

An elderly woman and man are practicing Tai Chi in a room. The woman is on the left, wearing a light blue jacket over a white top, and the man is on the right, wearing a dark blue jacket. They are both holding their hands up in a Tai Chi gesture. In the background, there is a large potted plant on the left and a window with a wooden frame on the right. The text "Brain Health 101: A New Frontier in the Fight Against Alzheimer's" is overlaid in white on the image.

**Brain Health 101:
A New Frontier in the Fight Against Alzheimer's**

Our Time Today

1 Overview of Alzheimer's and dementia

2 Risk factors and warning signs

3 Treatments

4 Ways to intervene

5 Programs, services, and resources

The Alzheimer's Association leads the way to end Alzheimer's and all other dementia — by accelerating global research, driving risk reduction and early detection, and maximizing quality care and support.



Our dual mission symbol represents the abstract forms of a human head and a beaker, emphasizing the people and the science behind our cause.



Care & Support



Advocacy



Education & Awareness



Research



Diversity, Equity & Inclusion

What is Dementia?

- Dementia is a collection of symptoms related to cognitive decline
- This can include
 - Cognitive symptoms
 - Behavioral symptoms
 - Psychological symptoms
- **Alzheimer's is the most common cause of dementia**
- Not everyone with cognitive decline has dementia. Some causes of cognitive decline are reversible.

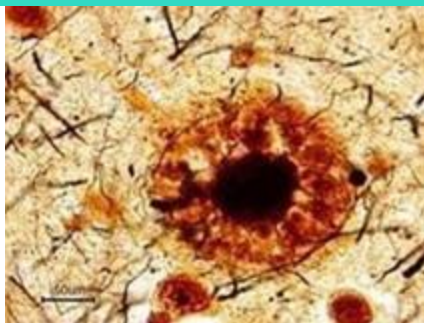
TYPES OF DEMENTIA

Dementia is an umbrella term for loss of memory and other thinking abilities severe enough to interfere with daily life.

- Alzheimer's
- Vascular
- Lewy body
- Frontotemporal
- Other, including Huntington's
- *** Mixed dementia:** Dementia from more than one cause

