



2017

oral health in Peel

Key Findings about Risk Factors and
Oral Health Outcomes

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ORAL HEALTH IN PEEL: A TASTE OF RISK FACTORS AND ORAL HEALTH OUTCOMES OVERVIEW

This report is intended to highlight the key findings reported by Peel Public Health in *Oral Health in Peel: A Taste of Risk Factors and Oral Health Outcomes, 2017*. Readers interested in a more detailed examination of the issues and data methods can access the full report in electronic format at: peelregion.ca/health/reports.

The Region of Peel, located directly west of Toronto and York Region, includes the cities of Mississauga and Brampton and the town of Caledon. Peel is one of the largest municipalities in Canada and the second largest in Ontario. Peel has experienced rapid growth with the population increasing by 12% between 2006 and 2011.^A In 2011, Peel's population was 1.3 million people;^A by 2031, Peel's population is expected to exceed 1.6 million.^B

Good oral health is an important component of overall health and quality of life. Some oral health conditions such as tooth decay are preventable, and while most are usually not life threatening, they can cause pain; have physical, social and psychological impacts; and result in costly treatment. Furthermore, there is an association between poor oral health and chronic diseases such as diabetes, heart conditions and respiratory disease.¹⁻³

The maintenance of good oral health is supported at the community level through interventions such as community water fluoridation. At the individual level, nutrition, oral hygiene practices like daily brushing and flossing, and regular visits to an oral health care professional for preventive and remedial care all contribute to good oral health.

Risky and Protective Oral Health Practices

Biological risk factors and behavioral practices (both positive and negative), have an impact on oral health. For example:

- Low salivary function can cause dry mouth which contributes to tooth decay¹
- Occlusion (the way in which teeth of the upper and lower jaws fit together) can be a risk factor for trauma when playing contact sports²
- Nutrition, specifically consumption of high sugar foods; use of certain medications; tobacco, alcohol and drug use can result in poor oral health outcomes such as cavities, periodontal disease and cancer³⁻⁸
- Tooth brushing, flossing and use of protective equipment during sports can protect teeth and gums from disease and injury.⁹⁻¹¹

In Peel, there are no available data about biological risk factors related to oral health. There are some data available about risky oral health behaviours, some of which are limited to children only. Some limited data about protective health practices are also available.

A summary of available data about biological risk factors and behavioral practices are described in Table 1.

Table 1

Summary of Available Data Describing Biological, Behaviour Risk Factors and Protective Factors Associated with Oral Health Outcomes for Peel

Biological or behavioural practice	Risk or protective factor	Availability of Peel data				Current state for Peel residents
		Children <12 years	Children 12 to 17 years	Adults 18 to 64 years	Children 65+ years	
Biological	Salivary function	—	—	—	—	Unknown
	Occlusion	—	—	—	—	Unknown
Risky behavioural practice	High-sugar food [†]	—		—	—	16% of children consume high sugar food one or more per day
	Sugar sweetened beverages [†]	—		—	—	11% of children consume sugar sweetened beverages one or more times per day
	Medication use	—	—	—	—	Unknown
	Tobacco use ^{††}	—				Cigarette use declining, use of alternative products is growing (e.g., use of hookah)
	Alcohol use ^{††}	—				Trends over time are similar
	Drug use	—	—	—	—	Unknown
	Oral sexual health practices	—	—	—	—	Unknown
	Tongue splitting or oral piercings	—	—	—	—	Unknown
Dental “grillz”	—	—	—	—	Unknown	

Table 1 continues ...

Table 1 continued

Biological or Behavioural Practice	Risk or protective factor	Availability of Peel data				Current state for Peel residents
		Children <12 years	Children 12 to 17 years	Adults 18 to 64 years	Children 65+ years	
Protective behavioural practices	Dental health visits ^{††}	—				70% of Peel residents visited a dentist in the past year
	Tooth brushing ^{††}	—				88% of Peel residents brush twice daily
	Flossing [*]	—		—	—	8% of students floss daily
	Sugar-free chewing gum	—		—	—	Unknown
	Use of protective equipment [*]	—		—	—	64% of students wear a mouth during sports

— Data not available

■ Data available

Sources:

* Student Health Survey 2011, Peel Public Health.

