

## Research Brief

# Trends in Fees and Reimbursement Rates for the Most Common Procedures in Endodontics, Periodontics, Prosthodontics, and Oral Surgery

**Authors:** Niodita Gupta, M.D., M.P.H.; Marko Vujcic, Ph.D.; Andrew Blatz, M.S.

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## Key Messages

- *After adjusting for inflation, average fees for dental procedures have increased over time, especially for the three most often performed endodontic procedures.*
- *Reimbursement rates from third-party payers have increased slowly from 2005 to 2014, or have decreased in some cases. The difference between fees charged by dentists and reimbursement rates through third-party payers appears to be increasing over time.*
- *Despite a small rebound from 2014-2015, specialist dentist incomes have been stagnant. This is possibly due to declining dental care use for complex specialty procedures or changes in reimbursement rates.*

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## Introduction

Since the Great Recession ended, the incomes of dental specialists have been showing signs of recovery, particularly after 2013.<sup>1</sup> The market for dental care is improving overall, with dental spending having increased in 2015.<sup>2</sup> The percentage of working-age adults with private dental benefits increased in 2014.<sup>3</sup> The percentage of children lacking dental benefits is at its lowest level since 1999.<sup>3</sup> Dental care utilization is up among elderly adults.<sup>4</sup> Improved access to care and higher utilization, along with changes in dentist fees and reimbursement rates from third-party payers, may be greatly influencing dentist incomes.

In this research brief, we explore the trends in fees charged by dentists and reimbursement rates from third-party payers for the three most common procedures for endodontics, periodontics, prosthodontics, and oral surgery. For reimbursement rates from third-party payers, we analyze private insurance reimbursement rates in this study.

## Results

We consider endodontic, periodontic, prosthodontic, and oral surgery procedures only for the purpose of this study. Orthodontic procedures are not considered due to lack of data. For each specialty studied in this brief, the trend line for average inflation-adjusted fees and reimbursement rates was smooth from 2005 to 2014; hence we graph only the end years, 2005 and 2014.

### *Endodontic Procedures*

The three most often performed endodontic procedures identified are: (1) D3330: endodontic therapy, molar (excluding final restoration), (2) D3320: endodontic therapy, bicuspid tooth (excluding final restoration), (3) D3310: endodontic therapy, anterior tooth (excluding final restoration).

Figure 1 summarizes the average inflation-adjusted fees and reimbursement rates for these three endodontic procedures. Average inflation-adjusted fees and average inflation-adjusted reimbursement rates for D3330, D3320, and D3310 increased from 2005 to 2014. The increase in fees ranged from about \$90 to \$108, while the increase in reimbursement rate ranged from about \$20 to \$32.

The average reimbursement rate through third-party payers for D3310 was 67.1 percent of fees charged by dentists in 2014 compared to 71.9 percent in 2005. For D3320, reimbursement was 68.5 percent of fees charged by dentists in 2014 compared to 74.0 percent in 2005. For D3330, reimbursement was 72.7 percent of fees charged by dentists in 2014 compared to 77.3 percent in 2005.

### *Periodontal Procedures*

The three most often performed periodontal procedures identified are: (1) D4910: periodontal

maintenance, (2) D4341: periodontal scaling and root planing - four or more teeth per quadrant, (3) D4381: localized delivery of antimicrobial agents via a controlled release vehicle into diseased crevicular tissue, per tooth.

Figure 2 summarizes the average inflation-adjusted fees and reimbursement rates for these three periodontal procedures. The average inflation-adjusted fees for D4910, D4341, and D4381 increased from 2005 to 2014, while the average inflation-adjusted reimbursement rates for D4910, D4341, and D4381 decreased from 2005 to 2014. From 2005 to 2014, the increase in fees ranged from about \$6 to \$19, while the decrease in reimbursement rates ranged from about \$4 to \$13.

The average reimbursement rate through third-party payers for D4341 was 70.6 percent of fees charged by dentists in 2014 compared to 82.6 percent in 2005. For D4381, reimbursement was 76.4 percent of fees charged by dentists in 2014 compared to 93.2 percent in 2005. For D4910, reimbursement was 79.2 percent of fees charged by dentists in 2014 compared to 89.9 percent in 2005.

