

Abstract

Purpose: The purpose of this study is to analyze the referrals from in-house pediatricians to the dental clinic to assess number of referrals, number of completed appointments, and compare these findings to the impact of COVID-19 from March 2020 to March 2022.

Methods: Data was obtained retrospectively using electronic health record (axiUm). Referred patients between the ages of 0-5 years were identified from April 2017 to July 2022. The timeframe for the impact of COVID-19 was designated to March 2020 to March 2022. The following data points were collected and analyzed including date of referral, completion of the appointment, type of treatment, and demographics. The COVID-19 data was compared to pre-COVID-19 timeframe, April 2017 to April 2020.

Results: Among 511 referrals received from the pediatricians between 2017 to 2022, 17% (88) have been documented to complete an appointment. Pre-COVID timeframe revealed 100 referrals and 66% (66) completed appointments. COVID timeframe revealed 411 referrals and 5% (22) completed appointments. Data was compared using Chi Square and Exact Measures of Association.³

Conclusion: Our pediatrician colleagues were able to provide virtual wellness visits during the pandemic, whereas the dental clinic was open for emergency visits only. Dentistry is also a procedure-based field and the ability to provide care virtually is limited. As we emerge from the pandemic, pediatric dental clinics may not have the capacity and staff to accommodate a surge of patient referrals from virtual visits and the return of their existing patients.

Introduction

Despite the AAP and AAPD guidelines, there are children that visit the dentist after the recommended age of one. Early visits, especially high caries risk and publicly insured children, allows for maximum prevention, conservative disease management, and reduce emergency visits.

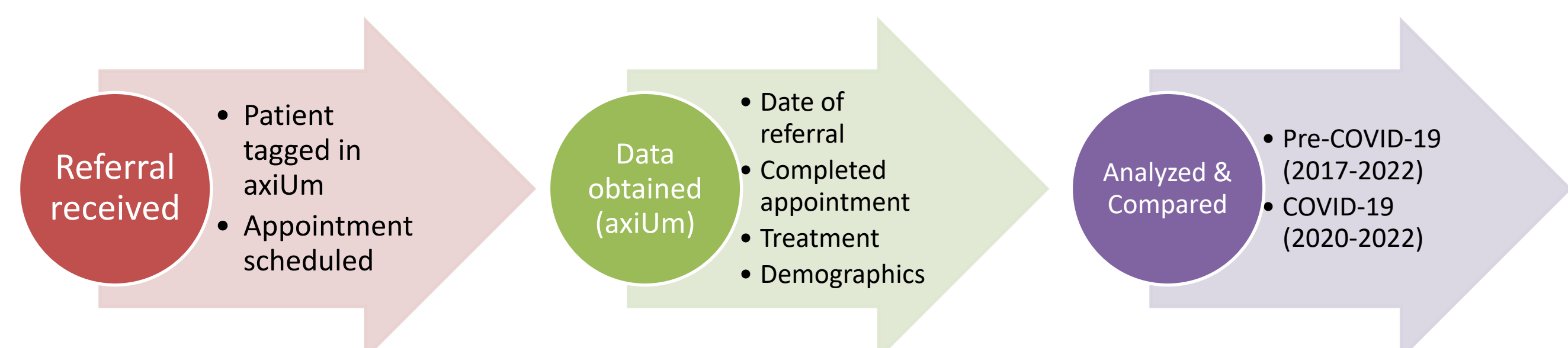
 **The odds of having caries at the first dental visit increases by a factor of 2.1 for every year of increased age.¹**

A five-year old's first dental visit has nearly 20 times the odds of having dental decay compared to a child at age one. Dental referrals from our pediatrician colleagues are helpful in establishing a dental home. It helps reduce barriers and streamline families to a provider. Establishment of a dental home helps minimize poor oral health outcomes.

