ASPPH Presents Webinar Series

New Undergraduate Curriculum Introduces Students to Alzheimer’s and Dementia, a Rapidly Growing Public Health Issue

Thursday, December 1, 2016
2:00 pm-3:00 pm Eastern
Method for Submitting Questions

Join the Conversation...

- You can ask questions in writing anytime during the webinar.

- Simply type them in the “Questions” field on the right side of your screen.
Today’s Presenters

Molly French, MS
Alzheimer’s Association

Tara Redd, MEd, MCHES
Emory University

Jean Marie Place, PhD
Ball State University

Cheryl Dye, PhD
Clemson University
AN ALZHEIMER’S CURRICULUM for UNDERGRADUATE PUBLIC HEALTH STUDENTS
Molly French

Director, Public Health

Alzheimer’s Association

alz.org/publichealth/education
Objectives

By the end of the session, participants will be able to:

• Recall two facts about the growing burden and impact of Alzheimer’s disease

• Describe two features of the Alzheimer’s curriculum

• Give at least one example of how the teaching faculty used the curriculum with undergraduate students
Why Alzheimer’s
Alzheimer’s Prevalence and Costs
In Millions of People; In Billions of 2014 Dollars

<table>
<thead>
<tr>
<th>Year</th>
<th>Prevalence</th>
<th>Costs 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>4.7</td>
<td>$172</td>
</tr>
<tr>
<td>2020</td>
<td>5.8</td>
<td>$276</td>
</tr>
<tr>
<td>2025</td>
<td>6.9</td>
<td>$363</td>
</tr>
<tr>
<td>2030</td>
<td>8.4</td>
<td>$486</td>
</tr>
<tr>
<td>2035</td>
<td>10.1</td>
<td>$640</td>
</tr>
<tr>
<td>2040</td>
<td>11.6</td>
<td>$824</td>
</tr>
<tr>
<td>2045</td>
<td>12.8</td>
<td>$732</td>
</tr>
<tr>
<td>2050</td>
<td>13.8</td>
<td>$880</td>
</tr>
</tbody>
</table>

Total Cost:
- $1.009 Trillion by 2045
- $1.205 Trillion by 2050
Why Alzheimer’s

- Opportunities exist to reduce risk and promote early detection and diagnosis, but...
- Few public health and health care professionals have needed expertise to mitigate the impact of disease at population and individual levels.
- The public is not prepared....neither are your students.

alz.org/publichealth/education
Background
Began in 2005 by CDC and the Alzheimer’s Association to:

• Mobilize a population-based response to growing burden of Alzheimer’s, other dementias.

• Foster a multi-faceted approach.

• Generate public-private partnerships to alter outcomes.
Public Health Road Map

The Public Health Road Map for State and National Partnerships 2013-2018

35 action items for public health officials to:

- Promote cognitive functioning
- Address cognitive impairment and Alzheimer’s disease
- Meet the needs of caregivers

Jointly developed by the Centers for Disease Control and Prevention (CDC) and the Alzheimer’s Association in 2013.

cdc.gov/aging/healthybrain/roadmap.htm
W-02: Introductory materials for public health professionals on cognition and public health role.
A Public Health Approach to Alzheimer’s and Other Dementias

Purpose
• Increase understanding of Alzheimer’s disease and other dementias as a growing public health issue

Use
• Undergraduate public health courses
• Linked to competencies

alz.org/publichealth/education
Tara Redd

Emory Centers for Training and Technical Assistance

Emory University

alz.org/publichealth/education
The Curriculum
Goal of the Curriculum

• Increase knowledge of:
  – Alzheimer’s disease and dementia as a public health issue
  – The role of public health in addressing Alzheimer’s and dementia

• Increase interest in these topics among the future public health workforce
Curriculum Design Assumptions

• Audience:
  – Undergraduate PH students
  – Faculty in schools and programs of PH

• Introductory content for PH undergraduates
• 4 Modules – stand alone or together
• Ease of use for faculty
• Easy integration into existing courses
• Adaptable – time and content
• Competency-based
Competency Resources

• Association of Schools and Programs of Public Health (2011) Undergraduate Learning Outcomes Model

• Association for Gerontology in Higher Education (2014) Gerontology Competencies for Undergraduate and Graduate Education

• The Council on Linkages Between Academia and Public Health Practice (2014) Core Competencies for Public Health Professionals

• National Association of Chronic Disease Directors NACDD Domains and Competencies

• National Commission for Health Education Credentialing, Inc (2010) Areas of Responsibilities, Competencies, and Sub-competencies for the Health Education Specialists 2010

alz.org/publichealth/education
Module Content

Module 1: Alzheimer’s Disease – A Public Health Crisis

• Frames Alzheimer’s disease and dementia as a public health epidemic with a large and rapidly growing burden and impact on nation.

