Caring for Older Adults in Disasters: A Curriculum for Health Professionals
Module 5: Setting: Special considerations for older adults
Lesson 5-5: Older Adults in the Community or at Home

LESSON 5-5

OLDER ADULTS IN THE COMMUNITY

OR AT HOME

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Author: Melen McBride, PhD, RN, FGSA
               Associate Director, Emerita
               Stanford Geriatric Education Center
               Stanford University, School of Medicine

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 *special considerations for older adults in the community or at home in disasters.*

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

> Core Competency 7.0 "Demonstrate knowledge of principles and practices for the clinical management of all ages and populations affected by disasters and public health emergencies, in accordance with professional scope of practice."
> > Subcompetency 7.1 "Discuss common physical and mental health consequences for all ages and populations affected by a disaster or public health emergency."
>
> Core Competency 8.0 "Demonstrate knowledge of public health principles and practice for the management of all ages and populations affected by disasters and public health emergencies"
> > Subcompetency 8.1 "Identify all ages and populations with functional and access needs who may be more vulnerable to adverse health effects in a disaster or public health emergency."

Learning Objectives

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

> **5-5.1** Describe at least 2 types of informal caregivers and identify up to 5 basic knowledge facts and skills they need to have to keep a homebound elder with chronic illness and early dementia safe in a disaster event. The learner may choose the type of event, e.g., a fire 100 miles from the older person's residence.

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5-5.2 Define multiple chronic conditions (MCCs) and explain how they increase the vulnerability of older adults who live in the community. The learner may choose one of the living arrangements discussed in the lesson.

5-5.3 Describe 2 models to deliver healthcare and social services to the homebound older person in the community and identify preparedness issues to address in the care plan.

5-5.4 Develop a 5-minute teaching tool about an aspect of personal preparedness for a disabled older person who lives alone.

5-5.5 State a difference in the focus of the emergency management plan between the above types of living arrangements for seniors.

5-5.6 Determine the applicability of at least one resource material for disaster preparedness for a new geriatric patient in the primary clinic.

Estimated Time to Complete This Lesson
90 minutes

Content Outline
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I. Background: In this lesson, the definition used for "at-risk individuals" is adapted from the 2015-2018 National Health Security and Implementation Plan developed by the US Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response (http://www.phe.gov/Preparedness/planning/authority/nhss/Documents/nhss-ip.pdf). It states, "Persons who, before, during, and after an incident... may have additional needs in one or more of the following functional areas: communication, medical care, maintaining independence, supervision, and transportation. Includes individuals specifically recognized as 'at risk' in the Pandemic and All-Hazards Preparedness Act section 2802 of the PHS Act (i.e., children, senior citizens, and pregnant women), individuals who may need additional response assistance [including] persons who have disabilities, live in institutionalized settings, are from diverse cultures, have limited English proficiency or are non-English speaking, are transportation disadvantaged, have chronic medical disorders, and have pharmacological dependency."

II. Caregivers: There are 2 major types of caregivers, the formal caregiver and the informal caregiver. The formal caregiver is often employed in an institution or agency or by an independent contractor. Also included in this category is a relative or friend compensated through a Medicare/Medicaid home assistance program. The informal

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caregiver is usually a family member, partner, friend, or neighbor who has a personal relationship with an older adult or care recipient who needs ongoing assistance to perform daily tasks of living due to partial or full incapacity from illness, disability, or frailty from physical or mental disabilities. In the United States, 1 in 4 households are providing assistance to an older adult and about 44 million family caregivers are 18 years and older.[1] These caregivers contribute annually to the economy about $306 billion in uncompensated labor and services.[2] Most informal caregivers are 65 years or older[3] and 30% to 40% of those who care for someone with dementia experience depression and emotional stress.[4-6]

a. Formal caregivers are health care and social service providers employed in health care institutions and for profit and nonprofit service agencies. The formal caregivers are expected to have training in geriatric disaster preparedness according to their assigned roles for all-hazards disaster management.[7] Periodic exercises are held to maintain the level of knowledge and skills and to update the disaster management plan according to changes in federal, state, and local policies and adjustments of institutional leadership, roles, and responsibilities and protocols/procedures that are outcomes of the exercises. The health care providers are expected to have personal and family preparedness plans to enable them to focus on their roles and responsibilities in the workplace in the event of a disaster. Paid caregivers who are family members or friends may not have formal preparedness training. It is important during the interview process that the "employer" (e.g., family member) includes an assessment of the potential caregiver's knowledge and skills in disaster management. The hired caregiver needs to know the care recipient's personal preparedness plan and the family's plan as well, especially how the family will communicate in a disaster. Family education about hiring a caregiver through an agency or an independent contractor needs to include the importance of assessing the caregiver's basic knowledge and skills in disaster preparedness and response.

b. The informal family caregiver may provide a mix of tasks in several domains of care, i.e., personal care, nutritional care, transportation, household maintenance, recreation, communication, health care, legal and financial care, cultural and spiritual care, and other needs presented by geographic and environmental issues.[8,9] While informal caregivers tend to be devoted and compassionate and apply every skill they know to their caregiving responsibilities, they do not receive sufficient training and are not formally recognized in the health care system as a member of the health team. However, this institutionalized attitude is gradually changing.[8]

