

# A PUBLIC HEALTH APPROACH TO ALZHEIMER'S AND OTHER DEMENTIAS

**ALZHEIMER'S DISEASE –  
A PUBLIC HEALTH CRISIS**



Emory Centers  
for Training and  
Technical Assistance

# LEARNING OBJECTIVES

- Provide a general description of dementia and Alzheimer's disease
- Explain the current and projected scope of the epidemic
- Discuss the cost burden of Alzheimer's for federal/state governments and individuals/caregivers
- Describe the care burden of Alzheimer's, including caregivers and the health care system
- Identify health disparities related to Alzheimer's and other dementias
- Explain why public health must play a role in addressing the Alzheimer's epidemic

# ALZHEIMER'S – PUBLIC HEALTH CRISIS'

- Historically viewed as aging or medical issue
- Impact at national, state, and local levels
- Multi-faceted approach needed



# WHAT IS DEMENTIA?<sup>2,3</sup>

- General term for decline in cognitive function severe enough to interfere with daily life
- Affects memory, thinking ability, social ability
- Many dementias are progressive

# WHAT IS ALZHEIMER'S DISEASE?<sup>4,5</sup>

- Irreversible, progressive brain disease
- Slowly destroys memory, thinking skills, and ability to carry out basic functions
- Brain changes can begin years prior to any noticeable symptoms
- Most common cause of dementia (60%-80% of cases)





# SCOPE OF THE EPIDEMIC

ALZHEIMER'S DISEASE – A PUBLIC HEALTH CRISIS

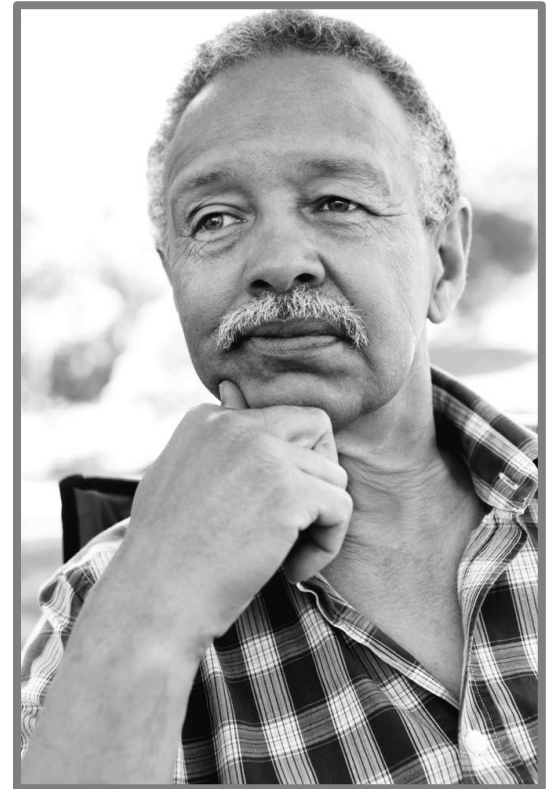
# SCOPE OF THE EPIDEMIC (U.S.)<sup>6</sup>

- Over 5.8 million adults
- 1 in 10 adults age  $\geq 65$
- 1 in 3 adults age  $\geq 85$
- 2/3 are women



# HEALTH DISPARITIES<sup>7,8</sup>

- African-Americans and Hispanics have higher rates of dementia than whites:
  - African-Americans: 2 times more likely
  - Hispanics: 1.5 times more likely
- Less likely to receive a diagnosis
- Often diagnosed at later stages, requiring more medical care

