Trends in Pediatric Dental Care Use

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KEYWORDS

• Pediatric oral health • Health disparities • Emergency department • Operating room • Medicaid EPSDT Benefit

KEY POINTS

- Small increases in reimbursement, in states with fewer dentists and with low Medicaid participation, can increase use of prevention and diagnostic services.
- Most children receiving treatment in the operating room (OR) for dental conditions are healthy. Children with complex chronic conditions are more likely to return for OR treatment.
- Patients aged 19 to 20 years have the highest emergency department (ED) rates for dental conditions. For all ages, visits to the ED for preventable dental conditions are decreasing.
- Early access to preventive dental services together with care coordination for Medicaid-eligible children can prevent the costly treatment of dental conditions in hospital ORs and EDs.

INTRODUCTION

There is a significant shift in health care from volume to value, and dentistry has a tremendous challenge and an opportunity in this shift. The cost of care and limited access to care remain significant barriers.[1,2] Addressing the rapidly increasing costs of care, increasing access to care, and improving oral health outcomes will require the simultaneous pursuit of 3 aims: (1) improving the care experience, (2) improving the health of populations, and (3) reducing per capita costs of health care.[3]

National health expenditure projections for dental services will reach $185.0 billion in 2025.[4] This significant spending has not translated to better access or patient outcomes because 23% of children continue to have dental caries, with children 2 to 5 years old experiencing increasing rates.[5] Also, the United States spent $26.5 billion

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for dental services for children less than age 21 years in 2013[6]; what is not reflected in this number is the significant additional cost burden that the health care system experiences for dental and oral health encounters in expensive settings such as emergency departments (EDs) and operating rooms (ORs).

This article explores trends in 3 areas of dental services use for children less than 21 years of age. First, it examines the change in access to prevention, diagnostic, and treatment services over time among Medicaid-enrolled children and how access to care is affected by state-level factors. Second, it evaluates trends and health care costs associated with the treatment of oral health conditions in the ORs of pediatric hospitals. Third, it examines the trends in use of EDs for dental and oral health diagnoses among children less than age 21 years in the United States.

Limited access to care can lead to postponing of preventive and surgical dental care, which in turn can result in seeking care in an ED setting. If the disease state is advanced, dental treatment in the OR may be required. Addressing the silent epidemic of poor oral health[7] will not require more spending but better spending. Dental caries is a chronic disease that is significantly influenced by social and behavioral factors but that is also largely preventable. Improving access to and the use of prevention and disease management strategies, along with early preventive dental visits, can be expected to lead to better patient outcomes, reduction of per capita health care expenses, and improved access to preventive and treatment services.

PART 1: TRENDS IN ACCESS TO DENTAL SERVICES (PREVENTION, TREATMENT, DIAGNOSIS) BY STATE AND AGE

The Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) program was created in 1967 as a means to combat the effects of poverty on the health of children.[8] This preventive services benefit program is mandated for children receiving Medicaid, but there is variability by states in the application of the EPSDT guidelines.[9] Although the EPSDT services are mandated, access through provider participation in Medicaid is not guaranteed.[10]

With a significant number of new children becoming eligible, the authors think there is a need to clearly define 2 concepts. The first is access to the health care delivery system; that is, of those children who are eligible, how many can connect with and access dental services. The second concept is the type of care children received once they have access to the health care system; that is, of the children who have access to the health care delivery system, how many receive prevention, treatment, and diagnostic services. The first concept addresses the capacity of the system to accommodate the eligible beneficiaries, whereas the second concept addresses the type of care children receive once they have successfully connected with the delivery system.

Some research suggests that Medicaid reimbursement rates may affect patient access to the dental care delivery system by increasing dentist participation in the Medicaid program.[10–14] Previous research has also shown that the relationship between Medicaid reimbursement rates and access to dental care is moderated by both dentist geographic density and by the proportion of dentists participating in the Medicaid program.[10] Access to dental services may be reduced in those states that have low dentist geographic density and low rates of provider participation in the Medicaid program, but it has not previously been shown how these factors may affect access to treatment and diagnostic services. Furthermore, the effect of differential access rates by age groups remains unexplored.

The access to prevention, diagnostic, and treatment services are described here as a rate of all who are eligible, and this article further focuses on the ratio of children who