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# US Dental Price Variation and Transparency Research

LA County Report

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David Neal PhD. & Cassandra Govan PhD.

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# Executive Summary

The U.S. dental care market is characterized by highly variable pricing and low price transparency. Together, these factors make it difficult for patients to make informed decisions about care and create an “opaque” market where they do not necessarily receive better care by paying more. These challenges are especially pressing for the more than 45% of Americans who lack dental coverage. Among the uninsured, anxiety over high out-of-pocket expenses and difficulty accessing pricing information are the top two barriers to getting needed care. These barriers disproportionately affect seniors, low-income families, and minorities, who are more likely to lack insurance.

As part a larger national study, this report quantifies the price variability and price transparency challenges that confront dental patients in Los Angeles. The report analyzes 26.9 million dental insurance claims submitted by providers, and a telephone survey of 1,126 dental clinics.

The key conclusions of the report are as follows:

- In LA, 26% of dentists did not disclose prices over the phone to potential new patients, even when directly asked for price information regarding common procedures. This level of price transparency is essentially identical to the average of the 9 other major U.S. markets tested (27% of dentists did not disclose).
- Based on the analysis of 26.9M insurance claims lodged by providers, prices for 6 common dental procedures in LA vary by an average of 384%.
  - The cost of a comprehensive oral evaluation in LA varies from \$27 to \$183 – a variance of 577.8%
  - The cost of a crown in LA varies from \$476 to \$1,600 – a variance of 236.1%.
  - The cost of a tooth extraction in LA varies from \$55 to \$344 - a variance of 525.5%.
- Even within local neighborhoods, prices for identical procedures vary dramatically – by an average of 280% in Santa Monica, 294% in Inglewood, and 375% in Glendale.

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# Background and methodology

## Why is high variability and low transparency a problem for the dental market?

The U.S. Surgeon General has described oral health in the U.S. as beset by a “silent epidemic,” with quality, affordable care remaining out of reach for many Americans.<sup>1</sup> This is especially true for the ~45% of Americans who lack dental insurance. Among this group, only 1 in 6 receive the recommended amount of preventive care (2 visits per year) and almost 1 in 3 have been to the dentist only once or not at all in the last 10 years.<sup>2</sup>

Prior studies shows that anxiety over the cost of care, and uncertainty over accessing pricing information are the top two drivers of people forgoing needed dental treatment. Fully 77% of uninsured patients have delayed needed care because of high cost, and 73% have delayed care because of difficulties accessing pricing information.<sup>3</sup>

Thus, there is strong evidence that giving consumers easier access to pricing information and arming them with an ability to shop for more affordable providers would have a significant, positive effect on American’s oral health – especially those currently without insurance.

Creating a more transparent, “shoppable” market is especially important given evidence that patients do not necessarily receive better care by paying more for healthcare services. After examining outcome and cost data for a wide range of healthcare providers, the Massachusetts Attorney General’s Office concluded that there was no correlation between price and quality.<sup>4</sup> Similarly, a 2010 analysis by Rand Health found, after aggregating across specialties, that there was no relationship between the cost of care and the quality of patients’ outcomes.<sup>5</sup>

Thus, there is no evidence that the dramatic price variations seen in the US dental market can be explained through differences in the quality of care patients are receiving.

## Goals of this research report

In light of these facts, the aims of this research report are to:

1. Measure how transparent LA dentists currently are in disclosing price information to potential patients, benchmarking this transparency level against other large markets in the US.
2. Quantify the distribution of prices in LA for 6 common dental procedures, identifying the median prices paid and the spread between high- and low-cost providers.

## Methodology

This report integrates two data sources. The first is a dataset of 26.9 million individual dental insurance claims submitted by dental providers in Southern California – 8.46 million of these claims were submitted by 8,624 dental providers in LA County. These submissions included the providers’ fee for a given procedure, allowing us to calculate price distributions for these procedures down to the level of individual cities within LA County.

