AN UPDATE: Dental care utilization among an insured population post-COVID-19

Executive summary

As the onset of COVID-19 begins to fade from our memories, the epidemic's effects on dentistry bear examination. Notwithstanding the spring and summer quarters of 2020, when dental office closures and hours reductions were the norm, the profession should be aware of changes in patterns of dental care utilization in an insured population that have occurred in subsequent years.

Using Delta Dental's extensive claims database adjusted for annual enrollment, our previous study, Impact of the COVID-19 pandemic on oral health care use in the United States through December 2021, evaluated changes in dental procedure utilization by comparing average quarterly procedure volumes from 2017-2019 with quarterly procedure volumes starting in the third quarter of 2020 through the fourth quarter in 2021, i.e., an 18-month "post-pandemic" period beginning at the resumption of "normal" dental practice. During this relatively short post-pandemic recovery period, the study found that, with the exception of patients 65 years or older, the overall volume of dental procedures failed to rebound to the 2017-2019 pre-pandemic benchmark values. For patients in age groups 0-5 years, 6-18 years, and 19-64 years, the shortfall was most evident for preventive and diagnostic procedures (e.g., examinations, cleanings, fluoride treatments, and sealants).

We also noted changes in some treatment patterns; for example, direct dental fillings (e.g., silver amalgams and tooth-colored resins) fell dramatically for all age groups except those 65 years and older. Indirect restorations (i.e., crowns and prefabricated restorations) rose significantly in those age groups.

The concern expressed in the previous report[1] about the possible implications of reduced diagnostic and preventive procedure volumes for the public's oral health led us to assess quarterly dental procedure volumes for an additional two years (2022-2023). We used this extended observation period to determine whether the reductions in diagnostic and preventive procedure volumes had stabilized or if a rebound had occurred. We also examined changes in specific treatment procedures previously identified in the 18-month post-pandemic period to determine if they had persisted or changed.

Overall, preventive and diagnostic procedures have mostly returned to pre-pandemic levels, which is very encouraging. We continue to see an increase in occlusal guards (night guards) among adults, and a continuing decrease in emergency palliative treatments, endodontic procedures, and oral surgery procedures among the under age 65 population

While it is not possible to attribute the identified changes strictly to COVID-19, since other events such as new treatment techniques and economic shifts occurred in the same period, it is evident that the substantial reductions in treatment volumes associated with the onset of the pandemic to a large extent have been ameliorated over the succeeding three years. Additionally, the decrease in direct restoration procedures, alongside an increase in indirect restoration procedures, has persisted in the 19-64 age group. Although it is challenging to specifically link these changes to the pandemic — given the influence of other factors, such as the potential shifts in the composition of the insured population over time, changes in disease prevalence and/or severity, etc. — the new patterns emerged immediately following office reopenings and have persisted for three years.

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References

[1]Dill J, Fontana M, Bader J, Chaffin J, Strock S, Eckert G. Impact of the COVID-19 pandemic on oral health care use in the United States through December 2021. J Am Dent Assoc. 2023 (154):937-47.