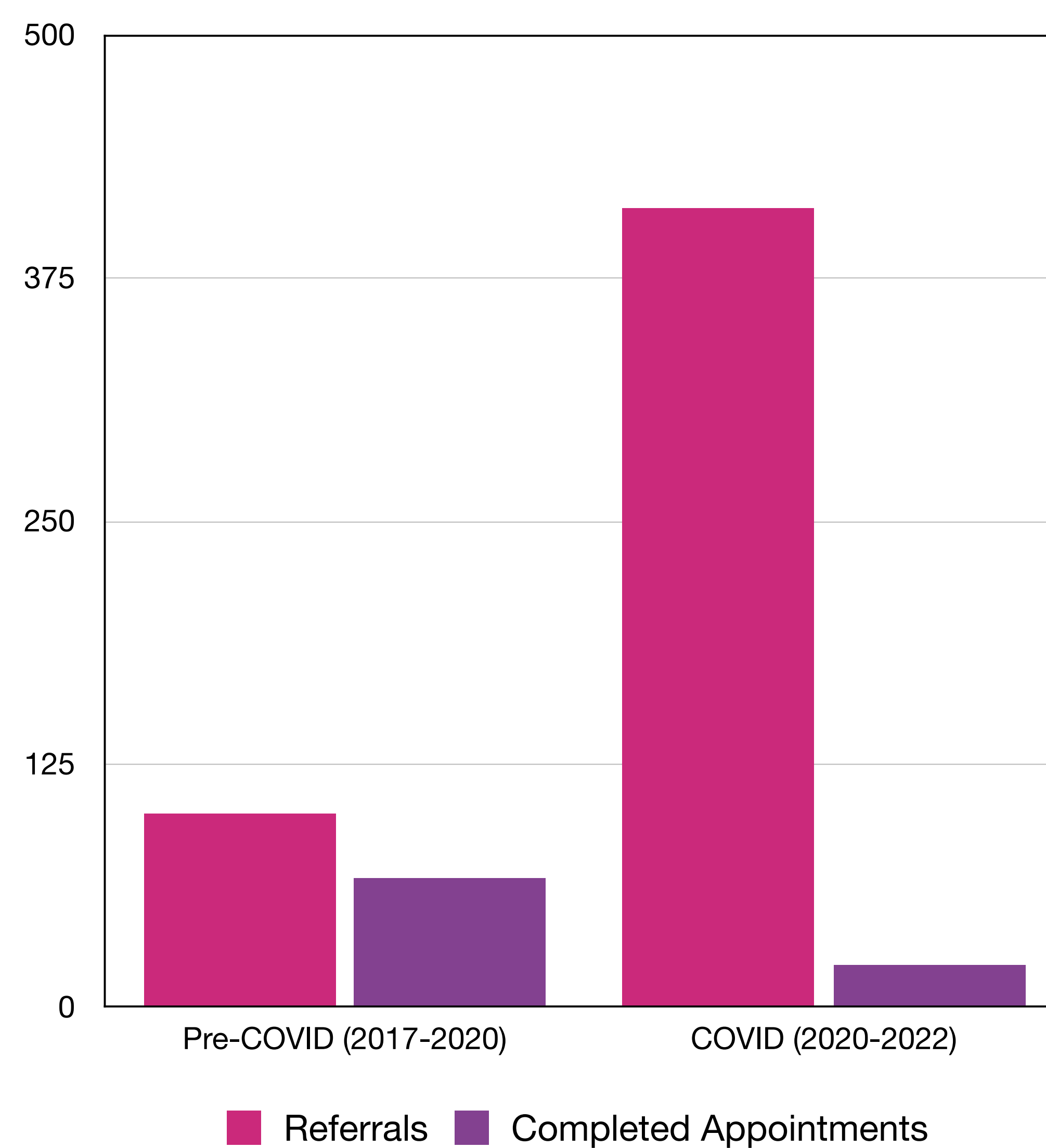
 **A dental home can provide guidance on caries prevention through education, reduce anxiety as familiarity increases with the dental environment, and provide emergency services.²**

In 2017, ECU Pediatric medical clinic and ECU Pediatric dental clinic partnered together to implement the Baby Oral Health Program (bOHP) to improve dental literacy and patient access to dental care.

Methods



Results



| | Pre-COVID (2017-2020) | COVID (2020-2022) | Total (2017-2022) |
|--------------------------------|-----------------------|-------------------|-------------------|
| No. Referrals | 100 | 411 | 511 |
| No. Completed Appts* | 66 (66%) | 22 (5%) | 88 (17%) |
| Days in Between (mean, median) | 69, 17 | 243, 274 | 112, 31 |

Table 1. Results from pediatrician referrals & first completed dental appointment. *p-value <0.000001

| | Pre-COVID 2017-2019 (n=66) | COVID 2020-2022 (n=22) | Total 2017-2022 (n=88) |
|-----------------------|----------------------------|------------------------|------------------------|
| Average Age (years) | 2.2 | 2.4 | 2.3 |
| Average Distance (mi) | 17 | 14 | 16 |
| Dental Emergency | 6% | 18% | 9% |
| Comprehensive Exam | 94% | 82% | 91% |
| Medicaid | 92% | 95% | 93% |
| Male | 53% | 50% | 52% |
| Female | 47% | 50% | 48% |
| White | 15% | 10% | 13% |
| Asian | 4% | 0% | 2% |
| Black | 44% | 45% | 44% |
| Hispanic | 21% | 27% | 23% |
| Mixed Race | 7% | 9% | 8% |
| Did not specify | 9% | 9% | 9% |

Table 2. Additional results from demographics and treatment type.