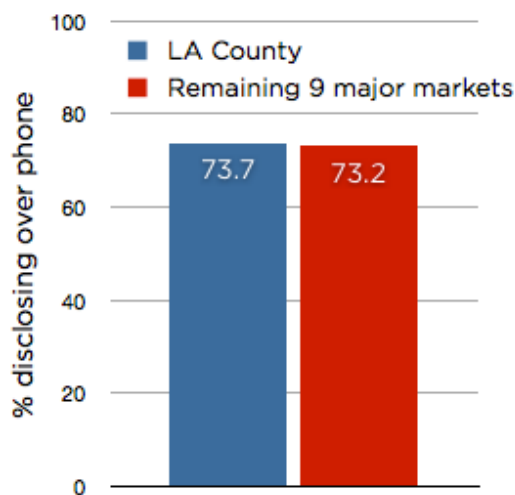
The second data source represents findings from a telephone survey of 1,126 dental providers in 10 major markets in the US (Atlanta, Chicago, Dallas/Fort-Worth, Denver, Los Angeles, Miami, New York, Orlando, Phoenix, San Francisco). Trained callers contacted each provider under the guise of being a potential new patient. Each caller requested the price of one of the common procedures identified below.

1. Scaling and root planning (D4341)
2. A crown (D2750)
3. A tooth extraction (D7140)
4. Prevention sequence, including comprehensive oral evaluation (D0150), complete x-ray series (D0210) and adult prophylaxis (D1110).

## Ease of accessing dental price information in LA

The telephone survey revealed that dentists in LA fall in the middle of all 10 markets in terms of their willingness to divulge procedure prices over the phone to potential new patients. As the Figure below shows, 74% of dentists in LA disclosed procedure costs over the phone. This is essentially identical to the average of the 9 other key markets tested, where 73% of dentists were willing to disclose.

We note that this measure of transparency, though commonly used in public health studies, can be considered a relatively generous definition of transparency. Research shows that many patients will not ask for price information because of cultural constraints and social norms that discourage these inquiries for healthcare services.<sup>6,7</sup> Thus, it is likely that a minority of dental patients ask for prices in advance of treatment, and our results suggest that more than 25% of this minority will be unsuccessful even if they do ask. Together, this suggests that a small minority of dental patients is currently in a position to factor price information into their treatment decisions.



# Price distributions for six common procedures in LA

The second barrier to access we examine is high price variability – anxiety over high cost of treatment being cited as the second most frequent reason for delaying treatment in uninsured dental patients.<sup>8</sup>

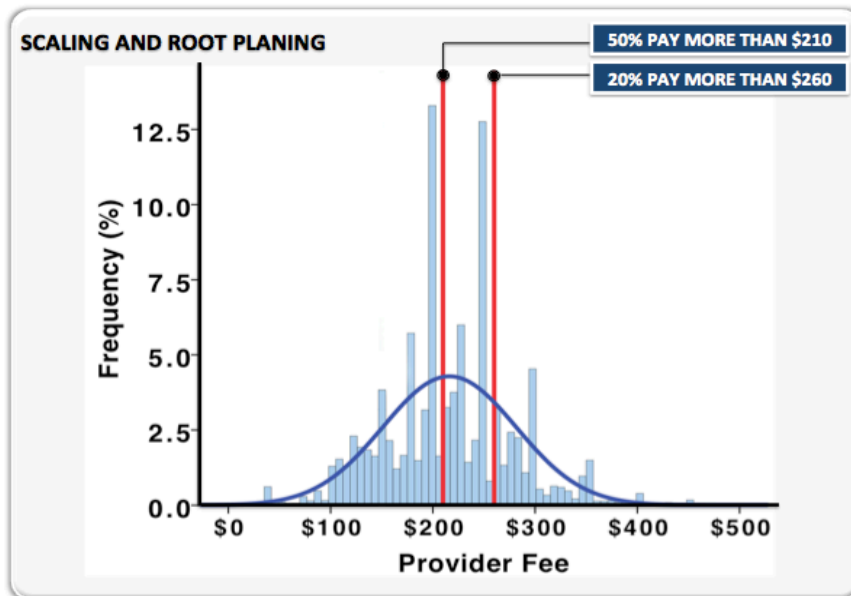
We analyzed the price distributions using a third-party database of 26.9 million insurance claims lodged by dental providers in Southern California. Distributions were calculated for the same 6 common procedures studied in the telephone survey.