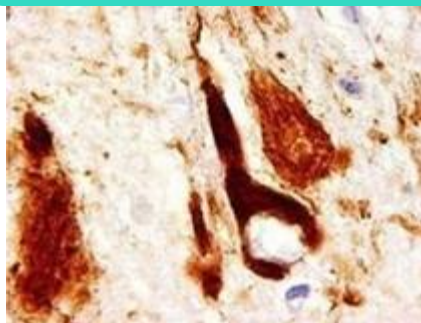
The Hallmarks of Alzheimer's

1 Plaques



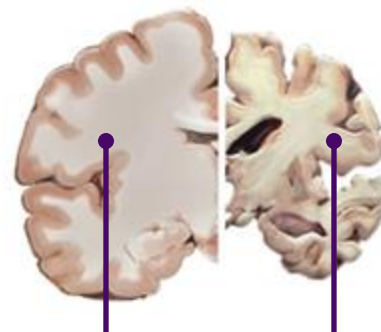
Made up of **beta amyloid**

2 Tangles



Made up of **tau**

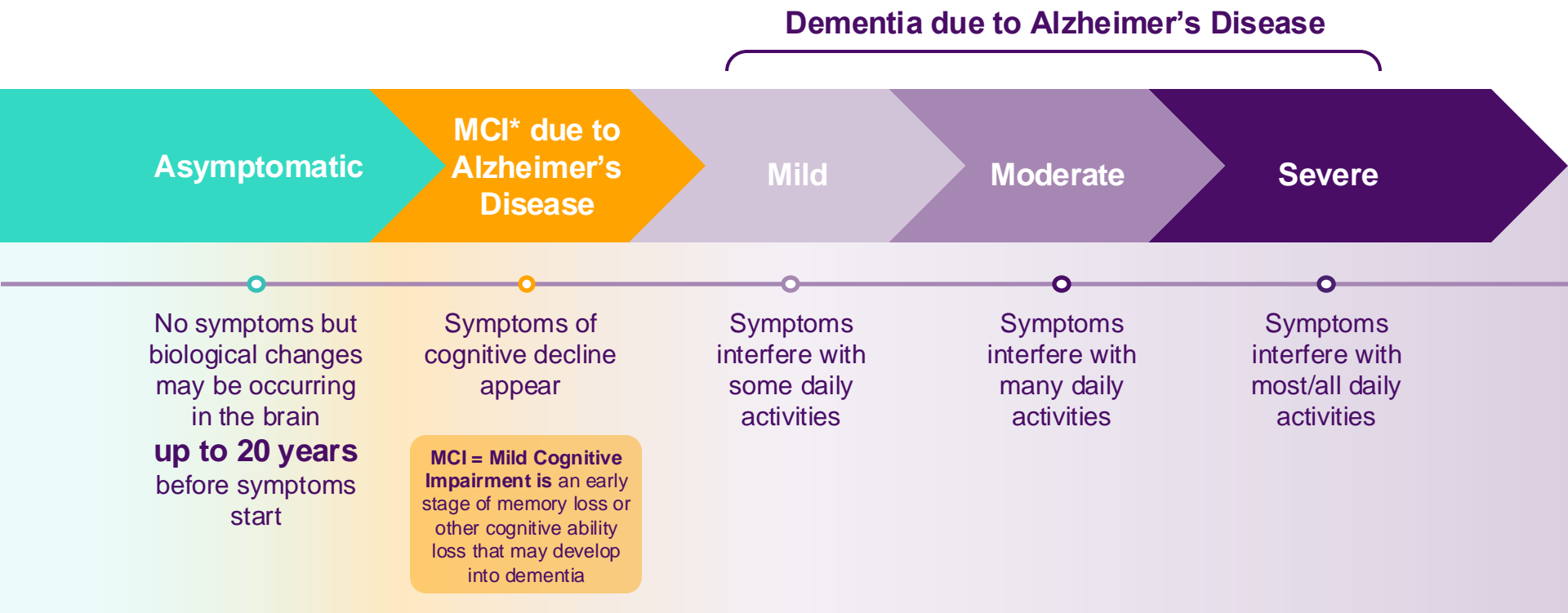
3 Brain Cell Death



Healthy
brain

Advanced
Alzheimer's

Alzheimer's Disease is a Continuum



2024
ALZHEIMER'S DISEASE
FACTS AND FIGURES



NEARLY
7 MILLION
AMERICANS ARE LIVING
WITH ALZHEIMER'S

THE LIFETIME RISK FOR
ALZHEIMER'S AT AGE 45 IS



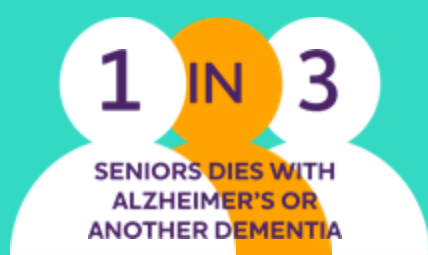
Older Black Americans are
2X AS LIKELY
to have Alzheimer's or other
dementia than Whites.

BETWEEN 2000 AND 2021, DEATHS
FROM HEART DISEASE HAVE

DECREASED 2.1%



WHILE DEATHS FROM
ALZHEIMER'S DISEASE HAVE
INCREASED 141%



IT KILLS MORE THAN
BREAST CANCER AND
PROSTATE CANCER

COMBINED



Older Hispanic Americans are
1.5X AS LIKELY
to have Alzheimer's or other
dementia than Whites.

In New York State...



