Dental Care Utilization Declined for Adults, Increased for Children During the Past Decade in the United States

Authors: Marko Vujicic, Ph.D.; Kamyar Nasseh, Ph.D.; Tom Wall, MA, MBA

Key Messages

- For children, the increase in utilization was driven entirely by gains among lower income groups. In contrast, utilization declined for all adult income groups, but most severely for poor adults.
- Financial barriers to care are growing for adults and are one important factor in explaining the decline in dental care utilization.

Introduction

Dentistry is at a crossroads. Changes in how dental practices are organized\(^1\), reductions in adult dental benefits at the state level\(^2\), increased financial barriers to care among adults\(^3,4\), increased dental student debt level\(^5\), and improvements in oral health status for most segments of the population\(^6\) are some of the major forces bringing significant change to the profession. At the same time, the U.S. health care delivery system is on the verge of unprecedented reform, aimed at reducing costs and improving quality through better coordination of care delivery and significant change in how health care services are paid for.

In this research brief, we examine dental care utilization patterns from 2000 to 2010 using the most reliable data source available. We compare our findings to previous research and discuss policy implications.
Data & Methods

We analyzed data from the Medical Expenditure Panel Survey (MEPS) that is managed by the Agency for Healthcare Research and Quality (AHRQ). We focused on the period 2000 to 2010, the most recent year for which data are available (data for 2010 were released in October, 2012). The MEPS is recognized as the most reliable data source for dental care utilization at the national level. We compared our findings to previous research on dental care utilization patterns during the 2000s that was based on the National Health Interview Survey (NHIS).

We measured dental care utilization as the proportion of the population who visited the dentist within the past 12 months. This is the most basic indicator of dental care utilization. It does not capture any information on measures such as the type of care received, the total amount of care received, or whether a treatment plan was completed. Nevertheless it is an informative measure of whether the population is seeing the dentist.

Results

Figure 1 summarizes the percent of the population who visited the dentist in the past 12 months, separately for adults aged 19 to 64 and children aged 2 to 18. Figure 1 clearly shows that the pattern of dental care utilization during the 2000s is very different for adults and children. It also shows clearly that dental care utilization among adults started to decline in 2003, well before the start of the recent economic downturn. Among adults, the percent with a dental visit in the last 12 months decreased from 41% in 2003 to 37% in 2010. For children, the percent with a dental visit in the last 12 months increased from 42% in 2000 to 46% in 2003 and roughly held steady from 2003 through 2010.

Figure 2 shows dental care utilization rates for three years – 2000, 2003, 2010 – for select age groups. Of key interest among the adult age groups is the change from 2003 to 2010. It is clear for these data that the decline in utilization among adults is occurring among all adults under age 65. Moreover, younger adults appear to be experiencing the largest declines in dental care utilization. The largest decline among adults from 2003 to 2010 occurred in the 19 to 34 age group where dental utilization declined from 34% to 30% and in the 35 to 49 age group where dental utilization declined from 43% to 38%. Those 65 and older saw little change in their dental utilization patterns during the 2000s.

Figure 3 and 4 show dental care utilization rates for children and adults, respectively, according to household income level. In households with incomes below 100% FPL, dental care utilization among children increased from 26% in 2000 to 36% in 2010. For children in households with incomes between 100 to 200% FPL, dental care utilization increased from 31% in 2000 to 42% in 2010. Clearly, the gains in dental care utilization during the 2000s were focused entirely among poor (FPL<100%) and near-poor children (100-200% FPL). The difference in dental care utilization between children in low-income and high-income households decreased by seven percentage points during the 2000s.

Adult dental care utilization declined among all income groups during the 2000s but was most pronounced among the poor. Utilization declined for middle income adults (FPL 200-400%) from 38% in 2003 to 34% in 2010 and for higher income adults (FPL >400%) from 54% in 2003 to 51% in 2010. For the other two income groups the decline began earlier. The difference in dental care utilization between adults in low-income and high-income households increased by six percentage points during the 2000s.
Figure 1: Percent of Population with a Dental Visit in the Past 12 Months, 2000-10

Source: Medical Expenditure Panel Survey, AHRQ. Note: Adults includes ages 19-64. Children includes ages 2-18. Changes are statistically significant at the 10% level for children (2001-2010) and adults (2003-2010).

