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HEALTH POLICY PERSPECTIVES

Why are payment rates to dentists declining in most states?

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Dentists' earnings have been stagnant for several years. After adjusting for inflation, the average annual net income of general practice dentists was $174,780 in 2014 compared with $219,738 in 2005.[1] Over the past 15 to 20 years, dentists' earnings have risen, plateaued, declined, and stabilized again. In inflation-adjusted dollar terms, the average net income for a general practice dentist in 2014 was at a level comparable with that in 1997. Specialist dentists have seen similar patterns over time, although the bumps and peaks have varied in degree and by specialty.

Researchers for the American Dental Association Health Policy Institute have examined the main factors driving the trends in dentists' earnings. Over the past few years, we have produced several research briefs and peer-reviewed journal articles that tell a consistent story. A major factor driving trends in dentists' earnings is the interaction of supply and demand in the dental care market. Fewer and fewer adults, including adults with middle and high levels of income, are visiting the dentist, and this trend coincides precisely with the slowdown in dentists' earnings.[2] There are numerous factors explaining why fewer adults are visiting the dentist, and interested readers can get the details elsewhere.[3,4] Just as the demand for dental care among adults is falling, the supply of dentists in the United States is rising, a trend that began in the mid-2000s. In 2005, there were 58.1 practicing dentists per 100,000 population. By 2015, this number had risen to 60.9 dentists per 100,000 population.[5] The 2 main factors driving the increase in the supply of dentists are increased enrollment in dental schools and an increase in dentists' average retirement age, which in 2015 was 69 years.[6]

One does not need a PhD in economics (which I have) to predict that rising supply and idling demand will lead, in aggregate, to a slowdown in patient volume, more open chair time, a decline in busyness, and stagnating earnings. The empirical evidence supports this "quantity effect" storyline quite convincingly.[7]

What has been studied far less, however, is how payment rates to dentists have changed over time and what role this "price effect" has had in influencing the trends associated with the average dentist's net income. A major reason is the lack of data related to the payment rates provided to dentists through private dental benefit plans. Or, more precisely, the lack of data made available to researchers. But this is slowly changing.

The figure[8,9] summarizes changes in payment rates provided to dentists through private dental benefit plans between 2005 and 2014. The calculations were based on data from a large, integrated multipayer claims database that the Health Policy Institute obtained in March 2016. A detailed description of these data is available elsewhere,[8] and this database contains, by far, the most comprehensive dental claims data that are available to researchers.

To summarize payment rates provided to dentists through private dental benefit plans, we constructed a composite payment index on the basis of the 10 most frequent dental procedures. First, for each procedure, we calculated the average amount paid to dentists across all beneficiaries who had that particular procedure within the year. For example, in 2014, the average total payment for an adult prophylaxis (procedure code D1110[10]) was $68.39. We then take a weighted average of the 10 procedure-level averages, where the weights are determined by the share of total billings accounted for by each procedure. This involved a lot of number crunching. For 2014, for example, we analyzed 23 million claims. We calculated this composite index for 2005 and 2014, adjusting for inflation using the dental services consumer price index,[11] and then we calculated changes over time in every state (including District of Columbia), which are shown as the bars in the figure.[8,9]

