



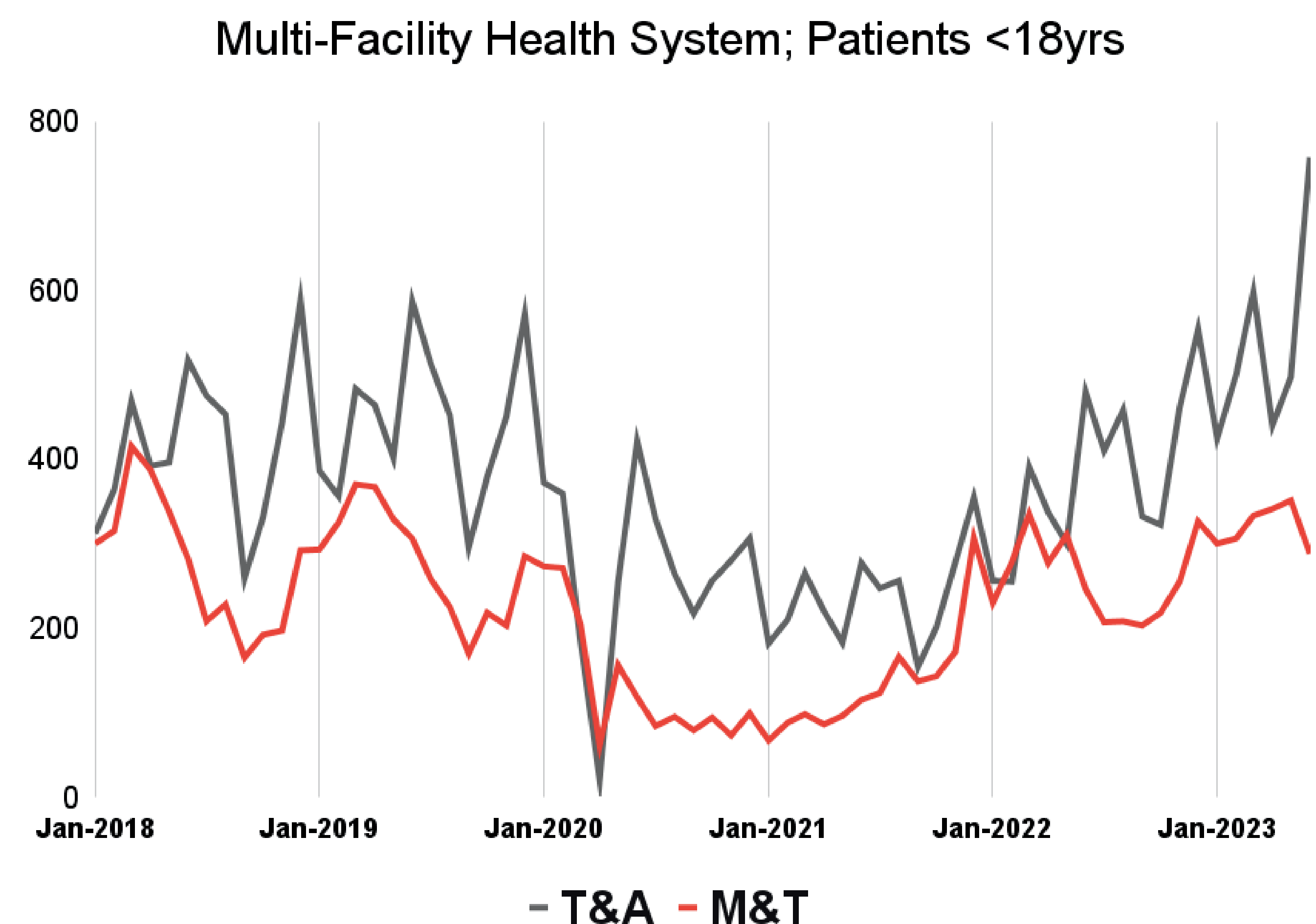
Abstract

Multiple pediatric otolaryngology procedures experienced a drastic volume decrease during the COVID-19 pandemic. Although both tympanostomy/myringotomy and tonsillectomy/adenoidectomy procedures dropped significantly in 2020-2021, both have since returned to near or above normal. Median age for both procedures fluctuated throughout the pandemic.

Methods

Pediatric tympanostomy/myringotomy (M&T) and adenoidectomy/tonsillectomy (T&A) procedures performed in a 31-hospital health system from January 2018 to June 2023 were queried. ANOVA, t-tests, and linear regression were used to determine differences in age and case rates across time periods and patient race/ethnicity. Pre-pandemic baselines were established for year-over-year percent change analysis.