2024 NEW YORK ALZHEIMER'S STATISTICS



PREVALENCE

Number of People Aged 65 and Older with Alzheimer's (2020) **426,500** % of Adults Over 65 with Alzheimer's **12.7%**



CAREGIVING

of Caregivers **543,000** Caregivers with Chronic Health Conditions **59.0%**
 Total Hours of Unpaid Care **879,000,000** Caregivers with Depression **24.7%**
 Total Value of Unpaid Care **\$18,996,000,000** Caregivers in Poor Physical Health **12.0%**



WORKFORCE

of Geriatricians in 2021 **568** # of Home Health and Personal Care Aides in 2020 **510,870**
 Increase Needed to Meet 2050 Demand **44.0%** Increase Needed to Meet 2030 Demand **39.1%**



HEALTH CARE

of People in Hospice (2017) with a Primary Diagnosis of Dementia **7,669** Dementia Patient Hospital Readmission Rate (2018) **23.7%**
 Hospice Residents with a Primary Diagnosis of Dementia **16%** Medicaid Costs of Caring for People with Alzheimer's (2020) **\$5.453B**
 # of Emergency Department Visits per 1,000 People with Dementia (2018) **1,461** Projected Change in Medicaid Costs from 2020 to 2025 **15.6%**
 Per Capita Medicare Spending on People with Dementia in 2023 Dollars **\$43,601**



MORTALITY

of Deaths from Alzheimer's Disease (2021) **3,582**

Nearly

7 million Americans are living with Alzheimer's, and more than **11 million** provide their unpaid care. The cost of caring for those with Alzheimer's and other dementias

is estimated to total **\$360 billion** in 2024, increasing to nearly **\$1 trillion** (in today's dollars) by mid-century. For more information,

view the **2024 Alzheimer's Disease Facts and Figures** report at alz.org/facts.

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Risk Factors



Although Alzheimer's is not a normal part of aging, age is the greatest risk factor for the disease. After age 65, the risk of Alzheimer's doubles every five years. Thirty-four percent of people aged 85 and older have Alzheimer's.



Family history is also a known risk factor — research has shown that those who have a parent, brother or sister with Alzheimer's are more likely to develop the disease. The risk increases if more than one family member has the disease.



Scientists know genes are involved in Alzheimer's. Two categories of genes influence whether a person develops a disease: risk genes and deterministic genes.

Black Americans and Alzheimer's Disease



Black Americans are about **2 times** as likely as White Americans to have Alzheimer's and other dementias, but they are less likely to receive a diagnosis.



1/2 say that they have experienced discrimination while seeking care for a person living with Alzheimer's.



Nearly 2/3 believe medical research is biased against people of color.

Hispanic Americans and Alzheimer's Disease

Hispanic Americans are about **1.5 times** as likely as White Americans to have Alzheimer's and other dementias.



57% believe that a significant loss of memory or cognitive abilities is a “normal part of aging.”



1 in 3 report that they have experienced discrimination when seeking health care.





Women and Alzheimer's Disease



In the U.S., more than **10 million** women are either living with Alzheimer's or caring for someone who has it.



Over **60%** of Alzheimer's and dementia caregivers are women.



Almost **2/3** of Americans living with Alzheimer's are women.

Impact of Alzheimer's on Caregivers



In 2023, over **11 million Americans** provided unpaid care for people with Alzheimer's or other dementias.



Caregivers provided more than 18 billion hours of unpaid care valued at nearly **\$347 billion**.



Caring for someone living with Alzheimer's can take a **physical, emotional, social and financial toll** on family caregivers.



Of the total lifetime cost of caring for someone with dementia, **70% is borne by family caregivers** — either through out-of-pocket expenses or from unpaid caregiving.



59% of family caregivers rated the **emotional stress** of caregiving as high or very high.



Who Are the Dementia Caregivers?

- **Two-thirds** of caregivers are women, and **one-third** are daughters.
- **About one in three** caregivers is age 65 or older.
- **One quarter** of dementia caregivers are “sandwich generation” caregivers, taking care of both an aging parent and child.
- **41%** of caregivers have a household income of \$50,000 or less.
- **66%** live with the care recipient in the community.