Discussion

- Referrals increased 311% and completed appointments decreased 66% post COVID-19.
- Medical clinic continued to see patients through virtual wellness visits and made appropriate dental referrals during the pandemic.
- Dental clinic was open for emergency visits only between March 2020 to July 2020.
- A surge of referrals (411) were received during COVID time frame.
- The average age of a referred patient is 2.3 years old.
- 93% of patients are of low socioeconomic status.

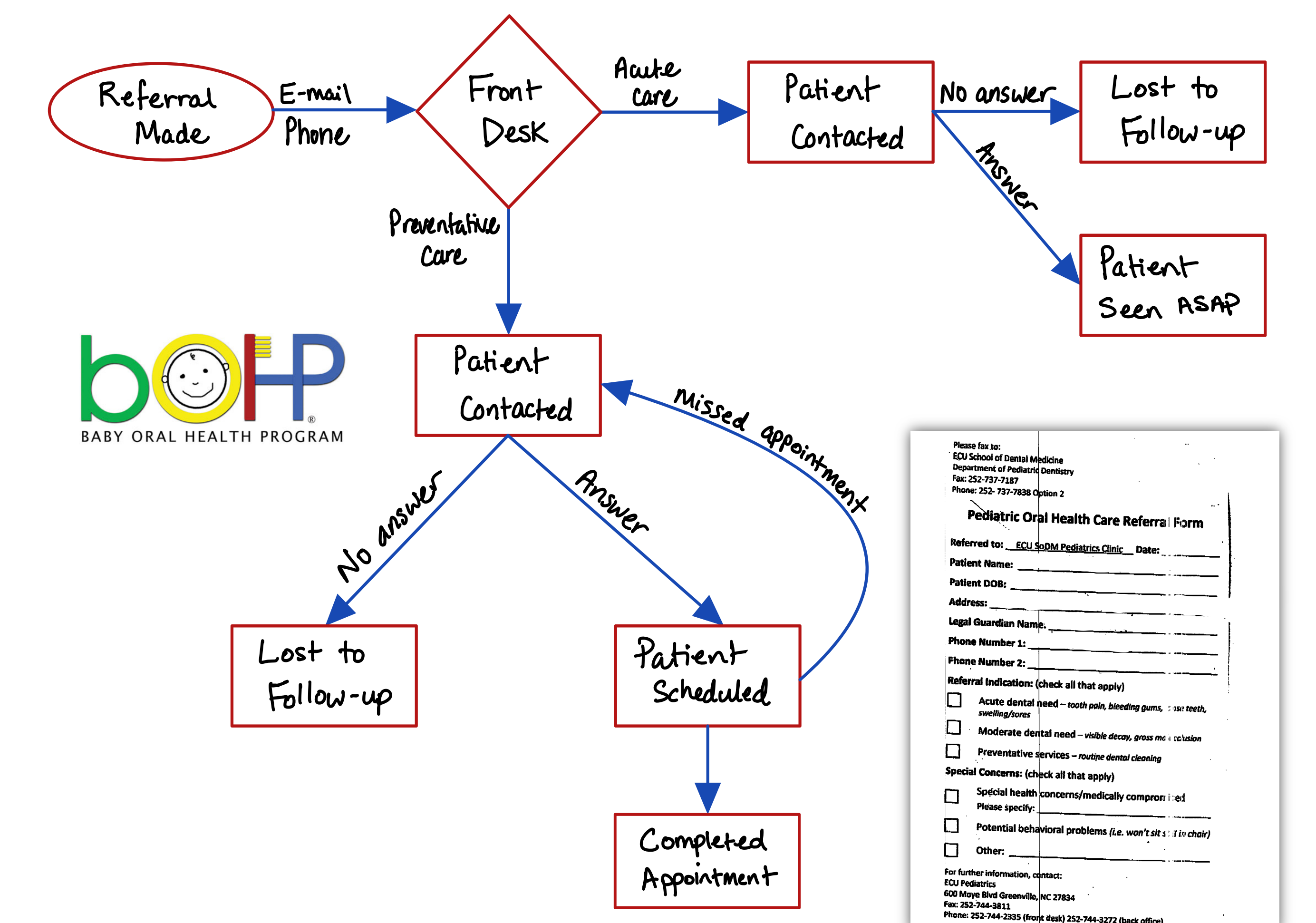


Figure 1. Flow chart of referral system and paperwork.

Conclusion

Our pediatrician colleagues were able to provide virtual wellness visits during the pandemic, whereas the dental clinic was open for emergency visits only. Dentistry is also a procedure-based field and the ability to provide care virtually is limited. As we emerge from the pandemic, pediatric dental clinics may not have the capacity and staff to accommodate a surge of patient referrals from virtual visits and the return of their existing patients.

References

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