Pediatric Otolaryngology Case Volumes by Time



Adenoidectomy/Tonsillectomy Median Age

2018-19	2021	2023
6.47	7.13	6.48
—	▲	▼

Myringotomy/Tympanostomy Median Age

2018-19	2020	2023
1.93	1.97	2.41
—	▲	▲

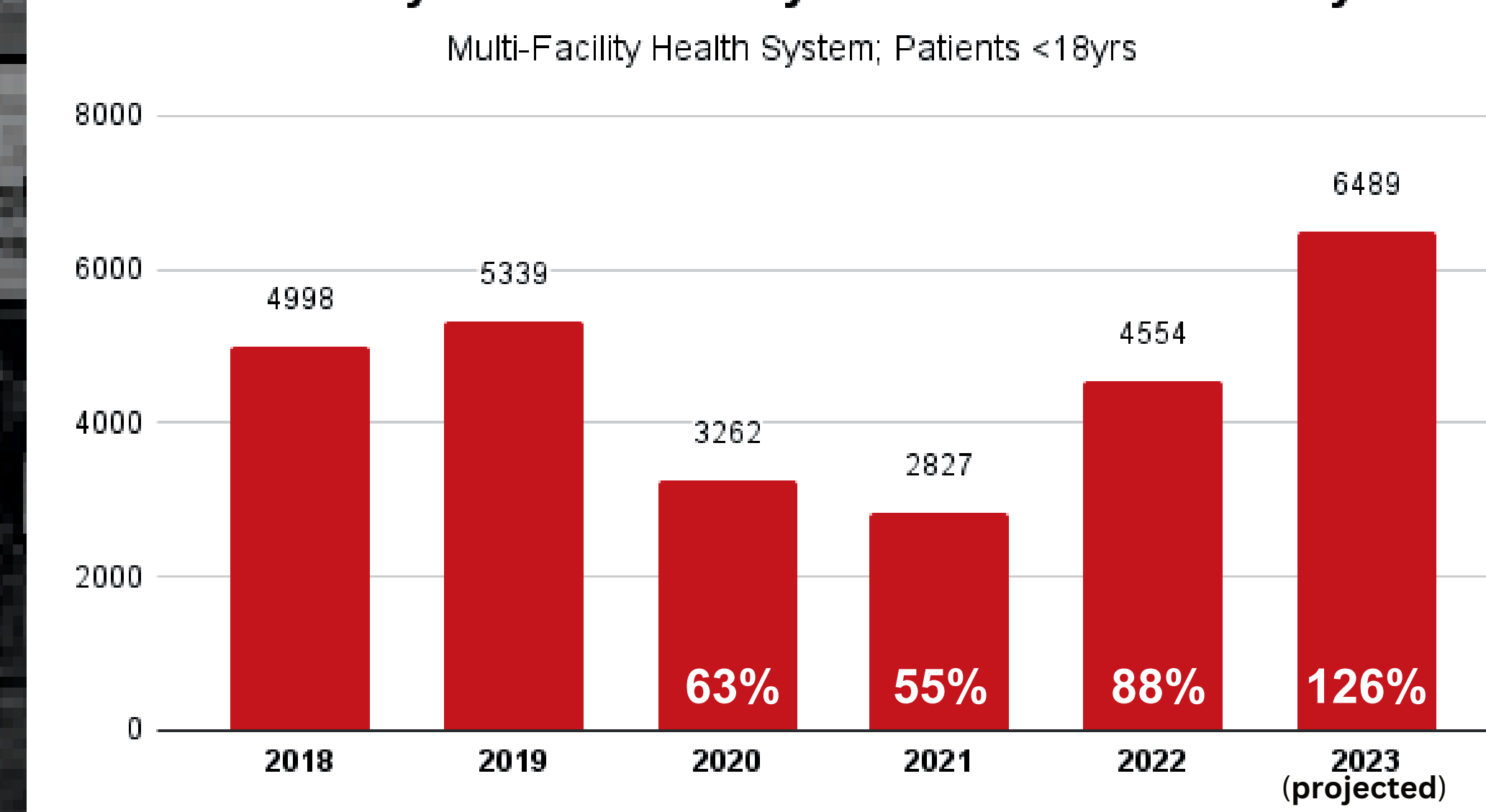
Introduction

- Pediatric otolaryngology case volumes fell during the COVID-19 pandemic
- This study examines pre-, mid-, and post-pandemic case volumes within a non-academic multi-hospital health system
- Changes in median patient age were also evaluated

