New and Emerging Evidence — AAIC

Last week, more than 5,900 researchers, clinicians, and scientists attended the Alzheimer’s Association International Conference (AAIC) — the world’s largest scientific gathering focused on Alzheimer’s and other dementias. Research findings that are particularly relevant to the public health community are highlighted below. Learn more about AAIC.

— New research found healthy lifestyle choices may decrease risk of cognitive decline and dementia. Researchers also found lifestyle modifications may reduce risk even in the face of other risk factors, including genetics and air pollution, and provide maximum memory benefit when combined. These research studies suggest:

- Adopting four or five healthy lifestyle behaviors was found to lower risk of Alzheimer’s dementia by 60% compared with adopting none or only one of the five behaviors. These behaviors are healthy diet, not smoking, regular exercise, light to moderate alcohol intake, and cognitive stimulation.
- Adherence to a healthy lifestyle may counteract genetic risk for Alzheimer’s disease.
- Women living in areas with high levels of air pollution have an elevated risk of developing Alzheimer’s, but having a higher cognitive reserve, developed through formal education and cognitive stimulation, may mitigate this heightened risk.
- Early adult to mid-life smoking may be associated with cognitive impairment earlier in life than previously believed.
- Alcohol use disorder (AUD) significantly increased risk of dementia in older female veterans.

The HBI Road Map

Designed for state and local public health practitioners, the Healthy Brain Initiative Road Map encourages 25 actions that help promote brain health, address cognitive impairment, and support the needs of caregivers.

Road Map for Indian Country

Designed for American Indian/Alaska Native (AI/AN) communities, the Healthy Brain Initiative Road Map for Indian Country is a guide for AI/AN leaders to learn about Alzheimer’s and begin planning their response to dementia.

Learn about the public health approach to Alzheimer’s with topic-specific primers, examples, and resources at alz.org/publichealth
Currently, two-thirds of people living with Alzheimer’s in the United States are women. Newly identified sex-specific differences in the disease may affect risk, progression and resilience. These differences include differing patterns between women and men in how the tau protein—a hallmark of Alzheimer’s disease—spreads in the brain. Additionally, sex-specific associations with Alzheimer’s disease were found for 11 different genes, many of which may play a role in the development of Alzheimer’s.

A new study found higher rates of subjective cognitive decline among lesbian, gay, bisexual, and transgender (LGBT) Americans compared with their cisgender, heterosexual counterparts. Sexual or gender minorities were 29 percent more likely to report cognitive decline, even after adjusting for factors such as income, age and race.

Vision and hearing impairments may be associated with increased risk of dementia, especially when they occur at the same time. Researchers found that impairment of either hearing or vision increases the risk of a person developing dementia, and impairment of both further increases those odds. Additional research found that impairments of multiple senses were associated with an increased risk of cognitive decline and dementia.

Remote telephone consultations with health care providers were found to be effective in reducing emergency department visits among people with dementia in senior living communities. The small study found a 24 percent reduction in emergency department visits among those living with dementia who had access to this type of telemedicine care compared with those who did not have such access.

Read more about the above research in the AAIC Pressroom. All abstracts presented at AAIC this year will printed in a forthcoming edition of *Alzheimer’s & Dementia*.

Public Health News

Last month, Florida became one of the first states to include Alzheimer’s- and dementia-specific objectives in its state health improvement plan (SHIP). The governor directed the Florida Department of Health to add a ninth priority area to its SHIP—Alzheimer’s Disease and Related Dementias. The goals of this new priority aim to strengthen health systems’ capacity to assess and diagnose dementia, expand support services to caregivers, reduce health disparities experienced by marginalized populations, and promote overall brain health to the general public. The new SHIP priority also incorporates recommendations from the Healthy Brain Initiative’s *State and Local Public Partnerships to Address Dementia: The 2018-2023 Road Map*. Read the press release for more information; the new goals will be posted online soon.
Additional Emerging Evidence

— Research indicates that increasing physical activity levels may help reduce the risk of cognitive decline across a population. And so, in some positive news, *Morbidity and Mortality Weekly Report* (MMWR) is reporting that physical activity levels are increasing nationwide, though remain below national targets. Between 2008-2017, the prevalence among urban residents meeting physical activity guidelines — weekly exercise including sufficient aerobic and muscle-strengthening activities — increased from 19.4 percent to 25.3 percent. Similarly, the prevalence among rural residents increased from 13.3 percent to 19.6 percent over the same time period.

— Supplements purported to preserve or boost memory and cognition have little-to-no value, according to a new report from the Global Council on Brain Health. The report notes that of the few dietary supplements that have been well-researched, none show brain health benefit in people with normal nutrient levels. Other supplements lack evidence and research, and most are not regulated by the U.S. Food and Drug Administration for effectiveness or purity.

— Using Health and Retirement Study (HRS)-linked Medicare claims data, researchers found that people with dementia had 28 percent higher incremental Medicare costs, on average — approximately $15,700 per person — than people without dementia over a five-year period. Nearly half of this additional cost is incurred in the first year after a dementia diagnosis.

Healthy Brain Initiative Road Map – Updates and Resources

**Coronary Heart Disease, Myocardial Infarction and Stroke** — a new public health brief from the CDC and the National Association of Chronic Disease Directors (NACDD) — outlines the characteristics, role, and connection between heart health and brain health. The brief provides data, state-by-state statistics, and actions public health can take to increase overall health and well-being among the growing older adult population and their caregivers. This brief is the third in the *State of Aging and Health in America: Data Briefs* series.
The Healthy Brain Initiative’s (HBI) *State and Local Public Health Partnerships to Address Dementia: The 2018-2023 Road Map* is designed to mobilize the public health community in mitigating the future impacts of Alzheimer’s and other dementias, especially among vulnerable populations. Read the full Road Map, executive summary or get started with the planning guide.

The Healthy Brain Initiative’s *Road Map for Indian Country* is a guide for American Indian and Alaska Native leaders to learn about dementia, educate their communities, and start taking action against Alzheimer’s. Read the full Road Map, executive summary, or the dissemination guide to get started.

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