



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

Antitrust Compliance Guidelines

Active participation in the Society of Actuaries is an important aspect of membership. While the positive contributions of professional societies and associations are well-recognized and encouraged, association activities are vulnerable to close antitrust scrutiny. By their very nature, associations bring together industry competitors and other market participants.

The United States antitrust laws aim to protect consumers by preserving the free economy and prohibiting anti-competitive business practices; they promote competition. There are both state and federal antitrust laws, although state antitrust laws closely follow federal law. The Sherman Act, is the primary U.S. antitrust law pertaining to association activities. The Sherman Act prohibits every contract, combination or conspiracy that places an unreasonable restraint on trade. There are, however, some activities that are illegal under all circumstances, such as price fixing, market allocation and collusive bidding.

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- **Do not** speak on behalf of the SOA or any of its committees unless specifically authorized to do so.
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- **Do** consult with legal counsel before raising any matter or making a statement that may involve competitively sensitive information.

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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

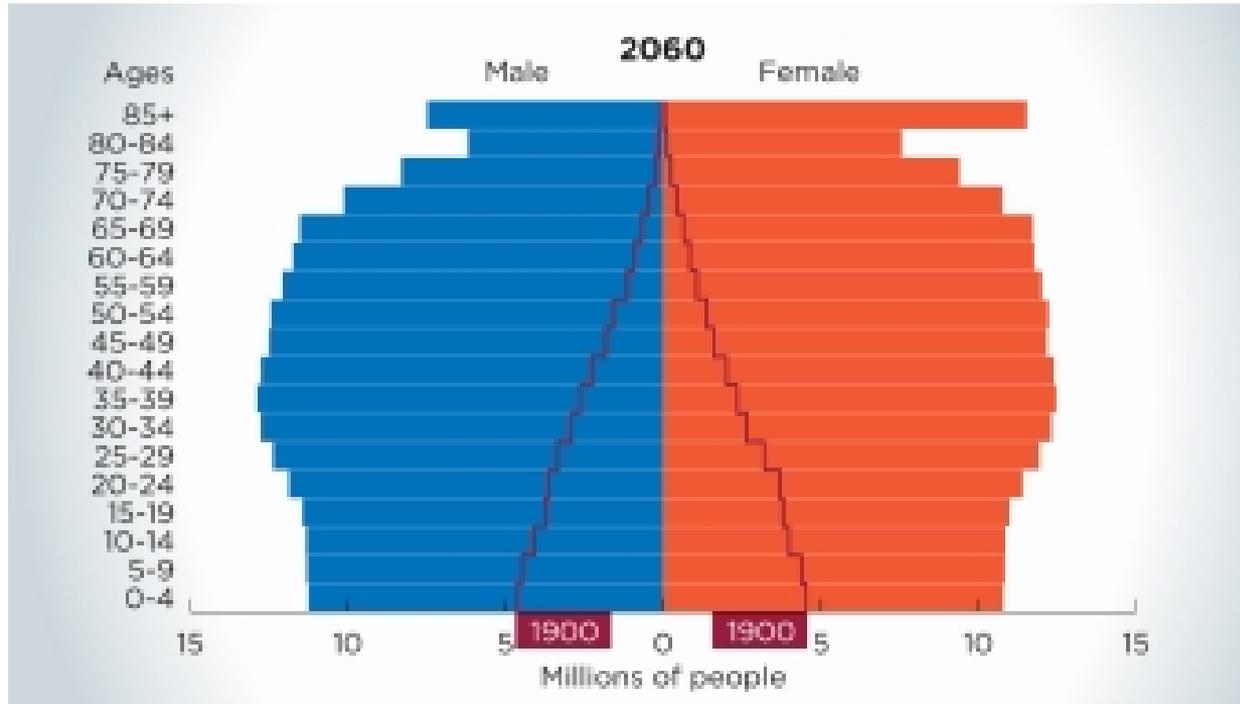
Health trends

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

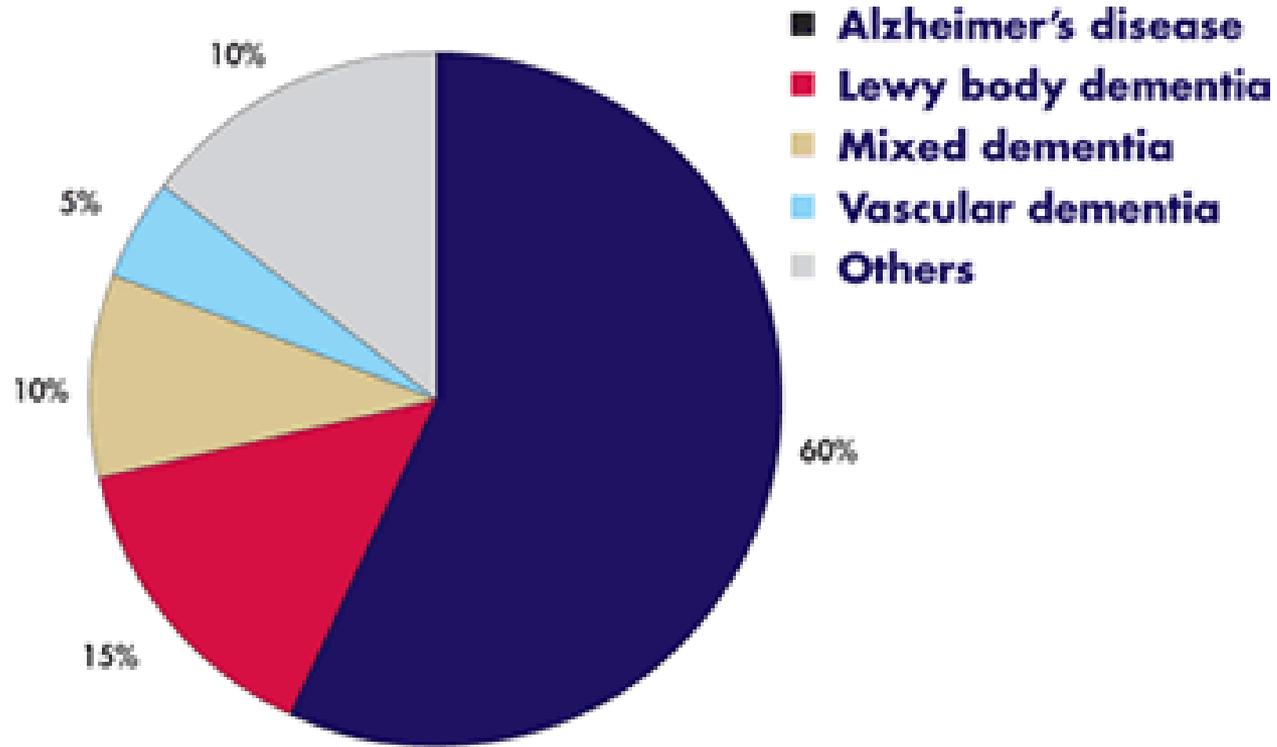
- Vascular
- Infectious
- Toxic/metabolic
- Autoimmune
- Metabolic
- Iatrogenic
- Neurodegenerative: AD, DLB, FTD, PSP, CBD, PDD, LATE..
- Systemic

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

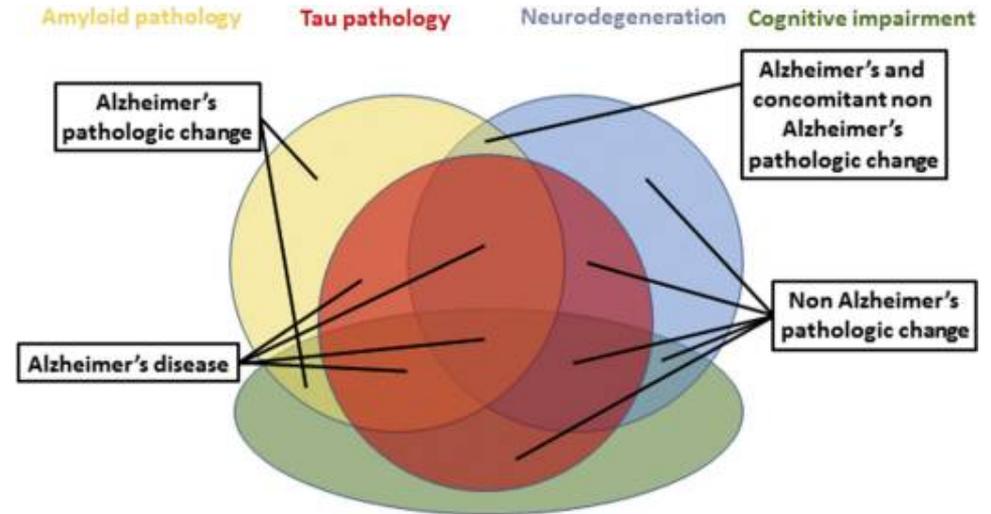
- Male
- High education
- Cardiovascular fitness
- Cognitive activity
- Social engagement

Diagnostic trends and challenges

Clinical

- Amnesic 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

GeneMatch 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?