

Issue Brief: Oral Health Is Critical to the School Readiness of Children in Washington, DC



Oral Health Is an Important Part of Children’s Overall Health and Well-being

Oral health is an important marker for overall health status and can have an impact on a number of physical and developmental outcomes. Dental caries (tooth decay) is the single most common chronic disease among children – five times more common than asthma and seven times more common than hay fever.

Assessments of oral health indicate that although caries impact all children, some groups suffer a disproportionate disease burden.

80 percent of tooth decay occurs in just 25 percent of children and adolescents, the majority of which are from low-income, African American, and Latino families.¹

Despite the high prevalence of dental caries among children, many families do not have adequate access to dental care.

Children from poor families are half as likely to have had a preventive dental visit in the past year as those from middle-to-high-income families.²

Many families in the District have difficulty finding dentists that will see young children or that participate in Medicaid, the primary payer of dental services for low-income children.

Fewer than 1 in 6 Medicaid-covered children in the District receive a single dental visit each year.³

Poor Oral Health Impacts Children's Development and Ability to Learn



Mayor Fenty's Transition Workgroup on Early Care and Education concluded that early care and education improves school readiness and economic outcomes by:

- Supporting the growth and development of the District's youngest citizens
- Enabling parents and caregivers to work and be more productive because they know their children are in safe, stimulating environments
- Promoting the capacity and competency of the future workforce.

—Brown B, Ramos M, Traill S. (2007). *Ensuring a Vibrant City: The Economic Impact of the Early Care and Education Industry in the District of Columbia*. Washington, DC: National Economic Development and Law Center.

Recent advances in human development research have found that early childhood can play a critical role in health and development outcomes later in life, including school readiness. In addition to preparing children for academic achievement, the concept of school readiness includes physical, socioemotional, learning, language, and cognitive development as well. Poor oral health can have a negative impact on many of these aspects of school readiness because oral conditions can lead to problems in growth, eating, speaking, and learning. The pain and disinclination to eat associated with untreated tooth decay can result in nutritional deficiencies, which hinder physical and cognitive development. Moreover, children with dental pain and embarrassment about the appearance of their teeth are more likely to have lower self-esteem, be withdrawn, have difficulty concentrating, and be absent from school.

- Nearly 51 million school hours are lost each year by children due to dental-related illness.
- Children from low-income families have nearly 12 times as many missed school days because of dental problems compared to children from higher income families.⁴

Low-income Children in Washington, DC are at High Risk for Poor Oral Health and Consequently Inadequate School Readiness

Close to one-half of the infants and toddlers in the District of Columbia live in low-income families, and almost one-quarter live in extreme poverty (below 50 percent of the federal poverty level or \$8,300 annually for a family of three).⁵ A study conducted at the Children's National Medical Center found that District children with a history of dental caries, most of which were from low-income families, were significantly more likely to exhibit failure to thrive, or an inability to gain weight or grow as expected. When these children received comprehensive dental treatment, they were able to catch-up and achieve normal growth and development.⁶ This study underscores the need to ensure that poor children in the District have adequate and timely access to oral health care services.

Public Programs in the District only Serve a Fraction of Poor Children, Representing a Missed Opportunity to Meet the Needs of Children at High Risk for Poor Oral Health

School-based Program

The DC Department of Health's Oral Health Division has operated a School-based Dental Program since 2003. The program provides oral health exams, dental sealants, oral health education, and other services to public elementary schools in



Major Barriers Facing the School-based Dental Program:

- Lack of staff to conduct outreach to parents to complete and sign consent forms
- Lack of dental providers to administer oral health exams and dental sealants
- Lack of community-based resources to refer children for follow-up oral health care

the District, where at least 50 percent of their student population is enrolled in the National Free/Reduced Lunch Program. Healthy People 2010 seeks to increase the percentage of children ages 8-14 with dental sealants on their molar teeth to 50 percent. **Dental sealants have been shown to reduce tooth decay by more than 70 percent.**⁷

- Examined students are primarily from some of the most impoverished Wards (5, 6, 7, & 8) and exhibit high caries incidence
- In FY 2007, the School-based Dental Program was only able to serve six schools and 1,524 students, a small proportion of the eligible population.⁸



Profile of Shaed Elementary School (Ward 5)

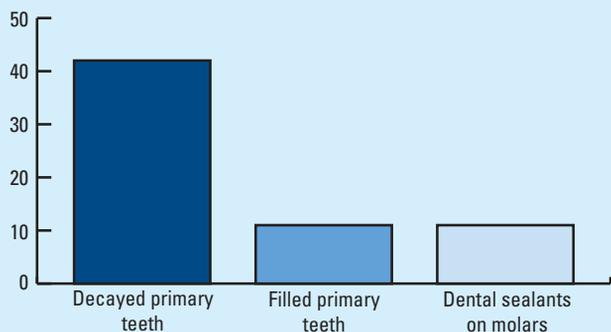


Figure 1: Percent of examined Shaed Elementary School students by examination measure, FY 2007.

Shaed Elementary is typical of most schools participating in the School-based Dental Program. While a large proportion (44 percent) of the 144 students examined had a history of dental caries, only a small proportion had previously accessed dental care as evidenced by the presence of fillings and dental sealants on the teeth (Figure 1).