## Price distributions for 6 common procedures in LA

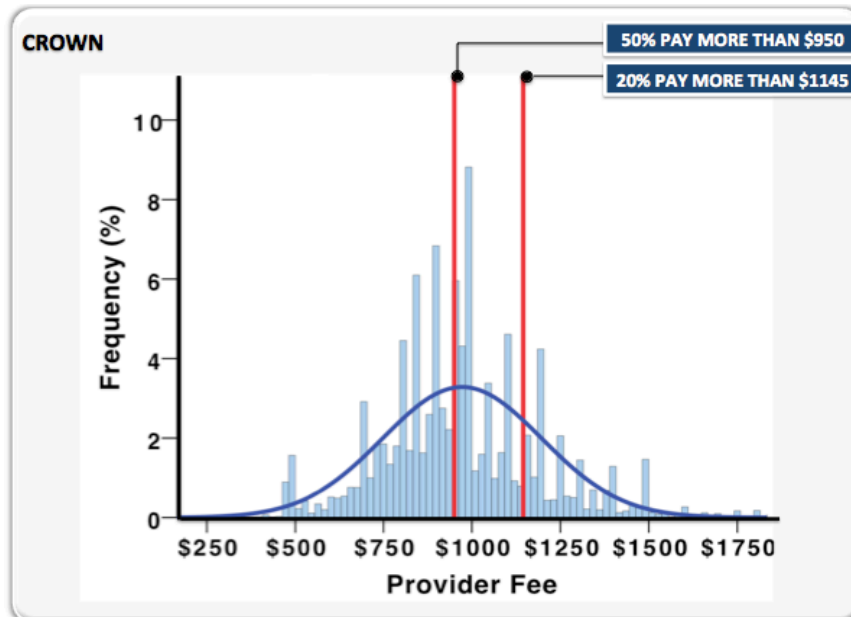
For each of the 6 procedures, we calculated the distribution of prices after excluding the top and bottom 0.25% of prices as outliers. We also identify the median price and the price at the 80<sup>th</sup> percentile (i.e., where 20% of patients pay that price or more).

Each figure depicts the percentage of claims lodged at each price point (light blue bars). In addition, a normal distribution has been fitted to each distribution (the dark blue “bell curve” line).

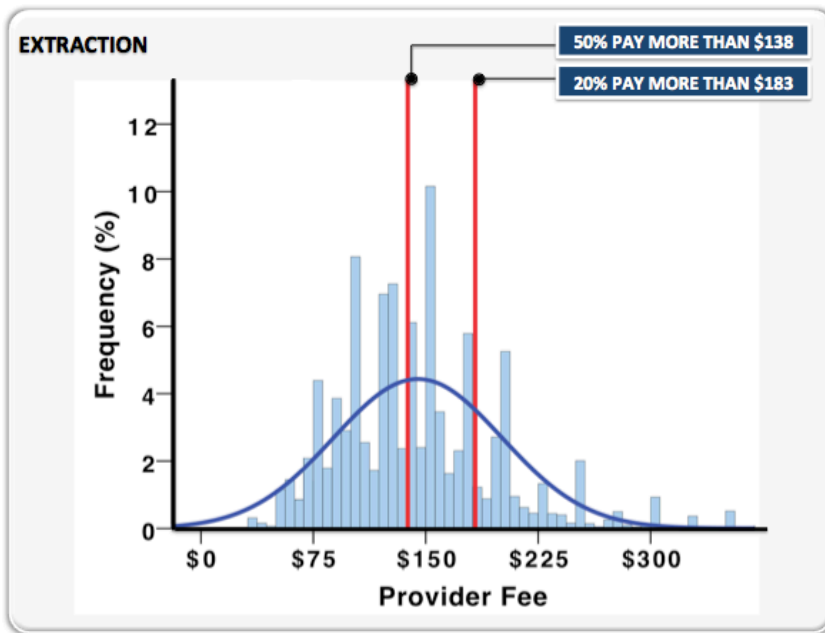
Finally, the table below each figure identifies the price paid by consumers at the 1<sup>st</sup> percentile of prices, the 99<sup>th</sup> percentile of prices and shows the percentage increase in prices from the 1<sup>st</sup> to 99<sup>th</sup> percentile. Averaging across all 6 procedures, prices varied by an average of 384%. That is, prices at the 99<sup>th</sup> percentile represented a 384% premium over the identical procedure charged at the 1<sup>st</sup> percentile.



