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DENTAL SERVICE ORGANIZATIONS: A COMPARATIVE REVIEW

Texas Medicaid Billing Patterns of Dental Service Organizations and Non-Dental Service Organization Providers in Fiscal Year 2011

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Executive Summary

Our study, which covered 100% of all Texas Medicaid dental patients in fiscal year 2011, finds that DSOs are doing just what Congress hoped they would do. DSOs are providing dental care to some of the poorest, most underserved segments of our society. DSOs are not only providing much needed care, but they are providing that care expeditiously and relatively inexpensively when compared to non-DSO affiliated dentists.

The traditional business model in the world of dentistry is being pushed by the emergence of dental service organizations (DSOs), corporations that manage many of the non-dental operations of individual dentists and group practices. While DSOs have existed since the 1960s, they have become much more prevalent since the late 1990s. Their use of scale at the corporate level on aspects of the day-to-day business like scheduling, purchasing, billing and regulatory compliance enable practices managed by DSOs to operate with much lower costs than traditional dental practices. In turn, that lower operating cost has enabled DSOs to service Medicaid patients at a profit, something many traditional dental practices are unwilling or unable to do.

Yet while most of us would view the provision of dental services to a historically underserved population as a positive, DSOs are under attack. Based on the data, we find totally untrue the storyline put forth—that DSOs, due to the need to generate a return for their shareholders, push their dentists to perform unnecessary procedures and higher cost procedures in order to generate additional reimbursement revenue from Medicaid.

Our story focused exclusively on Texas, which is near the heart of the controversy and where a number of the largest DSOs operate. In spite of DSOs' exemplary behavior, the media attention on the story is rampant, and trial lawyers have already begun filing lawsuits. Importantly, we have all of the 2011 Medicaid data readily available from Texas to corroborate or reject the allegations about DSOs. And indeed, a review of the data is what is necessary.

In fact, our review of the Texas Medicaid data from fiscal year 2011—some 25.9 million procedures—rejects virtually everything DSO detractors claim:

- Across the state of Texas in 2011, dentists affiliated with Kool Smiles (the nation's largest Medicaid focused DSO) performed 8.24 procedures per patient and dentists belonging to DSOs performed 10.15 procedures per patient, versus 12.39 procedures per patient at non-DSOs. Clearly, Kool Smiles and other DSOs are not performing too many procedures—at least not relative to non-DSO dentists.
- The cost per patient per year was $345.45 at Kool Smiles practices and $483.89 at DSO clinics, compared with $711.54 for non-DSO offices. Kool Smiles and DSOs in general are not overcharging either, compared to regular dentists.
- Dentists at DSO clinics also billed Medicaid less per patient than other dentists for those procedures that could indicate the presence of fraud or mistreatment, such as tooth extractions, pulpotomies (removal of infected tooth pulp), and crowns.

All of the 2011 data for Texas suggest that DSO dentists provide conservative, low-cost treatment to a previously underserved population, thus improving the dental health of Texas' low income children and families. Today, DSOs are doing just what we need: providing a critically important health service to people who desperately need it, ultimately at a lower cost to the taxpayer.

As consumers and taxpayers, we should embrace this win-win-win solution.

Introduction

A "perfect storm" has struck the Texas dental community that serves some of the state's neediest patients—those on Medicaid. With a major state budget shortfall, charges of Medicaid fraud and now trial lawyers scurrying to stake their claim, it's a wonder that any Texas dentists are willing to be part of the Medicaid program. In particular, dental service organizations (DSOs), corporations that provide services to individual or group dental practices, have come under attack for allegedly running up patient procedure counts and costing taxpayers money.

What's tragic about all the negative attention on DSOs is that DSO dentists are filling an important void in dental coverage that Congress has specifically incentivized dentists to fill, and, at least in Texas where I have reviewed the 2011 Medicaid data, are actually performing more conservatively than non-DSO dentists.

By way of background, Medicaid was passed in 1965 as part of the Social Security Amendments and allows each state to administer the program. Centers for Medicare and Medicaid (CMS) monitor and establish standards for the programs.[1] The Children's Health Insurance Program (CHIP), previously known as the State Children's Health Insurance Program, was passed into law by Congress in 1997 and had as its main goal the provision of health insurance for uninsured children in families whose incomes are modest but too high to qualify for Medicaid—essentially from a little over the federal poverty level (where Medicaid eligibility ends) up to three times the federal poverty level. Like the administration of Medicaid funds at the state level, the federal government provides states with matching funds so that states can provide the insurance coverage. In addition, as a condition of providing matching funds, the federal government gives states broad latitude in designing their programs as long as they meet certain federal guidelines for coverage, eligibility, etc.[2] The states may bundle together the administration of Medicaid and CHIP, though dental coverage is optional through CHIP.

Obviously the addition of dental coverage to these health programs adds to the expense. Yet the societal costs of not providing dental care are high, as children who have not had access to proper dental care experience far greater problems because of the years of neglect, with the problems lasting well past childhood. The alternatives to reliable dental care are far more expensive trips to the emergency room or poor dental health and less productive citizens.[3]

Historically, though, many dentists have been unwilling to treat Medicaid patients because Medicaid has low reimbursement rates (e.g. Medicaid pays the dentists much lower prices for their services than do customers paying cash or using private insurance). Also, Medicaid entails enormously bureaucratic administrative difficulties which border on prohibitive, such as the time required to apply to be a Medicaid provider.[4] Accordingly, numerous studies by the GAO and private researchers have found very low dental participation in Medicaid.[5]

Low dental participation in Medicaid shouldn't surprise anyone—low price, high cost industries rarely attract businesses. One such analysis highlights the low participation of dentists in Medicaid:

> 25 of 39 [responding] states reported that fewer than half of the dentists in their states [had] treated any Medicaid patients during the previous year. Only one of 41 states reported that more than half of the state's dentists saw 100 or more Medicaid patients during the previous year.[6]

Furthermore, the Centers for Medicare and Medicaid Services have been explicitly aware of the lack of dentist participation in Medicaid due to compliance costs and low reimbursement rates at least since the release of a 2007 Health and Human Services study on improper payments to dentists that treat children enrolled in Medicaid.[7] Also in 2007, there was a celebrated case of a Maryland child, Deamonte Driver, who died from complications of an abscessed tooth after his mother couldn't find a single dentist who would accept Medicaid patients.[8] Partly as a response to Driver's tragic death, Congress included in the 2009 Children's Health Insurance Program Reauthorization Act (CHIPRA) the added federal regulation that participating states include dental services as part of the program.

