Public Health
Santé publique
SUDBURY & DISTRICTS

Oral health program update (2018)

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Introduction

The overall goal of Public Health Sudbury & Districts' oral health program is to enable all children and youth to attain and sustain optimal oral health. Programs and services are delivered in accordance with the Ontario Public Health Standards and aligned with our agency's strategic plan. Programming is evidence-informed and considers local needs. We provide both universal programming for all children and youth, and targeted initiatives for those at higher risk of poor oral health outcomes. This report provides a brief update on the following five key priority areas:

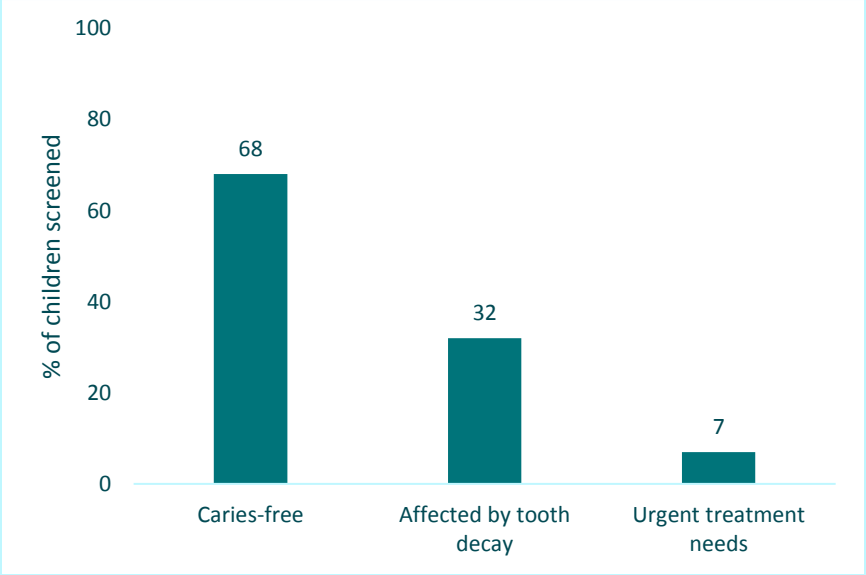
1. School screening and surveillance
2. Healthy Smiles Ontario (HSO)
3. Early Childhood Caries (ECC) Prevention
4. Indigenous oral health
5. Adult oral health inequities

School screening and surveillance

OVERVIEW: Public Health screens children in all elementary schools on an annual basis. The purpose is to identify and refer children in need of dental care, help families access treatment, and follow-up to make sure care has been received. We also collect screening data, to monitor children's oral health status and identify schools or communities who may be in need of targeted programming. For instance, schools are designated as 'low-', 'medium-', or 'high-risk', depending on the prevalence of tooth decay and unmet treatment needs noted during screening. Children with no active tooth decay (caries) or history of dental treatment at the time of screening are considered 'caries-free'. Every year, we want to see a high percentage of 'caries-free' children, as this is an indicator of good oral health.

