



Natural Disaster Awareness for Caregivers of Senior Citizens: Building Senior Resilience

Participant Guide

February 2013



FEMA

NATIONAL DISASTER PREPAREDNESS TRAINING CENTER

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Building Senior Resilience*

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Table of Contents

Module 1: Welcome, Administration and Introduction 1
Module 2: Natural Hazards and Natural Disasters 23
Module 3: Senior Constraints, Vulnerabilities, and Resilience 67
Module 4: Preparedness Exercise and Conclusion 91



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Natural Disaster Awareness for Caregivers of Senior Citizens: Building Senior Resilience

Module 1: Welcome, Administration, and Introduction

February 2013



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Module 1: Welcome, Administration and Introduction – Administration Page



Slide 1-1. Welcome, Administration and Introduction

Duration

45 minutes

Scope Statement

In this module, the instructor will welcome participants to the course, explain how instruction will take place, and provide an agenda. The instructor will discuss the course purpose, goals and objectives; describe the course content; and wrap up any administrative details that remain. The instructor will introduce him or herself and lead a round of introductions among the participants. The instructor will also assign participants to groups for the purpose of discussions and activities. Finally, the instructor will assess the participants' existing comprehension of course materials by conducting a pre-test.

Terminal Learning Objective (TLO)

Participants will be able to state the course goals and its main objectives.



Enabling Learning Objectives (ELOs)

Natural Disaster Awareness for
Caregivers of Senior Citizens

Enabling Learning Objectives

- 1-1 Explain how the course is administered.
- 1-2 State the course goals.
- 1-3 Describe the course content.
- 1-4 Describe course evaluation strategy.

1 - 2

Slide 1-2. Enabling Learning Objectives

At the conclusion of this module, participants will be able to:

- 1-1 Explain how the course is administered.
- 1-2 State the course goals.
- 1-3 Describe course content.
- 1-4 Describe course evaluation strategy.

Resources

- Instructor ID
- Class roster
- Instructor Guide (IG)
- Module 1 presentation slides
- Laptop with presentation software installed and CD-ROM capability
- Audio-visual (A/V projection unit)
- Projector screen
- Chalkboard (and chalk) OR whiteboard (and dry erase markers) OR easel and easel paper (and permanent markers)
- Correction tape dispensers (two)
- Letter-size manila envelopes (four: one each for the course registration forms, pre-tests, post-tests, and Level 1 evaluations)
- One of each of the following items per participant:
 - Participant Guide (PG) available for download from <http://ndptc.hawaii.edu/>



- Participant Handout
- Participant Registration Forms
- Pre-test answer sheet corresponding to pre-test version

Instructor-to-Participant Ratio

2:25

Reference List

AARP Public Policy Institute. "Valuing the Invaluable: 2011 Update, The Growing Contributions and Cost of Family Caregiving" 2011.

Community Care Companions, Inc. <www.communitycarehhs.org>

Hawaii Long-Term Care Commission. "Long-Term Care Reform in Hawaii: Report of the Hawaii Long-Term Care Commission" 18 January 2012.

National Alliance for Caregiving (in collaboration with AARP). "Caregiving in the United States" April 2011.

Practical Exercise Statement

N/A

Assessment Strategy

- Instructor observation of participant involvement in classroom discussion
- Instructor-led discussion to gauge participant grasp of subject matter and to ensure that participant understands both how performance will be evaluated and how evaluation will impact participant outcomes
- Instructor administration of objectives-based pre-test to assess the knowledge and experience participants bring with them to the class



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Icon Map



Knowledge Check: Used when it is time to assess the learners' understanding.



Example: Used when there is a descriptive illustration to show or explain.



Key Points: Used to convey essential learning concepts, discussions and introduction of supplemental material.



Hint: Used to cover administrative items or instructional tips that aid in the flow of the instruction.



Participant Note: Used to indicate text that has been included as additional information for the participant. The text may not be directly addressed in the slide presentation or during class discussion.



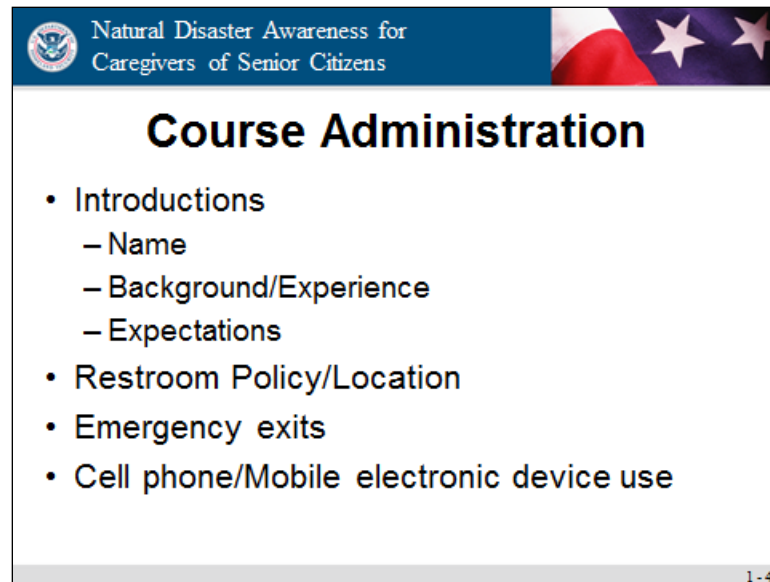
Slide 1-3. NDPTC

The instructor will welcome the course participants and provide a summary of the NDPTC.



Key Points: The NDPTC is a member of the National Domestic Preparedness Consortium (NDPC), which was expanded in 2007 to address all-hazards capabilities by the addition of the University of Hawai'i.

NDPTC works collaboratively to develop and deliver training and education in the areas of disaster preparedness, response, and recovery to governmental, private, tribal, and non-profit entities, and under-represented/under-served communities. It incorporates urban planning and environmental management, emphasizing community preparedness and addressing the needs of vulnerable at-risk populations.



