



**2019 HEALTH**  
MEETING

JUNE 24-26 | PHOENIX, AZ



## **Session 76, Long-Term Care Morbidity Improvement Research**

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# 2019 Health Meeting

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Session 076: Long-Term Morbidity Improvement Research

June 25, 2019



# SOCIETY OF ACTUARIES

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# Introductions

- Angela Allen, Ph. D.
- Edward Zamrini, M.D.

Edward Zamrini, M.D.



# OUTLINE

Longevity

Dementia vs AD

Contribution of other dementias/ co-morbidities

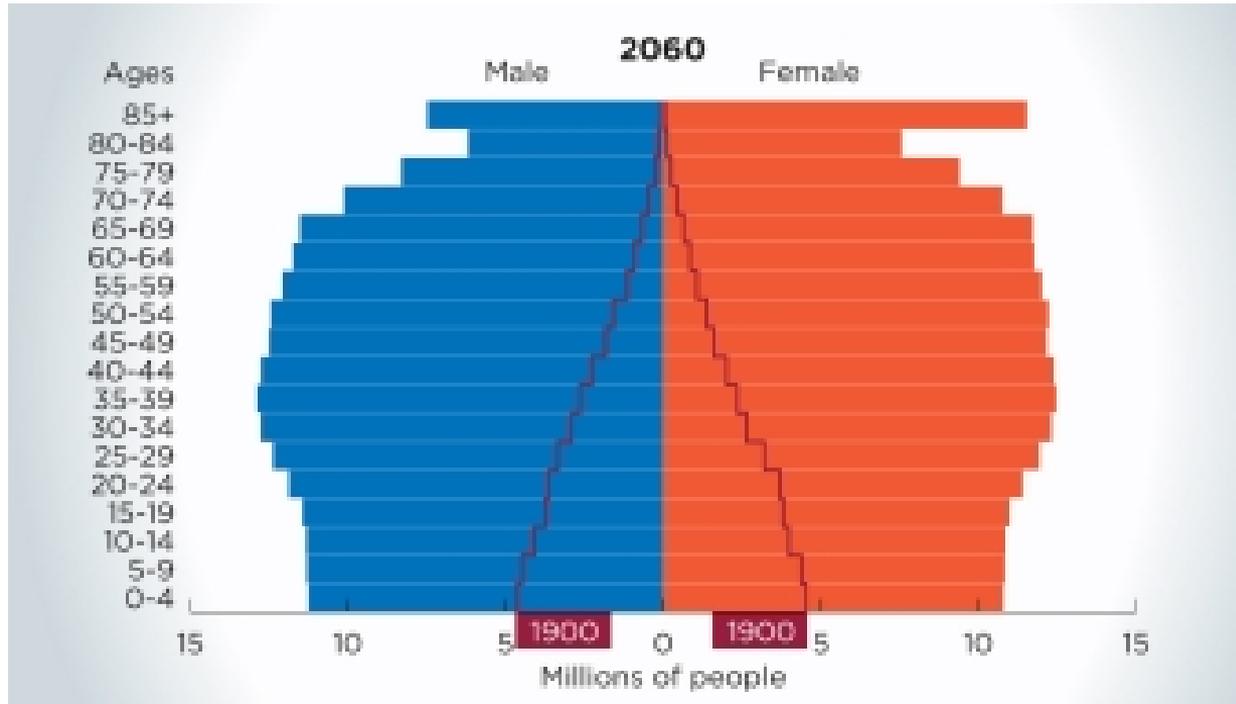
Health trends

Diagnostic trends and challenges

Therapeutic efforts and challenges

Outlook: immediate, short-term, long-term

# From Aging Pyramid to Aging Pillar



<https://www.census.gov/topics/population/older-aging.html> accessed 6/1/2019

# Dementia vs AD Disease (AD)

## Dementia

- An acquired decline in mental abilities severe enough to interfere with daily life.

## AD Disease

- An acquired decline in mental abilities severe enough to interfere with daily life **AND** brain deposits of:
  - Beta-amyloid
  - Phosphorylated tau

