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Research Brief

Emergency Department Visits for Dental Conditions Fell in 2013

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Key Messages

- *The number of emergency department (ED) visits for dental conditions in the United States fell from 2012 to 2013, the first decline since the early 2000s.*
- *There were per-capita declines among all age groups except adults ages 50 to 64. The largest per-capita decline was among young adults ages 19 to 25.*
- *Looking forward, there are substantial opportunities to reduce ED visits for dental conditions through targeted referral programs and enhanced coverage for preventive dental services among vulnerable populations.*

Introduction

Recent studies have documented an increase in emergency department (ED) visits due to dental conditions.[1,2,3] In an earlier research brief,[4] we reported that ED dental visits continued to increase in 2012, costing the U.S. health care system $1.6 billion per year at an average cost of $749 per visit. We also reported that in 2012, ED use for dental conditions declined among young adults ages 19 to 25, remained relatively flat among children ages 0 to 18, and increased for other age groups.

Most dental ED visits are for non-traumatic dental conditions, and in most cases, patients receive prescriptions for pain or antibiotics for infections.[3,5,6] Patients who visit an ED with a non-traumatic dental condition would be better served in a dental office setting due to the availability of definitive care and the likelihood of continuity of care.[1] We estimate that up to 79 percent of dental ED visits could be diverted to community settings.[7] An analysis in Maryland, for example, estimates that the state Medicaid program could save up to $4 million each year through such diversion programs.[8]

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February 2016 (Updated December 2016)

In this brief, we use newly released data to update our findings regarding trends in dental ED visits through 2013. We breakdown dental ED visits by patient age group and primary payer. Finally, we discuss the policy implications of our findings.

Results

Figure 1 shows recent trends in the number of dental ED visits per 1,000 population as a percentage of total ED visits and as a percentage of total dental visits. The number of dental ED visits fell from 2.18 million in 2012 to 2.13 million in 2013. The number of dental visits per 1,000 population decreased from 6.94 in 2012 to 6.72 in 2013. Dental ED visits as a share of total ED visits and as a share of all dental visits decreased, indicating that emergency departments are less likely to be relied on as a source of dental care.

The number of dental ED visits per 1,000 population by patient age are shown in Figure 2. From 2012 to 2013, the per-capita number of dental ED visits fell in every age group except adults ages 50 to 64. The largest decrease was among young adults ages 19 to 25, from 15.5 in 2012 to 14.4 in 2013 – a substantial decline over a single year.

Figure 3 shows the percentage of dental ED visits among children ages 0 to 18 by primary payer. The percentage of dental ED visits covered by Medicaid continued to increase from 64.8 percent in 2012 to 67.3 percent in 2013. The percentage of dental ED visits paid for private insurance decreased from 19.3 percent in 2012 to 18.1 percent in 2013.

Figure 4 shows the percentage of dental ED visits among adults ages 19 to 64 by primary payer. Following increases from 2007 to 2011, the percentage of dental ED visits covered by Medicaid has remained relatively flat and was 32.3 percent in 2013. Following steady decreases from 2007 to 2012, the percentage of dental ED visits covered by private insurance was mostly unchanged at 15.7 percent in 2013. Since 2007, the percentage of dental ED visits paid for out of pocket has remained stagnant and accounted for 40.4 percent in 2013.

A comparable breakdown of dental ED visits among seniors ages 65 and older by primary payer shows that in 2013, 84.2 percent of dental ED visits were covered by Medicare and 9.3 percent were covered by private insurance. These percentages were relatively flat from 2006 to 2013 (not shown).

Discussion

The decline in dental ED visits from 2012 to 2013 represents the first decline since the early 2000s.

