

LESSON 1-2

BACKGROUND ON

THE

OLDER ADULT POPULATION

Lesson: Background on the older adult population

Author: Heather L. Johnson, DNP, FNP-BC, FAANP
Assistant Professor
The Uniformed Services University
Daniel K. Inouye Graduate School of Nursing

Intended Audience of Learners

A broad range of health professionals who may work with the older adult population.

Competencies

This lesson supports learning related to the following competencies, with regard to *demographics and epidemiology of the geriatric population*:

Core Competencies and Subcompetencies from Walsh L, Subbarao I, Gebbie K, et al. Core competencies for disaster medicine and public health. *Disaster Med Public Health Prep.* 2012;6(1):44-52. doi: 10.1001/dmp.2012.4.

Subcompetency 7.1 "Discuss common physical and mental health consequences for all ages and populations affected by a disaster or public health emergency."

Learning Objectives

At the end of this lesson, the learner will be able to:

- 1-2.1 Describe the demographic characteristics of the elderly population in the United States.
- 1-2.2 Identify epidemiologic features of the geriatric population that affect management of the population in disasters.

Estimated Time to Complete This Lesson

30 minutes

Content Outline

Module 1: Curriculum overview and background on the older adult population

Lesson 1-2: Background on the older adult population

The elderly are considered a vulnerable population during disasters. This section will discuss the demographic and epidemiologic characteristics of the population that contribute to vulnerability.

- I. Demographics

- i. Age and gender. According to the US Census Bureau, persons aged 65 years and over represent 14.1% of the US population.¹ Between 2012 and 2013, the 85-and-over group grew by ~3% to 6 million people and the number of elderly over 100 years of age reached 67,000.² By 2030, the population aged 65 and older is expected to grow to 72 million and will represent ~20% of the US population.³ The number of older women is disproportionate to the number of men in the country, with women accounting for 57% of the elder population. This gap widens with increasing age with women encompassing 67% of the over-85 crowd.³
- ii. Race and ethnicity. In the 2012 census, 21% of those over 65 identified themselves as racial or ethnic minority populations.⁴ Below is a breakdown of the self-identified race and ethnicities of the elderly population.

Self-Identified Ethnicities, 2012 US Census

Race/ethnicity	Percent of the population
White/Caucasian	78%
African-American (not Hispanic)	9%
Hispanic origin (of any race)	7%
Asian or Pacific Islander (not Hispanic)	4%
Native American (not Hispanic)	0.5%
Native Hawaiian/Pacific Islander (not Hispanic)	0.1%
Two or more races	0.7%

- iii. Educational attainment and literacy. The group aged 65 and older reported the highest levels of educational attainment in history, although they had lower levels of high school and college attainment than did younger age groups; 77% completed high school or greater education, and 20% reported a bachelor's degree or higher education.⁵ Despite these levels of education, 29% of those over age 65 scored below the basic levels of literacy with very limited ability to understand information from even brief and uncomplicated text, health information, tables, charts, graphs, and maps.⁶
- iv. Income. The rate of poverty in the elderly population is reported to be lower than in any other demographic in the United States. In 2012, the poverty rate for adults aged 65 and over was 9.1%, whereas rates for the age group of 18 to 64 were 13.7%.⁷ However, the American Association of Retired Persons finds that according to experimental measures published by the US Census Bureau the rate is closer to 18.7%, nearly twice that of the official measure.⁸