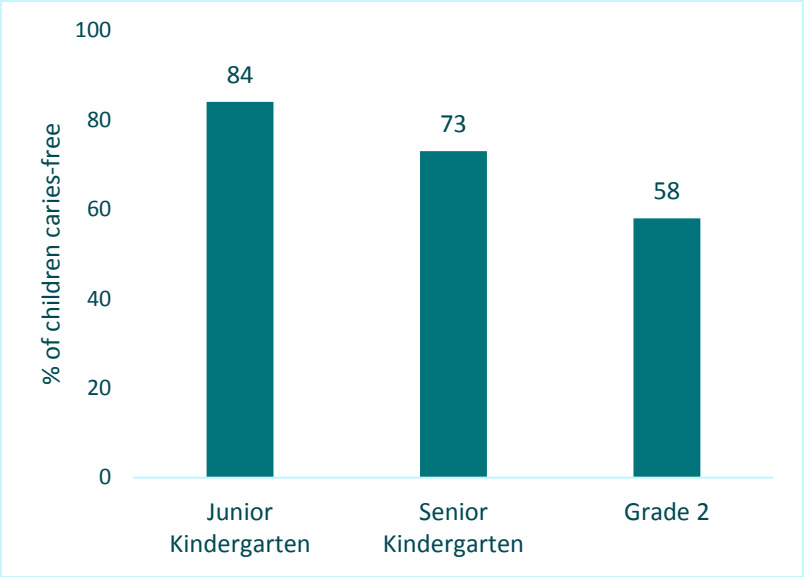
UPDATE: In the 2016-17 school year, we screened 7,973 children in 92 elementary schools[1]. Findings were similar to those of previous years. On the upside, a high percentage of children were 'caries-free' and the vast majority were receiving dental care (see Figure 1). However, one in three children had been affected by decay, which is preventable, and we continue to find a subset of children with urgent and unmet treatment needs. The proportion of children with unmet treatment needs varies by school, with 'low-risk' schools requiring treatment referrals for 2% of children screened compared to 11% for 'high-risk' schools. Another troubling trend that we see from year to year is a sharp decrease in the percentage of 'caries-free' children from Kindergarten to Grade 2
(see Figure 2).

Figure 1:
School screening results, Sudbury and districts, 2016-17



Source: Oral Health Information Support System (OHISS)

Figure 2:
Percentage of children screened who were 'caries-free', by grade, Sudbury and districts, 2016-17



Source: Oral Health Information Support System (OHISS)

NEXT STEPS: We will continue to provide oral health education and promotion through a variety of channels to help more children obtain optimal oral health. Based on our screening findings, programming in 2018 will include education and skill-building targeting children in Grade 1 from schools found to have higher rates of decay.

Healthy Smiles Ontario (HSO)

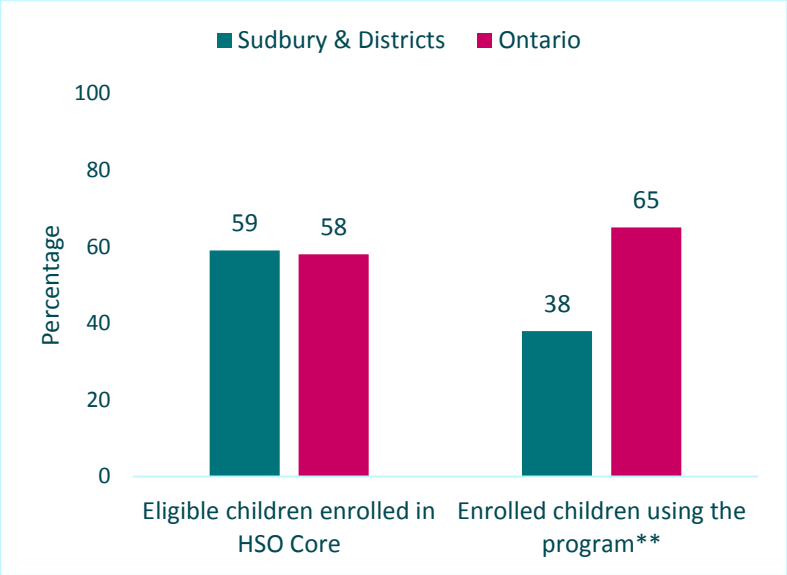
OVERVIEW: HSO is a government-funded program that provides free dental services for eligible children and youth from lower-income families. Local public health's role includes promoting the program, assisting families with enrolment, helping families find a dental provider, and providing preventive treatments through on-site and school-based clinics. We also assist dental offices with HSO program administration.

UPDATE: As of March 31, 2017, 4,922 children and youth in Sudbury and districts were enrolled in HSO[2]. Enrolment has been increasing, but there are still many eligible children across Ontario who are not yet utilizing this program (see Figure 3).

