ABSTRACT: 2018 ELAM Institutional Action Project

Project Title: Improving Oral Health of Vulnerable Populations Through Inter-Professional Collaborations

Name and Institutions: Yvonne Kapila, UCSF

Collaborators and Mentors: Margot Kushel, Guo-Hao Lin, Steve Polevoi, Jeff Eaton

Topic Category (choose 1): Administration Clinical Education Faculty Development <u>Research</u>

Background/Significance of Project: The homeless population is aging, underscoring the enhanced need for oral health care in these individuals. Homelessness is associated with poor health outcomes, including a high prevalence of chronic and infectious diseases, mental health and substance use problems. Adults experiencing homelessness have poor access to longitudinal health care, including oral health care; they have high rates of Emergency Department (ED) use and hospitalizations.

In 2000, the Surgeon General identified oral disease as a "silent epidemic." Despite the availability of effective prevention and treatment methods, oral health has improved little over the past two decades. Among some subpopulations, oral health has declined. In the US, nearly a quarter of adults aged 20-64 have untreated dental caries and more than half have lost a permanent tooth. Mouth pain and tooth loss have a significant negative impact on quality of life, employment, and social opportunities by affecting the ability to eat, speak, and smile People experiencing homelessness are at high risk for poor oral health. Homeless individuals have poor access to dental care. They have risk factors for poor oral health in addition to poor access to care. These include inadequate resources for regular dental hygiene and a higher prevalence of risk factors for tooth loss including: injection drug use, alcohol dependence, and tobacco use.

Poor oral health is associated with worsened chronic medical conditions, including diabetes and heart disease. Dental emergencies are a common preventable reason for use of the ED. Homeless individuals have a high prevalence of oral pain, periodontal disease, and dental decay. However, little is known about oral health in older homeless adults. Preliminary data from our cohort of older homeless adults (Health Outcomes of People Experiencing Homelessness in Older Middle Age; 2R01AG041860) found a high prevalence of tooth loss and oral pain in homeless adults, and an association between oral pain and use of the ED.

Purpose/Objective: The short term goals of this project are to enhance our understanding of the oral health and other determinants for ED use by vulnerable populations. The long term goals are to use this information to enhance oral health care access for vulnerable populations. This data will be used to enhance interactions between organizations that serve the homeless in the SF Bay Area and the UCSF community dental clinic; a long-standing student run-faculty supervised free dental clinic for vulnerable populations.

We hypothesize that oral pain due to dental decay and periodontal disease in homeless individuals is a common presenting complaint in Emergency Department visits, and is independently associated with use of the Emergency Department. We will test this hypothesis in the following specific aims.

Methods/Approach/Evaluation Strategy:
Specific Aim 1: Determine the level of dental decay and periodontal disease in older homeless individuals in a population based cohort of homeless adults. A prospective study approach will be used to collect relevant oral health data using standard dental and periodontal survey tools via a dental exam.
Specific Aim 2: Examine the rate of and factors associated with ED visits for dental pain in a population based cohort of older homeless adults. A prospective study approach will be used to collect data relevant to Emergency Department visits using a survey tool previously employed in our pilot study.
Specific Aim 3: Use data from Aims 1 and 2 to enhance access to oral health care for vulnerable populations, and increase connections between organizations that serve the homeless and the UCSF community dental clinic. A biannual survey of dental electronic health records (# of visits and procedures, origin of patient, etc) from the community dental clinic will be used to evaluate the impact of new data and connections with these organizations.

Outcomes/Results: This project will enhance our understanding of the oral health and other determinants for ED use by vulnerable populations. This project will potentially enhance access to oral health care by vulnerable populations by seeding sustainable connections between dental providers and community organizations that support homeless/vulnerable populations.

Conclusion/Statement of Potential Impact: This data will be used to help enhance connections between organizations that serve the homeless in the SF Bay Area and the UCSF community dental clinic. This data will also facilitate long term planning to help address oral health disparities for vulnerable populations.