Dental Care Utilization Rate Continues to Increase among Children, Holds Steady among Working-Age Adults and the Elderly

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Key Messages

- In 2013, and for the first time since 2007, dental care utilization did not decline among working-age adults.
- Dental care utilization continued to increase among children in 2013 and is at its highest level since the Medical Expenditure Panel Survey began tracking dental care utilization in 1996.
- The Affordable Care Act has the potential to alter dental care utilization patterns. The establishment of health insurance marketplaces as well as Medicaid expansion could increase dental benefits coverage and demand for dental care.

Introduction

Since 2000, there have been significant changes in dental care utilization patterns among the U.S. population. As of 2012, dental care utilization was at its highest level among children and at its lowest level among working age adults. The decline in dental care utilization among working age adults, which began in 2003 and persisted through 2012, has been driven in part by a decline in the percentage of individuals having private dental benefits. Conversely, dental care utilization among children, particularly those in lower-income groups, has increased over the past decade. The gap in dental care use between low-income and high-income children has narrowed dramatically while for adults it has widened.

The American Dental Association’s Health Policy Institute (HPI) has been tracking trends in dental care utilization for several years as well as studying the key drivers of recent trends.

In this research brief, we update previous research on dental care utilization patterns using newly released data for 2013.
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 2013, the most recent year for which data are available (data for 2013 were released in September 2015). The MEPS is recognized as the most reliable data source for dental care utilization at the national level.8

We measured dental care utilization as the proportion of the population who visited a general practice (GP) dentist in the year. 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.

We examined trends in dental care utilization for children ages 2-18, working-age adults ages 19-64 and elderly adults ages 65 and older. For each age cohort, we analyzed trends in dental care utilization by household income and dental benefits status. We classified dental benefits into three categories: public, private and uninsured. Public dental benefits include those provided through Medicaid or State Children’s Health Insurance Programs (SCHIP). Because pediatric dental services are a mandated benefit, children enrolled in these programs were defined as having dental benefits. Medicaid coverage of dental benefits for adults is optional and varies considerably by state.9 MEPS does not allow us to identify the state of residence, however. Thus, we simply identify adults covered by Medicaid as publicly insured even though the majority will have either no dental benefits at all or very limited benefits. Because Medicare does not provide dental benefits,10 persons who only had Medicare coverage were considered uninsured for dental care. We test for statistical significance across time using a chi-squared test. Our point estimates and statistical inferences take into account the complex survey design of the MEPS.

Results

Figure 1 shows trends in dental care utilization for children ages 2-18, working-age adults ages 19-64 and the elderly 65 and older from 2000 to 2013. The uptick in dental care utilization among children that occurred from 2011 to 2012 continued into 2013. From 2011 to 2013, children’s dental care utilization increased from 45.4 percent to 48.3 percent, a change that was statistically significant at the 5 percent level. As of 2013, children’s dental care utilization is at its highest level since the MEPS began tracking this in 1996.11 The overall increase in dental care utilization among children from 2000 through 2013 was statistically significant at the 1 percent level.

Dental care utilization among working age adults changed very little from 2012 (35.4 percent) to 2013 (35.5 percent). However, this is a break in the recent downward trend. For the first time since 2007, dental care utilization did not decline from the previous year. The overall decline from 2003 through 2013 was statistically significant at the 1 percent level.

From 2012 to 2013, dental care utilization remained steady among the elderly. In 2013, 42.2 percent of elderly Americans saw a general practitioner dentist in the past year, up very little from 2012 (42.0 percent). Among the elderly, the overall increase in dental care utilization from 2000 (38.3 percent) to 2013 was statistically significant at the 5 percent level.
Figure 2 shows dental care utilization rates for narrower age groups. Dental care utilization changed very little for adults ages 19-34 from 2012 (28.5 percent) to 2013 (28.9 percent). For adults ages 35-49, dental care utilization declined slightly from 2012 (36.1 percent) to 2013 (35.2 percent), a statistically insignificant change. Dental care utilization among adults ages 50-64 was also steady from 2012 (42.2 percent) to 2013 (42.9 percent). Looking at a longer timeframe, the overall changes in dental care utilization from 2002 to 2013 for adults ages 19-34, 35-49 and 50-64 were statistically significant at the 1 percent level.