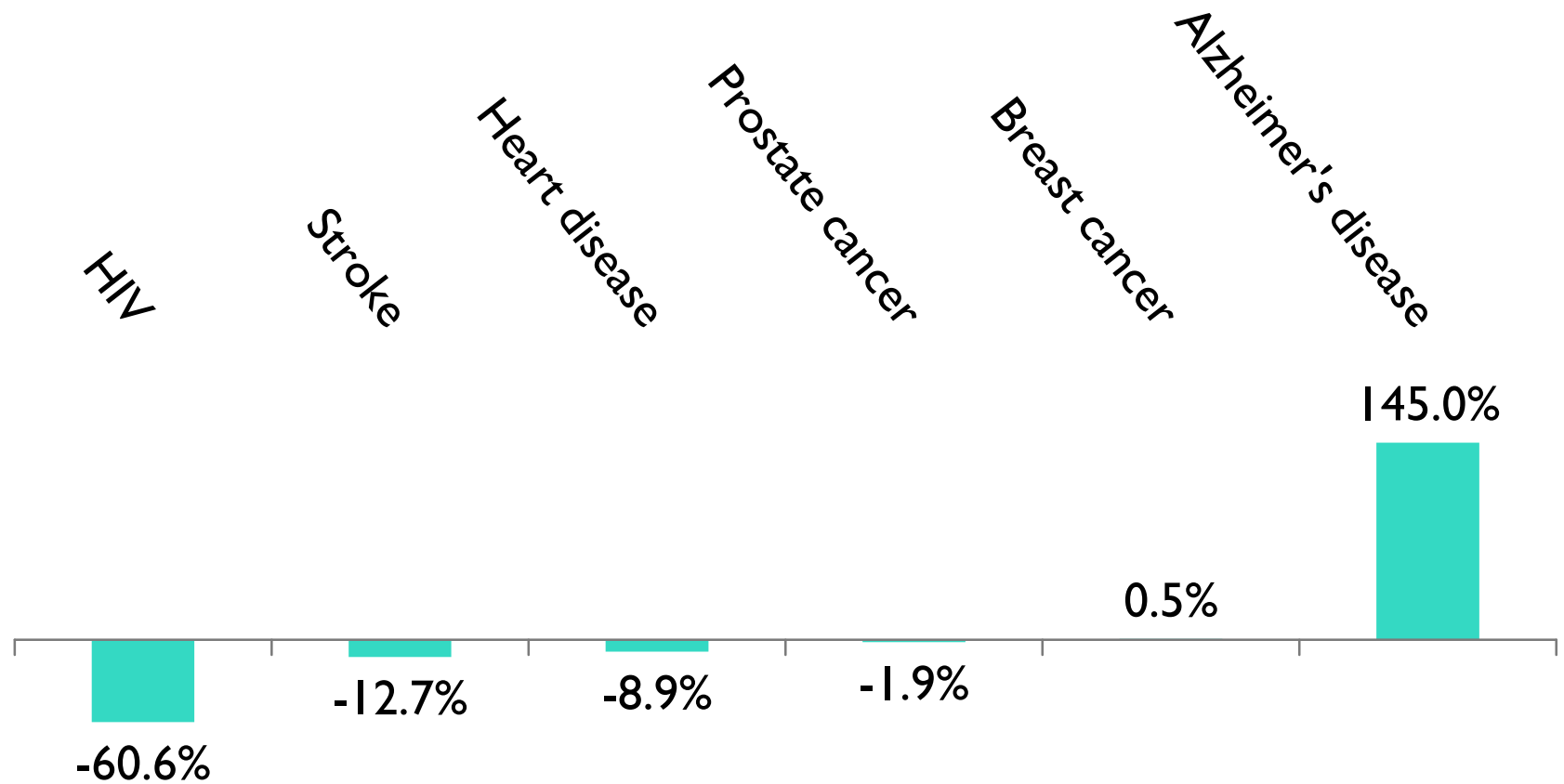




# ALZHEIMER'S DEATHS<sup>9</sup>

- 6<sup>th</sup> leading cause of death
- 5<sup>th</sup> leading cause among adults age  $\geq 65$
- Deaths increased 145% from 2000-2017

# CHANGES IN CAUSES OF DEATH BETWEEN 2000-2017<sup>10</sup>



# GROWING EPIDEMIC<sup>11,12</sup>

- By 2050 U.S. population age  $\geq 65$  expected to be 88 million
- By 2050, 13.8 million with Alzheimer's
- Today, one new case every 65 seconds
- By 2050, every 33 seconds