The added dental benefit in CHIPRA was designed to make it easier for children in lower income families to receive access to dental care by increasing the amount of funding available in the program to treat patients, thus incentivizing more dentists

[1] Wikipedia contributors. "Medicaid." http://en.wikipedia.org/wiki/Medicaid
[2] Wikipedia contributors. "State Children's Health Insurance Program." http://en.wikipedia.org/w/index.php?title=State_Children%27s_Health_Insurance_Program&oldid=502668495
[3] Pew Center on the States. "A Costly Dental Destination: Hospital Care Means States Pay Dearly." Issue Brief. http://www.pewstates.org/research/reports/a-costly-dental-destination-85899379755
[4] Buchmueller, Thomas C., Sean Orzol, and Lara D. Shore-Sheppard. "The Effect of Public Insurance Coverage and Provider Reimbursement on Access to Dental Care."
[5] See, for example: Government Accountability Office. "The Extent of Dental Disease Children Has Not Decreased, and Millions Are Estimated to Have Untreated Tooth Decay." GAO-08-1121. Government Accountability Office. "State and Federal Actions Have Been Taken to Improve Children's Access to Dental Services, but Gaps Remain." GAO-09-723; Government Accountability Office. "Efforts Under Way to Improve Children's Access to Dental Services, but Sustained Attention Needed to Address Ongoing Concerns." GAO-11-96.
[6] Wall, T. P. "Dental Medicaid -- 2012." Dental health policy analysis series.
[7] "Improper Payments for Medicaid Pediatric Dental Services." OEI-04-04-00210: pg. 26.
[8] Edelman, Marian W. "Deamonte Driver Dental Project." http://www.hvpress.net/news/173/ARTICLE/7885/2009-09-23.html

to treat CHIP and Medicaid patients. CHIPRA included increased federal funding to the states for children's health and dental insurance of $33 billion through 2013, with the codified aim of expanding insurance to an additional 6.5 million children, 4.1 million of whom otherwise would have been uninsured.[9]

While eligibility is set by the states, the federal government provides enhanced assistance via CHIPRA to states that offer dental coverage to families with incomes starting where Medicaid ends (between 100% and 185% of the federal poverty level, depending upon age of the child) and extending up to 300% of the federal poverty level.[10] In 16 states, including Texas, CHIP oversight is managed by the state Medicaid office, but the program is separate from Medicaid. In 22 states and Washington D.C., CHIP eligible children are covered through a hybrid of Medicaid expansion and separate programs that each state creates and oversees. Twelve states have opted to use CHIP funds to cover children through an expansion of Medicaid.[11]

The logic underlying the Congressional legislation was that increased federal funds available to treat underserved patients would, through the profit motive, lure dentists into serving these underserved populations. Indeed, the Congressional logic worked, and access to dental services for these underserved populations has increased. According to the 2011 Pew Center report "The State of Children's Dental Health", children's dental coverage is improving in 22 states while declining in only six states, even though CHIP/Medicaid reimbursement rates have dropped.[12] Moreover, the percentage of children enrolled in Medicaid who had at least one dental visit over the course of the year increased from 34.4% in 2007 to 40.2% in 2010, even as the number of children enrolled in the program increased dramatically.[13]

It was clear from the very start that while increased children's dental coverage was the goal, Congress fully understood that to achieve this goal dentists would need to be incentivized to provide these additional services. Like all of us, dentists respond to market incentives.

Much of the increase in dental coverage to previously underserved populations is being led by dental service organizations.[14] A DSO, once again, is a single corporation that provides services to individual or group dental practices. The corporate office of a DSO handles a wide range of management services for those dental practices—such as billing, scheduling, recordkeeping, purchasing, regulatory compliance, etc.—thereby freeing the dentists to do what they do best: dentistry.[15] DSOs use scale to their advantage, thereby helping dental offices to remain profitable while treating CHIP/Medicaid patients.[16]

DSOs are doing just what Congress intended be done via CHIPRA, by helping to provide valuable dental services to an underserved population. As strange as it may seem, however, trial lawyers, some family dentists not in DSOs, and the mainstream media are criticizing DSOs for both providing extended services and for being profitable. Go figure! We wonder whether trial lawyers (or anyone else for that matter) would do what they do if it weren't profitable for them? I think we all know the answer to that question. While it's not flattering to those dentists who are critical of DSOs, anecdotes, envy and jealousy appear to be obvious reasons for their criticisms of DSOs. In anticipation of data reported later in this paper, it is DSO dentists who keep non-DSO dentists in line with competitive prices and comprehensive services, not the other way around.

Within the dental industry, DSOs are being portrayed as perpetrators of Medicaid fraud. The main story line put forth by DSO detractors is that DSOs, backed by greedy private equity financiers, are only out to turn a profit and accordingly are inappropriately running up the procedure count on their patients in order to generate more total reimbursement dollars from Medicaid and CHIP.[17] As stated by James Moriarty, the lawyer who has filed a class action lawsuit against a national DSO,[18] "The hideously abusive practices are what happen when a dental clinic is run by a private equity firm, purely for profit. The results are two-fold: harm to children and extraordinary cost to taxpayers."[19]

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[9] The Henry J. Kaiser Family Foundation, "Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA)", February 2009.
[10] "Expand Eligibility for the State Children's Health Insurance Program (CHIP)." http://www.hdwg.org/catalyst/cover-more-kids/schip-expansion
[11] From here on we will refer to patients treated under either federal program as CHIP/Medicaid patients unless we are explicitly referencing a single program.
[12] The State of Children's Dental Health: Making Coverage Matter."
http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/State_policy/Childrens_Dental_50_State_Report_2011.pdf
[13] Dr. Burton Edelstein. "Dental Visits for Medicaid Children: Analysis and Policy Recommendations", CDHP.org, June, 2012. http://www.cdhp.org/resource/dental_visits_medicaid_children_analysis_and_policy_recommendations
[14] *Ibid.*
[15] It is illegal for a non-dentist to own practices in most states. See, for Texas: Texas State Board of Dental Examiners. "Legal FAQ." http://www.tsbde.state.tx.us/index.php?option=com_content&task=view&id=61&Itemid=72
[16] While not all DSOs provide Medicaid covered care, the DSO business model makes them especially adept at serving Medicaid patients as compared to standard dental practices.
[17] Moriarty, Jim, and Charles S. Siegal. "Unethical Private-Equity-Owned Dental Clinics Receive Well Deserved Attention." http://www.moriarty.com/abusivedentalclinics/content/White_Paper_PDFs/8-2-12-1Unethical_Private-Equity-Owned_Dental_Clinics_edits.pdf
[18] Moriarty Leyendecker. "Small Smiles Lawsuit." http://www.moriarty.com/small_smiles/
[19] Domino, Donna. "Private equity firms eye big profits in dentistry."
http://www.drbicuspid.com/index.aspx?sec=sup&sub=pmt&pag=dis&ItemID=310662

The above statement is both illogical and factually incorrect. First, these incentive problems exist for all dentists, each of whom has chosen dentistry as his or her profession by which to earn a living. The profit motive is not unique to DSOs. Second, all dentists are subject to the Hippocratic Oath and thus must always look out for the well-being of their patients. Third, it is the cost structure of DSOs that enable them to succeed when they treat Medicaid patients. DSOs don't need to cheat to be profitable. As any car salesman knows, you can't make up for a per unit loss via increased sales volume. Indeed, Burton L. Edelstein DDS MPH, Professor of Dental Medicine and Health Policy & Management at Columbia University hit on all of these issues while writing for the Children's Dental Health Project, a non-profit organization dedicated to oral health access for all children:

> The underlying business concept [of DSOs] has been controversial amongst policymakers and practicing dentists who raise concerns about perverse incentives to over treat. Yet these same perverse incentives exist across all dental provider types as virtually all dental care in the US is paid on a fee-for-service quantity-of-care basis. Concern has also been raised about the quality of care being provided in these [DSOs] because of their ownership or management by entrepreneurs many of whom are not dentists. However, the legal, ethical, and moral responsibility for providing quality care rests not with any employer but with the licensed dentist. Unlike some of the other dental delivery sectors, the largest and best managed of the [DSOs] utilize rigorous metrics that seek to identify and address practitioners who over treat. There is an urgent and profound need to develop and implement quality metrics across all provider types to ensure that care provided is both necessary and comprehensive. In general the business model for these Medicaid [DSOs] succeeds financially because they are able to reduce operating costs by locating in economically depressed areas (where real estate and employee costs are low), purchasing in bulk (to avail themselves of quantity discounts), and providing flexible scheduling that recognizes the impediments that many low income families face with transportation and work arrangements.[20]

The anti-DSO line of criticism is long on anecdotes and short on data. In my world of economics, data tell the story. In my view, the burden of proof is on the accuser to show that more than an isolated few DSOs are indeed participating in "abusive practices."