### *Prosthodontic Procedures*

The three most often performed prosthodontic procedures identified are: (1) D6750: retainer crown-porcelain fused to high noble metal, (2) D6010: surgical placement of implant body; endosteal implant, (3) D6240: pontic - porcelain fused to high noble metal.

Figure 3 summarizes the average inflation-adjusted fees and reimbursement rate for these three prosthodontic procedures. The average inflation-adjusted fees for D6750 and D6240 increased from 2005 to 2014 while decreasing for D6010. The average inflation-adjusted reimbursement rates for D6750,

D6240, and D6010 decreased from 2005 to 2014. From 2005 to 2014, the change in the fees ranged from a decrease of about \$4 to an increase of about \$66, while the decrease in reimbursement rates ranged from about \$96 to \$166.

The average reimbursement rate through third-party payers for D6010 was 81.1 percent of fees charged by dentists in 2014 compared to 89.3 percent in 2005. For D6240, reimbursement was 66.4 percent of fees charged by dentists in 2014 compared to 86.2 percent in 2005. For D6750, reimbursement was 68.6 percent of fees charged by dentists in 2014 compared to 82.8 percent in 2005.

#### *Oral Surgery Procedures*

The three most often performed oral surgery procedures identified are: (1) D7140: extraction, coronal remnants - deciduous tooth, (2) D7210: surgical removal of erupted tooth requiring removal of bone and/or sectioning of tooth, and including elevation of mucoperiosteal flap if indicated, (3) D7240: removal of impacted tooth - completely bony.

Figure 4 summarizes the average inflation-adjusted fees and reimbursement rates for these three oral surgery procedures. The average inflation-adjusted fees and the average inflation-adjusted reimbursement rates for D7140, D7210, and D7240 increased from 2005 to 2014. From 2005 to 2014, the increase in fees ranged from about \$29 to \$51, while the increase in reimbursement rates ranged from about \$1 to \$6.

The average reimbursement rate through third-party payers for D7140 was 69.7 percent of fees charged by dentists in 2014 compared to 81.2 percent in 2005. For D7210, reimbursement was 68.0 percent of fees charged by dentists in 2014 compared to 76.5 percent in 2005. For D7240, reimbursement was 75.3 percent

of fees charged by dentists in 2014 compared to 84.1 percent in 2005.

## Discussion

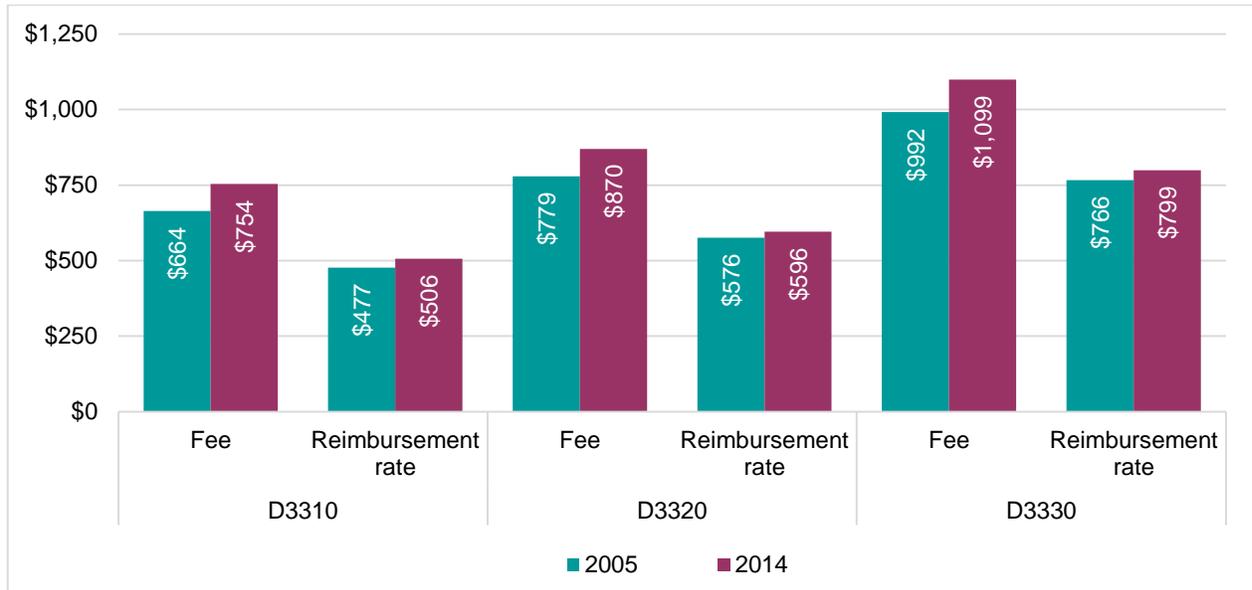
The fees for the three most common endodontic and oral surgery procedures have increased from 2005 to 2014; however, the increase in reimbursement rates from third-party payers is not at par with the increase in fees. The fees for the three most often performed prosthodontic and periodontal procedures have increased from 2005 to 2014; however, the reimbursement rates have decreased over the same timeframe.

