization attributed to alcohol in HPE (crude rates) by age
group, 2012-2016

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HPE has higher rates of injury-related hospitalizations attributable to alcohol compared to Ontario, cLPHUs, and Peer Group C, especially for selfinflicted harm.

- Overall rates of injury-related hospitalizations attributable to alcohol are 202.3 per 100,000 population for HPE, 126.1 for Ontario, 182.2 for KFL&A, 132.1 for PCC, and 188.5 for Peer Group C.
- Rates of injury-related hospitalizations attributable to alcohol for self-inflicted harm are higher in HPE (95.3 per 100,000 population) than in Ontario (60.3), cLPHUs (62.0-88.5), or Peer Group C (90.3).
- Rates of injury-related hospitalization for falls attributable to alcohol are higher in HPE (35.7 per 100,000 population) than in Ontario (21.1), KFL&A (28.6), PCC (22.6), and Peer Group C (30.3).



Figure 26. Hospitalizations due to injuries attributable to alcohol by sex, HPE, 2012-2016

28. Chronic Diseases

Hospitalizations for Chronic Diseases	2015 HPE Crude Rate ²⁹ per 100,000 Population, 95% Confidence Interval	2015 HPE Age-Standardized Rate per 100,000 Population, 95% Confidence Interval	2015 Ontario Age-Standardized Rate per 100,000 Population, 95% Confidence Interval
cardiovascular disease	1,272.5	962.9	928.7
	(1,217.8-1,327.1)	(920.5-1,005.3)	(923.7-933.6)
respiratory disease	932.5	759.9	605.1
	(885.7-979.3)	(720.5-799.4)	(601.1-609.2)
lower respiratory disease	480.6	359.4	220.4
	(447.0-514.2)	(333.7-385.0)	(218.0-222.8)
chronic obstructive pulmonary disease (COPD)	448.8	323.3	183.6
	(416.3-481.3)	(299.6-346.9)	(181.4-185.7)
ischaemic heart disease	431.1	334.2	318.2
	(399.3-462.9)	(308.9-359.5)	(315.3-321.1)
cerebrovascular disease	223.8	166.7	136.0
	(200.9-246.7)	(149.2-184.2)	(134.1-137.8)
diabetes	129.0	114.9	99.5
	(111.6-146.4)	(98.8-131.0)	(97.9-101.1)
stroke	143.6	191.4	114.1
	(127.3-159.9)	(170.2-212.6)	(112.4-115.8)
asthma	30.0	34.2	34.0
	(21.6-38.4)	(24.5-43.9)	(33.1-35.0)
hypertension	17.1	13.6	17.7
	(10.8-23.5)	(8.5-18.7)	(17.0-18.3)

Table 11. Hospitalization rates for chronic disease, HPE and Ontario, 2015

- ✤ 10.4% (7.61-3.1) of HPE residents (age 12+) had self-reported asthma.
- 14.0% (10.0-18.0) of HPE residents (age 12+) had a self-reported mood disorder and 11.7% (8.0-15.4) had an anxiety disorder.
- ✤ 11.1% (8.1-14.2) of HPE residents (age 12+) had self-reported diabetes.
- ✤ 24.0% (20.7-27.3) of the HPE population (age 12+) had self-reported high blood pressure.
- ✤ 8.1% (6.3-9.8) of the HPE population (age 12+) had self-reported heart disease.

²⁹ Crude and age-standardized rates are presented for overall data. Age-standardized rates are used to compare between sexes and across regions. Age-specific rates are used to compare across ages.