Let me be clear—these anecdotes of unscrupulous and fraudulent behavior by dentists across the country are disturbing, should be taken seriously, and should be acted upon to the fullest extent of the law where appropriate. Yet a few instances of wrong-doing should not sully all DSOs unless there is proof those actions are pervasive across the industry. The lack of publicly available data showing fraudulent or malicious practice by DSO dentists does not prove DSOs innocent of the claims, but no one should presume them guilty based on charges leveled in the court of public opinion by people who live in glass houses themselves.

Accusers would need evidence beyond a reasonable doubt to show wanton misuse of the doctor-patient relationship in order to level such strong accusations. We have yet to see that evidence. In fact, the evidence we have seen—100% of the Medicaid cases in Texas in 2011—incontrovertibly contradicts each and every criticism leveled against DSOs. False accusations are often far more damaging to patient, doctor, and taxpayer alike than are failures to root out infrequent and minor infractions. No matter how much is spent, we'll never catch every misdeed, but if we overreact we can destroy a lot of benefits.

Data Analysis

While it is easy for detractors to level allegations of greedy DSOs victimizing CHIP/Medicaid and our nation's poor, the data we have analyzed tell a different story. DSO dentists are performing fewer procedures per patient visit than the average dental office. Additionally, procedure counts for those procedures that would raise the specter of fraud by dentists inappropriately performing unnecessary higher revenue procedures are also lower per patient at DSO dentists than at non-DSO dentists.

At the heart of the controversy surrounding DSO dentists is Texas, as it marries all the key components of the narrative: the largest DSOs, increased CHIP/Medicaid dental rates, tremendous media coverage, trial lawyers and omnipresent regulatory activity.[21] Moreover, we have all of the Texas Medicaid data for the entire year 2011 to either confirm or reject the allegations of DSO detractors. Kool Smiles, the nation's largest DSO providing care to Medicaid patients, is also well represented in the data. (Kool Smiles engaged my firm, Laffer Associates, to take an objective look at the Texas Medicaid claims data, but Kool Smiles has no say over the conclusions we draw from our analysis of the data.)

After analyzing all Medicaid claims files for the state of Texas in FY2011—some 25.9 million procedures—it is clear that, contrary to what the critics allege, DSO dentists perform fewer procedures per patient than non-DSO dental practitioners. In addition, the primary target of DSO critics, Kool Smiles, performs fewer procedures than other DSOs. The standard

[20] Edelstein, "Dental Visits for Medicaid Children: Analysis and Policy Recommendations."
[21] See, for example: Koppel, Nathan. "Texas Drills Down on Medicaid Dental Fraud." *The Wall Street Journal*, August 20, 2012.

narrative on DSO dentists is not only wrong by implying that DSO dentists are behaving poorly, but in truth DSO dentists are exemplary in performing their appointed tasks.

Data and Methodology

We were provided Medicaid claims paid data for the fiscal year 2011 by Kool Smiles, who had received these data from the Texas Medicaid Program via a Freedom of Information Act request. We did nothing to verify the authenticity or accuracy of these data.[22]

Before going into the results of our analysis, let me provide a few definitions. In Texas, Medicaid covers children in families from no income up to 185% of the federal poverty level for children up to 1 year old, up to 133% of the federal poverty level for children from 1 year old to 5 years old, and up to 100% of the federal poverty level from children 6 years old to 19 years old.[23] Thus, the data contain all Medicaid claims arising from children aged zero through 19 years, 11 months in families with income up to the applicable multiple of the federal poverty level (the federal poverty level is an annual income of $18,530 or less for a family of three as of 1/1/12), regardless of what type of dental provider treated the child.

We counted as a procedure every separate dental activity that was charged to Medicaid with a Medicaid billing code. Unfortunately, the data did not contain a separate total count of patients accessing dental services. Instead, unique patient counts were provided for each Medicaid billing code. To derive an estimate of the total number of patients, we added the number of patients treated via each code for a prophylaxis cleaning and used that count as our number of unique patients. We used this procedure for all DSOs and all non-DSOs as well.

Prophylaxis cleanings, or "prophies", are the standard dental cleanings that every patient receives as part of a routine dental visit.[24] These dental cleanings, which are typically billed under the same code each visit, provide a more reliable method for this patient count than other routine services, such as exams, which might be billed under different codes and lead to double counting. There are three codes for prophylaxis cleaning, each based on age: D1110 for patients 13 to 20 years old, D1120 for patients 6 months to 12 years old, and D0145, [25] a code specific to the Texas Health Steps program, for children under 3 years old.[26]

The Medicaid data we received contained a count of clients who received the procedure associated with each Medicaid billing code, broken out by location of dental service (see below). Summing the number of clients receiving each prophylaxis procedure thus provides a proxy for the total number of unique patients treated under Medicaid in Texas in 2011.[27] Accordingly, we use "prophies," a routine procedure administered with regularity, as the count for unique patients, or "patients," as we'll refer to them in this analysis.

Additionally, the data quite naturally did not explicitly identify which dentists were associated with DSOs. The amount of reimbursement doesn't differ for DSO dentists and non-DSO dentists. In order to receive reimbursements for treatment performed on Medicaid patients, however, a dentist must apply for and be assigned a Medicaid Texas Provider Identifier (TPI) number. We made a list of all of the DSOs we could identify that do business in Texas, and any TPI that filed a claim using an identified DSO address was counted as being a DSO dentist (see Appendix A for a full listing of all DSOs included in our calculations). All other TPIs were counted as non-DSO dentists. In the process, we dropped the claims data for any TPI that filed with Texas Medicaid but was associated with an address that was not within or immediately bordering Texas.[28]

An important caveat is that the total population of DSOs within the data represents office locations, and not individual dentists. In going through the data, we were unable to find multiple dentists working at the same DSO office billing separately. With few exceptions for non-DSOs, it seems a rule that most group practitioners bill under a single base (7-digit) TPI instead of their unique and individual 9-digit TPI.

