

ABSTRACT

Purpose: This study aimed to compare the efficacy of the Texas Medicaid First Dental Home (FDH) and if there was a change in treatment modality once the pandemic began.

Methods: A retrospective chart review was conducted from 3 UT Health pediatric dental clinics using the AxiUm software for the CDT code D0145. All patients seen for FDH visits between March 1, 2019 and February 28, 2021 were included. Age at first visit, recall, changes in caries risk status, and treatment modality for those requiring treatment prior to COVID-19 pandemic and start of COVID-19 were evaluated.

Results: Six hundred and twenty-one charts were reviewed. Average age (months) of initial FDH visits pre COVID-19 versus COVID-19 were 19.3 and 18.9, respectively. Average FDH visits/year pre-COVID-19 versus COVID-19 were similar (1.8 vs. 1.6 respectively). Caries-free status between both periods remained similar (89% vs. 90%). 81% of pre-COVID-19 patients requiring restorative treatment were treated in-office with oral conscious sedation (14%) or nitrous oxide/ behavior management (67%). The remaining 19% patients pre COVID-19 were taken to the operating room for full mouth dental rehabilitation. 95% of patients post COVID-19 onset requiring restorative treatment were treated in-office with oral conscious sedation (9%) or nitrous oxide/behavior management (86%). The remaining 5% were taken to the operating room for full mouth dental rehabilitation.

Conclusions: Although recall compliance, age of first visit, and changes in caries risk remained similar, the number of patients taken to the operating room during the pandemic greatly reduced and the number of patients seen in-office increased.

SIGNIFICANCE

In 2000, the U.S. Surgeon General reported on oral health in America, and dental caries was considered the most common disease of childhood. To better improve the quality of life for all children, the American Academy of Pediatric Dentistry has endorsed First Dental Home visits between the ages of 6 and 35 months. This program focused on providing preventive care and reviewing anticipatory guidance with the patient's primary caregiver. From March 13, 2020 to June 3, 2020, UT Health San Antonio clinics temporarily ceased their FDH visits along with other elective procedures due to the start of the COVID-19 pandemic. Due to the many COVID-19 policies and limited access to hospital operating rooms, it was anticipated that there would be an increase in the number of dental visits related to emergencies and dental restorative needs.

MATERIALS and METHODS

Following Institutional Review Board approval from UT Health San Antonio (San Antonio, Texas), a retrospective chart review was conducted of dental records from the UT Health Pediatric Clinic, Laredo Pediatric Clinic, and Ricardo Salinas Clinic served by the pediatric dental residents of UT Health San Antonio. The goal of the retrospective chart review was to include patients who were seen for First Dental Home visits between March 1, 2019 and February 28, 2021. Using the AxiUm software program, a search was performed for the CDT code D0145, which is the code for the First Dental Home visit. Chart records were obtained for patients between the ages of 6 months to 3 years old who were seen for First Dental Home visits prior to COVID-19 pandemic (March 1, 2019- February 28, 2020) and start of COVID-19 (March 1, 2020-February 28, 2021).

The charts that met the inclusion criteria were evaluated for:

- Age at the initial First Dental Home visit
- Recall compliance
- Treatment modality
- Changes in caries risk status (as determined by Medicaid First Dental Home Project's Caries Risk Assessment Tool).
- Percentage of patients that remained caries free

RESULTS

Question	Pre-Pandemic	Start of Pandemic
Total Charts Reviewed	366	255
Total Visits	671	370
Average Age of Patients at Initial FDH Visit (months)	19.3	18.9
Average # of FDH visits per patient	1.8	1.6
Caries Free Patients %	89%	90%
Total Caries Free Patients	326	202
Caries - Based on the dmft score %	11%	10%
Total Caries	40	23
Treatment Modality - GA %	19%	5%
Treatment Modality - In Office Treatment (Oral Conscious Sedation) %	14%	9%
Treatment Modality - In Office Treatment (Nitrous/No Sedation) %	67%	86%
Treatment Modality - Monitor/No Treatment %	90%	91%
Increase in Caries Risk Level %	N/A	14%
Decrease in Caries Risk Level %	N/A	14%
No Changes in Caries Risk Level %	N/A	72%

Figure 1

CARIES RISK STATUS

■ % of Increased Caries Risk ■ % of Decreased Caries Risk ■ % of No Change in Caries Risk

