

Research Brief

Dental Care Utilization Rate Highest Ever among Children, Continues to Decline among Working-Age Adults

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Key Messages

- *From 2011 to 2012 dental care utilization increased among children and decreased among working-age adults.*
- *Changes in dental care utilization patterns from 2011 to 2012 represent the continuation of multi-year trends.*
- *Dental care utilization in 2012 was at its highest level among children and at its lowest level among working-age adults since the Medical Expenditure Panel Survey began tracking dental care use in 1996.*

Introduction

In the past decade, there have been significant changes in dental care use patterns among the U.S. population. Utilization among children has been increasing, due mainly to gains among lower income children. Among working-age adults, dental care use has been declining since 2003 for all income groups.^{1,2} As a result, the gap in dental care utilization between low-income and high-income children has narrowed³ while for adults it has widened.⁴

The American Dental Association Health Policy Institute (HPI) has been tracking trends in dental care use⁵ as well as key drivers of these trends,^{6,7} through an ongoing comprehensive research program. In this research brief, we update previous research on dental care utilization patterns, using newly released data for 2012.

The Health Policy Institute (HPI) is a thought leader and trusted source for policy knowledge on critical issues affecting the U.S. dental care system. HPI strives to generate, synthesize, and disseminate innovative research for policy makers, oral health advocates, and dental care providers.

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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 2012, the most recent year for which data are available (data for 2012 were released in September 2014). 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,⁹ children enrolled in these programs were defined as having comprehensive dental benefits. Medicaid coverage of dental benefits for adults is optional and varies considerably by state. 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,

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, working-age adults and the elderly. Among children, dental care utilization increased from 2000 through 2003 and remained steady through 2011. In 2012, children's dental care utilization increased to 47.6 percent, a noticeable uptick from 2011, and the highest level measured by the MEPS since the survey began in 1996.¹⁰ This uptick was statistically significant at the 10 percent level. The overall increase in dental care utilization among children from 2000 through 2012 was statistically significant at the 1 percent level.

Dental care utilization among working-age adults declined in 2012, continuing a multi-year trend. At 35.4 percent, dental care utilization among working-adults is at its lowest level since the MEPS began tracking dental care use in 1996.¹¹ The slight decline in dental care utilization among working-age adults from 2011 through 2012 was not statistically significant although the overall decline from 2003 through 2012 was statistically significant at the 1 percent level.

From 2011 to 2012, dental care utilization remained steady among the elderly. In 2012, 42 percent of elderly Americans saw a GP dentist in the past year.

Figure 2 shows dental care utilization rates for narrower age groups. The decline in utilization among working-age adults that occurred through 2011 continued to occur through 2012 among adults ages

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19-34 and 50-64. There was a slight uptick in dental care utilization from 2011 (35.7 percent) to 2012 (36.1 percent) among adults ages 35-49, although this change was not statistically significant. The largest decline in dental care utilization during our period of study occurred in the 50 through 64 age group. All of the changes in from 2002 through 2012 were statistically significant.

Figures 3 through 5 show dental care utilization rates for children, working-age adults and the elderly, respectively, according to household income level. For all income groups of children, dental care utilization increased from 2011 through 2012, although these changes were not statistically significant. Looking at the entire timeframe, among poor, defined as those living below the federal poverty level (FPL<100%), near poor (100-200% FPL), and high-income children (400% + FPL), dental care utilization increased by a statistically significant margin from 2000 to 2012 (Figure 3).

For working-age adults, dental care utilization held steady among the poor (FPL<100%) from 2011 (19.3 percent) through 2012 (19.9 percent). For other income brackets, however, dental care utilization declined slightly from 2011 to 2012 but the changes were not statistically significant. The decline in dental care utilization from 2002 through 2012 was statistically significant for the 100-200% FPL, 200-400% FPL and 400%+ FPL groups (Figure 4).

