

# The Impact of Alzheimer's Disease and Dementia

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## **Abstract**

Alzheimer's disease and related dementias represent an escalating global health crisis, affecting more than 55 million people worldwide. Alzheimer's disease is the most common form of dementia, accounting for approximately 60–70% of all cases. The burden of these conditions is not evenly distributed; women are disproportionately affected, both as individuals diagnosed and as caregivers, and diverse and historically underserved populations face heightened risk due to inequities in health access, research inclusion, and socioeconomic determinants.

The impact of Alzheimer's disease extends far beyond individual health, generating profound emotional, societal, and financial strain. Globally, the economic burden of dementia is immense, with the total societal cost estimated at US\$1.3 trillion in 2019. This figure includes direct medical and social care expenses as well as extensive indirect costs, primarily driven by unpaid informal caregiving. As prevalence grows, these costs are expected to rise substantially, intensifying pressure on health systems, communities, and national economies.

The emotional burden is equally significant. Individuals living with Alzheimer's experience progressive cognitive decline and loss of autonomy, while family caregivers face chronic stress, burnout, and diminished wellbeing. The caregiving responsibilities also influence the workforce, with many caregivers reducing hours, taking leave, or exiting employment altogether.

Despite advances in biomarker science, most diagnoses still rely on a multifaceted “puzzle piece” clinical approach. Current biomarker tests remain expensive, invasive, or not sufficiently accurate for broad implementation. Improved, accessible, and affordable diagnostic tools are essential for enabling earlier and more accurate detection, facilitating timely treatment, and supporting participation in clinical trials. Parallel to this need is the development of more effective treatments across the full course of disease progression.

Addressing diagnostic gaps, treatment limitations, and global disparities is critical to reducing the human and societal toll of Alzheimer's disease and dementia.