



Dental

# Managing oral health among employees with chronic conditions to drive savings

## Introduction

UnitedHealthcare recently completed a research study investigating the impact of improved oral health in individuals with certain chronic medical conditions, and whether increased patient engagement leads to medical cost savings. Specifically, the study evaluated the impact of various dental treatments, including cleanings and periodontal treatments, on medical and pharmacy costs for chronically ill individuals. Additionally, the study sought to challenge the assumption that chronically ill individuals who comply with their medications and other medical treatments also receive regular dental care, and vice-versa, in order to better understand the impact of good oral health, independent of other factors.

## Background

This research is important because of growing evidence of connections between oral health and overall health. For example, gum disease makes it more difficult for those with diabetes to control their blood sugar, and there is growing evidence that gum treatments can have a positive impact on measures of blood sugar such as the hemoglobin A1c (HbA1c).<sup>1</sup> Research indicates that periodontal disease and heart disease are associated with each other, independent of other factors such as smoking and diabetes. Also, the bacteria in gum disease can be inhaled into the lungs, causing respiratory diseases such as pneumonia, according to researchers.<sup>2</sup> In addition, people with chronic conditions account for more than 75 percent of health care costs<sup>3</sup>, so employers and health plans are focused on developing strategies to improve the health of these individuals.

## Methodology

The study analyzed claims data associated with nearly 131,000 individuals between the ages of 18 and 65 enrolled in both UnitedHealthcare commercial dental and medical plans for the full calendar year 2010. These individuals had one or more of the following chronic conditions: diabetes, asthma, coronary artery disease, congestive heart failure, chronic obstructive pulmonary disease or renal disease. Medical and pharmacy claims data were analyzed for each individual. The group was also divided into those who were medically compliant with their chronic conditions (based on claims data for the twelve-month period ending May 31, 2011) and those who were not.

Three years of dental claims data (May 2008 to April 2011) was utilized to assign each of the individuals to three dental treatment groups: those having surgical or non-surgical periodontal treatment; those having frequent and infrequent cleanings, and individuals with no dental claims or having treatments demonstrating a lack of preventive dental care, such as extractions or root canals.

Results were divided by chronic condition, as well as whether or not individuals were compliant managing their chronic condition, in order to minimize bias from the study.

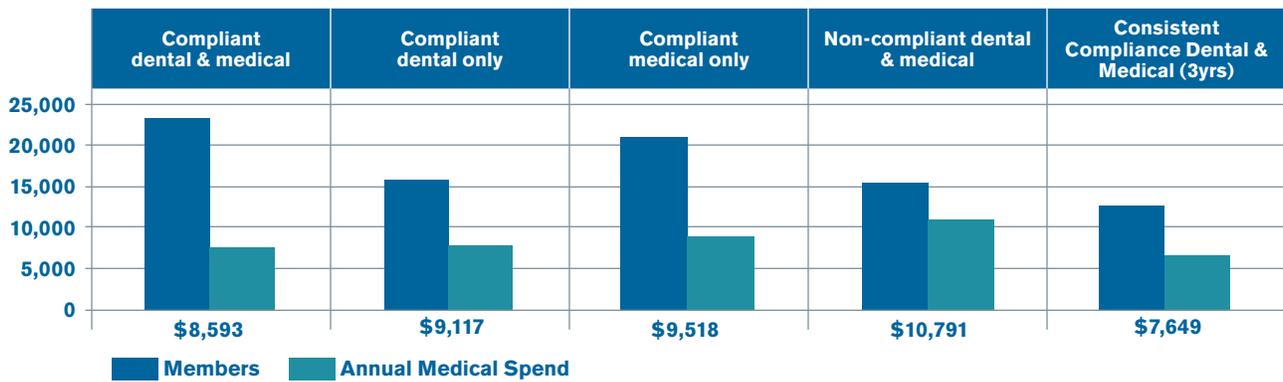
## Oral health yields lower costs

Overall, total average medical costs were significantly lower for individuals with chronic medical conditions who received dental cleanings or needed periodontal treatment within the timeframe of this study. Savings for individuals receiving preventive dental care were observed across all chronic medical disease categories.

## Research highlights

- Individuals with chronic conditions who regularly received recommended dental care, cleanings or periodontal treatment, had medical claims that averaged nearly \$1,500 lower per year than those with chronic conditions who received other dental care or no dental care at all. (“Other dental care”, for purposes of the study, included extractions, root canals, restorative treatment and other non-preventive dental care).
- The difference was even greater for individuals who were not receiving the recommended care for their chronic medical condition, but who did get regular dental care. This group’s annual medical savings were \$2,300 on average, compared to those with chronic conditions who received other dental care or no dental care.
- Chronically ill individuals who are compliant with both medical and dental care had the lowest medical claim costs. But even when individuals are compliant with dental, but not medical care, the impact on their health care costs is significant. For example, among a pool of 73,000 diabetics, those who were not medically compliant but who received regular dental care had medical claims averaging \$1,674 less per year than those not getting dental care. (See the chart below)
- Individuals receiving extractions, root canals, restorative treatments and other non-preventive dental care had the highest health care spend, demonstrating the correlation between the lack of a preventive dental approach and overall medical costs.

Improving behavior & compliance across products diabetic study – 73,144 adult individuals



## Conclusion

There is growing evidence that dental health affects overall health. Conversely, chronic medical conditions can lead to poor oral health. People with diabetes, for instance, are at higher risk for developing infections, including gum disease. Untreated, gum disease can make it harder for diabetics to stabilize their blood sugar levels.

This study demonstrates that employers can benefit from looking at their population holistically by analyzing their medical and dental claims and costs collectively, thereby enabling them to identify potential savings and improve employees’ health outcomes.

Many employers are starting to embrace this integrated approach as a way to engage employees and influence behavior. UnitedHealthcare’s Bridge2Health program offers a collaborative approach to health, providing plan participants and health care professionals with information that improves health decisions and outcomes. Today, 165 companies representing more than 850,000 plan participants have already selected this program for their dental and medical benefits.

To learn more, we encourage you to read the complete study findings at [www.uhc.com/B2HDental](http://www.uhc.com/B2HDental) and talk to your UnitedHealthcare representative.



<sup>1</sup> <http://www.perio.org/consumer/diabetes.htm>  
<sup>2</sup> <http://www.perio.org/consumer/other-systemic-diseases>  
<sup>3</sup> <http://www.cdc.gov/chronicdisease/index.htm>

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