

Research Brief

U.S. Dental Spending Up in 2015

Authors: Thomas Wall, M.B.A.; Marko Vujicic, Ph.D.

Key Messages

- *National dental care expenditures were \$117.5 billion in 2015.*
- *Taking into account both inflation and population growth, national dental expenditures rose between 2014 and 2015, reversing a multi-year trend.*
- *Research suggests that Medicaid expansion under the Affordable Care Act may have increased demand for dental care and public dental expenditures. This is an important area of future research.*

Introduction

Dental spending in the United States began to slow in 2002, well before the Great Recession, and has been flat since 2008. Previous analysis¹ shows that through 2014, there was no change in this trend. In this research brief, we use newly released data to update our findings on dental care expenditures. We analyze national dental expenditure patterns from 1990 to 2015, the most recent year for which data are available. We discuss the policy implications of our findings.

Results

Results presented in Figures 1-5 are based on national dental expenditure data for 2000 to 2015 from Centers for Medicare & Medicaid Services (CMS). Inflation-adjusted estimates are presented in 2015 dollars. Figure 1 summarizes national dental expenditures from 1990 to 2015 in nominal and inflation-adjusted dollars and can be interpreted as a measure of the size of the dental economy. In 2015, national dental expenditures were \$117.5 billion. This was up from \$114 billion in 2014 (in inflation-adjusted 2015 dollars). In 2015, dental expenditures accounted for 3.7 percent of overall national health expenditures, down from a peak of 4.5 percent of national health expenditures in 2000, but roughly the same level as in recent years.

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.

Who We Are

HPI's interdisciplinary team of health economists, statisticians, and analysts has extensive expertise in health systems policy research. HPI staff routinely collaborates with researchers in academia and policy think tanks.

Contact Us

Contact the Health Policy Institute for more information on products and services at hpi@ada.org or call 312.440.2928.

Figure 2 summarizes inflation-adjusted national dental expenditures per capita. This is a measure that takes account of both inflation and population growth. Inflation-adjusted dental expenditures per capita rose from \$358 in 2014 to \$366 in 2015, reversing a downward trend that began 2010.

Figure 3 shows the growth rate of national dental expenditures compared to the growth rate of overall health expenditures in the United States. Between 1990 and 2002, inflation-adjusted per-capita dental expenditures were growing at 3.9 percent per year, slightly faster than overall health expenditures. For the 2002-2008 period, however, the inflation-adjusted per-capita dental expenditure growth rate declined dramatically to 2.0 percent per year, well below the growth rate for overall health expenditures. Since 2008, inflation-adjusted dental expenditures per capita has declined – albeit at a very slow rate of 0.6 percent per year – while overall health expenditures have continued to grow, but at lower than historical rates. From 2014 to 2015, growth in dental expenditures and overall health expenditures was much larger than in previous years.

Figure 4 summarizes the breakdown of overall health expenditures by source of financing from 1990 to 2014. Figure 5 does that same for dental expenditures. From 2014 to 2015, there was a small increase in the percentage of overall health expenditures covered by CMS programs. As shown in Figure 5, from 2014 to 2015 there was a small increase in the share of dental expenditures financed by public sources, along with a corresponding decrease in the share of dental expenditures that were out of pocket. A key trend since 1990 is an increase in the share of dental expenditures financed by public sources (from 2 percent in 1990 to 12 percent in 2015) and a decrease in out-of-pocket spending. This same shift away from out-of-pocket financing toward public financing also

occurred for overall health spending. Still, dental expenditures remain overwhelmingly financed by private dental insurance and out-of-pocket spending, a very different mix than for overall health expenditures.

Figure 6 shows the data in Figure 2 broken down by source of financing. Organized this way, the data show that the source of the increase in dental care expenditures in 2015 was mainly a sharp increase in CMS programs spending and a slight increase in private dental insurance expenditures. Out-of-pocket expenditures did not change in 2015 and are down significantly from their peak in 2008.