The highest increase in fees is observed for endodontic procedures and the lowest for the periodontal procedures. The highest increase in reimbursement rates is observed for endodontic procedures, while the highest decrease in reimbursement rates is observed for prosthodontic procedures. Further, the difference in fees charged and the reimbursement rate observed appears to be increasing over time. This could significantly influence dentist incomes.

Dentist incomes have been stagnant overall; however, they appear to be rebounding in 2015 (Figure 5). Dental care utilization is increasing among the elderly and is steady among working-age adults and children.<sup>4</sup> There is a shift from complex specialty procedures to more diagnostic and preventive procedures.<sup>5</sup> These factors, along with the slow growth in fees and relatively flat reimbursement rates, could explain the continued stagnation of dentist incomes.

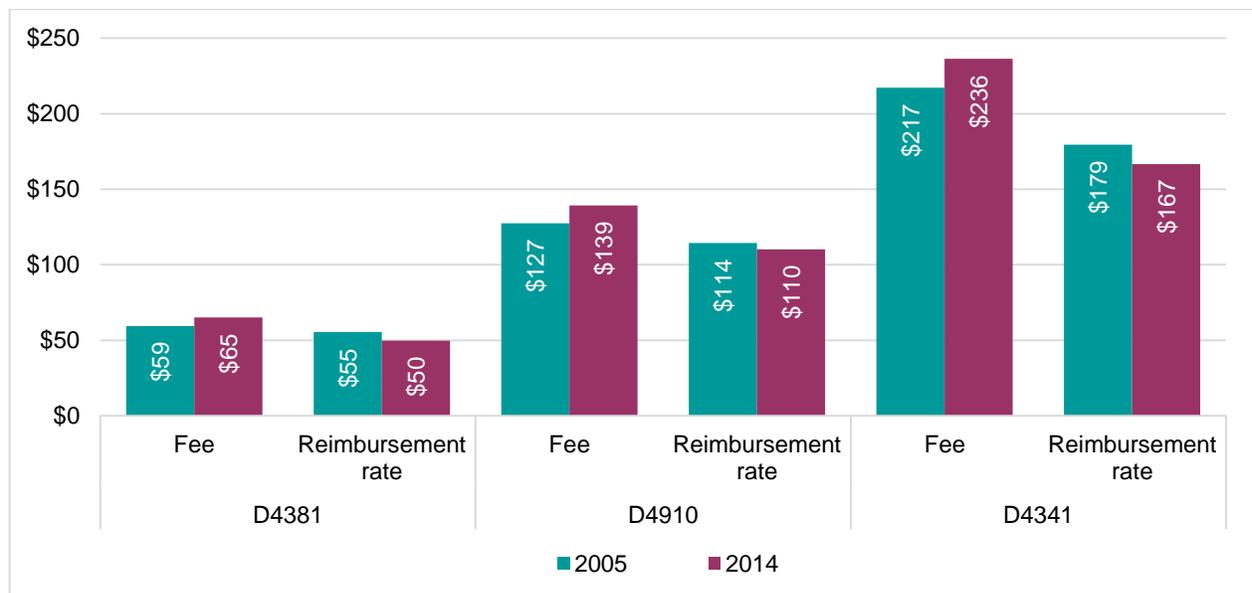
HPI will continue to monitor the trends that impact dentist incomes, including fees charged by dentists and reimbursement rates from third-party payers.