Key Trends

1	HPE has higher rates of hospitalization for cerebrovascular disease, COPD, respiratory disease, lower respiratory disease, and stroke than the province.	•	Rates of COPD are approximately 1.8 times higher in HPE than Ontario, and 1.6 times higher for lower respiratory disease. The rates in HPE are higher than in KFL&A and comparable to those observed in PCC. Rates of respiratory disease are 1.3 times higher in HPE than Ontario, as well as higher than KFL&A, and lower than PCC. Rates of cerebrovascular and stroke are approximately 1.2 times the rates observed for Ontario. For stroke, the rates are also higher than those observed in Peer Group C and cLPHUs.
1	HPE residents have a higher self- reported prevalence of mood disorder than Ontario residents.	•	The percentage of HPE residents (age 12+) who report having a mood disorder is higher than the percentage of Ontario residents.
↓	In HPE, hospitalization rates for ischaemic heart disease are decreasing.	•	Since 2005, the hospitalization rate in HPE for ischaemic heart disease has decreased by approximately half, from 726.9 (686.6-767.1) to 334.2 (308.9-359.5) per 100,000 population.
1	Hospitalization rates for cardiovascular disease, cerebrovascular disease, COPD, and lower respiratory disease in HPE increase with age, especially at age 75+.	•	Rates of hospitalization for cardiovascular disease, cerebrovascular disease, COPD, and lower respiratory disease more than double from age 64-74 to age 75+.
↑	Hospitalization rates for diabetes, heart attack and stroke in HPE increase steadily with age.	•	The hospitalization rate in HPE for asthma is approximately twice as high in age 0-19 compared to any other age group.
↑	Children and youth in HPE have the highest rates of hospitalization for asthma.		
1	Compared to females, males in HPE have higher rates of hospitalization for cardiovascular disease, cerebrovascular disease, diabetes, ischaemic heart disease,	•	Males have rates of hospitalization for ischaemic heart disease 2.2 times that of females; 1.8 times that of females for cardiovascular disease, cerebrovascular disease, and diabetes; 1.5 times that of females for stroke; and 1.2 times that of females for respiratory

29. Cancer Incidence

		e fates, TFE and Ontario, 201	-	
Cancer Incidence	2012 HPE	2012 HPE	2012 Ontario	
	Crude Rate ²⁹ per	Age-Standardized Rate	Age-Standardized Rate	
	100,000 Population,	per 100,000 Population,	per 100,000 Population,	
	95% Confidence	95% Confidence	95% Confidence	
	Interval	Interval	Interval	
all malignant cancers	715.0	446.9	413.0	
	(674.1-756.0)	(419.8-474.1)	(409.9-416.1)	
prostate cancer	209.8	126.7	101.9	
	(178.2-241.5)	(107.5-145.8)	(99.7-104.1)	
female breast cancer	173.9	108.4	99.2	
	(145.6-202.2)	(89.4-127.5)	(97.1-101.3)	
lung cancer	108.0	62.8	54.3	
	(92.1-123.9)	(53.4-72.2)	(53.2-55.4)	
colorectal cancer	85.4	50.7	47.4	
	(71.3-99.6)	(41.8-59.5)	(46.3-48.4)	
malignant melanoma	29.9	19.2	15.9	
	(21.5-38.3)	(13.4-25.0)	(15.3-16.5)	
oral cancer	22.0	13.8	10.5	
	(14.8-29.1)	(9.1-18.4)	(10.0-11.0)	
cervical cancer	9.6	9.8	8.1	
	(2.9-16.2)	(2.4-17.3)	(7.5-8.8)	

Table 12. Cancer incidence rates, HPE and Ontario, 2012

Key Trends

•	• HPE has a higher cancer incidence for all malignant	The incidence in HPE for all malignant cancers is approximately 1.1 times that of Ontario, while rates in HPE are comparable to cLPHUs.
.1.	cancers, specifically prostate cancer.	The rate of prostate cancer in HPE is approximately 1.2 times that of Ontario; HPE has a higher rate of prostate cancer than cLPHUs.
1	Males in HPE have a higher • incidence of all malignant cancers than females.	The rate of all malignant cancers is 502.6 (461.9-543.3) per 100,000 population for males in HPE, compared to 403.6 (366.5-440.6) for females.
↑	Incidence rates for all malignant • cancers in HPE increase with age after age 30.	Rates for all malignant cancers increases with age after the age 30; this trend is especially true for colorectal cancer and malignant melanoma.

Mortality

30. Life Expectancy

✤ According to 2007-2009 statistics, the life expectancy at birth in HPE is 79.0 (78.6-79.4) years.

Key Trends



Leading Causes of Death 31.