HSO program highlights for 2017:

- 415 calls from parents for information, emergency care, or help finding a dental provider
- 119 drop-ins from parents seeking information and assistance
- 63 calls from dental providers for information and assistance
- 341 new clients enrolled for emergency assistance
- 695 children provided preventive dental treatments on-site or at school clinics

Figure 3:
Enrolment and utilization of HSO*, Sudbury and districts, and Ontario, as of March 31, 2017



*does not include children who received only HSO preventive services from Public Health
**represents HSO clients who utilized treatment from April 1, 2016 to March 31, 2017
Source: Oral Health Reporting Solution (OHRS)

NEXT STEPS: We want all eligible children to benefit from the HSO program. We will continue to promote the program through a variety of channels, including connecting with community agencies for help in reaching families, attending community events, and implementing a promotional campaign targeting families who are enrolled but not utilizing services.

Early Childhood Caries (ECC) prevention

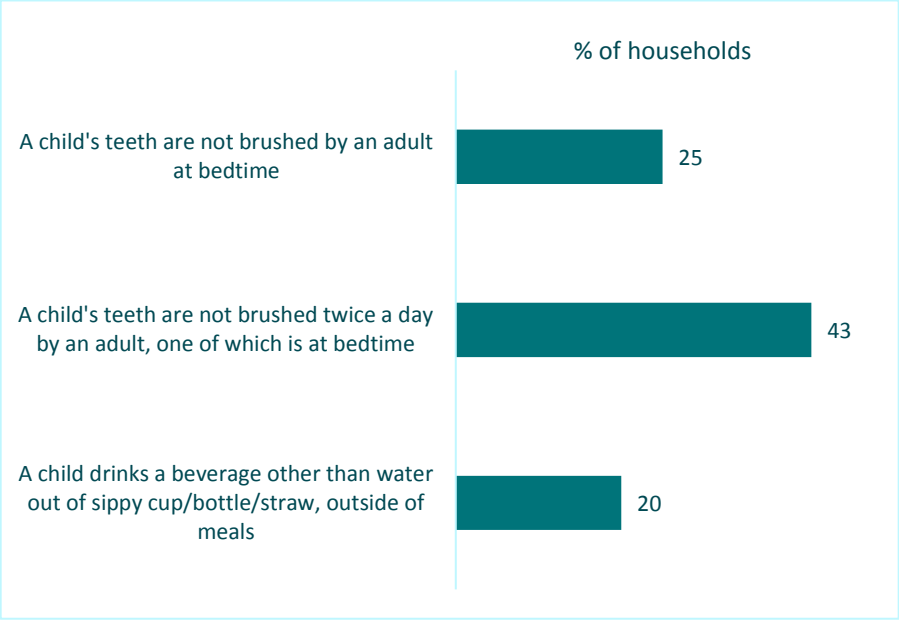
OVERVIEW: ECC is a severe type of tooth decay that affects baby teeth. ECC is a significant public health problem that has been considered the most common chronic disease of children[3]. ECC can cause pain, speech difficulties, altered eating and sleeping patterns, and problems with permanent teeth[4]. In addition, treatment often requires general anesthesia, which increases risks and costs[5]. ECC can be prevented through a number of practices such as good oral hygiene and dental visits beginning by age one. We implement a variety of initiatives to prevent ECC, including education and promotion, and a daily toothbrushing program for daycare centres (Smile Care).

UPDATE: We do not know the local prevalence of ECC, but we do know that many children are at risk, and are developing ECC. For instance, 16% of Junior Kindergarten and 27% of Senior Kindergarten children screened in public schools[1] and 25% of children screened in First Nations daycares have been affected by decay. When exploring risk and protective factors, surveys of local households indicate that many children are not receiving regular oral hygiene and only a very small percentage are receiving the recommended age one dental visit[6,7] (see Figures 4 & 5). As such, programming in 2017 focused on promoting early dental visits, distributing a pediatric screening tool to help parents and caregivers identify risk factors for ECC, and recruiting daycare centres into Smile Care.

