Understanding Children’s Oral Health: More Than Just Baby Teeth

A Brief for Policymakers in New York
The purpose of this Policy Brief is to provide information to policymakers about the nature of dental disease in children, the consequences of disease on health and well-being and the costs associated with disease. It also provides information on policy opportunities to prevent disease and improve the health of children.

Additional information on children's oral health can be found at the Schuyler Center website: www.scaany.org.
Understanding Children’s Oral Health:  
*More Than Just Baby Teeth*  
*A Brief for Policymakers in New York*

**Key Points about Children’s Oral Health**

1. Tooth decay is a disease.
2. Tooth decay is largely preventable.
3. Programs and interventions exist to reduce and prevent tooth decay.

For the last century, and particularly in the last few decades, the oral health of New Yorkers has improved substantially. The decline in dental disease is a testament to the efforts of health professionals and individuals, public health investments, government policies, educational institutions and health care organizations. However, the improvements are not uniform and some populations continue to experience a high degree of oral health problems.

Most people don’t know a great deal about oral health. For example, did you know that tooth decay is a communicable disease? Or that it is the most common chronic childhood disease? These facts are largely unknown by the public and policymakers because, despite the terrible human cost and the significant health costs associated with dental disease, oral health rarely garners the same attention as other health issues.

Dental disease in children has been called a “hidden epidemic.” Hidden because dental disease is not always apparent until the pain becomes unendurable or until it manifests in an inability to eat, sleep or concentrate in school. It is also hidden by poverty. Most children won’t experience severe dental disease. Instead, the effects are felt primarily by low-income children because it is connected with many of the same social and economic factors that drive other health disparities.

The good news is that tooth decay is largely preventable. Investing in the prevention of tooth decay among children now will help maintain their health as they enter adulthood and will ultimately benefit the State in lower dental treatment costs.

**Leadership in Oral Health Policy**

Oral health—the health of the teeth, the gums and the rest of the mouth—is not usually included in what we traditionally consider health care. Think about it for a moment. Most people receive their dental care outside the usual medical setting and pay for care with dental, not medical, insurance. Payment systems are largely separate, services are not integrated and there is not always an association between medical and dental providers.

And yet, the mouth is connected to the rest of the body in significant ways. It allows us to eat and speak. It communicates our feelings. It protects us from germs. In fact, more and more research indicates that the health of the mouth impacts conditions such as lung and heart disorders, diabetes, pregnancy and obesity.¹ *Policymakers should ensure that the mouth is given the same priority as the rest of the body in our health care system.*

The Surgeon General’s Report, *Oral Health In America,* declared that since oral health is integral to general health, a person cannot be considered really healthy if they have poor teeth or other oral conditions.² Can a child be healthy if she has abscesses in her mouth?
Consequently, polices designed to improve individual or population health cannot overlook oral health. **Policymakers must view oral health as essential for general health and quality of life.**

Large disparities exist in oral health status and the use of services. In a landmark report, *Improving Access to Oral Health Care for Vulnerable and Underserved Populations* (2011), the Institute of Medicine and the National Research Council called oral health, “one of those dimensions of our health care delivery system in which striking disparities exist.” **Policymakers must ensure that oral health is included in any strategy to address disparities.**

Policymakers ready to help improve oral health must seek innovative ways to integrate oral health into health care and health promotion, increase preventive services to reduce disease, increase access to treatment when necessary and reduce the financial barriers faced by families.

Fortunately, we know what causes conditions such as tooth decay and there are also many programs that have shown promise in preventing disease and improving health. Understanding the nature of oral health conditions and diseases, their impact on health and well-being, and the monetary costs for taxpayers and families, is the first step in developing sound public and fiscal policies for oral health improvement.

**What are cavities and what do they mean for a child’s health?**

There are different types of dental disease, but cavities—the holes in the teeth caused by bacteria—are of special concern for infants, toddlers and children. Cavities are just as painful in children as they are in adults and without treatment, infection can spread from teeth to gums and result in tooth loss.

- Dental disease inhibits a child’s ability to learn, grow and thrive, while also increasing Medicaid and other health care costs.

---

**Percentage of Children Ages 6 to 9 With Untreated Disease**

*Based on preliminary results of a federal government survey, this statistic is consistent with the findings of prior government research.*

*American Dental Association. (2013). Action for Dental Health: Bringing Disease Prevention into Communities. P. 7*
• Left untreated, tooth decay can result in significant health and social problems, including impaired physical growth, eating difficulties, altered speech, difficulties in concentration and learning, missed school days, lowered self-esteem, and reduced capacity to socialize.3,4

Young children from low-income families are also more likely to develop “early childhood caries,” a particularly aggressive and often devastating form of tooth decay. Also known as “baby bottle tooth decay,” this disease can destroy emerging teeth and lead to problems in speech development and transitioning to solid foods. Often treatment requires children to be put under general anesthesia so that all decayed teeth can be treated or removed.