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i. Informal caregivers can be differentiated further according to the role(s) that they assume either by default, choice, or family negotiation.[10]A primary caregiver is the person who has the overall responsibility for all aspects of daily care that require supervision or assistance; a care recipient or his or her family may designate the primary caregiver to be the executor of the durable power attorney for health or finance. In many cultures, this caregiver role is often relegated to a female (e.g., daughter, daughter-in-law, female relative or female friend or partner),[10,11] although there are many male caregivers.[1] The responsibility for finance or decision-making may be handled by a male family member (e.g., first-born son, brother of the older adult, or a trusted male family friend) in the absence of a male spouse.[11,12] The primary caregiver may have other relatives who are secondary caregivers for the same care recipient. They provide specific assistance such as periodic respite care, transportation, grocery shopping, and home repairs. Secondary informal family caregivers such as those who live some distance from the care recipient may participate by contributing resources in monetary form, information, or emotional support. They depend on updates from the primary caregiver and other members of the family who may or may not be involved in caregiving activities. They may play a significant role in a major disaster when a voluntary or mandatory evacuation for the care recipient requires temporary housing. Depending on the family dynamics and culture-based expectations, a distance caregiver may feel equally stressed with the experience and this stress could intensify when lack of or gaps in information exist.[12]It is also important to keep in mind that many of the informal caregivers are 65 years and older.[3]

ii. A less known and understood group of family caregivers are the child caregivers. In the United States, up to about 1.4 million children aged 8 to 18 years are caregivers.[13] A child caregiver is reported to be present in 3.2% (906,000) of the 28.4 million households that have a child aged 8 to 18 years. Seventy-six percent live in two-parent households and many live in low-income households. Seventy-two percent care for a parent or grandparent, and in this group 28% are parents and 31% grandparents; 64% live with the care recipient and the age ranges for the majority of care recipients are 40-59 years (32%) and 60-79 years (25%).Child caregivers assist with a variety of tasks, assisted or supervised in most cases by an adult, ranging from being a companion to more complex activities such as giving medication. However, 93% of minority child

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caregivers tend to provide care without assistance. The most common health conditions include: Alzheimer's disease or other dementia (18%); heart, lung, and kidney problems (16%); arthritis (14%); and diabetes (14%).[14] Caregiving as a positive experience for child caregivers can be an opportunity to strengthen bonds with family members, learn life skills, acquire respectful interpersonal communication skills, and feel valued as a contributor to meet the needs of the family. There is a fine line in the caregiving process when the child's growth and development, especially those who live with the care recipient, may get stunted as they also develop emotional and psychological effects similar to those reported by adult caregivers such as anxiety and depression. A child caregiver may become withdrawn, show decline in school performance, and present other stress-related behaviors.[14]

c. Disaster health preparedness: When developing a disaster preparedness plan with the older person and her or his network of caregivers, i.e., the primary caregiver and other family caregivers including child caregiver(s), a clear and reliable process of communication, agreed upon by the caregivers, is essential to ensure the health and safety of the care recipient as well as the caregiver and to enable first responders or rescue volunteers to act in the best interest of the older person and the individuals in the household. When some caregivers are not in the household, a telephone tree or electronic messaging can be adapted for information sharing. In post-disaster recovery, when families get separated, the need to know and to reunite with relatives and friends may add to the stress when pre-disaster plans for communication strategies are inadequate or nonexistent.

i. At the pre-event assessment process, determine possible difficulty in communication related to physical or neurological problems (e.g., laryngectomy,[15] stroke-aphasia, spinal cord injury, upper extremity amputation, Alzheimer's or dementia), sensory impairments (e.g., deaf, hard-of-hearing, low vision), less education, and limited English proficiency (among older adult immigrants). Based on the U.S. Census 2010 data, Table 1[16] provides information on education and English proficiency of older adults aged 65 or more by racial categories.

Table 1. Selected demographic characteristics of older Americans by ethnicity, aged 65 and over, US Census, 2010

Populations	No. Aged ≥65 years	<9 years of education*	Speak little or no	With disability[#]	Living alone

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			English*		
Total older Americans	40,267,984	12.0%	5.2%	37.2%	27.3%
Non-Hispanic/Latino (living alone)					29%
African American/Black	3,374,981	19.4%	1.5%	43.9%	29%
American Indian	179,819	25.0%	7.2%	22.2%	51.1%
Asian Americans	1,376,471	23.4%	40.8%	32.7%	13.6%
Native Hawaiian & Other Pacific Islanders	29,568	16.6%	13.7%	42.7%	13.2%
White	32,209,431	12.5%	1.2%	36.2%	28.4%
Two or More Races	399,457	13.1%	3.6%	46.6%	26.3%
Hispanic/Latino	2,781,624	43.8%	41.0%	41.6%	18.2%

Source: US Census Bureau.[16] Number of adults aged ≥65 years in each racial or ethnic category are from the 2010 decennial census.
*Percentage figures for educational level and speaking little or no English are from the American Survey 3-year or 5-year estimates through 2010. Retrieved from www.census.gov).
#Civilian noninstitutionalized population.

III. Homebound elders: About 3.6 million adults aged 65 and over are homebound or need care at home. Currently, there is no formal classification for this population beyond the broad description in terms of levels of disability and a multiple mix of physical, mental and social factors that keep the older person confined at home most of the time. Medicare considers a person homebound when substantial effort and assistance is necessary to leave the home and the activity occurs infrequently, usually for medical reasons.[17,18] There is evidence that heart disease, circulatory problems, dementia, and depression are the predominant health issues that indicate the need for home-based care. Most homebound elderly require assistance with homecare from multiple debilitating health conditions.[19] This section provides information on the characteristics of older persons who may need health care and social services delivered to their home and implications for disaster preparedness for all-hazards events specific to sheltering-in-place, voluntary or mandatory evacuation to a local shelter, or mandatory relocation out of the area.