Race, Ethnicity and Caregiving

- **Two-thirds of caregivers are White.** 10% are Black, 8% are Hispanic, and 5% are Asian American. The remaining 10% represent a variety of other racial/ethnic groups.
- **Black caregivers more likely to provide more than 40 hours of care per week** than white caregivers (54.3% versus 38.6%). Also more likely to care for someone with dementia (31.7% versus 11.9%) than White caregivers.
- Black dementia caregivers — **69% less likely to use respite services** compared with white caregivers.
- Hispanic, Black, and Asian American dementia caregivers indicate **greater care demands**, less outside help/formal service use, and greater depression when compared with White caregivers.

Benefits of an Early and Accurate Diagnosis



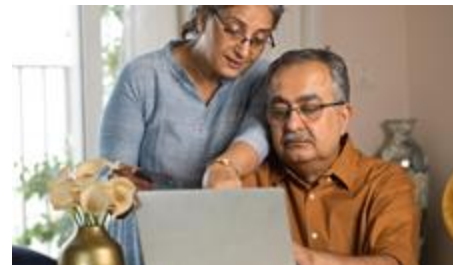
Medical Benefits

- Access to current treatments
- An opportunity to participate in clinical trials
- A chance to prioritize health, including making lifestyle changes



Emotional and Social Benefits

- More time to plan for the future, access resources
- Time to plan end-of-life decisions



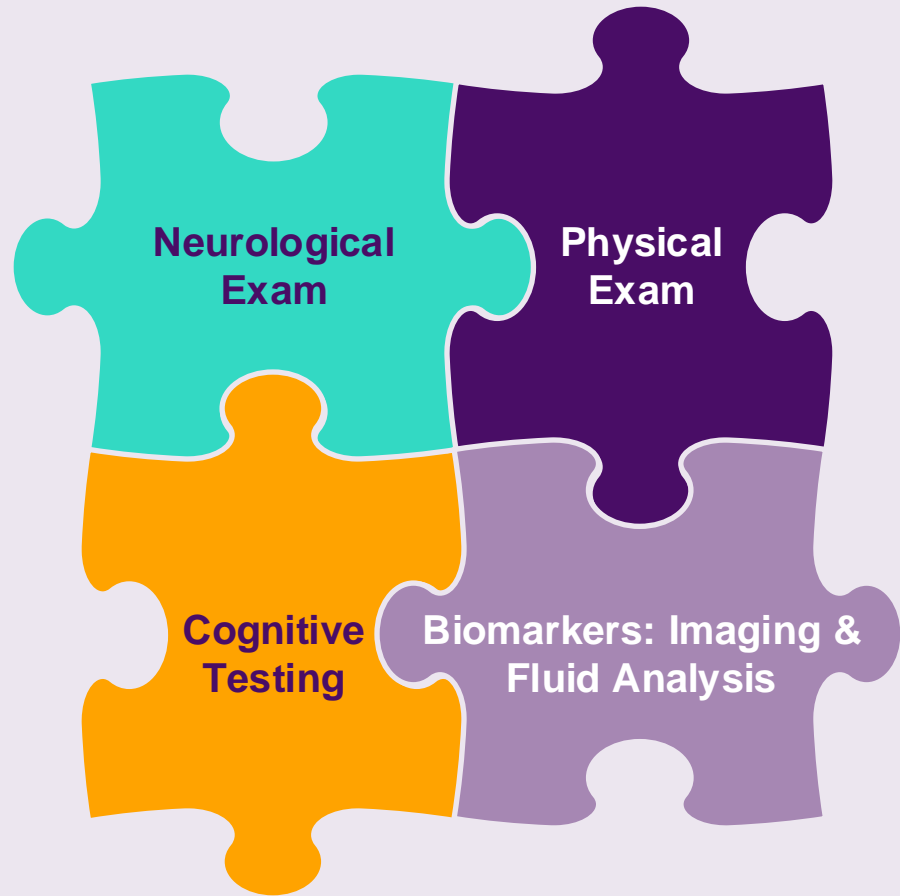
Financial Benefits

- Cost savings for families
- Cost savings for the U.S. government

How is Alzheimer's Currently Diagnosed?

