COVID-19: Impact to dental industry stakeholders and 2020 claims experience

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It has been nine months since the outbreak of COVID-19 and establishment of initial shelter-in-place orders. Since then, the viral spread has spanned the United States. We originally published an article in April 2020 to discuss initial observations about the effects of the pandemic on dental service utilization, and offered a framework to model the potential impact. In this paper, we summarize what we learned from how stakeholders responded to the initial outbreak, and present additional methods to measure the 2020 impact of COVID-19 and incorporate it into future dental claims projections.

Stakeholder impact and responses

The various stakeholders in the dental industry were affected by the pandemic in different ways, and have had different responses as a result. Dental care providers, consumers, and dental insurance carriers each contended with different challenges as a result of COVID-19.

DENTAL CARE PROVIDERS

Dental care providers were affected by the early months of the pandemic as many other small businesses were; local shelter-in-place orders halted virtually all dental care and caused many dental practices to either close, or open only for emergencies.

In March, based on nationwide guidance from the American Dental Association (ADA), a vast majority of dentists were seeing emergency patients only, or were closed. As shelter-in-place orders were lifted, practices started to open and patient volume began to recover.

The American Dental Association Health Policy Institute (HPI) has been conducting ongoing research that sheds some light on how dental practices of all types have been responding. Specifically, the HPI has been conducting biweekly surveys, which include interviewing a wide range of dentists and dental practices. Over 13,000 dentists have participated.

One primary metric collected by the HPI surveys is the status of dental practices: whether or not practices are open and how their patient volumes compare to normal levels pre-COVID-19. As of the survey of January 18, 2021,[1] almost all practices (about 99%) are open. However the percentage of practices that reported business as usual peaked at approximately 50% in late summer, and has steadily declined to about one-third that are seeing normal patient volumes, and roughly two-thirds seeing reduced volumes through November 2020. In January 2021, patient volume rebounded slightly, with 43% of practices seeing normal patient volume and 56% seeing reduced volume. In general, dental service organization (DSO) practices and larger dental practices were more likely to report statuses of “business as usual” and higher patient volumes than non-DSO and smaller practices. The HPI also shows dental practice status by urban and rural settings. As of January 18, urban, suburban, and rural practices reported being at similar levels of patient volume.

The HPI survey data also continues to show high levels of variation by state for many metrics, especially the status of dental practices. For example, the HPI survey from January 18, 2021, showed that the proportion of practices at normal patient volumes ranged from a low of 27.3% in California to a high of 63.3% in Missouri.

The HPI survey also offers some insight into how dental practices are responding to the financial strain caused by the pandemic. As of the latest survey, 9% and 18% of respondents reported either downsizing or reducing dental team hours, respectively, in the last month. Almost 20% of respondents reported borrowing money from a bank in the last month to maintain financial stability. Many dental practices have increased marketing activities, such as proactive member outreach and education, in attempts to revive patient volume and revenue.

[1] ADA HPI. COVID-19: Economic Impact on Dental Practices: Week of January 18 Results.. Retrieved February 4, 2021, from https://surveys.ada.org/reports/RC/public/YWRhc3VydmV5cy02MDA2ZWQ5MjEyZmU5NjAwMTBjZjdlMzktVVJfM3BaeGhzWm12TnNMdjB4.

CONSUMERS

The ADA HPI also partnered with a consumer research firm to survey dental patients and gather information about their attitudes toward receiving dental care during the pandemic. From a survey conducted on August 19, 2020, the HPI reported that 26% of respondents recently received dental care, with an additional 51% of respondents reporting they are "ready to go" to the dentist. The remaining 23% stated they were either not comfortable with returning to the dentist until a vaccine was developed, or needed additional assurance.

Consumers may have missed or delayed routine and necessary dental care because of the reluctance to visit a dental office. Over the last few months, reports have emerged about increases in teeth grinding, tooth fractures, and jaw pain, potentially attributable to the disruption from the pandemic, and possibly as a result of this deferred care.[2] This one example shows how unanticipated consequences of the pandemic can impact public health and dental claims; it is likely that we will uncover additional effects as data becomes available for analysis.

DENTAL INSURANCE CARRIERS

Dental insurers facilitate the delivery of dental care by providing the administrative mechanism to pay providers for the services insured consumers receive; because of this they serve as a major link between consumers and providers. As a consequence, dental insurers have many stakeholders to serve, including plan sponsors and employer groups, members, and providers.

Milliman conducted surveys in May and June to gain an understanding of the emerging effects of the pandemic on dental carriers. A total of 31 carriers completed the survey with their responses to various stakeholders in the industry.

Respondents indicated the expected impact of the pandemic on 2021 new business sales and existing customer retention. Overall, answers were similar between new and existing business, with 62.2% of respondents expecting a decrease in sales and 63.1% expecting a decrease in customer retention.

