

Carolina Center on Alzheimer's Disease and Minority Research

Understanding Dementia

September 11, 2020

TODAY'S SPEAKER

Megan Byers, MSW, LMSW, Program Coordinator for the Office for the Study of Aging at the Arnold School of Public Health, University of South Carolina





UNDERSTANDING DEMENTIA

Megan Byers, MSW, LMSW

*Carolina Center on Alzheimer's Disease & Minority Research
(CCADMR)*

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OBJECTIVES



Define dementia and Alzheimer's disease



Discover types of dementia



Identify signs and symptoms of dementia



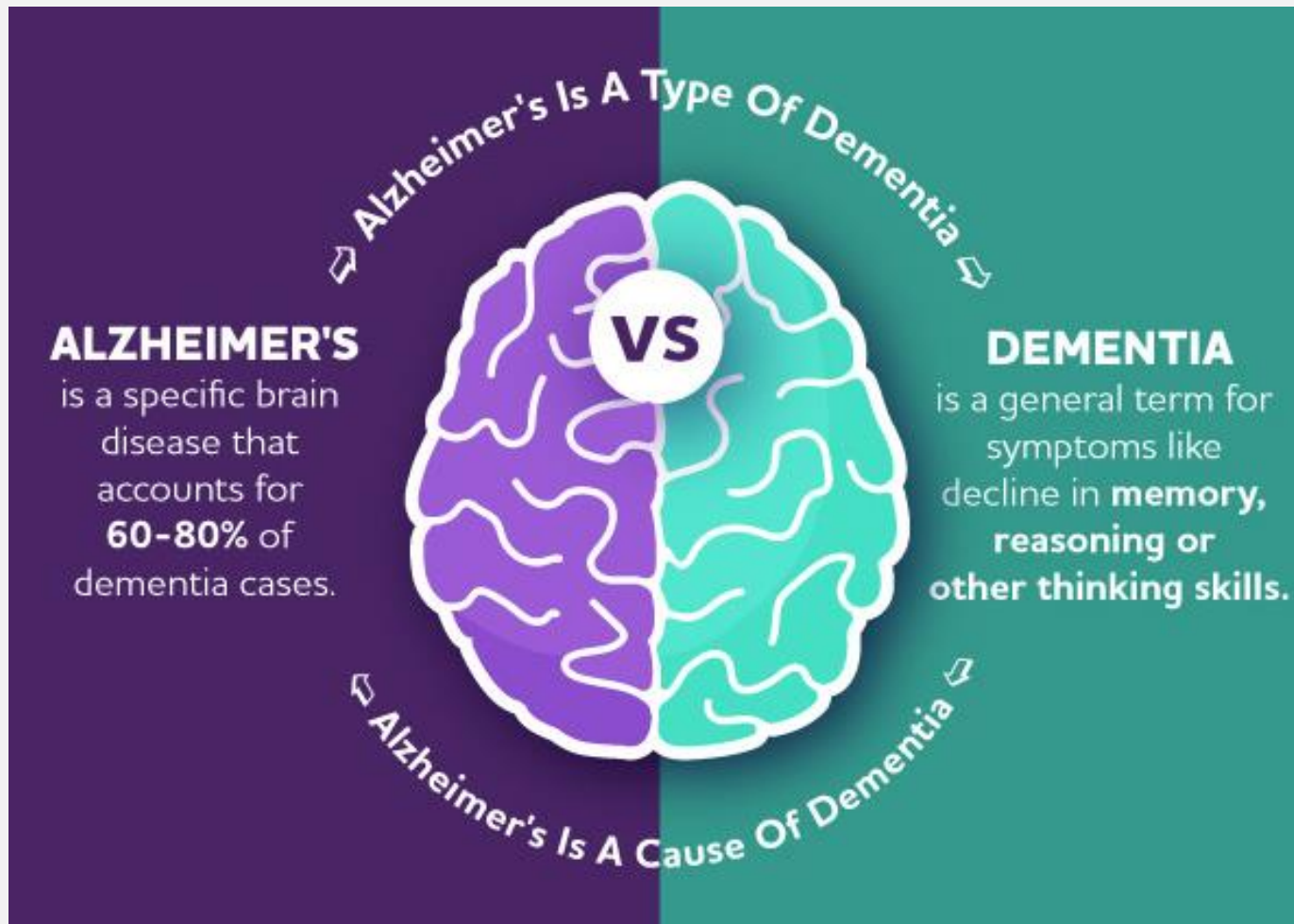
Learn treatment strategies



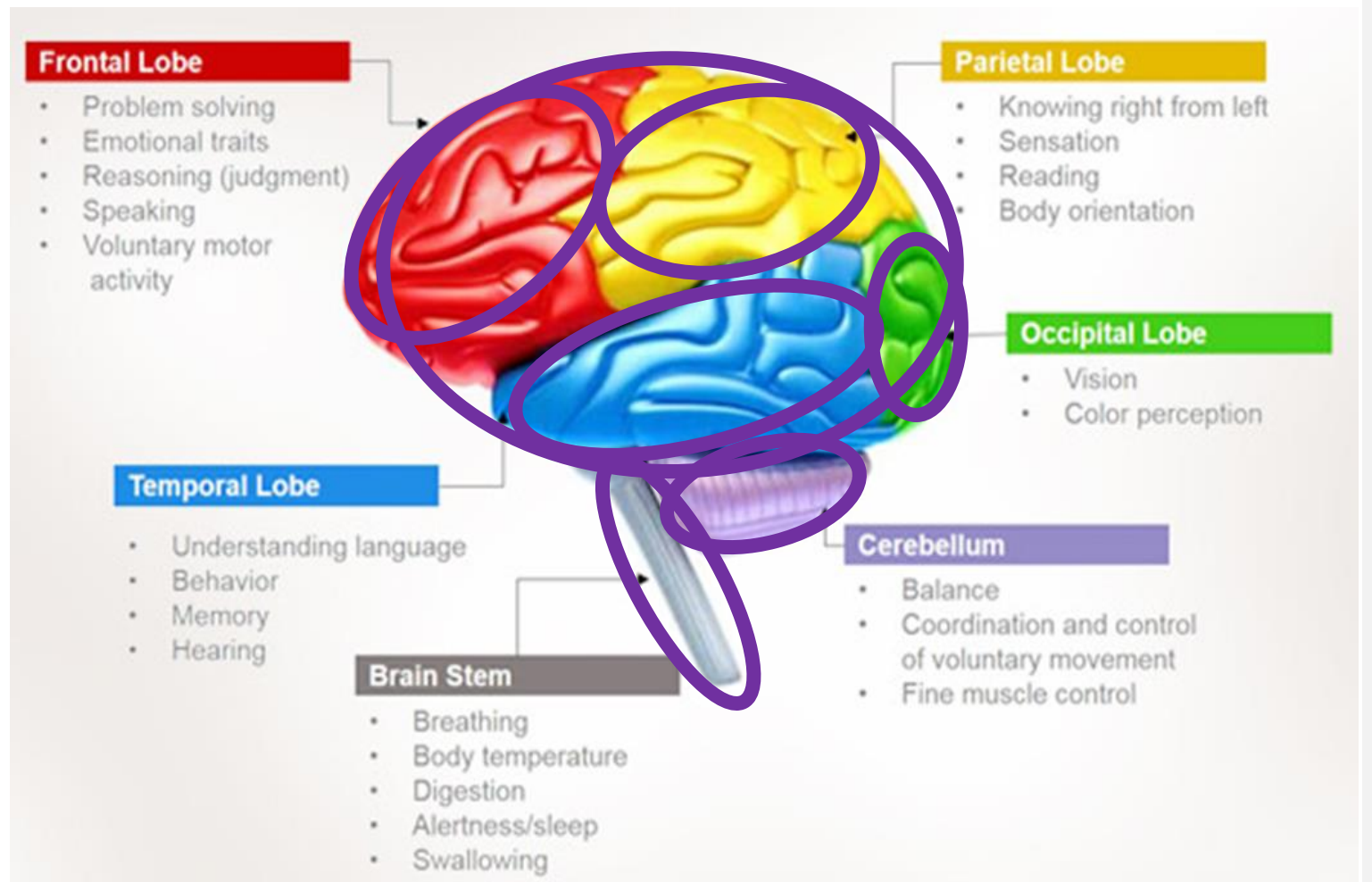
Recognize the prevalence of dementia

DEMENTIA VS ALZHEIMER'S

- Not a normal part of aging.
- An irreversible brain disease.
- Caused by damaged brain cells.



HEALTHY BRAIN FUNCTIONS





The **cerebrum** fills up most of your skull. It is involved in