Figures 3 through 5 show dental care utilization rates for children, working-age adults and the elderly by household income. For poor children (FPL<100%), dental care utilization increased from 36.2 percent in 2012 to 39.0 percent in 2013. Among near-poor children (100-200% FPL), dental care utilization increased from 40.3 percent in 2012 to 44.0 percent in 2013. Dental care utilization did not change from 2012 to 2013 for children with household income between 200% and 400% of the FPL. The changes from 2012 to 2013 for these three income groups were not statistically significant. For high-income children (400% + FPL), dental care utilization fell from 61.5 percent in 2012 to 57.7 percent in 2013, a statistically insignificant change. Looking at a longer timeframe, the overall increase in dental care utilization from 2000 to 2013 among poor (FPL<100%) and near-poor (100-200% FPL) children was statistically significant at the 1 percent level (Figure 3).

For working-age adults, dental care utilization among the poor (FPL<100%) fell slightly from 2012 (19.9 percent) to 2013 (18.6 percent). Dental care utilization among adults with household income between 200% and 400% of the FPL also declined slightly from 2012 (33.4 percent) to 2013 (32.2 percent). Dental care utilization among near-poor (FPL 100-200%) and high-income (400% + FPL) adults increased slightly from 2012 to 2013. All changes from 2012 to 2013 were statistically insignificant. Looking at a longer timeframe, the decline in dental care utilization from 2002 through 2013 was statistically significant for all income groups (Figure 4).

Among the poor elderly (FPL<100%), dental care utilization decreased from 24.0 percent in 2012 to 19.4 percent in 2013. This is a continuation of the downward trend in dental care utilization among the elderly poor that began in 2010, when utilization was at 29.6 percent. For the near-poor elderly (FPL 100-200%), dental care utilization increased from 26.6 percent in 2012 to 29.9 percent in 2013. The change in dental care utilization among the poor elderly from 2010 to 2013 was statistically significant at the 1 percent level. Dental care utilization among the elderly with household income between 200% and 400% of the FPL also declined slightly from 2012 (41.7 percent) to 2013 (40.3 percent). For high-income elderly adults, dental care utilization increased slightly from 2012 (56.9 percent) to 2013 (57.5 percent). Changes for all income groups from 2012 to 2013 were not statistically significant (Figure 5).

Figures 6 through 8 show dental care utilization rates for children, working-age adults and the elderly, respectively, according to dental benefits status. Among children with private dental benefits, the percentage with a dental visit decreased from 59.3 percent in 2012 to 58.5 percent in 2013. For uninsured children, dental care utilization fell from 26.1 percent in 2012 to 24.9 percent in 2013. Both of these changes were statistically insignificant. Among children with public dental benefits, dental care utilization increased slightly from 39.5 percent in 2012 to 42.4 percent in 2013, a change that was statistically significant at the 10 percent level. Looking at a longer timeframe, the
overall change in dental care utilization from 2000 to 2013 for children with private dental benefits and public dental benefits was statistically significant at the 1 percent level (Figure 6).

From 2012 through 2013, dental care utilization increased from 48.5 percent to 49.3 percent among working-age adults with private dental benefits. Among uninsured working-age adults, dental care utilization declined from 18.3 percent in 2012 to 17.1 percent in 2013. Dental care utilization among working age adults with public health insurance held steady from 2012 to 2013 (Figure 7). These changes were all statistically insignificant.

Among the elderly with private dental benefits, dental care utilization increased from 66.9 percent in 2012 to 68.6 percent in 2013, a statistically insignificant change. Changes from 2012 to 2013 for elderly adults with public insurance or no dental benefits were not statistically significant (Figure 8).

**Figure 1:** Percentage of the Population with a Dental Visit in the Year, 2000-2013

*Source:* Health Policy Institute analysis of the Medical Expenditure Panel Survey, AHRQ. *Notes:* For children ages 2-18, changes were statistically significant at the 1% level (2000-2013) and at the 5% level (2011-2013). Among adults ages 19-64, changes were statistically significant at the 1% level (2003-2013). For adults 65 and older, changes were statistically significant at the 5% level (2000-2013). Changes from 2012 to 2013 among children, adults 19-64 and the elderly 65 and older were not statistically significant.
**Figure 2:** Percentage of the Population with a Dental Visit in the Year for Select Age Groups, 2000-2013

Source: Medical Expenditure Panel Survey, AHRQ. Notes: Changes for children were significant at the 1% level (2000-2012) and at the 5% level (2011-2013). Changes for adults ages 65 and older were significant at the 5% level (2000-2012). Changes for adults 19-34, 35-49 and 50-64 were significant at the 1% level (2002-2012). Changes for adults 19-34, 35-49 and 50-64 from 2011 to 2012 were not statistically significant.