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a. Disability in older Americans

    i. According to the Americans With Disabilities Act (ADA) of 1990 as amended by the ADA Amendments Act of 2008 (P.L. 110-325), "the term 'disability' with respect to an individual is (A) a physical or mental impairment that substantially limits one or more major life activities of such individual; (B) a record of such an impairment; or (C) being regarded as having such an impairment."[20, p7] It is common knowledge that disability is associated strongly with increasing age.[21,22] The disability rate increases quickly among the oldest-old (aged ≥85 years) owing to susceptibility to disease and the aging process.[23,24]

    ii. According to the American Community Survey from 2008–2012, the number of people aged 65 and older reached 40.7 million and represents 13.2% of the US population. At least 1or 2 disabilities are reported for about 15.7 million (38.7%) older adults, and although the oldest-old (≥85 years) is the smallest subgroup among the population aged ≥65 years, 25.4% are living with a disability. Furthermore, there are more older women among the older population living with disability (59.0%) than in the whole population of older adults (56.8%).[24] Disaster management at all levels for relevant functions and responsibilities needs to ask, "To what extent have existing plans covered the unique needs of older adults with one or more disabilities?" Table 2 shows types of disabilities and distribution of disability by age subgroup, gender, and functional level.[24] This information can help to guide the periodic assessment and upgrading of existing disaster management plans in health care and social service settings as well as the development of management plans for new health care and service delivery systems.

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Table 2.PopulationAged 65 and Over With a Disability by Type of Disability, Functional Level, Age, and Sex: 2008-2012*

Type of Disability#	Total No. and Percent	No. 65-74 years, Percent	No. 75-84 years, Percent	No. ≥85 years, Percent	No. Male, Percent	No. Female, Percent
Vision	3028 19.2%	959 16.5%	1075 18.2%	994 24.9%	1137 17.6%	1891 20.4%
Hearing	6354 40.4%	2030 34.9%	2400 40.6%	1924 48.1%	3352 52.0%	3001 32.3%
Cognitive	4529 28.8%	1311 22.6%	1655 28.0%	1562 39.1%	1668 25.9%	2861 30.8%
Functional Level	Total No. and Percent	No. 65-74 years, Percent	No. 75-84 years, Percent	No. ≥85 years, Percent	No. Male, Percent	No. Female, Percent
Ambulatory	10,467 66.5%	3696 20.2%	3861 65.2%	2911 72.8%	3681 57.1%	6786 73.1%
Self-Care	4468 28.4%	1177 20.2%	1595 26.9%	1697 42.4%	1502 23.3%	2966 31.9%
Independent Living	7523 47.8%	1978 34.0%	2796 47.2%	2749 68.9%	2381 37.0%	5142 55.4%

*Numbers in thousands. For information on confidentiality protection, sampling error, and definitions, see www.census/acs/www.Source: table is adapted from He & Larsen, US Census Bureau, American Community Survey Reports, ACS-29, Older Americans with a Disability: 2008–2012, Washington, DC, US Government Printing Office, 2014, page 3.[24]

#Percentages for type of disability are the proportion of each type of disability among the total population aged 65 and over with a disability. A person may have one or more types of disability and, as such, the percentages add to more than 100.

IV. Multiple chronic conditions
   a. The presence of MCCs, recently reconceptualized as *multimorbidity patterns*, increases with age and is associated with increased disability, decline in function, lower quality of life, and high mortality rates.[25-27] The interactions of 2 or more chronic conditions put the older adult at risk of becoming homebound, narrowing social networks and increasing vulnerability, especially in all-hazards disaster events. Studies report varying clusters or patterns of MCCs. Results of a factor analysis of claims data for 86,176 women and 63,104 men show 3 multimorbidity patterns: cardiovascular/metabolic disorders

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NCDMPH
National Center for Disaster Medicine & Public Health

[prevalence female: 30%; male: 39%], anxiety/depression/somatoform disorders and pain [34%; 22%], and neuropsychiatric disorders [6%; 0.8%]. Overall, 50% of women and 48% of men met the criteria for at least 1 of the 3 multimorbidity patterns.[28]

b. An exploratory study examined the prevalence of MCC dyads and triads in noninstitutionalized adult participants aged 18 and older (N=27,157) in the 2010 National Health Interview Survey.[25] On the basis of reported chronic conditions, individuals were placed in 1of 3 groupsby the number of chronic conditions that they had from a list of 10 i.e., 0-1 condition, 2-3 conditions, and 4 or more conditions. The conditions included hypertension, coronary heart disease, stroke, diabetes, cancer, arthritis, hepatitis, weak or failing kidneys, chronic obstructive pulmonary disease, and current asthma. The arthritis/hypertension group (dyad) and the arthritis/diabetes/hypertension group (triad) were 2 of the most prevalent MCC combinations for this population. Twenty-six percent had MCCs; prevalence increased with age and rates were higher among females, non-Hispanic whites, and non-Hispanic blacks than in males and Hispanic adults. Although limitations exist, understanding trends in MCCs within subgroups would be useful as a guide for emergency management planners and health care responders for developing clinical guidelines specific to the treatment and management of clusters of chronic conditions for noninstitutionalized older adults for all phases of all-hazards disaster preparedness and enhancement of health resilience.

