

**Title:** Using Remote Evaluations to Cognitively Test African American Communities Reduces Racial Disparities and enhances Alzheimer's Disease Awareness.

**Authors:** Adesida, P., Merrick, S., Montenegro-Montenegro, E., & Johnson, DK.

**Introduction** African Americans are at greater risk for cognitive decline and development of Alzheimer's Disease than any other ethnic population. Systemic and financial barriers block access to healthcare in many African American communities, preventing possibility for evaluation and treatment. During the COVID pandemic, Neurobehavioral Systems, Inc (NBS) augmented the California Cognitive Assessment Battery to become a take-home and remote administered platform that ensured a convenient and safe cognitive evaluation. Preliminary analysis assessed the usability of the tablets among healthy African American adults.

**Methods** Twelve out of the 20 participants recruited from East Oakland, California, took part in this study. The average participant age was 52.58 (SD = 15.22), ranging from 22 to 69 years old, 58.3% were female. About 33.3% of the participants obtained a higher education after high school, the level of education ranging from high school diploma to graduate degree. Symptoms of dementia were not reported.

Participants were repeat tested two times between March and April 2021. Testing kits contained a Microsoft Pro tablet, charger, headset, mouse, modem, and USB port, provided by NBS. Units were set up and taken down in participants' homes by an NBS staff before and after each cognitive evaluation, respectively. The tablet's software, California Cognitive Assessment Battery, or CCAB, was created by NBS to maintain communication between a remote evaluator and the test-taker throughout testing.

**Results** Twelve African Americans adults, 58.3% women and 33.3% holding a degree higher than a high school diploma, were evaluated consecutively for two days from March through April 2021. In general, the 30-test battery could be completed within 2 hours. Of those participating, 100% completed all 30 tests within the allotted time. During a verbal exit interview with their examiner, participants preferred the remote evaluation for its comfortability and convenience, and the test helped show their cognitive ability and areas that needed work. These results demonstrated that remotely monitored cognitive evaluations administered at home have great promise in reducing healthcare disparities between African Americans and other ethnicities.