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[22] The raw data can be downloaded at: https://www.dropbox.com/s/m60uq1w8nbqu7ca/TX%20Medicaid%20Data.xlsx

[23] Kaiser Family Foundation. "Texas: Income Eligibility Limits for Children's Separate CHIP Programs by Annual Incomes and as a Percent of Federal Poverty Level, January 2012." http://www.statehealthfacts.org/profileind.jsp?ind=204&cat=4&rgn=45

[24] Tekavec, Carol. "What's a Cleaning?" http://www.dentaleconomics.com/articles/print/volume-90/issue-3/departments/dental-insurance/whats-a-cleaning.html

[25] In an attempt to increase treatment to the youngest children, Texas created the billing code D0145 as a unique billing code for the "First Dental Home" program. Rather than a bundle of procedures with existing codes, it includes the child's exam, fluoride and parent education. "FREW Medical and Dental Strategic Initiatives." http://www.hhsc.state.tx.us/about_hhsc/AdvisoryCommittees/docs/Briefing%20Paper_First%20Dental%20Home.doc

[26] While D0145 and D1120 overlap in terms of age, the use of each code in our patient count does not represent double counting, as a dentist cannot bill Medicaid, for example, a D1120 and a D0145 on the same visit of a two year old.

[27] The only time a single patient could be counted twice via this methodology for services performed at the same TPI is if the patient changed from one age group to another during 2011 and visited the dentist while in each age group (e.g. one visit at 12 years old and another at 13 years old), thereby receiving prophylaxis cleanings under two different Medicaid billing codes during the same year. We have no reason to believe this occurrence would be any more common at one type of provider than another, so any associated increase in patient count should be spread pro rata amongst the types of dental providers within Texas.

[28] The original dataset contained 128,927 rows of data, each being a claim filed to Texas Medicaid. We set a rule that we would keep claims associated with an out-of-state address if that address was in zip code bordering Texas (e.g. a border city). 179 rows, totaling 10 TPIs and 20,336 procedures, were out-of-state and not immediately adjacent to Texas. The only out-of-state area adjacent to Texas included in this dataset is one zip code in New Mexico with one provider.

We first looked at data from the 1678 TPIs located in zip codes that contain a DSO, thinking such an analysis would represent a like-to-like comparison. If it's true that dentists at the 298 DSO TPIs are bringing dental services to people who have never had them before, you could easily imagine these underserved patients needing additional services as they begin seeing a dentist for the first time, thereby automatically biasing upward the procedure counts at DSOs. Thus, restricting our sample to all providers in zip codes that contain a DSO would serve to restrict our analysis to those areas where dental care has historically been less prevalent, in addition to standardizing many other demographic features of the sample. We also analyzed the data across Texas as a whole for a view of how DSO dentists compare to non-DSO dentists as a whole in the service of all Texas Medicaid patients.

Procedures Per Patient, Cost Per Procedure, and Cost Per Patient

Dentists belonging to DSOs performed 10.15 procedures per patient versus 12.90 procedures per patient at non-DSOs in those zip codes containing at least one DSO practice. This difference is not only large but in the exact opposite direction alleged by DSO critics. Moreover, the cost per patient per year is $483.89 at DSO dentists and $736.03 for non-DSO dentists. Once again, DSO critics have alleged the exact opposite of the truth. The average procedure cost for DSO dentists at this level is $47.69 while the average procedure cost for non-DSO dentists is $57.04. These results all hold as well after removing specialists (e.g. dentists who don't perform routine cleanings but instead focus on oral surgery, endodontics and other specialized procedures) from the population. Moreover, Kool Smiles—the critics' primary target—is more conservative than all of the others, performing even fewer procedures per patient, and at a lower cost per procedure and per patient, than the average for DSOs (Table 1).

Table 1
Aggregate Dental Statistics by Provider Type
(Texas Medicaid Providers in Zip Codes that Contain at Least One DSO, FY 2011)

Provider Type	Number of TPIs	Total Procedures per Patient	Cost per Patient per Year	Cost per Procedure
DSO Dentists	298	10.15	$483.89	$47.69
Kool Smiles	35	8.24	$345.45	$41.91
Non-DSO Dentists	1380	12.90	$736.03	$57.04
Non-DSO Dentists General	1165	11.84	$631.51	$53.34
Area Total	1678	11.92	$646.09	$54.20

Thus, DSO dentists do fewer procedures per patient and at a lower cost per patient and per procedure than non-DSO dentists in the zip codes in Texas that have DSOs—not quite the story you're used to hearing from their detractors. Yet the numbers are so lopsided in favor of DSO dentists, we extended our analysis to examine the state as a whole. It turns out that DSO dentists are performing fewer procedures per patient than non-DSO dentists across the whole state of Texas. The improvement over other dentists was even more pronounced with the largest DSO for Texas Medicaid, Kool Smiles, who performed fewer procedures per patient than any comparable group contained in Table 2 below.

To repeat the critical facts, the average procedures per patient across the state are 8.24 for Kool Smiles, 10.15 at all DSO dentists and 12.39 at non-DSO dentists. Total annual costs per patient show a similar result: Medicaid can expect a patient who frequents a DSO to cost $483.89 per year, while a patient visiting a non-DSO will cost $711.54 per year. For Kool Smiles, the total annual cost is $345.45. Statewide, the average procedure cost at DSO dentists is $47.69 while the average procedure cost at non-DSO dentists is $57.41. And for Kool Smiles, the cost per procedure is the least, at $41.91.

Table 2
Aggregate Dental Statistics by Provider Type
(All Texas Medicaid Providers, FY 2011)

Provider	Number of TPIs	Total Procedures per Patient	Cost per Patient per Year	Cost per Procedure
DSO Dentists	298	10.15	$483.89	$47.69
Kool Smiles	35	8.24	$345.45	$41.91
Non-DSO Dentists	3281	12.39	$711.54	$57.41
Non-DSO Dentists General	2790	11.38	$611.18	$53.72
Texas Total	3579	11.94	$665.83	$55.75

These data are not indicative of dentists at DSOs artificially increasing the volume or cost of procedures as compared to non-DSO dentists. And these data surely don't warrant singling out Kool Smiles for accusations of corrupt practices.

Waste, Fraud & Abuse

In general, the public health system in the U.S. is characterized by barriers to access and constantly growing costs.[29] Waste, fraud, and abuse (WF&A) are regarded as some of the main culprits that drive the rise in costs. Thus, even though dentists at DSOs are performing fewer procedures per patient over the course of a year than dentists outside DSOs, DSO dentists still could be committing fraud by artificially inflating procedure counts, billing inappropriately, etc. Thus, our next line of inquiry.

On the billing side, DSOs are portrayed as a class of for-profit care providers that actively exploits weakness in the Medicaid system and contributes to WF&A. Yet empirical evidence and sound reasoning demonstrate the foolishness of these accusations. DSOs, in fact, act in a manner that is contrary to the depiction alleged by their detractors. They perform better than their dental counterparts.

By way of background on the concepts of waste, fraud and abuse, the Center for Medicare and Medicaid Services (CMS) defines "abuse" as incidents or practices of providers that are inconsistent with sound medical practices or that fail to meet professionally recognized standards of care or are unnecessary.[30] With regard to liability under the False Claims Act, no proof of intent to defraud is required.[31]

"Waste," as defined by CMS, is endemic to the system because it is an outcome that occurs as doctors meet with patients and ineffective procedures result from time to time. Among the practices that fall under waste are unnecessary practices and procedures, as well as redundant and complicated paperwork.