remembering, problem solving, thinking, and feeling. It also controls movement.



The **cerebellum** sits at the back of your head, under the cerebrum. It controls coordination and balance.

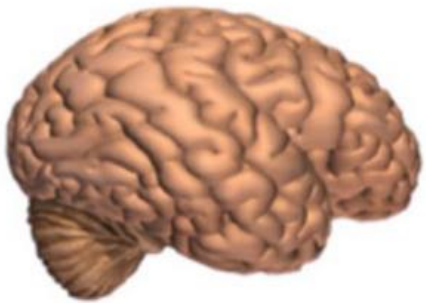
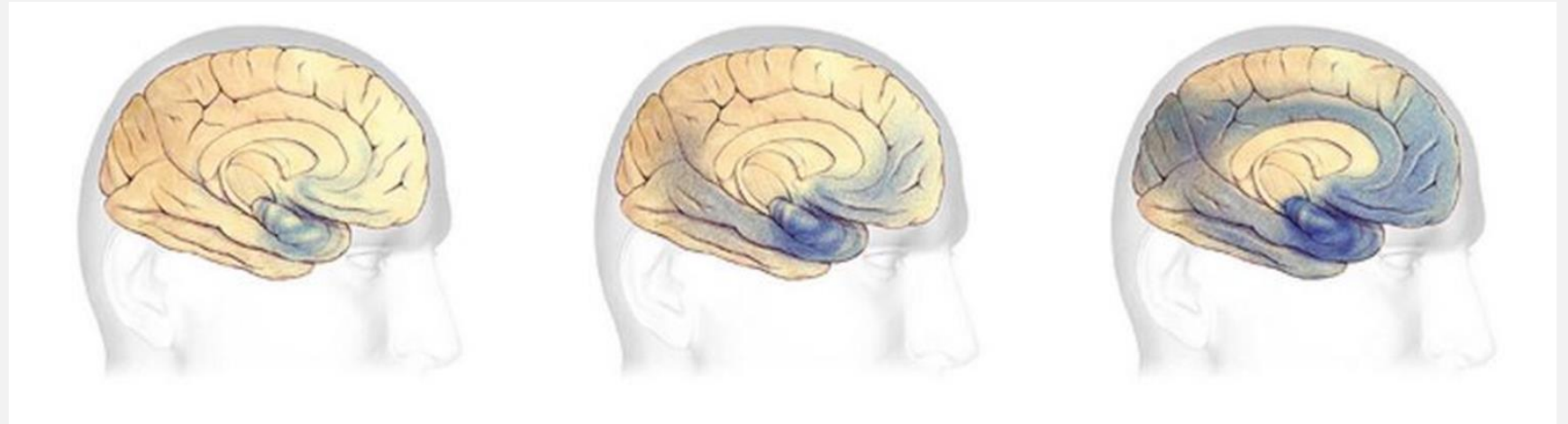


The **brain stem** sits beneath your cerebrum in front of your cerebellum. It connects the brain to the spinal cord and controls automatic functions such as breathing, digestion, heart rate and blood pressure.