Program highlights for 2017 include:

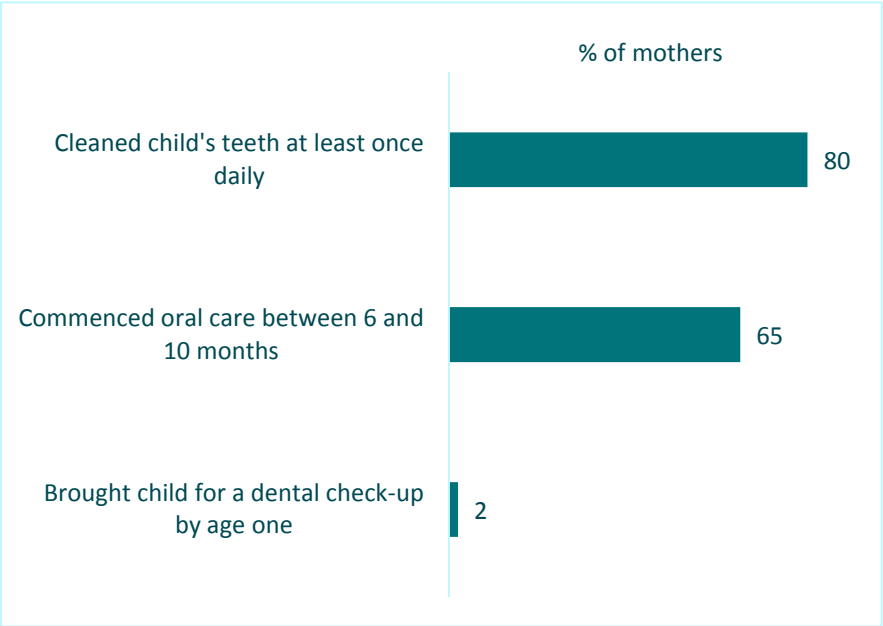
- 10 daycares implemented Smile Care (up from three in 2016), including two First Nations daycares
- 237 children received daily toothbrushing while in daycare through Smile Care
- 175 parents and caregivers received the pediatric screening tool through Smile Care
- 70 pediatric screening tools were provided to First Nations health centres for distribution
- A campaign was implemented during oral health month to promote dental visits by age one

Figure 4:
Oral hygiene practices of households with a child aged 0-6, Sudbury and districts, 2015



Source: Rapid Risk Factor Surveillance System (RRFSS)

Figure 5:
Oral hygiene practices of mothers with a 12-month old child, Sudbury and districts, 2013



Source: Sudbury & District Health Unit[7]

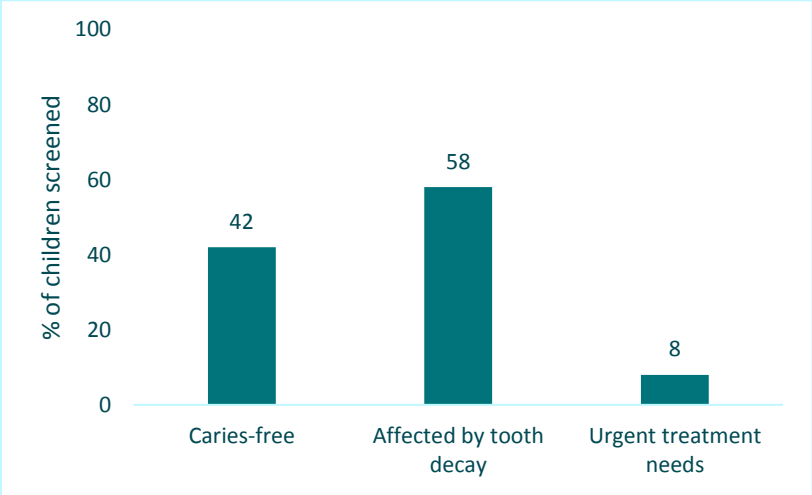
NEXT STEPS: ECC is preventable – we want to see more children remain caries-free in early childhood and beyond. Activities in 2018 include participating in a province-wide social media campaign to promote the importance of oral health for childhood growth and development, providing education and resources to expecting parents during the pre-natal period, and continuing to recruit and support daycares to deliver daily toothbrushing. We will also explore additional preventive treatments that could be provided to reduce caries risk and progression, for higher-risk children from low-income families and First Nations communities.

