The Changing Landscape of Health in Peel:

Key Findings about the Health of Peel's Residents 2019

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The Changing Landscape of Health in Peel

Key Findings about the Health of Peel's Residents 2019

Summary Report

Region of Peel
working with you

Indigenous Acknowledgement

Indigenous Peoples have occupied the lands now known as Peel Region for at least 10,000 years. Prior to settler colonization, these lands were the ancestral home of the Wendat, the Haudenosaunee, and most recently, the Mississaugas of the Credit First Nation. Much of the work of Region of Peel - Public Health takes place in the Traditional Territory and Treaty Lands of the Mississaugas of the Credit First Nation. As visitors in this Territory, we at the Region of Peel - Public Health would like to express our gratitude to the Mississauga Peoples of the New Credit First Nation, the descendants of the Credit First Nation. We would also like to respectfully acknowledge the diverse community of Indigenous Peoples, representing a multitude of distinct Nations, who currently live, work, and play in this Territory. As the Region of Peel - Public Health begins its journey toward becoming a culturally safe organization, we would like to express our commitment to honouring the sovereignty of Indigenous Nations across the Territories now known as Canada.

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Table of Contents

THE CHANGING LANDSCAPE OF HEALTH IN PEEL

Overview

This report highlights the key findings reported by the Region of Peel - Public Health in The Changing Landscape of Health in Peel: A Comprehensive Health Status Report 2019. Readers interested in in a more detailed examination of the health issues and data methods can access the full report in electronic format at: **peelregion.ca/health/reports**.

Public health plays a unique role in Canada's publicly funded health system. While significant attention and resources are directed at treating individuals with illness, public health's three main goals are to:

- promote and protect health, and prevent illness;
- reduce health disparities; and
- respond to emergencies.

To meet this mandate, public health takes a population health approach of which one element is population health assessment and surveillance reporting. This report provides a summary of health issues using Peel-specific data as a foundation for public health analysis and strategy development with a goal of improving the health of Peel's population.

Successes and Emerging Issues

Population Growth and Aging

Peel continues to experience rapid population growth and the structure of the population is changing. Additionally, Peel residents are living longer.

Peel continues to experience rapid population growth, with the region's population increasing by 19% over the past 10 years (Table 1).[A1,A2] In 2016, Peel's population was just under 1.4 million.[A1] By 2031, Peel's population is expected to exceed 1.7 million.[B] In addition to population growth, Peel's age structure is changing. Compared to 1996, there are now more individuals aged 50 years and older and fewer in the middle and younger age groups (Figure 1). By 2036, there will be higher proportions of those aged 65 years and older.[B]

Table 1

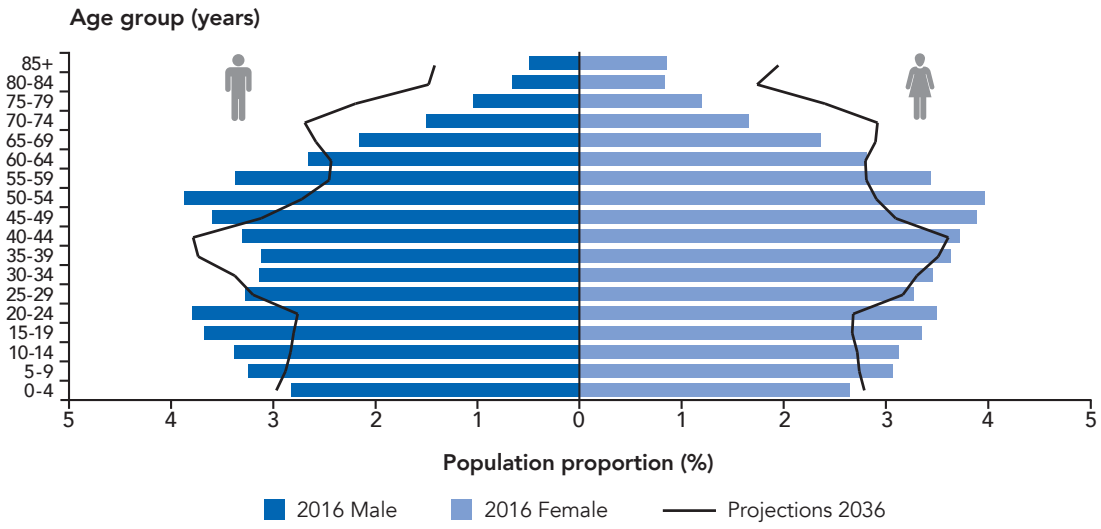
Population and Land Features, Halton, Toronto, Peel, 2016

Land Feature	Halton 2016	Toronto 2016	Peel 2016
Population	548,435	2,731,571	1,381,739
Per cent change in population between 2006 to 2016	9.3%	4.5%	19.2%
Land area in square kilometres	964	660	1,247
Population density per square kilometre	569	4,334	1,108

NA – Not applicable
Source: Census 2016, Statistics Canada.

Figure 1

Population Distribution by Age Group and Sex, Peel, 2016 and 2036

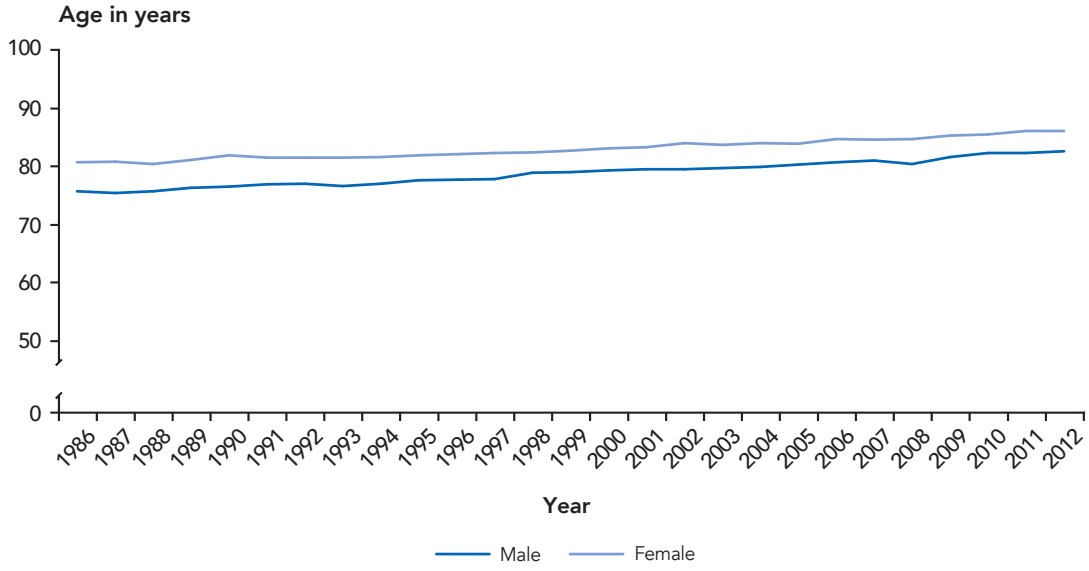


Sources: Census 2016, Statistics Canada
Hemson Consulting, Population Forecast 2036, Region of Peel