- The School-based Dental Program was able to provide a total of 347 sealants to 65 percent of students examined.⁸

Medicaid

Oral health services for children are a mandatory Medicaid benefit under the Early Periodic Screening, Diagnosis and Treatment (EPSDT) Program, but many Medicaid-enrolled children in the District do not receive these services. Younger children are the least likely to receive needed oral health care; **children ages 1-5 were nearly half as likely to receive any dental services as those ages 6-20 in FY 2005** (Figure 2). Although EPSDT requires the provision of comprehensive oral health services (i.e., preventive, restorative, and emergency dental services), many Medicaid-enrolled children are not receiving necessary follow-up treatment services (Figure 3).

Figure 2: Percent of EPSDT-eligible children by receipt of dental services in FY 2005.

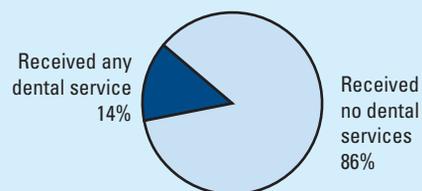
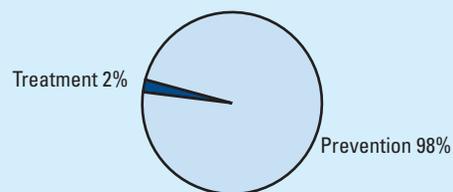


Figure 3: Percent of EPSDT Dental Services by Type in FY 2005.



Although the District has the highest dentist-population ratio in the nation⁹, dentist participation in the District's Medicaid program and the State Children's Health Insurance Program (SCHIP) is extremely low, particularly for pediatric dental care.

- Of the 1,205 dentists licensed by the District in FY 2005, just 30 (2.5 percent) enrolled as Medicaid billing dentists with at least one paid claim.
- Only 14 (47 percent) Medicaid billing dentists saw 50 or more beneficiaries under age 21 in FY 2005.¹⁰

Head Start and Early Head Start

Head Start and Early Head Start programs are mandated to ensure that all enrolled children receive an oral health examination, follow-up treatment, oral health education, and a dental home (i.e., an ongoing source of care) by the end of the program year. However, only a small proportion of eligible children in the District are enrolled in these important early child care and education programs.

Only 66 percent of eligible 3-and-4-year olds participate in Head Start services and just 4 percent of eligible infants and toddlers (from birth to age three) participate in Early Head Start in the District.⁵

There Are Opportunities to Improve Children's Oral Health in Washington, DC

The Early Care and Education Administration has recommended strengthening the infrastructure of the early childhood service system to support the Mayor's School Readiness Initiative. Dental disease is one of the most prevalent, yet one of most preventable childhood diseases.

Improving children's access to oral health education and dental services will play an important role in establishing an efficient, well-coordinated delivery system in the District. In addition, oral health intervention programs can serve as models to address other health issues affecting children and families.

Oral health promotion recommendations emphasize the importance of providing children and their families with education on the development and prevention of dental caries, supplies to establish good oral hygiene habits in the home, and adequate access to affordable preventive and restorative treatment services. All 29,000 children in the District of Columbia served by the Early Care and Education Administration are required by law to have annual oral health examinations.¹¹

Following are some specific strategies that can improve the oral health of children in the District.

DC Healthy People 2010 Objectives for Pediatric Dental Health

- 5-1: Reduce dental caries (cavities) in primary and permanent teeth (mixed dentition) so that the percentage of children who have had one or more cavities (filled or unfilled) is no more than 13 percent among children ages 2-4, 45 percent among children ages 6-8, and 50 percent among adolescents age 15.
- 5-2: Increase to at least 35 percent the percentage of 2nd and 3rd grade children who have protective sealants on at least one permanent molar tooth.
- 5-3: Increase to at least 50 percent the proportion of children entering school programs who have received a dental assessment from a qualified health care professional to determine existence of any decay or oral pathologies and/or deformities.¹²

Recommendations for Action

- **Expand the existing School-based Dental Program.** Limited resources have hindered the ability to expand and serve more children at high risk of developing dental caries. Greater support and coordination from the DC school system and additional staff are needed to promote the program, to encourage parents to return consent forms, and to administer clinical dental services.
- **Establish topical fluoride intervention programs.** Topical fluoride treatments such as fluoride varnish and mouthrinse are ideally suited for young children due to their ease of application. Topical fluoride programs are readily adaptable to a variety of early care and education settings, including WIC clinics, Early Head Start/Head Start, the Pre- Kindergarten Incentive program sites, and early care and education programs across the city.
- **Establish District-wide comprehensive Early Childhood Caries prevention programs.** Comprehensive programs address families' major barriers to oral health promotion by offering a range of services, which can include oral health education, oral hygiene supplies, risk assessment, anticipatory guidance, early establishment of a dental home with ongoing dental care, and case management support. The Oral Health Division's existing oral health education communicator program utilizing community lay health workers, called promaturas, can be expanded to provide many of these services in a culturally and linguistically appropriate manner.
- **Provide outreach to community providers.** Many pediatric medical providers have not received extensive training on how to recognize and address children's oral health needs, yet annually they screen more than 29,000 children between the ages of 6 weeks and 19 years. Many of the city's dental providers may lack specialized education and skills necessary to effectively care for infants and toddlers. The establishment of training for providers can help address such knowledge deficiencies. Intensive recruitment efforts can also encourage more community dental providers to see young children at all income levels and to participate in the District's Medicaid/SCHIP programs.

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