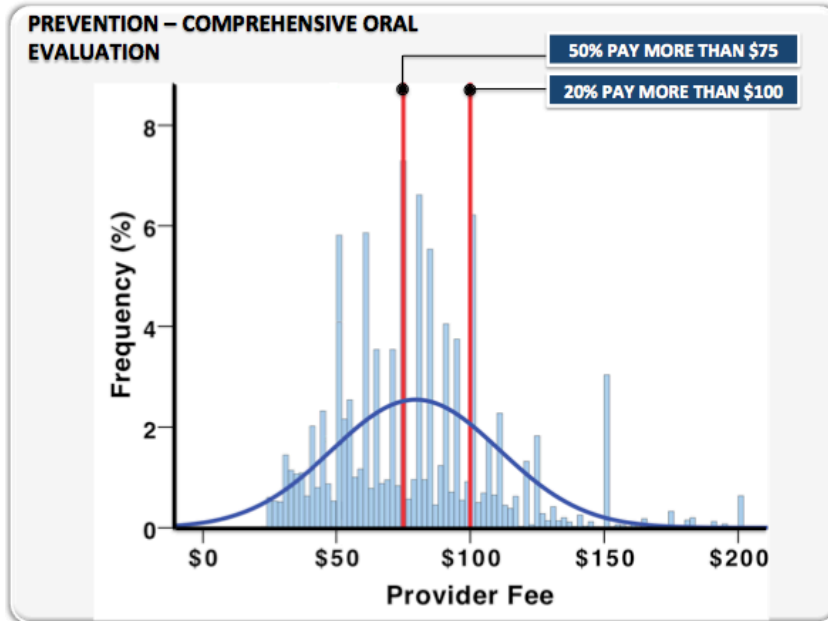
| Procedure                       | Procedure cost at 1st percentile | Procedure cost at 99th percentile | % increase from 1st to 99th percentile |
|---------------------------------|----------------------------------|-----------------------------------|----------------------------------------|
| D4341: Scaling and root planing | \$72                             | \$395                             | 448.6%                                 |



| Procedure    | Procedure cost at 1st percentile | Procedure cost at 99th percentile | % increase from 1st to 99th percentile |
|--------------|----------------------------------|-----------------------------------|----------------------------------------|
| D2750: Crown | \$476                            | \$1600                            | 236.1%                                 |



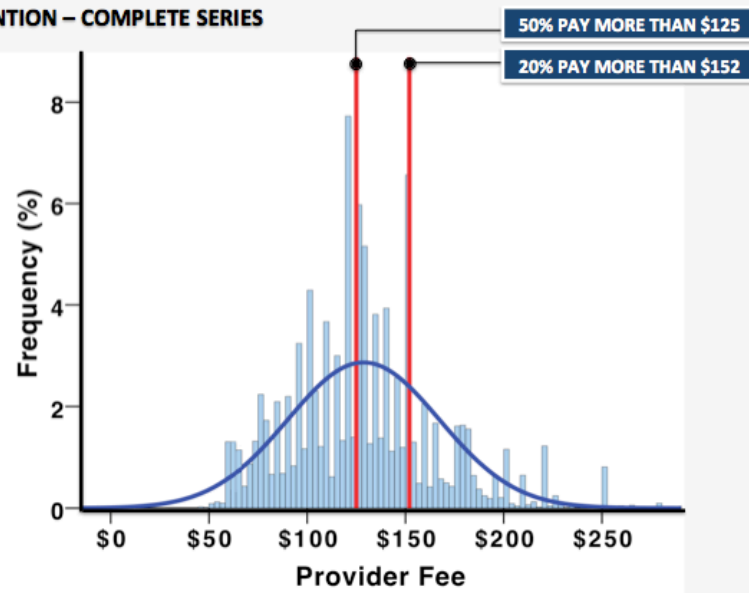
| Procedure         | Procedure cost at 1st percentile | Procedure cost at 99th percentile | % increase from 1st to 99th percentile |
|-------------------|----------------------------------|-----------------------------------|----------------------------------------|
| D7140: Extraction | \$55                             | \$344                             | 525.5%                                 |



| Procedure                                       | Procedure cost at 1st percentile | Procedure cost at 99th percentile | % increase from 1st to 99th percentile |
|-------------------------------------------------|----------------------------------|-----------------------------------|----------------------------------------|
| D0150: Prevention-comprehensive oral evaluation | \$27                             | \$183                             | 577.8%                                 |