Discussion

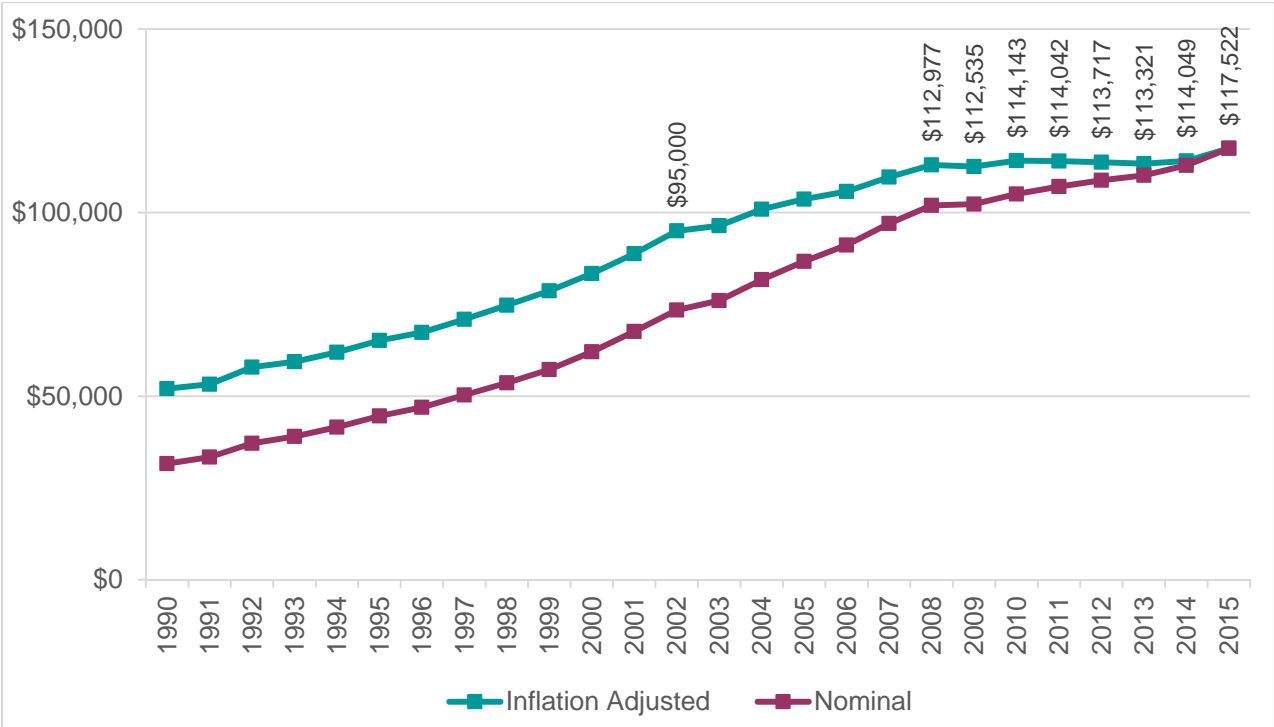
Our analysis covers six full years of the period since the end of the Great Recession. Through most of this period, dental expenditures continued to be flat or down slightly – a clear indication that the dental economy was not significantly rebounding. The 2015 data show an uptick in dental spending, representing a reversal in recent trends. The share of dental spending financed by CMS also continued to increase. This could be a result of increased dental care utilization among Medicaid children, a long-standing trend, as well as more Medicaid adults accessing dental care as a result of Medicaid expansion under the Affordable Care Act. There is evidence to support both of these effects,^{2,3} but further research is needed in this area.

One of the key drivers of the dental spending slowdown was a decrease in dental care use among working-age adults.⁴ Given that dental care utilization patterns play a big role in the trajectory of dental spending, it is important to note that for the first time since 2007, dental care utilization did not decline among working-age adults in 2013.⁵ In 2014, dental care utilization held steady among working-age adults and children, and was up slightly among the elderly.⁶ The upward trend in dental care utilization among

seniors could also have contributed to the uptick in dental spending in 2015. The ADA Health Policy