Slide 1-4. Course Administration

The instructor will lead a round of participant self-introductions. Participants are asked to briefly provide, in turn, the following categories of information designed to help the instructor learn names and understand participant backgrounds and motivations:

- Participant name
- Employer or agency (if any)
- Background in senior citizen care or other related fields
- Experience
- Intentions for taking this course
- Expectations
- Course evaluation strategy

Participants are encouraged to take an active role in the class discussions and group activities to demonstrate comprehension.

All lecture material included in the Instructor Guide, as presented in the four modules, including the presentation slides, is also included in the Participant Guide. The Participant Guide provides plenty of space in the left margin for participants to take notes as appropriate or desired.



Natural Disaster Awareness for Caregivers of Senior Citizens

REGISTRATION FORM

National Training and Education Division (NTEED) FEMA Form 10-10-1
 Issued: February 1, 2010
 Expiration Date: 06/30/2010

Section 1: Personal Information

First Name: _____ Last Name: _____ Middle Initial: _____
 Date of Birth: ____/____/____ Social Security Number: _____
 Home Address: _____
 City: _____ State: _____ Zip: _____
 Email Address: _____

Section 2: Course Information

Course Number: _____
 Course Title: _____
 Course Dates: ____/____/____ to ____/____/____
 Course Location: _____
 Course Instructor: _____
 Course Sponsor: _____

Section 3: Emergency Contact Information

Emergency Contact Name: _____
 Emergency Contact Address: _____
 Emergency Contact City: _____ State: _____ Zip: _____
 Emergency Contact Phone: _____

Section 4: Medical Information

Medical Condition: _____
 Allergies: _____
 Current Medication: _____
 Current Doctor: _____
 Current Hospital: _____

Section 5: Other Information

Other Information: _____

Course Registration

✓ UPPERCASE
letters


✓ No abbreviations


Slide 1-5. Course Registration

The instructor will distribute the course registration forms for participants to complete.

The instructor will collect the registration forms once all participants have had a chance to fill them out.



**Natural Disaster Awareness for
Caregivers of Senior Citizens**



NDPTC
NATIONAL DISASTER PREPAREDNESS TRAINING CENTER
Test Answer Sheet

Please complete this form using CAPITAL letters and black ink with the pen provided.

PARTICIPANT INFORMATION (Please use the same information provided during registration)

First Name: _____

Last Name: _____

COURSE INFORMATION

Course: _____

Test Date (mm/dd/yy): _____ Pre-Test: ☐ Post-Test: ☐

Fill in the bubbles completely. Do not "X" an answer or it will not be graded.

Example: ☒ = Correct ☐ = Incorrect

	A	B	C	D
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Pre-test

- Self-Evaluation tool to assess your current knowledge
- Answer to the best of your ability

1 - 4

Slide 1-6. Pre-test

The pre-test is important because it provides a self-measure of knowledge as well as assumptions on the topics. It also illustrates the class content.

Participants will have 15 minutes to complete the pre-test. Participants should work independently to complete the answers.

Participants should follow these instructions as they take the pre-test and indicate answers on the test answer sheet:


- Write legibly using uppercase letters.
- Use the same first name, last name, and date of birth provided on the participant registration form. This information will be used to generate a unique ID number for each participant.
- Complete the Test Date field in the upper right-hand portion of the sheet by writing the day the test is actually given.
- Fill in the Pre-Test bubble.
- Fill in each bubble completely and make sure the answers are correctly aligned on the test answer sheet.
- Write the test document ID number in the Test Doc ID field. The ID number is located in the footer of the test handout.

Participants will grade their own tests, taking care not to make grading marks in columns A through D. Participants may write the correct answer in the margins of the test answer sheet.




Participants can write down scores for personal reference and take any notes as needed.





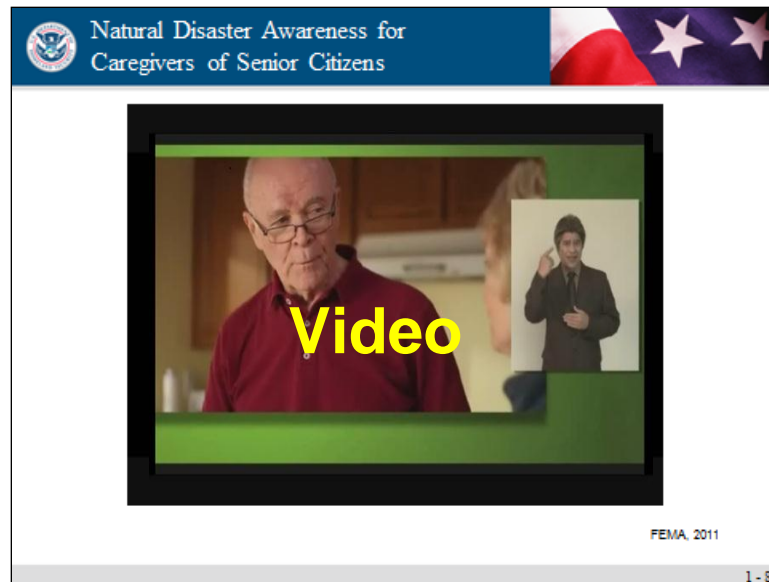
Natural Disaster Awareness for
Caregivers of Senior Citizens



Pre-test Answers

1 - 5

Slide 1-7. Pre-test Answers



Slide 1-8. Video

Instructors will show the introductory video in Slide 1-8 as a course overview. The video is 4 minutes and 20 seconds in length.

The video provides an overview of the need for senior citizens and caregivers to be prepared to be on their own. The key take-away is the need to identify vulnerabilities (e.g., mobility and medical constraints) and make the necessary preparations for senior resilience before, during and after a natural disaster.