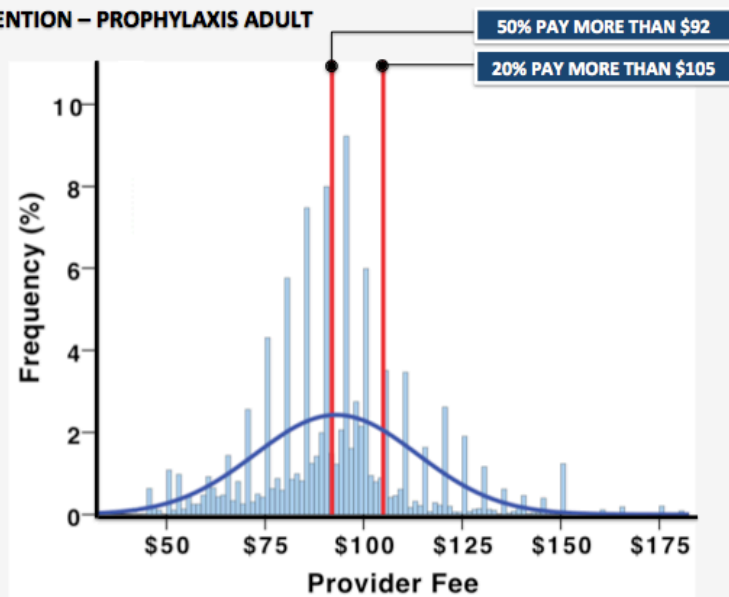


### PREVENTION – COMPLETE SERIES



| Procedure                                | Procedure cost at 1st percentile | Procedure cost at 99th percentile | % increase from 1st to 99th percentile |
|------------------------------------------|----------------------------------|-----------------------------------|----------------------------------------|
| D0210: Prevention-Complete series (xray) | \$60                             | \$250                             | 316.7%                                 |

