



If you think research is expensive, try disease.

INVESTMENT IN RESEARCH SAVES LIVES AND MONEY

Alzheimer's Disease

Alzheimer's disease is a chronic, debilitating form of dementia, marked by memory loss, cognitive decline, behavioral disturbances, and difficulty communicating. While primarily affecting individuals age 65 and older, approximately 200,000 Americans under the age of 65 are living with early-onset Alzheimer's.¹

TODAY

An estimated

5.8 million

Americans are living with Alzheimer's disease.

By 2050, that number is expected to increase to **13.8 million.**¹

In the U.S. approximately

2/3 of those with Alzheimer's disease are women.¹

Hispanics and African Americans are

1.5 & 2 x

more likely than white Americans to develop Alzheimer's.¹ Alzheimer's disease is the **6th** leading cause of death in the U.S.¹

Between 2000 and 2017, deaths from Alzheimer's disease increased

145%

со<mark>s</mark>т \$290 billion:

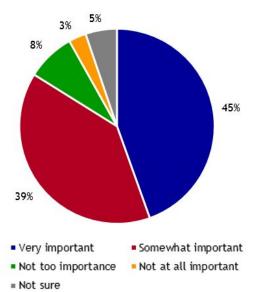
That's how much Alzheimer's and other dementias will cost the U.S. in 2019. By 2050, this number is predicted to increase to **\$1.1 trillion.**¹

\$287,000:

That's the cost of care for a person with a dementia, such as Alzheimer's, in their last five years of life.²

Strong Majority Say the President and Congress Should Assign a High Priority to Faster Medical Progress

How important is it for the President and Congress to assign a high priority to ensuring faster medical progress?



Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics in January 2019

Research Delivers Solutions

While drug development for Alzheimer's has been slow, there is a **strong pipeline** of new therapeutic candidates. As of May 2019, there were **517 active clinical trials** for Alzheimer's disease.³

As Alzheimer's disease progresses, **brain cells deteriorate**. Researchers have found that this process increases the amount of **neurofilament light protein** found in the blood. In identifying this **biomarker** for Alzheimer's disease, scientists have uncovered a way for health care providers and drug developers to **track disease progression** with a simple **blood test**.⁴

While the mechanism is not yet understood, scientists know that **faulty amyloid-** β **protein aggregation** plays a causal role in Alzheimer's disease. Now, researchers at the University of Washington have built **synthetic proteins** that keep amyloid- β proteins from aggregating and forming toxic structures. These synthetic proteins could be crucial in the development of **future medications**.⁵

Researchers at Boston University have identified a small molecule that **reduces the amount of amyloid-** β **protein** that lab-grown cells produce. This discovery could lead to the development of drugs that limit amyloid- β protein production, and **halt Alzheimer's progression**.⁶

Alzheimer's Disease

Then. Now. Imagine.

THEN

Before 1987, no genes associated with Alzheimer's had been identified. No drugs had been approved, and there were no promising therapeutic candidates in development.⁷

NOW

Researchers have identified multiple genes associated with an increased risk of developing Alzheimer's. Several medications are available to mitigate symptoms of early-stage Alzheimer's.⁷

IMAGINE

A cure.

18.5 billion:

That's the amount of unpaid care hours that over

16 million Americans—

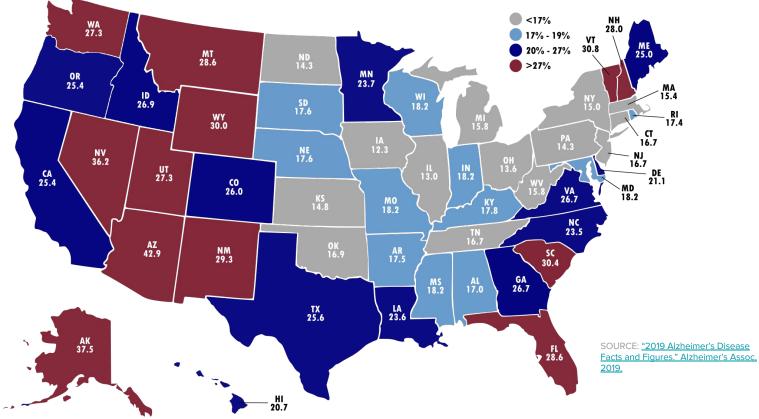
two thirds of them

women

—provide to people with Alzheimer's disease annually. This care is valued at

over \$230 billion

Projected percentage increases in Alzheimer's prevalence from 2019 to 2025



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- "Alzheimer's and Dementia Facts and Figures." Alzheimer's Assoc.. 2019
 "Cost of Alzheimer's to Medicare and Medicaid." Alzheimer's Assoc. & AIM, 2019
- ³ "Search Results: Active Studies for Alzheimer Disease." ClinicalTrials.gov, 2019
- ⁴ Mattsson et al. "Plasma NfL and Neurodegeneration." *JAMA Neurol.*, 2019
- ⁵ <u>Shea et al. "α-Sheet Secondary Structure in Alzheimer's Disease." PNAS, 2019</u>
- ⁶ <u>Chen et al. "Modulators Lower Amyloid-β Peptide" JAD, 2019.</u>
- ⁷ <u>"Research and Progress: Milestones." The Alzheimer's Association, 2019.</u>

The Albert and Mary Lasker Foundation is a founding partner in this series of fact sheets. **www.laskerfoundation.org**