

F22.016: Preventing the Most Common Disease in Children

Faculty mentor: Dr. Denise Helm

Overview

Tooth decay is the most common preventable disease in children! The student will have the opportunity to engage in research that is part of a larger interdisciplinary project designed to increase access to oral health services for children birth to 5 years of age in Navajo and Apache Counties. Our research is four-fold including 1) a secondary analysis of a large data set of Arizona children's dental claims 2) a study of the knowledge, beliefs, and practices of dentists around oral care for children birth to 5 years of age, 3) an investigation of pediatrician practices delivering oral care, and 4) an evaluation of a previous social media educational intervention. To achieve the goals, we are using a systems change approach to increase access to oral health services. Systems change by its very nature demands careful analysis of the context and the environment in which sustainable changes are desired. Systems change includes examining policies, practices, resource flow, relationships and connections, power dynamics, and mental models. Our research is investigating these conditions. The student who joins our team will be part of all four studies, but they can also choose to take a deeper dive into one or more of the experiments. This project provides the student a unique opportunity to work with a dental hygiene professor, a psychologist, a social worker, early childhood educators, and public health professionals from across the state and the country.

What the student will DO and LEARN

The student will: 1) Work with our team members to analyze the 19,968,494 dental claims as part of the secondary data analysis. The student will learn about basic statistics such as mean, median a mode, more advanced analysis, how to navigate a large data set, and software such as Tableau and SPSS. 2) Assist with developing the survey questions and instrument to gain an understanding of knowledge, beliefs, and practices of dentists around oral care for children birth to 5 years of age. They will be involved in the dissemination of the survey, follow-up with the dentists, analysis, and reporting of the results. The student will learn about oral health terminology and communication, how to write survey questions, and about survey design. They will also develop knowledge about the use of software applications like Qualtrics. 3) Assist in developing the survey questions and instrument to investigate pediatrician practices delivering oral care. They will learn appropriate communication with health professionals and build on their survey questions skills, survey design, and software knowledge. 4) Help develop an evaluation of a previous educational intervention by examining the goals of the intervention. The student will develop recommendations based on the findings of the evaluation. They will learn the basics of evaluation research and reporting, and basic public health intervention strategies.

Additional benefits

The student will get firsthand experience with an interdisciplinary team. Further, they will gain experience with a variety of research: secondary data analysis, survey methods, and evaluation. The student will benefit from working with professionals across the country to solve a nagging real-world

problem. Additionally, they will learn how systems change can be used to bring about sustainable lasting change that improves the health of a population.

Additional qualifications

Our team would prefer a student with a background in health, public health, or a related field but it is not required.

Time commitment

6 hrs/week for 30 weeks