### PREVENTION – PROPHYLAXIS ADULT

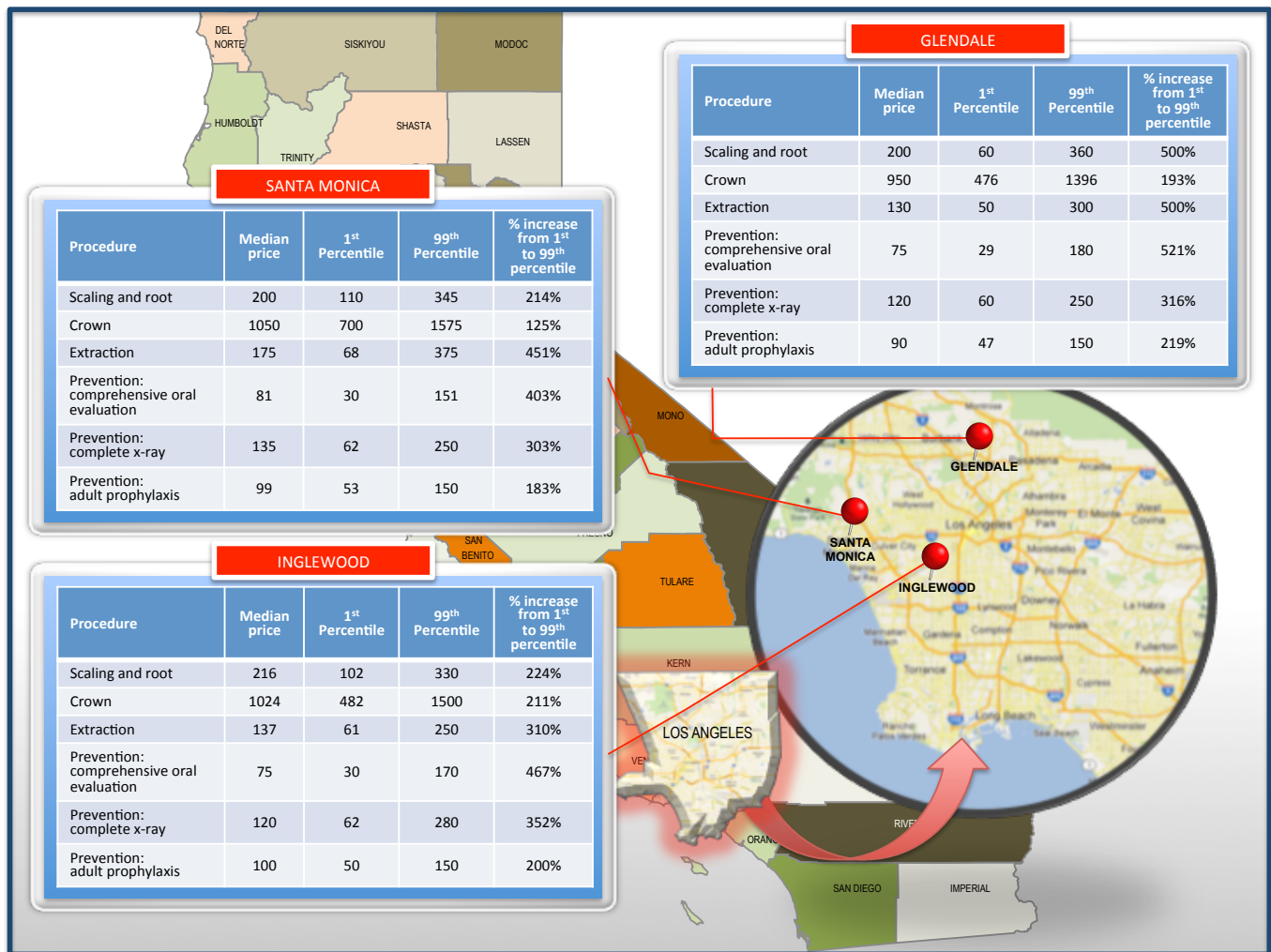


| Procedure                                        | Procedure cost at 1st percentile | Procedure cost at 99th percentile | % increase from 1st to 99th percentile |
|--------------------------------------------------|----------------------------------|-----------------------------------|----------------------------------------|
| D1110: Prevention – Prophylaxis adult (cleaning) | \$50                             | \$150                             | 200.0%                                 |

## LA cities in detail: Santa Monica, Glendale, & Inglewood

To examine how price variation plays out even among dentists within close proximity to one another, we modeled the price distributions within three cities in LA: Santa Monica, Glendale and Inglewood. Specifically, we show the median price, and 1<sup>st</sup> and 99<sup>th</sup> percentile prices, across all six procedures for dentists in these cities.