HEALTHY BRAIN CONTINUED

ALZHEIMER'S DISEASE & THE BRAIN

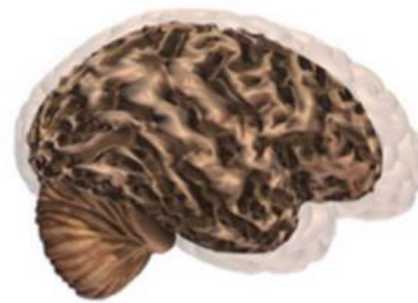
PLAQUES & TANGLES



A brain without the disease.



A brain with advanced Alzheimer's.



How the two brains compare.

BRAIN COMPARISON

- *Alzheimer's Disease*
- *Vascular*
- *Lewy Body*
- *Frontotemporal*
- *Parkinson's Disease
Dementia*
- *Mixed*

TYPES OF DEMENTIA

TYPES OF DEMENTIA: **ALZHEIMER'S DISEASE**

- Most common (60 – 80%).
- Approximately 200,000 have early-onset Alzheimer's (<65 years)
- A degenerative brain disease that is caused by complex brain changes following cell damage.
- Gradually worsens over a number of years.

TYPES OF DEMENTIA: **VASCULAR DEMENTIA**

- 2nd most common (5 – 10%).
- Decline in thinking skills caused by conditions that block or reduce blood flow to the brain.
- Inadequate blood flow can damage and kill brain cells.

TYPES OF DEMENTIA: **LEWY BODY DEMENTIA**

- 3rd most common (5 – 10%).
- Progressive dementia that leads to a decline in thinking, reasoning, and independent function.
- Lewy bodies are also found in other brain disorders.
- This overlap in symptoms suggest that Lewy body dementia, Parkinson's disease, and Parkinson's disease dementia may be linked.

TYPES OF DEMENTIA: **FRONTOTEMPORAL**

- 60,000 individuals between ages 45 to 65 have frontotemporal dementia (FTD).
- Formally known as Pick's Disease
- Refers to a group of disorders caused by progressive nerve cell loss in the frontal or temporal lobes.
- Leads to a loss of function in the lobes.

TYPES OF DEMENTIA: **PARKINSON'S DISEASE DEMENTIA**

- A decline in thinking and reasoning.
- Develops in many people living with Parkinson's at least a year after diagnosis.
- 50 – 80% living with Parkinson's may experience dementia.

TYPES OF DEMENTIA: **MIXED DEMENTIA**

- Characteristics of more than one type occur simultaneously.
- Also referred to as “dementia – multifactorial” by physicians.
- Unknown percentage of cases.

WARNING SIGNS OF DEMENTIA

Memory loss that disrupts daily life.

Challenges in planning or problem solving.

Difficulty completing familiar tasks.

Confusion with time or place.

Trouble understanding visual images and spatial relationships.

New problems with words in speaking or writing.

Misplacing things and losing the ability to retrace steps.

Decreased or poor judgement.

Withdraw from work or social activities.

Changes in mood and personality.

DEMENTIA VS. TYPICAL AGE-RELATED CHANGES


Signs of Dementia	Typical Age-Related Changes
Poor judgment and decision-making.	Making a bad decision once in a while.
Inability to manage a budget.	Missing a monthly payment.
Losing track of the date or season.	Forgetting which day it is and remembering it later.
Difficulty having a conversation.	Sometimes forgetting which word to use.
Misplacing things and being unable to retrace steps to find it.	Losing things from time to time.

- Age
- Family history
- Genetics (heredity)
- Other:
 - *Head injury*
 - *Heart-head connection*
 - *Overall healthy aging → healthy diet, staying physically, mentally and socially active, avoiding tobacco and excess alcohol.*



**RISK
FACTORS:
ALZHEIMER'S
DISEASE**

DIAGNOSIS OF DEMENTIA

- Evaluation of all body systems.
 - Brain autopsy.
- 
- **Professional:**
 - Medical history
 - Physical exam & diagnostic testing
 - Neurological exam
 - Mental Status tests
 - Genetic testing
 - Brain imaging
 - **Home Screening Tests:**
 - None have been scientifically proven to be accurate.