There is no single test that can determine if a person is living with Alzheimer's disease or another dementia.

Doctors use a combination of diagnostic tools combined with medical history to make an accurate diagnosis.



10 Warning Signs of Alzheimer's



1

Memory loss that disrupts daily life

2

Challenges in planning or solving problems

3

Difficulty completing familiar tasks

4

Confusion with time or place

5

Trouble understanding visual images and spatial relationships

6

New problems with words in speaking or writing

7

Misplacing things and losing the ability to retrace steps

8

Decreased or poor judgment

9

Withdrawal from work or social activities

10

Changes in mood and personality



FDA-Approved Therapies for Alzheimer's

First description of disease 1906



Treat Symptoms:
Cognition and Function

Treat Symptoms:
Mood or Behavior

Slow Disease Progression:
Cognition, Function and Behavior

		Asymptomatic	MCI	Mild Dementia	Moderate Dementia	Severe Dementia
1996	donepezil (Aricept)				🧠	
2000	rivastigmine (Exelon)				🧠	
2001	galantamine (Razadyne)			🧠		
2003	memantine (Namenda)					🧠
2014	memantine + donepezil (Namzaric)					🧠
2020	suvorexant* (Belsomra)			🧑🏻		
2021	aducanumab (Aduhelm)			🧠		
2023	lecanemab (Leqembi)			🧠		
2023	brexpiprazole (Rexulti)				😞	
2024	donanemab (Kisunla)			🧠		



2024 Alzheimer's Drug Development Pipeline

127

Unique therapies

164

Clinical Trials for Alzheimer's disease as registered on clinicaltrials.gov

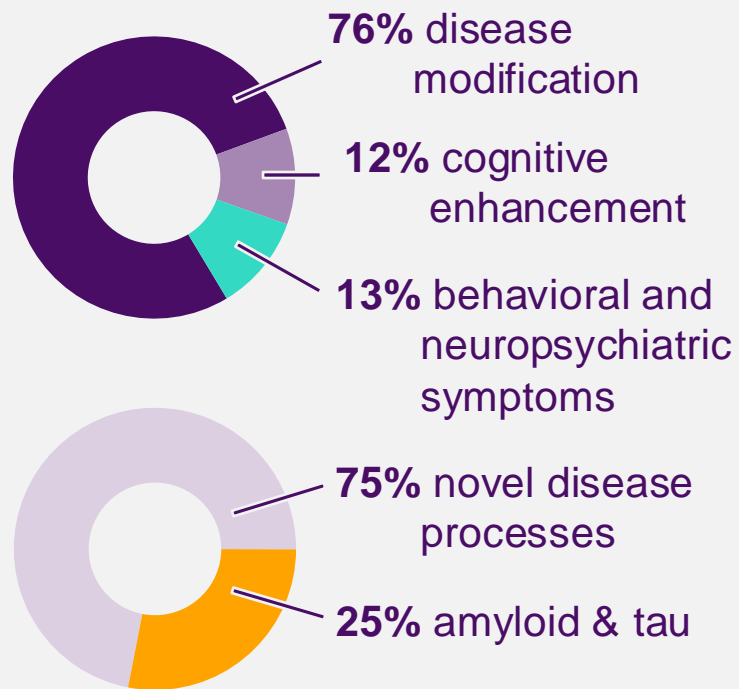
33

New agents have entered the pipeline in the past year

65,798

Total number of participants needed to populate all currently active trials (Phases 1, 2 and 3)

Targets of agents currently in clinical trials include:





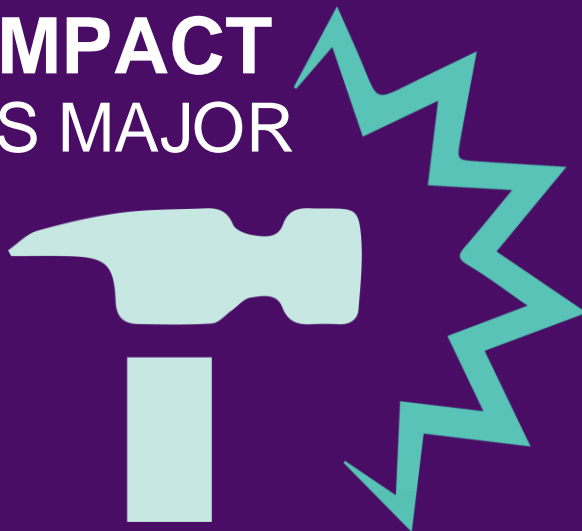
WHY

IS ALZHEIMER'S
A PUBLIC HEALTH
ISSUE?



**BURDEN
IS LARGE**

**IMPACT
IS MAJOR**

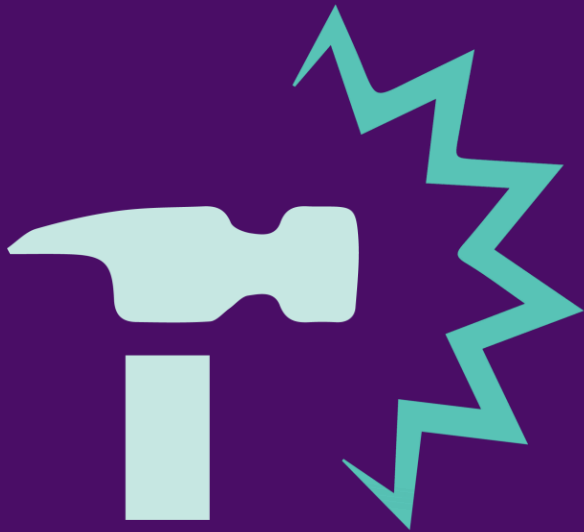


**INTERVENTIONS
CAN MAKE A
DIFFERENCE**



**BURDEN
IS LARGE**

- More than **7 million Americans** are living with Alzheimer's
- **Deaths** from Alzheimer's have increased **141%** between 2000-2021
- Annual cost of care: **\$360 billion** in 2024
- By 2050, costs could reach **\$1 trillion**