Residents of Peel are also living longer (Figure 2). Peel's life expectancy is higher compared to Ontario and Canada, and mortality rates have decreased over the past 30 years. Compared to 1986, life expectancy for females in Peel is 86.1 years (for a difference of 5.4 more years) and for males 82.6 years (for a difference of 6.9 years).[C]

Figure 2

Life Expectancy at Birth by Sex, Peel, 1986 to 2012



Sources: Ontario Mortality Database, 2012, Ontario Registrar General. IntelliHEALTH Ontario, Ministry of Health and Long-Term Care.
Population Estimates, 1986-2012, Statistics Canada. IntelliHEALTH Ontario, Ministry of Health and Long-Term Care.

Immigration and Diversity

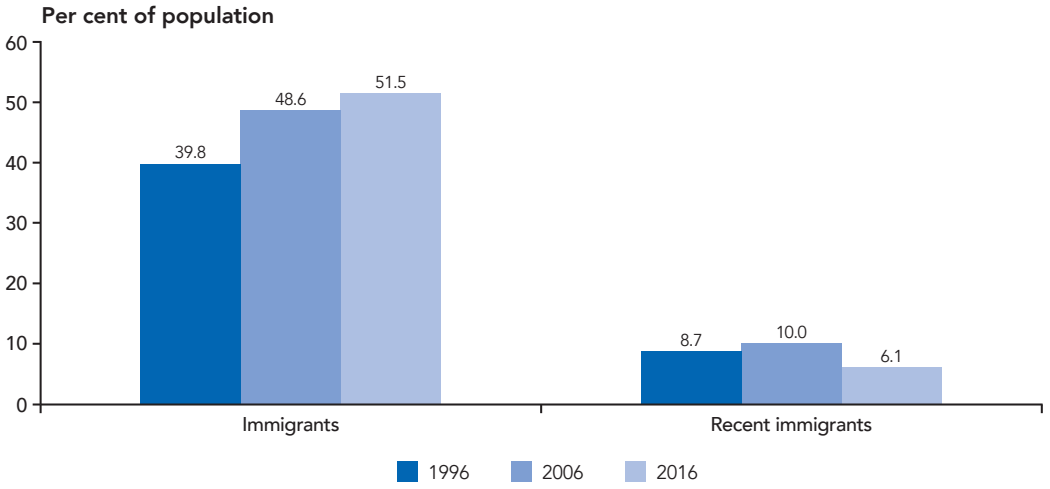
Peel is an ethnically diverse region and over half of Peel's population are immigrants. While recent immigrants are generally healthier than the non-immigrant population, some ethnic groups are at higher risk for certain health outcomes.

Over half (52%) of Peel's residents are immigrants.[A1] This proportion, which is higher than Ontario, has been increasing over the past 20 years. While recent immigrants tend to have better health status than non-immigrants or long-term immigrants (referred to as the healthy immigrant effect), there has been a decrease in the proportion of recent immigrants (Figure 3). Some noted health issues related to Peel's diverse population include:

- High rates of chronic disease (e.g., diabetes) among certain groups such as those of South Asian and Caribbean origin.
- High rates of communicable diseases such as hepatitis A, malaria, paratyphoid fever and typhoid fever among Peel residents who travel to disease-endemic countries to visit families and friends.[D]
- High rates of active tuberculosis with 93% of cases reporting having lived in an endemic country.[D] While rates in Peel are higher than Ontario, recent data show that Peel's tuberculosis rates are declining. Additionally, there ia low local transmission and high treatment completion rates.

Figure 3

Proportion of Immigrants and Recent Immigrants, Peel, 1996, 2006 and 2016



Source: Census 1996, 2006, 2016, Statistics Canada.

Health Behaviours

Over the past decade, substantial efforts have been directed towards improving health behaviours known to influence health outcomes of importance among Peel residents. These behaviours relate to exposure to tobacco, nutrition, physical and sedentary activity, and substance use.

Tobacco

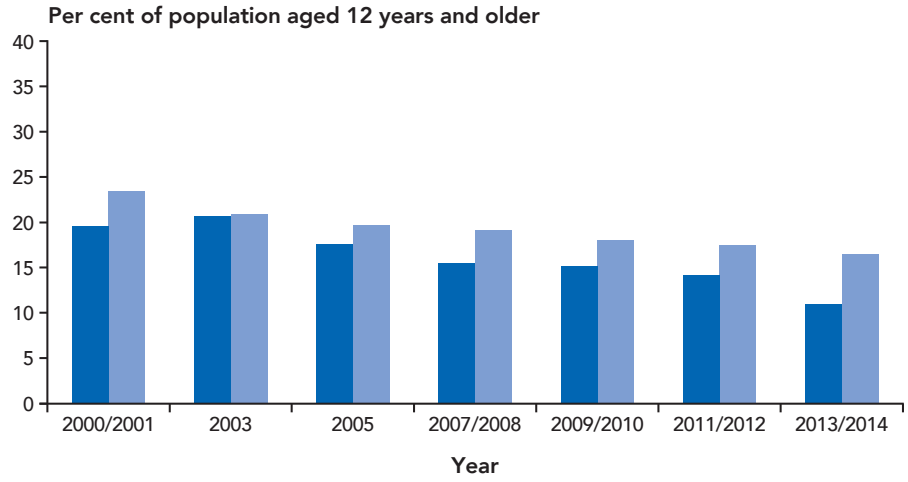
Peel's smoking rate and exposure to second-hand smoke has declined, with notable reductions of tobacco-related diseases such as lung cancer, but Peel continues to manage the emergence of novel tobacco delivery systems.

The proportion of current smokers in Peel has declined over the past 15 years from 20% in 2000/2001 to 11% in 2013/2014; and is lower than Ontario (Figure 4). Exposure to second-hand smoke has also decreased between 2003 and 2013/2014.