"Fraud" entails disregard for the truth in hopes of inducing another party to act in such a way as to gain from the fruits of their action. Waste, fraud and abuse are endemic to the Medicare and Medicaid systems, but not all cases of improper payment turn out to actually be fraud. Improper claims can arise from errors and illegibility as easily if not more easily than they can improper payments due to fraud. Thus, fraud of any kind is difficult to measure. To date, no insurance company has admitted to being able to systematically and routinely measure the scope of fraud in their field. Routine Medicaid transactions lend themselves to fraud by way of their complexity and volume.[32]

In a research report funded by the National Academy of State Health Policy, Rosenbaum *et. al.* point out how, "… existing information on healthcare fraud tends to conflate evidence of fraud with evidence of payment error…"[33] According to the report, fraud originating from the provider is the most common variety in our public health system. Provider fraud entails that the care-giver, or someone acting on their behalf, utilizes a position of asymmetric information so as to overcharge 3rd-party payers.

[29] J. M. Brux, *Economic Issues & Policy*, (Mason, OH: Thomson, 2008), chap. 9.
[30] University of South Carolina School of Medicine, "Detection and Prevention of Fraud, Waste, and abuse and applicable federal and state laws." Accessed September 7, 2012. http://billingcompliance.med.sc.edu/detection.prevention.fraud.asp
[31] *Ibid*.
[32] Managed Healthcare Executive. "Healthcare Fraud and abuse remains a costly challenge." *Managed Healthcare Executive*, 2004.
[33] Rosenbaum, Sara, Nancy Lopez, and Scott Stifler. *Health Care Fraud.* Post-Doctoral Report, Washington, D.C.: National Academy for State Health Policy, 2009. Page 1.

According to the Washington State Office of the Attorney General's webpage entitled, "Common Types of Medicaid Fraud", the most common attempts to defraud the system include:

1. Billing for services never performed: This is reported to be the largest area of Medicaid fraud.
2. Unnecessary Services: This involves the care-giver intentionally misdiagnosing or misrepresenting symptoms in order to provide additional, unnecessary and extraneous services that can be billed to Medicaid.
3. Unbundling: Unbundling occurs when a service is broken down into components in order to bill Medicaid more than could be reimbursed for the whole service. An example would be billing a single 3-surface filling as three separate 1-surface fillings.
4. Upcoding: This occurs when a claim exaggerates the services performed as more complex or time-consuming than actually rendered in order to receive a higher pay-out from Medicaid.[34]

Anecdotal evidence of some instances of abuse has led to a review of all DSOs, a class of providers bringing increased dental care to patients who truly need it.[35] No doubt the threats from legal teams and bureaucrats are greatly diminishing additional entries into the Texas Medicaid market, artificially driving supply down and cost up.

The narrative leveled against DSOs claims that DSO dentists engage in child victimization and billing the Medicaid system in a wasteful, fraudulent, and/ or abusive manner. Could anyone imagine a worse villain than one who hurts children and steals from social services?! The most common allegations thrown at DSOs involve:

A. the involuntary restraint of children;
B. performing unnecessary extractions, pulpotomies, and crown placements; and,
C. performing additional, or higher revenue, procedures in an effort to meet productivity goals set by the corporate office.

Involuntary Restraint

It is widely alleged that DSO dentists restrain children using papoose boards in order to perform more procedures in less time. Unfortunately, we have little ability to comment on that allegation. Medicaid does not reimburse for the use of papoose boards in Texas except for the most extreme cases, so we lack sufficient data from which to render a judgment.

X-rays

Detractors allege that DSO dentists perform unnecessary X-rays as a means of inflating their Medicaid reimbursement, putting the children at risk in the process. At both levels of analysis, DSO dentists billed Medicaid less per patient for X-rays than non-DSO dentists. Statewide, DSO dentists performed 0.13 more X-rays per patient, collected $2.55 less per X-ray from Medicaid, and had a cost per patient per year for X-rays of an incredible $2.60 less than non-DSO dentists. Each X-ray at DSO dentists cost Medicaid 10.56% less per X-ray taken when compared to non-DSO dentists (Table 3)!

In DSO zip codes, DSO dentists performed 0.02 more X-rays per patient and had a cost to Medicaid of $2.25 less per X-ray than non-DSO dentists, resulting in an enormous savings of $4.59 per patient per year for X-rays. The cost of X-rays per patient per year is thus 9.43% less at DSO dentists than at non-DSO dentists in the same set of zip codes (Table 4). Thus on an annual basis, DSO dentists billed less per patient per year for X-rays on both a statewide and DSO zip code level. Meanwhile, Kool Smiles had the lowest cost per X-ray—with Medicaid reimbursing Kool Smiles $20.11 per X-ray—and the lowest cost per patient per year for X-rays—with a cost per patient per year for X-rays of $42.63—in both geographic areas.

Table 3
Use of X-Rays and Fees Paid for X-Rays by Provider Type
(All Texas Medicaid Providers, FY 2011)

Provider Type	X-rays per Patient	Amount paid by Medicaid per X-ray	Cost per Patient per Year for X-rays
DSO Dentists	2.25	$21.60	$48.60
Kool Smiles	2.12	$20.11	$42.63
Non-DSO Dentists	2.12	$24.15	$51.20

[34] Washington State Office of the Attorney General. "Common Types of Medicaid and Provider Fraud." http://www.atg.wa.gov/MedicaidFraud/CommonTypes.aspx

[35] See, for instance: Moriarty and Siegal. "Unethical Private-Equity-Owned Dental Clinics Receive Well Deserved Attention.", and Heath, David, and Jill Rosenbaum. "The Business Behind Dental Treatment for America's Poorest Kids.", June 27, 2012. http://www.publicintegrity.org/2012/06/26/9187/business-behind-dental-treatment-america-s-poorest-kids

Table 4
Use of X-Rays and Fees Paid for X-Rays by Provider Type
(Texas Medicaid Providers in Zip Codes that Contain at Least One DSO, FY 2011)

Provider Type	X-rays per Patient	Amount paid by Medicaid per X-ray	Cost per Patient per Year for X-rays
DSO Dentists	2.25	$21.60	$48.60
Kool Smiles	2.12	$20.11	$42.63
Non-DSO Dentists	2.23	$23.85	$53.19

Tooth Extraction

Statewide, DSO dentists performed 0.138 fewer total extractions per patient and 0.073 fewer simple extractions (D7140) per patient than their non-DSO counterparts. This corresponds to DSO dentists conducting a whopping 39.45% fewer total extractions per patient and 31.06% fewer simple extractions per patient than their non-DSO counterparts statewide! A less costly and more appropriate procedure code for children who, as a normal part of growing up, are losing their baby teeth is the removal of coronal remnants (D7111)[36]—little pieces of a tooth remaining in the tissue at the juncture of the tooth and the gum after or while the baby tooth is coming out. Coronal remnants do not always fall out with the baby-tooth, so they can be a source of discomfort as the adult tooth comes in. DSO dentists perform 0.035 more coronal remnant extractions per patient than non-DSO dentists statewide (Table 5). At the DSO zip code level, DSO dentists perform 0.148 fewer total extractions per patient, and 0.036 more coronal remnant procedures than other Medicaid dentists in these zip codes (Table 6). These numbers may sound small in nominal terms, but they are mind-boggling in percentage terms: At the statewide level, DSO dentists perform 420.48% more coronal remnant extractions per patient than non-DSO dentists; at the DSO zip code level, DSO dentists perform 41.23% fewer total extractions per patient and 461.04% more coronal remnant procedures per patient than non-DSO dentists! This runs counter to the claim that DSOs are performing extractions just to file for a costly procedure. To the contrary, they much more often performed the less costly procedure to the same effect.