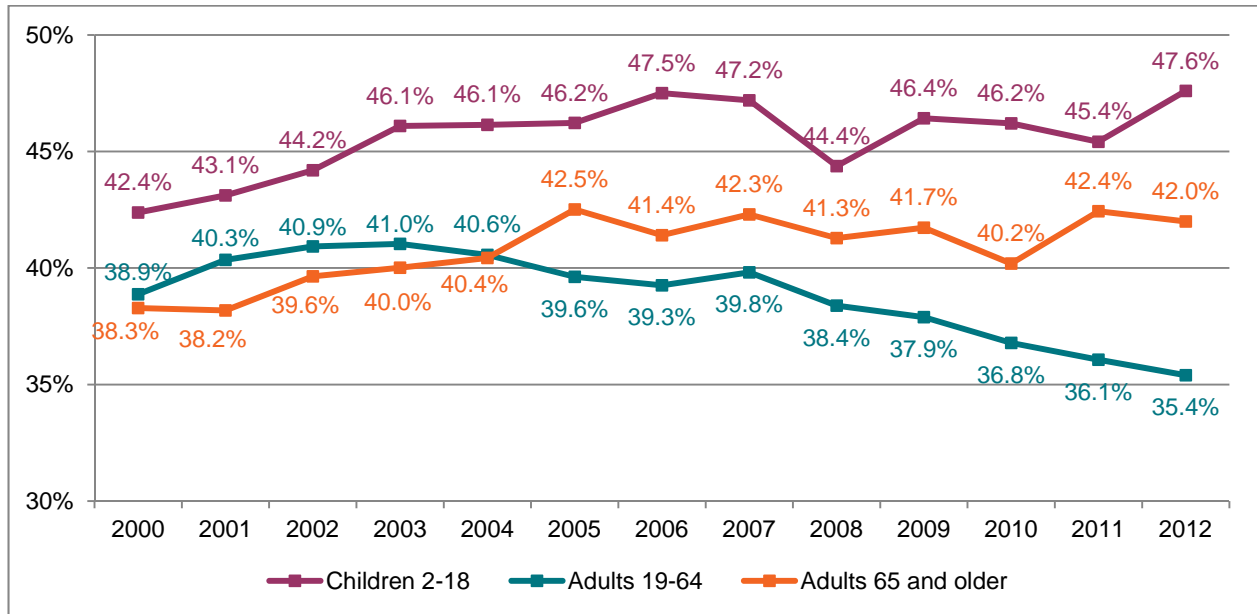
Among the elderly, dental care utilization fell for the 100-200% FPL group from 31 percent in 2011 to 26.6 percent in 2012, a statistically significant change (Figure 5). For the poor (FPL<100%), it fell 2.9 percentage points from 2011 through 2012, although this drop was not statistically significant.

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 increased from 56.8 percent in 2011 to 59.3 percent in 2012, a statistically insignificant change. In 2012 there was also a slight uptick in dental care utilization among children with public insurance and among children with no dental benefits, although these changes were also not statistically significant.

From 2011 through 2012, dental care utilization declined 1.3 percentage points among working-age adults with private dental benefits, although this change was not statistically significant (Figure 7). It held steady among working-age adults with public insurance or no dental insurance.