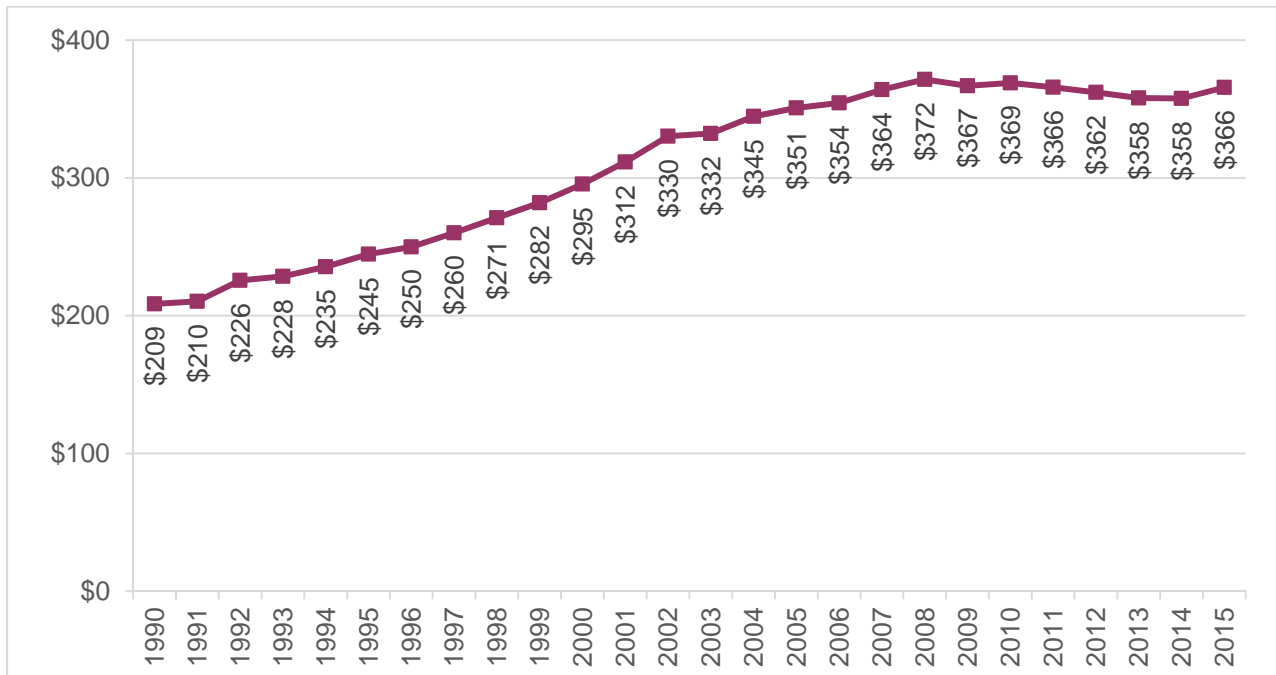
Institute will continue to monitor these and other trends in the dental care market.

Figure 1: National Dental Expenditures (\$ millions)



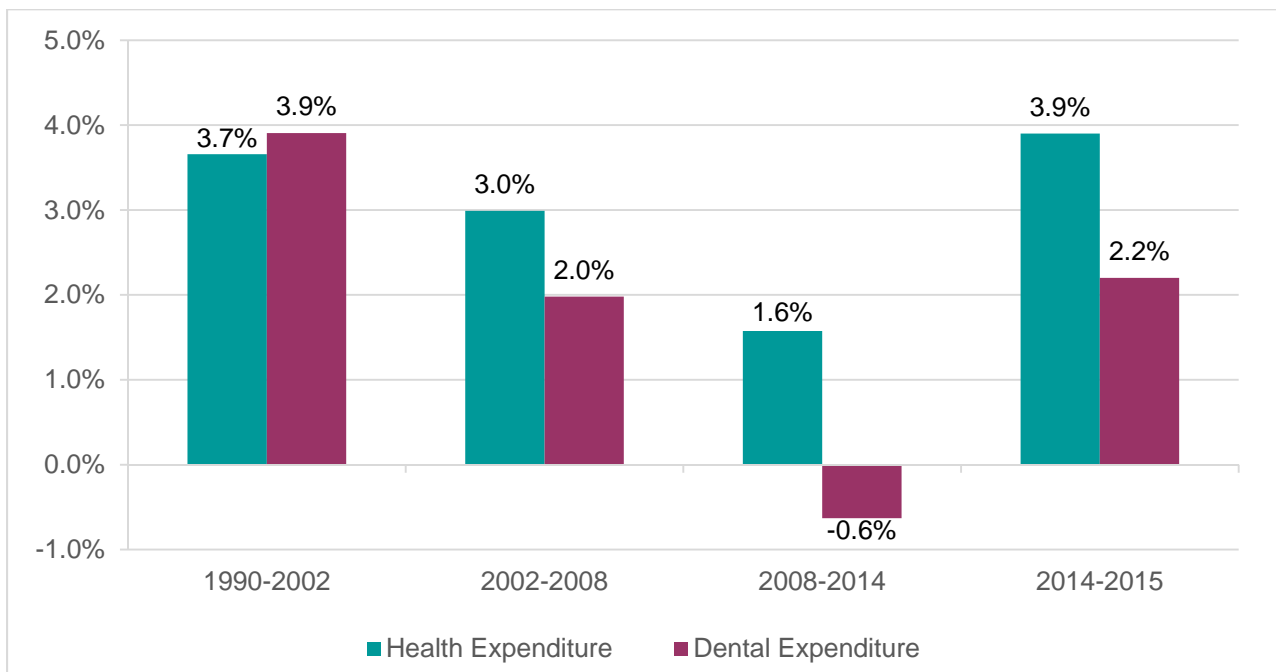
Note: National dental expenditures adjusted for inflation using the GDP implicit price deflator. Inflation-adjusted figures in 2015 dollars. Source: Centers for Medicare and Medicaid Services; U.S. Bureau of Economic Analysis.

