

Pacific Dental Services

The greatest dental company
in America.

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PACIFIC
DENTAL SERVICES®



Dental Service Company (DSO)

- Provide Business Services to over 500 Supported Owner Locations across the US
- Privately Held
- Based in Irvine, CA
- ~6,000 Employees



NEW ERA OF HEALTHCARE

Pre-ACA Health Care System

Volume Based
 Episodic
 Transactional
 Defensive
 Silos in Delivery
 Not Coordinated
 Clinician Centric
 Non-Collaborative
 Specialty Driven

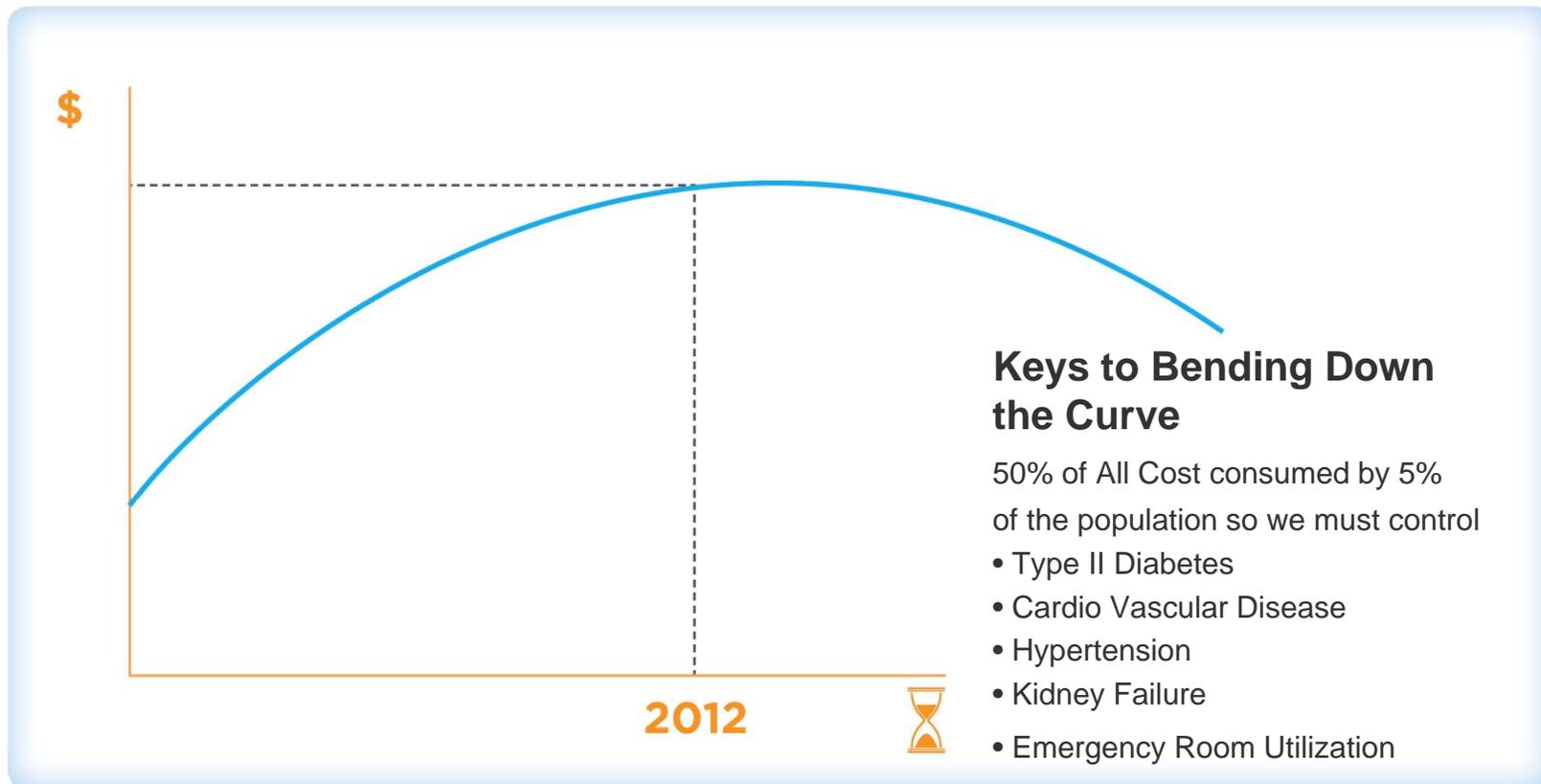
Post-ACA Health Care System

Value Based
 Proactive
 Continual Care
 Preventive
 Inter-discipline approach
 Coordinated
 Patient Centric
 Collaborative
 PCP Driven

Full Integration



BENDING THE COST CURVE DOWN





Oral Health impacts General Health

Stroke

Studies show that people with long-standing gum disease are more likely to suffer a stroke.