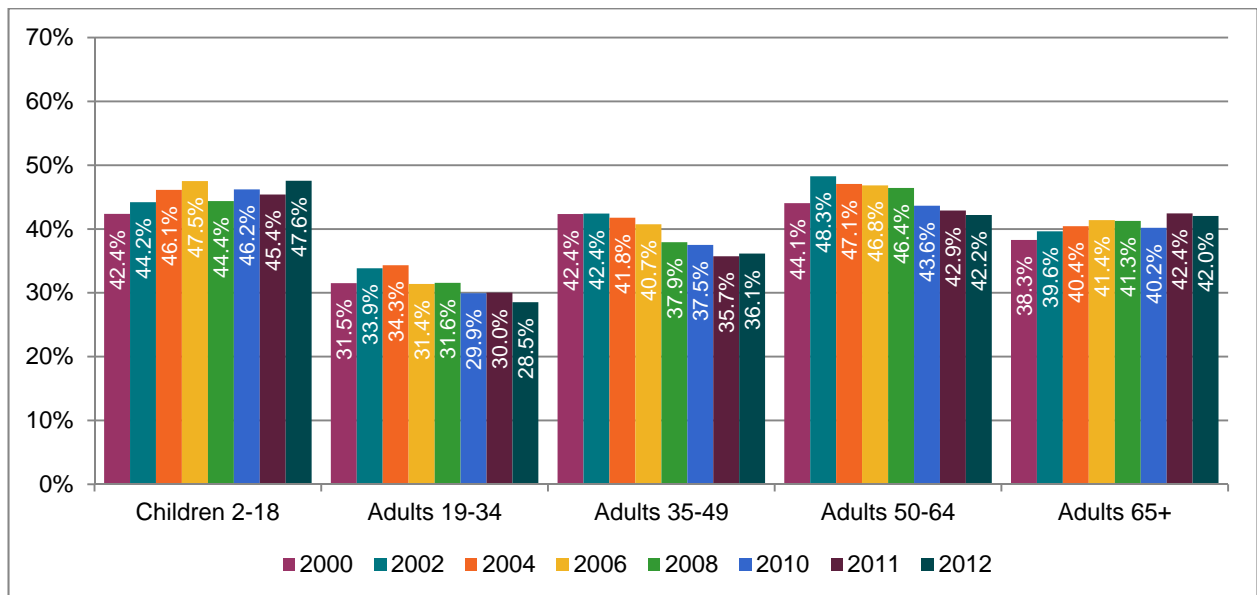
Among the elderly with private dental benefits, dental care utilization fell 2.2 percentage points from 2011 through 2012, a statistically insignificant change. However, dental care utilization fell 6.0 percentage points from 2011 through 2012 among the elderly with public insurance, a statistically significant change (Figure 8).

Figure 1: Percentage of the Population with a Dental Visit in the Year, 2000-2012



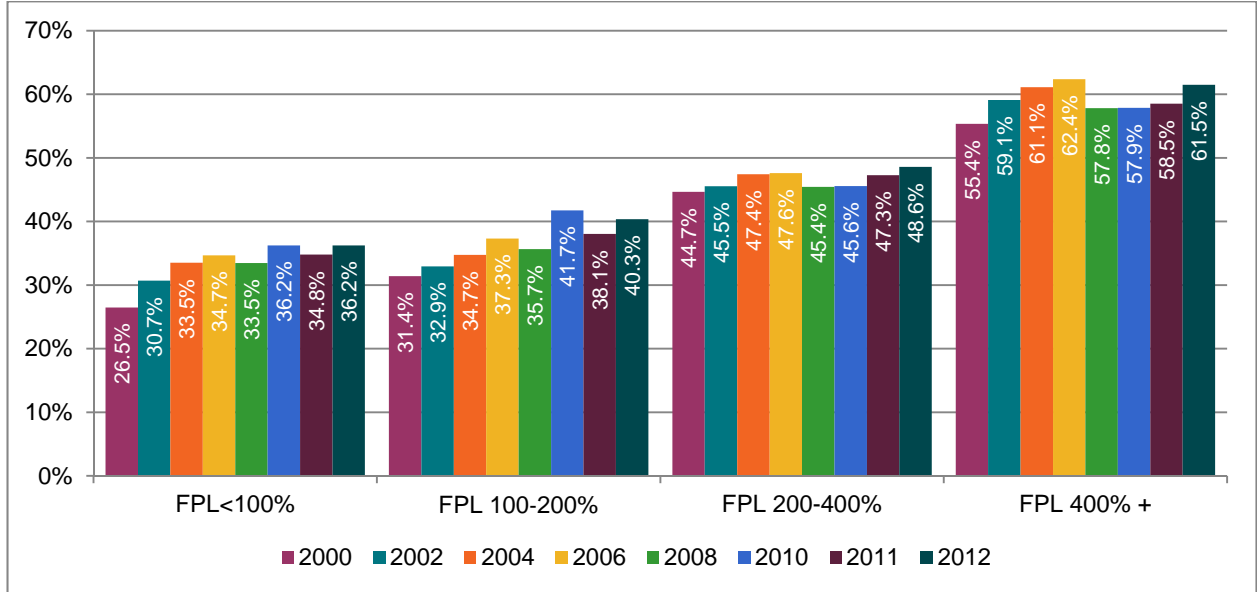
Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** For children ages 2-18, changes were statistically significant at the 1% level (2000-2012) and at the 10% level (2011-2012). Among adults ages 19-64, changes were statistically significant at the 1% level (2003-2011). For adults 65 and older, changes were significant at the 5% level (2000-2012). Changes from 2011 to 2012 among adults 19-64 and the elderly 65 and above were not statistically significant.