† Ontario Student Health and Drug Use Survey 2013, Centre for Addiction and Mental Health, Peel Public Health.

†† Canadian Community Health Survey Share File 2009/2010, Statistics Canada, Ontario Ministry of Health and Long-Term Care.

Oral Health Outcomes

Oral health outcomes are measured using various self-reported and clinical health measures.

- Self-reported oral health status data and selected oral health symptoms data are available for those aged 12 years and older. In general, the self-reported data suggest that the majority of this population perceive their oral health to be good, very good or excellent.
- In Peel, clinical oral health data are available through school screening for children in junior kindergarten (JK), senior kindergarten (SK) and Grade 2 only. Data for youth in grades 10 and 12 are from a one-time cross-sectional survey. In Peel, one in three children in grades JK, SK and 2; and one in two children in grades 10 and 12 have decayed, missing or filled teeth.
- Data about oropharyngeal cancer and oro-facial clefts are available from external administrative data sets. These data are of good quality and available for residents of all ages. In Peel, the incidence rate of oro-pharyngeal cancers are declining. The incidence rate of oro-facial clefts for Peel residents is stable and similar to Ontario.

Table 2 summarizes available data and the current state of oral health status for Peel residents.

Table 2
Summary of Available Data Describing Oral Health Outcomes for Peel

Type of outcome	Measure	Availability of Peel data				Current State for Peel residents
		Children <12 years	Children 12 to 17 years	Adults 18 to 64 years	Children 65+ years	
Self-reported	Self-reported oral health status [†]	—				86% of residents report having good or excellent oral health status
	Inability to chew food [†]	—				6% of residents report an inability to chew food
	Inability to pronounce words or speak clearly ^{††}	—				3% of residents report an inability to pronounce words or speak clearly because of their teeth, mouth, or dentures
	Social limitation due to teeth or mouth [‡]	—				4% of residents report having a social limitation as a result of their oral health status
	Self reported oral/facial pain or symptoms [†]	—				43% of residents report some form of oral/facial pain or symptoms (based on responding 'yes' to at least one of seven different indicators)
Clinical	Decayed, missing and filled teeth ^{€§}			—	—	33% of Peel children in grades JK, SK and 2 have a dmft>0, 52% in grades 10 and 12 have dmft>0
	Soft deposits	—	—	—	—	Unknown
	Hard deposits (calculus)	—	—	—	—	Unknown

Table 2 continues ...

Table 2 continued

Type of outcome	Measure	Availability of Peel data				Current State for Peel residents
		Children <12 years	Children 12 to 17 years	Adults 18 to 64 years	Children 65+ years	
Clinical	Periodontal disease ^{€§}			—	—	18% of JK, SK and Grade 2 and 63% of Grade 10 and 12 students have signs of gingivitis such as bleeding or swollen gums
	Soft tissue lesions	—	—	—	—	Unknown
	Oral cavity and pharyngeal cancer [¥]					Oral cancer incidence and mortality rates are declining and are lower than in Ontario
	Orofacial cleft [‡]		—	—	—	Rates of orofacial cleft have remained stable in Peel are similar to Ontario
	Fluorosis [€]		---	---	---	2.1% of screened JK, SK and Grade 2 children have fluorosis

Table 2 continues ...

NA - Data not available

■ Data available

Sources:

† Canadian Community Health Survey Share File 2007/2008, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

†† Canadian Community Health Survey Share File 2009/2010, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

€ Ontario Health Information Support System (OHISS) 2013/2014, Peel Public Health.

§ Student Health Survey 2011, Peel Public Health.

‡ Canadian Congenital Anomalies Surveillance System (CCASS) 1990-2012. Public Health Agency of Canada.

¥ Cancer Care Ontario - SEER*Stat - OCRIS (May 12) Oct 2012 release.