While progress is being made with regards to cigarette use, novel tobacco delivery systems such as e-cigarettes and vaporizers remain a concern, particularly among youth. In Peel, 2%* (use estimate with caution) of residents report having used an e-cigarette, and 2%* (use estimate with caution) have used a waterpipe in the past 30 days.[E1]

Figure 4

Per cent of Current Cigarette Smokers, Peel and Ontario, 2000/2001, 2003, 2005, 2007/2008, 2009/2010, 2011/2012, 2013/2014



	2000/2001	2003	2005	2007/2008	2009/2010	2011/2012	2013/2014
Peel Per cent (95% CI)	19.6 (17.6–21.8)	20.7 (18.4–23.2)	17.6 (15.6–19.8)	15.5 (13.4–18.0)	15.1 (13.0–17.4)	14.2 (12.2–16.5)	10.9 (9.0–13.0)
Ontario Per cent (95% CI)	23.4 (22.8–24.1)	20.9 (20.3–21.5)	19.7 (19.1–20.3)	19.1 (18.5–19.7)	18.0 (17.3–18.7)	17.5 (16.8–18.3)	16.5 (15.8–17.2)

Note: 95% CI reflects the 95% confidence interval of the estimated per cent.
Source: Canadian Community Health Survey Share File, 2000/2001, 2003, 2005, 2007/2008, 2009/2010, 2011/2012, 2013/2014, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

Substance Use

Alcohol use in Peel is low but there are emerging issues related to opioid use. The use of cannabis will need to be monitored.

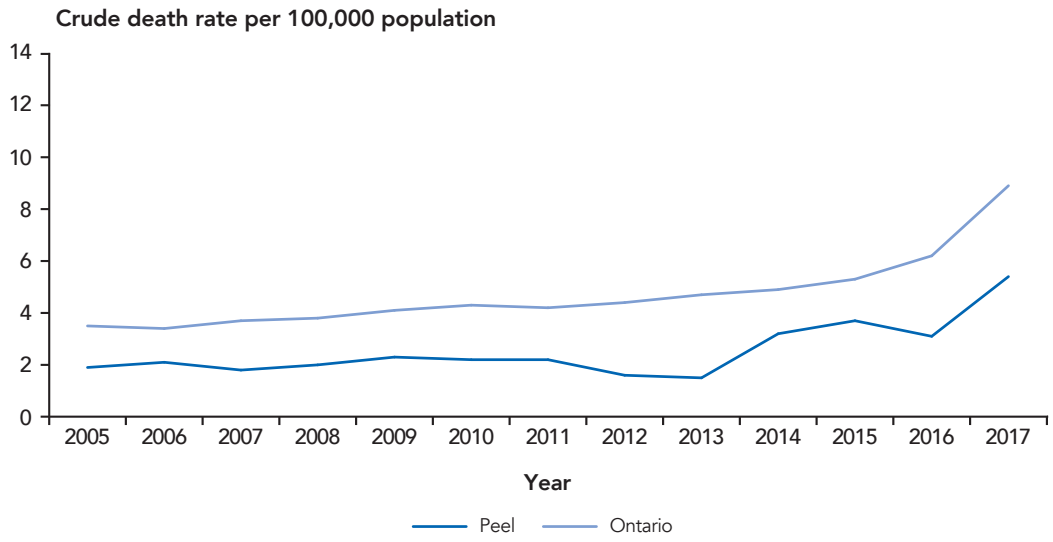
The proportion of Peel residents who are current drinkers (64%) is significantly lower than Ontario (73%), and has declined over the past 15 years.[E2] The proportion of current drinkers is higher among males (70%) compared to females (59%). Some of the harmful behaviours and effects of drinking are observed in Peel through the proportion of residents who binge drink at least once per month in the past 12 months (12%); the per cent of students in grades 9 to 12 with symptoms of hazardous or harmful drinking (7% - use estimate with caution)[G], and the number of incident cases, hospitalizations, injuries and deaths that are attributed to alcohol use.

Illicit drug use is low in Peel with 1%* (use estimate with caution) of Peel residents reporting using at least one drug (excluding cannabis in the past 12 months).[E3] In Peel, 8% of residents reported using marijuana, cannabis or hashish prior to the changes to the legalization of cannabis in October 2018. Monitoring of cannabis and cannabis product use will continue.

Harms related to opioid use is an emerging issue in Peel. The number of opioid-related deaths increased over the past five years, from 21 overdose deaths in 2013 to 81 in 2017 (Figure 5).

Figure 5

Opioid-Related Deaths, Peel and Ontario, 2005–2017



Note: Data for 2017 are preliminary and subject to change.
Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Interactive Opioid Tool [Internet]. Toronto, Ontario: Queen's Printer for Ontario; 2018.
Available from: http://www.publichealthontario.ca/en/DataAndAnalytics/Pages/Opioid.aspx.

Nutrition

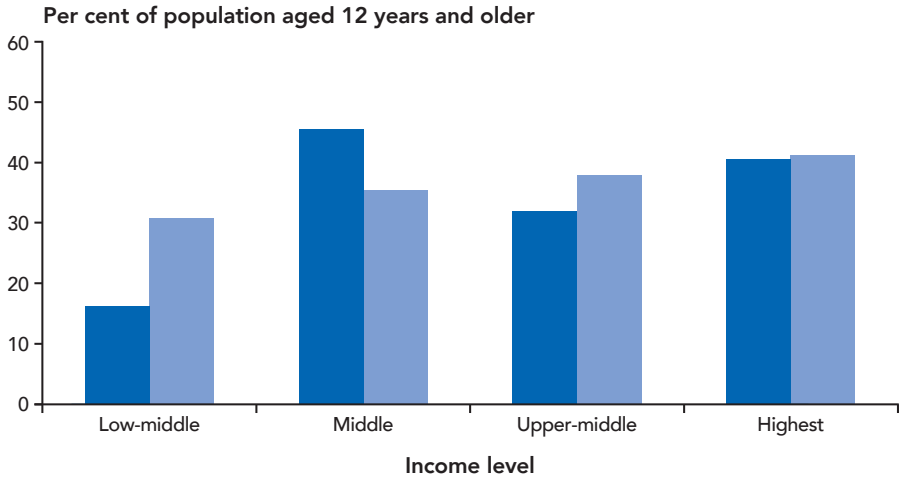
There has been no change in vegetables and fruit consumption, an indicator of nutritional status, among Peel residents over the past 15 years.

In Peel, just over one third (38%) of the population consume vegetables and fruit five or more times per day. Females are significantly more likely to report eating vegetables and fruit (43%) than males (33%). Consumption also varies by household income with higher proportions of those in the middle (45%) and highest income levels (41%) eating five or more vegetables and fruit per day compared to those in the lowest income (16%* - use estimate with caution) (Figure 6).