Figure 2: Percentage of the Population with a Dental Visit in the Year for Select Age Groups, 2000-2012



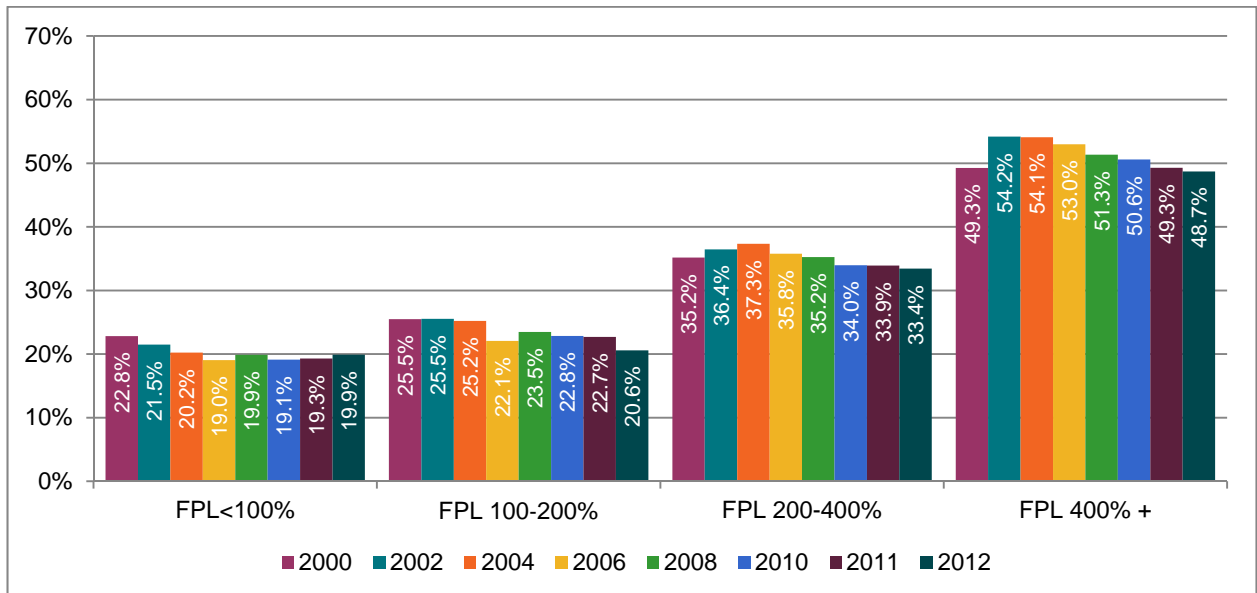
Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes for children were significant at the 1% level (2000-2012) and at the 10% level (2011-2012). Changes for adults ages 65 and older were significant at the 5% level (2000-2012). Changes for adults 19-34, 35-49 and 50-64 were significant 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, 2000-2012