Figure 2: National Dental Expenditures per Capita (in constant 2015 dollars)



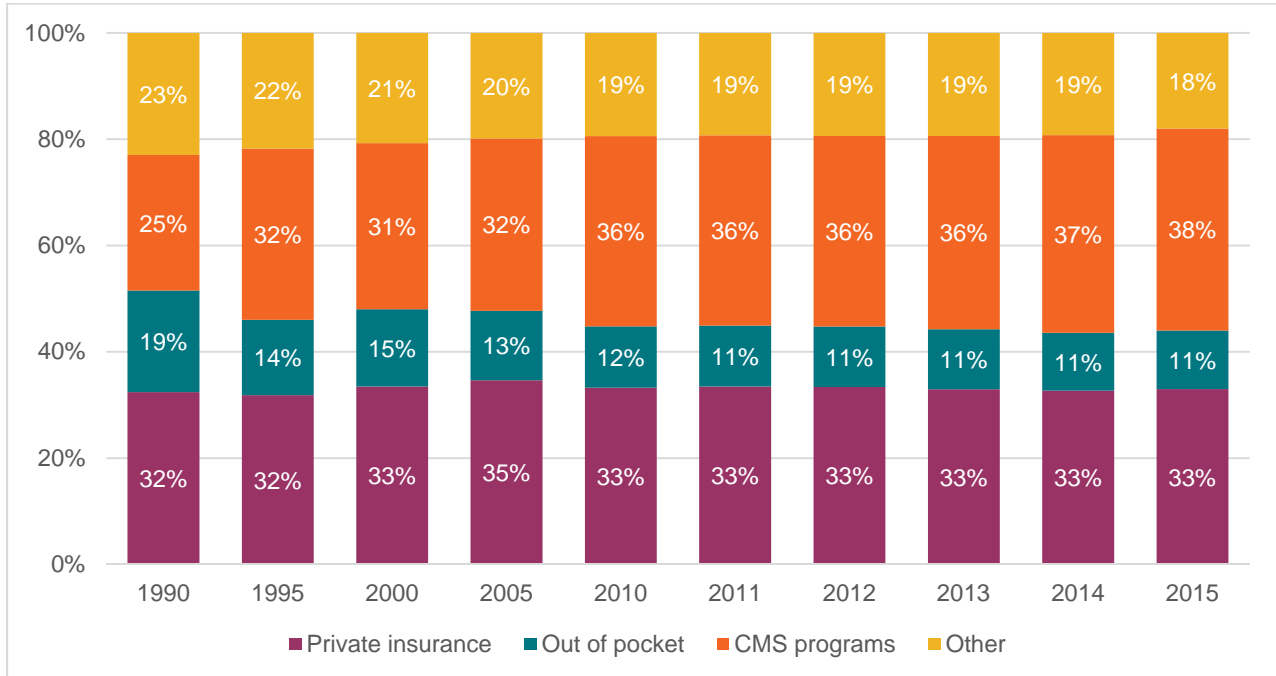
Source: Centers for Medicare and Medicaid Services; U.S. Bureau of Economic Analysis; U.S. Census Bureau. **Note:** Expenditures adjusted for inflation using the GDP implicit price deflator. Per capita dental expenditure in 2015 dollars.

