Head and neck cancer (HNC) is highly prevalent, representing at least 4% of all cancers in the United States. Recognized risk factors for HNC include tobacco and alcohol use, as well as HPV infection. HNC is known to disproportionately affect those of lower socioeconomic status and the underserved population, even after adjusting for behavioral confounders. Racial disparities also exist, with African Americans having increased incidence and decreased 5-year survival rates when compared to Caucasians. The World Health Organization has identified oral cancer as a type of cancer that may benefit from early diagnosis, but there are to date no standardized guidelines for HNC screening.

Previously published reports have demonstrated the feasibility of conducting large-scale, community based, free HNC screening events. Beyond their potential for early detection of HNC, such screening events appear to provide an opportunity for participant education. Increased public awareness of HNC risk factors may influence behavioral modification, encouraging for example smoking and alcohol cessation. However, further investigation is needed to identify the best strategies for recruiting high-risk and underserved populations to such screening events. Furthermore, long-term follow up after these screening events has been poorly studied.

The University of Maryland Department of Otorhinolaryngology aims to host an HNC screening event on April 15, 2023, in the city of Baltimore, Maryland. Baltimore is a majority-minority city, with a substantial underserved and high-risk population. This will be held at the Community Health Education Center on the University of Maryland Midtown Campus. Data from the United States Census Bureau demonstrates that African Americans comprise 61.6% of the population of Baltimore City; furthermore, 20.3% of the population of Baltimore lives in poverty. Thus, a significant population in our local community is at risk for developing HNC, and hence an ideal target for screening.

The screening event will consist of a brief health educational presentation focusing on the signs and symptoms concerning for HNC, as well as common HNC risk factors. With the input of survey and health-disparities experts at our institution, participants will then be asked to complete a written questionnaire, including items related to demographics, risk factors, suspicious symptoms, motivational factors for attending the screening, method of recruitment, barriers to access, as well as influence of the COVID-19 pandemic on healthcare access. The questionnaire responses will be reviewed by otolaryngology residents and attending physicians, followed by a focused history and physical exam. Each participant will then be provided a disposition either for urgent otolaryngology follow up, non-urgent otolaryngology follow up, routine follow up with primary care physician, or referral to other specialty such as dental. Behavioral risk reduction strategies will continue to be encouraged throughout the focused screening interaction.

We anticipate that our screening may identify individuals with concerning history, signs, or symptoms which warrant further otolaryngology evaluation and follow up. If needed, we will connect these individuals with social work resources and/or insurance assistance programs. Moreover, we intend that our screening will increase participant awareness of HNC, as well as encourage behavioral modifications which may reduce HNC risk, such as smoking and alcohol cessation, while promoting oral care and healthy diet.

Beyond the impact on our local community, we also aim to contribute to the existing knowledge base surrounding free HNC screening events. For those participants granting their

permission, we will review their questionnaires, exam findings, and recommended dispositions. Our aim is to better clarify which recruitment methods are most effective at attracting high-risk or underserved populations to screening events. Given that the COVID-19 pandemic temporarily (or indefinitely) disrupted several access points to medical care, as well as large-scale screening events, this screening event may also represent some participants' first healthcare interaction after a prolonged gap. By including relevant questionnaire items, we intend to shed light on how the pandemic may have impacted delays or even avoidance of care, resulting in a potential risk of a delayed or advanced diagnosis of HNC. We will also evaluate long-term follow up compliance after our screening event, by means of a telephone survey for those participants who consent to subsequent contact. This represents a traditionally understudied area with only one previously published study performing similar long-term follow up, and will contribute valuable information in terms of how best to ensure timely evaluation of concerning signs or symptoms identified at the time of screening.

The estimated cost of our project is $1500. There is currently no other funding specifically allocated to this project, though we are soliciting institutional support to supplement the cost that is not covered by the present award. We anticipate using the award for funding printing costs, event promotion, space rental, acquisition of health informational brochures, disposables for patient examinations, and mementos for patient participation. We will also provide a smoking cessation brochure from the Maryland Department of Health with the phone number for our state's quit line, as well as a State Health Insurance Assistance Program (SHIP) brochure from the Maryland Department of Aging, recognizing that insurance status is a socioeconomic factor previously shown to affect HNC survival, even after adjusting for other known risk factors.

We believe that a free HNC screening event at the Community Health Education Center on the University of Maryland Midtown Campus, sponsored by the University of Maryland Department of Otorhinolaryngology on April 15, 2023, in the city of Baltimore, Maryland, would benefit the health and wellness of our local at-risk community by providing a means of early HNC detection and education, empowering and enhancing both access and knowledge pertaining to HNC risk factors. Furthermore, we believe such an event will also expand on existing knowledge from previous HNC screening events to identify strategies to most effectively recruit higher risk and underserved populations, as well as to ensure timely follow up of concerning signs or symptoms identified at the time of screening.