

Background: Firefighters are at significantly greater risk for a number of cancers compared to the general public and other similarly hazardous and dangerous occupations (e.g., police). As firefighters are required to respond to all domestic emergencies, there is wide agreement that their health and readiness is critical. While their cigarette use is low, firefighters have the highest rates of smokeless tobacco (SLT) use among all occupations, nearly three times national averages. SLT use is recognized as a significant risk factor for several cancers, including oral, esophageal, and pancreatic. Despite the high prevalence and risks of SLT use, there are no occupationally-tailored SLT interventions for firefighters. One SLT intervention that has proven effective among civilians and the military is *Enough Snuff*. It is cost-effective and easily disseminable compared to standard SLT cessation programs. *Enough Snuff* is ideally suited for adaptation and testing in the fire service.

Objective/Hypothesis: Given the fire service's importance to ensuring public safety, the alarming rate of firefighters using SLT, and their high risk of developing cancer, it is crucial that occupationally-tailored SLT interventions be developed and evaluated. Based on *Enough Snuff* and extensive formative research, I will develop and evaluate FIRE-SLT, an occupationally-tailored intervention for the fire service.

Specific Aims: 1) to conduct formative research to examine cultural norms, attitudes and perceptions about cancer and SLT use, and to identify cultural and structural barriers to SLT cessation; 2) to develop an occupationally-tailored SLT cessation program (FIRE-SLT) using *Enough Snuff* and information obtained through the formative research and alpha testing; and 3) to beta test FIRE-SLT to examine the usability of its educational materials, feasibility of intervention components, and to identify "bugs" prior to implementing the intervention on a larger scale.

Study design: The proposed study will use formative methods to develop FIRE-SLT, an occupationally-tailored intervention for the fire service. I will conduct an alpha-test on treatment materials and procedures for implementation. Then, I will conduct a beta-test of the tailored program with firefighters in the Kansas City metropolitan area to examine its usability and feasibility.

Cancer relevance: This proposal addresses the alarmingly high rate of SLT use and its impact on increasing cancer risk in a group already at heightened risk and focuses on improving cancer prevention programming in the fire service. This project will address an important health concern in an underserved occupational group and focus on developing a tailored and effective intervention to promote SLT cessation among firefighters.