**IMPACT
IS MAJOR**

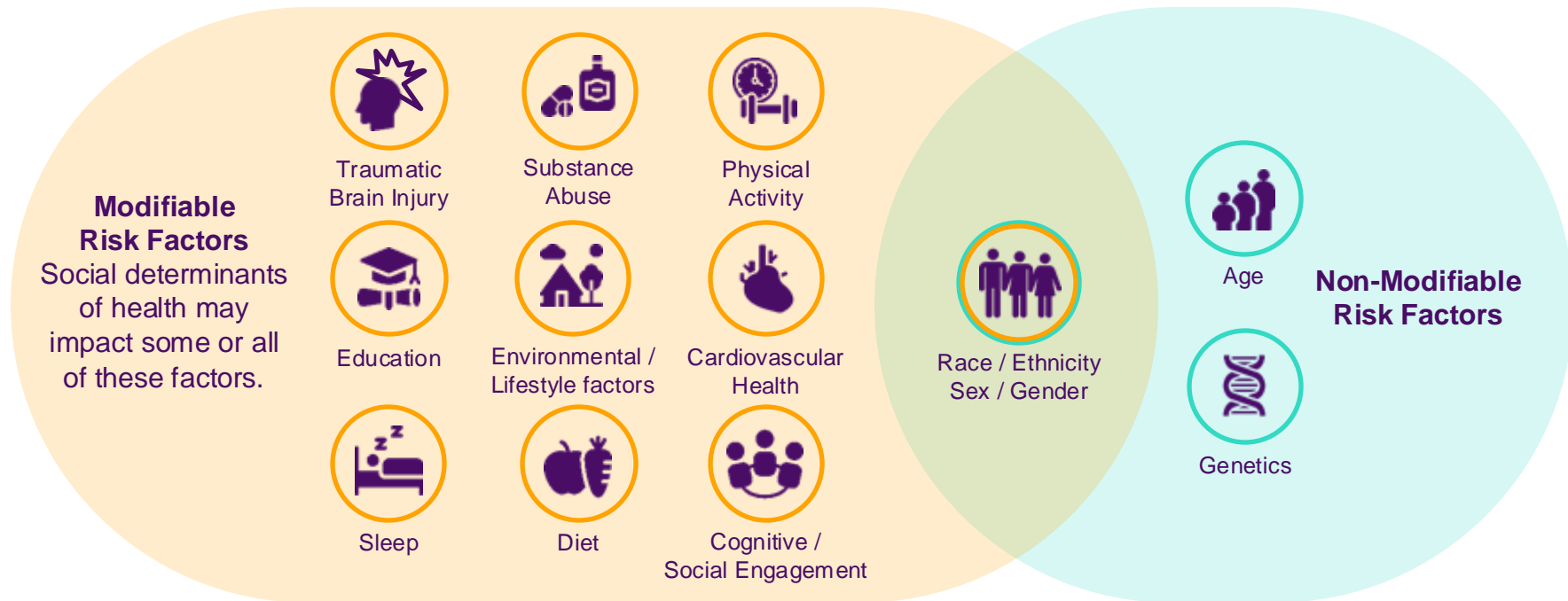
- Over **11 million Americans** provided over **18 billion hours of unpaid care** to people living with dementia
- More than **two-thirds** of the cost of care is paid by federal and state budgets through Medicare and Medicaid
- **One-fourth** of people with dementia have a **preventable hospitalization**