TREATMENT OPTIONS FOR DEMENTIA

PHARMACOLOGICAL

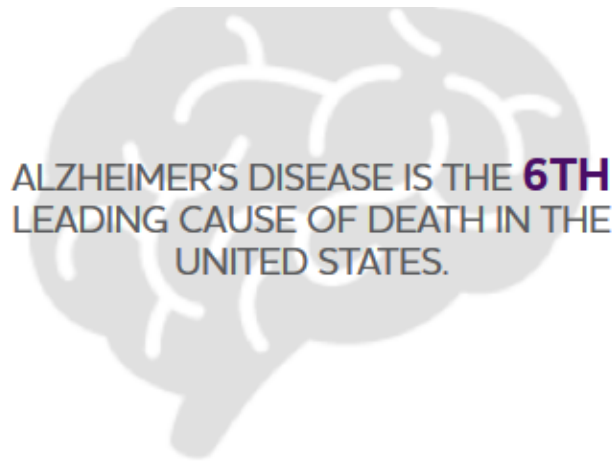
- Medications for Memory:
 - Cholinesterase Inhibitors (*Aricept, Exelon, Razadyne*) and Memantine (*Namenda*)

NON-PHARMACOLOGICAL

- Social activities
- Adequate sleep
- Routine/ schedule
- Proper stimulation level
- Hydration
- Occupational therapy



MORE THAN **5 MILLION** AMERICANS ARE LIVING WITH ALZHEIMER'S. BY 2050, THIS NUMBER IS PROJECTED TO RISE TO NEARLY 14 MILLION.



ALZHEIMER'S DISEASE IS THE **6TH** LEADING CAUSE OF DEATH IN THE UNITED STATES.



1 IN 3 SENIORS DIES WITH ALZHEIMER'S OR ANOTHER DEMENTIA. IT KILLS MORE THAN BREAST CANCER AND PROSTATE CANCER COMBINED.

PREVALENCE

It's the only cause of death in the top 10 in the U.S. that cannot be prevented, cured, or slowed.

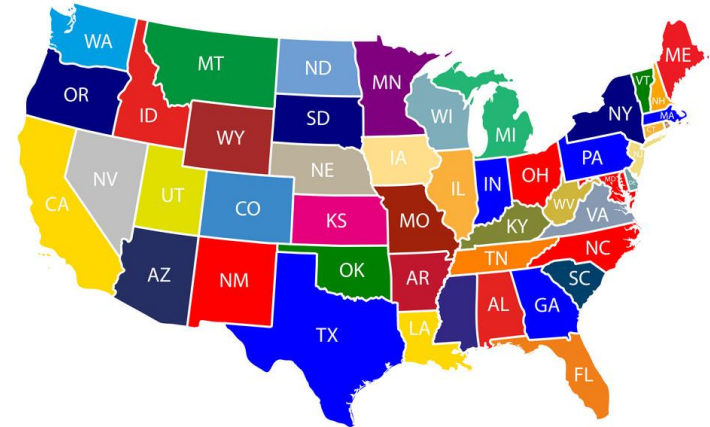


PREVALENCE: **WORLD**

- 2019: 50 million living with the disease.
- 2050: increase to 152 million.
- Every 3 seconds a person develops dementia.
- Cost of dementia is \$1 trillion.

PREVALENCE: UNITED STATES

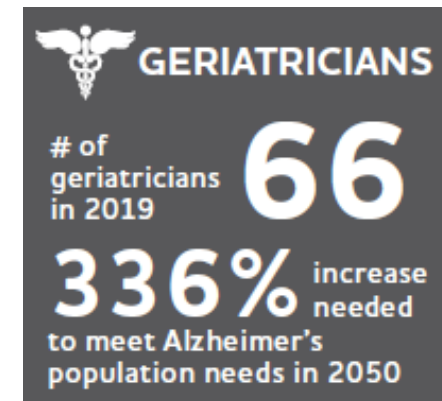
- 5.8 million living with Alzheimer's.
- 2050: increase to 13.8 million.
- 1 in 10 has Alzheimer's (65+).
- 3.6 million are women.
- 2.2 million are men.
- By 2050, projected that 13.8 million will be affected.
- 6th leading cause of death.
- Caregivers provided \$244 billion in *unpaid* care.
- Projected cost of \$305 billion, with \$206 billion in Medicare and Medicaid.