Module 2: Alzheimer’s and Other Dementias – The Basics

• Describes Alzheimer’s disease and other dementias including symptoms, stages, risk factors, and diagnosis/management.
Module 3: Alzheimer’s Disease – What is the Role of Public Health?

- Discusses 3 public health tools that play a significant role in mitigating the Alzheimer’s disease epidemic: surveillance, primary prevention, and early detection and diagnosis.

Module 4: Public Health and Dementia Capable Systems

- Describes concept of “dementia capable” systems and explores support of such systems by research translation, support services, workforce training, and creation of dementia-friendly communities.
Design Components & Aids

- Faculty guide
- Talking points
- Learning activities
- Sample test questions by module
- Competency list by module
- PowerPoint slides
- Discussion questions
- Video resources
- Case studies

alz.org/publichealth/education
The Curriculum Pilot
Background

• In March-July 2016, the curriculum was piloted in 15 schools and universities with undergraduate public health programs

• **Purpose:**
  – Assess the content in each module, usefulness, and design of the curriculum
  – Feedback to inform enhancements to the curriculum
  – Examine avenues for disseminating the curriculum to faculty teaching undergraduate public health courses at schools and programs of public health

• Revisions to curriculum implemented for final release in Fall 2016
Pilot Components

• Faculty received pilot materials and instructions
• Faculty delivered one or more modules in class
• Students completed paper pre-test/post-test immediately following the curriculum delivery
• Faculty completed online Faculty Evaluation survey
• Faculty participated in 30-minute indepth interview

alz.org/publichealth/education
Pilot Participants

Who piloted the curriculum?

- 25 Faculty
- 1,077 Students
- 15 Universities
- 11 States

<table>
<thead>
<tr>
<th>Course Name (n=number of teaching faculty)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standalone Course (n=6)</td>
</tr>
<tr>
<td>Introduction to Public Health (n=5)</td>
</tr>
<tr>
<td>Senior Capstone Seminar (n=2)</td>
</tr>
<tr>
<td>Health Aspects of Aging (n=2)</td>
</tr>
<tr>
<td>Worksite Health Promotion</td>
</tr>
<tr>
<td>Applied Research</td>
</tr>
<tr>
<td>Adult Development &amp; Aging</td>
</tr>
<tr>
<td>Health Promotion of the Aged</td>
</tr>
<tr>
<td>Epidemiology and Human Disease</td>
</tr>
<tr>
<td>Community Assessment</td>
</tr>
<tr>
<td>Community Health</td>
</tr>
<tr>
<td>Physical Activity and Aging</td>
</tr>
<tr>
<td>Introduction to Global Health</td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Kayleigh Allen, MS, PAPHS</td>
</tr>
<tr>
<td>Linda Altmeyer</td>
</tr>
<tr>
<td>Christy Bazan, MPH</td>
</tr>
<tr>
<td>Lisa Borrero, PhD</td>
</tr>
<tr>
<td>Ellen Burton, MPH</td>
</tr>
<tr>
<td>Beth Canfield-Simbro, PhD, MPH</td>
</tr>
<tr>
<td>Sara Corwin, MPH, PhD</td>
</tr>
<tr>
<td>Jamie Cromley, MPH</td>
</tr>
<tr>
<td>Cheryl Dye, PhD</td>
</tr>
<tr>
<td>Debra Fetherman, PhD</td>
</tr>
<tr>
<td>Charlotte Galloway, PhD, MSPH</td>
</tr>
<tr>
<td>Jolynn Gardner PhD, CHES</td>
</tr>
<tr>
<td>Joyce Gossard, MS</td>
</tr>
<tr>
<td>Aline Heffernan, MPH</td>
</tr>
<tr>
<td>Robert Jecklin, MPH, PhD</td>
</tr>
<tr>
<td>Ritwik Nath, M.S.</td>
</tr>
<tr>
<td>Mumbi Okundaye, MPH</td>
</tr>
<tr>
<td>Jean Marie Place, PhD</td>
</tr>
<tr>
<td>Kirsten Rodgers, EdD, MSPH, MCHES</td>
</tr>
<tr>
<td>Denise Saxman, LCSW</td>
</tr>
<tr>
<td>Juliet Sekandi, DrPH</td>
</tr>
<tr>
<td>William Staples, PT, DHSc, DPT, GCS</td>
</tr>
<tr>
<td>Cate Teuten Bohn, MPH</td>
</tr>
<tr>
<td>Jennifer Tripken, EdD</td>
</tr>
<tr>
<td>Amie Wojtyina, PhD, MSBS, MPH</td>
</tr>
<tr>
<td>Tamara Wolske, PhDc</td>
</tr>
</tbody>
</table>
Teaching Faculty