**Figure 1:** Inflation-Adjusted Fees and Reimbursement Rates from Third-Party Payers, Three Most Often Performed Endodontic Procedures, 2005 & 2014



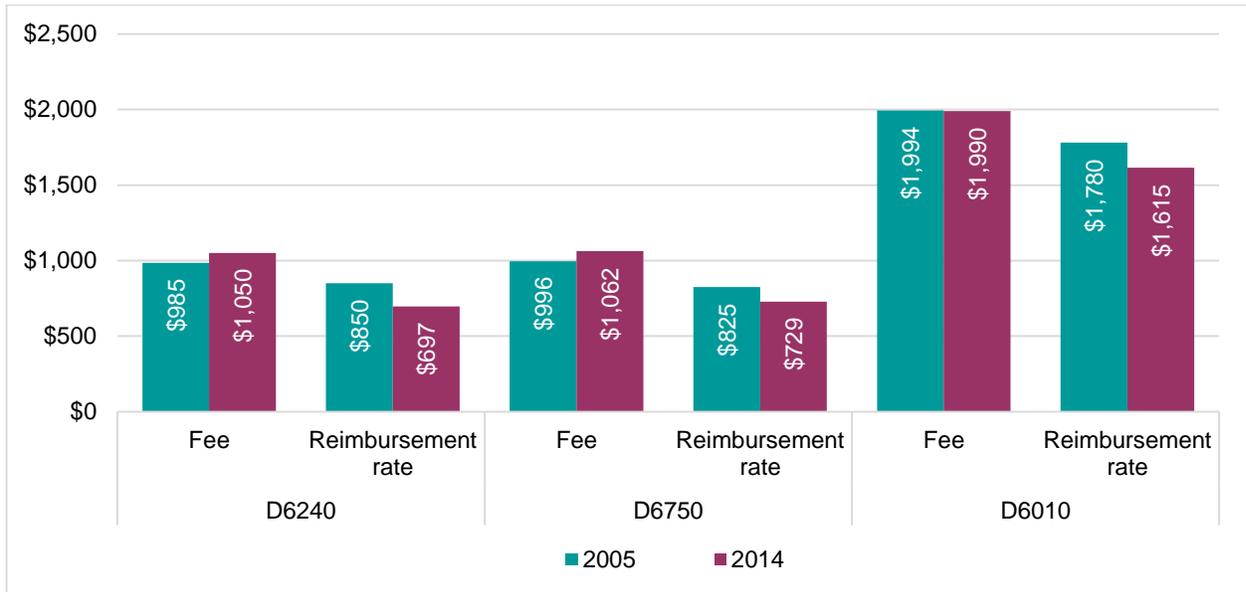
**Source:** Data on fees were obtained from FAIR Health database 2005-2014. Data on reimbursement rates from third-party payers were obtained from Truven Marketscan database 2005-2014. **Notes:** D3330: endodontic therapy, molar (excluding final restoration); D3320: endodontic therapy, bicuspid tooth (excluding final restoration); D3310: endodontic therapy, anterior tooth (excluding final restoration). All the amounts are deflated using Consumer Price Index for All Items to represent 2015 dollars.