In previous research, we attributed the decline in ED use for dental conditions among young adults to a provision in the Affordable Care Act that has allowed young adults to remain on their parents' private health insurance until age 26.[9] Although this policy does not apply directly to dental benefits, a "spillover" effect led to an increase in private dental coverage, an increase in dental care utilization, and a decrease in cost barriers to dental care among young adults ages 19 to 25.[10] More and more young adults are covered by private dental benefits.[11] Our analysis in this research brief shows continued declines in ED use for dental conditions among young adults. In fact, from 2012 to 2013, the largest decrease in dental ED visits was found among young adults ages 19 to 25.

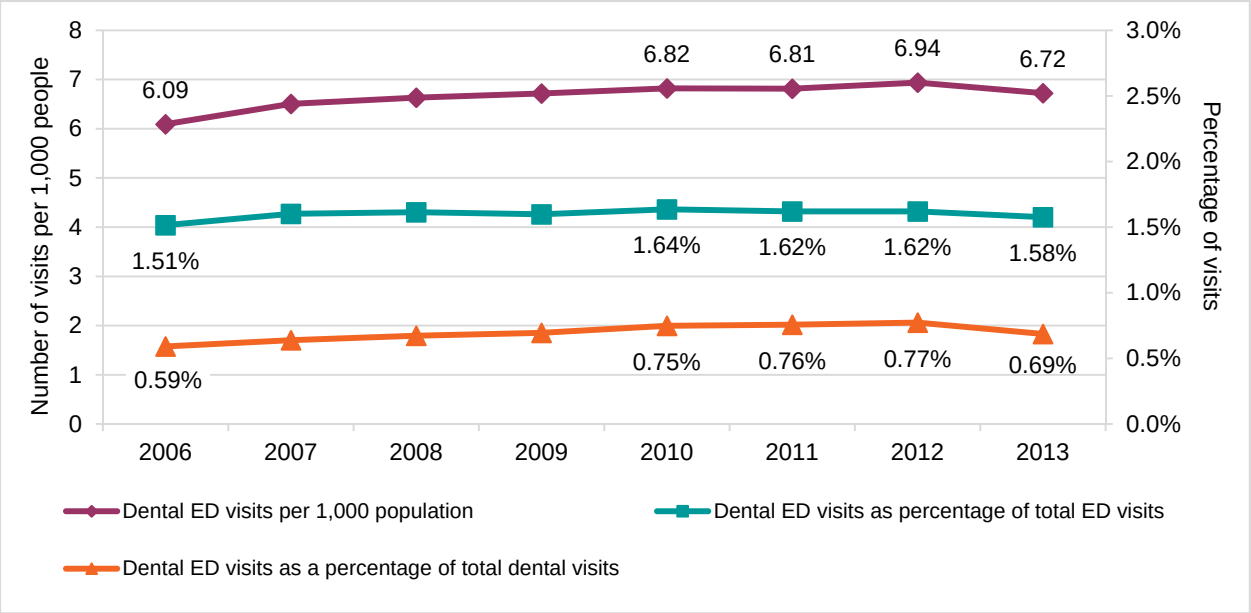
Looking forward, hospitals can help further reduce the number of dental ED visits by developing programs targeting patients who visit an ED with a dental complaint.[6,12,13] For example, a program at a Virginia hospital was developed to divert ED patients with a dental complaint to a special urgent dental care clinic located within the hospital's oral and maxillofacial

surgery clinic. Dental ED visits decreased by more than 52 percent during the first year of the program.[6] In addition, expanded dental benefits coverage for Medicaid adults, in conjunction with Medicaid reforms that put in place key enabling conditions to promote provider participation, also have the potential to significantly reduce dental ED visits.[14]

Recently, the Association of State and Territorial Dental Directors (ASTDD) issued the *Best Practices Approach Report: Emergency Department Referral Programs for Non-traumatic Dental Conditions*.[15] Included in the report are several recommended approaches to reduce ED use for non-traumatic dental conditions, including the following: (1) increase community health centers' capacity, efficiency and productivity to allow more people to access dental services, (2) improve coverage and access to comprehensive primary dental care for Medicaid eligible adults and (3) create access to comprehensive primary care for seniors enrolled in Medicare.