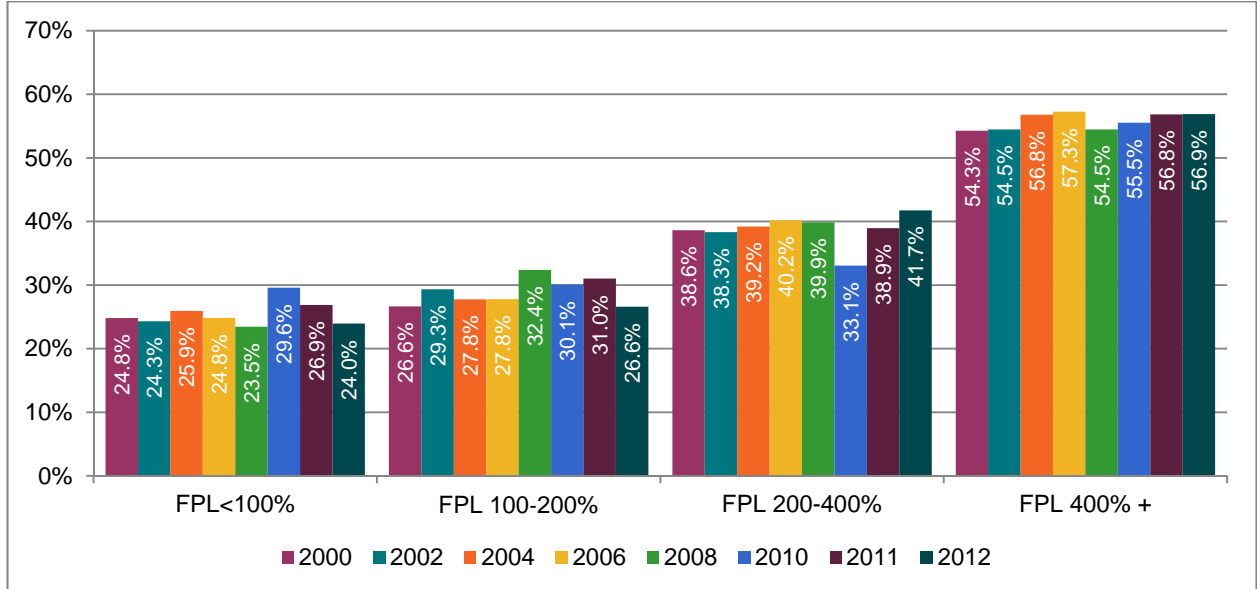
Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes were significant at the 1% level for FPL <100% and FPL 100-200% (2000-2012) and at the 5% level for FPL 400+ (2000-2012). Changes from 2011 to 2012 were not statistically significant.

Figure 4: Percentage of Adults Ages 19-64 with a Dental Visit in the Year for Select Income Groups, 2000-2012



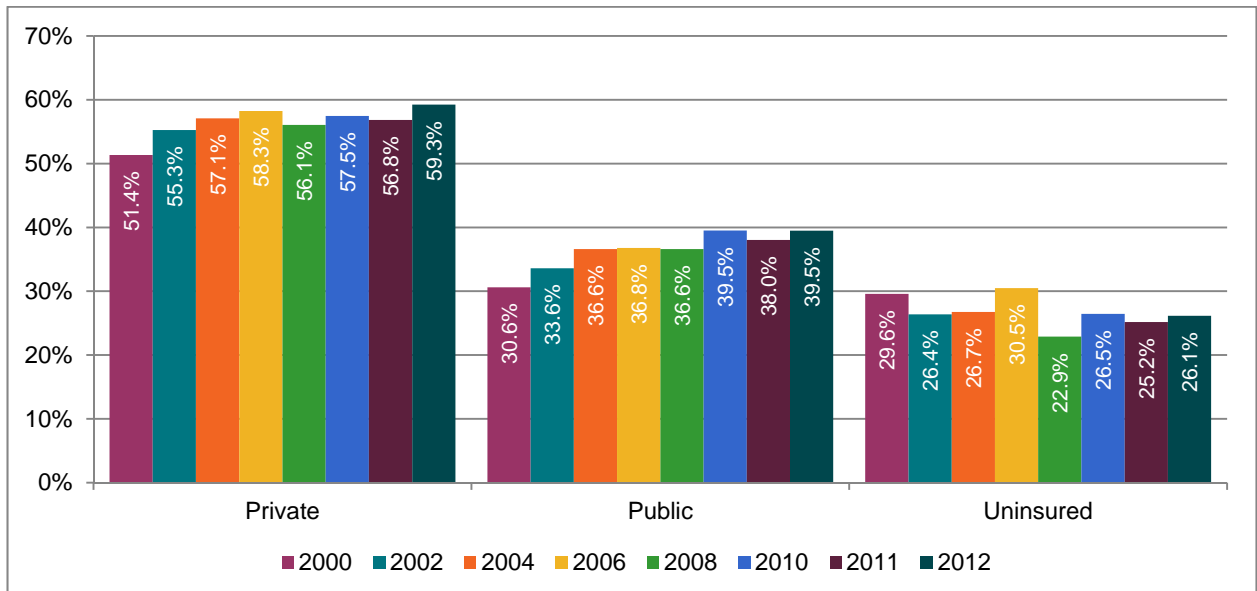
Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes were significant at the 5% level for FPL 200-400% and at the 1% level for FPL 100-200% and FPL 400% + (2002-2012). Changes from 2011 to 2012 were not statistically significant.