Additionally, in Peel, between 5% and 12% of adults (aged 18 years and older) report drinking sugar sweetened beverages on a daily basis.[F]

Figure 6

Per cent of Population Who Consume Vegetables and Fruit Five or More Times per Day† by Income Level, Peel and Ontario, 2013/2014



	Low-middle	Middle	Upper-middle	Highest
Peel Per cent (95% CI)	16.1* (8.8 – 27.6)	45.4 (37.3 – 53.8)	31.9 (26.2 – 38.2)	40.5 (35.9 – 45.2)
Ontario Per cent (95% CI)	30.7 (26.4 – 35.4)	35.4 (32.8 – 38.0)	37.8 (36.1 – 39.6)	41.2 (39.9 – 42.6)

† This measure reflects the total number of times per day the respondent eats vegetables or fruit; it does not provide information on the actual amount consumed.
* Use estimate with caution.
Notes: 95% CI reflects the 95% confidence interval of the estimated per cent.
Source: Canadian Community Health Survey Share File, 2013/2014, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

Movement

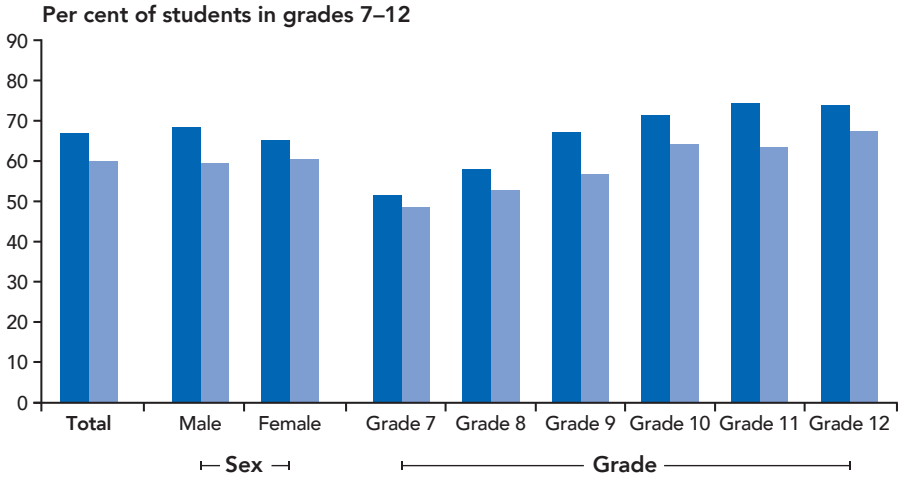
The proportion of residents who are physically active has not improved over the past 15 years. Additionally recreational screen time beyond the recommended two hours per day, and lack of sleep are issues for Peel students. The built environment influences physical activity.

Physical activity and sedentary behaviour, including screen time and sleep, are modifiable risk factors for chronic disease and injury. These risk factors have a significant influence on early childhood development and are important to overall physical and mental health across the lifespan. Over the past 15 years, there has been no improvement in physical activity levels. In 2013/2014, 26% of Peel residents were physically active during leisure time which is similar to Ontario (29%). There are no differences between males and females. The per cent of residents who are physically active declines with age.[E2]

One measure of sedentary behaviour is the use of screens (e.g., smartphone, computer, television) for recreational purposes. In Peel, 67% of students in grades 7 to 12 used screens for recreational purposes for an average of more than two hours per day which is higher than Ontario students (60%) and is higher than the recommended level of less than two hours per day. Use increases by grade (Figure 7).

Figure 7

Per cent of Students Whose Screen Time is an Average of More Than Two Hours per Day by Sex and Grade, Peel and Ontario, 2017



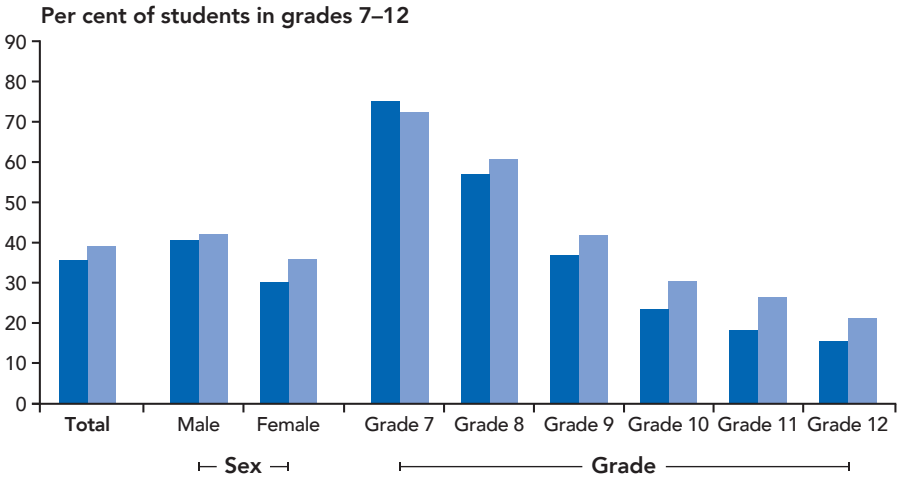
	Total	Male	Female	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Peel Per cent (95% CI)	66.9 (63.6 – 70.1)	68.5 (63.9 – 72.7)	65.3 (61.6 – 68.9)	51.5 (42.9 – 60.1)	58.0 (49.9 – 65.7)	67.2 (61.1 – 72.9)	71.3 (64.1 – 77.6)	74.5 (67.6 – 80.4)	73.9 (66.4 – 80.2)
Ontario Per cent (95% CI)	60.0 (57.7 – 62.3)	59.5 (56.4 – 62.6)	60.5 (57.6 – 63.4)	48.5 (44.6 – 52.3)	52.8 (48.4 – 57.2)	56.8 (52.2 – 61.4)	64.1 (59.2 – 68.7)	63.4 (57.1 – 69.3)	67.5 (63.2 – 71.4)

Notes: 95% CI reflects the 95% confidence interval of the estimated per cent.
Source: Ontario Student Drug Use and Health Survey, 2017, Centre for Addiction and Mental Health.
Region of Peel - Public Health.

Only 36% of Peel students in grades 7 to 12 report getting eight or more hours of sleep on an average night. Significantly fewer females get eight or more hours of sleep on average per night compared to males; this also declines by grade (Figure 8).