Alzheimer's Association, 2019

PREVALENCE: SOUTH CAROLINA

- 95,000 living with dementia
- By 2025, projected 120,000 affected
- **Place of residence:**
 - Hospital: 21.3%
 - Hospice: 20%
- **Cost of Care:**
 - Medicare: \$23,817
 - Medicaid: \$652 million.
- **Caregiving:**
 - 318,000 caregivers
 - 362 million hours of unpaid care / \$4.7 billion value



Alzheimer's Association, 2019

PREVALENCE: SOUTH CAROLINA CONT.

- 95,899 individuals living with dementia.
- Type:
 - Alzheimer's Disease: 63%
 - Vascular Dementia: 11%
 - Mixed Dementia: 3%
 - Other conditions: 23%
- Race:
 - 63% White
 - 28% African American
 - <1% Hispanic
 - 9% All other
- Gender: 63% female, 37% male

2019 Annual Report: **South Carolina Alzheimer's Disease Registry**

 **Office for the Study of Aging**
Arnold School of Public Health



SC Alzheimer's Registry, 2019

*Changes to expect as
the disease progresses.*

STAGES OF ALZHEIMER'S

EARLY-STAGE ALZHEIMER'S

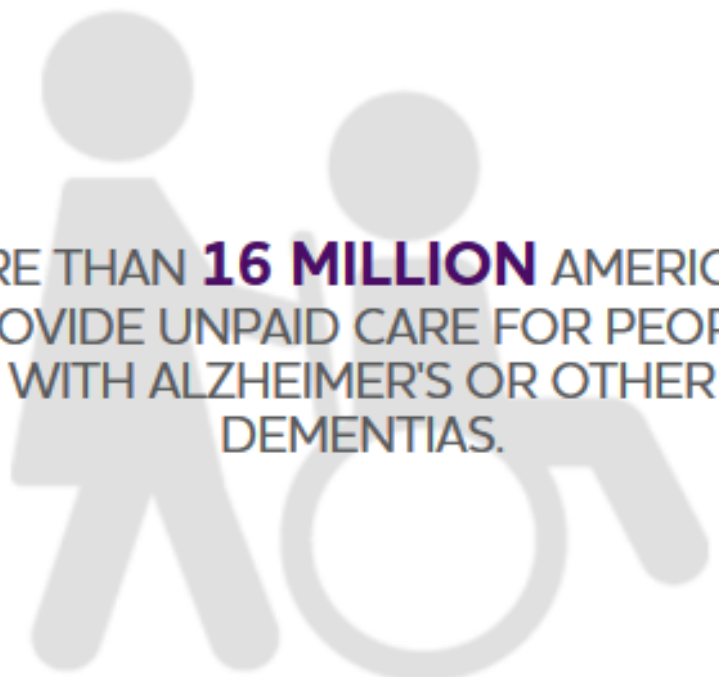
- Difficulty coming up with the right word or name
- Trouble remembering names
- Challenges performing tasks in social or work settings
- Forgetting material that one has just read
- Losing or misplacing a valuable object
- Increasing trouble with planning or organizing

MIDDLE-STAGE ALZHEIMER'S

- Forgetfulness of events
- Feeling moody or withdrawn
- Unable to recall
- Confusion about time & place
- The need for help choosing proper clothing
- Trouble controlling bladder and bowels
- Changes in sleep patterns
- An increased risk of wandering and becoming lost
- Personality and behavioral changes

LATE-STAGE ALZHEIMER'S

- Require around-the-clock assistance with daily personal care.
- Lose awareness of recent experiences and surroundings.
- Experience changes in physical abilities,
- Increased difficulty communicating.
- Become vulnerable to infections, especially pneumonia.

A light gray icon depicting a caregiver standing on the left and a person in a wheelchair on the right. The caregiver is a simple human figure, and the person in the wheelchair is also a simple human figure with a circular wheelchair base.