Figure 5: Percentage of Adults 65 and Older with a Dental Visit in the Year for Select Income Groups, 2000-2012



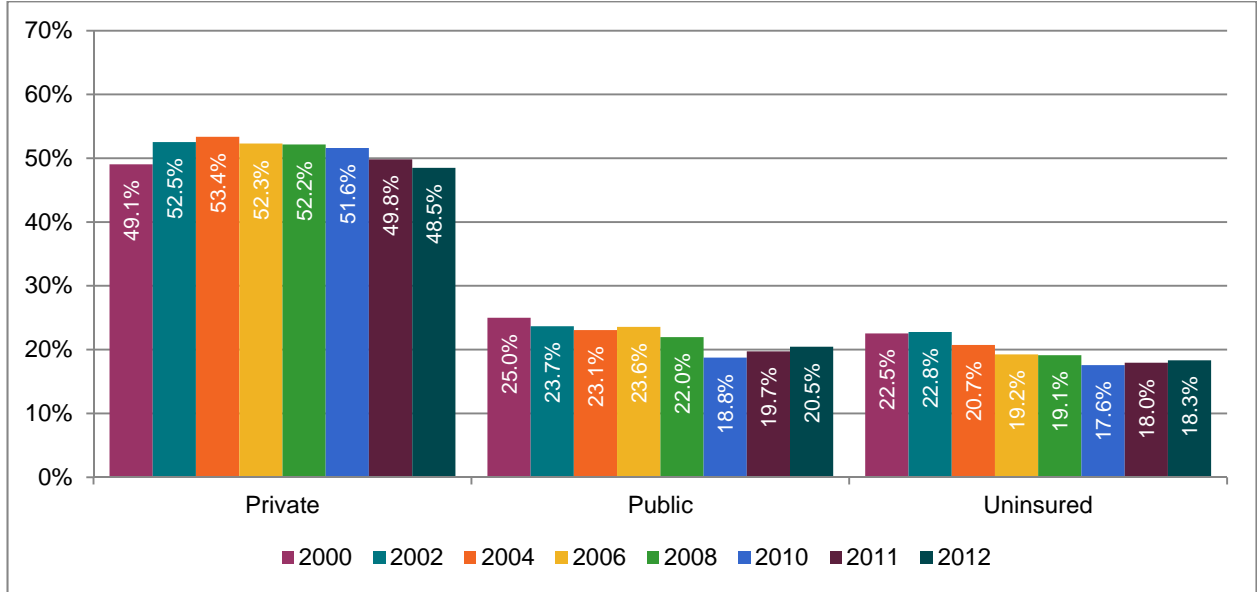
Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes were significant at the 5% level for FPL 100-200% (2011-2012). Changes for FPL <100%, FPL 200-400% and FPL 400%+ from 2011 to 2012 were not statistically significant.

Figure 6: Percentage of Children Ages 2-18 with a Dental Visit in the Year by Dental Benefits Status, 2000-2012