Figure 3: Average Annual Growth Rate of Overall Health and Dental Expenditures



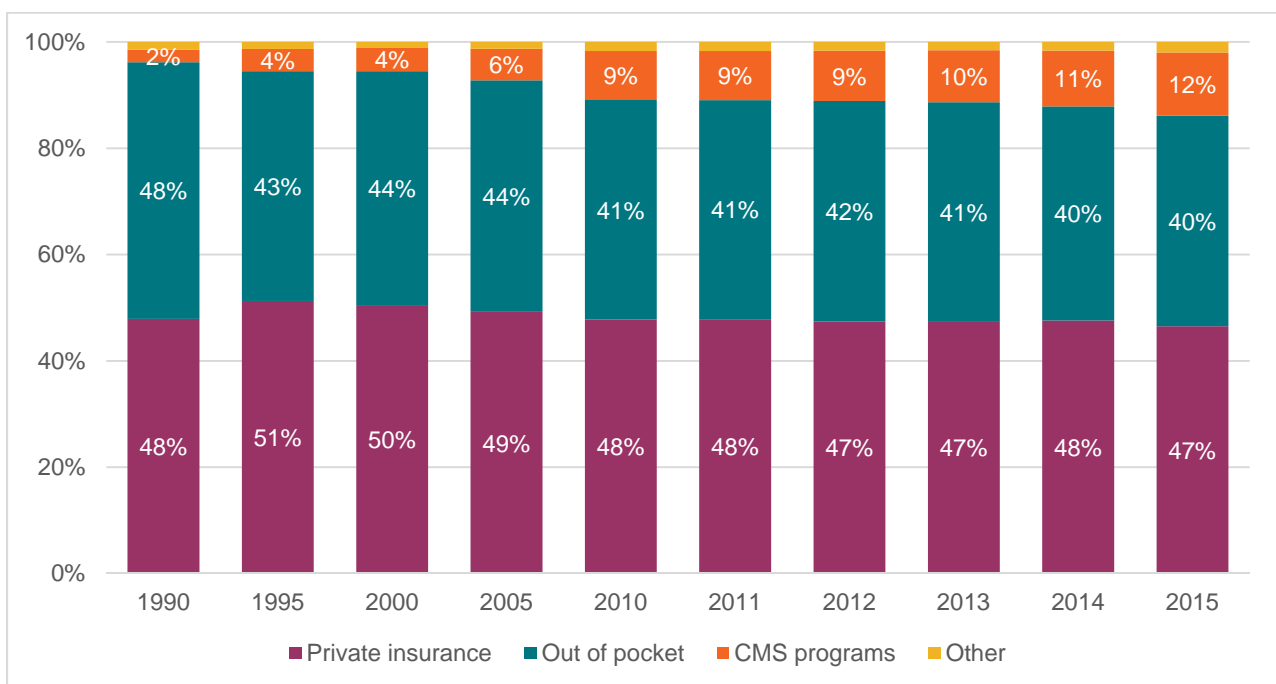
Note: Rate calculated as average annual compounded growth rate. **Source:** Centers for Medicare and Medicaid Services; U.S. Bureau of Economic Analysis.

Figure 4: Distribution of Overall Health Expenditures by Source of Financing



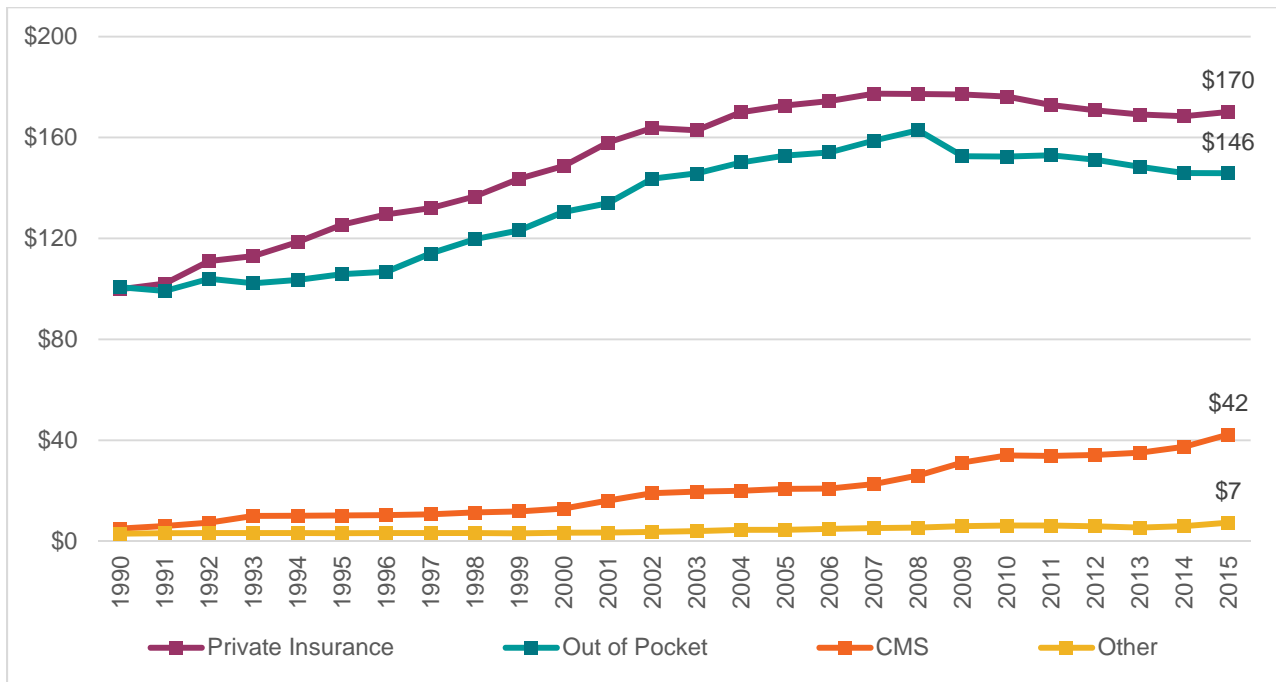
Source: Centers for Medicare and Medicaid Services. Note: CMS includes Medicare, Medicaid and CHIP.