# Causes of:

## Dementia

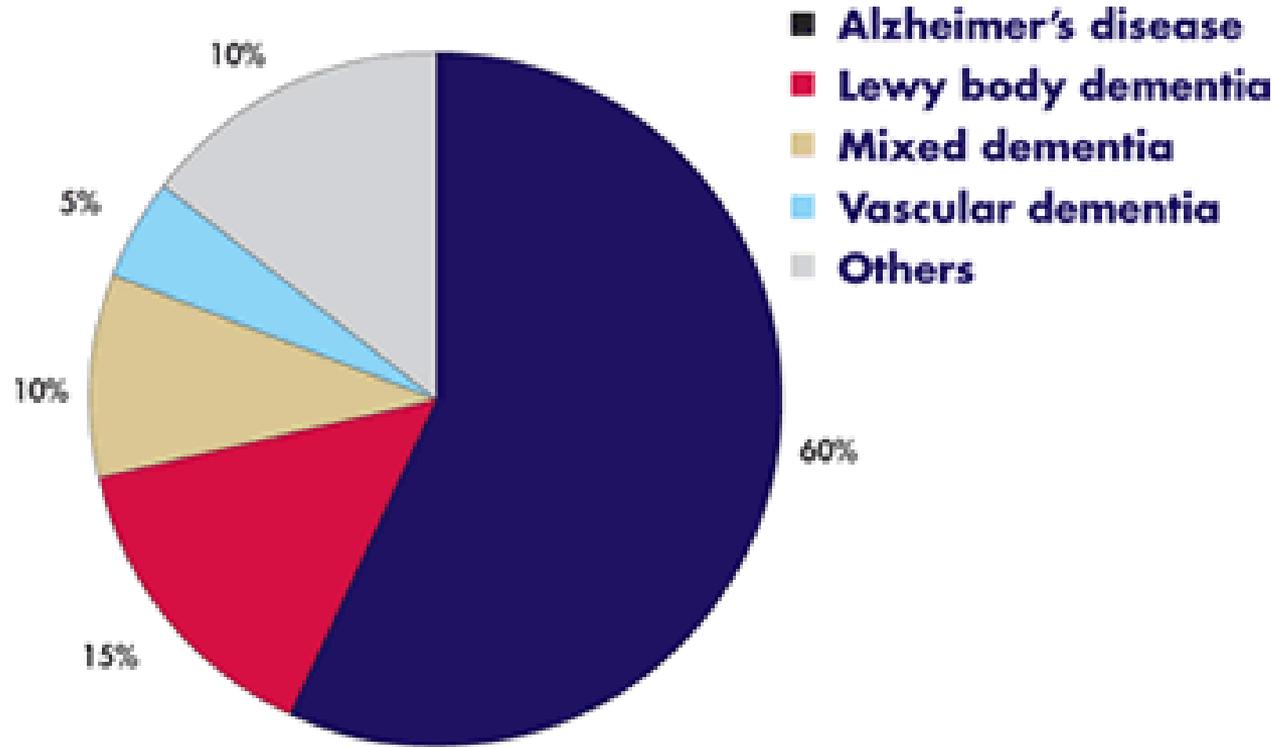
- Vascular
- Infectious
- Toxic/metabolic
- Autoimmune
- Metabolic
- Iatrogenic
- Neurodegenerative: AD, DLB, FTD, PSP, CBD, PDD, LATE..
- Systemic

## AD

- Beta-amyloid\*
- Phosphorylated tau

\*rare genetic variants

# Types of Dementia



# Risk Factors

## Increase risk

- Age
- Family history of dementia
- Female
- Low education
- Cardiovascular risk factors
- Poor sleep
- Chronic stress

## Decrease risk

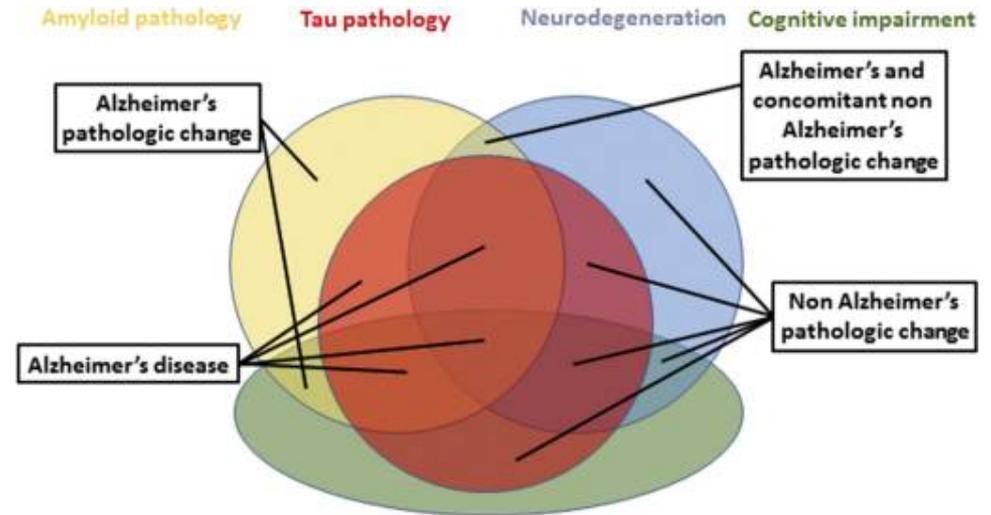
- Male
- High education
- Cardiovascular fitness
- Cognitive activity
- Social engagement

# Diagnostic trends and challenges

## Clinical

- Amnestic syndrome
- Insidious onset
- Slow gradual progression
- Supportive cognitive testing
- +/- atrophy on MRI, -other causes
- Unexplained by physical/lab data

## Research



Alzheimers Dement. 2018 Apr; 14(4): 535–562.