Figure 8

Per cent of Students Who Report Eight or More Hours of Sleep on an Average School Night by Sex and Grade, Peel and Ontario, 2017



	Total	Male	Female	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Peel Per cent (95% CI)	35.5 (31.1 – 40.1)	40.6 (35.7 – 45.6)	30.2 (25.5 – 35.4)	75.2 (65.6 – 82.8)	57.0 (51.7 – 62.2)	36.8 (31.2 – 42.6)	23.5 (17.9 – 30.2)	18.3* (12.0 – 26.8)	15.4* (9.6 – 23.7)
Ontario Per cent (95% CI)	39.2 (37.1 – 41.3)	42.2 (40.1 – 44.4)	35.9 (32.9 – 39.1)	72.3 (69.4 – 74.9)	60.8 (54.0 – 67.2)	41.8 (37.7 – 46.0)	30.4 (26.2 – 35.0)	26.5 (21.6 – 32.1)	21.1 (16.6 – 26.5)

* Use estimate with caution.
Notes: 95% CI reflects the 95% confidence interval of the estimated per cent.
Source: Ontario Student Drug Use and Health Survey, 2017, Centre for Addiction and Mental Health.
Region of Peel - Public Health.

Physical activity is influenced by the built environment. Medium-and high-density housing and public transit are two factors that contribute to active living. In Peel, medium-and high-density housing has increased over the past 10 years in Mississauga and Caledon, but declined in Brampton.

Most Peel residents travel in a car, truck or van (81%), which is similar to Ontario (78%).[A1] While there has been an increase in the per cent of residents using public transit over the past 10 years from 13% to 16%, commute times are higher in Peel for public transit trips compared to Ontario (Table 2).[A1,A2]

Table 2

Average Commute Time in Minutes by Mode of Transportation to Work, Peel, Toronto and Ontario, 2016

Transportation Type	Commute Time in Minutes		
	Peel	Toronto	Ontario
Car, truck or van	29.1	29.6	26.3
Active transportation - public transit	54.9	45.8	48.1
Active transportation - walking or cycling	14.2	18.0	15.7

Source: Census 2016, Statistics Canada.

Overweight and Obesity

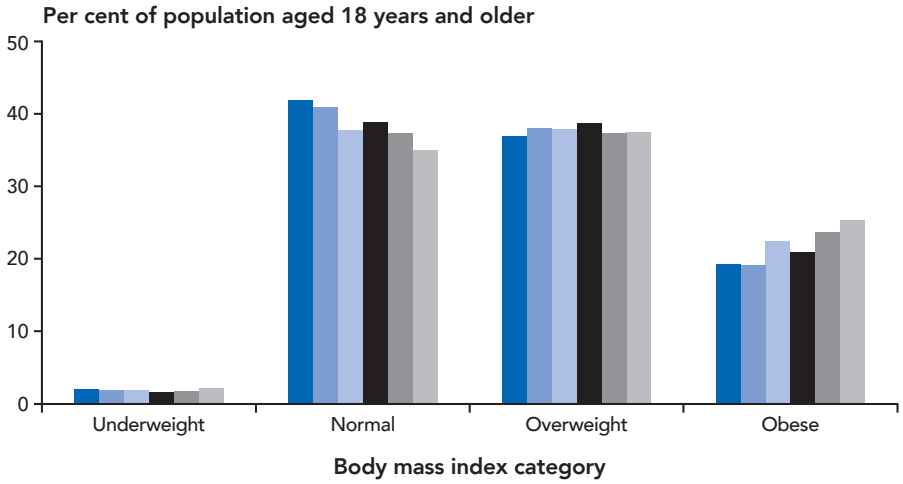
The proportion of residents who are obese has increased significantly over the past decade.

The proportion of Peel residents classified as overweight or obese has not improved in the past 10 years and has increased significantly for those who are obese. In 2017, 27% of Peel students in grades 7 to 12 were overweight or obese[G] and in 2013/2014, 63% of Peel adults were overweight or obese (Figure 9).

Being overweight or obese prior to pregnancy can result in health-related issues for the mother and baby. For example, being overweight or obese prior to pregnancy can increase the risk of gestational diabetes, hypertension of pregnancy, caesarean births and pre-term births (data not shown).

Figure 9

Per cent of Population by Adjusted† Body Mass Index Category, Peel, 2003, 2005, 2007/2008, 2009/2010, 2011/2012, 2013/2014



	Underweight	Normal	Overweight	Obese
2003 Per cent (95% CI)	2.0* (1.4 – 2.9)	41.9 (38.8 – 45.1)	36.9 (34.2 – 39.7)	19.2 (16.9 – 21.6)
2005 Per cent (95% CI)	1.9* (1.1 – 3.1)	40.9 (38.0 – 43.9)	38.1 (35.4 – 40.9)	19.1 (16.7 – 21.7)
2007/2008 Per cent (95% CI)	1.8* (1.1 – 3.0)	37.8 (35.0 – 40.7)	37.9 (35.4 – 40.5)	22.4 (19.9 – 25.2)
2009/2010 Per cent (95% CI)	1.6* (1.0 – 2.6)	38.8 (35.5 – 42.2)	38.7 (35.3 – 42.2)	20.9 (18.3 – 23.9)
2011/2012 Per cent (95% CI)	1.7* (1.0 – 3.0)	37.3 (34.0 – 40.7)	37.3 (33.7 – 41.0)	23.7 (21.1 – 26.6)
2013/2014 Per cent (95% CI)	2.2* (1.3 – 3.6)	35.0 (31.8 – 38.3)	37.5 (34.4 – 40.7)	25.4 (22.6 – 28.3)

† Adjusted estimates of body mass index in this graph were generated using a model that adjusts for bias in self-report data.
* Use estimate with caution.
Notes: Excludes individuals who are less than 0.914 m tall or greater than 2.108 m tall, as well as females who are pregnant or currently breastfeeding.
95% CI reflects the 95% confidence interval of the estimated per cent.
Source: Canadian Community Health Survey Share File, 2003, 2005, 2007/2008, 2009/2010, 2011/2012, 2013/2014, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

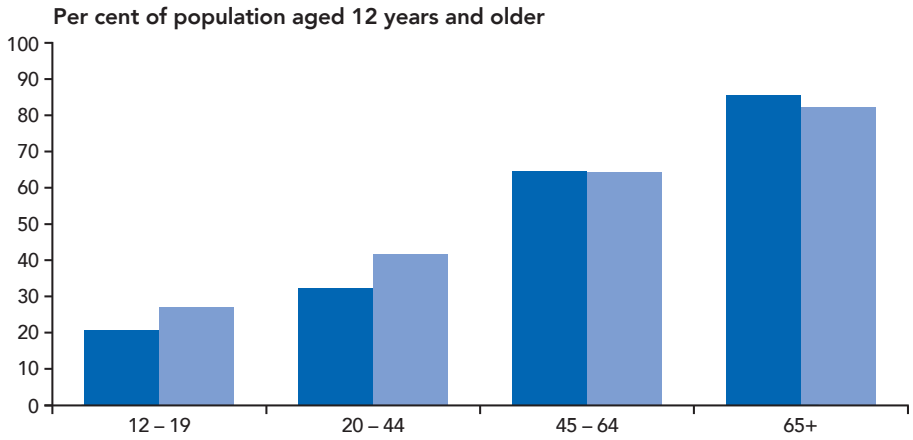
Chronic Diseases

With the exception of diabetes, the incidence and prevalence rates of many chronic diseases such as ischemic heart disease, chronic obstructive pulmonary disease and lung cancer are declining.