**Figure 3:** Percentage of Children Ages 2-18 with a Dental Visit in the Year for Select Income Groups, 2000-2013

Source: Health Policy Institute analysis of the Medical Expenditure Panel Survey, AHRQ. Notes: Changes were significant at the 1% level for FPL<100% and FPL 100-200% (2000-2013). Changes from 2012 to 2013 were not statistically significant.
**Figure 4:** Percentage of Adults Ages 19-64 with a Dental Visit in the Year for Select Income Groups, 2000-2013

**Source:** Health Policy Institute analysis of the Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes were significant at the 5% level for FPL< 100% and at the 1% level for FPL 100-200%, FPL 200-400% and FPL 400% + (2002-2013). Changes from 2012 to 2013 were not statistically significant.

**Figure 5:** Percentage of Adults 65 and Older with a Dental Visit in the Year for Select Income Groups, 2000-2013

**Source:** Health Policy Institute analysis of the Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes were significant at the 1% level for FPL<100% (2010-2013). Changes from 2012 to 2013 were not statistically significant for any income group.
**Figure 6:** Percentage of Children Ages 2-18 with a Dental Visit in the Year by Dental Benefits Status, 2000-2013

Source: Health Policy Institute analysis of the Medical Expenditure Panel Survey, AHRQ. Notes: Changes were significant at the 1% level for private and public (2000-2013). Changes were significant at the 10% level for public (2012-2013). Changes from 2012 to 2013 for the uninsured and privately insured children were not statistically significant.

**Figure 7:** Percentage of Adults Ages 19-64 with a Dental Visit in the Year by Dental Benefits Status, 2000-2013

Source: Health Policy Institute analysis of the Medical Expenditure Panel Survey, AHRQ. Notes: Changes were significant at the 1% level for private (2004-2013). Changes were significant 5% level for public (2000-2013) and at the 1% level for the uninsured (2000-2013). All changes from 2012 to 2013 were not statistically significant.
**Figure 8:** Percentage of Adults Ages 65 and Older with a Dental Visit in the Year by Dental Benefits Status, 2000-2013

**Source:** Health Policy Institute analysis of the Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes were significant at the 1% level for private (2000-2013). Changes from 2012 to 2013 were not statistically significant for elderly adults with private dental insurance, public benefits or no dental benefits.

**Discussion**

For the first time since 2007, dental care utilization did not decline among working-age adults, a potentially important finding given it represents a break in recent trends. It remains to be seen if dental care utilization among this age group stabilizes, increases or declines again in the coming years. For children, dental care utilization continued to increase in 2013 and is at its highest level since the MEPS began measurement in 1996. The gains among poor children in particular have been large. Among the elderly, dental care utilization held steady from 2012 to 2013, although utilization is up significantly for this age group since 2000.

The 2013 data from the MEPS provide us with a valuable benchmark on dental care utilization for all age and income groups prior to the implementation of most provisions of the Affordable Care Act. We will analyze 2014 data to try to understand the impact of the ACA. For example, beginning in 2014, many states expanded Medicaid eligibility. A number of these states provide limited or extensive dental benefits for adults in Medicaid. In fact, previous analysis estimates that up to 8.3 million adults gained dental benefits through Medicaid expansion. Moreover, through April 2014, the take-up rate for stand-alone dental plans in the federally facilitated marketplaces was 15.8 percent for children and 18.8 percent for adults. Financial barriers to dental care are declining for working-age adults and the poor. It remains to be seen if these developments translate into increased dental care utilization among these groups.

To put dental care utilization trends into context, it is important to note that although overall dental care utilization is declining, the volume of dental visits in
Federally Qualified Health Centers (FQHCs) and hospital emergency departments is actually increasing dramatically. It will be interesting to see if any increased demand for dental care resulting from Medicaid expansion and the rollout of health insurance marketplaces leads to increased dental care utilization in FQHCs, hospital emergency departments or private dental offices. New research strongly suggests that there is capacity in dental offices to treat more patients, even after large Medicaid expansions.

At the same time, increased dental benefits coverage does not necessarily equate to increased access to dental care. Proper enabling conditions need to be in place, such as sufficient Medicaid provider reimbursement and streamlined administrative processes in Medicaid, to attract dental providers to participate in Medicaid programs. The HPI will continue to monitor the impact of the ACA and other market developments on dental care utilization patterns in the United States.
References


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