Oral Health Care – Access to Care and Health Care Utilization

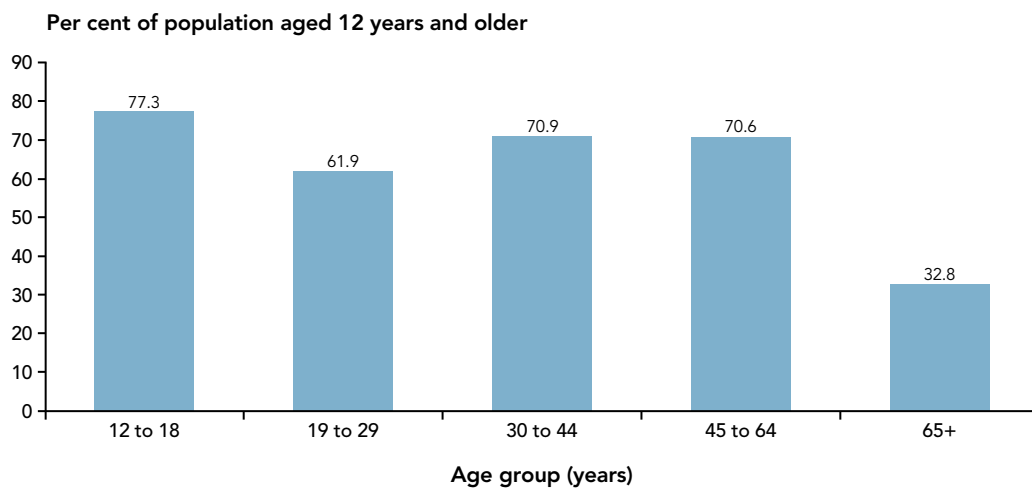
There are approximately 900 dentists situated within the region of Peel. With a population of 1.4 million people, there are 62 dentists per 100,000 persons; which is similar to Ontario at 66 dentists per 100,000 persons.

In Peel, 66% of residents have access to dental insurance; however, differences in access to dental insurance varies by age group, income level and immigrant status:

- The proportion of Peel residents with dental insurance is lowest among Peel residents aged 65 years and older (Figure 1)
- Only 50% of new immigrants have dental insurance compared to non-immigrants (78%) (Figure 2)
- More residents in the highest income group have dental insurance (79%) compared to those in the lowest income level (31%) (Figure 3)