In 2013/2014, 48% of Peel residents aged 12 years and older reported having at least one chronic health disease diagnosed by a healthcare professional.[E2] The per cent of residents with a chronic condition increases with age (Figure 10).

Figure 10

Per cent of Population with at Least One Self-Reported Chronic Condition† by Age Group, Peel and Ontario, 2013/2014



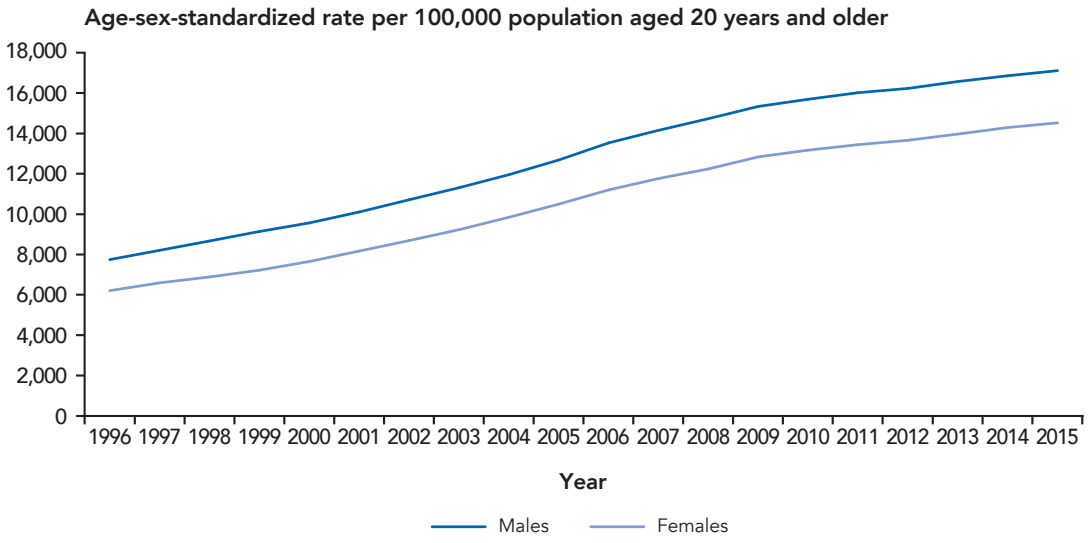
	12 – 19	20 – 44	45 – 64	65+
Peel Per cent (95% CI)	20.7 (15.5 – 27.1)	32.1 (27.6 – 37.0)	64.4 (57.7 – 70.6)	85.4 (80.0 – 89.6)
Ontario Per cent (95% CI)	26.9 (24.9 – 28.9)	41.5 (40.0 – 43.1)	64.1 (62.2 – 65.9)	82.1 (80.8 – 83.3)

† Diagnosed by a health care professional.
Notes: 95% CI reflects the 95% confidence interval of the estimate.
Chronic conditions include, Alzhiemers/dementia, effects of stroke, cancer, scoliosis, stomach or intestinal ulcers, COPD, bowel disorder/Crohn's disease or colitis, urinary incontinence, heart disease, anxiety, mood disorder, asthma, diabetes, migraine headaches, back problems, arthritis and high blood pressure.
Source: Canadian Community Health Survey Share File, 2013/2014, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

The incidence of many chronic diseases such as ischemic heart disease (IHD), stroke, chronic obstructive pulmonary disease (COPD) and osteoarthritis is declining. The prevalence of these diseases, which includes those previously diagnosed with illness, has declined or stabilized for most conditions, with the exception of diabetes, where incidence has stabilized in recent years, and prevalence has continued to increase (Figure 11). While the risk of developing diabetes increases with age, younger individuals are increasingly being diagnosed. Over the last two decades, the diabetes incidence rate for those aged 20 to 49 years has almost doubled, which was not seen in other age groups.[H] Diabetes incidence also differs by world region of birth with individuals in Peel of South Asian and Caribbean origin having the highest incidence rate.[H] Given population growth and aging, and the rising rates of obesity, the prevalence of diabetes in Peel is expected to increase over the coming years.

Figure 11

Prevalence of Diabetes by Sex, Peel, 1996–2015



Note: Rates are age-sex-standardized to the 2011 Canadian population.
Source: Diabetes, 1996-2015, Institute for Clinical Evaluative Sciences.

Mental Health

While many Peel residents are happy and satisfied with life, some are experiencing high levels of psychological distress. Increased rates of emergency department visits for certain mental health conditions are being observed in Peel, particularly among youth and young adults

In Peel, 72% of residents report very good or excellent self-rated mental health. Being usually happy and interested in life (77%), feeling that they very strongly or somewhat strongly feel they belong to their local community (68%) and having high psychological well-being (75%) is also reported by a high proportion of Peel residents.[E2]

However, youth in Peel are experiencing moderate-to-high levels of psychological distress; particularly among females (49%) compared to males (30%).[G]

Emergency department visits for mental health disorders have increased in Peel. Among those aged 0–14 years, increases have been observed for anxiety disorders and mood disorder. For those aged 15–24 years, increases in ED visits are being seen for anxiety disorders, substance-related disorders, mood disorders and schizophrenia/psychotic disorders.

In Peel, 6% of residents aged 15 years and older had suicidal thoughts in their lifetime, which is similar to Ontario (6%).[H1] Rates of suicide attempts in Peel as measured by ED or hospital visits are higher among females than males and are highest among those aged 15–24 years (Table 3).