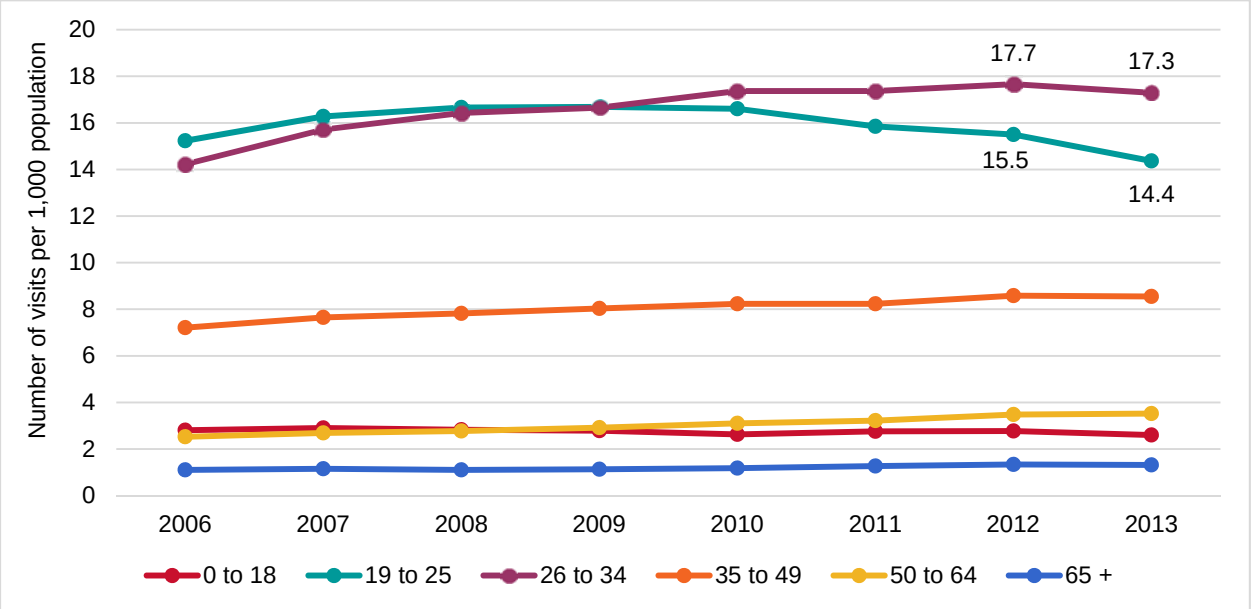
The experience of young adults ages 19 to 25 years old that we documented in this research brief illustrates the power of dental coverage expansion. Policymakers ought to explore various initiatives to increase access to routine dental care among vulnerable populations.

Figure 1: Trends in Emergency Department Visits for Dental Conditions, 2006 to 2013