Indigenous oral health

OVERVIEW: Since 2011, Public Health has been partnering with local First Nations communities to deliver oral health programs and services for children. Indigenous people have generally poorer oral health than non-Indigenous Canadians and higher treatment needs[8,9]. As such, the overall goal of this work is to create equal opportunities for oral health for Indigenous children. Each First Nation community has unique demographics, needs, priorities, and resources, thus a one-size-fits-all approach will not work. Planning must take place at the local level, driven by each community, and must include taking the time to build relationships and trust. In order to facilitate relationship-building over time, the same public health dental hygienist has been leading this work since the program started.

UPDATE: There has been increasing interest among First Nations communities to partner with us, and the number of participating communities has been growing. This has enabled us to reach more children, and in return, we have been able to report back on the oral health status of children in their schools and daycares. In the 2016-17 school year, we screened 606 children in six First Nations elementary schools. More than half of the children screened had been affected by tooth decay, and 8% had urgent treatment needs (see Figure 6). These findings were comparable to what we typically see in the 'high-risk' schools in our public school screening program. We also screened 89 children in First Nations daycares and found that approximately one in four children screened had been affected by decay. Overall, there is wide variation in oral health status and treatment needs from one community to another and from year to year. This variation appears to relate to differences in access to services and other factors such as relationships between communities and local dental providers.

Figure 6:
First Nations elementary school screening results, 2016-17



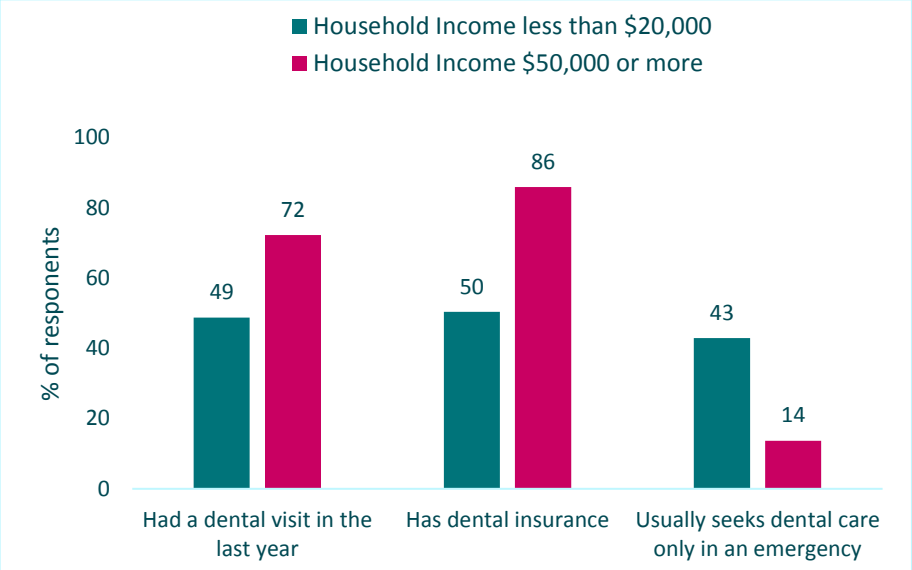
NEXT STEPS: We will continue to build relationships and collaborate with our First Nations partners to develop comprehensive oral health strategies within each community. This will include oral health screening and surveillance, education and skill-building, and prevention. We will also be exploring opportunities to increase access to preventive treatments, such as developing a combined toothbrushing and fluoride varnish program for children in daycare centres.

Adult oral health inequities

OVERVIEW: Although the majority of Ontarians have access to high quality dental services and are in good oral health, there are significant income-related inequities in access to services[10]. Not surprisingly, groups with reduced access to care also suffer the greatest burden of oral health illness[10]. Public Health programs and services strive to reduce oral health inequities by increasing access to services for underserved populations. The public health mandate in Ontario has traditionally focused on children and youth, however there may be opportunities to expand programming to include adults. We are in the very early stages of this work, beginning with a local needs assessment.