Video Transcript:

BEING PREPARED FOR AN EMERGENCY IS IMPORTANT AT EVERY AGE. AS AN OLDER AMERICAN, YOU MAY NEED TO THINK ABOUT TAKING SOME SPECIFIC STEPS AS YOU GET YOURSELF PREPARED IN CASE OF A DISASTER. VIVIAN VASALLO: As people age, their needs change and their capabilities change, so in preparing for disaster, it's important to think differently than you might have at earlier ages. Preparing for an emergency is very empowering for older adults, because it gives them the opportunity to identify what they need and ensure that they'll have those needs met when a disaster strikes. TAKE A FEW MINUTES TO CHECK OUT THE READY.GOV WEBSITE WHICH FEATURES SPECIFIC TIPS AND TOOLS FOR OLDER AMERICANS. THERE ARE A FEW BASICS: FIRST, LEARN ABOUT THE TYPES OF RISKS THAT COULD AFFECT YOUR AREA. THEN, MAKE A PLAN. YOU CAN USE THE "FAMILY EMERGENCY PLAN" AVAILABLE ON READY.GOV TO ORGANIZE AND HELP YOU DEVELOP A PLAN THAT WORKS FOR YOU. CREATE A PERSONAL SUPPORT NETWORK IF YOU NEED SPECIAL ASSISTANCE DURING AN EMERGENCY.



VIVIAN VASALLO: A personal support network is very important for everyone to have, especially older Americans. It can include your family, friends, neighbors, doctors, organizations, places where you worship, places where you do activities, and just making sure that those people know what your needs are in case of a disaster. LET THE PEOPLE IN YOUR PERSONAL SUPPORT NETWORK KNOW WHAT MEDICINES YOU RELY ON. AND IF YOU HAVE ANY PHYSICAL LIMITATIONS.

VIVIAN VASALLO: For older Americans who receive services such as home health care, or receive regular medical treatments, it's important to reach out to those service providers ahead of time, and communicate to them what your needs are. And also to understand what their emergency plans are in case of a disaster. IDENTIFY SOMEONE LOCALLY AND SOMEONE OUT OF STATE WHO WILL BE YOUR CONTACT PERSON IN CASE OF AN EMERGENCY. AND LEARN HOW TO SEND UPDATES VIA TEXT MESSAGING TO YOUR FRIENDS AND FAMILY.



BRIAN BALLTON LAFD: One of the things that we've noticed in the past during major emergencies. Both the regular phone lines as well as the cell phone lines were overwhelmed, but people were still able to text message vital pieces of information in terms of location, nature of problem or just to text to say "All is well." ONCE YOU HAVE A PLAN, PREPARE AN EMERGENCY KIT. A STANDARD EMERGENCY KIT INCLUDES FOOD WATER AND MEDICINE TO SUSTAIN ALL MEMBERS OF YOUR HOUSEHOLD FOR AT LEAST THREE DAYS. VISIT READY DOT GOV FOR A COMPLETE LIST OF SUGGESTED ITEMS, ALONG WITH RECOMMENDATIONS FOR HOW TO PREPARE A FAMILY EMERGENCY PLAN. PAY PARTICULAR ATTENTION TO CERTAIN THINGS LIKE MAKING SURE YOU HAVE ENOUGH OF ANY MEDICATIONS YOU TAKE, AN EXTRA PAIR OF GLASSES IN CASE ONE BREAKS, OR EXTRA BATTERIES FOR HEARING AIDS. VIVIAN

VASALLO: It's important to remember that certain things such as medicines can go bad and spoil. So just make sure, that what you're putting into your kit is not expired, and check it on a regular basis. IF YOU ARE UNABLE TO OBTAIN AN EMERGENCY SUPPLY, BE SURE TO ALWAYS FILL YOUR PRESCRIPTIONS ON THE FIRST DAY YOU BECOME ELIGIBLE FOR A REFILL, RATHER THAN WAITING UNTIL THE DAY YOU RUN OUT. KEEP COPIES OF IMPORTANT DOCUMENTS LIKE BIRTH CERTIFICATES, INSURANCE POLICIES, MEDICARE CARDS, AND FINANCIAL FORMS IN YOUR EMERGENCY SUPPLY KIT. ALSO CONSIDER PLACING ELECTRONIC COPIES OF THIS INFORMATION ON A PORTABLE FLASH DRIVE. THIS COULD BE USEFUL FOR OTHERS EVEN IF YOU DON'T PERSONALLY USE A COMPUTER. FOR THOSE WHO DEPEND ON THE MAIL FOR THEIR SOCIAL SECURITY BENEFITS, SWITCHING TO ELECTRONIC PAYMENTS IS ONE SIMPLE, SIGNIFICANT WAY PEOPLE CAN PROTECT THEMSELVES FINANCIALLY BEFORE DISASTER STRIKES. FEDERAL BENEFIT RECIPIENTS CAN SIGN UP BY CALLING (800) 333-1795 OR AT WWW.GODIRECT.ORG A DISASTER CAN OCCUR AT ANY MOMENT. BY MAKING THE COMMITMENT TO



PREPARE YOURSELF AHEAD OF TIME, YOU'LL HAVE THE PEACE OF MIND AND CONFIDENCE NEEDED TO GET THROUGH ANY EMERGENCY SITUATION. CHECK OUT THE INFORMATION FOR OLDER AMERICANS ON [READY.GOV](https://www.ready.gov) AND GET STARTED PREPARING TODAY!



Natural Disaster Awareness for
Caregivers of Senior Citizens

Course Purpose

To help caregivers better reduce the vulnerability and risk of senior citizens in their care and to help caregivers plan and prepare for their disaster response requirements.

1 - 9

Slide 1-9. Course Purpose

The Course Purpose is to help caregivers better reduce the vulnerability and risk of senior citizens in their care and to help caregivers plan and prepare for their disaster response requirements.

The Course Purpose slide illustrates the preparedness focus of the course.