Heart Disease

Research has shown that people with gum disease are twice as likely to suffer from heart disease. Bacteria from a gum infection can enter the blood stream and lodge in the heart vessels, causing inflammation, thickening of the artery walls and potentially heart-stopping clots. That's why keeping your gums healthy can reduce your risk of heart disease.

Diabetes

Gum inflammation can make it much more difficult for a diabetic person to control his/her blood sugar. By eliminating gum inflammation, you can directly improve diabetic control.

Alzheimer's Disease

According to the *Journal of the American Dental Association*, chronic gum inflammation increases an individual's risk of developing Alzheimer's disease within their lifetime and potentially worsens the cognitive functions for those who already have Alzheimer's disease.

Lungs

The bacteria that collect in your mouth are the same bacteria that can cause pneumonia and other respiratory diseases. Keeping the bacteria count in your mouth as low as possible can reduce your risk for chronic lung problems.

Preterm Low-Birth Weights

Women with gum disease are seven to eight times more likely to give birth prematurely to low birth-weight babies. Researchers believe that gum disease causes the body to release inflammatory chemicals linked to pre-term births.

Erectile Dysfunction

Men with advanced gum disease are sometimes more likely to suffer from erectile dysfunction. According to the National Institutes of Health, one in 10 men worldwide is affected, and the condition is more common for men over the age of 40. Erectile dysfunction, like heart disease and diabetes, is a cardiac-related condition that can be tied to bacteria entering the bloodstream due to inflamed gums.

Inflammation!



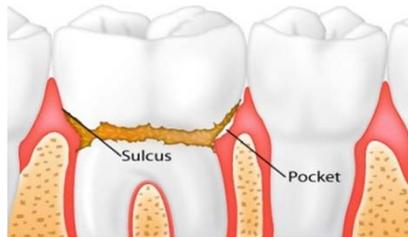


The Main Oral Health Issue

- Periodontal Disease
- A Medical Problem with a Dental Solution
 - Chronic infection of the gums
 - This creates a chronic inflammatory reaction
 - It cannot be cured, only managed
 - Systemic links are well researched
 - Diabetes
 - Cardiovascular disease
 - Preterm low-birth weight

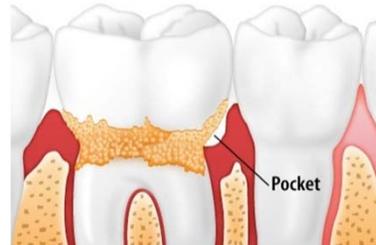
Disease Progression

Plaque can inflame the gum, forming a pocket for bacteria to grow



Red swollen gums (Gingivitis)

Tartar and bacteria lead to chronic infection, releasing toxins into the blood stream



Infected gums

As the disease progresses, chronic infection adds to systemic inflammatory response



Severely infected gums

Treatment



Hygienist measures pocket depths



Scaling removes the tartar



Root planing smooths rough spots



Laser decontaminates Pocket, aiding healing



Management of This Disease Can Bend the Cost Curve “Down”

Impact of Periodontal Therapy on General Health Evidence from Insurance Data for Five Systemic Conditions

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James B. Bramson, DDS, Jerome J. Blum, DDS

Background: Treatment of periodontal (gum) disease may lessen the adverse consequences of some chronic systemic conditions.

Purpose: To estimate the effects of periodontal therapy on medical costs and hospitalizations among individuals with diagnosed type 2 diabetes (T2D); coronary artery disease (CAD); cerebral vascular disease (CVD); rheumatoid arthritis (RA); and pregnancy in a retrospective observational cohort study.