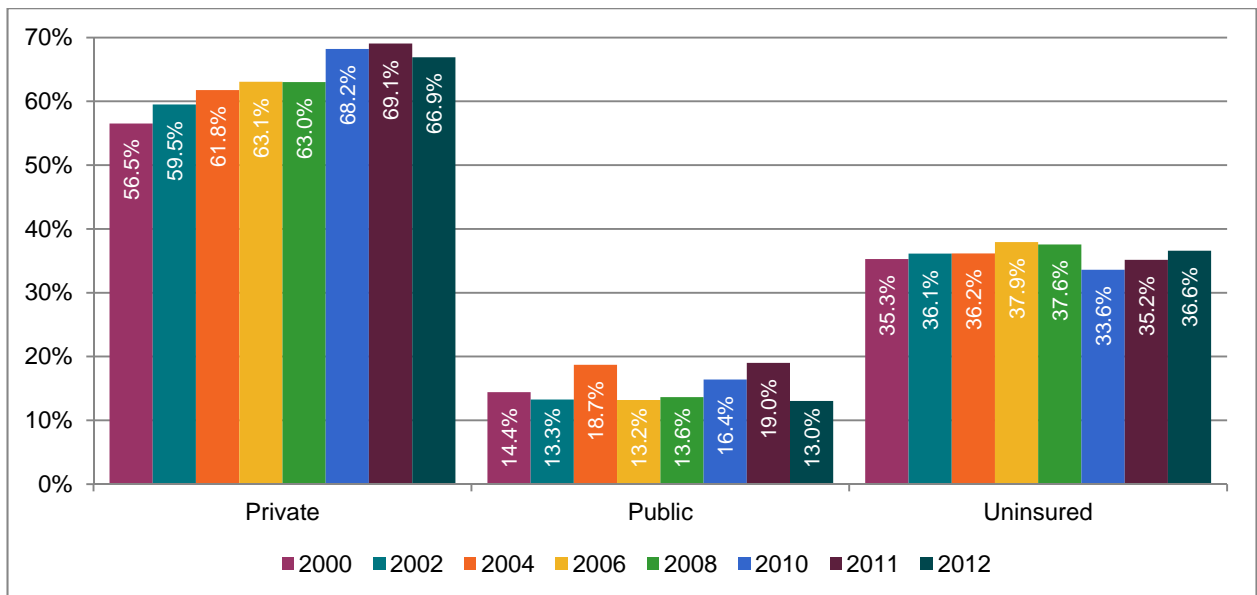
Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes were significant at the 1% level for private and public (2000-2012). Changes from 2011 to 2012 were not statistically significant.

Figure 7: Percentage of Adults Ages 19-64 with a Dental Visit in the Year by Dental Benefits Status, 2000-2012



Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes were significant at the 1% level for private (2004-2012) and the uninsured (2000-2012). Changes were significant 5% level for public (2000-2012). Changes from 2011 to 2012 were not statistically significant.

Figure 8: Percentage of Adults Ages 65 and Older with a Dental Visit in the Year by Dental Benefits Status, 2000-2012



Source: Medical Expenditure Panel Survey, AHRQ. **Notes:** Changes were significant at the 1% level for private (2000-2012). Changes were significant at the 5% level for public (2011-2012). Changes from 2011 to 2012 were not statistically significant for elderly adults with private dental insurance or no dental benefits.

Discussion

In this brief, we updated findings from prior analysis on dental care utilization in the United States¹² using newly released 2012 data. We find that dental care utilization continues to decline among working-adults and is at its lowest level since the MEPS began measurement in 1996. Previous research demonstrates that one key reason behind this decline is that fewer working-age adults have private dental benefits^{13 14} and many adults perceive financial barriers to dental care.¹⁵ But we find that dental care utilization continues to decline for high-income adults and among those with private dental insurance, suggesting more than just affordability is at play. In fact, new research has shown that the biggest reason why privately insured individuals do not intend to visit a dentist in the next twelve months is because they perceive their mouth to be healthy.¹⁶

Unlike adults, dental care use among children increased in 2012 and is at its highest level since the MEPS began tracking dental care use in 1996. The decade-long increase in dental care use among U.S. children is continuing and is being driven primarily by gains among poor and near-poor children.

Due to the Affordable Care Act (ACA), over 8 million adults could gain Medicaid dental benefits in 2014.¹⁷ Through 2018, up to 9 million children could gain dental benefits through Medicaid, their parents' employer health insurance policies or through the health insurance marketplaces.¹⁸ These coverage expansions are likely to lead to increased demand for dental care. However, low reimbursement rates and burdensome administrative processes in Medicaid^{19 20} could potentially dissuade dental providers from participating in Medicaid programs, which may reverse the gains made by low-income children over the last decade and further increase access barriers for low-income adults. The Health Policy Institute will continue to monitor the impact of the ACA and other market developments on dental care utilization patterns in the United States.

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

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Suggested Citation

Nasseh K, Vujcic M. Dental care utilization rate highest ever among children, continues to decline among working-age adults. Health Policy Institute Research Brief. American Dental Association. October 2014. Available from: http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1014_4.ashx.