This special edition of Alzheimer's Public Health News reports on recent findings from this year's Alzheimer's Association International Conference (AAIC). This year, AAIC – the world’s largest international meeting dedicated to advancing dementia science – was held in London from July 16-20. All abstracts presented at AAIC will be published in a forthcoming Alzheimer’s & Dementia journal. For additional information, please visit alz.org/aaic.

One Third of Global Dementia Cases May Be Preventable

Up to 35 percent of all dementia cases worldwide may be preventable through interventions across the lifespan, according to a new report from The Lancet. Authored by an international commission of experts, the report found that modifying nine risk factors – particularly at certain stages of life – may reduce the global burden of dementia. These modifications are:

- Early life – increasing childhood education
- Mid-life – managing hypertension, obesity, and hearing loss
- Later life – managing depression and diabetes; increasing physical activity; reducing smoking; and increasing social contact

Many of the risk factors are associated with particular life stages but some, such as smoking and hypertension, are likely to make a difference at all life stages. According to the Commission's report, worldwide dementia prevalence could...
be reduced by more than 1 million cases with a 10 percent reduction in the prevalence of seven principal health and lifestyle factors. An intervention that delayed dementia by a year might decrease the number of people living with dementia globally by 9 million in 2050.

As more and more research like this adds to the growing scientific consensus about reducing the risk of cognitive decline, the public health community can disseminate and incorporate healthy brain messages into a variety of health campaigns, as recommended in the Healthy Brain Initiative Road Map.

**Diet and Quality Sleep May Also Reduce Dementia Risk**

Older adults’ close adherence to the Mediterranean and the MIND (Mediterranean-DASH Intervention for Neurodegenerative Delay) diet was associated with a 30 to 35 percent lower risk of cognitive impairment, according to a new study released at AAIC. Large population-based studies like this one support the connection between good dietary practices and better cognition in old age.

Other new research presented at AAIC found significant associations between sleep disordered breathing (SDB) and the hallmark brain changes of Alzheimer’s. Obstructive sleep apnea (OSA) was associated with increased amyloid and tau deposition in the brain as well as other biomarkers correlated with Alzheimer’s. Treating sleep disorders may offer potential to improve cognition and possibly reduce dementia risk.

**Racial and Socioeconomic Disparities Increase Dementia Risk and Incidence**

Stressful life experience and living in a disadvantaged neighborhood may explain part of the outsized risk of dementia within the African American community, according to several studies reported at AAIC. A single major stressful event in early life, for instance, may have the same negative impact as four years of cognitive aging. This same study found that African Americans, on average, are over 60 percent more likely to experience such events than white Americans over their lifetimes.

An additional study found that certain socioeconomic neighborhood conditions – like level of poverty, substandard housing, low education rates, and underemployment – were...
correlated with poor cognitive performance. Meanwhile, a third study found that racial/ethnic disparities persist even into the oldest-old – individuals aged 90 and older; African Americans in this age group have a 28 percent higher risk of developing dementia than their white peers even after adjusting for education, sex, and cardiovascular co-morbidities.

Studies like these are further evidence of the unique burden of dementia faced by African Americans and populations with disadvantaged life circumstances. They also offer new insight into explaining why some racial and ethnic minorities are at a disproportionately higher risk of developing dementia beyond strictly physiological risk factors – such as a higher prevalence of certain cardiovascular conditions. Public health practitioners can implement large population-based interventions with special attention to lifespan, neighborhood conditions, and cultural adaptations to begin addressing these disparities.

Communities nationwide are already tackling this issue. Learn more about cognitive issues among African Americans through our infographic as well as national and localized efforts to turn the tide against Alzheimer’s in the African American community through a joint webinar co-hosted by the Alzheimer’s Association and The Balm in Gilead.

**Urgent Hospitalizations Tied to Cognitive Decline**

Older adults may be at high risk for memory and other cognitive problems following emergency hospitalizations, according to new research released at AAIC. Further, emergency hospitalizations – as compared with elective or non-urgent hospital admissions – were associated with long-term changes in cognition rather than temporary confusion or delirium. These findings may have important implications for the medical decision-making process and care of older adults who experience some form of cognitive decline.

Since one in four people with dementia will experience an urgent-yet-avoidable hospitalization, *Healthy People 2020* set a goal of reducing unnecessary hospitalizations over a 10-year span. Learn what steps the public health community, policymakers, and providers can take to reduce preventable hospitalizations – and potentially further protect cognition – among people with dementia in our policy brief.

**Neurology “Deserts” Found Across U.S.**

Twenty states in the U.S. have been revealed as neurology “deserts” due to a chronic shortage of neurologists and a rapid
A rise in Alzheimer's and other dementia cases. Researchers mapped the ratio of neurologists to the projected dementia prevalence in 2025, finding that Wyoming, North Dakota, South Carolina, South Dakota, and Oklahoma are likely to experience the greatest gap between the neurology workforce and the needs of people with dementia. With the rapid rise in the age of the U.S. population, more resources, training, and education will be vital for equipping primary care physicians and caregivers to handle the projected gaps.

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The Alzheimer's Association is the world’s leading voluntary health organization in Alzheimer's care, support and research. Our mission is to eliminate Alzheimer's disease through the advancement of research; to provide and enhance care and support for all affected; and to reduce the risk of dementia through the promotion of brain health. Our vision is a world without Alzheimer's disease®.

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