HEALTH SURVEILLANCE INDICATORS:
CHILD ORAL HEALTH

Public Health Relevance

Good dental and oral health can contribute to a child's healthy physiological, psychological, and social development. Tooth decay, especially untreated dental caries, or cavities, can cause pain, infection and difficulty with eating, drinking and speaking. Tooth decay can also lead to further gum, mouth and other systemic health problems in later life including diabetes, respiratory disease and heart disease.

Healthy food choices, regular visits to the dentist and proper oral hygiene, such as brushing and flossing regularly, are essential to ensuring oral health. Parents play an important role when helping their children to make healthy food choices and maintain good oral hygiene. When positive oral health behaviours are instilled at a young age, it helps to create a foundation for life-long health.

This report measures the prevalence of tooth decay, both untreated and treated (including filled), for children attending Toronto schools, from Kindergarten to grade 8. It uses data collected as part of Toronto Public Health's school screening program from 2012 to 2015. School screening programs provide early signs of possible problems that should be looked at more closely. Children with tooth decay may be referred for further dental care as needed.

Highlights

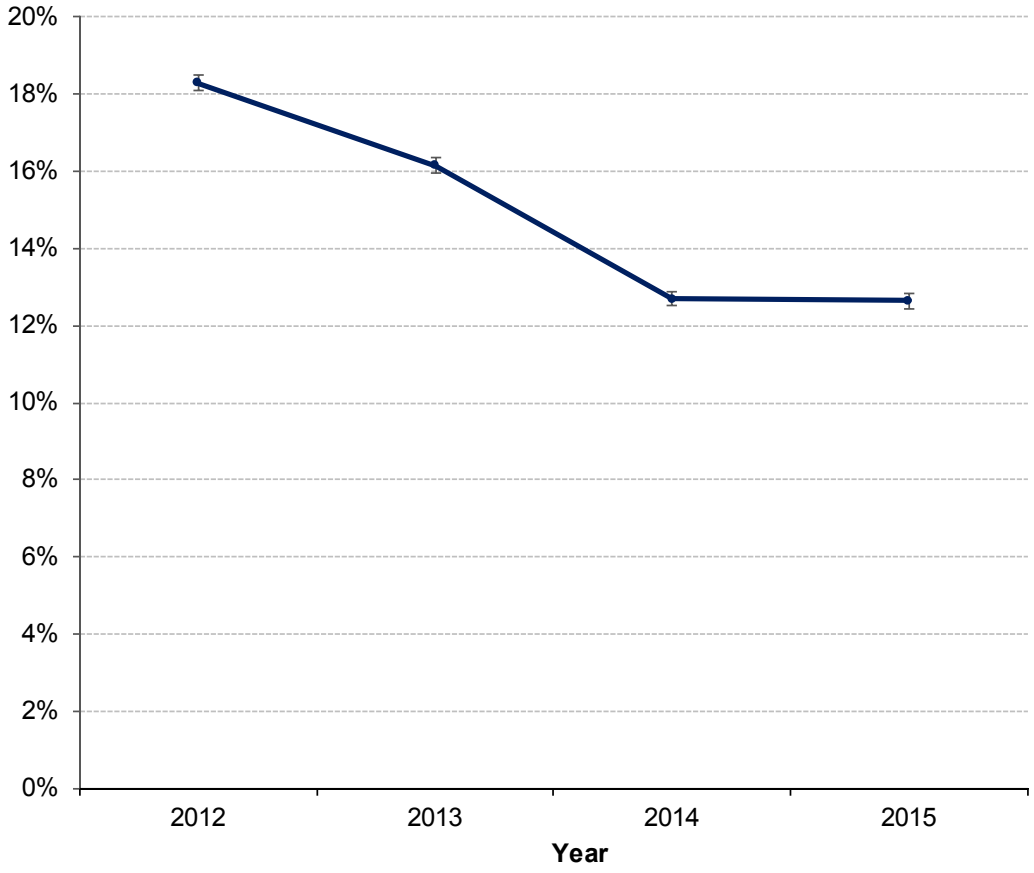
1. The prevalence of tooth decay among Toronto children decreased each year from 2012 to 2014 and levelled off in 2015.
2. Schools in North Etobicoke, North York, North Scarborough and parts of the downtown core had a higher prevalence of tooth decay.

Trends over Time

The prevalence of tooth decay among Toronto children decreased each year from 2012 to 2014 and levelled off in 2015.

Figure 1 shows the prevalence of tooth decay for Toronto children in Kindergarten to grade 8 from 2012 to 2015. In 2012, 18.3% of students screened had tooth decay, compared to 16.1% in 2013 and 12.7% in 2014. The prevalence of tooth decay in 2015 (12.6%) did not change significantly from 2014.

Figure 1: Prevalence of Tooth Decay, Kindergarten to Grade 8, Toronto, 2012 to 2015



Error bars (I) represent 95% confidence intervals.