Natural Disaster Awareness for Caregivers of Senior Citizens		
Course Agenda		
Module	Title	Time
1	Welcome, Administration and Introduction	45 minutes
2	Natural Hazards and Natural Disasters	50 minutes
3	Constraints, Vulnerabilities, and Resilience	50 minutes
4	Preparedness Exercise and Conclusion	60 minutes
(Ten-minute breaks will take place between the modules as needed.)		
1 - 10		

Slide 1-10. Course Agenda

The course content is divided into four modules, including this introduction module and an exercise/post-test module to enable validation of learning objectives. Each module addresses different subject matters or administrative purposes. Each session will include an introduction, lecture content, class discussions and group activities.



 Natural Disaster Awareness for
Caregivers of Senior Citizens



Caregiver

- *Informal care*: family members or friends, often in a home setting
- *Formal care*: paid/volunteer professional care at home, nursing facility, or government institution

1 - 13

Slide 1-11. Caregiver

A caregiver can be broadly defined as anyone who provides care. This definition can be further broken into two categories of caregivers: informal and formal.

Informal Caregivers

Informal caregivers are not always members of an organization. They may or may not have had formal training and are not necessarily held accountable to standards of conduct or practice. They may be family members or friends.

- More than 65 million people, 29% of the U.S. population, provide care for a chronically ill, disabled, or aged family member or friend during any given year and spend an average of 20 hours per week providing care for their loved one (Caregiving, 2011).
- The “average” U.S. caregiver is a 49-year-old woman who works outside the home and spends nearly 20 hours per week providing unpaid care to her mother for nearly five years. Almost two-thirds of family caregivers are female (65%). More than eight in ten are caring for a relative or friend age 50 or older (AARP, 2011).

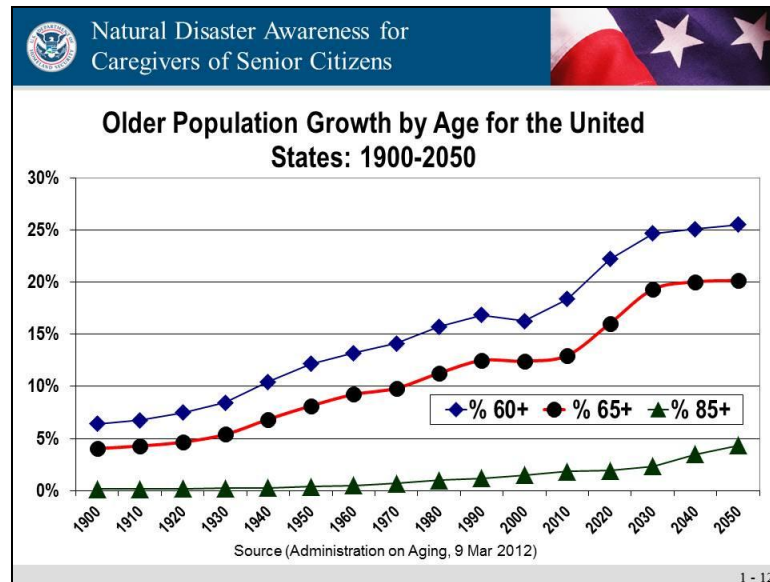
Formal Caregiver

Formal caregivers are members of an organization and are held accountable to defined norms of conduct and practice. They may be professionals, support workers, or volunteers. They are sometimes called “providers”.

Formal caregivers are typically paid providers but they may also be volunteers from a government or nonprofit organization.



Where care is being provided in the home, there is often a mix of formal and informal care provided. However, the trend is moving towards using more formal care since, unlike in the past, more informal caregivers are employed (Community Care, 2012).



Slide 1-12. Older Population Growth by Age for the United States: 1900-2050

The chart above shows that senior citizens are a growing population. In 2000, senior citizens aged 60 years and over comprised 16.3% of the U.S. population. It is estimated that in 2030, senior citizens will make up nearly 25% of the U.S. population.

Senior citizens make up a significant percentage of the global population. This has important implications particularly in areas that are prone to disaster. During a disaster event, the risk to senior citizens, particularly those who are disabled, can be significant.

Caregivers for senior citizens are a critical resource and, as the population continues to grow, so will the need for caregivers.



Key Points: These statistics tell us two important things:

- With each passing year, the population in the U.S. is getting older, as life expectancy standards increase toward 78 years of age.
- Individuals over 60 years old can be especially vulnerable to major emergencies and disasters regardless whether they live at home or senior care facilities.

The most important factor in determining the number of caregivers in each state is the state's population. However, the prevalence of



caregivers also varies among states, reflecting differences in the age structure of the population, rates of disability and chronic health conditions, and cultural and economic factors. There is also significant variation in economic value per hour among states.

The numbers of caregivers and the costs of caregiving vary by state. Table 1-1, found on the following pages, presents estimates of the number of caregivers, economic value per hour, hours of care provided, and total economic value of caregiving in every state and the District of Columbia (AARP, 2011).



Table 1-1: Number of Caregivers and the Economic Value of Caregiving, by State, 2009