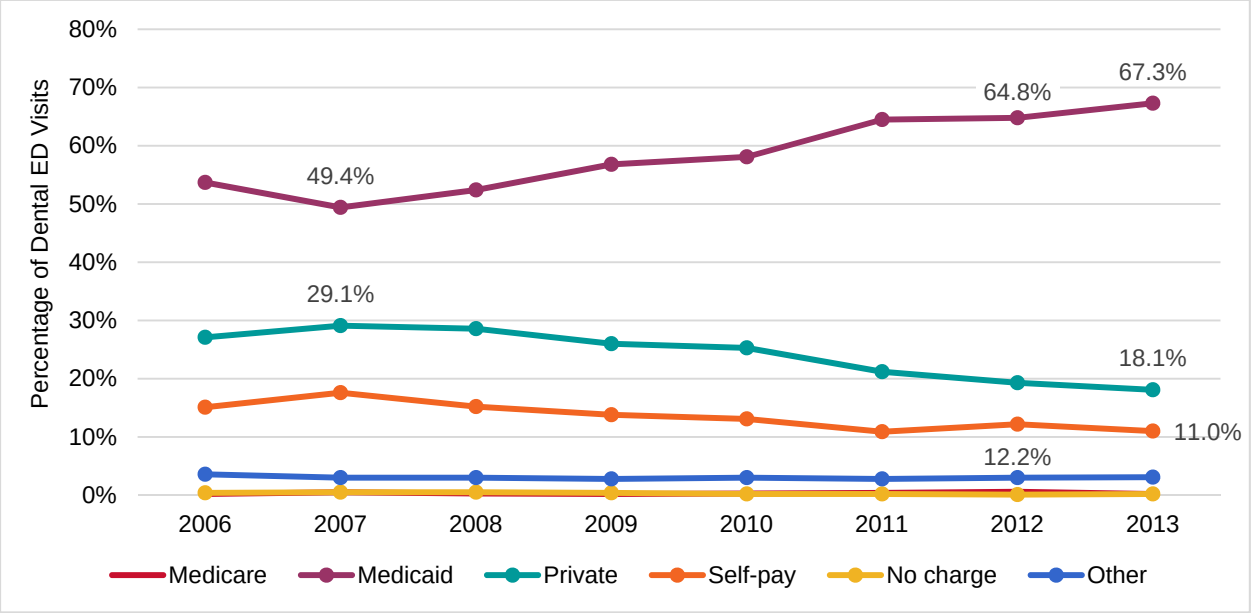
Source: ADA Health Policy Institute Analysis of: 2006-2013 Nationwide Emergency Department Sample data, 2006-2013 Medical Expenditure Panel Survey data, and 2006-2013 U.S. Census data.

Figure 2: Trends in Emergency Department Visits per 1,000 Population, by Patient Age, 2006 to 2013



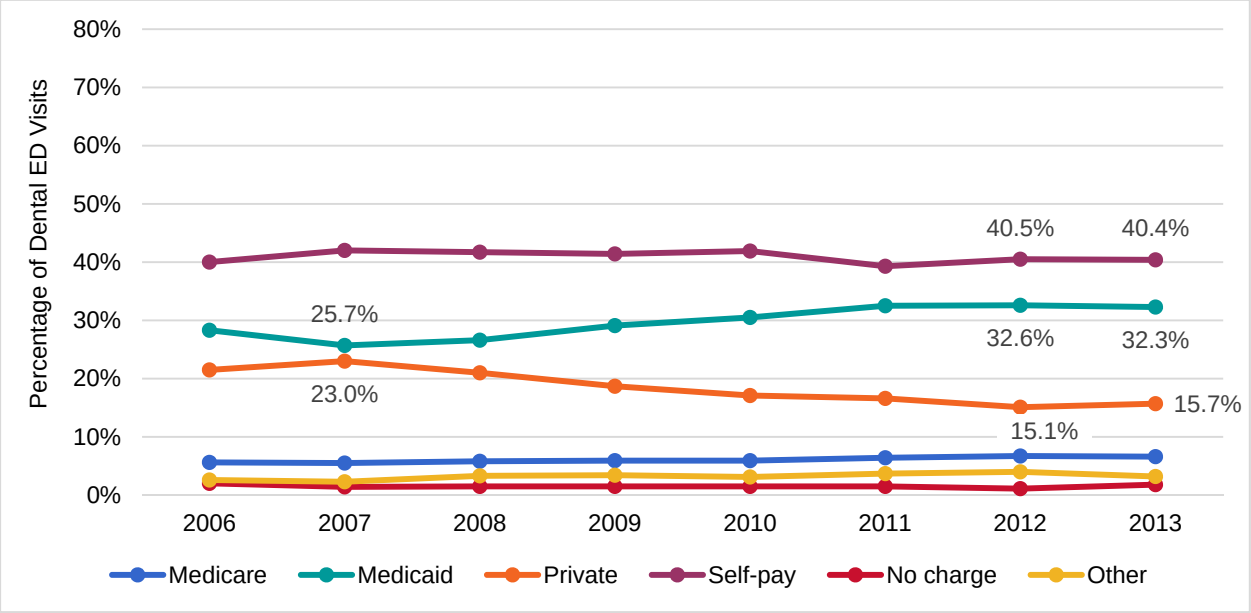
Source: ADA Health Policy Institute Analysis of: 2006-2013 Nationwide Emergency Department Sample data and 2006-2013 U.S. Census data.