Table 5
Total Extractions[37], Simple Extractions, and Coronal Remnant Removals by Provider Type
(All Texas Medicaid Providers, FY 2011)

Provider Type	Extractions / Patient	Cost / Extraction		Extractions (D7140)	Cost / D7140		Coronal Remnants / Patient	Cost / Coronal Remnant
DSO Dentists	0.211	$101.18		0.162	$65.90		0.0432	$11.80
Kool Smiles	0.108	$71.13		0.102	$65.87		0.0535	$11.81
Non-DSO Dentists	0.349	$119.57		0.235	$66.30		0.0083	$11.78
State Total	0.321	$117.14		0.220	$66.24		0.0153	$11.79

[36] American Academy of Pediatric Dentists. "Guideline on Management of Acute Dental Trauma." Reference Manual 33, no. 6: 220–228. http://www.aapd.org/media/Policies_Guidelines/G_trauma.pdf.

[37] The codes we used when analyzing extractions include D7140- Extraction, single tooth; D7210- Extraction/ surgical, erupted tooth; D7210- Extraction/ impacted/ soft tissue; D7230- Extraction/ impacted, part bony; D7240- extraction/ compacted, complete bony; D7241- removal of impacted tooth, complete bony, surgical complications; D7250- surgical removal of residual tooth root.

Table 6
Total Extractions, Simple Extractions, and Coronal Remnant Removals by Provider Type
(Texas Medicaid Providers in Zip Codes that Contain at Least One DSO, FY 2011)

Provider Type	Extractions / Patient	Cost / Extraction		Extractions (D7140)	Cost / D7140		Coronal Remnants / Patient	Cost / Coronal Remnant
DSO Dentists	0.211	$101.18		0.162	$65.90		0.0432	$11.80
Kool Smiles	0.108	$71.13		0.102	$65.87		0.0535	$11.81
Non-DSO Dentists	0.359	$117.50		0.247	$65.94		0.0077	$11.79
Area Total	0.306	$113.48		0.217	$65.93		0.0204	$11.80

Pulpotomies

Excessive pulpotomies, derisively known as "baby root canals" when performed on a child's baby tooth, is a charge leveled at DSO dentists. The argument posits that DSO dentists perform unneeded—because the child will lose the baby-teeth anyway—and excessive pulpotomies on the rationale that they can bill Medicaid for the services. However, we find that DSO dentists performed 0.046 fewer pulp procedures per patient than their non-DSO counterparts at the state level (Table 7), which is 25.99% fewer pulp procedures per patient for DSO dentists than for non-DSO dentists in percentage terms.

The American Academy of Pediatric Dentistry explains that a pulpotomy is recommended when removal of tooth decay results in pulp exposure.[38] The act entails removing the coronal (upper-most) pulp, applying medication in the tooth chamber, and then restoring, or sealing, the chamber so as to prevent risk of reinfection or leakage. The American Academy of Pediatric Dentistry goes on to state that crowns are the most effective means of long-term restoration after pulpotomy. Pulpotomies generally require a crown to cap the tooth off, so if a pulp/crown ratio is low, it is indicative of crowns being needed upon arrival to the office rather than as a result of procedures done in the office.

While pulpotomies are a medically accepted practice, stewards of insurance monies and public funds look carefully at the ratio between pulps and crowns billed by a provider. The ratio helps compare the number of teeth receiving a pulpotomy vs. those receiving a pulpotomy and a crown, and is thus used by insurance providers as a marker of potential overtreatment.[39] For example, Delta Dental examiners look at billing patterns for signs of under and over-utilization. In the case of pulp-to-crown ratios, if a provider in the Delta Dental network has a pulp-to-crown ratio higher than the mean by one or more standard deviations, an initial audit is triggered.[40] Texas DSO dentists have an average pulp-to-crown ratio of 0.4135 compared to the non-DSO dentist pulp-to-crown ratio of 0.4649. This indicates that if either provider type was actively over-utilizing procedures, it would be non-DSOs.

Table 7
Pulpotomies Performed and Pulp-to-Crown Ratio by Provider Type
(All Texas Medicaid Providers, FY 2011)

Provider Type	Pulpotomies / Patient	Cost / Pulp	Pulp / Crown Ratio
DSO Dentists	0.131	$85.46	0.4135
Kool Smiles	0.073	$84.51	0.2404
Non-DSO Dentists	0.177	$83.04	0.4649
State Total	0.167	$83.42	0.4560

[38] American Academy of Pediatric Dentists. "Guideline on Pulp Therapy for Primary and Immature Permanent Teeth." Reference Manual 33, no. 6: 212–219. http://www.aapd.org/media/Policies_Guidelines/G_Pulp.pdf.
[39] Matricia, S. "Pulpotomy to Stainless Steel Crown Ratio in children with Early Childhood Caries: A Cross-Sectional Analysis.": pg. 3
[40] "Annual Fraud and Abuse Compliance Plan."
http://www.tenndent.com/tennDent/media/TennDent/Annual-Fraud-and-Abuse-Compliance-Plan-2012.pdf

Table 8
Pulpotomies Performed and Pulp-to-Crown Ratio by Provider Type
(Texas Medicaid Providers in Zip Codes that Contain at Least One DSO, FY 2011)

Provider Type	Pulpotomies / Patient	Cost / Pulp	Pulp / Crown Ratio
DSO Dentists	0.131	$85.46	0.4135
Kool Smiles	0.073	$84.51	0.2404
Non-DSO Dentists	0.183	$83.71	0.4848
Area Total	0.165	$84.21	0.4621

Crowns

Crowns are needed when erosion, decay, and other sources of exposure have taken their toll on a tooth and the area that must be covered is too large to be covered by a filling. In Texas, use of crowns by Medicaid dentists has come under scrutiny as, "Investigators are looking at allegations that dentists placed crowns on children needing only less-expensive fillings…"[41]

DSO dentists performed 0.059 fewer crowns per patient than non-DSO dentists at the zip code level (Table 10) and 0.062 fewer crowns per patient at the statewide level (Table 9). In percentage terms, this translates to DSO dentists performing 15.65% fewer crowns per patient than non-DSO dentists at the zip code level and DSO dentists performing 16.32% fewer crown procedures per patient than non-DSO dentists at the statewide level. Due to the relatively high fee-for-service associated with crowns, they are thought to be attractive to overbilling providers. DSOs are performing fewer crowns per patient than the statewide average and fewer crowns per patient than their non-DSO counterparts.