State	Total State Population	Number of Caregivers		Total Hours of Care (in millions)	Economic Value/ Hour	Total Value (in millions)
		At any given time	At any time during the year			
Alabama	4,710,000	818,000	1,200,000	783	\$9.37	\$7,300
Alaska	698,000	88,000	128,000	84	\$13.10	\$1,100
Arizona	6,600,000	855,000	1,250,000	818	\$11.50	\$9,400
Arkansas	2,890,000	478,000	698,000	457	\$9.87	\$4,500
California	37,000,000	4,020,000	5,880,000	3,850	\$12.17	\$47,000
Colorado	5,020,000	576,000	843,000	551	\$11.93	\$6,600
Connecticut	3,520,000	486,000	711,000	465	\$12.50	\$5,800
Delaware	885,000	138,000	202,000	132	\$11.77	\$1,560
District of Columbia	600,000	68,000	99,000	65	\$11.70	\$760
Florida	18,500,000	2,780,000	4,060,000	2,660	\$10.88	\$29,000
Georgia	9,830,000	1,360,000	2,000,000	1,310	\$10.03	\$13,100
Hawaii	1,300,000	169,000	247,000	162	\$12.33	\$1,990
Idaho	1,550,000	210,000	307,000	201	\$10.03	\$2,000
Illinois	12,900,000	1,660,000	2,430,000	1,590	\$11.83	\$18,800
Indiana	6,420,000	916,000	1,340,000	877	\$10.70	\$9,400
Iowa	3,010,000	369,000	540,000	353	\$11.66	\$4,100
Kansas	2,820,000	414,000	605,000	396	\$10.41	\$4,100
Kentucky	4,310,000	735,000	1,080,000	704	\$10.03	\$7,100
Louisiana	4,490,000	627,000	917,000	600	\$9.53	\$5,700
Maine	1,320,000	191,000	279,000	182	\$12.50	\$2,300
Maryland	5,700,000	769,000	1,120,000	735	\$11.03	\$8,100
Massachusetts	6,590,000	858,000	1,260,000	821	\$13.33	\$10,900
Michigan	9,970,000	1,440,000	2,110,000	1,380	\$11.23	\$15,500
Minnesota	5,270,000	679,000	993,000	649	\$12.70	\$8,200
Mississippi	2,950,000	565,000	826,000	540	\$9.70	\$5,200
Missouri	5,990,000	865,000	1,270,000	828	\$10.70	\$8,900
Montana	975,000	131,000	191,000	125	\$11.16	\$1,390
Nebraska	1,800,000	219,000	320,000	210	\$10.70	\$2,200
Nevada	2,640,000	364,000	532,000	348	\$11.48	\$4,000
New Hampshire	1,320,000	183,000	268,000	175	\$12.67	\$2,200
New Jersey	8,710,000	1,190,000	1,750,000	1,140	\$11.59	\$13,200
New Mexico	2,010,000	287,000	419,000	274	\$11.25	\$3,100
New York	19,500,000	2,800,000	4,100,000	2,680	\$11.85	\$32,000





**Table 1-1: Number of Caregivers and the Economic Value of Caregiving, by State, 2009
(Continued)**

State	Total State Population	Number of Caregivers		Total Hours of Care (in millions)	Economic Value/ Hour	Total Value (in millions)
		At any given time	At any time during the year			
North Carolina	9,380,000	1,180,000	1,730,00	1,130	\$10.37	\$11,700
North Dakota	647,000	75,000	109,000	71	\$11.68	\$830
Ohio	11,500,000	1,660,000	2,430,00	1,590	\$11.03	\$17,500
Oklahoma	3,690,000	596,000	872,000	570	\$10.44	\$6,000
Oregon	3,830,000	463,000	678,000	443	\$12.43	\$5,500
Pennsylvania	12,600,000	1,850,000	2,700,00	1,770	\$11.27	\$19,900
Rhode Island	1,050,000	148,000	217,000	142	\$13.27	\$1,880
South Carolina	4,560,000	770,000	1,130,0	737	\$10.04	\$7,400
South Dakota	812,000	101,000	147,000	96	\$10.70	\$1,030
Tennessee	6,300,000	1,130,000	1,650,0	1,080	\$10.20	\$11,000
Texas	24,800,000	3,420,000	5,010,00	3,270	\$10.35	\$34,000
Utah	2,780,000	382,000	559,000	365	\$11.37	\$4,200
Vermont	622,000	83,000	122,000	80	\$12.37	\$990
Virginia	7,880,000	1,180,000	1,720,00	1,130	\$10.37	\$11,700
Washington	6,660,000	854,000	1,250,0	817	\$12.94	\$10,60
West Virginia	1,820,000	303,000	443,000	290	\$9.67	\$2,800
Wisconsin	5,650,000	524,000	766,000	501	\$11.49	\$5,800
Wyoming	544,000	72,000	106,000	69	\$9.87	\$680
USA	307,000,000	42,100,000	61,600,0	40,300	\$11.16	\$450,000

Source: AARP Public Policy Institute: Valuing the Invaluable: 2011 Update, The Growing Contributions and Costs of Family Caregiving



Natural Disaster Awareness for
Caregivers of Senior Citizens

Summary

In this module, you learned to:

- 1-1 Explain how the course is administered.
- 1-2 State the course goals.
- 1-3 Describe the course content.
- 1-4 Describe course evaluation strategy.

1 - 13

Slide 1-13. Summary



Natural Disaster Awareness for Caregivers of Senior Citizens: Building Senior Resilience

Module 2: Natural Hazards and Natural Disasters

February 2013



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Module 2: Natural Hazards and Natural Disasters – Administration Page



Slide 2-1. Natural Hazards and Natural Disasters

Duration

50 minutes

Scope Statement

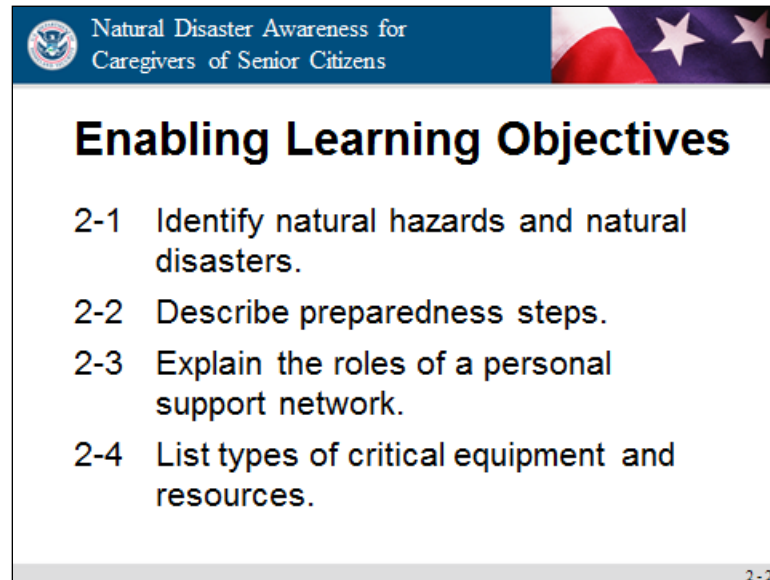
This module will familiarize participants with a summary list of natural hazards. This module will help participants to better understand the actions that might be required of them in times of disaster to ensure for the continued health, safety, and security of the senior citizen(s) in their care. Participants will discuss standard emergency management actions as presented by the instructor and how these actions might change as a result of the special needs of senior citizens. Planning and preparedness actions for both senior citizens and those who care for them will be presented.

