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Social Determinants of Health: A Deep Dive into the School

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Introduction

- Over 4 million children in the United States will experience at least one unmet healthcare need, with dental care being the most common.¹
- Children that live on and below the poverty line are more likely to suffer from an unmet need.¹ Other factors such as lack of insurance, systematic racism, socioeconomic status, and access to care, all relate to those unmet needs.¹
- The World Health Organization defines social determinants as “the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.”²
- In the United States, children who have negative experiences at school are more likely to have health concerns.³
- Children who are more involved in school activities and have an overall more positive experience at school, are more likely to have a decreased amount of caries.² The opposite was true for children involved in school violence and theft.²

The purpose of this study is to take a deeper dive into the adverse events and stressors taking place inside the school which may correlate with poor oral health and caries.

Materials and Methods

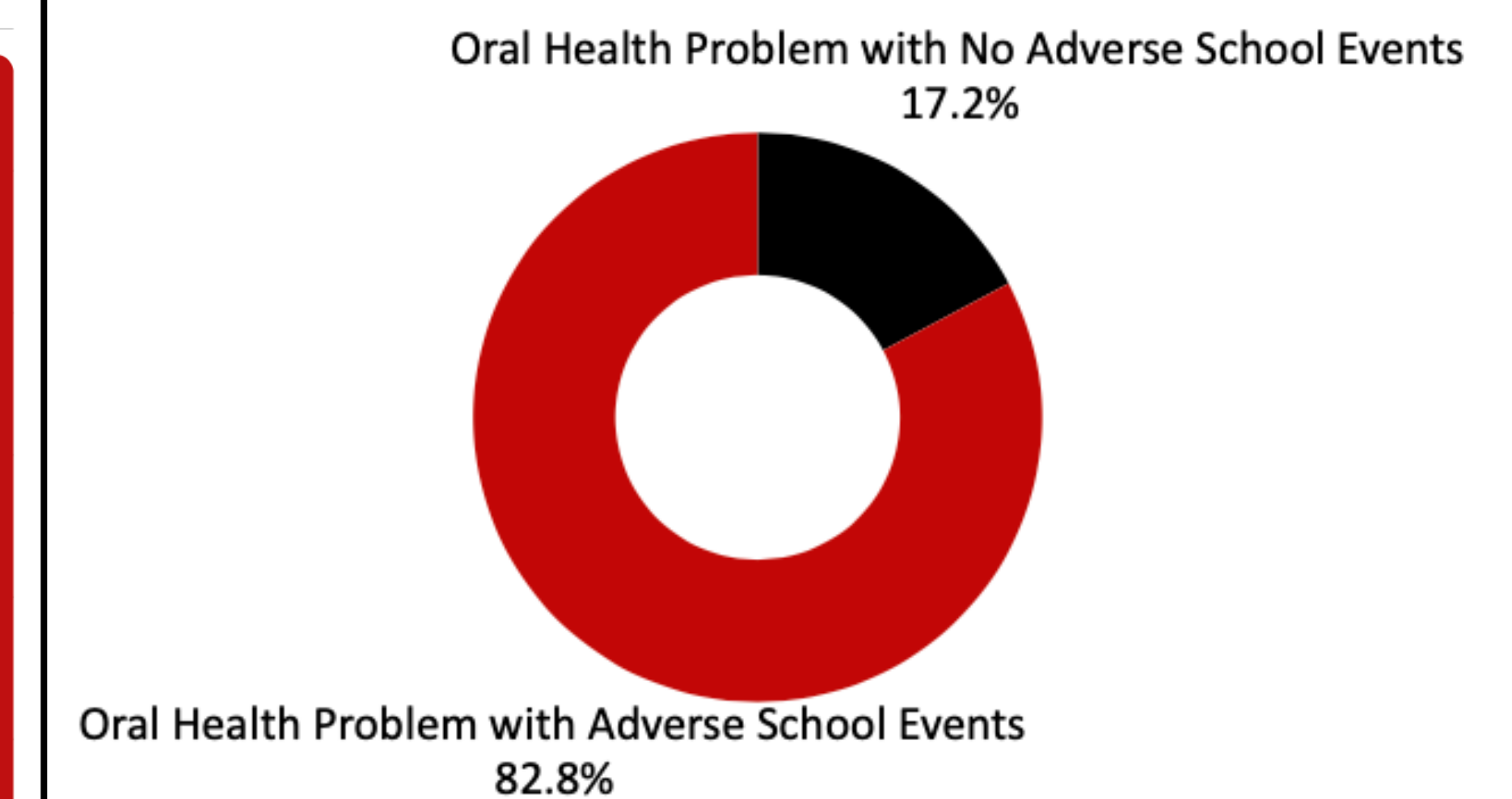
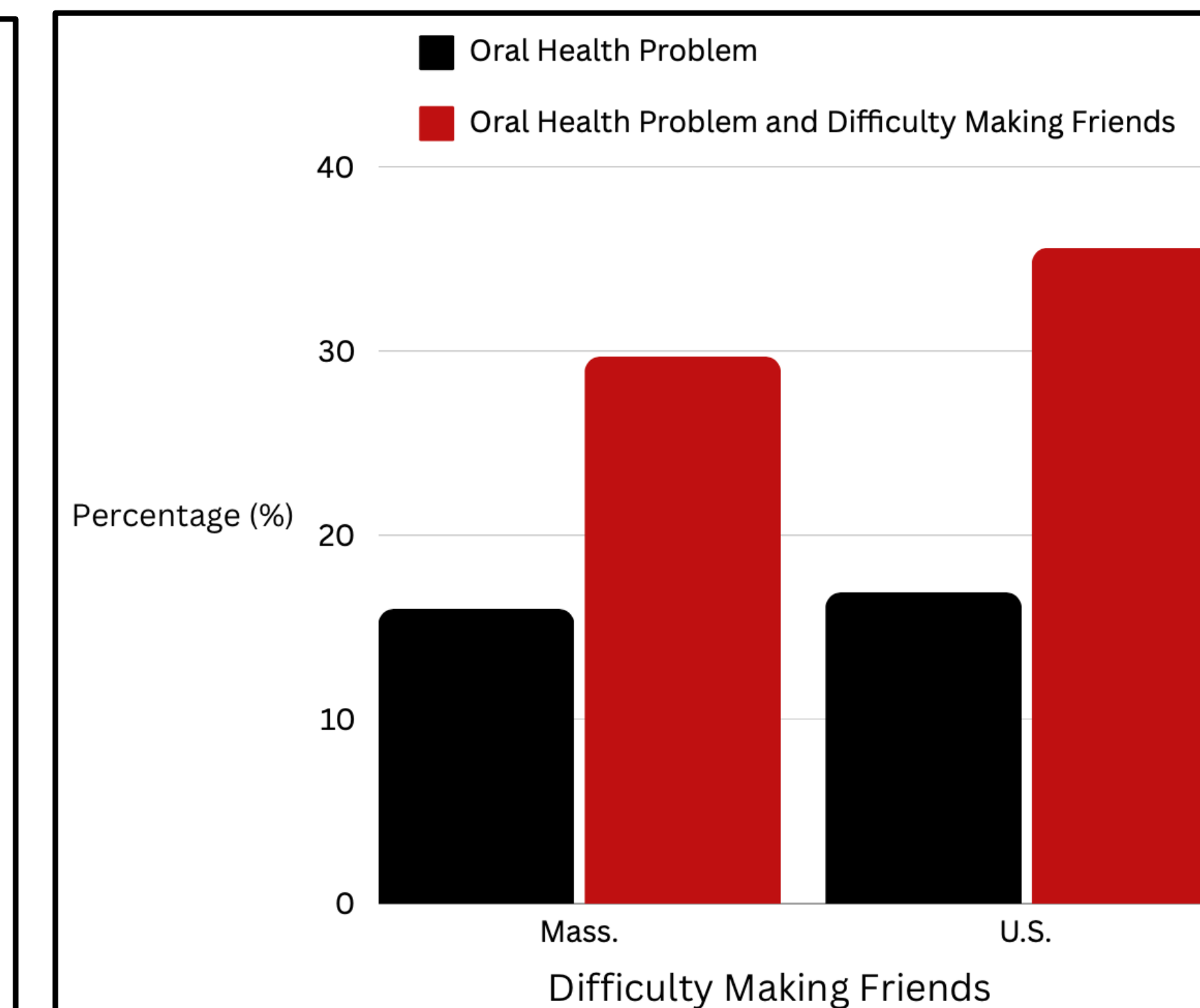