MORE THAN **16 MILLION** AMERICANS
PROVIDE UNPAID CARE FOR PEOPLE
WITH ALZHEIMER'S OR OTHER
DEMENTIAS.

A light gray icon of an hourglass, symbolizing time. It has a wide top and bottom and a narrow middle section.

THESE CAREGIVERS PROVIDED AN
ESTIMATED **18.6 BILLION** HOURS OF
CARE VALUED AT NEARLY \$244 BILLION.

FROM A CAREGIVERS PERSPECTIVE

Common feelings among caregivers with caring for persons living with dementia...

CAREGIVER SELF AWARENESS

SYMPTOMS OF STRESS

- Denial
- Anger
- Social withdraw
- Anxiety
- Depression
- Exhaustion
- Sleeplessness
- Irritability
- Lack of Concentration
- Health issues

TIPS TO MANAGE STRESS

- Identify community resources
- Get help & find support
- Use relaxation techniques
- Physical activity
- Find time for yourself
- Become an educated caregiver
- Take care of yourself
- Make legal and financial plans

ALZ.ORG

24/7 HELPLINE: 800.272.3900

alzheimer's  association®

CONTACT INFORMATION

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TODAY'S SPEAKER

Megan Byers, MSW, LMSW,
Program Coordinator for the Office
for the Study of Aging at the Arnold
School of Public Health, University of
South Carolina

- Ms. Byers has developed policies and training curricula, monitored legislative sessions to determine their impact on vulnerable adults, as well as educated stakeholders on issues of adult maltreatment and dementia.



Congratulations to
our Year 3 CCADMR
Scientists!

- **Monique Brown, PhD, MPH**

Health Disparities in HIV, Depression, and Alzheimer's Disease in South Carolina



- **Kaileigh Byrne, PhD**

Identifying Racial Disparities of Dementia: The Role of Social Isolation and Social Technology Use



- **Stephanie Ureña, PhD, MPH**

The Impacts of Military Service on Cognitive Function and Racial Disparities



Thank you for participating!

Please give us your feedback about the session by answering a brief survey.

For the in-person attendees, we will have the survey available on the tablets at the end of the session, or you can use the QR code on screen to access the survey.

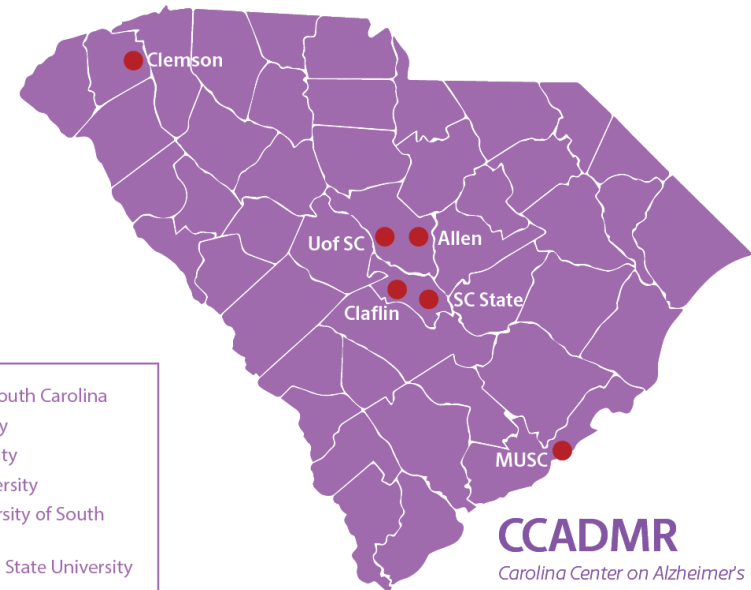
For virtual attendees, we will be emailing a survey link to all participants, you can access it through the QR code to the right or through the survey link.

The QR code appears here or it can be accessed via the [Survey Link](#).