Methods: Insurance claims data from 338,891 individuals with both medical and dental insurance coverage were analyzed in 2011–2013. Inclusion criteria were (1) a diagnosis of at least one of the five specified systemic conditions and (2) evidence of periodontal disease. Subjects were categorized according to whether they had completed treatment for periodontal disease in the baseline year, 2005. Outcomes were (1) total allowed medical costs and (2) number of hospitalizations, per subscriber per year, in 2005–2009. Except in the case of pregnancy, outcomes were aggregated without regard to reported cause. Individuals who were treated and untreated for periodontal disease were compared independently for the two outcomes and five systemic conditions using ANCOVA; age, gender, and T2D status were covariates.

Results: Statistically significant reductions in both outcomes ($p < 0.05$) were found for T2D, CVD, CAD, and pregnancy, for which costs were lower by 40.2%, 40.9%, 10.7%, and 73.7%, respectively; results for hospital admissions were comparable. No treatment effect was observed in the RA cohorts.

Conclusions: These cost-based results provide new, independent, and potentially valuable evidence that simple, noninvasive periodontal therapy may improve health outcomes in pregnancy and other systemic conditions.

(Am J Prev Med 2014;47(2):166–174) © 2014 American Journal of Preventive Medicine

Source: American Journal of Preventive Medicine



CIGNA study reported at the International Association for Dental Research

CIGNA's ongoing dental and medical cost study supports a potential adverse association between untreated gum disease and higher medical costs for these three medical conditions. The numbers speak for themselves:

CIGNA's study looked at periodontal patients from 2009 through 2011. On average, patients who received periodontal disease treatment had better outcomes than patients without treatment. Hospital admission rates were 149 per thousand (67%) lower, emergency room visits were 100 per thousand (54%) lower, and medical costs were \$1,020 per year (28%) lower.

Periodontal care reduces overall medical costs in the first year

Study Summary All results reflect enrollment of individuals in both CIGNA's Medical and Dental plans.

Diabetes	↓\$1,418	} Average Reduction in First Year Medical Costs for Individuals Receiving Periodontal Treatment
Cardiovascular Disease	↓\$647	
Stroke	↓\$10,142	

Periodontal Treatment and Medical Costs in Diabetes and Cerebrovascular Accident Presented at the International Association for Dental Research Meeting 2009, Miami

Source: White Paper Published by CIGNA



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 Chairwoman of the Dental Committee
 for America’s Health Insurance Plans,
 Washington, DC

Figure 1: Aetna-Columbia retrospective claim analysis

Episode risk group™ (ERG) scores for diabetes, CAD and CVD participants

	Periodontitis codes	No dental services	Reduction in risk score	Associated reduction in overall medical costs
Diabetes	3.39	4.79	↓ 29.2%	↓ 9%
Coronary artery disease (CAD)	4.68	6.49	↓ 27.9%	↓ 16%
Cerebrovascular disease (CVD)	6.23	8.26	↓ 24.6%	↓ 11%

Dramatic decrease in ERG scores for participants with Diabetes, CAD and CVD

ERG™ is a modeling tool to predict current and future health utilization

Source: “An Examination of Periodontal Treatment and Per Member Per Month (PMPM) Medical Costs in an Insured Population” paper

The reduction in risk scores resulted when those having periodontal therapy (claims with ADA-CDT “4000” codes) were compared to those having no dental treatment. The associated medical cost reduction resulted when those having early periodontal care (in the first year of the study) were compared to those having periodontal treatment only in year two.

Source: Grand Rounds in Oral Systemic Medicine



The cost for treating oral health issues in the ER is more expensive than treating these issues in a primary-care setting, the report states. According to statistics cited from the Ohio Department of Health, in 2010 and the first half of 2011, dental treatment in ERs costs \$188.5 million and ER visits with a primary dental diagnosis cost more than \$58 million.



Social impact and opportunities

- Pain from Oral Health issues can cause significant quality of life concerns
- Infections in any system are concerning
- Employment may be hampered, increasing the intensity of the cycle
- Can have a profound impact on relationships
- Cycle can be generational
- Must take into account demographic considerations (Customs, Ethnic, Social Norms)
- Anyone in the Medical, Mental, or Social work areas can help in significant ways



Policy Considerations

- Any Comprehensive reform effort aimed at cost reduction must include an Oral Health strategy
- Areas of immediate opportunity
 - Employers
 - ACO's
 - Medicaid Reform
- Long Term policy needs to include Oral Health as a fully integrated component



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