- 25 teaching faculty (faculty, staff, teaching assistants) participated in the pilot
- 65% had personal experience with AD and/or other dementias
- 44% rated themselves as having some knowledge of AD and related dementias
- 100% reported being extremely satisfied or somewhat satisfied with their experience teaching the curriculum
- 70% plan to teach the curriculum again
## Faculty Response

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was able to incorporate the curriculum with my existing course content</td>
<td>23</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>3 (13%)</td>
<td>9 (39%)</td>
<td>11 (48%)</td>
</tr>
<tr>
<td>The content was well received by my students</td>
<td>23</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>2 (9%)</td>
<td>11 (48%)</td>
<td>10 (43%)</td>
</tr>
<tr>
<td>I was able to adapt the curriculum to work with my class size</td>
<td>23</td>
<td>0 (0%)</td>
<td>1 (4%)</td>
<td>2 (9%)</td>
<td>3 (13%)</td>
<td>17 (74%)</td>
</tr>
<tr>
<td>It is important that Alzheimer’s and other dementias are included in undergraduate public health courses</td>
<td>23</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>4 (17%)</td>
<td>19 (82%)</td>
</tr>
</tbody>
</table>
Students

• 1,077 students completed a student evaluation

• Majority of students were undergraduate public health students

• 59% responded having family/friends impacted by AD or dementia
## Students’ Reaction to Curriculum

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Blank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The content is appropriate for undergraduate public health students.</td>
<td>2 (0%)</td>
<td>6 (1%)</td>
<td>16 (2%)</td>
<td>242 (22%)</td>
<td>764 (71%)</td>
<td>47 (4%)</td>
</tr>
<tr>
<td>The connection between public health and Alzheimer’s and other dementias was made clear.</td>
<td>2 (0%)</td>
<td>6 (1%)</td>
<td>44 (4%)</td>
<td>337 (31%)</td>
<td>641 (60%)</td>
<td>47 (4%)</td>
</tr>
<tr>
<td>As a result of the content presented, I am interested in learning more about Alzheimer’s and other dementias.</td>
<td>8 (0%)</td>
<td>35 (3%)</td>
<td>184 (17%)</td>
<td>409 (38%)</td>
<td>394 (37%)</td>
<td>47 (4%)</td>
</tr>
<tr>
<td>As a result of the content presented, I am more knowledgeable about Alzheimer’s and dementias as a public health issue.</td>
<td>2 (0%)</td>
<td>13 (1%)</td>
<td>64 (6%)</td>
<td>381 (35%)</td>
<td>573 (53%)</td>
<td>48 (5%)</td>
</tr>
<tr>
<td>It is important that Alzheimer’s and dementias are included in undergraduate public health courses.</td>
<td>2 (0%)</td>
<td>4 (0%)</td>
<td>64 (6%)</td>
<td>337 (31%)</td>
<td>622 (58%)</td>
<td>48 (5%)</td>
</tr>
</tbody>
</table>

[alz.org/publichealth/education](alz.org/publichealth/education)
## Value of Curriculum

<table>
<thead>
<tr>
<th>Group</th>
<th>Themes</th>
</tr>
</thead>
</table>
| **Students**    | • AD as a public health issue  
                  | • Good intro to topic                                                  |
| **Faculty**     | • Important public health topic  
                  | • Easy to use/implement  
                  | • Good resource                                                       |
| **Administration** | • Public health focus  
                      | • Comprehensive resource  
                      | • CDC/Alz Assoc approved                                               |

*Source: Faculty Evaluation*
The Enhanced Curriculum
A PUBLIC HEALTH APPROACH TO ALZHEIMER’S AND OTHER DEMENTIAS
Certain brain diseases and conditions cause dementia. **Alzheimer’s disease** is the most common type of dementia. It accounts for an estimated 60% to 80% of cases.

Alzheimer’s disease is an **irreversible, progressive** brain disorder that slowly destroys **memory** and **thinking skills**, and eventually the ability to carry out **basic functions**.

There are currently no known ways to **prevent**, **cure**, or **slow** the progression of Alzheimer’s disease.

