

Attachment 4

Developmental Project Reports

Reports on Developmental Project are below:

Words-In-Noise Exam - Pilot

Between January 2018 and March 2018, NHANES conducted a pilot study for the Words-In-Noise (WIN) test to measure the functional hearing ability. This pilot study was designed to determine if the WIN test could be completed in the existing NHANES audiometric setting and if participants aged 70 years and over would agree to take this additional exam after completing the pure-tone hearing threshold exam. The pilot study was held in two NHANES locations. A total of 55 participants were aged 70 years and over. After excluding six participants who did not have pure-tone data or pure-tone average threshold greater than 60 dB, about 93.5% of eligible participants completed the WIN test. Only one participant refused the WIN test after pure-tone hearing threshold test. Both English and Spanish versions were conducted well. All WIN data were valid. The WIN test threshold is highly correlated with the pure-tone average threshold. By all criteria consideration, this pilot was successful. It supports the full implementation of this new test in the NHANES main study starting in 2019.

Balance – Pilot

Between January and March 2018, NHANES conducted a pilot test for Standing Balance Assessment (SBA). The purpose of including this component in the survey is to measure how well older adults are able to maintain their balance while standing and to identify factors related to balance dysfunction. The SBA includes three exams related to balance, including: 1) a Modified Romberg test (MRT) for standing balance; 2) a vision contrast sensitivity test (CST) to assess vision impairment; and 3) a dynamic visual acuity (DVA) test to identify vision/inner ear dysfunction. The pilot test was designed to determine if these three exams could be completed in the NHANES setting, if the equipment could operate in a satisfactory manner, and if participants would agree to this participate and complete the assessment. NHANES conducted the pilot in two previously scheduled locations, and the equipment operated as expected in both locations. Overall, at both locations, 247 eligible participants aged 40 years and older were invited to participate in the SBA. Of those participants eligible, approximately 80% agreed to receive the MRT. Less than 2% refused this exam. About 17% were not able to take the test due to exam schedule limitations. In addition, among those who took the MRT, 93% and 90%, respectively, completed the CST and DVA. No injuries occurred during the pilot, and only one person became dizzy during the test. Anecdotally, most participants seemed to enjoy taking the test. As a result, 78% of persons who had an MRT produced valid test results; 93% of these people also had valid CST results; and 90% had valid static DVA results. By all criteria considered, this pilot was a success and supports the full implementation of this exam component in the full NHANES starting in 2019.