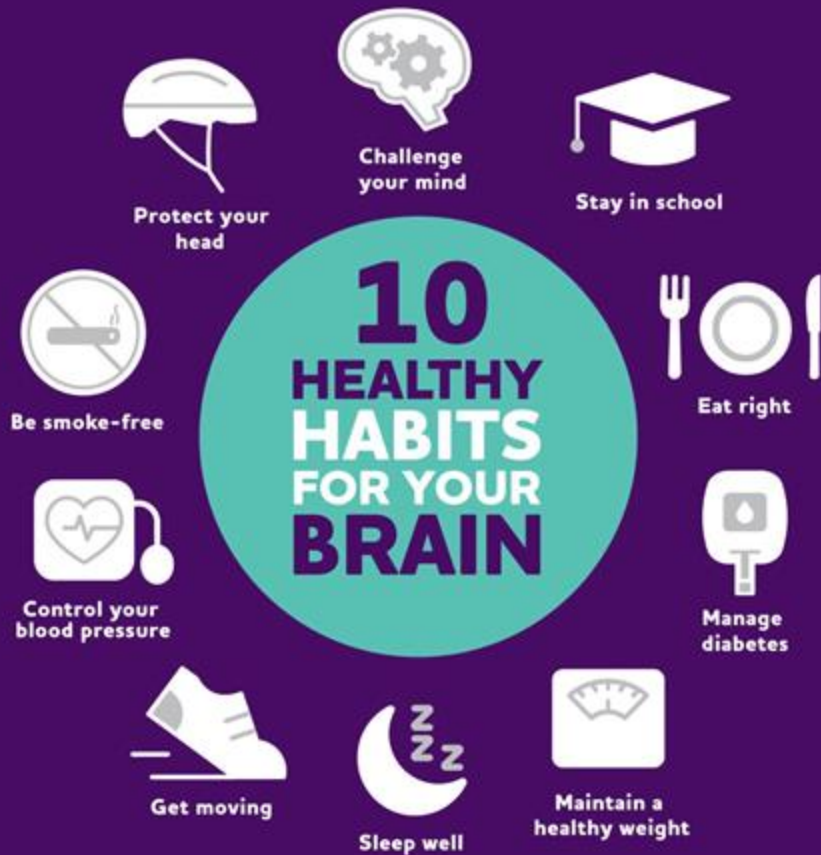
INTERVENTIONS CAN MAKE A DIFFERENCE

- Forming **community partnerships**
- **Reducing risk** of cognitive decline and possible dementia
- Promoting **early detection** and diagnosis
- Conducting **surveillance** and collecting data
- **Training** and **educating** the health care and public health workforces

What May Impact Risk of Cognitive Decline or Dementia?



There is a lot we still don't know about these risk factors. We need to study risk from all angles and in all populations!



Reducing Risk of Dementia

- Positive, everyday actions can make a difference in brain health, even lowering the risk of cognitive decline and possibly Alzheimer's and dementia.
- Up to **40%** of dementia cases could be prevented or delayed by targeting modifiable risk factors.
- Research suggests **combining multiple healthy factors** may be the most impactful.
- Nonmodifiable risk factors include age, genetics and sex/ gender/ race/ ethnicity.

U.S. Study to Protect Brain Health through Lifestyle Intervention to Reduce Risk



Two Year | Multi-Center (Five U.S. Sites) | Randomized Clinical Trial
2,000 Participants | 60-79 Years Old | At Risk for Cognitive Decline



Self-Guided and **Structured** Intervention Groups
Physical Activity | Nutrition | Intellectual Engagement | Health Coaching
Differ in Format, Expectations, and Accountability



Commitment to **Community-Based**
Outreach, Recruitment and Representation

- ✓ *Completed Recruitment in March 2023*
- ✓ *~ 30% from Underrepresented Populations*

NIA Supported **Ancillary Studies:**

- ✓ POINTER-Neuroimaging
- ✓ POINTER-zzz
- ✓ POINTER-Neurovascular
- ✓ POINTER-Microbiome

If the interventions prove effective, this study will lead the way in the development of an accessible and sustainable community-based program for prevention.



The Alzheimer's Association provides care and support to those affected.

Free 24/7 Helpline: 800.272.3900

- Staffed by master's-level clinicians and specialists
- Provides confidential support and information in over 200 languages

Resource-rich website: [alz.org](https://www.alz.org)[®]

- Often the first stop for individuals after receiving a diagnosis
- Includes sections for those living with the disease, caregivers and health care professionals

ALZConnected[®]: [alz.org/alzconnected](https://www.alz.org/alzconnected)

- Free online community designed for people living with dementia and their caregivers

Education and support: [alz.org/CRF](https://www.alz.org/CRF)

- For caregivers and individuals living with Alzheimer's or other dementia
- Offered in-person, virtually and online

Alzheimer's Association & AARP Community Resource Finder: [alz.org/CRF](https://www.alz.org/CRF)

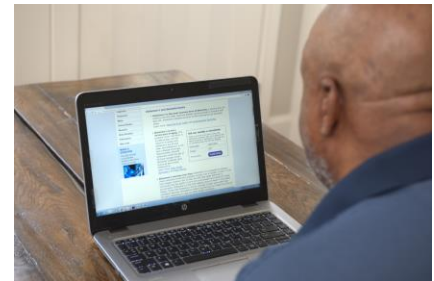
- Comprehensive database of local dementia and aging-related resources

Local chapters nationwide: [alz.org/findus](https://www.alz.org/findus)

- Programs and services in communities across the country

New York State Chapters

- Support in all 62 New York counties
 - Free 24-hr helpline (800-272-3900)
 - Care consultations
 - Caregiver and professional education
 - Safety information/referrals
 - Support groups
 - Early Stage Engagement



Incorporating Strategy into Your Work



Thank You!

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