

# Cognition Declines Four Times Faster in People With Alzheimer's Disease Than Those With No Dementia

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(PhysOrg.com) -- People with Alzheimer's disease experience a rate of cognitive decline four times greater than those with no dementia according to a new study by researchers at Rush University Medical Center in Chicago. The results of the study, which is only the second population-based study to quantify the rate of cognitive decline in Alzheimer's disease, are published in the March 23, 2010 issue of the journal *Neurology*, the medical journal of the *American Academy of Neurology*.

"Knowledge about the progressive cognitive decline in Alzheimer's disease is mainly based on studies of persons evaluated in clinical settings. In such studies, the full spectrum of the disease is unlikely to be represented," said study author Robert S. Wilson, PhD, a neuropsychologist at the Rush Alzheimer's Disease Center. "As a result, it has been difficult to securely determine the cognitive consequences of the disease and to test whether they vary in racial or ethnic subgroups of the population."

Researchers at the Rush Alzheimer's Disease Center and the Rush Institute for Healthy Aging set out to quantify the rates of cognitive decline in people who developed Alzheimer's disease and its precursor, mild cognitive impairment.

The study followed 1,168 older adults. All were participants in the

Chicago Health and Aging Project, a longitudinal cohort study of older white and black persons residing on the south side of Chicago. At the beginning of the study, participants did not have [dementia](#). After a mean of five to six years, they had a detailed clinical evaluation and 614 persons were found to have no cognitive impairment, 395 had mild cognitive impairment, and 149 had Alzheimer's disease. They then completed brief cognitive testing at 3-year intervals for a mean of five and half years.

In comparison to the no cognitive impairment group, the annual rate of [cognitive decline](#) was increased more than twofold in those with [mild cognitive impairment](#) and more than fourfold in those with Alzheimer's disease. The results did not vary by race, sex, or age.

"This study is especially significant because half of the participants are African Americans. Most of what we know about Alzheimer's disease is based on studies of Caucasians," said Wilson. "Our study found no difference in how the disease played out in the two races."

Study authors note that this is one of the few studies to look at a large population without the disease and track the disease progression as it is newly diagnosed. The results were similar to the only other study of its kind, which was completed over a decade ago.

"Part of understanding this disease is carefully quantifying what the consequences are in a defined population," said Wilson. "Such knowledge is especially important now with the prevalence of Alzheimer's disease expected to sharply increase by the middle of the 21st century."

Provided by Rush University Medical Center

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