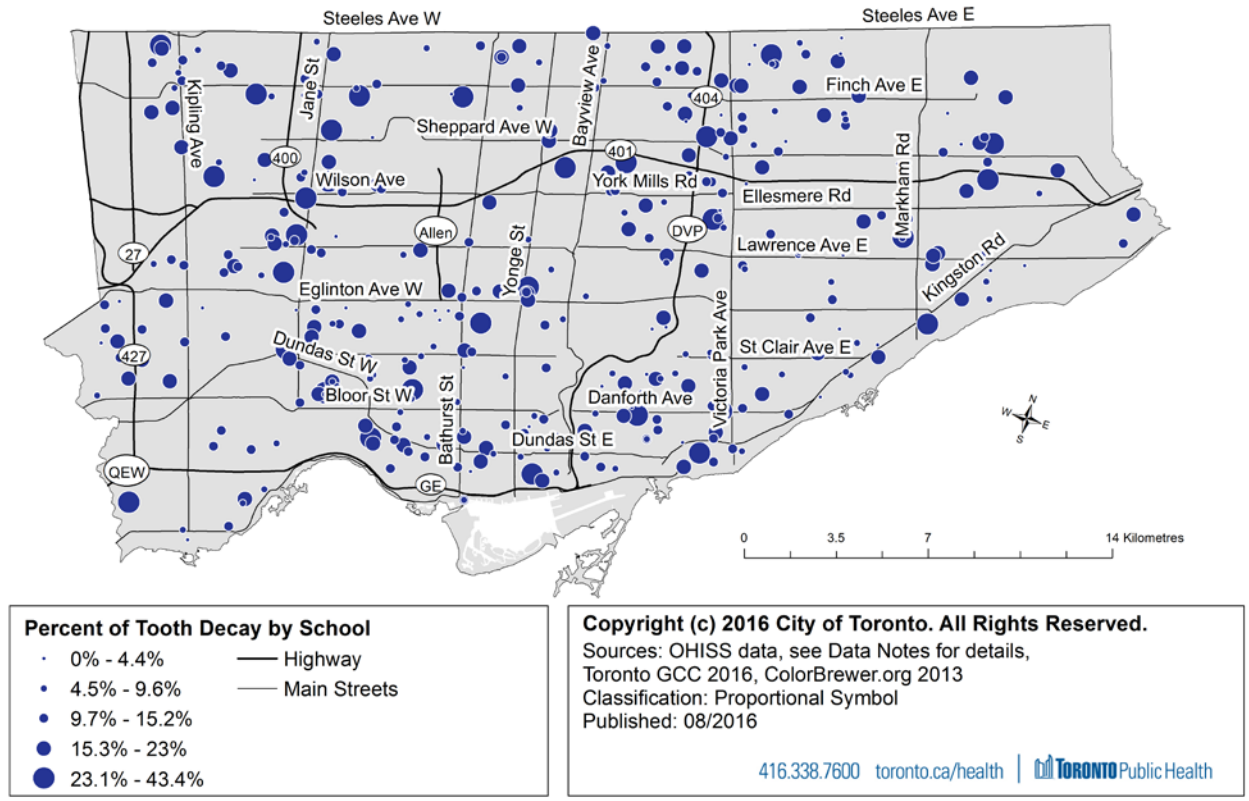
Data Source: OHISS, see Data Notes for details.

Toronto School Comparisons

Schools in North Etobicoke, North York, North Scarborough and parts of the downtown core had a higher prevalence of tooth decay.

Map 1 shows the prevalence of tooth decay by school in Toronto for 2015. The prevalence of tooth decay varied from zero to 43.4% by school. Schools in North Etobicoke, North York, North Scarborough and parts of the downtown core had a higher percent of students with tooth decay identified by screening programs.

Map 1: Prevalence of Tooth Decay by School, Kindergarten to Grade 8, Toronto, 2015



Data Notes

Notes

- Toronto Public Health provides annual dental screenings in local public and separate schools for children from Junior Kindergarten through to Grade 8. Parents are notified in advance of the screenings and are able to opt out if they do not want their child to be screened. The school screening programs do not replace a dental examination that is done at a dentist's office. The screening can provide an early sign of possible problems that should be looked at more closely.

- It is important to note that this report describes tooth decay that has been suspected by a hygienist during a screening procedure at the school. Suspected tooth decay may not correlate exactly with tooth decay confirmed by a dentist in a more thorough examination.

- Due to the volume of children screened in Toronto and how the screening data is input into the Oral Health Information Surveillance System (OHISS), this report is not able to distinguish between tooth decay that is treated, untreated or missing (due to decay). It also does not discuss other urgent treatment needs that children may have.

- Hygienists use their clinical judgment to determine if a tooth is missing due to decay, or if it is missing for any other reason (i.e., natural exfoliation, trauma, etc.). Part of this assessment is a knowledge of typical age-related exfoliation patterns (i.e., Teeth missing from a child who is too young to have had a particular tooth fall out naturally may be assessed as missing due to decay).

- School years are denoted by the year in which the school year began. For instance, information about 2015 was collected from July 2015 to July 2016.

- Significant differences were estimated using overlapping confidence intervals. Although this method is conservative ($\alpha \sim< 0.01$) and most appropriate when comparing mutually exclusive groups, it was chosen as an objective means of making conclusions on population-based data.

- This report focuses on children in Junior Kindergarten through to Grade 8. For information on children in Grades 9 to 12, please see the Youth Oral Health surveillance page.

Definitions

95% Confidence Interval is the range within which the true value lies, 19 times out of 20.

Child refers to those who are students in Kindergarten to Grade 8.

Tooth decay occurs when bacteria produce acid that destroys the tooth's enamel and the underlying layer, the dentin. Tooth decay is also known as dental caries or cavities. When left untreated, tooth decay can cause pain, infection and difficulty with eating, drinking and speaking. Untreated tooth decay can also lead to further gum, mouth and systemic health problems.

Sources

OHISS: Oral Health Information Surveillance System 2012 to 2015, Ontario Ministry of Health and Long Term Care, OHISS Application, Date Extracted: October 2016.

Used in:

- Figure 1
- Map 1

Indicator: Child Oral Health

Category: Child Health

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This Toronto Public Health indicator report is part of a series that informs population health assessment and surveillance. For more information and a full list of indicators, please go to: www.toronto.ca/health.