**Biomarker Profile**

(Alzheimers Dement. 2018 Apr; 14(4): 535–562)

Cognitive stage	Cognitively Unimpaired	Mild Cognitive Impairment	Dementia
$A^- T^- (N)^-$	normal AD biomarkers. cognitively unimpaired	normal AD biomarkers with MCI	normal AD biomarkers with dementia
$A^+ T (N)$	Preclinical AD pathologic change	AD pathologic change with MCI	AD pathologic change with dementia
$A^+ T^+ (N)^-$	Preclinical AD disease	AD with MCI (Prodromal AD)	AD disease with dementia
$A^+ T^+ (N)^+$			
$A^+ T (N)^+$	AD and concomitant suspected non AD pathologic change, cognitively unimpaired	AD and concomitant suspected non AD pathologic change with MCI	AD and concomitant suspected non AD pathologic change with dementia
$A^- T^+ (N)^-$	non-AD pathologic change, cognitively unimpaired	non-AD pathologic change with MCI	non-AD pathologic change with dementia
$A^- T^- (N)^+$			
$A^- T^+ (W)^+$			

# Therapeutic efforts and challenges

## Non-pharmacologic

- Controlling risk factors
- Understanding the disease better
- Improved management strategies
- Increased support

## Pharmacologic/ interventional

- Disease modifying (anti-amyloid, anti-Tau, anti-inflammatory, anti-oxidant)
- Symptomatic

# Outlook: immediate, short-term, long-term

- Immediate: education, health promotion, participation in research
- Short-term: Likely advances will be incremental
- Long-term: building on improved dx, earlier dx, and gradually longer disease modification, most cases can be obviated.

Angela Allen, Ph. D.



## BACKGROUND

The diagnosis and treatment of dementia is an emerging healthcare demand with more than 5 million persons living with Alzheimer's dementia. Specialized knowledge in diagnosis and treatment of dementing conditions is referred to a small handful of specialty-trained behavioral neurologists and geriatric psychiatrists, supported by an equally small population of medical support staff including nurses, social workers, and therapists. This is clearly inadequate to meet the growing demand.

## Dementia Care Initiative:

The Dementia Clinical practice program proposes a strategy for training primary care practices to create a “dementia capable” system that involves, aligns, and incentivizes multiple aspects of a health care system.



## Dementia Care Partners:

A program focused on monitoring and managing the care needs and wellness of the person with dementia as well as their family care partner. Though community-based, this program seeks to provide patient-centered services aimed at coordinating care across multiple providers, settings and leveraging existing community resources.



# Dementia Awareness in the Hospital Setting:

The primary objective of this study was to assess the healthcare professionals' and staffs' knowledge and attitude of dementia.



## In the Next 5 Years:

Dementia Care in Primary Care  
Lifestyle Factors to Promote Healthy Aging  
Dementia Advocacy and Activism



# The Alzheimer's Prevention Initiative (API) program, led by the Banner Alzheimer's Institute includes:

Global clinical trials in healthy adults at risk for developing symptoms of Alzheimer's  
Studying the impact of risk disclosure  
Participant recruitment registries and studying the “science of recruitment”

Alzheimer's Prevention Registry [www.endALZnow.org](http://www.endALZnow.org)

GeneMatch [www.joingenematch.org](http://www.joingenematch.org)





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# Discussion Questions

1. Current best practices for care?
2. Emerging concepts for care under current consideration?
3. Thoughts on the idea of delay versus prevention of the disease? Is delay more likely to occur?
4. Given the current trajectory of research, do you have an estimate of when a “cure” could occur? 15 years? 25 years?
5. Does an early diagnosis change the journey of care? Does it impact life expectancy at all?
6. How can we promote health (and rehabilitation) in people with Alzheimer’s?
7. Theoretically, if Alzheimer’s disease or dementia could be prevented or cured, do you believe/expect a new debilitating disease to emerge?
8. How has the predictability of these disease’s changed? For example, with DNA mapping.
9. In your opinion, is there anything that could be done to improve research? More funding? Government support? Public pressure?
10. How will day-to-day care for Alzheimer’s change in the next 10 to 15 years?