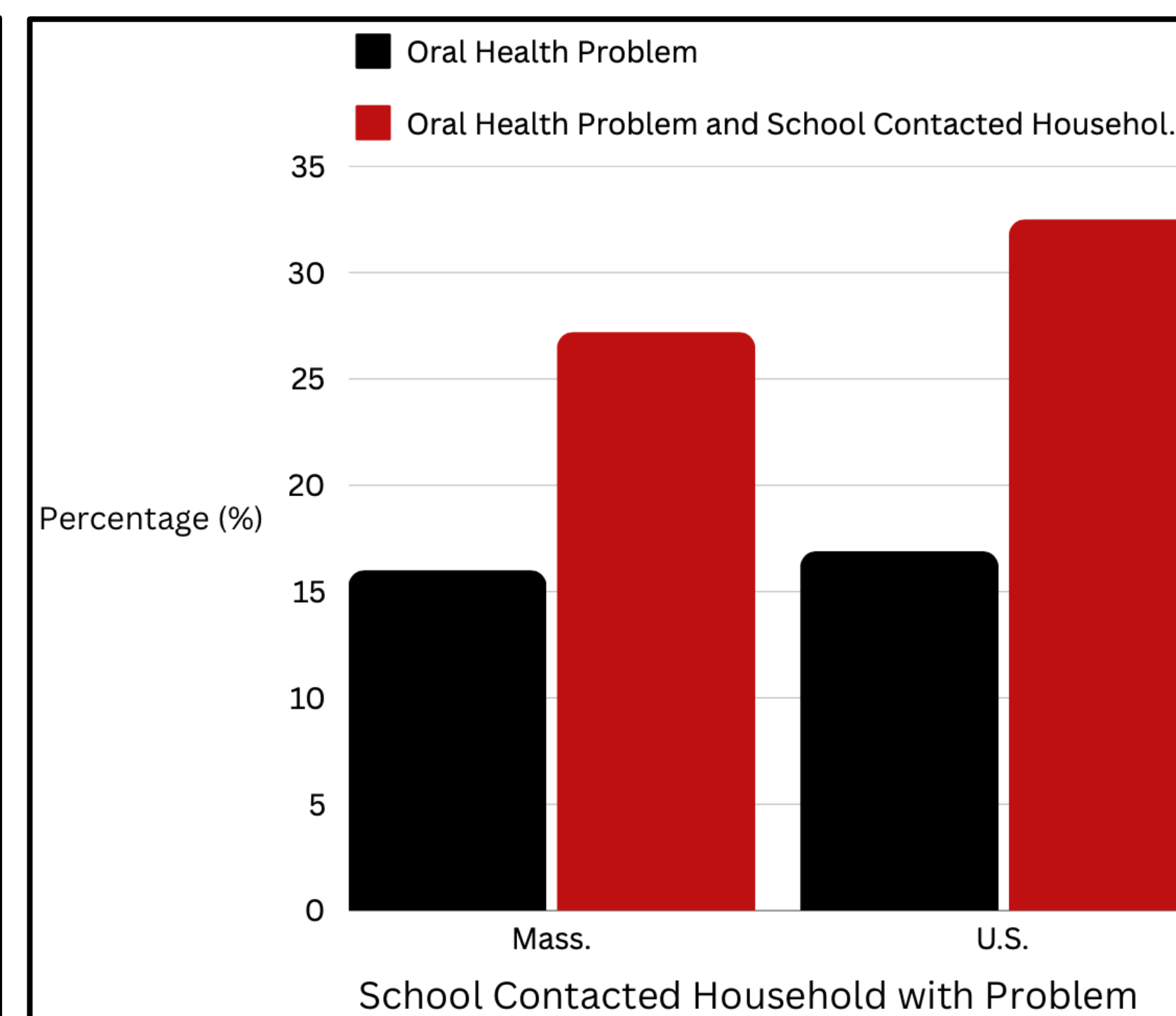
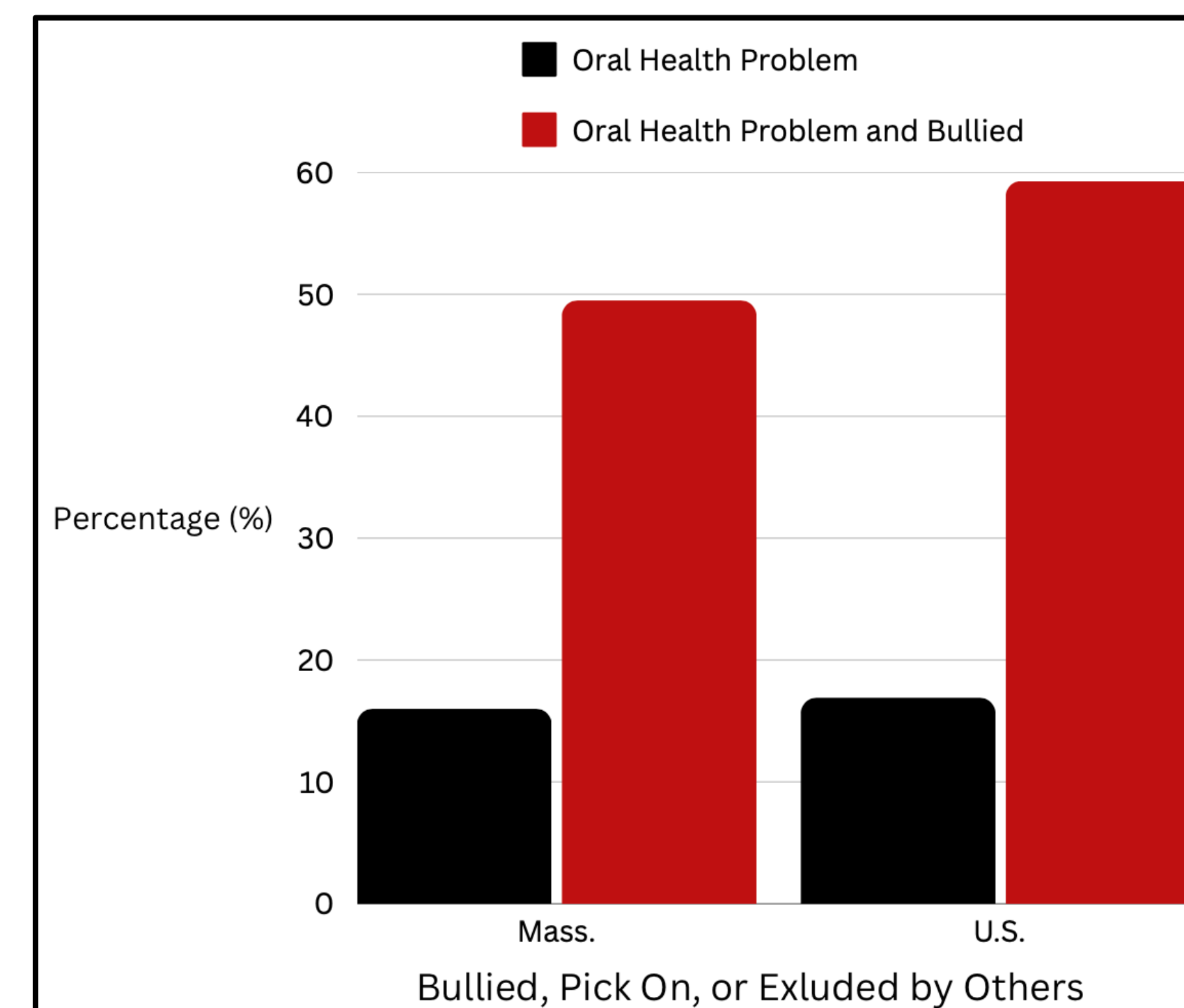
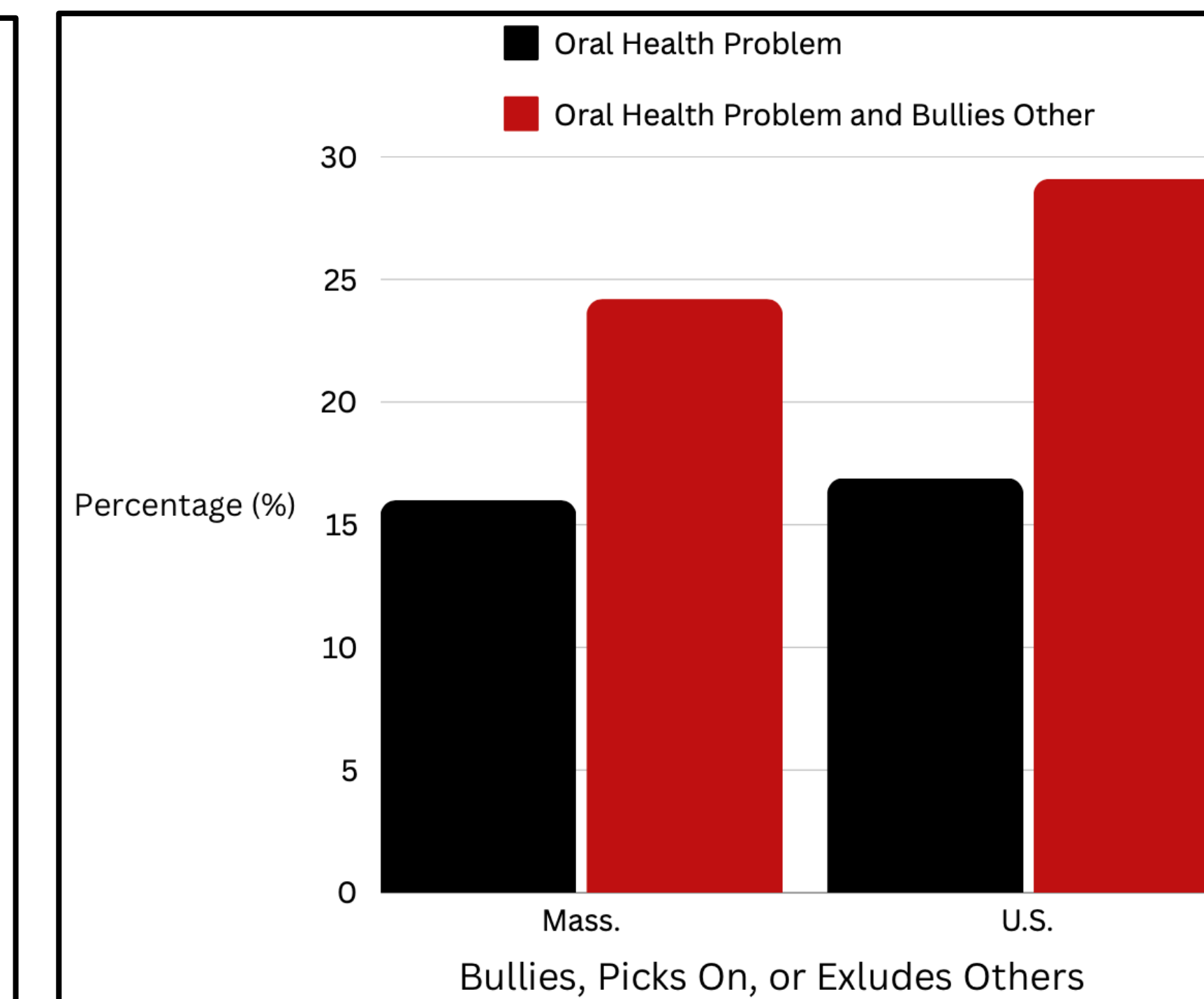
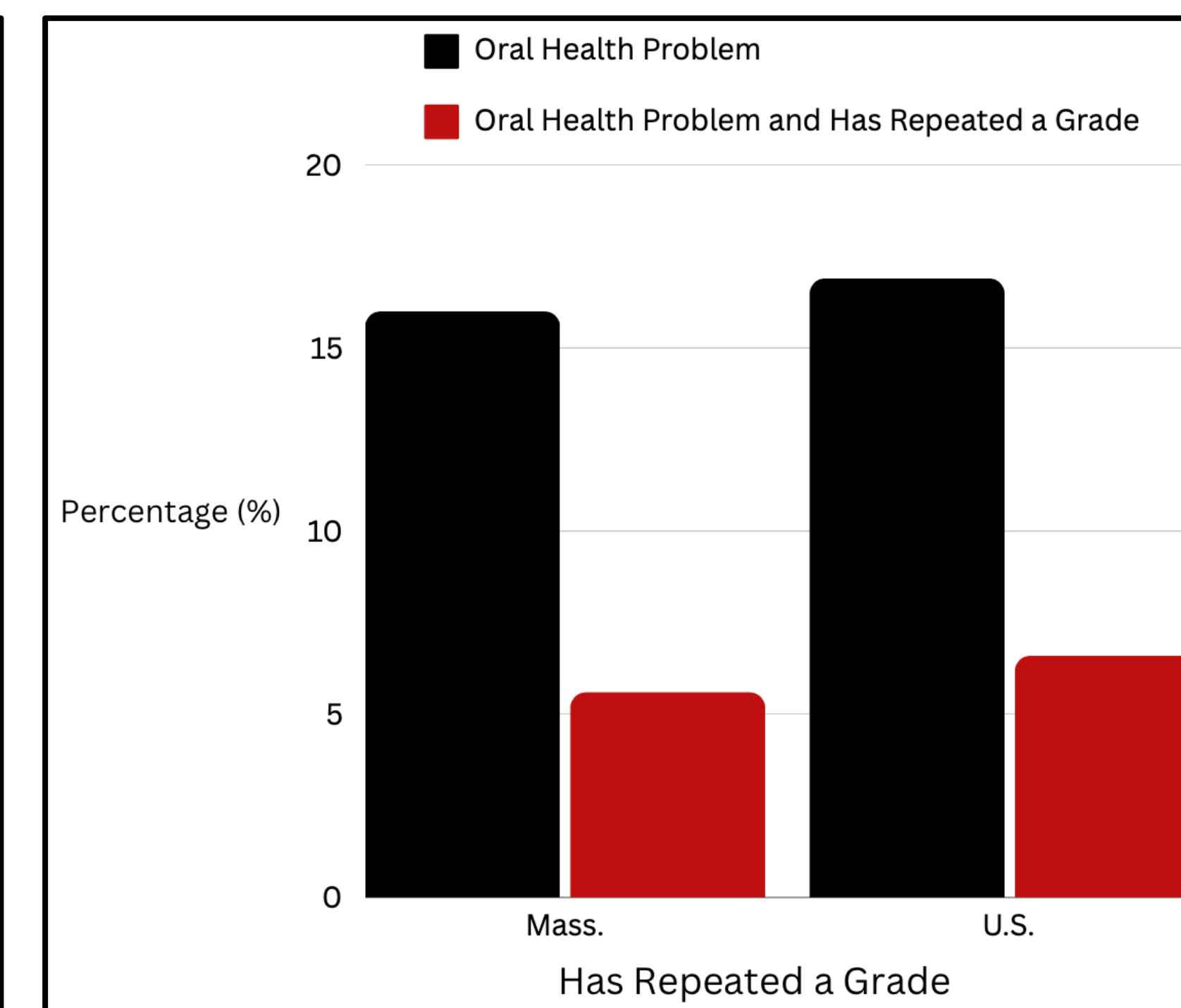
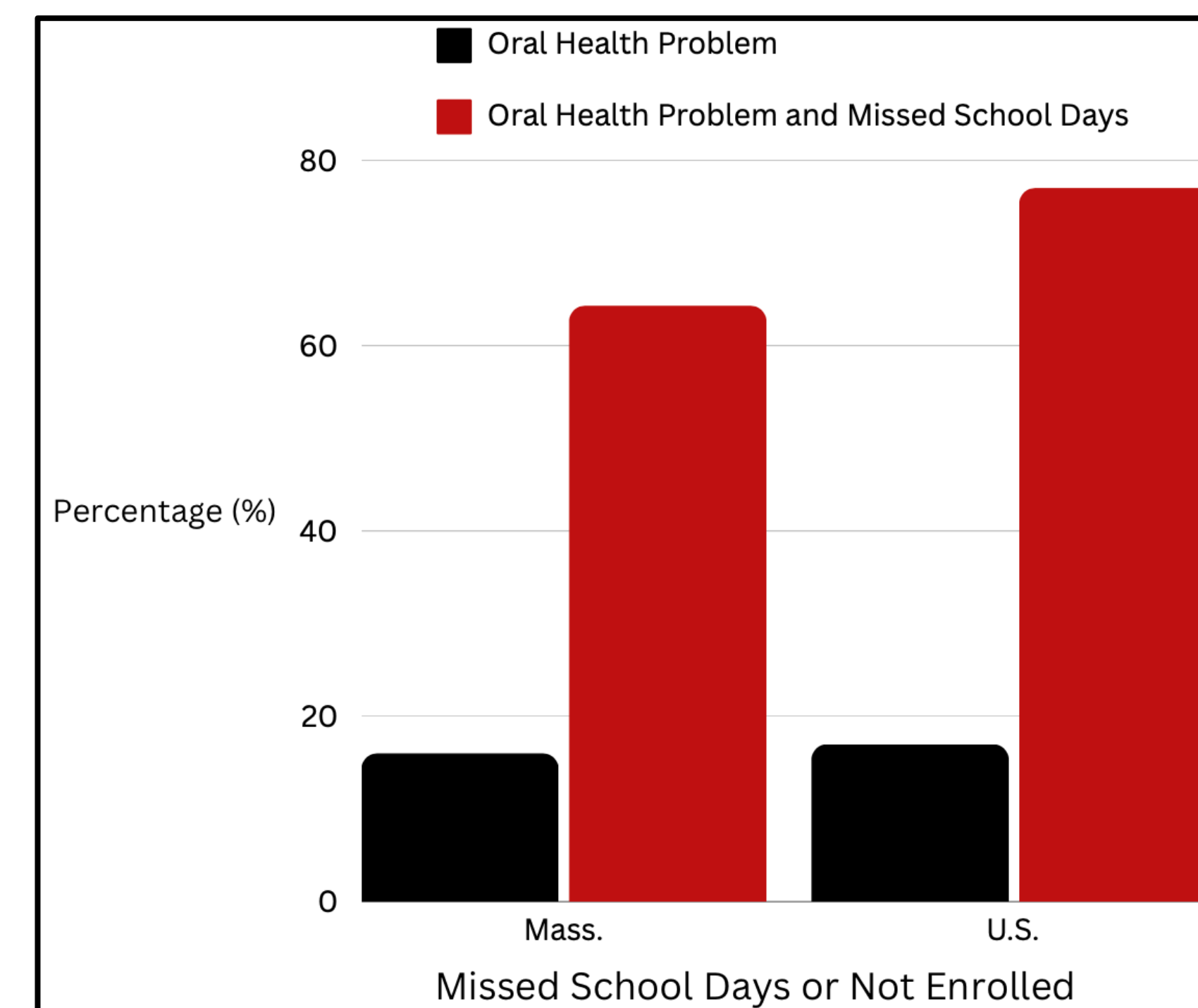
Study Population