c. Brown and associates[29] studied the most common medications for chronic conditions prescribed in 376 emergency rooms by use of the 2004 National Hospital Ambulatory Medical Care Survey (NHAMCS). The result was a first action toward an evidence-based strategy for preparing, reviewing, and revising stockpiles of prescription drugs for chronic care conditions for a public health emergency. The drug classes recorded for 2004 were (1) anti-anginal/vasodilators (heart disease),(2) narcotics and analgesics (cancer),(3) nonnarcotic analgesics (stroke),(4) anti-asthmatics/bronchodilators (chronic obstructive pulmonary disease and asthma), and (5) hypoglycemic agents (diabetes). The traditional pharmaceutical and medical supplies stored for all-hazards events are focused on acute care conditions. People with chronic conditions, especially older adults, are at high risk when their daily medications are interrupted, and disasters can rapidly change the health status of an older person with MCCs. Availability of commonly prescribed medications for chronic conditions in a disaster would be a critical resource for all phases of disaster, especially in the immediate and long-term recovery of older people, their family, and the community. Over time in the recovery process when

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personal supplies of medications are depleted, finances are limited, or local drugstores remain closed, the older person's and the caregiver's situation could escalate their stress level.

i. Older persons with chronic illnesses are more likely to be hospitalized after a disaster. A post-Hurricane Katrina study found more older adults (29.2%) with chronic diseases needed hospital care compared with adults without chronic illness(10.9%).[30] However, the pattern of recovery tended to be similar in older adults as in the general population. Eighteen months after Hurricane Katrina, chronic illness was not a significant risk factor for a decline in quality of life or mental health issues.[31] Disruption of daily routine from prolonged displacement plus the effects of complex pre-event chronic health problems may increase the risk of developing post-traumatic stress disorder.[32]

ii. Health care for the homebound: Access to and utilization of quality health care services and resources become a major deficit in maintaining biopsychosocial health for the homebound older person. Homebound persons who often have multiple complex needs tend to become "invisible" in traditional health care delivery models that provide services in a medical complex, community clinic, medical offices, and other health care facilities. Mobility issues create significant challenges to homebound older people. Public health has been the backbone of delivering health care to the community through home health care programs along with public health nurses and visiting nurses. Health care delivery models that incorporate interprofessional teams are evolving to mitigate barriers to health care for close to 4 million older adults.

iii. Care of homebound at home: The home-based chronic care model developed from the conceptual framework "chronic care model" enables home health care providers to adapt best practice interventions to manage chronic health problems.[33] Practitioners are trained with a standardized curriculum, certification program, and guidelines for practice. The model allows for opportunities to standardize the delivery of best practice for chronic care among provider groups. A key element in the model is the teaching skills of practitioners to ensure that the care recipient understands and can perform the self-care behaviors necessary to meet the goal for the management plan. An elderly homebound person may require focused teaching about disaster preparedness to reduce the elder's vulnerability in a disaster. For example, results of a nationwide survey in Japan of patients with rheumatoid arthritis who lived in areas where natural disasters occurred

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between 2004 and 2006 found that participants aged ≥65 years performed better in general preparedness activities (emergency pack, family communication plan, and evacuation plan) than did the younger participants. However, all 3 preparedness activities were positively associated with the young-old (aged 65-74 years) subgroup, whereas having an evacuation plan was negatively associated with the old-old (aged >75 years) subgroup.[34]

iv. Primary care while living at home: According to the Patient-Centered Primary Care Collaborative, "The medical home is best described as a model or philosophy of primary care that is patient-centered, comprehensive, team-based, coordinated, accessible, and focused on quality and safety….It is a place where patients are treated with respect, dignity, and compassion, and enable strong and trusting relationships with providers and staff…a model for achieving primary care excellence so that care is received in the right place, at the right time, and in the manner that best suits a patient's need."[35] The model is a philosophy of health care delivery that supports the team of providers with the collective awareness to meet the patients or clients where they are in their need in the context of a continuum of simple to increasingly complex conditions that primary care management would address. While this medical care does not take place in the home, it is often available in the community to serve those older adults living at home. This may include referrals to focused services as needed such as rehabilitation therapy, nutrition counseling, disaster preparedness, hospice care, etc. The Agency for Healthcare Research and Quality defines a medical home "not simply as a place but as a model of the organization of primary care that delivers the core functions of primary health care."[36] It encompasses 5 functions and attributes: (1) comprehensive care, (2) patient-centered care,(3) coordinated care, (4)accessible services, and (5) quality and safety. Hence, the model is not a final destination but rather is a catalyst for the homebound elder's progression to increased functional capacity and decreased vulnerability in all-hazards disaster preparedness, recovery, and resilience.

V. Aging in place. It is well known that people, especially older adults, often choose to stay in their homes even when safety and quality of life become issues for themselves, their caregivers, their family members, their health care providers, and others who care about their welfare. Independence and self-determination are important values to honor and respect in the aging community. Twenty-seven percent of older adults aged 65 and older live alone in the community (Table 1).[16] Age, living

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arrangement, and having MCCs are risk factors that increase vulnerability in all-hazards events. "Aging in place" is an evolving concept in gerontology to "…describe a person living in the residence of their choice, for as long as they are able, as they age. This includes being able to have any services (or other support) they might need over time as their needs change."[37] Being prepared to adapt to changes in one's life, health, finances, and environment to maintain or improve quality of life requires creating a sustainable plan as early as possible and maintaining the plan. An aspect of adaptation to change is readiness for threats to health and life from any type of disaster. A goal for geriatric disaster preparedness education for responders involving older adults who prefer to age in place, their caregivers, and family is to ensure the availability of a customized, reliable, and effective disaster preparedness plan to remove or reduce threats to health and life, maintain a safe environment, have access to resources, and recover from disaster effects in the shortest possible time. Health and service providers have a critical role in educating these groups (i.e., older adults who live alone in their homes, their caregivers, and their families) about disaster preparedness for all-hazards events, assisting these groups to create personal plan, and providing guidance and support to practice these plans before a disaster occurs. An important activity is a pre-event assessment of the older adults' level of personal resilience involving physical and mental health; functional capacity, including the use of communication technology; financial resources; support systems; access to local resources (e.g., pharmacy, grocery store); and other capabilities. These key data are useful to identify major areas to strengthen personal resilience for every phase of a disaster and to maintain a high level of resilience in daily life. This framework of personal preparedness provides a foundation to build and enhance resilience skills for disaster preparedness. Connecting disaster preparedness and personal/community resilience to the aging in place movement is yet to be formally conceptualized and studied.

