2023 TN Federation Presentation Donna Shackelford, Region 10 Alzheimer's Chairman

I think this material bears repeating and ensuring that our members are aware of some of the progress that is being made as a result of their contributions to the Research Fund by the Alzheimer's Association. People always need to know where their money is going and how it is being spent.

The New Alzheimer's Drug that just came out, Lecanemab is continuing to show promise in helping to slow Alzheimer's down in the early stages. What has come to light during the most recent months is that Medicare has not agreed to pay for this drug and most of the other drugs currently being pursued to treat Alzheimer's, even though they have agreed to pay for most of the drugs that are treating other serious diseases such as heart disease or kidney disease. We need to apply pressure on our congressmen and senators to force Medicare to pay for these drugs which are so important to our senior citizens. Those who got Lecanemab for 18 months experienced 27% less decline in memory and thinking. The study was paid for by the drug company Eisai, which is developing Lecanemab in collaboration with the U.S. company Biogen. Scientists are also working very diligently on two drugs (Gantenerumab and Donanemab) which are expected to be cleared by FDA for Phase 3 studies. This is a final phase prior to actual trials which will hopefully happen during the second quarter of this year.

"There was a feeling of elation, like this was a milestone in the fight against Alzheimer's disease," says Dr. Eric Reiman, executive director of Banner Alzheimer's Institute in Phoenix. "We're pretty excited that we finally have something," says Dr. Reisa Sperling, who directs the Center for Alzheimer Research and Treatment at Brigham and Women's Hospital in Boston. "It's not a cure, but it's really a new beginning." The scientific event became "a celebratory meeting," says Maria Carrillo, chief science officer of the Alzheimer's Association. "The data is undeniably positive."

Scientists have developed a blood test to diagnose Alzheimer's disease without the need for expensive brain imaging or a painful <u>lumbar puncture</u>, where a sample of cerebrospinal fluid (CSF) is drawn from the lower back. If validated, the test could enable faster diagnosis of the disease, meaning therapies could be initiated earlier.

Alzheimer's is the most common form of dementia, but diagnosis remains challenging – particularly during the earlier stages of the disease. Current

guidelines recommend detection of three distinct markers: abnormal accumulations of amyloid and tau proteins, as well as neurodegeneration – the slow and progressive loss of neuronal cells in specified regions of the brain. This can be done through a combination of brain imaging and CSF analysis. However, a lumbar puncture can be painful and people may experience headaches or back pain after the procedure, while brain imaging is expensive and takes a long time to schedule.

CNN —

The eyes are more than a window to the soul — they're also a reflection of a person's cognitive health.

"The eye is the window into the brain," said ophthalmologist Dr. Christine Greer, director of medical education at the Institute for Neurodegenerative Diseases in Boca Raton, Florida. "You can see directly into the nervous system by looking into the back of the eye, toward the optic nerve and retina."

One day doctors may be able to use eye tests to identify cognitive decline soon after it begins.

Research has been exploring how the eye may help in diagnosing Alzheimer's disease before symptoms begin. The disease is well advanced by the time memory and behavior are affected.

"Alzheimer's disease begins in the brain decades before the first symptoms of memory loss," said Dr. Richard Isaacson, an Alzheimer's preventive neurologist who is also at the Institute for Neurodegenerative Diseases.

If doctors are able to identify the disease in its earliest stages, people could then make healthy lifestyle choices and control their "modifiable risk factors, like high blood pressure, high cholesterol and diabetes," Isaacson said,

The eye knows

Just how early can we see signs of cognitive decline? To find out, a recent study examined donated tissue from the retina and brains of 86 people with different degrees of mental decline.

"Our study is the first to provide in-depth analyses of the protein profiles and the molecular, cellular, and structural effects of Alzheimer's disease in the human retina and how they correspond with changes in the brain and cognitive function," said senior author Maya Koronyo-Hamaoui, a professor of neurosurgery and biomedical sciences at Cedars-Sinai in Los Angeles, in a statement.

"These changes in the retina correlated with changes in parts of the brain called the entorhinal and temporal cortices, a hub for memory, navigation and the perception of time," Koronyo-Hamaoui said.

Investigators in the study collected retinal and brain tissue samples over 14 years from 86 human donors with Alzheimer's disease and mild cognitive impairment — the largest group of retinal samples ever studied, according to the authors.

2023 Alzheimer's Disease Facts and Figures Special Report "The Patient Journey in an Era of New Treatments" Reveals Communication Challenges between Patients and Health Care Providers on Memory and Thinking Issues

Barriers that impede physician-patient discussions about cognitive concerns and the specialist physician workforce shortage for Alzheimer's care in the United States are the special focus of the <u>2023 Alzheimer's Disease Facts and Figures</u> report by the Alzheimer's Association. The annual report provides the latest statistics on Alzheimer's prevalence, incidence, mortality, costs of care, and caregiving at the national and state levels. The report includes findings from focus groups conducted by L&M Policy Research as part of the Alzheimer's Association's Healthy Brain Initiative grant from the Centers for Disease Control and Prevention (CDC). Among the key takeaways:

- Many individuals with early memory and thinking concerns remain hesitant to raise the issue with their physicians due to emotional reactions and limited vocabulary to describe their experience.
- Patients also perceive the risks associated with a diagnosis as outweighing potential benefits, and assumptions about what doctors will say and do often hinder open communication.
- Primary care physicians (PCPs) are not proactively asking their patients about cognitive issues, instead relying on patients or family members to raise them first.
- Half of the PCPs report a specialist shortage in their area, particularly in rural regions, hindering access to care.

Efforts to combat shortages of dementia care specialists include expanding the workforce through multidisciplinary programs, strengthening training and specialization in dementia care, and increasing awareness of Medicare reimbursement for health care visits that result in a comprehensive dementia care plan.

Does Getting Colds Increase Risk for Alzheimer's?

Getting sick often may impact how quickly the brain ages and increase the risk of dementia or other forms of cognitive decline.

These are the findings of a Tulane University study conducted in partnership with West Virginia University and the National Institutes of Occupational Safety and Health and published in the journal <u>Brain, Behavior and Immunity</u>. The study examined aging male mice and found that repeated, intermittent experiences with moderate inflammation, such as that caused by the flu or a seasonal head cold, caused impaired cognition and disrupted communication between neurons in those mice.

"We were interested in asking whether differences in infection experience could account, at least in part, for the differences in rates of dementia we see in the population," said lead author Elizabeth Engler-Chiurazzi, PhD, assistant professor of neurosurgery at Tulane University School of Medicine. "The mice we were studying were adults approaching middle age that had intact faculties, and yet, when exposed to intermittent inflammation, they remembered less and their neurons functioned more poorly."

"The biggest take away from this research, in our opinion, is the importance of staying as healthy and infection-free as possible," she said.