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Memory loss and other cognitive impairment becoming less common in older Americans

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Although it's too soon to sound the death knell for the "senior moment," it appears that memory loss and thinking problems are becoming less common among older Americans.

A new nationally representative study shows a downward trend in the rate of "cognitive impairment" — the umbrella term for everything from significant memory loss to dementia and Alzheimer's disease — among people aged 70 and older.

The prevalence of cognitive impairment in this age group went down by 3.5 percentage points between 1993 and 2002 — from 12.2 percent to 8.7 percent, representing a difference of hundreds of thousands of people.

And while the reasons for this decline aren't yet fully known, the authors say today's older people are much likelier to have had more formal education, higher economic status, and better care for risk factors such as high blood pressure, high cholesterol and smoking that can jeopardize their brains.

In fact, among the 11,000 people in the study, those with more formal education and personal wealth were less likely to have cognitive problems.

Interestingly, the more-educated seniors who had cognitive impairment were more likely to die within two years. But the researchers say this

may actually result from a protective effect of better education on a person's "cognitive reserve" — their ability to sustain more insults to their brain before significant thinking problems arise.

The study is published today online in the journal Alzheimer's and Dementia by a team led by two University of Michigan Medical School physicians and their colleagues. The study is based on data from the Health and Retirement Study (HRS), a national survey of older Americans funded by the National Institute on Aging and based at the U-M Institute for Social Research (ISR).

Lead author Kenneth Langa, M.D., Ph.D., calls the findings good news for today's seniors, noting that the new data support recent theories of how brains can be protected and preserved.

"From these results, we can say that brain health among older Americans seems to have improved in the decade studied, and that education and wealth may be a big piece of the puzzle," says Langa, an associate professor of internal medicine who also holds appointments in ISR and the VA Ann Arbor Healthcare System.

"We know mental stimulation has an impact on the way a person's brain is 'wired,' and that education early in life likely helps build up a person's cognitive reserve. We also know cardiovascular health has a close link with brain health," he continues. "So what we may be seeing here is the accumulated effects of better education and better cardiovascular prevention among the people who were over age 70 in 2002, compared with those who were over age 70 in 1993."

The research team's analysis, in fact, suggests that about 40 percent of the decrease in cognitive impairment over the decade was likely due to the increase in education levels and personal wealth between the two groups of seniors studied at the two time points.

Langa notes that school attendance requirements, high school graduation rates and college or technical school enrollment rates all increased during the years when the adults in the study were children and young adults. In 1990, 53 percent of people over age 65 had a high school diploma, but by 2003 that proportion had increased to 72 percent. The rates of college-educated older people also rose, from 11 percent to 17 percent. In recent years, research has suggested that the more education a person receives early in life, the more his or her brain will be able to stay sharp later.

At the same time, the use of cholesterol-lowering drugs, blood pressure medications and other preventive cardiovascular medications and strategies increased dramatically in the 1990s. These factors may have helped protect seniors' brain function by decreasing the incidence of vascular dementia — cognitive problems brought on by mini-strokes, strokes and decreased blood flow to and within the brain due to "hardened" or clogged arteries.

Improved cardiovascular health, combined with more education and wealth, may also help explain why death rates within two years were highest for those with CI who were highly educated. A good cognitive reserve can protect brains from minor insults, keeping them intact longer for thinking and memory by finding a way around a damaged area. But then when a major crisis, such as a stroke, occurs, that remaining reserve may be depleted quickly and death can come more quickly.

Richard Suzman, Ph.D., director of the Social and Behavioral Research Program at the NIA, which partially funded the study, notes that "the trend toward improved cognitive status is consistent with a dramatic decline in chronic disability among older Americans over the past two decades, especially in the areas of everyday function that depend on cognition. It will be important to pinpoint the influence of factors such as increased education, exercise, medications, cardiovascular health, and lifestyle to discover which ones contributed to this trend and to also

replicate the findings in other studies."

The study divides individuals into four categories — no cognitive impairment, and mild, moderate and severe CI — based on their performance on a standardized cognitive test.

But the authors caution that they could not tell which patients had true dementia, which requires additional clinical information, or Alzheimer's disease, which can be positively identified only on autopsy. However, the cutoff points for the different categories of CI were based on prior studies and on data from a new sub-study of the HRS designed to identify dementia specifically.

While the new study shows a decline in CI prevalence over time, the researchers note that the gains made in the 1990s and early 2000s might be offset by the damage that could result if the current epidemic of type 2 diabetes keeps growing among the elderly and if current middle-aged and younger people stick with unhealthy eating and exercise habits that lead to unhealthy weights and blood pressures.

Even if the proportion of older adults with CI keeps declining, the total number of older adults with CI and dementia will likely increase significantly due to the huge increase in the size of the over-65 population as the Baby Boom generation enters older age in the coming decades.

"This demographic reality will continue to make combating Alzheimer's disease and other types of dementia a top public health priority," said Allison Rosen, M.D., Sc.D., assistant professor of internal medicine at U-M and the Ann Arbor VA, and co-author of the study.

Meanwhile, they say, today's older Americans should not rest on their laurels — but instead should be pursuing activities that can keep their

minds sharp and their cardiovascular risk low. From crossword puzzles and volunteer activities to blood pressure medications, today's seniors can work to boost their brain health now and prevent decline later.

"More and more studies suggest that walking and other types of physical activity are important for preventing cognitive and memory decline," says co-author Eric Larson, M.D., M.P.H., executive director of the Group Health Center for Health Studies in Seattle, where he has led many studies of the relationship between physical activity and brain health.

"The evidence seems to be showing that staying mentally engaged with the world in any fashion — reading, talking with friends, going to church, going to movies — is also likely to help reduce your risk down the road," says Langa.

Source: University of Michigan