Oral health influences social interactions and employment opportunities.
• Adults who have decayed or missing teeth are less likely to get or keep a job.5
• Good teeth are viewed as important for social well-being and the economic potential of adults.6
• Since children with dental problems are prone to enter adulthood with dental problems, prevention of this disease is crucial; if it is not detected in the early stages, it can become irreversible.7

What do the data say about children’s oral health in New York?
• One in four third-graders in New York have untreated decay.8
• Over 61% of New York children covered by Medicaid did not see a dentist in 2012.9
• Children from low-income families in New York are more likely to have untreated decay (32%) than their wealthier peers (15%).10
• Some groups are disproportionately impacted by dental disease, including low-income adults and children, Native Americans, Latinos and African Americans.11
• Children with special health care needs are particularly vulnerable to dental disease but have high rates of unmet need.12


Note: Lower-income children were those who reported participating in the free or reduced-cost school lunch program.
How expensive is treating dental disease?

The costs for the State, individuals and families to treat decay are significant. When decay goes unchecked, children may go to the emergency room (ER) even though the problems could have been addressed earlier or prevented altogether.

- A 2012 study found that over 25,000 New York children under age six visited an ER or ambulatory surgery facility for a preventable dental condition between 2004 and 2008. Total spending on these visits for one year equaled $31 million and the study also found a number of these visits were for conditions that could have been prevented.

- A 2010 study found that Medicaid enrollees in less fluoridated counties of New York needed 33% more fillings, root canals and extractions than those in counties where fluoridated water was more prevalent. As a result, the treatment costs per Medicaid recipient were more than higher for those living in less fluoridated counties.

- Dental costs are approximately 20% of a child’s total health expenditures and that number is growing.

- In 2009, dental expenditures for children ages 5-17 accounted for $20 billion or 17.7% of all health care spending for this age group.

Who pays for care?

Despite research showing that having dental insurance, either public or private, is a good predictor that a child will receive dental services, gaps in coverage exist and costs vary for families. New York can be proud of its long history of recognizing the importance of dental care for children in its public programs and now as part of the Affordable Care Act (ACA) implementation. But, families with private health insurance that does not cover dental must pay directly for care and even children with private dental coverage may encounter prohibitive deductibles, co-pays, and expenses not covered by the policy.

- The State's Medicaid and Child Health Plus (CHP) programs cover dental care for children. Benefits include preventive cleanings, fluoride varnish, sealants, examinations, x-rays, and a range of treatment services. There are no co-pays or deductibles for dental services in either CHP or Medicaid.

- The Affordable Care Act mandated that pediatric dental benefits be covered as part of the essential health benefits (EHB) for Qualified Health Plans (QHPs) and small business plans through New York’s health insurance marketplace, the New York State of Health. New York selected the CHP dental package as the standard dental benefit for the EHB.

- Dental insurance is offered less frequently to employees than medical insurance with smaller employers far less likely to offer or contribute to a separate dental plan.

- Uninsured children are less likely than children covered by either public or private insurance to receive routine dental checkups.

- A lack of dental insurance has been found to be a strong predictor of whether a child has unmet dental needs.

- About one in four children nationally were uninsured for dental—twice the number who lacked health insurance.

- A New York State Department of Health survey found that almost one in five families (20%) reported that their children did not have dental insurance. This is in contrast to estimates that only 3.9% of children in New York do not have medical insurance.
Examples of Key Policy Levers for Prevention

Community Fluoridated Water

- Regardless of age, income or education, optimally fluoridated drinking water benefits everyone in a community by strengthening tooth enamel and even reversing early tooth decay.
- Fluoridation, or the practice of adjusting the level of naturally occurring fluoride in water to the optimal level to protect teeth, has been proven to prevent about 25% of decay throughout the lifespan.\(^27\)
- Community fluoridated water is the most cost effective method of reducing tooth decay in children or adults.\(^28\)
- About 72% of New Yorkers on community water systems have access to this time-tested prevention practice.\(^29\) However, less than half of those outside New York City do,\(^30\) leaving millions of New Yorkers without the benefit of fluoridated water.
- It is estimated that raising the share of children outside of New York City who have access to fluoridated water from 49% to 87% would save the State Medicaid program $27.7 million over 10 years by reducing the need for fillings and other dental treatment.\(^31\)

Dental Sealants

- Dental sealants are clear plastic coatings that are applied to the chewing surfaces of permanent molars, the most cavity-prone teeth. On average, the cost of sealing one molar is less than one-third the cost of filling a cavity.\(^32\)