- Furthermore, 48% (~19.9 million) are economically vulnerable, having incomes less than 2 times the supplemental poverty threshold.⁹ This rate increases to 58.1% among those over 80.
- v. Living alone. Nearly one-third (11.3 million) of older adults who live outside of nursing homes or hospitals live alone.¹⁰ Twice as many older women (37%) live alone as older men (19%). Older men (72%) are far more likely to be married than are older women (42%). Living arrangements differ by race and ethnicity. Older non-Hispanic white and black women are more likely to live alone (39% each) than are women of other races and ethnicities. Older age increases the likelihood of living by oneself.¹⁰
 - vi. Living in institutions. Admissions to skilled nursing facilities increased almost threefold in the past 2 decades. Approximately 1.3 million Americans now live in nursing homes or skilled nursing facilities.¹⁰
- II. Epidemiological data
- a. Disability. Perhaps the most prevalent misperception of the elderly is that disability is widespread. A little more than one-third (36%) of those over 65 report some form of disability (i.e., difficulty in hearing, vision, cognition, ambulation, self-care, or independent living). The spectrum of individual disabilities ranges from 7% with vision difficulties to one quarter (23%) having an ambulatory disability.⁴
 - b. Health. Medicare is a federally administered health insurance plan targeted for those aged 65 and over. Almost 70% of Medicare beneficiaries have 2 or more chronic conditions and 36.4% have 4 or more. The prevalence of multiple chronic conditions increases with age and gender, as women are disproportionately more affected than men. The incidence of 4 or more chronic conditions is highest in non-Hispanic black and Hispanic women and in general lowest in Asian or Pacific Islander men and women.¹¹
 - c. Care and support. Most older adults (67%) with long-term care needs rely on family and friends for support and assistance.¹⁰ Approximately one-third also pay assistants for supplemental care. Support and care by family and friends are critical factors in whether an elder can remain at home or needs institutional care. Fully half of the elderly who have a long-term care need but no family or friends for support are in nursing homes. Approximately 43.5 million family members bear the responsibility of caring for elders in the United States, and one-third of those care for a family member with dementia.¹⁰

- d. Older adults and disaster. The elderly are disproportionately affected by disasters. Older adults made up 15% of the population of New Orleans prior to Hurricane Katrina, but 71% of deaths from the hurricane were elderly adults.^{12,13} Seniors are also impacted more significantly in weather emergencies. Elders 65 and older accounted for nearly 70% of the deaths related to the 1995 heat wave in Chicago.¹⁴
 - i. Vulnerability. Older adults with chronic diseases, conditions, or disabilities and the frail-elderly have unique needs and are especially vulnerable during and after disasters.¹³ Those with multiple chronic conditions, dementia, cognitive impairment, or disability and those who live in a long-term care facility or institution are among the highest risk groups.¹⁵ Following Hurricane Katrina, over 70 long-term care residents died in their facility.¹³ It is reported that many were abandoned by caregivers.
 - ii. Access to healthcare resources and medication. Over 200,000 people with chronic medical conditions who were either isolated as a result of flooding or displaced by the storm lacked access to their typical sources of care and medications following Hurricane Katrina.¹⁶
 - iii. Evacuating versus sheltering in place. Decisions to evacuate or shelter in place are complex and include personal experience and logistical, financial, and psychological factors. Older adults may be more reluctant to evacuate and instead choose to shelter in place.¹⁷
 - iv. Emergency preparedness. One study of seniors reported that the majority (56%) do not have an emergency plan. Furthermore, one-third do not have bottled water or a first aid kit in their homes; 50% lacked the knowledge or resources to put together a 72-hour emergency kit.¹⁸ Alarming, most participants believed that local health departments bear the responsibility for warnings, food, shelter, transportation, and medications during disasters. However, health departments are generally not equipped to provide these essentials.

Suggested Learner Activities for Use in and Beyond the Classroom

1. Look up the population of elderly in your state and county.

State:

<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

County:

<http://www.census.gov/popest/data/counties/asrh/2013/PEPAGESEX.html>

2. What are the implications of what you found out about the population of elderly in your community for disaster preparedness?

Readings and Resources for the Learner

- Required Resources
 - None
- Supplemental Resources
 - None outside of the references

Learner Assessment Strategies

Multiple Choice Questions

1. By 2030, the US Census Bureau estimates that the population ages 65 and over will be
 - a. 2 million
 - b. 20 million
 - c. 72 million
 - d. 200 million
2. Which of the following statements about literacy among the elderly is true?
 - a. They have the highest educational attainment in history.
 - b. 20% completed high school.
 - c. 50% have below basic literacy levels.
 - d. 29% completed college.
3. The following disability is the most commonly reported disability among elders:
 - a. Vision
 - b. Hearing
 - c. Sensory
 - d. Ambulatory

Answer Key: 1. C 2. A 3. D

Readings and Resources for the Educators

- Required
 - Nothing outside of the references.
- Supplemental Resources
 - Nothing outside of the references