				ĺ	Percenta	age of Al	l Deaths	;			
Rank	0-9 years	10-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80-89 years	90+	Total, All Ages
1	39.4% perinatal conditions	29.7% transport collisions ³⁰	26.8% transport collisions ³⁰	17.3% intentional self-harm	13.8% ischaemic heart disease	15.2% ischaemic heart disease	15.7% cancer of lung and bronchus	16.2% ischaemic heart disease	16.7% ischaemic heart disease	17.4% ischaemic heart disease	15.7% ischaemic heart disease
2	17.4% congenital mal- formations	7.8% intentional self-harm	17.0% intentional self-harm	11.7% transport collisions ³⁰	6.4% intentional self-harm	11.8% cancer of lung and bronchus	14.6% ischaemic heart disease	12.8% cancer of lung and bronchus	9.2% dementia and Alzheimer disease	15.5% dementia and Alzheimer disease	8.3% cancer of lung and bronchus
3	2.8% assault	6.3% unintentional drowning	7.1% assault	8.0% unintentional poisoning	4.8% cancer of lung and bronchus	5.2% diabetes	5.3% chronic lower respiratory diseases	7.2% chronic lower respiratory diseases	8.5% cerebro- vascular diseases	9.9% cerebro- vascular diseases	6.5% cerebro- vascular diseases
4	2.8%, transport collisions ³⁰	6.3% congenital mal- formations	5.4% unintentional poisoning	4.9% cancer of breast	4.6% transport collisions ³⁰	4.8% cirrhosis and other liver diseases	5.1% diabetes	6.1% cerebro- vascular diseases	6.6% chronic lower respiratory diseases	5.8% influenza and pneumonia	6.2% dementia and Alzheimer disease
5	1.8%, influenza and pneumonia	4.7% unintentional poisoning	4.5% congenital mal- formations	4.3% ischaemic heart disease	4.2% unintentiona poisoning	4.4% cancer of breast	4.6% cancer of colon, rectum, anus	5.0% diabetes	5.1% cancer of lung and bronchus	3.9% heart failure	5.5% chronic lower respiratory diseases
Total # of deaths	109	64	112	162	545	1,284	2,329	3,916	5,196	2,387	16,104

Table 13. Top five causes of death in HPE as percentage of all deaths by age group, 2003-2012

Key Trends

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- HPE has higher mortality • from avoidable causes³¹ than Ontario.
 - Rate of mortality in HPE from avoidable causes is higher than in Ontario.

 ³⁰ This is the Association of Public Health Epidemiologists of Ontario "transport accidents" definition.
 ³¹ Mortality from avoidable causes is the combination of mortality from preventable causes and mortality from treatable causes.

32. Potential Years of Life Lost³²

	Table T	4. Potential	years of life	IOST IN HPE	by leading of	cause of dea	ath, age grou	ups, 2007-20	12
		Potentia	al Years of	Life Lost	(% of tota	I potentia	years of	life lost)	
Rank	0-9 years	10-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-74 years	Total, All Ages
1	1,939 (37.4%) perinatal conditions	458 (21.7%) transport collisions ³⁰	860 (25.3%) transport collisions ³⁰	783 (18.9%) intentional self-harm	1,274 (13.5%) ischaemic heart disease	2,352 (14.7%) ischaemic heart disease	2,171 (15.5%) cancer of lung and bronchus	458 (16.1%) cancer of lung and bronchus	5,967 (10.5%) ischaemic heart disease
2	1,050 (20.2%) congenital mal- formations	289 (13.7%) intentional self-harm	665 (19.6%) intentional self-harm	484 (11.7%) transport collisions ³⁰	579 (6.1%) intentional self-harm	1,985 (12.4%) cancer of lung and bronchus	1,867 (13.4%) ischaemic heart disease	349 (12.2%) ischaemic heart disease	5,115 (9.0%) cancer of lung and bronchus
3	145 (2.8%) transport collisions ³⁰	177 (8.4%) unintentional drowning	350 (10.3%) assault	407 (9.8%) unintentional poisoning	465 (4.9%) cancer of lung and bronchus	839 (5.2%) cirrhosis and other liver diseases	699 (5.0%) chronic lower respiratory diseases	217 (7.6%) chronic lower respiratory diseases	2,883 (5.1%) intentional self-harm
4	75 (1.4%) assault	123 (5.8%) congenital mal- formations	205 (6.0%) unintentional poisoning	190 (4.6%) cancer of breast	453 (4.8%) cirrhosis and other liver diseases	782 (4.9%) cancer of breast	652 (4.7%) diabetes	150 (5.3%) <i>diabetes</i>	2,754 (4.8%) transport collisions ³⁰
5	75 (1.4%) falls	119 (5.6%) unintentional poisoning	105 (3.1%) congenital mal- formations	157 (3.8%) <i>diabetes</i>	444 (4.7%) cancer of breast	766 (4.8%) <i>diabetes</i>	651 (4.7%) cancer of colon, rectum, anus	125 (4.4%) cerebro- vascular diseases	2,119 (3.7%) <i>diabetes</i>
Total #	5,188	2,112	3,399	4,144	9,437	15,990	13,962	2,851	57,083