**Figure 2:** Inflation-Adjusted Fees and Reimbursement Rates from Third-Party Payers, Three Most Often Performed Periodontal Procedures, 2005 & 2014



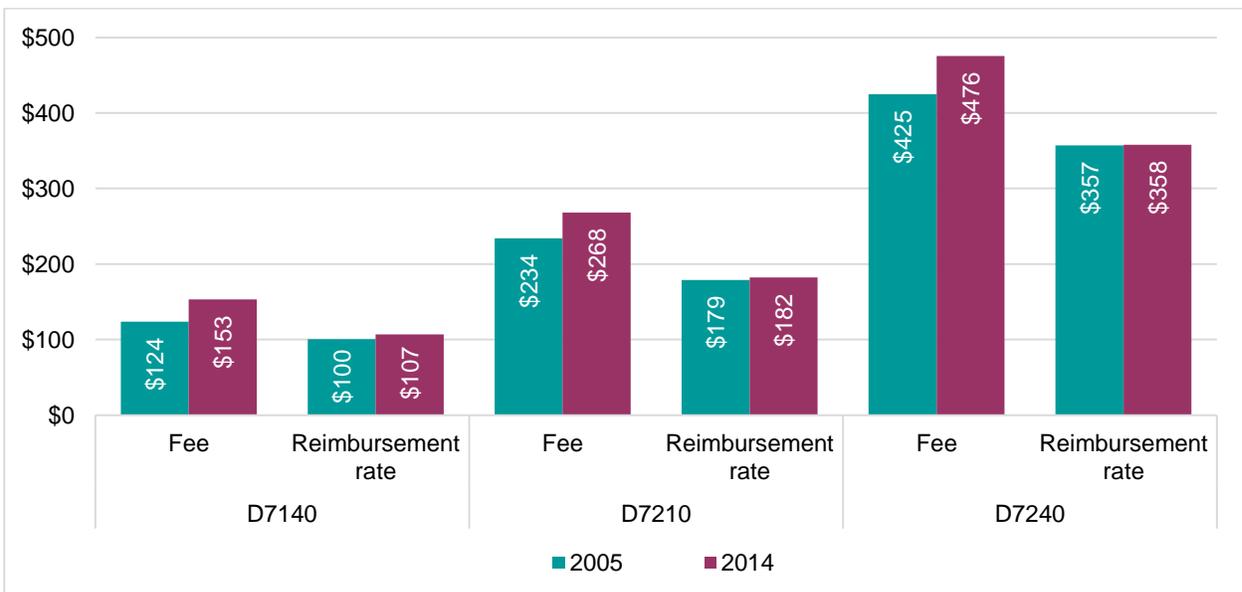
**Source:** Data on fees were obtained from FAIR Health database 2005-2014. Data on reimbursement rates from third-party payers were obtained from Truven Marketscan database 2005-2014. **Notes:** D4910: periodontal maintenance; D4341: periodontal scaling and root planing - four or more teeth per quadrant; D4381: localized delivery of antimicrobial agents via a controlled release vehicle into diseased crevicular tissue, per tooth. All the amounts are deflated using Consumer Price Index for All Items to represent 2015 dollars.

**Figure 3:** Inflation-Adjusted Fees and Reimbursement Rates from Third-Party Payers, Three Most Often Performed Prosthodontic Procedures, 2005 & 2014