- Parent reported data from the 2021 National Survey of Children’s Health (NSCH) was analyzed to assess the trend between children in Massachusetts and the U.S. ages 6-11 having oral health problems and having school related adverse events and stressors.
- The sample size is 13,584 nationally, and 218 for the state of Massachusetts.

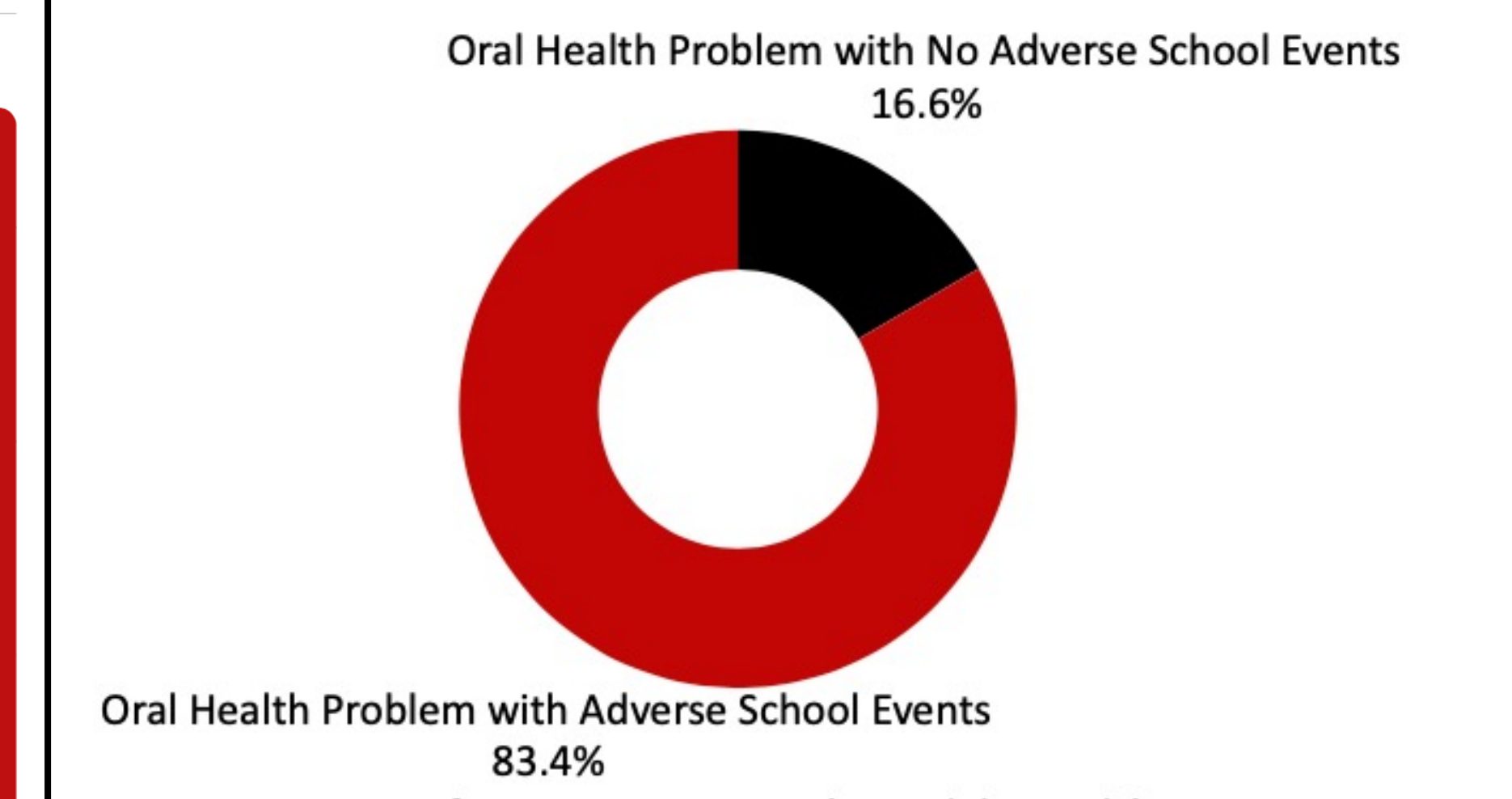
Data Collection and Analysis

- Each year, the U.S. Department of Health and Human Services releases this survey through the Maternal and Child Health Bureau of Health Resources and Services Administration.⁴
- Approximately 106,000 households were properly screened for completion of the survey in a just under 51,000 questionnaires were completed. Data collection took place from June 25, 2021, until January 14, 2022.⁴
- The factors evaluated were children who had calls home from the school with a problem, missed school days, were bullied, are bullied, have repeated a grade, and have difficulty making friends.
- IBM SPSS statistical analysis software platform was used for data analyses.
- Data from the U.S. and Massachusetts were compared to determine the trends between oral health problems and children having adverse stressors at school.

Results



Summary of Mass. Data - Oral Health Problems



Summary of U.S. Data - Oral Health Problems

- In the U.S., 2297 subjects of 13584, had an oral health problem (toothache, bleeding gums, and/or decayed teeth or cavities). Of the 2297 subjects, 1916 had adverse events and stressors taking place at school.
- In Mass., 35 subjects of 218, had an oral health problem (toothache, bleeding gums, and/or decayed teeth or cavities). Of the 35 subjects, 27 had adverse events and stressors taking place at school.
- Nationally, children with adverse events at school and an oral health problem were 55.4% male and 44.6% female compared to 59.% male and 40.7% female in Massachusetts.

Conclusions

- Adverse events taking place in the school are correlated with oral health problems in children ages 6-11 in Massachusetts and the US, with Massachusetts having slightly more upward trend.
- Increased research is needed to understand the multifactorial causes of poor oral health in children with adverse events taking place at school.
- Dentists should educate parents on the importance of a positive school experience for their child, encourage them to advocate for bullying prevention.

References