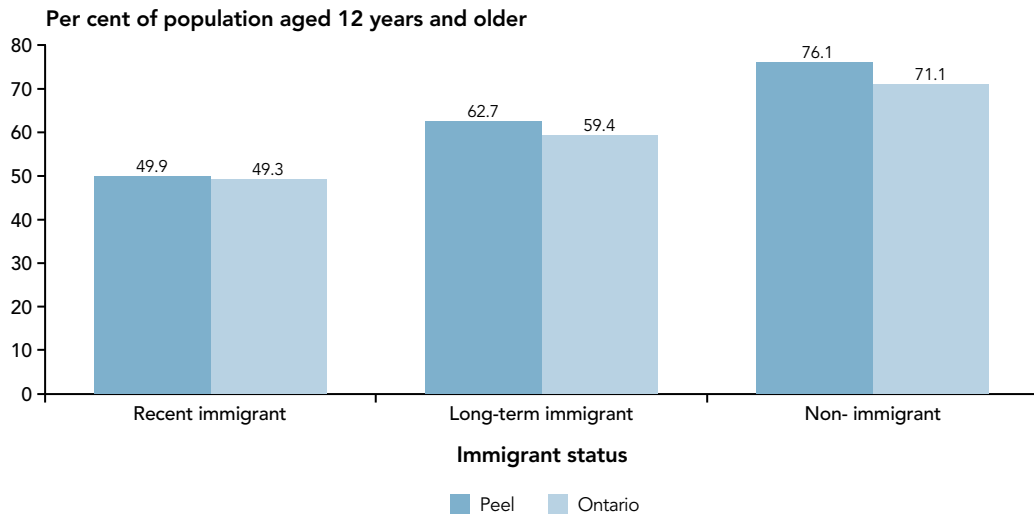
Figure 1

Per cent of Population that Have Dental Insurance by Age Group, Peel, 2009/2010



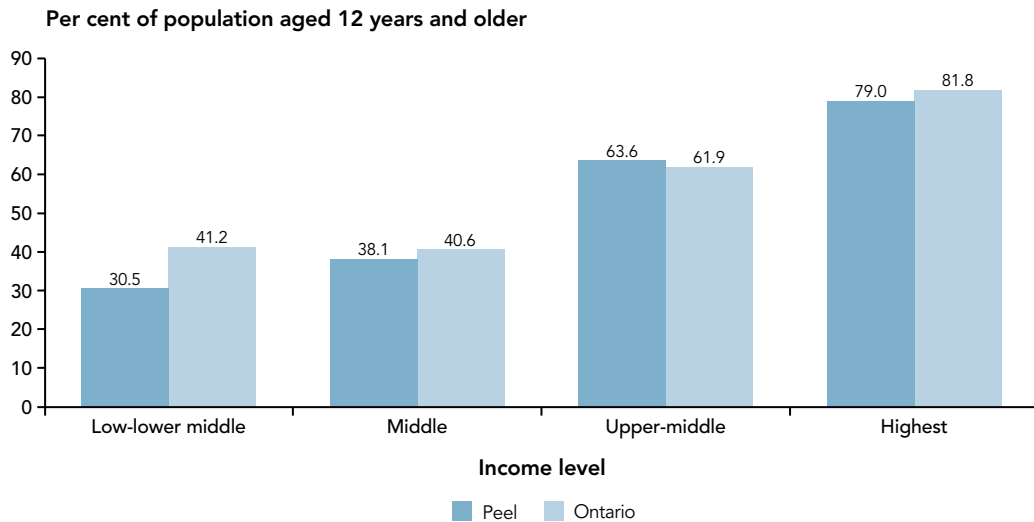
Source: Canadian Community Health Survey Share File 2009/2010, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

Figure 2
Per cent of Population with Dental Insurance by Immigrant Status,
Peel and Ontario, 2009/2010



Source: Canadian Community Health Survey Share File 2009/2010, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

Figure 3
Per cent of Population with Dental Insurance by Income Level,
Peel and Ontario, 2009/2010



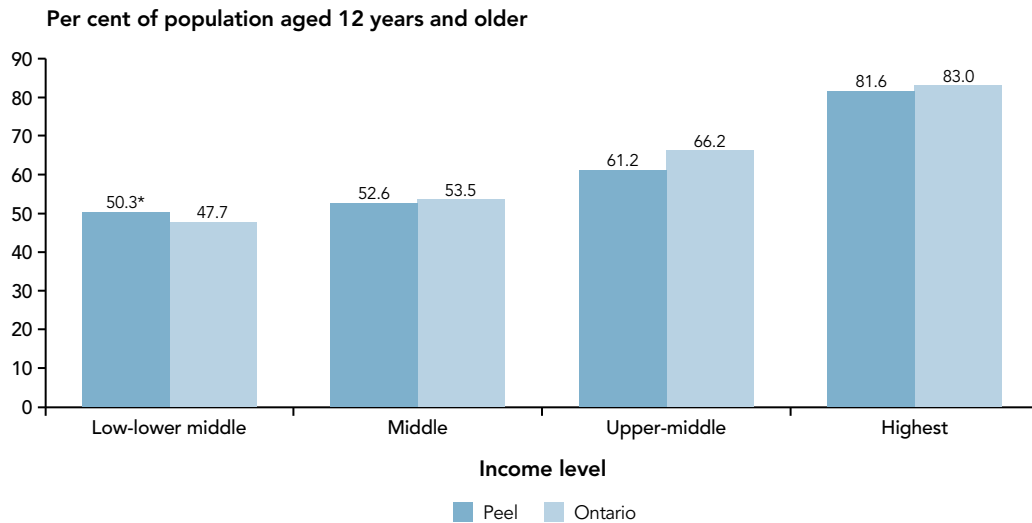
Definitions of income level can be found in Table 11.2.
 Source: Canadian Community Health Survey Share File 2009/2010, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

Similar to Ontario, many Peel residents (70%) have visited a dental care provider in the past year. Those who are less likely to do so, are those who are aged 65 years

and older; recent immigrants; and those in the low to lower-middle income level (Figure 4).