Figure 3: Trends in Emergency Department Visits for Children Ages 0 to 18 Years Old, by Primary Payer, 2006 to 2013



Source: ADA Health Policy Institute Analysis of 2006-2013 Nationwide Emergency Department Sample data.

Figure 4: Trends in Emergency Department Visits for Adults Ages 19 to 64 Years Old, by Primary Payer, 2006 to 2013



Source: ADA Health Policy Institute Analysis of 2006-2013 Nationwide Emergency Department Sample data.

Data & Methods

For information regarding the number of ED visits and charges, we used the latest annual data from the Nationwide Emergency Department Sample (NEDS),[16] which was released in January 2016. The NEDS is the largest all-payer ED database publically available in the U.S., containing information about 31 million ED visits at 950 community, non-rehabilitation hospitals. This sample represents 20 percent of all hospital-based EDs. The NEDS includes information on geography, hospitals, patients and the type of ED visits. The NEDS includes ED visits that may or may not have resulted in hospital admission.

We defined a dental ED visit based on ICD-9 primary diagnostic codes using two ICD-9 classification schemes. The first was Clinical Classification Software Category 136 – disorders of the teeth and jaw.[17] The second was Ambulatory Care Sensitive dental conditions as defined by Dr. John Billings.[18] Combining these two definitions, the following ICD-9 codes were counted as a dental ED visit in our analysis: 520.0 to 526.9, 528.0 to 528.9, 78492, V523, V534, V585 and V722.

We computed three measures of dental ED visits: (1) the number of dental ED visits per 1,000 population, (2) dental ED visits as a percentage of total ED visits and (3) dental ED visits as a percentage of total dental visits. Per-capita estimates of dental ED visits are defined as the number of dental ED visits per 1,000 population. Estimates of the non-institutionalized population in the U.S. were based on census and inter-census estimates of the U.S. residential population from the U.S. Census Bureau.[19] Total dental visits were calculated as the sum of total dental office visits plus total dental ED visits. Estimates of total dental office visits were based on the Medical Expenditure Panel Survey.[20]

We examined ED visits and charges for the following age groups: 0 to 18, 19 to 25, 26 to 34, 35 to 49, 50 to 64, and 65 and older. We compared dental care ED utilization among individuals 19 to 25 to other patients in different age brackets.

The expected primary payer variable in the NEDS includes the following categories: (1) private health insurance – includes Blue Cross, commercial carriers, private health maintenance organizations (HMOs) and preferred provider organizations (PPOs), (2) Medicare – includes patients covered by fee-for-service and managed care Medicare, (3) Medicaid – includes patients covered by fee-for-service and managed care Medicaid, (4) self-pay – charges to be paid by the patient or patient's family, which will not be reimbursed by a third party, (5) no charges/charity – visits for which no fee is charged and (6) other – includes Worker's Compensation, TRICARE/CHAMPUS, CHAMPVA, Title V, and other government programs. Since ED visits billed to the Children's Health Insurance Program (CHIP) may be classified as Medicaid, private insurance or other, it was not possible to present this information separately.[21]

This Research Brief was published by the American Dental Association's Health Policy Institute.

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Suggested Citation

Wall T, Vujicic M. Emergency department visits for dental conditions fell in 2013. Health Policy Institute Research Brief. American Dental Association. February 2016. Available from: http://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_0216_1.ashx.