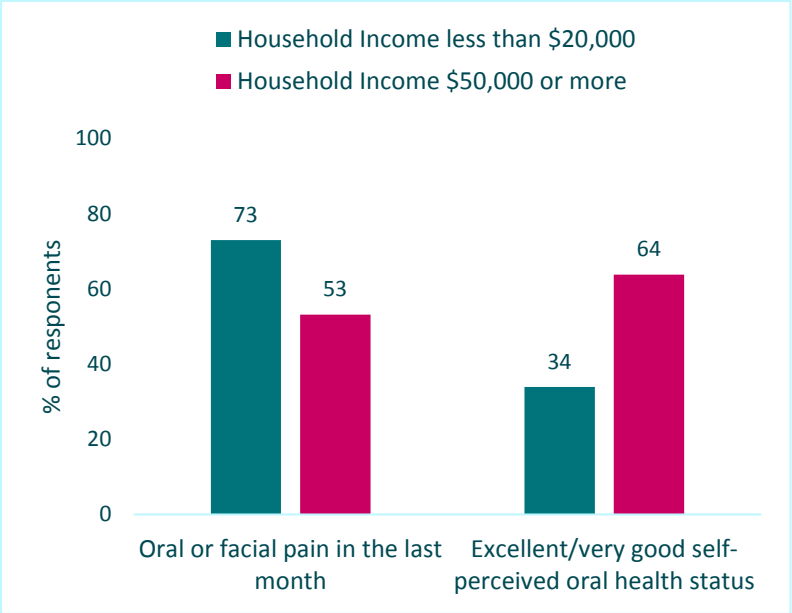
UPDATE: Surveys of residents in Sudbury and districts confirm that income-related inequities exist locally[11]. Overall, 25% of local respondents reported that they did not have insurance for dental expenses[11]. Compared to respondents from higher-income households, those from lower-income households were ***less likely*** to have dental insurance, visit the dentist, and report having 'excellent or very good' oral health; and ***more likely*** to experience dental pain and seek dental care only in emergencies (see Figures 7 & 8). Ontarians who are unable to access dental care often seek out services from hospital emergency departments[12]. Local data indicates that approximately 550 visits per year (one to two visits per day) are made to hospital emergency departments in our catchment area for oral health issues such as dental pain, infection, or trauma to tooth[13]. Unfortunately, there is very little that can be done for these patients and it places increased burden on the healthcare system[12]. Although we do not know the specific circumstances around each visit, they are an indication that there are local barriers to accessing dental care.

Figure 7:
Self-reported access to dental care, by household income, Sudbury and districts, ages 12+, 2013/14



Source: Canadian Community Health Survey (CCHS)

Figure 8:
Self-reported oral health status, by household income, Sudbury and districts, ages 12+, 2013/14



Source: Canadian Community Health Survey (CCHS)

NEXT STEPS: We know that inequities exist locally, but we need to explore this in more detail. In 2018, we will be engaging community partners to find out who is facing the greatest barriers accessing oral healthcare and opportunities to address these barriers. The findings will be used to inform the development and implementation of a local adult oral health strategy, in collaboration with community partners.

Summary

Public Health has been making progress in our efforts to provide equitable opportunities and enable more children and youth to attain and sustain optimal oral health. We will continue to focus on the above priority areas, with an emphasis on identifying and addressing inequities in oral health. Collaboration with community partners has been vital to the success of our work, including dental professionals, schools, daycares, and First Nations communities. Going forward, we will continue to work with our communities to promote oral health and create healthier communities for all.

References

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12. Singhal, S., McLaren, L., Quinonez, C. (2017). Trends in emergency department visits for non-traumatic dental conditions in Ontario from 2006 to 2014. *Can J Public Health;* 108(3):e246-e250

13. Acute Care Enhanced Surveillance (ACES)