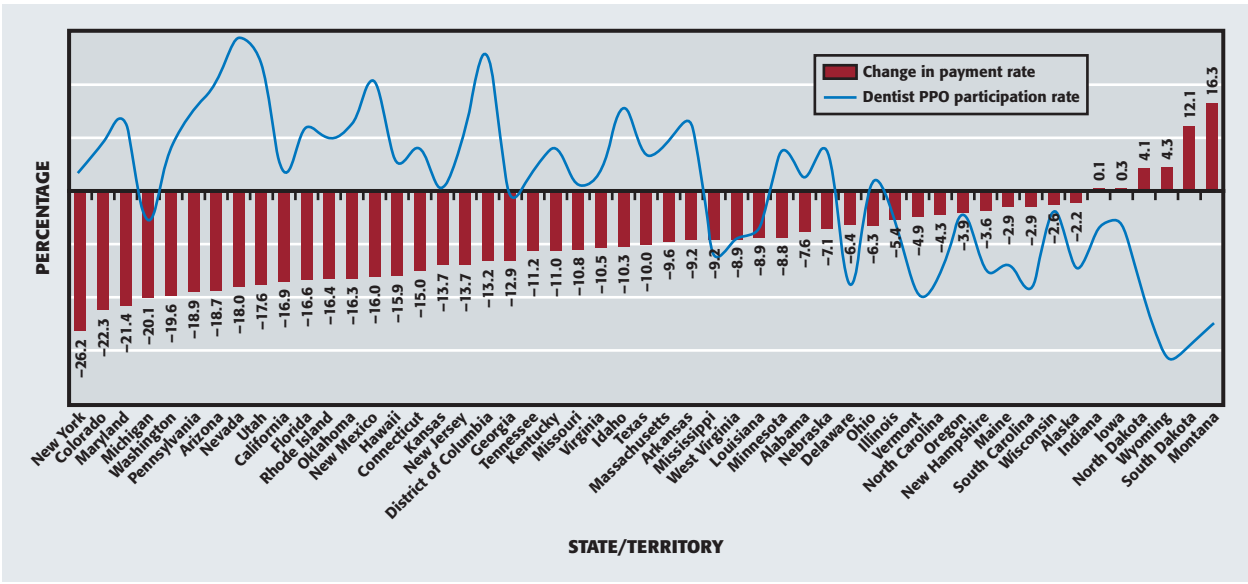

Figure. Changes in private dental benefit plan payment rates provided to dentists (2005-2014), adjusted for inflation, and dentists' participation rates in preferred provider organization (PPO) networks (2014). Changes in payment rates were calculated based on Health Policy Institute analysis of data from Truven Marketscan (Truven Health Analytics).[8] Payment rates consisted of total payments from insurers, patients, and any other sources. Percentages of dentists participating in PPO networks was based on Health Policy Institute analysis of data from the National Association of Dental Plans.[9]

There are 3 findings I wish to highlight regarding changes in payment rates provided to dentists through private dental benefit plans. First, payment rates declined in most states. Nationally, there was a 10.4% reduction between 2005 and 2014. Second, there was considerable variation across states in terms of changes in payment rates over time. For example, some states had a 25% decline, whereas some states had increases. Third, the small number of states that had relatively large increases in payment rates are all located in the same region of the United States.

Next come 2 natural follow-up questions. First, why have some states had large reductions in payment rates and other states had increases? Second, what might be the consequences of large reductions in payment rates provided to dentists? Let us consider each of these questions in turn.

As to what is driving the variation among states related to changes in payment rates, there are many potential factors. Generally, aside from macroeconomic factors like economic growth or changes in population, payment rates in health care are influenced at least partly by the market dynamics between insurers and providers.[12] We examined variables such as the supply of dentists per capita and the unemployment rate, and we found there was very little correlation with payment rate changes. Unlike for health insurance, there are no publicly available data on dental insurance carrier concentration, so it is impossible for us to characterize the market power of insurers compared with providers.

But there are data available on dentists' participation in preferred provider organization (PPO) networks (depicted by the blue line in the figure[8,9]), and it turns out that there was a strong correlation (0.77) between dentists' participation in PPO networks and payment rate changes. That is, states with a large share of dentists participating in PPO networks had larger payment rate reductions, on average.

As to whether payment rate changes matter, this obviously depends on the stakeholder's perspective: where you stand depends on where you sit. Payment rate reductions are a bad thing for providers. But for purchasers of dental benefit plans—almost exclusively employers—payment rate reductions might be a good thing if they are passed on as lower premiums and if there are no adverse effects on accessibility or quality of care. If, however, reduced payment rates to providers are not passed on to beneficiaries and are instead passed on to shareholders in the form of higher profits, the situation is different.

These are some big "ifs," and unfortunately, there is not a lot of evidence to draw on. The lack of research stems from a lack of data. Unlike medical insurers, dental benefits carriers are not subject to federal medical loss ratio provisions implemented under the Affordable Care Act. This, along with other factors, makes data a lot harder to come by, because insurer reporting

requirements are much less stringent on the dental side compared with the medical side. But the best available evidence, although far from perfect, suggests that dental benefit plan premiums actually have increased since 2011.[13] More broadly, in 2016, my colleagues and I conducted an analysis and found that for most adults with private dental benefits, total financial outlays for premiums, copays, and coinsurance exceed the market value of dental care consumed.[14] It is no wonder that "cost" is the number 1 reason that adults with private dental benefits avoid going to the dentist.[4]

In my view, there is a severe shortage of publicly available data on key aspects of the dental benefits market. Until stakeholders commit to a "data agenda," we will continue to rely on speculation, anecdotes, and trickles of evidence rather than rigorous empirical research to assess how market developments are impacting patients and providers. ■

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