Figure 2: Percent of the Population with a Dental Visit in the Past 12 Months for Select Age Groups, 2000-10

Source: Medical Expenditure Panel Survey, AHRQ. Note: Decreases from 2003 to 2010 are statistically significant at the 10% level for age groups 19 to 34, 35 to 49 and 50 to 64.
**Figure 3:** Percent of Children with a Dental Visit in the Past 12 Months for Select Income Groups, 2000-10

![Graph showing percent of children with dental visits by income group from 2000 to 2010.](image)

*Source:* Medical Expenditure Panel Survey, AHRQ. *Note:* Income group denotes household income level relative to the federal poverty line (FPL). Increases from 2003 to 2010 are statistically significant at the 10% level for FPL<100% and FPL 100-200% income groups.

**Figure 4:** Percent of Adults with a Dental Visit in the Past 12 Months for Select Income Groups, 2000-10

![Graph showing percent of adults with dental visits by income group from 2000 to 2010.](image)

*Source:* Medical Expenditure Panel Survey, AHRQ. *Note:* Income group denotes household income level relative to the federal poverty line (FPL). Decreases from 2003 to 2010 are statistically significant at the 10% level for FPL 200-400% and FPL 400% + income groups. Decreases from 2001 to 2010 are statistically significant at 10% level for FPL<100% and FPL 200-400% income groups.
Discussion

Taken together, our results show that the pattern of dental care utilization from 2000 to 2010 was very different for adults and children as well as for different income groups. The 2000s were a decade of significant progress in dental care utilization for low-income children. Among adults, dental care utilization decreased among all income groups, but particularly among the poor. The decline in adult dental care utilization is clearly not just a poor-adult story. Our results are consistent with previous analyses using different, less reliable (in our view) datasets\textsuperscript{9,10}.

In separate research briefs, we show that the national trends actually occurred in most states. In fact, dental care utilization among low-income children increased during the 2000s in all but three states, while for low-income adults it decreased in the majority of states\textsuperscript{11}. Income disparities in dental care utilization among adults have grown in most states. That is, after controlling for various factors, the difference in dental care utilization between poor and non-poor adults widened in many states between 2002 and 2010 and not a single state managed to narrow the gap.

There are a host of factors that could have driven the national trends in dental care utilization between 2000 and 2010. For low-income children, many argue that increased advocacy efforts, enhanced financial resources, enactment of the Children’s Health Insurance Program (CHIP), expansion of the dental safety net, and increased participation in Medicaid programs among dentists were key drivers\textsuperscript{12}. The expansion of new, lower cost dental care delivery models has also been put forth as an explanation\textsuperscript{13}. Many state-level analyses also point to the impact of improved dentists reimbursement and streamlined administrative processes within Medicaid and Children’s Health Insurance Program initiatives as an important factor\textsuperscript{14}.

For low-income adults one important driver that likely accounted for some of the decline in dental care utilization is federal and state policy toward dental benefits within Medicaid. The past decade has seen significant reductions and eliminations of adult dental benefits in Medicaid programs in many states\textsuperscript{15}. The evidence shows compellingly the positive effect benefit expansions have on access to dental care\textsuperscript{16} and the adverse impact that benefit reductions have on low-income adults. For example, eliminating adult dental benefits in Oregon caused a three-fold increase in the level of unmet dental care needs and substantially higher likelihood of emergency room visits for oral health issues\textsuperscript{18}. Cost is a critical barrier to care for many adults, and the share of adults who have difficulty paying for care has been growing steadily since the early-2000s\textsuperscript{19}. Oral health status among most segments of the population is also improving, which could have had an effect on the need (and demand) for dental care\textsuperscript{20,21}. In a forthcoming paper\textsuperscript{22}, we use an innovative econometric model to show that the main factor explaining the decline in adult utilization during the 2000s was a shift in the pattern of dental benefits. The share of adults with private dental benefits decreased while the share with no dental benefits increased during the 2000s.

We believe that the decline in dental care utilization among adults warrants significant attention. The evidence suggests that increased financial barriers to dental care are growing among adults. The Affordable Care Act does not mandate adult dental benefits. The share of adults with private dental insurance is declining\textsuperscript{23} and states are projected to face continued fiscal challenges within Medicaid program\textsuperscript{24}. Taken together, these factors will make expanding access to dental care for adults, particularly low-income adults, a policy challenge in the coming years.
References


Health Policy Institute
Research Brief


**Suggested Citation**