# WORLDWIDE EPIDEMIC<sup>13</sup>

- Estimated 50 million have dementia with 10 million new cases annually
- Projected to nearly double every 20 years:
  - 82 million in 2030
  - 152 million in 2050
- New case of dementia every 3 seconds



# FINANCIAL BURDEN

ALZHEIMER'S DISEASE – A PUBLIC HEALTH CRISIS

# FINANCIAL BURDEN: U.S. & WORLDWIDE<sup>14,15</sup>

- Alzheimer's is the most expensive disease in U.S.
- Annual costs of direct care over \$290 billion
- Worldwide annual costs exceed \$818 billion (2015)



# DISCUSSION QUESTION I



What are Medicare and Medicaid?

# MEDICARE & MEDICAID<sup>16</sup>

- Medicare: federally-funded health insurance
  - U.S. citizen or legal permanent resident age  $\geq 65$
  - People under age 65 with certain disabilities or End-Stage Renal Disease
- Medicaid: funded by federal and state governments
  - Helps with medical costs and nursing home expenses for low-income individuals





# ALZHEIMER'S: MEDICARE & MEDICAID<sup>17,18</sup>

- Pays 67% of health and long-term costs of Alzheimer's
- Nearly 1 in 5 Medicare dollars
- Per-person spending for those with Alzheimer's:
  - Medicare: 3 times higher than average
  - Medicaid: 23 times higher than average

# ALZHEIMER'S: PROJECTED COSTS (2050)<sup>19,20</sup>

- Total annual costs over \$1.1 trillion
- Annual costs to Medicare: \$559 billion (over 300% increase)
- Out-of-pocket costs: \$198 billion





# CARE BURDEN

ALZHEIMER'S DISEASE – A PUBLIC HEALTH CRISIS

# CARE WORKFORCE

- Caregivers (family or friends)
- Health care providers
- Paid care providers



# ALZHEIMER'S & DEMENTIA CAREGIVERS<sup>21</sup>

- 83% of care provided to older adults is by family members, friends or other unpaid caregivers
- 70% of people with Alzheimer's live in the community
- Over 16 million caregivers (family and friends)
- 18.5 billion hours of unpaid care annually
- Unpaid care valued at \$233.9 billion (2018)

## DISCUSSION QUESTION 2



What might be the roles and responsibilities of a caregiver for someone with Alzheimer's?

# ALZHEIMER'S & DEMENTIA CAREGIVERS<sup>22,23</sup>

- Caregiver profile
  - 2/3 are women (typically daughter or wife)
  - Middle-aged
  - Over half currently employed
- Caregiving responsibilities
  - Help with activities of daily living
  - Medical and financial management
  - Provide increasing levels of care as disease progresses



# CAREGIVERS: CHALLENGES<sup>24</sup>

- Physical, psychological, social challenges
  - \$11.8 billion additional health care costs (2018)
  - 60% rate emotional stress as high or very high
  - 30-40% suffer from depression
  - Increased likelihood of new or worsening health problems





# CAREGIVERS: IMPACT ON WORK<sup>25</sup>

- Went in late/ left early/ took time off (57%)
- Went from full-time to part-time work (18%)
- Took leave of absence (16%)
- Turned down a promotion (8%)
- 1 in 6 quit work entirely to be a caregiver

# CAREGIVERS: LENGTH OF CARE<sup>26,27</sup>

- 86% at least one year
- 50% four or more years
- May range from 4-20 years
- Burden of care higher than for non-dementia caregiving



# CAREGIVERS: CRITICAL ROLE

- Health care system could not sustain costs of care without caregivers
- Support for caregivers is a public health issue



# HEALTH PROFESSIONALS: SHORTAGE<sup>28,29</sup>

- Shortage of health care professionals trained to work with older adults
  - Additional 3.5 million needed by 2030
  - Currently have half the number of certified geriatricians needed
  - Less than 1% of RNs, PAs, and pharmacists identify as geriatric
- Many not adequately trained for Alzheimer's and dementia