Table 3

Emergency Department Visits, Hospitalizations and Mortality for Deliberate Self-harm and Suicide by Sex and Age Group, Peel, 2012, 2016

		Emergency Department Visits[a,b] (2016)		Hospitalizations[b,c] (2016)		Mortality[b,d] (2012)	
		Crude Rate per 100,000	Number	Crude Rate per 100,000	Number	Crude Rate per 100,000	Number
Sex	**Male**	51.2	371	15.0	109	8.0	54
	Female	87.6	650	24.7	184	2.5	17
Age group (years)	**0–14**	15.7	41	7.6	20	0.0	0
	15–24	194.6	407	47.1	99	5.9	12
	25–39	91.7	283	20.5	64	2.4	7
	40–64	50.4	253	17.6	88	8.3	39
	65+	19.9	37	11.9	22	8.9	13
Total		**69.9**	**1,021**	**19.9**	**293**	**5.2**	**71**

Sources:
[a] National Ambulatory Care Reporting System,2016, Canadian Institute for Health Information (CIHI). IntelliHEALTH Ontario, Ministry of Health and Long-Term Care.
[b] Population Estimates,2012, 2016, Statistics Canada. IntelliHEALTH Ontario, Ministry of Health and Long-Term Care.
[c] Hospital In-Patient Discharges, 2016, Canadian Institute for Health Information (CIHI). IntelliHEALTH Ontario, Ministry of Health and Long-Term Care.
[d] Ontario Mortality Database, 2012, Ontario Registrar General. IntelliHEALTH Ontario, Ministry of Health and Long-Term Care.

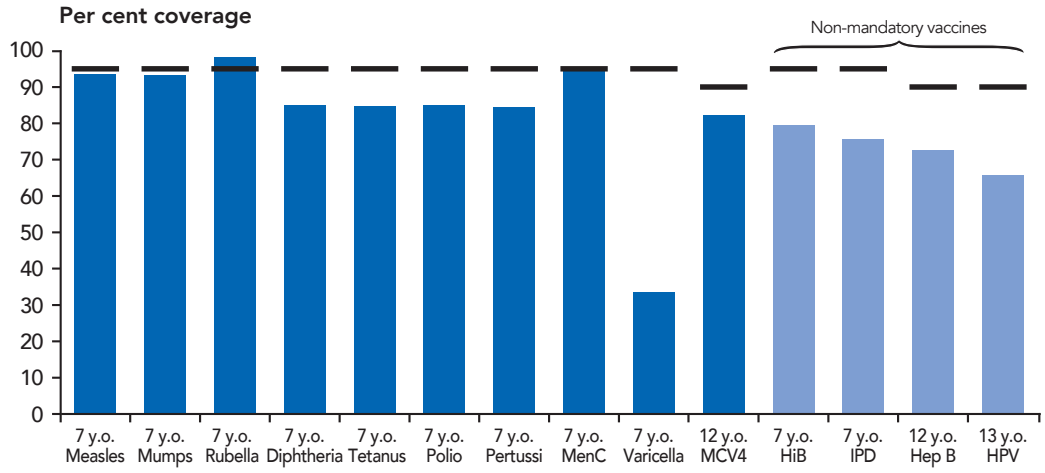
Infectious Disease

Immunization coverage rates in Peel are high for many vaccines

Immunization coverage rates in Peel are high for many vaccines (Figure 12); however, more effort is needed to reach immunization coverage goals for human papillomavirus (HPV) and hepatitis B, both which can cause cancer. As vaccine coverage increases, the rate of HPV infection and its related cancers are expected to decline.

Figure 12

Per Cent of Children With Up-to-Date Immunization Coverage, Peel, 2015/2016 School Year



	7 y.o. Measles	7 y.o. Mumps	7 y.o. Rubella	7 y.o. Diphtheria	7 y.o. Tetanus	7 y.o. Polio	7 y.o. Pertussi	7 y.o. MenC	7 y.o. Varicella	12 y.o. MCV4	7 y.o. HiB	7 y.o. IPD	12 y.o. Hep B	13 y.o. HPV
Peel	93.4	93.2	98.1	84.9	84.8	85.0	84.4	95.3	33.4	82.1	79.4	75.5	72.6	65.6
Goal	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	90.0	95.0	95.0	90.0	90.0

Notes: Hib=invasive haemophilus influenzae type B, IPD=invasive pneumococcal disease, MenC=meningococcal disease type C, MCV4=quadrivalent meningococcal (types A, C, Y, W-135), Hep B=hepatitis B, HPV=human papillomavirus
†HPV includes 13 year old females
y.o.=year old
Varicella vaccine is mandated under the Immunization of School Pupils Act (ISPA) only for students born in or after 2010. The varicella, pertussis, IMD (MenC and MCV4), and two doses of mumps containing vaccine became mandated under the ISPA in 2014 and Peel began screening for these vaccines in the 2014–2015 school year. The following vaccines are not mandated under the ISPA: Hib, IPD, Hep B and HPV.
Sources: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Immunization coverage report for school pupils: 2013–14, 2014–15 and 2015–16 school years. Toronto, ON: Queen's Printer for Ontario; 2017.
Public Health Agency of Canada. (2018). Vaccination Coverage Goals and Vaccine Preventable Disease Targets by 2025, Ottawa, Ontario: Public Health Agency of Canada.

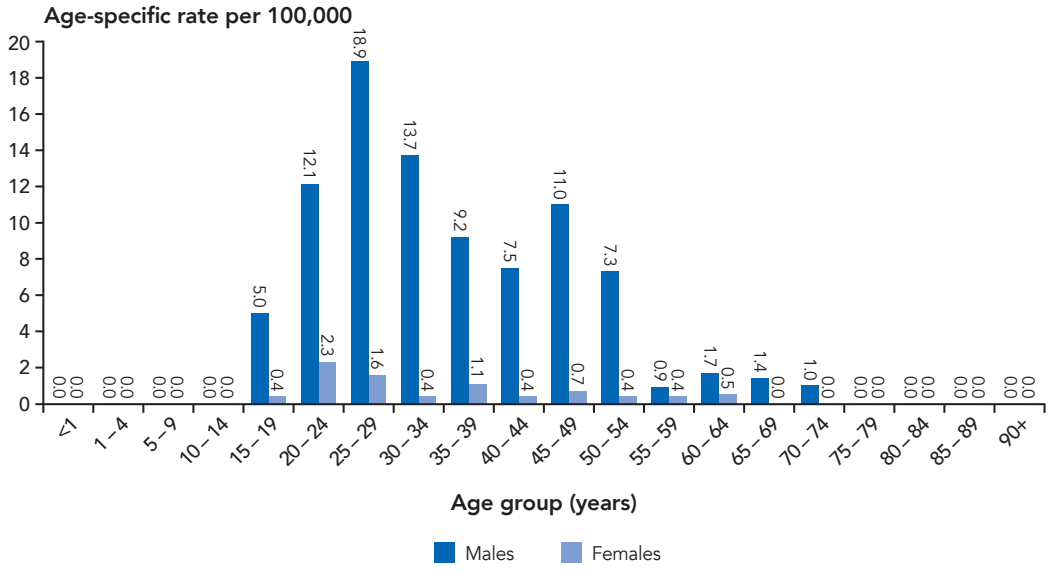
Sexually transmitted infections continue to increase in Peel and are highest among youth and young adults. Enteric infections are high in Peel and some can be attributed to travel outside Canada and related risks.