Terminal Learning Objective (TLO)

Participants will be able to explain how senior care providers can identify the natural hazards that may affect an eldercare facility or home and how risks associated with hazards are identified and may be minimized.



Enabling Learning Objectives (ELOs)



Slide 2-2. Enabling Learning Objectives

At the conclusion of this module, participants will be able to:

- 2-1 Identify natural hazards and natural disasters.
- 2-2 Describe preparedness steps.
- 2-3 Explain the roles of a personal support network.
- 2-4 List types of critical equipment and resources.

Resources

- Instructor Guide (IG)
- Module 2 presentation slides
- Laptop with presentation software installed and CD-ROM capability
- Audio-visual (A/V projection unit)
- Projector screen
- Chalkboard (and chalk) OR whiteboard (and dry erase markers) OR easel and easel paper (and permanent markers)
- One of each of the following items per participant:
 - Participant Guide (PG) available for download from <http://ndptc.hawaii.edu/>
 - Participant Handout

Instructor-to-Participant Ratio

2:25



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Practical Exercise Statement

N/A

Assessment Strategy

- Instructor observation of participant involvement in classroom discussion
- Instructor-led discussion to gauge participant grasp of subject matter and to ensure that participant understands both how performance will be evaluated and how evaluation will impact participant outcomes



Natural Disaster Awareness for Caregivers of Senior Citizens: Building Senior Resilience

Icon Map



Knowledge Check: Used when it is time to assess the learners' understanding.



Example: Used when there is a descriptive illustration to show or explain.



Key Points: Used to convey essential learning concepts, discussions and introduction of supplemental material.




Hint: Used to cover administrative items or instructional tips that aid in the flow of the instruction.




Participant Note: Used to indicate text that has been included as additional information for the participant. The text may not be directly addressed in the slide presentation or during class discussion.






Natural Disaster Awareness for
Caregivers of Senior Citizens



Module Outline

- Natural Hazards and Natural Disasters
- Caregiver Preparedness



(Source: FEMA, 2005)

2 - 3

Slide 2-3. Module Outline

This module will familiarize the course participants with natural hazards and their different categories. It also includes a discussion on technological and intentional hazards.

Also, this module will examine the capabilities and limitations of traditional emergency management in the initial hours and days of a major emergency or disaster event. It will identify the disaster response requirements of senior citizens, including those related to evacuation, sheltering, feeding, ongoing and emergency medical care, and others.


Finally, the evacuation and shelter-in-place planning processes will be explained so that senior citizens and their caregivers may make appropriate plans and decisions concerning when to shelter-in-place and how and when to evacuate.




Natural Disaster Awareness for
Caregivers of Senior Citizens

Natural Hazards

Natural Process + *Potential to Harm*



(Source: NASA, 2012)



(Source: FEMA, 2006)

2 - 4

Slide 2-4. Natural Hazards



Key Point: Hazards are events or physical conditions that have the potential to cause fatalities, injuries, property damage, infrastructure damage, damage to the environment, interruption of business, or other types of harm or loss (FEMA, 1997). In other words, each hazard represents a threat to an individual, facility or community in one manner or another.

There are many different hazard types, which can be grouped into three main categories according to its source. These categories are:

- Natural Hazards
- Technological Hazards
- Intentional Hazards



Key Point: Risk is an unavoidable part of life.

For hazard risks, full avoidance is generally impossible. Risk affects senior citizens directly, just as it affects all of the individuals and facilities in the communities where they live. Participants can probably imagine, for instance, the difference in impact between a structure fire that burns a single building on the property where you work, and a hurricane that strikes the entire town, city, or even state or territory within which the facility operates. General awareness of hazards and risk, and the associated vulnerability of senior citizens, must therefore be comprehensive—extending well beyond the front door or the facility's perimeter gates. This awareness is particularly critical when persons with



heightened vulnerabilities, such as reduced mobility or awareness, are involved.

An effective disaster preparedness effort begins with an introduction to the different types of natural hazards. Caregivers who know and understand the hazards that their community actually is exposed to are in a much better position to reduce, eliminate, or prepare to respond to possible emergency or disaster incidents that impact the senior citizens under their care.





Natural Disaster Awareness for
Caregivers of Senior Citizens



All Sectors are Impacted by Natural Hazards



Social
Economic
Environmental

(Source: FEMA, 2005)

2 - 5

Slide 2-5. All Sectors are Impacted by Natural Hazards

Natural hazards are the most common cause of major disasters that affect entire communities and even entire regions. These hazards are the result of the many forces originating in one or more natural phenomena that would occur regardless of the presence of man or the built environment.


A natural disaster is the financial, human and physical losses that result from a natural hazard. The losses and damage resulting from a natural hazard are directly related to the vulnerabilities found in the human population that is affected.




Key Point: Emergency managers often prefer to group hazards according to the common generative processes because their main concern is the mitigation of and/or response to the impacts from these events. Please note, however, that there are a number of ways to categorize hazards, each of which follows a logic suited to the end user.

For example, an emergency manager in a coastal community lying in close proximity to the boundary of tectonic plates (as is true in the Western United States and throughout the Pacific) will be concerned with those hazards caused by tectonic processes, including earthquakes, tsunamis and possibly volcanoes.