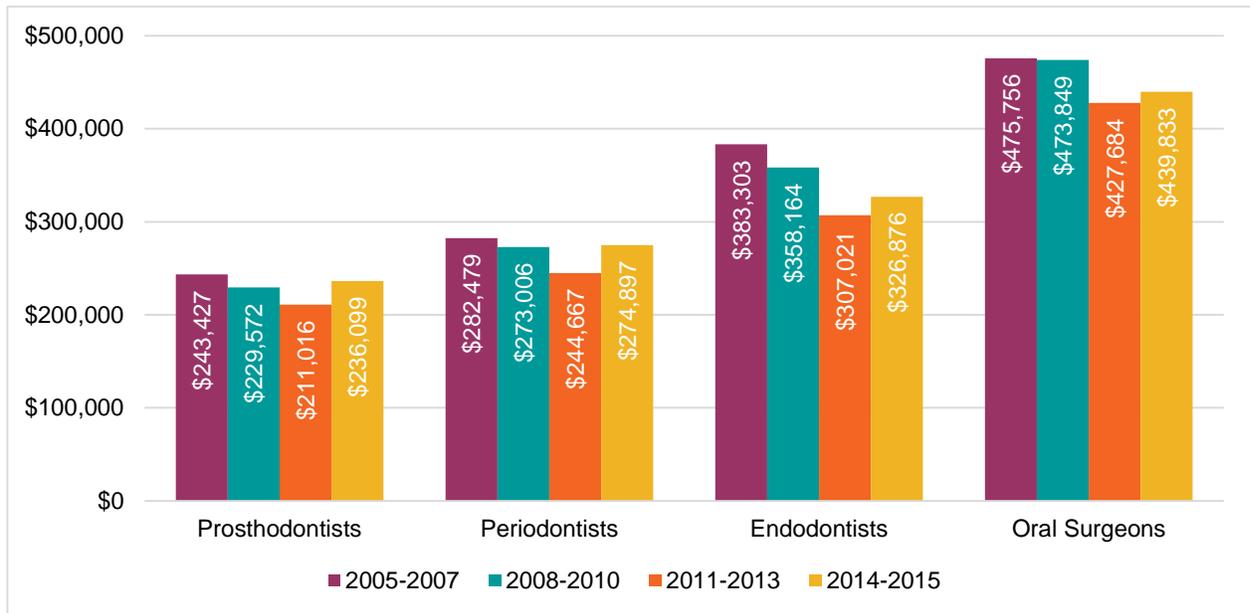
**Source:** Data on fees were obtained from FAIR Health database 2005-2014. Data on reimbursement rates from third-party payers were obtained from Truven Marketscan database 2005-2014. **Notes:** D6750: retainer crown- porcelain fused to high noble metal; D6010: surgical placement of implant body; endosteal implant; D6240: pontic-porcelain fused to high noble metal. All the amounts are deflated using Consumer Price Index for All Items to represent 2015 dollars.

**Figure 4:** Inflation-Adjusted Fees and Reimbursement Rates from Third Party Payers, Three Most Often Performed Oral Surgery Procedures, 2005 & 2014



**Source:** Data on fees were obtained from FAIR Health database 2005-2014. Data on reimbursement rates from third-party payers were obtained from Truven Marketscan database 2005-2014. **Notes:** D7140: extraction, coronal remnants - deciduous tooth; D7210: surgical removal of erupted tooth requiring removal of bone and/or sectioning of tooth, and including elevation of mucoperiosteal flap if indicated; D7240: removal of impacted tooth - completely bony. All the amounts are deflated using Consumer Price Index for All Items to represent 2015 dollars.

**Figure 5:** Average Inflation-Adjusted Incomes for Dentists by Specialty, 2005-2015



**Source:** ADA Health Policy Institute Survey of Dental Practice data for 2005-2015. **Notes:** Weighted to compensate for oversampling and non-response bias. Incomes are adjusted using the Consumer Price Index for All Items to represent for 2015 dollars.

### Data & Methods

We used the FAIR Health database data for 2001 to 2015 to identify the three procedures for every specialty with the highest number of occurrences every year. The three procedures that have been occurring the most consistently were included in this study. We also rely on the FAIR Health database to obtain the average fees charged for each of these procedures for the years 2005 to 2014. We rely on the Truven MarketScan database data for 2005 to 2014 to obtain the average reimbursement rates from third-party payers for the three most-performed procedures identified. We adjusted the amounts for average fees and reimbursement rates using Consumer Price Index for All Items to represent 2015 dollars.

We rely on the ADA Health Policy Institute’s Survey of Dental Practice for dentist incomes. This survey is conducted annually on a nationally representative random sample of 4,000 to 17,000 dentists in private practice. Response rate for this survey has varied from 9.8 percent to 44.6 percent from 2005 to 2015. This survey oversampled specialists to ensure enough responses for statistical analyses. The estimates for the years 2005 through 2015 were weighted to compensate for survey non-response bias with respect to these dentist characteristics: age group, general practitioner or specialist status, ADA membership status, and county population corresponding to the dentist’s location.

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211 E. Chicago Avenue  
Chicago, Illinois 60611  
312.440.2928  
[hpi@ada.org](mailto:hpi@ada.org)

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