Table 14. Potential years of life lost in HPE by leading cause of death, age groups, 2007-2012

³² The potential years of life lost (PYLL) statistic emphasizes deaths that occur earlier in life and assumes that people would have otherwise lived to age 75, the potential life expectancy. That is, if an individual died at age 35 they would have lost 40 years of potential life; if an individual died at age 65, they would have lost 10 years of potential life. Analyzing PYLL across the entire population provides a measure of preventable mortality.

Residents of HPE have higher PYLL from all avoidable causes, especially respiratory diseases and treatable causes³³, than the residents of Ontario and cLPHUs.

- For all avoidable causes and treatable causes, the PYLL in HPE is 1.3 times that of Ontario, while the PYLL for respiratory disease in HPE is 2 times of that Ontario.
- For avoidable causes, HPE has lower PYLL than Peer Group C; for respiratory and treatable causes, HPE has higher PYLL than Peer Group C.



Figure 28. Potential years of life lost by case and sex in HPE, 2007-2012

³³ Mortality from treatable causes means deaths that are potentially avoidable through secondary and tertiary prevention methods, such as screening and treatment.

Appendix

33. Data Sources

Demographics:

- Population by age and sex: Population Projections, Ontario MOHLTC, IntelliHEALTH Ontario. Projections are available yearly.
- Population by township (and total population), Family Structure, Income and Language: 2016 Census of Population, Statistics Canada. The Census includes all populations, though institutionalized populations are excluded from the language data. There are some data limits for rural Hastings for income.
- Community Belonging: The Canadian Community Health Survey (CCHS), Statistics Canada. Excluded from this survey are persons living on reserves and other Aboriginal settlements, full-time members of the Canadian Forces, and the institutionalized population. Data analysis conducted by KFL&A Public Health.
- Remainder: 2011 National Household Survey, Statistics Canada. The National Household Survey excludes institutionalized populations, and non-institutional collective dwellings (i.e., student residences). Note that the global non-response rate for the survey was greater than 30%.

Communicable Diseases:

- Communicable disease rates: integrated Public Health Information System (iPHIS), Ontario MOHLTC via Public Health Ontario's Infectious Disease Query tool. The most recent year of data is 2016.
- Tick and rabies follow up data: internal.
- Immunization rates: Panorama (data extracted by HPEPH). The most recent year of data for HPE numbers is the 2016-2017 school year. Comparative data with the province was from The Immunization Coverage Report (PHO) and the most recent year of data is the 2015-2016 school year.

Environmental Health:

• Internal, Accountability Indicators.

Health Behaviours and Well-Being:

- Primary source: The Canadian Community Health Survey (CCHS), Statistics Canada. Excluded from this survey are persons living on reserves and other Aboriginal settlements, full-time members of the Canadian Forces, and the institutionalized population. In general, the most recent cycle is 2013 and 2014, but a few indicators are not included on every cycle, specifically:
 - Illicit Drug Use: most recent data is 2011 and 2012, but due to low numbers, two complete cycles (representing four years in total) have been merged, so the data is 2009 to 2012.
 - Screen Time: most recent data is 2011 and 2012.
- Some of the data was analyzed by KFL&A Public Health and some of the data was analyzed by PHO and extracted from the Snapshots tool, specifically:
 - PHO Snapshots: Smoking Rates (adult current smoker, adult daily smoker, adult former smoker, abstinence, teen current smoking, teen abstinence); Alcohol (heavy drinking, exceeding either guideline, exceeding guideline 1, exceeding guideline 2); Illicit Drug Use (all); Vegetable and Fruit Consumption; Physical Activity (all ages); Overweight and Obesity (all); and Oral Health (all).