Natural Disaster Awareness for
Caregivers of Senior Citizens



Technological Hazards

May be induced by natural hazards


- Hazardous materials releases
- Nuclear power plant failures
(e.g., 2011 Japan earthquake and tsunami
and resulting nuclear meltdown)


2 - 6

Slide 2-6. Technological Hazards

Technological hazards are the negative consequences of human innovation that can result in the harm or destruction of life, property, or the environment. They can be very difficult to predict. A wide range of triggers tends to initiate technological hazards, including many of the natural hazards discussed in this module. Depending on the circumstances, seemingly equal technological hazards can affect geographic areas from as small as a single city block to as large as an entire continent. Examples might include the release of hazardous materials due to a derailed train or the collapse of a bridge or dam.



 Natural Disaster Awareness for
Caregivers of Senior Citizens



Intentional Hazards


- Source of harm created by deliberate action
- Examples:
 - Chemical, biological, radiological, nuclear, and explosive hazards
 - Cyber attacks
 - Terrorism


2 - 7

Slide 2-7. Intentional Hazards

Intentional, civil and political hazards include those hazards that exist not due to human accident or an “act of God,” but as a result of the conscious decision of individuals, groups and even governments to act in an antisocial or anti-establishment manner. Examples include crime, terrorism and war.



 Natural Disaster Awareness for
Caregivers of Senior Citizens



FEMA Natural Hazard Categories

1. Tectonic
 - Earthquakes, volcanoes, tsunami
2. Mass-movement
 - Landslides, rockfalls, avalanches
3. Hydrologic
 - Floods, droughts
4. Meteorological
 - Hurricanes, cyclones, tornadoes, extreme temperatures

2 - 8

Slide 2-8. FEMA Natural Hazard Categories

Natural hazards are natural events that threaten lives, property, and other assets. Often, natural hazards can be predicted. They tend to occur repeatedly in the same geographical locations because they are related to weather patterns or physical characteristics of an area.

Natural hazards such as floods, fires, earthquakes, tornados, and windstorms affect thousands of people every year. Participants need to know what their risks are from natural hazards and take sensible precautions to protect themselves, their families, and their communities.

Tectonic Hazards

Tectonic hazards are associated with movement of the Earth's plates. Tectonic hazards occur most commonly along the boundaries of the plates where they meet, although earthquakes, volcanoes, and other tectonic hazards can occur almost anywhere.

The interaction of adjacent tectonic plates determines the nature of the tectonic hazard (e.g., spreading, collision, subduction, etc.), but the hazards are by no means limited to these convergent zones.

Earthquakes



An earthquake is the sudden release of strains that have accumulated along fault lines over time. The violent shaking caused by earthquakes makes them among the most destructive of all hazards. These events can topple buildings, affect the flow of rivers, destroy bridges, induce landslides or tsunamis, and damage other infrastructure.

Earthquakes are often measured by magnitude or intensity. The more well-known Richter scale measures earthquake magnitude by the amount of energy released by the fault rupture.

Volcano

At certain points along the Earth's crust, most notably along the tectonic plate boundaries, hot gas and rock called magma can escape to the surface and erupt as volcanoes. There are many different kinds of volcanoes, as determined by the characteristics of the lava and other material that escapes, the speed of and energy associated with release, and the type of land upon which the volcano occurs. "Hot spot" volcanism occurs in areas other than those near plate boundaries. The Hawaiian Islands are an example of "hot spot" volcanism.

Tsunami

A tsunami is generated when a large area of water is displaced, either by a shift in the sea floor following an earthquake or by the introduction of mass from other events. Waves are formed as the displaced water mass attempts to regain its equilibrium. The generated waves travel outward in all directions at speeds averaging 450 miles per hour in open seas and can reach heights of more than 100 feet upon impact with land (NTHMP, 2003). Tsunamis can be detected by networks of floating and undersea buoys, which can provide critical advance warning for the arrival of these hazards. Impacts only occur along the shorelines of oceans, lakes, and other large bodies of water, so inland areas are at little or no risk.



Key Point: Participants should note that tsunamis are always secondary hazards to other hazard events, and cannot be generated independent of some other phenomenon. As such, they do not fit neatly into any single hazard category. Because almost all tsunamis (in terms of number) are formed by tectonic processes (namely earthquakes), and the magnitude of tsunamis caused by tectonic processes are greater in magnitude and geographic area impacted than other generative forms of tsunamis (namely mass-movements), they are most appropriately categorized with tectonic hazards.



Example: Anything in the built environment that is impacted by a tsunami is likely to be damaged or destroyed by the mass and sheer force of the moving water and/or inundation. Humans who are unable to evacuate in advance of a tsunami to higher ground or to higher floors in buildings are also at serious risk of injury or death. The tsunami events in South Asia and Africa that followed an earthquake in Indonesia in 2004 led to the death of more than 240,000 people in 15 countries.

In many coastal locations, evacuation to higher ground may not be an option. In these situations, vertical evacuation to the higher levels of built structures may be the best alternative. The FEMA guide, *Vertical Evacuation from Tsunamis* (FEMA, 2009), provides this definition of vertical evacuation and some guidelines for choosing a structure:

A vertical evacuation refuge from tsunamis is a building or earthen mound that has sufficient height to elevate evacuees above the level of tsunami inundation, and is designed and constructed with the strength and resiliency needed to resist the effects of tsunami waves.

- Multistory buildings, such as larger concrete frame structures like hotels or condos that meet seismic standards, could be appropriate choices for vertical evacuation structures.
- Concrete and steel-framed buildings at levels higher than six stories may provide increased level of protection.
- A parking garage is a candidate for use as a vertical evacuation structure.

Mass-Movement Hazard: Landslides, Rockfalls, Debris Flows, and Avalanches

Mass-movement hazards are the rapid, gravity-induced, downward movement of large quantities of materials. Mass-movement hazards include landslides, rockfalls, debris flows, and avalanches.