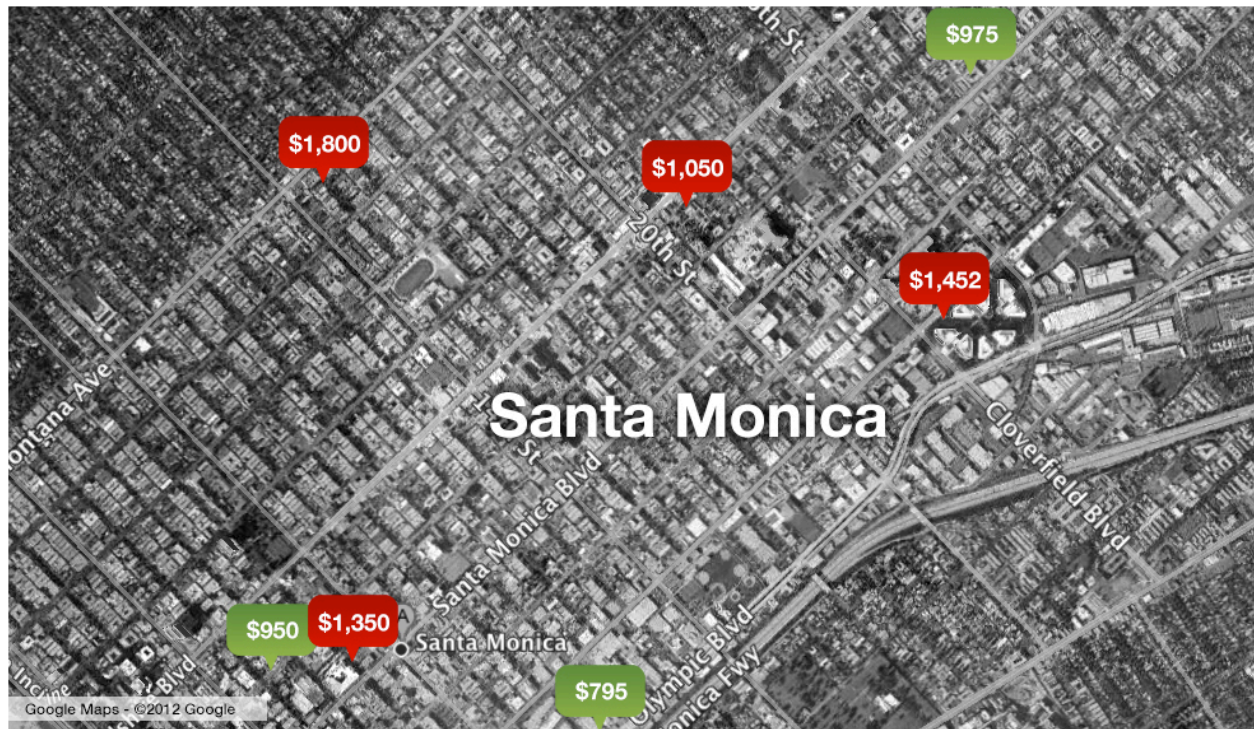
As the figure below shows, even within these highly localized areas, prices for the same procedures vary by an average of 316%. Within Santa Monica, procedure prices vary by an average of 280%. Within Inglewood, prices vary by an average of 294%. Within Glendale, procedures vary by an average of 375%.



## The cost of a crown: Satellite imagery of Santa Monica, Glendale and Inglewood

The price disparity findings are brought into further relief through satellite imagery showing how prices vary dramatically, even within local neighborhoods. The images below show the cost of a porcelain crown at a representative cross section of dental providers in close proximity to each other in Santa Monica, Glendale, and Inglewood. These images were created using results from the telephone survey of 1126 dentists.

**In Santa Monica, the cost of a crown varies from \$795 to \$1800 within a 1.5 mile radius**





In Glendale, the cost of a crown varies from \$580 to \$1150 within a 0.25 mile radius



In Inglewood, the cost of a crown varies from \$550 to \$1200 within a 200 foot radius



## Conclusion

This analysis of 26.9 million insurance payments reveals that the LA dental market is currently characterized by high variability in pricing practices for identical procedures, even within localized areas of the city. Prices were found to vary by an average of 384% across 6 procedures and by up to 578% for some procedures (comprehensive oral evaluations). These stark disparities are effectively hidden from consumers, most of whom are not given, and do not ask for price information in advance of treatment. Moreover, because cost of care typically is unrelated or weakly related to the quality of patients' outcomes, the stark pricing disparities cannot readily be explained though differences in the quality of care patients are receiving.

These price disparities are compounded by low levels of price transparency in LA, which prevents patients from shopping for care. A telephone survey of 1,126 dentists found that more than one quarter of LA dentists did not disclose procedure prices over the phone to new patients, even when asked directly. This figure was comparable to the average of 9 other key markets in the U.S.

Collectively, the findings underscore the current "opaque" nature of dental pricing in LA and the value that consumers can gain by the market becoming more transparent and shoppable by the average person.

For further details on this report or for inquiries regarding reports for other major US markets please contact:

Media Contact  
Katie Gerber  
451 Marketing  
(408) 799 – 5864  
[kgerber@451marketing.com](mailto:kgerber@451marketing.com)

Report Lead Researcher  
David Neal, PhD.  
Founding Partner  
Empirica Research  
[david@empiricaresearch.com.au](mailto:david@empiricaresearch.com.au)

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