New York State Prevention Agenda and Children’s Dental Health

The Prevention Agenda 2013-17 is the blueprint for state and local action to improve the health of New Yorkers in five priority areas and to reduce health disparities for racial, ethnic, disability, socioeconomic and other groups who experience them. The Prevention Agenda contains two goals directly related to children’s dental health:

1. **Reduce dental disease among New York State children. By 2017:**
   - Reduce the prevalence of tooth decay among NYS children by at least 10%.
   - Increase the proportion of NYS children who have protective dental sealants by at least 10%.
   - Increase the proportion of NYS children who receive regular dental care by at least 10%.
   - Increase the percentage of NYS population receiving fluoridated water by 10%.
   - Strengthen systems to improve the oral health of people with special health needs.

2. **Increase the percentage of State residents that receive optimally fluoridated drinking water.**
   - Support communities interested in implementing fluoridation with outreach materials and links to needed resources.
   - Support elected and other public officials with readily available training on fluoridation and other drinking water issues.
• Sealants have been recognized by both the American Dental Association (ADA) and the Centers for Disease Control and Prevention (CDC) as one of the best strategies to protect children who are at increased risk for developing cavities.33

• A single application of sealants has been shown to reduce cavities by 60% even four years later. 34

• In 2002-2004, 27% of the third-graders in New York State had dental sealants on one or more molars. 35

• Within New York State, access to dental sealants is uneven; the most recent survey of third-grade children in New York found the percentage of children receiving at least one sealant ranged from 14% to 74% depending upon the county in which they lived. 36

• School-based sealant programs are especially important for reaching children from low-income families who are less likely to receive private dental care, yet more than half of high-need schools in New York lack sealant programs.37

### Students Are More Likely to Receive Sealants When There is a Program in Their School

<table>
<thead>
<tr>
<th>Income Status</th>
<th>Sealant Program</th>
<th>No Sealant Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Income</td>
<td>57.9%</td>
<td>31.3%</td>
</tr>
<tr>
<td>Higher Income</td>
<td>48.4%</td>
<td>43.1%</td>
</tr>
<tr>
<td>All</td>
<td>54.2%</td>
<td>36.9%</td>
</tr>
</tbody>
</table>

Weighted percent of third-grade children with dental sealants by school-based sealant program and income status. New York State 2009-2012

### Professionally-Applied Fluoride

• Varnishes are low tech, inexpensive, and child-friendly. Fluoride varnish can be applied outside the dental office without special equipment, so the intervention can be incorporated into places where children are found such as pediatrician’s offices and WIC programs.

• Semiannual treatments are shown to have reduced cavities by 25%, on average, in the permanent teeth of children residing in non-fluoridated areas.38

• The NYS Medicaid program allows for four applications of fluoride varnish per year, which has been estimated to reduce new tooth decay by about 30%.39 New federal rules require health insurers to cover fluoride varnish applications for all children.

• Fluoride varnish is estimated to cost up to $120 per child, per year.40
Resources

Interested in learning more about children's oral health? Visit the Schuyler Center for Analysis and Advocacy Oral Health Project http://www.scaany.org/policy-areas/health/ as well as these other resources:

NEW YORK STATE

• New York State Department of Health, Oral Health  
  https://www.health.ny.gov/prevention/dental/

• New York State Oral Health Technical Assistance Center  
  http://www.nysoralhealth.org/

• New York State Oral Health Coalition  
  http://www.nysohc.org/

• New York State Dental Association  
  http://www.nysdental.org/

• Dental Hygienists Association of New York State  
  http://www.dhasny.org/

• New York State Dental Foundation  
  http://www.nysdentalfoundation.org/

CENTERS FOR DISEASE CONTROL AND PREVENTION

• Division of Oral Health  
  http://www.cdc.gov/oralhealth/

• Oral Health in America: A Report of the Surgeon General  

• The Guide to Community Preventive Services: Oral Health  
  http://www.thecommunityguide.org/oral/index.html

• Institute of Medicine: Advancing Oral Health in America  

MATERNAL AND CHILD HEALTH

• National Maternal and Child Oral Health Resource Center  
  http://www.mchoralhealth.org/

NATIONAL ORAL HEALTH EDUCATION AND ADVOCACY

• Children's Dental Health Project  
  https://www.cdpb.org/

• Campaign for Dental Health: I like my teeth  
  http://www.likemyteeth.org/

• American Academy of Pediatrics  
  http://www2.aap.org/oralhealth/Advocacy.html

• W.K. Kellogg Foundation: Oral Health Resources  
  http://www.wkkf.org/what-we-do/healthy-kids/oral-health/oral-health-resources

• Association of State and Territorial Dental Directors  
  http://www.astdd.org/
Endnotes