- Analysis by KFL&A Public Health: Smoking (current smoker, age of first whole cigarette, age daily smoking began); Exposure to Second-Hand Smoke; Alcohol (exceeded both guidelines and youth drinking); Road Safety; Sexual Health; Physical Activity (all ages, youth); Fruit and Vegetable Consumption; Screen Time; Overweight and Obesity (adult); General and Mental Health; and Contact with a Doctor.
- Where indicators were analyzed both by PHO and KFL&A Public Health, the age-standardized data from PHO was used to compare to the cLPHUs and Ontario while KFL&A Public Health results compared age, sex, urban/rural, and income. Exact definitions for indicators may have varied between the two analyses (i.e., ages included).
- Additionally, food security was analyzed by Statistics Canada and extracted from their health profiles.
- Electronic cigarette usage, and driving after drinking or using cannabis: CAMG Monitor eReport 2015, Centre for Addiction and Mental Health.
- Gr. 9 -12 students drug use: 2015 Ontario Student Drug Use and Health Survey, Centre for Addiction and Mental Health.
- Naloxone and needle exchange data: internal.
- Opioid data sources:
 - Prescriptions: Ontario Drug Policy Research Network.
 - Opioid ED visits and hospitalizations: PHO's Opioid Tool.
 - Opioid-related deaths: 2016 data PHO's Opioid Tool, older data Ontario Drug Policy Research Network.
- After-school activities for rural youth: The Rural Youth's After-School Experience Related to Physical Activity and Sedentary Behaviour, Eastern Ontario Physical Activity Network.
- Attitudes to healthy eating and active living: HCP Situation Assessment (internal).
- Good Food Box usage and other food sources: HKCC Survey and Focus Group (internal).
- Active transportation to work: 2011 National Household Survey, Statistics Canada.
- Nutritious Food Basket: data from the Nutritious Food Basket program (internal). The most recent year of data is 2016.
- Density and supply of comprehensive primary care physicians in Ontario: Green ME, Gozdyra P, Frymire E, Glazier RH. Geographic Variation in the Supply and Distribution of Comprehensive Primary Care Physicians in Ontario, 2014/15. Toronto, ON: Institute for Clinical Evaluative Sciences; 2017.

Reproductive and Child Health:

- Birth rate, pre-term birth rate, birth weight, and maternal age: Discharge Abstract Database, Ontario MOHLTC, IntelliHEALTH Ontario analyzed by Public Health Ontario and extracted from Snapshots. The most recent data is 2015.
- Maternal indicators (e.g., alcohol and drug use, mental health concerns, intention to breastfeed, feeding type until discharge): Better Outcomes Registry and Network (BORN) Information System analyzed by Public Health Ontario and extracted from Snapshots. The most recent year of data is 2014.
- Breastfeeding: internal, the most recent data is 2016.
- Risk Factors for Healthy Child Development: Healthy Babies Healthy Children screen analyzed by Public Health Ontario and extracted from Snapshots. The most recent year of data is 2015.

- Early Childhood Development: the Early Development Instrument, Offord Centre for Child Studies, Ontario MCYS. The most recent cycle of data is the 2014-2015 school year.
- Childhood Oral Health: Oral Health Screening Program (internal). Locally the most recent data is the 2016-2017 school year.
- Therapeutic abortion: Ontario Therapeutic Abortion Database, Ontario MOHLTC, IntelliHealth Ontario. Most recent data is from 2005 to 2014, and analyzed by KFL&A Public Health and HPEPH.
- Teenage pregnancy: Discharge Abstract Database, Ontario MOHLTC, IntelliHEALTH Ontario and analyzed by HPEPH.

Chronic Disease and Injury:

- Injury (including alcohol attributable): National Ambulatory Care Reporting System, Ontario MOHLTC, IntelliHEALTH Ontario. The data was analyzed by KFL&A Public Health. 2012 to 2016 data is combined for the local region. For regional comparisons for overall injuries, PHO snapshot tool was utilized with the same source and 2015 data.
- Hospitalizations for Chronic Diseases: Discharge Abstract Database, Ontario MOHLTC, IntelliHEALTH Ontario analyzed by Public Health Ontario and extracted from Snapshots. The most recent year of data is 2015.
- Self-reported Chronic Disease Prevalence: CCHS, analyzed by PHO and extracted from Snapshots.
- Cancer Incidence: Ontario Cancer Registry (OCR) Cancer Care Ontario (CCO) analyzed by Public Health Ontario and extracted from Snapshots. The most recent year of data is 2012.

Mortality and Potential Years of Life Lost (PYLL):

- Life expectancy: Public Health Infobase, Public Health Agency of Canada. The most recent data is from 2007-2009.
- Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario. 2007 to 2012 data for PYLL and 2003 to 2012 data used for mortality. PHO Snapshots tool was used to compare PYLL regionally, with the same data source and only 2012 data.