Figure 4

Per cent of Population who Visited a Dentist in the Past Year by Income Level, Peel and Ontario, 2009/2010

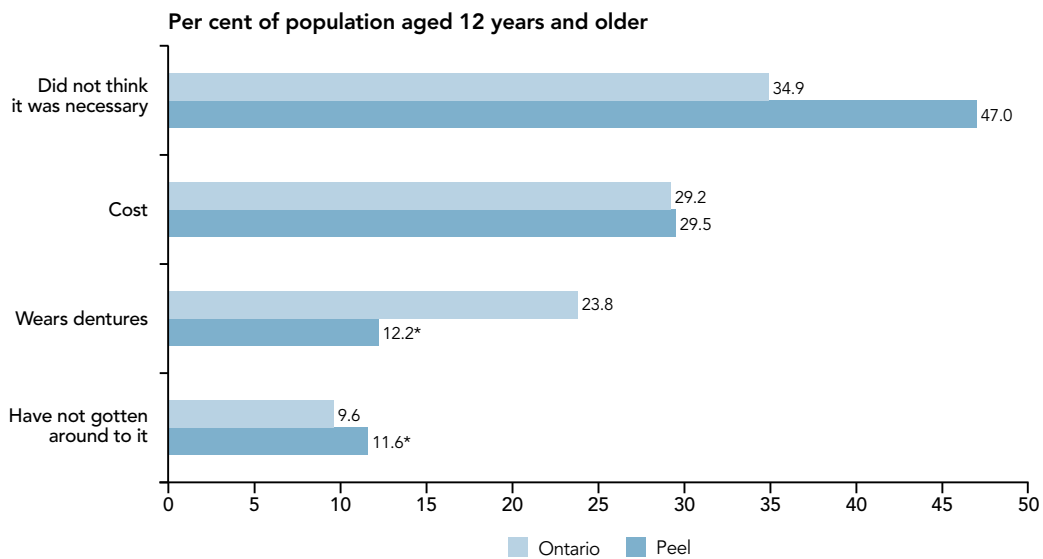


*Use estimate with caution.

Source: Canadian Community Health Survey Share File 2009/2010, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

Figure 5

Reason for Not Visiting the Dentist in the Past Three Years, Peel and Ontario, 2009/2010



*Use estimate with caution

Source: Canadian Community Health Survey Share File 2009/2010, Statistics Canada. Ontario Ministry of Health and Long-Term Care.

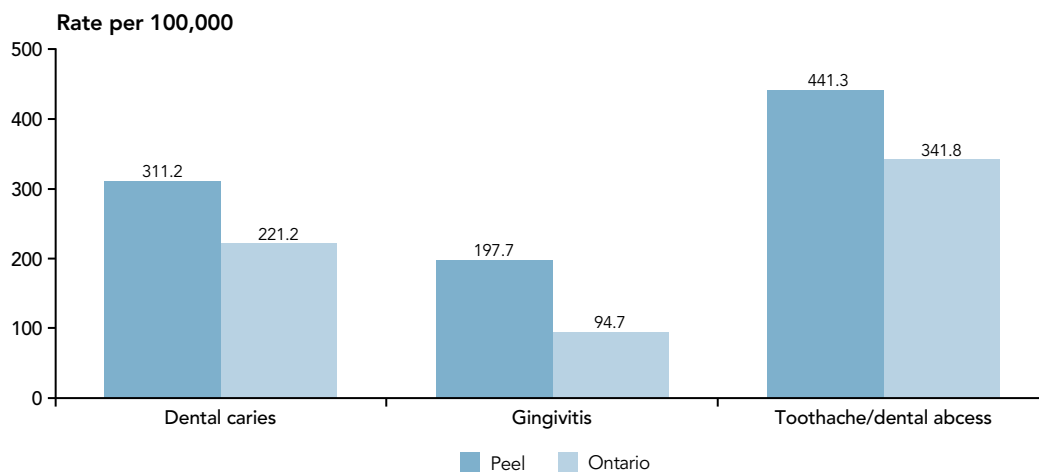
The majority of those who do not visit a dentist report the reason as “not necessary” (47%), but an additional 30% report cost as a barrier (Figure 5).

