

Executive Summary

Oral health plays an important role in general health and quality of life. The Region of Peel Health department monitors the oral health of the community as part of its mandate and core activities. A survey of school-aged children was conducted in 2001/2002 to assess the oral health status of children in the Region. The survey identified significant dental disease among Peel children.



DENTAL DISEASE IN CHILDREN

The prevalence of dental caries increases with age. Overall, 38% of Peel children had experienced dental caries, with a mean of 1.1 teeth affected. The prevalence of dental caries was highest among children aged seven and nine years.

Among the three Peel municipalities, the overall prevalence of dental caries was significantly higher in Caledon as compared to Brampton and Mississauga.

Gingivitis (gum infections) is the most common type of periodontal disease. Overall, 15% of Peel children had gingivitis. The prevalence of gingivitis increased with age and occurred in similar proportions in the three municipalities in Peel.

RISK FACTORS FOR DENTAL DISEASE

The most common dental diseases are infections resulting from plaque—soft bacterial accumulations—on tooth surfaces and gums. If these bacterial accumulations harden into tartar or calculus, they will require the assistance of dental professionals to remove them. Overall, more than half of the children (59%) surveyed in Peel had soft deposits on their teeth while 7% had hard deposits. There were no significant differences in plaque and tartar accumulation among children by municipality.

Overall, children born outside Canada exhibited higher levels of dental disease than their Canadian-born equivalents. This trend was observed for all indicators of oral health status assessed except for fluorosis.

FLUORIDES IN CARIES PREVENTION

Fluorides have been identified as being effective in the prevention of dental caries. The lake-based community water supply in Brampton and Mississauga is fluoridated within the recommended fluoride concentration levels. This lake-based source also supplies Bolton in the Town of Caledon. The remainder of Caledon is supplied by a non-fluoridated well-based municipal water supply and private wells. The widespread use of fluorides has been associated with increased prevalence of fluorosis. Dental fluorosis is a patchy enamel discolouration which results from the ingestion of large amounts of fluoride during tooth formation. In Peel in 2001/2002, the prevalence of fluorosis among children was 13%. Fluorosis was more prevalent in Brampton and Mississauga as compared with Caledon. Children identified with fluorosis had a lower prevalence of dental caries. The prevalence and severity of fluorosis in Peel does not constitute a public health threat.

ACCESS TO DENTAL CARE

The use of fissure sealants—plastic coatings placed on the tooth surfaces—is effective in preventing dental caries. It is also a good indicator of access to dental care services. Use of pit and fissure sealants is not widespread in Peel as only 14% of children had sealants placed on their teeth. Sealant use was significantly higher in Caledon than in Brampton and Mississauga.

Dental diseases are not self-limiting and may progress to urgent conditions without appropriate treatment. Regular visits to dental care providers allow early identification and intervention to prevent diseases and complications from untreated conditions. It is less likely that dental diseases will progress to urgent conditions where access to oral health care is available. Therefore, the presence of urgent conditions indicates a delay in seeking treatment. Overall, 12% of Peel children had urgent dental conditions. Although not statistically different, the prevalence of urgent conditions was higher in Brampton and Mississauga than in Caledon. The prevalence of urgent conditions was higher among younger children.

Dental caries may be observed in its treated form as fillings or extractions, and in its untreated form as cavities. The proportion of children who have had all their teeth with dental caries restored (filled) without losing any can be used to assess relative access to caries treatment. Among Peel children who have had dental caries, 55% had all the cavities filled. Although not statistically significant, the proportion of children having all cavities filled was higher in Caledon than in Brampton or Mississauga.