Table 9
Total Crowns[42], Stainless Steel Crowns, and Steel Crowns Performed by Provider Type
(All Texas Medicaid Providers, FY 2011)

Provider Type	Crowns / Patient	Cost / Crown		Crowns (D2930) / Patient	Cost / D2930		Crowns (D2934)	Cost / D2934
DSO Dentists	0.318	$168.69		0.291	$153.30		0.00511	$153.57
Kool Smiles	0.303	$156.50		0.287	$153.38		0.00815	$153.63
Non-DSO Dentists	0.380	$171.93		0.324	$153.07		0.0968	$153.12
State Total	0.367	$171.37		0.318	$153.11		0.00876	$153.17

[41] Freedberg, Sydney P. "Dental Abuse Seen Driven by Private Equity Investments." Bloomberg, May 17, 2012.
[42] The codes we used when analyzing crowns include D2740- Single Porcelain crown with ceramic substrate; D2750- single porcelain crown fused to a high noble metal; D2751- single porcelain crown fused to base metal; D2752- single porcelain crown fused to noble metal; D2790- single crown cast of high noble metal; D2791- single crown cast of base metal; D2792- single crown cast of noble metal; D2920- replacement crown; D2930- prefabricated stainless steel crown, primary; D2931-prefabricated stainless steel crown, permanent; D2932- prefabricated resin crown; D2933- prefabricated steel crown with resin window; and D2934- prefabricated stainless steel crown with aesthetic coating, primary.

Table 10
Total Crowns, Stainless Steel Crowns, and Steel Crowns Performed by Provider Type
(Texas Medicaid Providers in Zip Codes that Contain at Least One DSO, FY 2011)

Provider Type	Crowns / Patient	Cost / Crown		Crowns (D2930) / Patient	Cost / D2930		Crowns (D2934)	Cost / D2934
DSO Dentists	0.318	$168.69		0.291	$153.30		0.00511	$153.57
Kool Smiles	0.303	$156.50		0.287	$153.38		0.00815	$153.63
Non-DSO Dentists	0.377	$170.86		0.328	$153.16		0.00775	$152.97
Area Total	0.356	$170.17		0.314	$153.20		0.00681	$153.13

The worst thing that could happen to the public in general, or specifically to the less-affluent underserved, is to have dentists focus their attention and efforts on the threats of trial lawyers or the surveillance of bureaucratic regulators rather than the needs of their patients. We all want to believe that our dentist is concerned exclusively with our health, not an ever-changing volume of government rules.

As discussed earlier in this paper, waste, fraud and abuse are natural concerns in situations where asymmetric patient/doctor information is commonplace and when dealing with bureaucratic programs like Medicaid which can be gamed. But, in answer to these concerns, our examination of the data—specifically the amount of procedures per patient and per patient procedure costs—finds that waste, fraud and abuse are much lower among DSO dentists than among non-DSO dentists. We looked at data for the specific procedures that DSO critics have singled out as ripe for waste, fraud and abuse—X-rays, tooth extraction, pulpotomies and crowns.

On the topic of X-rays, we found that DSO dentists perform slightly more X-rays per patient than non-DSO dentists, but they bill Medicaid so much less for each X-ray that the overall cost per patient per year for X-rays is $2.60 less than non-DSO dentists across the whole state of Texas and $4.59 less than non-DSO dentists in DSO zip codes. Kool Smiles dentists, at both the statewide and DSO zip code level, have a lower cost per X-ray and a much lower cost per patient per year for X-rays than both other DSO dentists and non-DSO dentists!

For tooth extractions, DSO dentists conduct fewer extractions and far more coronal remnant procedures, a procedure shown to be less costly and more appropriate in most situations[43], than non-DSO dentists. In the case that DSO dentists *do* decide to extract teeth (both regular extractions and simple extractions), they bill Medicaid significantly less per extraction than non-DSO dentists at both the statewide level and the DSO zip code level! Kool Smiles dentists do half as many full tooth extractions as other DSO dentists, and Kool Smiles dentists do less than one third as many full tooth extractions as non-DSO dentists do. Kool Smiles dentists are also less costly to Medicaid per extraction and do fewer extractions per patient than both other DSO dentists and non-DSO dentists.

DSO dentists have also been accused of conducting excessive pulpotomies. Using the pulp-to-crown ratio, discussed earlier in this paper, as an indicator of excessive use of pulpotomies, our data analysis shows that DSO dentists have a much lower pulp-to-crown ratio than non-DSO dentists and are therefore much less likely to be exhibiting waste, abuse or fraud in the pulpotomy category. Kool Smiles dentists do fewer pulpotomies per patient and have lower pulp-to-crown ratios than both other DSO dentists and non-DSO dentists.

The final procedure we examined was the placement of a crown on a tooth, a procedure identified by DSO critics as overused by DSO dentists when tooth fillings could often accomplish the same goal, but at much lower cost. We found that DSO dentists performed far fewer crown procedures per patient than non-DSO dentists at both the statewide and DSO zip code level! Once again, Kool Smiles dentists do less total crown procedures per patient and are less costly to Medicaid per crown procedure than both other DSO dentists and non-DSO dentists.

[43] American Academy of Pediatric Dentists. "Guideline on Management of Acute Dental Trauma." Reference Manual 33, no. 6: 220–228. http://www.aapd.org/media/Policies_Guidelines/G_trauma.pdf

Bottom-Line Driven Motivation

A pervasive allegation against DSO dentists is that they let the profit motive, rather than their patient needs, drive their decision process with regard to the number of patients seen per day and the number of the various procedures performed per day. Assuming 227 working days per year,[44] our analysis shows that DSO dentists bill Medicaid $2.13 per patient per day, whereas non-DSO dentists bill $3.13 per day. Table 11 shows a breakdown of cost per day per unique patient as billed to Texas Medicaid in 2011. Coronal remnant-procedures are the only procedure where DSO dentists actually bill more per patient per day than non-DSO dentists. Again, coronal remnant removal involves the extraction of the crown of a baby-tooth that is only retained by soft tissue. As compared to an extraction, a coronal remnant removal would be the appropriate, and less costly, code to submit when a baby tooth is close to falling out (exfoliation).

Another Medicaid fraud regards instances of upcoding, i.e. billing for a similar but more costly code when the more affordable claim is the more accurate of the two.[45] DSO dentists are performing substantially more coronal remnants than their counterparts, while performing fewer extractions per patient, which on the face of it is what should be done. This per patient per day value comparison is in direct contrast with the allegations that providers at DSOs are made to meet daily production and sales goals by performing more costly processes (upcoding). Based on these data, DSOs upcoding from coronal remnant to extraction is less of a problem than non-DSO upcoding.

Furthermore, it looks as though there are legitimate grounds to refute the allegations of dentists being pushed to ignore patient care in pursuit of daily performance goals.

DSO dentists bill $0.24 for crowns per patient per day while non-DSO dentists bill $0.29 for crowns. With regard to cost per patient day, again DSO dentists are billing less for pulps than are their non-DSO counterparts. Respectively, the daily cost of pulps to Medicaid per unique patient amounts to $0.05 and $0.06 for DSO dentists and non-DSO dentists.

Table 11
Average daily cost per unique patient by Procedure and Provider Types
(All Texas Medicaid Providers, FY 2011)

		Provide Type		
		DSO Dentists	Kool Smiles	Non-DSO Dentists
Procedure	Total	$2.13	$1.52	$3.13
	Coronal Remnant	$0.00225	$0.00278	$0.00043
	Crown	$0.24	$0.21	$0.29
	Extraction	$0.09	$0.03	$0.18
	Pulp	$0.05	$0.03	$0.06
	Sealant	$0.19	$0.14	$0.25
	X-Ray	$0.21	$0.19	$0.23

Billing for and doing unneeded procedures for a patient is a commonly cited method of defrauding Medicaid coffers. Statewide, DSO dentists perform an average of 10.15 procedures per unique patient per year and non-DSO dentists perform an average of 12.39 procedures per unique patient per year. This means that DSO dentists are performing 18.08% fewer procedures per patient at the state level. At the DSO zip code level, the average number of procedures per patient per year for non-DSO dentists increases to 12.90. This means in areas where DSO dentists and non-DSO dentists are in direct competition, DSO dentists are performing 21.32% fewer procedures per patient!