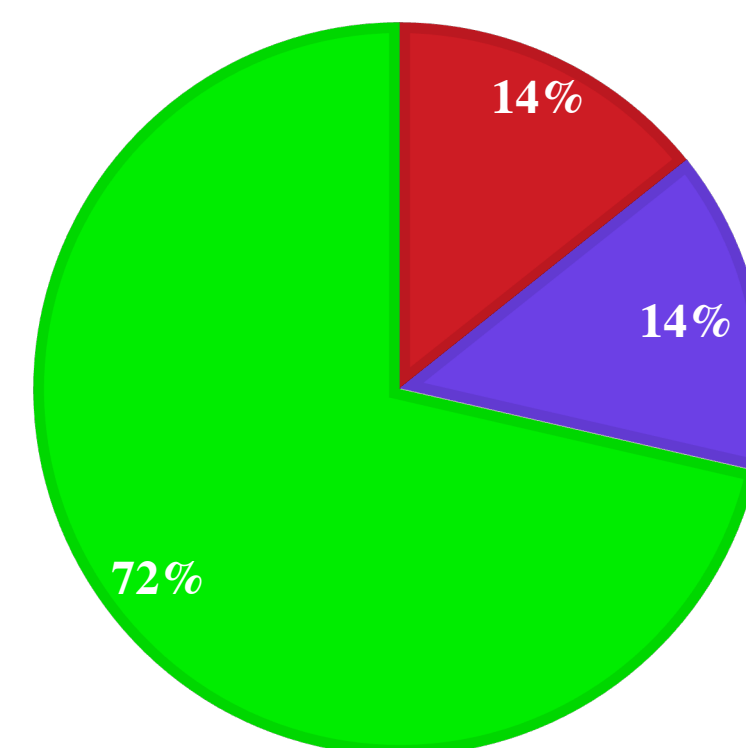


Figure 2

Comparison of Results from Pre-Pandemic vs. Start of Pandemic

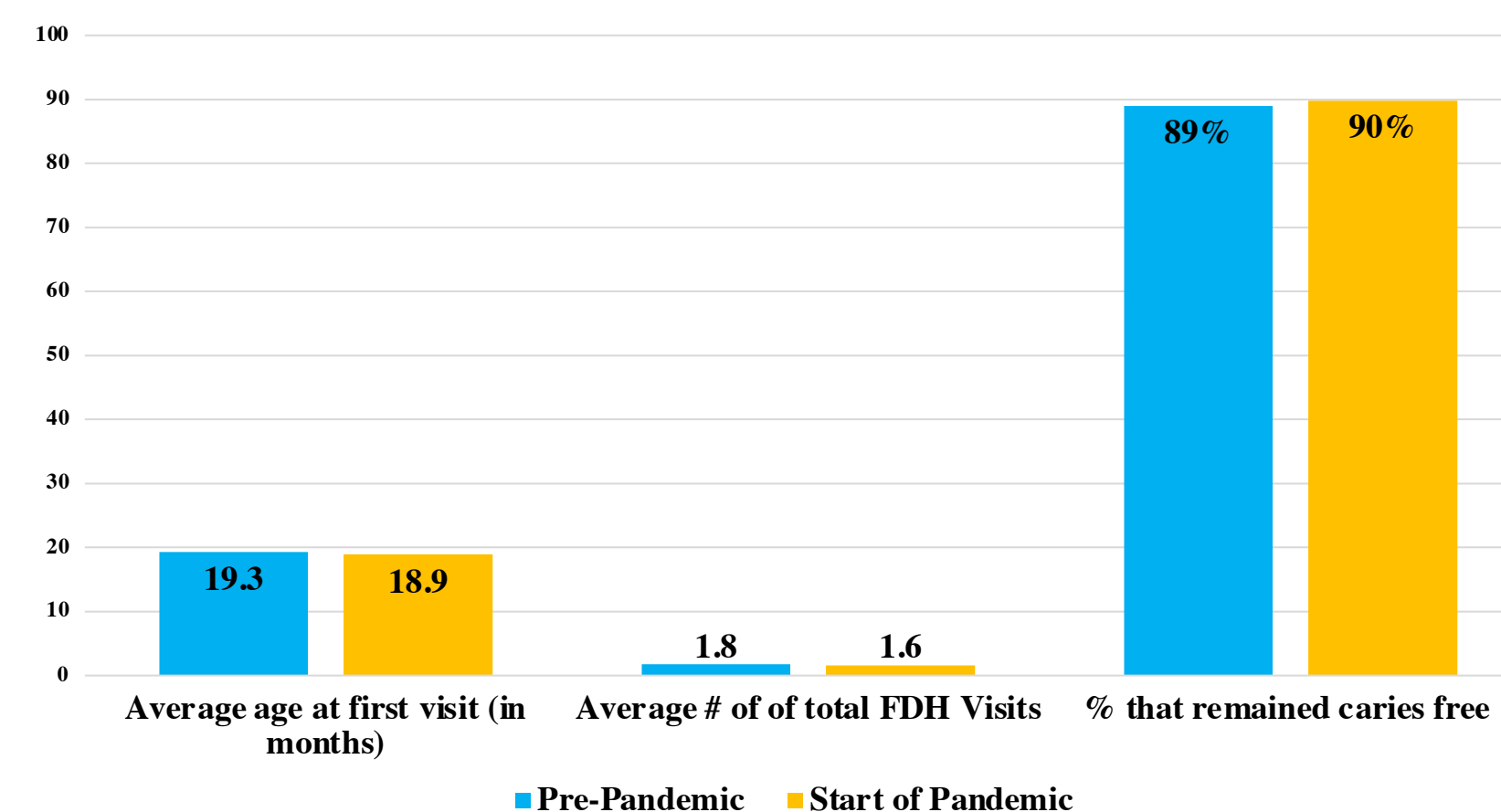


Figure 3

Treatment Modality Pre-Pandemic vs Start of Pandemic

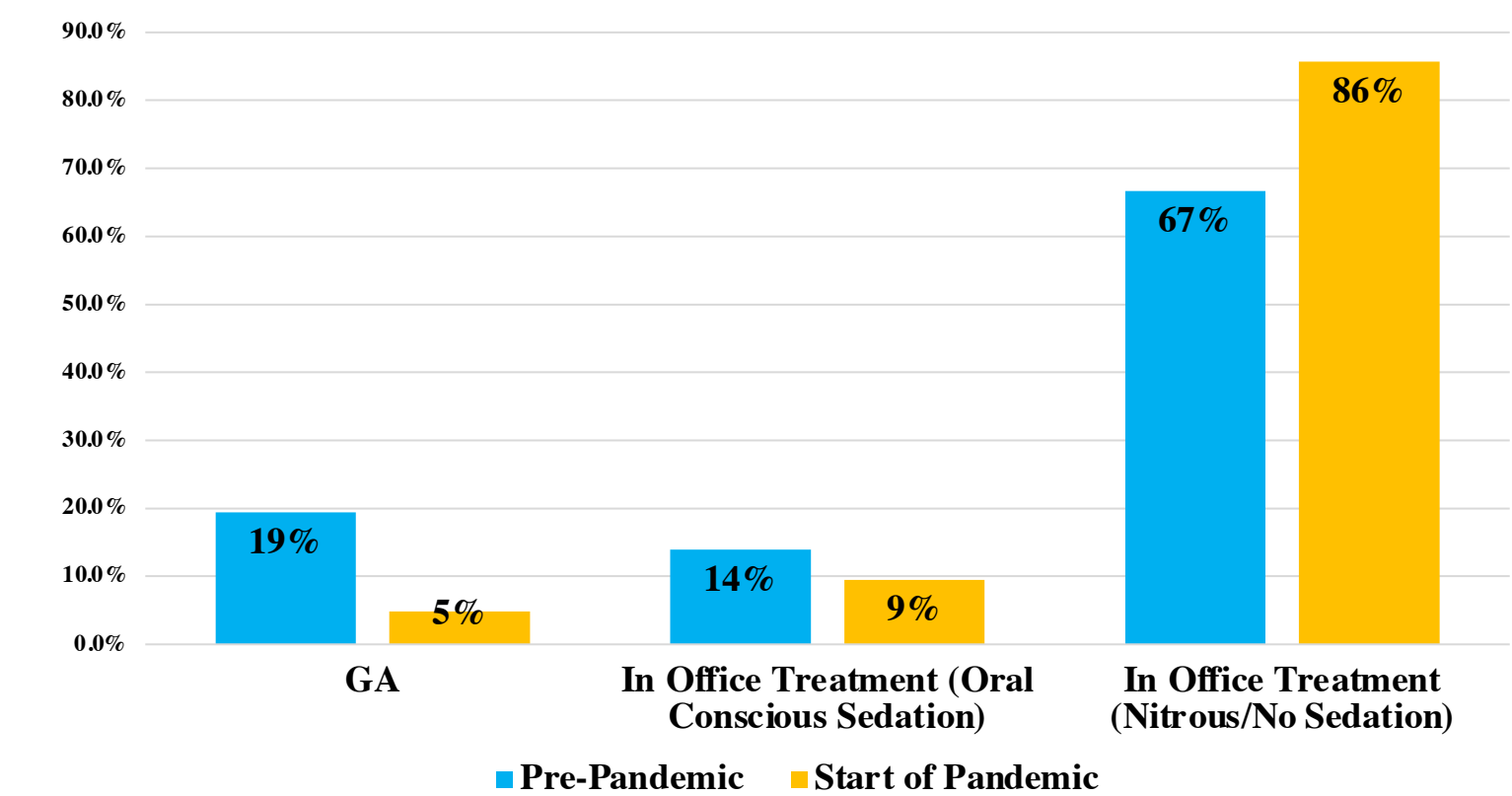


Figure 4

CONCLUSIONS

Based on the results of this study about the COVID-19 impact on Texas Medicaid's First Dental Home Program, the following conclusions can be made:

- The average age of the patient at their First Dental Home visit improved slightly from 19.3 months the year prior to the start of the pandemic to 18.9 months at the start of the pandemic.
- 89% of the patients remained caries free pre-pandemic compared to 90% at the start of the pandemic
- At the start of the pandemic, the majority of patients (95%) were treated in-office with either oral conscious sedation, nitrous oxide or behavior management compared to 81% pre-pandemic.
- There was a very slight decrease in average FDH visits with an average of 1.8 during the pre-pandemic year compared to 1.6 at the start of the pandemic.

With these observed conclusions, the UTHealth Pediatric Dental department is actively implementing the FDH Program and has shown promising results. The community served by these clinics is beginning to show improvement in preventing dental caries and promoting good oral health throughout the years. Although our research did not specifically investigate in-office treatment modalities in detail (e.g. SDF, ART, Hall crowns), research on this topic would be beneficial to understand if alternative or interim treatment is effective in preventing the amount of emergency dental visits.

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