*Note: The image on the slide shows a healthy brain (left side) as compared to a severe Alzheimer’s brain (right side). The Alzheimer’s brain is significantly smaller than the healthy brain.*

Video supplement: “What is Alzheimer’s disease?” TedEd. Link: [https://www.youtube.com/watch?v=JTXNi4xrlB](https://www.youtube.com/watch?v=JTXNi4xrlB)
SLIDE 6:

What is Alzheimer’s Disease?¹

- Most common type of dementia
- Accounts for 60% – 80% of cases
- Irreversible, progressive brain disorder
- Slowly destroys memory, thinking skills, and ability to carry out basic functions

TALKING POINTS:

Certain brain diseases and conditions cause dementia. Alzheimer’s disease is the most common type of dementia. It accounts for an estimated 60% to 80% of cases.

Alzheimer’s disease is an irreversible, progressive brain disorder that slowly destroys memory and thinking skills, and eventually the ability to carry out basic functions.

There are currently no known ways to prevent, cure, or slow the progression of Alzheimer’s disease.

*Note: The image on the slide shows a healthy brain (left side) as compared to a severe Alzheimer’s brain (right side). The Alzheimer’s brain is significantly smaller than the healthy brain.

Video supplement: “What is Alzheimer’s disease?” TedEd. Link: https://www.youtube.com/watch?v=yICXX1sorI8


STUDENT ENGAGEMENT OPTIONS

In addition to the PowerPoint slide deck and guide, there are additional resources included in this guide. These resources are designed to increase student engagement and enhance understanding of the concepts covered in this module. Following the slide guide, there is a series of case studies and a list of video resources. It is recommended that the presenter review these resources to determine if these additional materials would be useful in illustrating the concepts covered in the module.

DISCUSSION QUESTIONS

The following discussion questions are included in the slide deck:

➢ What are Medicare and Medicaid? (Slide 15)
➢ What might be the roles and responsibilities of a caregiver for someone with Alzheimer’s disease? (Slide 22)

LEARNING ACTIVITIES

The following learning activities may be used or adapted to enhance student learning:

• Compare the Alzheimer’s epidemic to at least one other chronic disease (e.g., cancer, HIV, heart disease, diabetes). How many people are affected? What are the costs associated with the disease? How does the epidemic compare to Alzheimer’s disease?

• Research aging trends within the population. What is happening in the U.S. and internationally? In developing vs. developed countries? What challenges does an aging population present to public health?

• How does caregiving for Alzheimer’s and dementia differ from other types of caregiving? What resources are available for caregivers in general? What resources are available for caregiving specific to Alzheimer’s and other dementias?

ADDITIONAL READING


1- Dementia is a decline in mental ability that is a normal part of aging.
   a. True
   b. False

   Answer: B

2- The number one risk factor for Alzheimer’s disease is:
   a. Getting older
   b. High blood pressure
   c. High cholesterol
   d. Heredity/genetics
   e. Lack of mental stimulation

   Answer: A

3- The more years of education a person has may decrease his/her risk for getting Alzheimer’s disease.
   a. True
   b. False

   Answer: A

4- The lifespan for someone after being diagnosed with Alzheimer’s can be up to 20 years.
   a. True
   b. False

   Answer: A

5- Which of the following statements is true about Alzheimer’s disease:
   a. Can be diagnosed through a blood test
   b. Is a progressive disease
   c. Is reversible with proper medication
   d. All of the above
   e. None of the above

   Answer: B
Case Studies

   - Run Time: 3:46 minutes (audio)
   - Key Terms: cultural context, Native Americans, diagnosis, community outreach, family relationships, tradition, stigma, caregiver burden, long term care
   - Modules: 1, 3, 4

Description:
Mrs. Williams is an older woman who has been having severe memory problems for the past seven years. Mrs. Williams lived on a Native American reservation in Arizona before moving in with her daughter, Delma, in Los Angeles. In many tribal communities, an Alzheimer’s diagnosis is rare; in fact, many tribal communities do not even have a word for dementia. Native American cultures typically consider aging and signs of Alzheimer’s (memory issues, forgetfulness, getting lost) as part of the cycle of life: people begin life as children and leave as children. Mrs. Williams’ daughter did not even know what Alzheimer’s disease is because no one ever talked about it.

Once in Los Angeles, Mrs. Williams’ memory problems grew increasingly worse. Mrs. Williams began wandering and becoming lost. During moments of lucidity, Mrs. Williams begged her daughter to return her to her home on the reservation. Eventually Delma and her family moved back to the reservation. Mrs. Williams has thirteen other children who lived in that area, but Delma is the only one who cares for their mother. Delma is not sure why her siblings do not visit their mother and their absence upsets her. Delma also feels guilty for doubting her mother when she first mentioned having memory issues.