Not having access to a dentist can have implications on the medical system. In Peel in 2013, there were 13,087 visits to a general practitioner or family physician for conditions such as dental caries, gingivitis or toothache/dental abscess. Rates of oral health-related visits to a physician are higher in Peel in comparison to Ontario (Figure 6). The rates of visits to a physician are also highest among those aged 65 years and older.

In addition to visiting a physician for an oral health problem, Peel residents also made 4,134 visits to the emergency department and had 325 hospitalizations for conditions related to the oral cavity, salivary glands and jaws, and oral injuries.

Oral health related visit rates for these conditions are much lower in Peel compared to Ontario, however; some conditions such as caries are an indicator of appropriate and preventive care that is not being managed by a dentist. In Peel, costs to the health care system for physician visits, emergency department visits and hospitalizations related to these oral health conditions are estimated at approximately \$4 million per year.

Figure 6
Visits to General Practitioners or Family Physicians by Oral Health Diagnosis, Peel and Ontario, 2013



Sources: Medical Services (OHIP) Data, 2013. IntelliHEALTH Ontario, Ministry of Health and Long-Term Care. Population Estimates, 2013, Statistics Canada. IntelliHEALTH Ontario, Ministry of Health and Long-Term Care.

SUMMARY OF KEY FINDINGS

There is a patchwork of data about the clinical status and health status of Peel's population

Data about oral health status for Peel comes primarily from the Canadian Community Health Survey, and is self-reported. Additional data for children are collected from Peel Public Health's Oral Health Screening database. While both systems provide useful information, there are some limitations. For example, there is a lack of behavioural practice data about children, and no clinical health status data about youth, adults and seniors. In addition, there is no information about the oral health status of certain priority populations including recent immigrants, refugees and First Nations, Métis and Inuit people residing in the Region.

As a result of this patchwork of data, Peel Public Health lacks a comprehensive understanding of the clinical status and health status of the population of all ages.

Many of Peel's residents (86%) report positive oral health status; but there are noticeable disparities in certain sub-groups of the population.

Most residents have good oral functioning and seek regular dental care; however, there are disparities in both health status and access to dental services. For example, those with lower income are less likely to report very good oral health status, and are often less able to pay for oral health care services.

Oral health care services are available to residents within Peel; but affordability remains an issue

Many Peel residents have access to an oral health care provider and visit them regularly. However, there are some sub-groups within Peel, such as those without dental insurance and those in low-income, that have a cost barrier to accessing oral health care services.

Oral health visits to physicians, emergency departments and hospitals amount to approximately \$4 million dollars per year in Peel

Peel residents have a higher family doctor visit rate for conditions such as dental caries, gingivitis and toothache or dental abscess than Ontario residents. This is true for all age groups.

In Peel, approximately \$4 million dollars is billed to the health care system each year for oral health related visits. This estimate does not include additional costs billed as the result of publicly funded programs for residents in need of treatment.

FUTURE CONSIDERATIONS

The findings in this report provide insight into the availability of oral health status data and the current state of oral health in the Region of Peel. Additionally, it also provides some key areas of focus for Peel Public Health.

Improve access to local population health status data through monitoring and surveillance activities

- Develop a comprehensive approach to oral health monitoring and surveillance for all age groups, with a focus on adults and seniors.
- Partner with research institutions, other agencies and healthcare providers to seek access to local oral health data.

Enhance regional oral health programming

- Increase access to oral health preventive and treatment services for high-risk groups.
- Engage existing and new community partners to enhance program delivery.
- Continue to utilize a comprehensive oral health approach including population, community and individual level interventions.

Advocate for improved access to care

- Continue to advocate for publically funded oral health programs for vulnerable populations such as low-income adults and seniors.

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