# DIRECT CARE WORKFORCE<sup>30</sup>

- Provide majority of care for Alzheimer's (after caregivers)
- Include nurse aides, home health aides, personal-care aides and home-care aides
- Help with daily activities: bathing, dressing, eating
- Costs range from \$48,000 to over \$90,000 a year



# DIRECT CARE WORKFORCE: CHALLENGES<sup>31</sup>

- Workforce shortage
  - Rapid increases in number of workers needed as population ages
  - High turnover
  - Recruitment and retention difficult
- Challenging job given nature of the work
- Limited training, especially on Alzheimer's and dementia

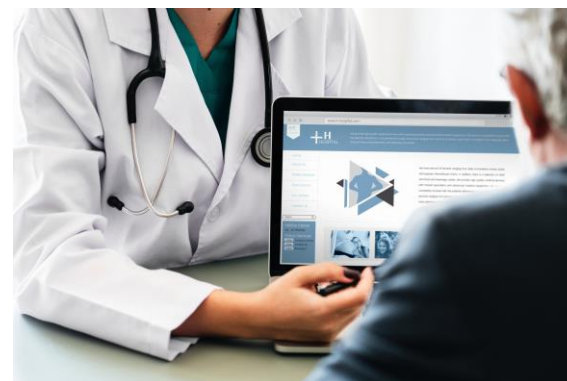


# PUBLIC HEALTH APPROACH

ALZHEIMER'S DISEASE – A PUBLIC HEALTH CRISIS

# HEALTHY PEOPLE 2030<sup>32</sup>

- Proposed objectives for Alzheimer's and other dementias:
  - Increasing diagnosis and awareness
  - Reducing preventable hospitalizations
  - Increasing number of older adults discussing their memory issues with a health care professional





# ROLE OF PUBLIC HEALTH<sup>33</sup>

- 4 key ways public health can have an impact:
  - Surveillance/monitoring
  - Risk reduction
  - Early detection and diagnosis
  - Safety and quality of care



# DEMENTIA CAPABLE SYSTEMS AND DEMENTIA FRIENDLY COMMUNITIES

- Dementia capable systems
  - Support services
  - Workforce training and education
- Dementia friendly communities
  - Safe, supportive environments



# FOR MORE INFORMATION

For more information, please visit:

Alzheimer's Association: <http://www.alz.org>

CDC's Alzheimer's Disease and Healthy Aging Program:  
<https://www.cdc.gov/aging/>



# COMPETENCIES

- **Academy for Gerontology in Higher Education (AGHE):**
  - 1.3.3 Demonstrate knowledge of signs, symptoms, and impact of common cognitive and mental health problems in late life (e.g., dementia, depression, grief, anxiety).
- **Council on Education for Public Health (CEPH) Foundational Competencies**
  - 2. Locate, use, evaluate and synthesize public health information (bachelors-level).
  - 4. Interpret results of data analysis for public health research, policy, or practice (masters-level).
- **Council on Linkages Between Academia and Public Health Practice:**
  - 2A. Identifies current trends (e.g., health, fiscal, social, political, environmental) affecting the health of a community.