Respondents anticipated that the pandemic would have a greater effect on 2020 paid claims than 2021 paid claims. Almost all (97%) of respondents anticipated a decrease in 2020 paid claims relative to normal, with over 60% expecting a decrease of more than 20%. Almost half of respondents (45%) anticipated a decrease in 2021 paid claims as well, and almost all of those carriers expected the decrease to be less than 20%. Meanwhile, 12.1% of respondents expected 2021 paid claims to increase.

While there was broad consensus that the COVID-19 pandemic and its economic after-effects would affect the utilization of dental services, the expected length of this effect varied among respondents: 23% expected it to last less than one year, 27% expected it to last one year, 34% expected it to last two years, and 11% expected it to last three years.

Nearly all respondents had taken or considered action to address COVID-19-related feedback from stakeholders in at least one area. Most of those respondents (77%) have taken or considered action regarding premium grace periods, and 65% have considered or granted rate passes. Additionally, 26% of respondents described "other" areas in which they have taken or are considering action to address feedback from stakeholders. The most common answer from respondents for "other" areas involved loosening restrictions and waiting periods, and other elements of plan design.

As seen in the survey results, a very common response by carriers were actions related to premium, which is a natural response, as most policyholders and plan sponsors continued paying premiums while the dental service industry was largely shut down in the spring. Other responses from carriers to the provider community took the form of forgiveness or extensions of grace periods, renewal rate actions (i.e., rate pass), loans and provider prepayments of claims to preserve some provider cash flow, and personal protective equipment (PPE) expense reimbursement.

Looking forward to 2021

IMPACT OF COVID-19 TO CLAIMS

The impact of COVID-19 produces potential downward and upward pressures on dental claims costs. Both forces depend on many variables that will affect assumptions used in forward-looking analysis of claims costs.

Downward pressures

Deferred utilization throughout the COVID-19 public health emergency has created significant downward pressure on dental claims levels. Utilization may be deferred for a number of reasons related to COVID-19, including but not limited to state-mandated shelter-in-place orders, leading to patients seeking only emergency care and providers closing offices or significantly limiting operating hours. Deferral of care may continue if the severity of the disease increases or leads to renewed lockdown orders. The effects of COVID-19 and fear of infection could extend well into the months and seasons ahead, though the presence of an effective and widely distributed vaccination may help to ease these fears.

[2] Chen, T. (September 11, 2020). A dentist sees more cracked teeth. What's going on? New York Times. Retrieved February 4, 2021, from https://www.nytimes.com/2020/09/08/well/live/dentists-tooth-teeth-cracks-fractures-coronavirus-stress-grinding.html.

While preventive visits to dental offices have been shown to increase during times of economic downturn, the level of dental office production remains closely tied to consumer disposable income.[3] The return of patients to dental offices for a range of services will likely depend on the return of economic stability, as even patients with dental insurance shoulder significant portions of the cost of some dental procedures. As of this writing, the federal government continues to explore additional economic stimulus packages similar to those enacted earlier in 2020, to help boost consumer confidence and help businesses reopen and bring employees back to work. It remains to be seen whether these efforts will be significant enough to generate demand for dental services.

Upward pressures

Return of previously deferred utilization following COVID-19 may lead to upward pressure on claims, with likely wide variation in magnitude and timing. The recently begun distribution of a COVID-19 vaccine will occur in phases, prioritizing highest-risk groups like nursing home residents and essential healthcare workers. The timing of vaccination could potentially lead to increases in dental utilization, starting with at-risk groups who may have been more likely to defer care during the pandemic. Individuals who return to dental offices in early 2021 may meet their insurance deductibles earlier, creating a financial incentive to obtain additional services throughout the year. Lastly, dental offices may engage more actively in targeting and marketing to those who deferred services in 2020. This outreach would likely contribute to upward pressures throughout 2021.

Forecasting using 2020 claims experience

A population's past claims experience is a key element to projecting future utilization and claims cost. Experience projection is the process of using a population's claims over a given period to predict future costs by applying trend and a series of other adjustments. We recommend treating the impact of COVID-19 in ways similar to other experience adjustments that account for factors unique to a given time period.

Actual 2020 dental claims experience will most likely significantly differ from future experience due to the impact of COVID-19, so experience adjustments should be made to account for this and set an accurate baseline for expected future claims. Below, we offer two options for adjusting 2020 claims when developing a starting point for claims projections. Due to the continued uncertainty of COVID-19, either approach or a combination of both may be used but should be tested for sensitivity.

1. **Normalize a full year of 2020 claims**

Apply a series of adjustments to 2020 claims experience to offset deferred, forgone, and returning utilization. It is important to consider the complexity of developing these adjustments; determining which deferred dental care is likely to have already returned during the experience period, has not yet been sought but may return in the future, or will never return requires sophisticated modeling by service type, geography, timing, and other factors.