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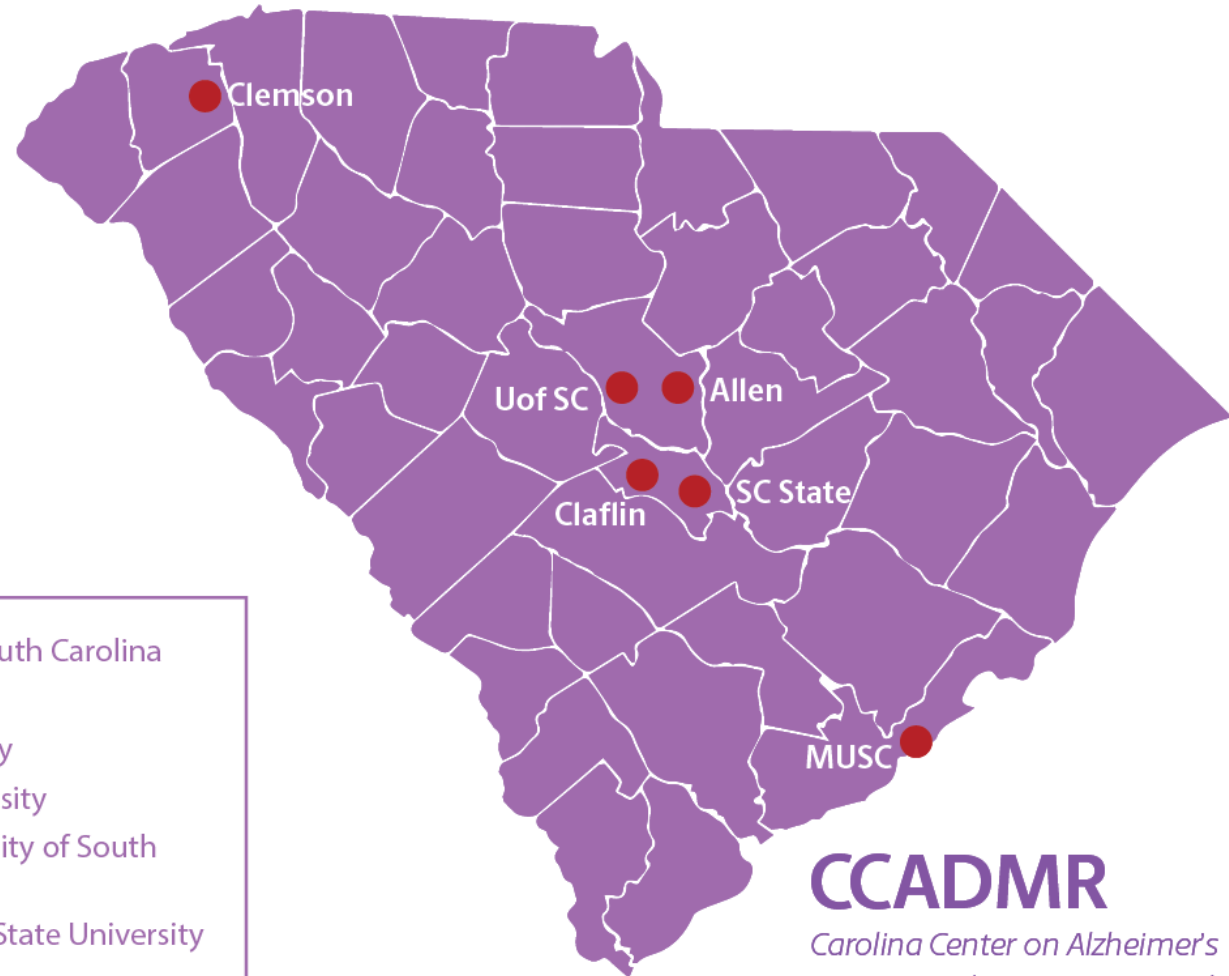


Thank you!

If you have any questions,
please contact Quentin
McCollum
mccolluq@email.sc.edu or
Brianna Ashford- Carroll,
ashfordb@email.sc.edu.

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Disease and Minority Research*