VI. Resources: Examples of tools for older persons who are homebound or living independently
    a. General guides
        i. There's No Place Like Home - For Growing Old
          This tip sheet introduces the kinds of help to consider so the older person can continue to live on her or his own.
          http://publications.usa.gov/USAPubs.php?PubID=2220
        ii. The Red Cross emergency preparedness checklist
          http://www.dcma.mil/Emergency_Resources/files/RedCross_Emergency_Prepardeness_Checklist.pdf.

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        iii. Disaster Preparedness for Seniors by Seniors
http://www.redcross.org/images/MEDIA_CustomProductCatalog/m46400
86_Disaster_Preparedness_for_Srs-English.revised_7-09.pdf.

        iv. Prepare for Emergencies Now: Information for People With Disabilities
This guide outlines commonsense measures individuals with disabilities
and others with access and functional needs, and the people who assist
and support them, can take to start preparing for emergencies before
they happen.
http://publications.usa.gov/USAPubs.php?PubID=616.

        v. Preparing for Disaster for People with Disabilities and other Special
Needs Source
http://www.redcross.org/images/MEDIA_CustomProductCatalog/m42401
99_A4497.pdf.

  b. Food safety

        i. Preparing for a weather emergency
http://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-
education/get-answers/food-safety-fact-sheets/emergency-
preparedness/preparing-for-a-weather-emergency/ct_index.

        ii. Keeping food safe in an emergency
http://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-
education/get-answers/food-safety-fact-sheets/emergency-
preparedness/keeping-food-safe-during-an-emergency/ct_index.

  c. Consumer Information

        i. Emergency Communications. What happens in an emergency.
http://transition.fcc.gov/cgb/consumerfacts/emergencies.pdf.

Suggested Learner Activities for Use in and Beyond the Classroom

- Interactive Interprofessional Learning: Assign learners to read the article by
Landers SH, Suter P, Hennessey B. Bringing home the "medical home" for older
adults. *Cleve Clin J Med*.2010;77(10);666-675.
http://www.ccjm.org/fileadmin/content_pdf/ccjm/content_3e04ac7_661.pdf

  Mrs. Smith is a patient in your clinic or agency. You are going to make a home
  visit. One of your concerns is her safety at home because tornadoes are known to
  hit the area where she lives.

  o Learning Activity # 1:
      a. Consider Mrs. Smith's current health problems and based on your
      discipline, list at least 3 disaster preparedness issues that you will

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include in your assessment during the home visit. Give a rationale for each issue.

b. Join a small group of learners (3-5), preferably from other disciplines, and discuss the preparedness issues and the rationale for having identified those issues.

o Learning Activity # 2:

Using the same article above, divide the learners into 2 groups for a role-play; one group consists of physicians and advance practice nurses and the other group consists of administrators, social workers, and nurses. The purpose of the meeting is to explore a partnership to deliver home-based primary care to geriatric patients. The agenda is to discuss the emergency management plan of the agency specific to patients like Mrs. Smith. Both groups agree that the plan needs updating, especially in regards to teaching patients about preparing for disasters. Each group brings up an issue and explains the significance it has on health outcomes or the quality of the home-based primary care services.

o Learning Activity # 3

Use the same activity as above(Learning Activity # 2) except that Mrs. Smith is now receiving help from a live-in family caregiver. Both groups agree that the emergency management plan of the agency specific to patients like Mrs. Smith needs updating, especially in regards to teaching patients and informal caregivers about preparing for disasters. Each group brings up an issue and explains the significance it has on health outcomes or the quality of the home-based primary care services.

o Learning Activity #4:

Use the same activity as above (Learning Activity # 2) except that Mrs. Smith moved to a local continuing care retirement community (CCRC) home 6 months ago and is very happy with her decision. Both groups agree that the emergency management plan for the home specific to Mrs. Smith's personal preparedness kit needs upgrading to meet her current functional needs. The geographic location of her new residence is about 10 miles from a refinery. Each group brings up an issue associated with an emergency involving the refinery and explains the significance it has on Mrs. Smith's health outcomes before an event and during immediate and long-term post-event recovery.

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o <u>Learning Activity # 5:</u>
This learning tool engages the learner to acquire a broader perspective of geriatric disaster preparedness for a highly diverse population that often is perceived as a monolithic entity. The learner enters at least one item in columns 2 to 4 for each type of living arrangement. Then the class forms small interprofessional groups and uses the information entered in the table to discuss differences and similarities in disaster preparedness planning for older adults who are in these types of living arrangements.

Type of Living Arrangement	Unique Characteristics of Older Adults	Special Functional Needs of Older Adults	Major Emphasis on Older Adults' Personal Preparedness Plan
Live alone at home			
Living in assisted living			
Living in a nursing home			
Living in a retirement community			

o <u>Evaluation:</u>
For all learning activities, have learners write brief responses to the questions below:
a. Share an insight you gained from the learning activity.
b. How would you use this insight to enhance your professional skills as a member of the health care team?

