



## Aims

The aim of this study is to assess the prevalence of dental pain, sources of pain, corresponding referral sources, demographics, access to care and resolution of problem at Boston Children's Hospital (BCH) Department of Dentistry through parents' perspective.

## Introduction

Children, adolescents and individuals with special health care needs experience pain due to dental/orofacial injuries, infections, dental procedures, and inadequate pain management may have significant consequences<sup>1</sup>. In children, pain manifesting as toothache is a common source of orofacial pain<sup>2,3</sup>. An estimated 36% of children and adolescence have experienced tooth pain<sup>2</sup>. Specifically, 28% of 0-5-year-olds and 52% of 6-9 year-old children having experienced toothaches<sup>2</sup>.

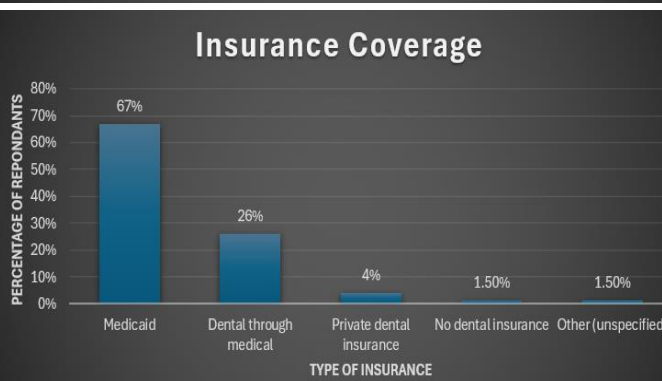
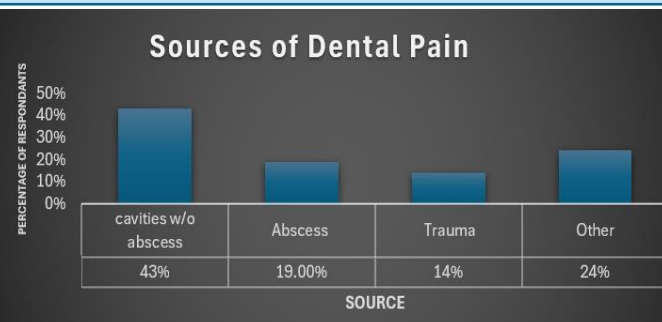
Untreated dental caries disproportionately affect children from economically disadvantaged and minority backgrounds<sup>4</sup>. It is the main cause of dental pain in children, resulting in absence from school, impacting learning<sup>5</sup> and negatively impacting quality of life, hospitalizations and emergency room visits<sup>6,7</sup>. Caries progression may lead to odontogenic infections that necessitate emergency care and hospital admission<sup>8</sup>. A review of multi-state Medicaid claims data found that 10% of all dental encounters in 2016 were for emergencies, with 20% of encounters for adults and 6% for children<sup>8</sup>. However, most dental emergency encounters did not result in definitive treatment received<sup>8</sup>.

## Methods

- Guardians of patients 1-20 years who presented to the BCH Department of Dentistry were surveyed within one month of their latest dental in-person visit.
- A 24-question survey querying the patients' demographics, dental pain history, referrals, and resolution of pain was developed and administered to 2,568 subjects via REDcap. Two subsequent reminders were sent 1 and 2 weeks after the initial email invitation.
- Survey data was analyzed using descriptive statistics.

## Results

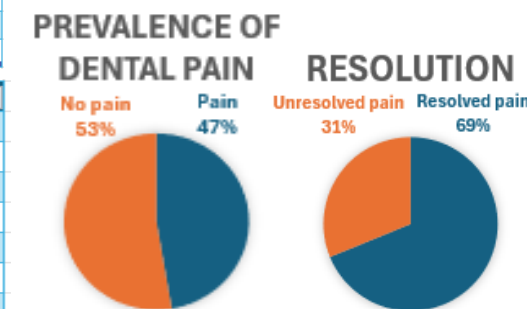
- 2,501 surveys invitations were sent and 549 responses were returned. Of these, 260 respondents reported dental pain and were analyzed for this study.
  - Mean age (SD)=8.3(4.1) years.
  - 35% of subjects were individuals with special health care needs.
  - 13% sought care at an emergency room(ER) and 66% were referred to BCH.



Time from onset to dental visit	
Days	Percentage
1-7 days (1 week) after start of issue	23.8%
8-14 days (2 weeks) after start of issue	13.5%
15 - 30 (3-4 weeks) days after start of issue	11.5%
1-2 months after start of issue	14.2%
3-4 months after start of issue	8.0%
5-6 months after start of issue	8.8%
over 6 months after start of issue	10.0%
I don't recall / I am not sure	10.0%

Referrals:	
	Percentages
BCH ED	4%
Community dentist	25%
Medical specialist	5%
Pediatrician	32%
No one	29%
Other	4%
unsure	3%

Race/ethnicity	
	Percentage
White	27%
Black or African American	20%
Asian	15%
Multiracial	10%
Other	9%
Hispanic/Latinx	29%



## Conclusion

With 47% of respondents reporting recent dental pain and 69% of problems resolved, it is imperative to continue to strive for increased accessibility. Caries prevention and proactive treatment is recommended to prevent and treat dental pain in children.