Sources Cited in Preparing Outline and Activities Above

1. Population and housing unit estimates. United States Census Bureau website. <http://www.census.gov/popest/>. Accessed July 25, 2014.
2. As the nation ages, seven states become younger, Census Bureau reports. United States Census Bureau website. <http://www.census.gov/newsroom/press-releases/2014/cb14-118.html>. Published June 26, 2014. Accessed July 25, 2014.
3. Older Americans 2012: Key Indicators of Well-Being. Federal Interagency Forum on Aging-Related Statistics website. http://www.agingstats.gov/agingstatsdotnet/main_site/default.aspx. Published 2012. Accessed July 25, 2014.
4. The 2012 statistical abstract. United States Census Bureau website. <http://www.census.gov/compendia/statab/>. Published 2012. Accessed July 25, 2014.
5. Ryan CL, Siebens J. Educational attainment in the United States: 2009. United States Census Bureau website. <http://www.census.gov/prod/2012pubs/p20-566.pdf>. Published February 2012. Accessed July 25, 2014.
6. Kutner MA, Greenberg E, Jin Y, Paulsen, C. *The Health Literacy of America's Adults: Results From the 2003 National Assessment of Adult Literacy*. US Department of Education. National Center for Education Statistics. <http://nces.ed.gov/pubs2006/2006483.pdf>. Published September 2006. Accessed February 2, 2015.
7. Current population survey, 2013 Annual Social and Economic Supplement (ASEC) supplement. United States Census Bureau. <http://www.census.gov/prod/techdoc/cps/cpsmar13.pdf>. Published March 2013. Accessed July 26, 2014.
8. AARP report: older adults have highest poverty rate under experimental poverty measure. AARP website. <http://www.aarp.org/about-aarp/press-center/info-11-2010/AARPReportOlderAdultsHaveHighestPovertyRate.html>. Published November 16, 2010. Accessed July 27, 2014.
9. Financial security of elderly americans at risk. Economic Policy Institute website. <http://www.epi.org/publication/economic-security-elderly-americans-risk/>. Published June 6, 2013. Accessed July 28, 2014.
10. Aging in America. Institute on Aging website. <http://www.ioaging.org/about/aging-in-america>. Accessed July 23, 2014.
11. Lochner KA, Cox CS. Prevalence of multiple chronic conditions among Medicare beneficiaries, United States, 2010. *Prev Chronic Dis*. 2013;10:E61. doi: 10.5888/pcd10.120137. http://www.cdc.gov/pcd/issues/2013/12_0137.htm. Accessed February 3, 2015.
12. Aldrich N, Benson WF. Disaster preparedness and the chronic disease needs of vulnerable older adults. *Prev Chronic Dis*. 2008;5(1):A27.

13. CDC's disaster planning goal: protect vulnerable older adults. Centers for Disease Control and Prevention website.
http://www.cdc.gov/aging/pdf/disaster_planning_goal.pdf. Published 2012. Accessed February 3, 2015.
14. National disaster survey report: July 1995 heat wave. US Department of Commerce. National Oceanic and Atmospheric Administration website.
<http://www.nws.noaa.gov/os/assessments/pdfs/heat95.pdf>. Published December 1995. Accessed February 3, 2015.
15. Rothman M, Brown LM. The vulnerable geriatric casualty: medical needs of frail older adults during disasters. *Generations*. 2007;31:16-20.
16. *The Federal Response to Hurricane Katrina: Lessons Learned*. Association of State Floodplain Managers.
http://www.floods.org/PDF/Katrina_Lessons_Learned_0206.pdf. Published February 2006. Accessed July 23, 2014.
17. Brown JS, Cherry KE, Marks LD, et al; Louisiana Healthy Aging Study. After Hurricanes Katrina and Rita: gender differences in health and religiosity in middle-aged and older adults. *Health Care Women Int*. 2010;31(11):997-1012. doi: 10.1080/07399332.2010.514085.
18. Whitney E, Visker J, Haithcox-Dennis MJ, DeWeese A. Independently living rural seniors and emergency preparedness: a pilot study in southern Illinois. *The Health Educator*. 2012;44:21-7.