Readings and Resources for the Learner
- Required Resources
  o Landers SH, Suter P, Hennessey B. Bringing home the "medical home" for older adults. *Cleve Clin J Med.*2010;77(10);666-675.http://www.ccjm.org/fileadmin/content_pdf/ccjm/content_3e04ac7_661.pdf.

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- o Aldrich N, Benson WF. Disaster preparedness and the chronic disease needs of vulnerable older adults. *Prev Chronic Dis.* 2008;5(1). http://www.cdc.gov/pcd/issues/2008/jan/07_0135.htm. Accessed December 2, 2014.

- Supplemental Resources
    - o Peterson L. Brown LM. Disaster planning for community-dwelling older adults: strengths, weaknesses, and interventions. In: Cefalu C, ed. *Disaste rPreparedness for Seniors: A Comprehensive Guide for Healthcare Professionals.* New York, NY: Springer Science +Business Media; 2014:21-30. [Appropriate for all professionals.]
    - o Tubbesing SA, Obal L, Brazier J, et al. Emergency preparedness for home-based primary care senior veterans: lessons learned from previous experience. In: Cefalu C, ed. *Disaster Preparedness for Seniors: A Comprehensive Guide for Healthcare Professionals.* New York, NY: Springer Science +Business Media; 2014:31-52. [Appropriate for all disciplines.]
    - o Yeo, G. Prevalence of dementia among different ethnic populations In G. Yeo, D. Gallagher-Thompson D, eds. Ethnicity and the Dementias, 2nd ed. New York, NY: Rutledge, Taylor and Francis;2006, p. 3-9. [Appropriate for all disciplines.]

Learner Assessment Strategies

1. Ask learners to prepare a 10-minute slide presentation that summarizes key points in the learning lesson. Have learners present to their peers and request feedback with the use of a short evaluation questionnaire developed by the learner.

2. Ask learners to write a script for a 5-minute role-play to teach Mrs. Smith (refer to Learning Activity # 1 and #2) about medication supply for her backpack and family communication plan. She is currently a participant in the home-based primary care program at your clinic and she lives in a local nursing home or a retirement community (*learner picks one of these*). You are scheduled to make a home visit in 2 weeks when a family caregiver will be present. Practice the role-play with the class.

Readings and Resources for the Educators

- Required Resources
    - o Hall N. Older persons in disasters and emergencies: the overlapping mental and physical issues. In: Toner JA, Mierswa TM, Howe JL, eds. *Geriatric Mental Health Disaster and Emergency Preparedness.* New

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York, NY: Springer Publishing Company; 2010:31-45. [Appropriate for all disciplines.]

- o He W, Larsen LJ. *Older Americans With a Disability: 2008–2012. American Community Survey Reports.* ACS-29.US Census Bureau. http://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-29.pdf. Published December 2014. Accessed February 6, 2015. [Appropriate for all disciplines.]

- Supplemental Resources
  - o Aldrich N, Benson WF. Disaster preparedness and the chronic disease needs of vulnerable older adults. *Prev Chronic Dis.* 2008;5: A27.
  - o Cefalu C, ed. *Disaster Preparedness for Seniors: A Comprehensive Guide for Healthcare Professionals.* New York, NY:Springer Science +Business Media; 2014. [The chapters below from this book are appropriate for all disciplines:]
    Kawasaki L. Disasters and the frail elderly. pages 53-63.
    Peterson L, Brown LM. Disaster planning for community-dwelling older adults: strengths, weaknesses, and interventions. pages 21-30.
    Schor K. Disaster health competencies and their applications: caring for seniors, pages 203-216.
    Tubbesing SA, Obal L, Brazier J, et al. Emergency preparedness for home-based primary care senior veterans: lessons learned from previous experience. pages 31-52.
  - o Toner JA, Mierswa TM, Howe JL, eds. *Geriatric Mental Health Disaster and Emergency Preparedness.* New York, NY: Springer Publishing Company; 2010. [The chapters below from this book are appropriate for all disciplines:]
    Hall N. Older persons in disasters and emergencies: the overlapping mental and physical health issues. pages 31- 45.
    Toner JA, Alami J.A primer for disaster preparedness and evidence-based practices in geriatric mental health. pages 3-30.
    Tumosa N. Self-help tools for older persons and their caregivers, pages 141- 156.
    Villanti A. Making the community plan. pages 119-139.
  - o Yeo G, Gallagher-Thompson D, eds. *Ethnicity and the Dementias*, 2nd ed. New York, NY: Rutledge, Taylor and Francis;2006. [Chapters:]
    Moon A. Working with Korean American families. pages 245-261.
    Tran JNU, Tran CGU, Hinton L. Working with Vietnamese American families. Pages 263-283.

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Sources Cited in Preparing Outline and Activities Above

1. *Caregiving in the U.S.* National Alliance for Caregiving and AARP. http://www.caregiving.org/data/04finalreport.pdf. Published April 2004. Accessed October 10, 2014.

2. Estimated prevalence and economic value of family caregiving, by State (2004). National Family Caregivers Association website. https://caregiver.org/sites/caregiver.org/files/pdfs/State_Caregiving_Data_Arno_20061107.pdf. Published 2006. Accessed October 7, 2014.

3. Arno PS. Department of Veterans Affairs. Economic value of informal caregiving: 2004.Paper presented at: Care Coordination and the Caregiver Forum; January 25-27, 2006.

4. Zarit S. Assessment of family caregivers: a research perspective. In: Family Caregiver Alliance, ed. *Caregiver Assessment: Voices and Views from the Field. Report from a National Consensus Development Conference.* Vol. II. San Francisco: Family Caregiver Alliance;2006:12-37.