Discussion Questions:
- Why is cultural respect important in public health?
- In this story, what are cultural barriers to diagnosing and understanding Alzheimer’s disease?
  - Lack of word for dementia
  - Seen as a part of the lifecycle and natural
  - Stigma- no one talks about it and Mrs. Williams’ other children do not visit
- How can public health address Alzheimer’s disease misinformation and stigma in a culturally sensitive and relevant way?
- What is the role of family and care in an Alzheimer’s disease diagnosis?
Alzheimer’s Disease Video Resources

The following videos are listed as suggested accompaniments to the curriculum modules. These could be shown in class or as suggested viewing outside of class.

1- “Inside the Brain: An Interactive Tour,” Alzheimer’s Association (n.d.).
   • Tour Link: http://www.alz.org/alzheimers_disease_4719.asp
   • Run Time: N/A
   • Key Terms: Alzheimer’s disease, brain activity, neurotransmitters, amyloid plaques, tangles
   • Modules: 1, 2

Description:
This interactive tour helps explain the basic components of the brain and how Alzheimer’s disease affects it. The tour teaches the participant the different parts of the brain, how Alzheimer’s disease damages the brain and brain activity, and the different stages of the disease.

   • Video Link: https://www.youtube.com/watch?v=jyT5lYqIXL8
   • Run Time: 3:49 minutes
   • Key Terms: stages of Alzheimer’s, pathology of Alzheimer’s
   • Modules: 1, 2

Description:
Alzheimer’s disease is the most common cause of dementia, affecting over 40 million people worldwide. Though it was discovered over a century ago, scientists are still searching for a cure. Ivan Seah Yu Jun describes how Alzheimer’s affects the brain, shedding light on the different phases of this complicated, destructive disease.

   • Video Link: http://myuctv.tv/2012/09/18/alzheimers-the-long-and-costly-goodbye/
   • Run Time: 12:30 minutes
   • Key Terms: stigma, loss of identity, increasing prevalence, increasing aging population, caregiver’s burden, family relationships, financial burden
   • Modules: 1, 2, 3, 4
Where to Find Curriculum

alz.org/publichealth/education
On Using the Curriculum
Jean Marie Place, PhD
Assistant Professor
Department of Nutrition and Health Science
Ball State University

alz.org/publichealth/education
Cheryl J. Dye, PhD

Professor, Department of Public Health Sciences

Director, Institute for Engaged Aging

Clemson University
Spreading the Word

• Download the curriculum or request a flash drive to see how you can use the curriculum in part or whole with your classes

• Share with colleagues within your department/school and beyond
Where to Find Curriculum

Education:
- Curriculum for use in schools of public health
- Public Health Professionals: Educational resources
- Health Care Professionals: Educational resources

Curriculum for use in schools of public health

A Public Health Approach to Alzheimer's and Other Dementias is a free, new curricular resource to help faculty prepare undergraduates for careers in which they need to apply public health approaches to address Alzheimer's as a multi-layered, growing public health challenge.
Thank You!

Molly French  
Alzheimer’s Association  
mfrench@alz.org  
202.638.8674

Tara Redd  
Emory Centers  
tredd@emory.edu  
404.727.4106

Development of these materials are supported in part by Cooperative Agreement #NU58DP006115-01 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the Alzheimer’s Association and do not necessarily represent the official views of the CDC.

alz.org/publichealth/education
Thank you to today’s Presenters

Molly French, MS
Alzheimer’s Association

Tara Redd, MEd, MCHES
Emory University

Jean Marie Place, PhD
Ball State University

Cheryl Dye, PhD
Clemson University
Questions or Comments?

Join the Conversation...

- You can ask questions in writing anytime during the webinar.

- Simply type them in the “Questions” field on the right side of your screen.
Today’s Presenters

Now taking questions.

Molly French, MS
Alzheimer’s Association

Tara Redd, MEd, MCHES
Emory University

Jean Marie Place, PhD
Ball State University

Cheryl Dye, PhD
Clemson University
Thank You!

See the webinar event page on the ASPPH website for a link to the archived webinar:


Contact: webinars@aspph.org
Coming Attractions...

ASPPH Presents: ASPPH Fellowships: Opportunities for Recent Graduates of ASPPH Member Institutions
Tuesday, December 6, 2:00 – 3:00 p.m. Eastern

ASPPH Presents: An Overview of SBP CEPH Accreditation
Thursday, December 8, 1:00 p.m. – 2:00 p.m. Eastern

For more information about and to register for upcoming webinars, visit the ASPPH Events page:
http://www.aspph.org/events/category/webinar/
Coming Attractions...

Registration opening the week of December 12
Thank you!