2. **Annualize a partial year of 2019-2020 claims *or* use a rolling 12-month period of pre-COVID-19 claims**

Limit the experience period to claims occurring in late 2019 and early 2020, but note that a partial year period will have less credibility than a full year of experience. Alternatively, identify a rolling period of 12 months prior to COVID-19 and use these claims as a baseline. Either method of annualizing claims should consider expected seasonal patterns in utilization, enrollee population differences, provider network changes, and other factors.

MODELING FUTURE IMPACT OF COVID-19

After developing a baseline for expected 2020 claims, we can compare this baseline to actual 2020 claims experience. We can then isolate the impact of COVID-19 by comparing our expected 2020 claims baseline to actual 2020 claims levels. This allows us to quantify the impact of COVID-19 in terms of potential net deferred services that have not yet returned, but might return in the near future. We can then incorporate this impact into 2021 projections by assuming some portion of any remaining deferred care returns in 2021.

In the example above, we refer to calendar year 2020 as the experience period and 2021 as the projection period. In practice, the projection period and experience periods do not always coincide with a calendar year; however, the same logic can apply to the projection analysis. It may be useful to try to quantify the impact of COVID-19 in terms of potential net deferred services that have not yet returned over time, perhaps on a monthly or quarterly basis, to observe any seasonal patterns.

Much as with our April 2020 paper, we differentiate dental procedures into three severity categories—low, medium, and high. Our "return of net deferred care" assumption will vary by procedure severity and other factors, as well as the COVID-19 disease trajectory. For example, people may not catch up on routine cleanings but are more likely to seek out deferred oral surgery.

[3] Dental Economics (January 21, 2014). The Impact of the Financial Crisis on the U.S. Dental Industry.

In general, we assume that low-severity services like oral exams and cleanings will return at the lowest rate, given their low degrees of urgency. That is, those types of services, if skipped during the pandemic, are the most likely to result in "lost utilization" that does not return. Medium-severity services, such as restorations and fillings, are typically more urgent and are expected to return at the highest rate, though they still have potential to be delayed. High-severity services are expected to return at a rate between medium-severity and low-severity services, given that emergency services deferred during the early months of 2020 may have already been delivered in later months of 2020 and thus would not be returning in 2021. When surveyed earlier this year, endodontics and oral surgery specialists told the ADA that they experienced close to a "typical patient volume" compared to other specialties during lockdowns and more recent months[4]—signaling that high-severity and emergency care continued to be delivered at higher rates relative to services in lower-severity specialties.

The "return of net deferred care" assumption may also be sensitive to the projected time horizon for the return of deferred services. It is important to consider what portion of the horizon falls within the projection period. For example, let us assume that 50% of net deferred utilization will return over the course of a six-month period starting in November 2020, and we are completing a calendar year 2021 experience projection. In this case, we are assuming that two months of the six-month return period of net deferred services would fall in 2020 (November through December 2020), and four months would fall in the projection period (January through April 2021). Because of this projected timing, we might apply a 33% (50% * 4 / 6 = 33%) "return of net deferred care" assumption to 2020 net deferred care.

The example above does not consider the impact of potential additional lockdowns, continued economic slowdown, or other causes of new deferrals of services in 2021. During 2020, utilization of dental services was deferred, some of which was already recouped during the summer and early fall. The remaining deferred utilization may return at a later time or may never return. Meanwhile, new deferrals of utilization continue as some people continue to delay needed care. This continuing cycle of new care deferrals and returning utilization from prior deferred care will make projecting future dental claims challenging for the foreseeable future. As discussed above, this framework shows one way to model the cost impact of net deferred utilization returning during a projection period. While new shelter-in-place orders will hopefully be avoided in early 2021, any such actions could further delay return of deferred utilization and cause newly deferred care. Other effects of the pandemic, like economic stability of household disposable income, residual fears of viral exposure, and newly emerging viral strains should also be considered when projecting costs.

Limitations

This paper is intended to provide an educational overview of considerations for dental insurance carriers related to the potential impact of COVID-19 in 2021 and beyond.

The model used for this paper is premised on assumptions of the spread of the disease and the following economic impact, including assumptions as to the length and prevalence of shelter-in-place orders, the timing and extent of the outbreak, the timing and extent of an economic downturn, consumer willingness to procure dental services, and other factors. Scientific knowledge of these items is incomplete and new data on the spread of COVID-19 in the United States is still emerging. In addition, actions taken by governmental authorities and the healthcare system related to the COVID-19 pandemic are rapidly changing. Consequently, our model results will evolve as new information becomes available and new actions are taken by the authorities and other stakeholders. Due to the limited information available on the pandemic, any analysis is subject to a substantially greater-than-usual level of uncertainty than we would expect for a projection of this nature.

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[4] ADA HPI, op cit.