5. Covinsky KE, Newcomer R, Fox P, et al. Patient and caregiver characteristics associated with depression in caregivers of patients with dementia. *J Gen Intern Med.*2003; 18(12):1006-1014.doi:10.1111/j.1525-1497.2003.30103x.

6. Since you care: understanding home care agency options. Metlife website. https://www.metlife.com/assets/cao/mmi/publications/since-you-care-guides/mmi-understanding-home-care-agency-options.pdf?SCOPE=Metlife. Published December 2006. Accessed February 6, 2015.

7. McBride M, Johnson A, Weiss J, et al. The evolution of academic-based geriatric emergency preparedness and response (GEPR) training for medicine, health and behavioral sciences. In: Cefalu C, ed. *Disaster Preparedness for Seniors: A Comprehensive Guide for Healthcare Professionals.* New York, NY: Springer Science +Business Media; 2014:137-61.

8. Elkins J, Holt J, Miles T. The role of informal caregivers for frail elders in disaster. In: Toner JA, Mierswa TM, Howe JL, eds. *Geriatric Mental Health Disaster and Emergency Preparedness.* New York, NY: Springer Publishing Company, LLC; 2010:89-99.

9. Dillworth-Anderson P, Gibson BE, Burke J.D. Working with African American families. In: Yeo G, Gallagher-Thompson D, eds. *Ethnicity and the Dementias*, 2nd ed. New York, NY: Rutledge, Taylor and Francis;2006:127-144.

10. McBride M. Working with Filipino American families. In: Yeo G, Gallagher-Thompson D, eds. *Ethnicity and the Dementias*, 2nd ed. New York, NY: Rutledge, Taylor and Francis, 2006:189-207.

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11. Wang P-C, Tong H-Q, Liu W, et al. Working with Chinese American families. In: Yeo G, Gallagher-Thompson D. eds. *Ethnicity and the Dementias*, 2nd ed. New York, NY: Rutledge, Taylor and Francis;2006:173-188.

12. So far away: twenty questions and answers about long-distance caregiving. National Institutes of Health. National Institute on Aging website. http://www.nia.nih.gov/health/publication/so-far-away-twenty-questions-and-answers-about-long-distance-caregiving. Updated January 22, 2015. Accessed November 9, 2014.

13. Hunt, G, Levine C, Naiditch L.*Young Caregivers in the U.S.: Report of Findings, September 2005*. National Alliance for Caregiving and the United Hospital Fund. http://www.caregiving.org/data/youngcaregivers.pdf. Published September 2005. Accessed February 6, 2015.

14. Cohen D, Greene JA, Toyinbo PA, Siskowski CT. Impact of family caregiving by youth on their psychological well-being: a latent trait analysis. *J Behav Health Serv Res.* 2012;39(3):245-56. doi:10.1007/s11414-011-9264-9.

15. Laryngectomy rehabilitation.Vanderbilt Bill Wilkerson Center website. http://www.vanderbilthealth.com/billwilkerson/27333. Accessed October 20, 2014.

16. Yeo G. *Selected Demographic Characteristics of Older Americans by Ethnicity, Aged 65 and Over, U.S. Census, 2010*. Faculty Development Program on Ethnogeriatrics and Health Literacy. Stanford Geriatric Education Center (SGEC).Stanford University School of Medicine;2014.

17. Baker B. Medicare clarifies its definition of 'homebound.' *ACP-ASIM Observer*. American College of Physicians website. http://www.acpinternist.org/archives/2001/06/q&a.htm. Published June 2001. Accessed August 7, 2015.

18. Juris S,Schraff P.*Geauga Community Impact Homebound Seniors Strategy and Resource Plan*. Geauga Community Impact Homebound Task Force. http://www.gcimpact.com/documents/FINALStrategyandresourceplan-HomeboundSeniorsInitiative7-28-08.pdf. Published July 28, 2008.Accessed April 14, 2015.

19. Qiao Qui W, Dean M, Liu T, et al. Physical and mental health of the homebound elderly: an overlooked population. *J Am Geriatr Soc.* 2010;58(12):2423-2228. doi:10.1111/j.1532-5415.2010.03161.x.

20. Americans with Disabilities Act of 1990, as amended. Americans with Disabilities Act website. http://www.ada.gov/pubs/adastatute08.pdf.Published 1990. Accessed September 25, 2014
[For more information, see www.ada.gov/pubs/adastatute08.htm#12102note.]

Caring for Older Adults in Disasters: A Curriculum for Health Professionals
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21. Altman BM, Bernstein AB. *Disability and Health in the United States, 2001–2005*. Hyattsville, MD: National Center for Health Statistics;2008.

22. BraultMW.*Current Population Reports, P70-131: Americans With Disabilities: 2010*. Washington, DC: US Government Printing Office;2012.

23. Fact sheet: disability in older adults. National Institutes of Health website. http://report.nih.gov/NIHfactsheets/Pdfs/DisabilityinOlderAdults(NIA).pdf. Updated October 2001. Accessed November 5, 2014.

24. HeW, Larsen LJ. *Older Americans With a Disability: 2008-2012*.US Census Bureau. http://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-29.pdf. Published December 2014.Accessed September 23, 2014.

25. Ward BW, Schiller JS. Prevalence of multiple chronic conditions among US adults: estimates from the National Health Interview Survey, 2010. *Prev Chronic Dis*. 2013;10:120203. doi: http://dx.doi.org/10.5888/pcd10.120203.