# REFERENCES

- <sup>1</sup>Alzheimer's Association and Centers for Disease Control and Prevention. *Healthy Brain Initiative, State and Local Public Health Partnerships to Address Dementia: The 2018-2023 Road Map*. Chicago, IL: Alzheimer's Association; 2018.
- <sup>2</sup>Alzheimer's Association. (n.d.) *What is Dementia?* Retrieved from <https://www.alz.org/alzheimers-dementia/what-is-dementia#causes>
- <sup>3</sup>National Institute on Aging. (2017) *What is Dementia?* Retrieved from <https://www.nia.nih.gov/health/what-dementia>
- <sup>4</sup>Alzheimer's Association. (n.d.) *What is Dementia?* Retrieved from <http://www.alz.org/what-is-dementia.asp#causes>
- <sup>5</sup>National Institute on Aging. (2019) *Alzheimer's Disease Fact Sheet*. Retrieved from <https://www.nia.nih.gov/health/alzheimers-disease-fact-sheet>
- <sup>6</sup>Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>7</sup>Matthews, K.A. et al. (2019) Racial and Ethnic Estimates of Alzheimer's Disease and Related Dementias in the United States (2015–2060) in Adults Aged ≥ 65 years. Retrieved from [https://aandjournal.net/article/S1552-5260\(18\)33252-7/fulltext](https://aandjournal.net/article/S1552-5260(18)33252-7/fulltext)
- <sup>8</sup>Alzheimer's Association. (2018) *Race, Ethnicity, and Alzheimer's Fact Sheet*.
- <sup>9</sup>Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>10</sup> Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>11</sup> Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>12</sup> Matthews, K.A. et al. (2019) Racial and Ethnic Estimates of Alzheimer's Disease and Related Dementias in the United States (2015–2060) in Adults Aged ≥ 65 years. Retrieved from [https://aandjournal.net/article/S1552-5260\(18\)33252-7/fulltext](https://aandjournal.net/article/S1552-5260(18)33252-7/fulltext)
- <sup>13</sup>World Health Organization. (2017) *Key Facts*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/dementia>
- <sup>14</sup>Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>15</sup>Alzheimer's Disease International. (2015) *World Alzheimer Report 2015: The Global Impact of Dementia: An Analysis of Prevalence, Incidence, Cost and Trends*. Retrieved from <http://www.worldalzreport2015.org/>
- <sup>16</sup>Department of Health and Human Services. (2019) *What's Medicare?* Retrieved from <https://www.medicare.gov/pubs/pdf/I1306-Medicare-Medicaid.pdf>

# REFERENCES CONTINUED

- <sup>17</sup>Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>18</sup>Alzheimer's Association. (2018) *Costs of Alzheimer's to Medicare and Medicaid*.
- <sup>19</sup>Alzheimer's Association. (2016) *2016 Alzheimer's Disease Facts and Figures*.
- <sup>20</sup>Alzheimer's Association. (2018) *Costs of Alzheimer's to Medicare and Medicaid*.
- <sup>21</sup>Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>22</sup>Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>23</sup>Centers for Disease Control and Prevention. (2019) *Behavioral Risk Factor Surveillance System (BRFSS) Caregiver Module*. Retrieved from <https://www.cdc.gov/aging/healthybrain/brfss-faq-caregiver.htm>
- <sup>24</sup>Alzheimer's Association. (2018) *Alzheimer's Disease Caregivers*.
- <sup>25</sup>Alzheimer's Association. (2018) *Alzheimer's Disease Caregivers*.
- <sup>26</sup>Alzheimer's Association. (2018) *Alzheimer's Disease Caregivers*.
- <sup>27</sup>National Alliance for Caregiving & Alzheimer's Association. (2017) *Dementia Caregiving in the U.S.*
- <sup>28</sup>Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>29</sup>Institute of Medicine (US) Committee on the Future Health Care Workforce for Older Americans. (2008) *Retooling for an Aging America: Building the Health Care Workforce*. Washington (DC): National Academies Press (US).
- <sup>30</sup>Alzheimer's Association. (2019) *2019 Alzheimer's Disease Facts and Figures*.
- <sup>31</sup>Paraprofessional Healthcare Institute (PHI). (2018) *U.S. Home Care Workers Key Facts*.
- <sup>32</sup>Department of Health and Human Services. (n.d.) *Healthy People Topics and Objectives*. Retrieved from <https://www.healthypeople.gov/>
- <sup>33</sup>Alzheimer's Association and Centers for Disease Control and Prevention. *Healthy Brain Initiative, State and Local Public Health Partnerships to Address Dementia: The 2018-2023 Road Map*. Chicago, IL: Alzheimer's Association; 2018.