## Using Implementation Science to Advance Hearing Health Equity in Older Adults

Kaitlyn O'Donnell<sup>1</sup>, Rick Nelson<sup>2</sup>, Irina Castellanos<sup>2,3</sup>

<sup>1</sup>Indiana University School of Medicine; <sup>2</sup>Indiana University School of Medicine, Department of Otolaryngology—Head and Neck Surgery; <sup>3</sup>Indiana University School of Medicine, Department of Psychology

**Background/Objectives:** Hearing loss is highly prevalent among the 1.2 million older adults who live in Senior Living Communities (SLCs). Under-detection of hearing loss and under-use of hearing devices among residents of SLCs is a significant healthcare disparity, which places older adults at an increased risk for dementia, falls, and depression. Our long-term objective is to improve the hearing health, emotional well-being, and quality-of-life of older adults living in SLCs by implementing hearing healthcare into standard clinical care.

**Methods:** We focused on the first two of the four interrelated phases of implementation science: <u>exploration and initiation</u>. We partnered with the largest SLC in Indiana and onboarded three of their communities. Each of these communities provide four levels of care, and residents vary across Social Determinants of Health (SDoH), allowing our team to compare hearing health outcomes as a function of residents' physical/cognitive abilities and SDoH.

**Results:** As part of the <u>exploration phase</u>, we identified five barriers to hearing healthcare in SLCs: 1) hearing health literacy in the care staff and residents, 2) poor management of hearing devices, 3) poor management of cerumen – ear hygiene – which hinders access to sound, 4) underuse of effective screening tools, and 5) lack of connections to an audiologist and neurotologist. As part of the initiation phase, we collaborated with community stakeholders to create the infrastructure for screening, referring, & implementation of clinical healthcare.

**Conclusions/Implications:** Implementation science is applying an already known evidence-based practice to a particular problem; in this case, we anticipate that providing effective screening tools, management of cerumen, and access to an audiologist and neurotologist will improve the hearing health, emotional well-being, & quality-of-life in older adults living in SLCs. Our research program will continue to develop, test, and refine our implementation strategies to achieve equity in hearing health outcomes.