26. Marengoni A, Angleman S, Melis R, et al. Aging with multimorbidity: a systematic review of the literature. *Ageing Res Rev*. 2011;10(4):430-9. doi:10.1016/j.arr.2011.03.003.

27. Garin N, Olaya B, Moneta MV, et al. Impact of multimorbidity on disability and quality of life in the Spanish older population. *PLoS One*. 2014;9(11):e111498. doi:10.1371/journal.pone.0111498.

28. Schäfer I, von Leitner EC, Schön G, et al. Multimorbiditypatterns in the elderly: a new approach of disease clustering identifies complex interrelations between chronic conditions. *PLoS One*. 2010;5(12):e15941. doi:10.1371/journal.pone.0015941.

29. Brown DL, Young SL, Engelgau MM, Mensah GA. Evidence-based approach for disaster preparedness authorities to inform the contents of repositories for prescriptionmedications for chronic disease management and control. *Prehosp Disaster Med*. 2008;23(5):447-457. http://pdm.medicine.wisc.edu. Accessed November 18, 2014.

30. Sharma AJ, Weiss EC, Young SL, et al. Chronic disease and related conditions at emergency treatment facilities in the New Orleans area after Hurricane Katrina. *Disaster Med Public Health Prep*.2008;2(1):27-32.doi:10.1099/DMP.0b013e31816452f0.

31. denOuden DJ, van der Velden PG, Grievink L, Morren M, Dirkzwager AJ, Yzerrnans O. Use of mental health services among disaster survivors: predisposing factors. *BMC Public Health*. 2007;7:173. doi: 10.1186/1471-2458-7-173.

Caring for Older Adults in Disasters: A Curriculum for Health Professionals
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32. Mori K, Ugai K, Nonami Y, et al. Health needs of patients with chronic diseases who lived through the greatHanshin earthquake. *Disaster Manag Response.* 2007;5(1):8-13.

33. Suter P, Hennessey B, Harrison G, Fagan M, Norman B, Suter WN. Home-based chronic care. An expanded integrative model for home health professionals*. Home Healthc Nurse.*2008;26(4):222-9. doi:10.1097/01.NHH.0000316700.76891.95.

34. Tomio J, Sato H, Mizumura H. Disparity in disaster preparedness among rheumatoid arthritis patients with various general health, functional, and disability conditions. *Environ Health Prev Med.* 2012;17(4):322-31. doi:10.1007/s12199-011-0257-3.

35. Defining the medical home: a patient centered philosophy that drives excellence in primary care. Patient Centered Primary Care Collaborative (PCPCC) website. https://www.pcpcc.org/about/medical-home. Accessed October 2, 2014.

36. Defining the PCMH. PCMH Resource Center.Agency for Healthcare Research and Quality website. http://www.pcmh.ahrq.gov/page/defining-pcmh. Accessed October 2, 2014.

37. Aging in place. Age in Place website. http://ageinplace.com/. Accessed October 26, 2014.

38. Creating home: the Eden Alternative. Eden Alternative website. http://www.edenalt.org/. Accessed October 26, 2014.

39. Where love matters [video]. The Green House Project website. http://thegreenhouseproject.org/green-house-model. Accessed October 26, 2014.

40. Bowers BJ, Nolet KA. Green House Homes: The roles of the nurse research study.The Robert Wood Johnson Foundation website.http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf71625. Published February 2010. Accessed October 26, 2014.

41. Jaffe I. Move over nursing home – there's something different. National Public Radio website. http://www.npr.org/2013/07/24/196249703/move-over-nursing-homes-theres-something-different. Published July 24, 2013.Accessed April 16, 2015.

42. Turner MM Sr. Emergency preparedness: the flood of 2013. Presented at: Culture change: Person-centered care in a regulatory environment; September 23, 2014; Novi, MI. http://www.michigan.gov/documents/lara/7Emergency_Preparedness_Total_Building_Evacuation_and_Survey_Readiness_-_4_470209_7.pdf. Accessed April 16, 2015.

Caring for Older Adults in Disasters: A Curriculum for Health Professionals
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43. About Beacon Hill Village. Beacon Hill Village website. http://www.beaconhillvillage.org/content.aspx?page_id=22&club_id=332658&module_id=75811. Accessed October 10, 2014.

44. Gustkenov C. Retirees turn to virtual villages for mutual support. *New York Times*. http://www.nytimes.com/2014/11/29/your-money/retirees-turn-to-virtual-villages-for-mutual-support.html?_r=0. Published November 29, 2014. Accessed October 10, 2014.

45. Shaw L. program of all-inclusive care for the elderly: a comprehensive, cost-effective alternative for frail elderly individuals.*N C Med J*. 2014;75(5):344-345.

46. NPA celebrates PACE pioneers and its work to assist Programs of All-inclusive Care for the Elderly (PACE) over the past 20 years. National PACE Association 20th Anniversary [Video]. https://www.youtube.com/watch?v=ZxLzb6tRVRM&feature=youtube. Published November 10, 2014. Accessed October 10, 2014.

47. PACE in the States. National PACE Association website. http://www.npaonline.org/website/download.asp?id=1741%26title=PACE_in_the_States. January 2015. Accessed April 12, 2015.

48. What is PACE. National PACE Association website. http://www.npaonline.org/website/article.asp?id=12&title=Who,_What_and_Where_Is_PACE?. Accessed April 12, 2015.

49. Setterberg F, Lodwig J, Ponte M. *Aging in PACE: The case of the California expansion*.California HealthCare Foundation. http://www.chcf.org/~/media/media%20library%20files/pdf/a/pdf%20agingpacecaseexpansioncalifornia.pdf. Published July 2010.Accessed April 17, 2015.