[44] (52 weeks at 5 working days per week) less (2 weeks vacation and two weeks for 8 holidays and 2 sick days combined). Aftco Transition Consultants "1500 is the limit". http://www.aftco.net/dental-transitions-resources/practice-article-print.aspx?id=92
[45] Washington State Office of the Attorney General. "Common Types of Medicaid and Provider Fraud." http://www.atg.wa.gov/MedicaidFraud/CommonTypes.aspx

Table 12
Total Procedures per Patient per Year by Geographic Level and Provider Type
(All Texas Medicaid Providers, FY 2011)

		Provider Type		
		DSO Dentists	Kool Smiles	Non-DSO Dentists
Geographic Level	DSO Zip Codes Only	10.15	8.24	12.90
	Statewide	10.15	8.24	12.39

Based on the data at hand, there is no basis to conclude that DSO dentists are more inclined to fraudulent behavior than their private practice counterparts. In fact, the data at hand suggest just the opposite: that DSO dentists are less inclined to fraudulent behavior than are their counterparts.

Conclusion

The PBS news program Frontline and its partner organization—the Center for Public Integrity (CPI)[46]—have produced a video alleging Medicaid fraud against a number of DSOs, particularly Kool Smiles.[47] Frontline lifts much of their allegations directly from court filings which have yet to be adjudicated. Among the claims Frontline makes are,

> Kool Smiles does far more crowns than average on children age 8 and under on Medicaid, according to an analysis of 2010 Medicaid data in two states done by CPI and FRONTLINE. In Texas, a child under the age of 9 at Kool Smiles has nearly a 50-50 chance of getting a crown as a restoration to treat problems like cavities, our analysis found. That compares to a one in three chance on average at other providers.

These claims are precisely the opposite from what we found. In fact, we found that Kool Smiles dentists conducted 0.064 fewer crown procedures per patient than the Texas state total (which includes DSO and non-DSO dentists), and 0.077 fewer crown procedures per patient than non-DSO dentists across the state! CPI and Frontline's data source is reported as a review of 2010 Medicaid claims data from Texas and Virginia. We requested access to their data and a better explanation of their methodologies and were told, "We have discussed your request with the top editors. We don't know who you are working for or what you've been hired to do. In any case we don't give out our unpublished work product."[48]

We've never seen any Medicaid billing code that specifies children under 9 years old. To get their results, CPI and Frontline must have received full data on each individual patient within Medicaid in order to reach the conclusions they drew.

With no aspersions intended, we would like the opportunity to corroborate or reject Frontline's findings. As Frontline's entire argument rests on this data set, we believe it is critical for them to release their data and methodologies. Our data directly refute the Frontline/CPI conclusions.

DSO dentists are doing just what Congress wanted done, not what Frontline and CPI say they are doing. DSO dentists provide dental services to a previously underserved population, thus improving the dental health of that population.

And additionally, DSOs are doing just what Congress wanted done for the reasons Congress thought they would do it: by earning a good economic return for both DSO employees and shareholders alike. Finally, the DSO model enables the provision of dental services at a lower cost to consumers of all income levels by taking advantage of efficiencies of specialization and economies of scale. Professor Edelstein is correct when he concluded, "In general the business model for these [DSOs] succeeds financially because they are able to reduce operating costs…"[49] It is the best of all worlds. Competition, new business models, and increased services are good things. As consumers and taxpayers, we should embrace innovation.

[46] The Center for Public Integrity started as a non-profit organization committed to investigative journalism. However, it is informative to note that in 2010, CPI and the Huffington post Investigative Fund merged. See, Vega, Tanzina. "Pooling Resources, Two Newsrooms Merge." *The New York Times*, October 18, 2010. http://www.nytimes.com/2010/10/19/business/media/19nonprofit.html?_r=2
[47] Heath and Rosenbaum. "The Business Behind Dental Treatment for America's Poorest Kids."
[48] Email correspondence with David Heath of the Center for Public Integrity included in Appendix B. We also submitted multiple queries through the Frontline website, which responded: "For the data set, you may want to contact our partner in that report, The Center for Public Integrity."
[49] Edelstein, "Dental Visits for Medicaid Children: Analysis and Policy Recommendations."

In every industry from government employees to day traders in the stock market, people are incentivized by the profit motive. Money speaks a universal language. It doesn't matter what type of economy and whether the program is private or state-run; enterprising individuals work and invest to get paid. Move the cheese and you move the mice. It appears that in this instance, Congress moved the cheese to where they wanted the mice to be and lo and behold the mice moved there. Isn't economics wonderful?

In this case, while reasonable people can argue about whether the costs of government sponsored dental coverage exceed the benefits or whether the benefits exceed the costs, it is clear that the government is accomplishing its goal of generating more dental coverage for lower income Americans. The problem is not whether dentists work to get paid, but whether the legislation was crafted with enough foresight to create an economic opportunity that would generate the desired response.

Bad actors exist in all segments of all industries including non-DSOs and DSOs. The same that can be said for family dental offices is also true for government agencies, for law firms and for public interest study groups. Given the statistics, though, DSO dentists as a whole are performing better than non-DSO dentists for patients and the taxpayer, and dentists as a whole are serving a far larger segment of the population than ever before. DSOs are good for taxpayers, consistently providing a lower cost per patient for more patients. In sum, DSOs provide a much needed, high quality product at low cost to an underserved market. Rather than being vilified, DSOs should be applauded as a win-win-win solution.

Appendix A – Texas Dental Service Organizations (DSOs) Included as a DSO in Calculations

- Access Dental
- All Smiles
- Clear Choice
- Dental One
- Heartland Dental
- Jefferson Dental Care
- Kool Smiles
- Monarch Dental
- My Dentist
- Ocean Dental
- Pacific Dental
- Small Smiles
- Smile Brand
- Smile Magic
- South Texas Dental
- Texas Affordable Dentures

Appendix B – Correspondence with David Heath

-----Original Message-----
From: Heath, David
Sent: Wednesday, September 05, 2012 8:45 PM
To: Ford Scudder
Cc: Jill Rosenbaum
Subject: RE: data request

Ford

We have discussed your request with the top editors. We don't know who you are working for or what you've been hired to do. In any case we dont give out our unpublished work product.

Good luck.

David Heath

From: Ford Scudder
Sent: Wednesday, September 05, 2012 5:25 PM
To: Heath, David
Subject: data request

Dear David,

As a follow-up to our prior correspondence, I would like to specifically request the Virginia and Texas Medicaid data, methodology, and analysis presented in the CPI/Frontline report. Is that something that you would be willing to make available to us? In particular, the report reaches explicit conclusions about children under the age of 9, and we would like to recreate the data and methodology behind those calculations. These are important questions that you raise and we too are quite interested in determining the facts when it comes to DSOs.

Warmest Regards,

Ford Scudder