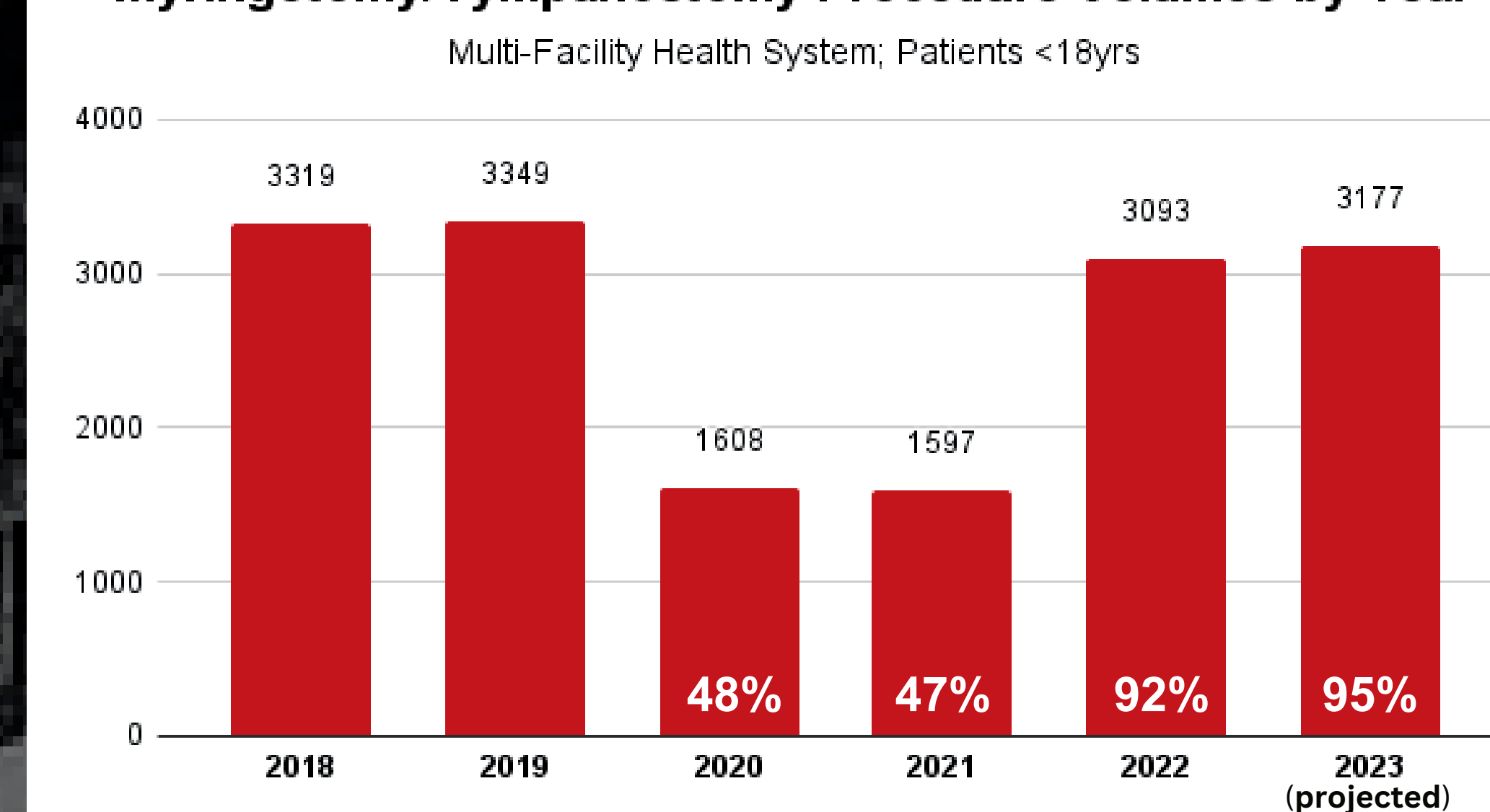
Results

Calendar year 2021 had the fewest M&T and T&A cases of any year (27% and 52% of baseline, respectively). Cases increased to 83% and 78% of baseline in 2022 and 95% and 126% in 2023. For both M&T and T&A, median patient age differed across years ($p < 0.0001$), increasing during the pandemic (1.97 vs. 1.93 and 7.13 vs. 6.47 pre-pandemic, respectively). However, while median M&T age has become increasingly elevated in 2023 (2.41), median T&A age has essentially returned to normal (6.48). Race/ethnicity was not associated with changes in patient ages or case volumes.

Tonsillectomy/Adenoidectomy Procedure Volumes by Year



Myringotomy/Tympanostomy Procedure Volumes by Year



Discussion/Conclusion

The impact of the COVID-19 pandemic on pediatric otolaryngology appears to be self-contained, though the rebound in case volume has been less pronounced for M&T relative to T&A. Fluctuations in patient age may have multiple explanations, including patients delaying care for months to years due to socioeconomic barriers or institutional policies related to the pandemic. Future research is warranted to investigate the impact of these changes upon specific patient populations and elucidate the effects of delayed pediatric otolaryngology care.