Rates of chlamydia, gonorrhea and infectious syphilis have been increasing over time. Chlamydia and gonorrhea rates are highest among those aged 15 to 24 years. Males have the highest rates of infectious syphilis (Figure 13).

Peel's rates of enteric infections for amebiasis, typhoid fever, shigellosis, hepatitis A and paratyphoid fever are higher than Ontario rates. A high proportion of these infections were linked to recent travel to countries where these diseases were endemic.[I]

Figure 13

Incidence of Infectious Syphilis by Age Group and Sex, Peel, 2012–2016 Combined



Sources: Integrated Public Health Information System (iPHIS), 2012-2016, Region of Peel - Public Health. Population Estimates, 2012-2016, Statistics Canada. IntelliHEALTH Ontario, Ministry of Health and Long-Term Care.

Physical Environment

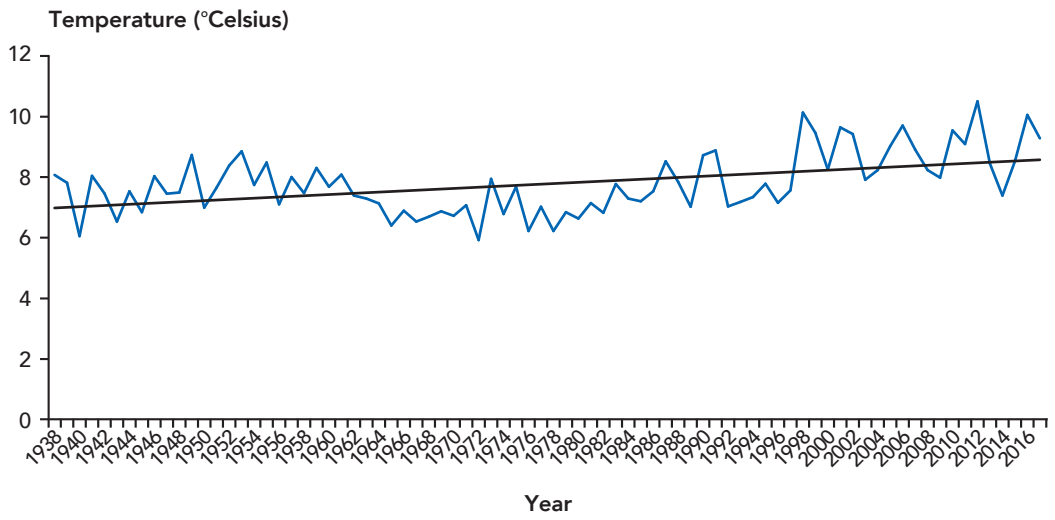
While air quality is improving, indicators of climate change can be observed in Peel.

Air quality is improving in Peel through observed declines in the mean annual levels of nitrogen dioxide, fine particulate matter ($PM_{2.5}$), and sulphur dioxide. However, in Peel, 50% of residents may still experience air quality-associated health risks from living within 300 metres of a highway or major road.

In Peel, greenhouse gas emissions have continued to rise and there has been an increase in the annual mean temperature from 8.1°C in 1938 to 9.3°C in 2017 (Figure 14) measured at Toronto Pearson International Airport. Increases in total rain has also increased slightly between 1940 (665 mm) and 2010 (701 mm).

Figure 14

Annual Mean Temperature, Toronto Pearson International Airport, 1938–2017



Note: The black line is a linear trendline fitted to the data.
Source: Historical Climate Data, 1938–2017, Environment and Climate Change Canada. Government of Canada.

Future Considerations

Throughout this report, we have identified cross-cutting themes and areas for future consideration.

Income

Additional work is needed to understand the impact of income on the health of Peel's population

Income and social status have an impact on health. For example, in Peel low-income individuals are less likely to have access to a family physician, visit a dentist or have dental insurance, and consume vegetables and fruit. There are many ways to measure a person's income, including individual income, household income, per cent of residents living with low income, or per cent spent on housing. Additional analyses and knowledge are needed to understand the complex relationship between income level and health behaviours, disparities and outcomes of Peel residents.

Priority Populations

Certain groups have been identified as having poor health behaviours and/or outcomes across a range of issues. A structured and concerted approach to identify and address disparities is needed.

We have noted some important age and sex differences between certain health outcomes and behaviours in this report. For example:

- Males are more likely to smoke cigarettes, drink alcohol (including binge drinking), use cannabis, and are less likely to consume vegetables and fruit. Males are also more likely to be overweight compared to females. In addition, the rates of several chronic conditions are higher among males compared to females including ischemic heart disease, lung cancer, colorectal cancer, chronic obstructive pulmonary disease, and diabetes.
- Youth and young adults are at higher risk for poor mental conditions and utilization of health care for mental health issues. In addition, they are experiencing higher rates of sexually transmitted infections.

Future work is needed to better understand populations at risk for certain health behaviours or outcomes.

Data Gaps

Peel has a large repository of health status and surveillance data, and will continue to enhance this repository in the future.

Throughout this report, we have noted some areas where data are lacking. These include a better understanding of the health behaviours and health status of:

- Indigenous populations
- children aged 1-11 years
- those with disabilities, and
- the LGBTQ2S+ community

Additionally, more data and analysis are needed to understand violence. Future work will include acquisition of data, analysis and partnership engagement to better understand the health status of these populations.

Next Steps

Data found in this report are fundamental to understanding current and emerging health issues in Peel. These data are a foundation for the Region of Peel - Public Health and partners that will inform planning for healthy public health policies, programs and services to improve the lives of Peel residents.

DATA REFERENCES

A1 Census 2016, Statistics Canada

A2 Census 2006, Statistics Canada

B Hemson Consulting, Population Forecast, Region of Peel

C Ontario Mortality Database, 1986-2012, Ontario Registrar General. IntelliHEALTH Ontario, Ministry of Health and Long-Term Care

D Integrated Public Health Information System (iPHIS), 1986-2017, Region of Peel – Public Health

E1 CCHS 2015/2016

E2 CCHS 2013/2014

E3 CCHS 2011/2012

F RRFSS 2016

G Ontario Student Drug Use and Health Survey, 2017, Centre for Addiction and Mental Health. Region of Peel – Public Health

H Diabetes Incidence and Prevalence, 1996-2015, Institute for Clinical Evaluative Sciences

I Peel Enhanced Risk Factor Surveillance Data, 2014-2016, Region of Peel – Public Health

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