Figure 5: Distribution of Dental Expenditures by Source of Financing



Source: Centers for Medicare and Medicaid Services. Note: CMS includes Medicare, Medicaid and CHIP.

Figure 6: National Dental Expenditures per Capita by Source of Financing (in constant 2015 dollars)



Source: Centers for Medicare and Medicaid Services; U.S. Bureau of Economic Analysis; U.S. Census Bureau. **Note:** Expenditures adjusted for inflation using the GDP implicit price deflator. Per capita dental expenditure in 2015 dollars.

Data & Methods

We analyzed national health expenditures data from the Centers for Medicare and Medicaid Services (CMS). We focused on the period 1990 to 2015, the most recent year for which data are available (data for 2015 were released December 2, 2016). We analyzed national expenditures in nominal dollars, inflation-adjusted dollars, and per capita inflation-adjusted dollars. As recommended by the Agency for

Healthcare Research and Quality (AHRQ), we used the gross domestic product (GDP) deflator to adjust for inflation.^{7,8} We adjusted for population growth using population data from the U.S. Census Bureau. We also analyzed the breakdown of dental expenditures by source of financing and compared this to the breakdown of total health expenditures by source of financing.

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

211 E. Chicago Avenue
 Chicago, Illinois 60611
 312.440.2928
hpi@ada.org

For more information on products and services, please visit our website, www.ada.org/hpi.

References

¹ Wall, T., Vujcic M. U.S. Dental Spending Continues to Be Flat. Health Policy Institute Research Brief. American Dental Association. December 2015. Available from:
http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1215_2.pdf?la=en

² Nasseh K, Vujcic M. Early impact of the Affordable Care Act's Medicaid expansion on dental care use. *Health Serv Res* 2016 Nov 16 [Epub ahead of print].

³ American Dental Association. Medicaid Expansion and Dental Benefits Coverage. Health Policy Institute Infographic. November 2016. Available from:
http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIgraphic_1116_1.pdf?la=en.

⁴ 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

⁵ Nasseh K, Vujcic M. Dental care utilization rate continues to increase among children, holds steady among working age adults and the elderly. Health Policy Institute Research Brief. American Dental Association. October 2015. Available from: http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1015_1.ashx

⁶ Nasseh K, Vujcic M. Dental Care Utilization Steady Among Working-Age Adults and Children, Up Slightly Among the Elderly. Health Policy Institute Research Brief. American Dental Association. October 2016. Available from:
http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1016_1.pdf?la=en

⁷ Bureau of Economic Analysis, Implicit Price Deflators for Gross National Income,
<http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1>. Accessed January 8, 2014.

⁸ U.S. Department of Health and Human Services. Agency for Healthcare Research and Quality. Using appropriate price indices for expenditure comparisons. Available from:
http://meps.ahrq.gov/mepsweb/about_meps/Price_Index.shtml. Accessed January 8, 2014.

Suggested Citation

Wall T, Vujcic M. U.S. dental spending up in 2015. Health Policy Institute Research Brief. American Dental Association. December 2016. Available from:
http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1216_2.pdf.