Landslides and Rockfalls

Landslides can occur whenever soil or bedrock located on a hill or other slope is dislodged. Landslides are most often triggered by earthquakes and heavy rainfall, but can be initiated by loss of vegetation (especially after fires), construction, or excessive water in the ground. Landslides can move at high speeds, or they may occur slowly over days, weeks, or even longer periods of time. Rockfalls, which are similar, involve the freefall, rolling, and tumbling of very loose material and generally do not have as much physical mass as landslides.



Because the energy associated with the dislodged material is so great, a landslide destroys virtually everything in its path. Worse still, if this mass crosses a moving waterway, such as a river or stream, it can cause a natural dam that may lead to significant flooding upstream.

Landslide risk is fairly easy to map, but not always easy to predict with precision, given the variability of its initiating factors. There are a number of mechanisms by which landslide risk may be abated, typically via slope stabilization, barriers, and dewatering of soils.

Debris Flows

Debris flows, also referred to as mudflows or mudslides, are dependent upon the introduction of great amounts of water from prolonged rainfall, flash flooding, or very rapid snowmelt. The lubrication provided by the liquid content of the debris allows for its much faster descent down the affected slope and, likewise, greater overall distances traveled from the source of the flow.

Avalanches

Avalanches are movements of snow, ice, and any other earth, rock, or other materials that are picked up as it progresses quickly down a hill or mountain slope. Avalanches occur during specific precipitation and climatic conditions and within defined avalanche “chutes” that have a steep angle of descent. Avalanches can occur when snow accumulates to the point of failure or because of some trigger (such as an explosion, physical disturbance, or seismic event). Avalanches rarely affect structures, but they can have major, yet temporary, impacts on transportation infrastructure when it crosses and blocks major roadways.

Hydrologic Hazards

Hydrologic hazards are the result of either excess or a severe lack of water, and are the focus of this next section.

Floods

Floods are the most common natural hazard. More people are killed by flooding each year than by any other hazard, with an average of 20,000 deaths and 75 million people affected worldwide (Brun, 1997). In the United States, floods have resulted in the greatest number of Presidential Disaster Declarations.

Floods are caused by meteorological processes, such as prolonged rainfall, localized and intense thunderstorms, or onshore winds. However, other generative processes, including landslides, logjams, avalanches, icepack, levee breakage, and dam failure, can also generate rapid and widespread flooding.



Land in close proximity to rivers or oceans which is likely to flood at least once every 100 years (or has at least a 1% chance of flooding each year) is called the floodplain. Facilities located in the floodplain that have not been designed to withstand flood risk are the most vulnerable. Outside of floodplains, flash flooding is common. Flash floods occur with little or no warning and are the result of intense rainstorms. Flash flooding is often the result of rapid, unplanned urbanization, which can greatly reduce the land's ability to absorb rainfall. The resulting runoff has nowhere to go and accumulates as quickly as the rain can fall.



Participant Note: Floods are most commonly predicted using river gauges, which measure the rise of rivers above normal levels as runoff into them increases. Using this information, it is possible to predict flooding that may occur in the coming hours or day. Once a flood begins, damage will result from inundation and the forces of moving water.



Example: Coastal flooding is most commonly the result of a storm surge. A storm surge is a rapid rise in sea level caused by an advancing storm. Hurricanes can lead to sea level rises that reach 25 to 30 feet in height (as seen along areas of the Gulf Coast during Hurricane Katrina in 2005). Coastal flooding is also the result of tsunami events, although these hazards occur with lower frequency.

Droughts

A drought is a period of unusually dry weather that persists long enough to cause serious problems like crop damage and water supply shortages. The severity of the drought depends upon its duration, the degree of moisture deficiency, and the size of the affected area.



Participant Note: Drought is a hazard that may require many months to emerge and that may persist for many months or years thereafter. This type of hazard is known as a “creeping” or chronic hazard.

Meteorological Hazards

Meteorological hazards are related to atmospheric weather patterns or conditions. These hazards are generally caused by factors related to precipitation, temperature, wind speed, humidity, or other, more complex, conditions. The greatest range of natural hazard types falls under this general category.



Tropical Cyclones (Hurricane, Typhoon, Cyclone)

Tropical cyclones are rotating marine storms that significantly affect coastal zones but can also travel far inland under certain conditions. These storms are marked by a combination of high winds, heavy rainfall, and coastal storm surges. Tropical cyclones with maximum sustained surface winds of less than 39 miles per hour are called tropical depressions. Sustained winds that reach at least 39 miles per hour are typically called tropical storms and are assigned a name. If winds reach 74 miles per hour, they are called a hurricane, typhoon, or cyclone, depending on where in the world they occur. In the western North Pacific, hurricanes are called typhoons, while similar storms in the Indian Ocean and South Pacific Ocean are called cyclones.

In the United States, the intensity of tropical cyclones is measured according to the Saffir-Simpson Hurricane Scale. This scale assigns each cyclone to a category measure of 1 to 5 according to its sustained wind speed.

Monsoons

Monsoons are strong seasonal winds that exist in specific regions throughout the world and that reverse in direction at predictable intervals each year.

Monsoons are often associated with heavy rainfall when they cross over warm ocean waters prior to heading to cooler landmasses. As the wind blows over the warm water, the upward convection of air draws moisture from the ocean's surface. When it passes over the cooler landmass, the moisture condenses and is deposited in heavy rainfalls that can last for weeks or months. Monsoons most commonly affect areas west of the Rocky Mountains and the outer-lying U.S. territories, including Guam, the Northern Mariana Islands, and American Samoa.

Tornadoes

Tornadoes, or funnel clouds, are rapidly spinning columns of air, also known as vortexes, extending downward from a cumulonimbus cloud. Tornadoes form when warm, moist air meets cold, dry air. When a tornado occurs over a body of water, it is called a waterspout.

Tornado damage is rated according to the Fujita-Pearson Scale, or the F-Scale. This scale, assigned after the tornado is generated, relates to the degree of damage inflicted and the intensity of the wind.

A strong tornado will likely destroy anything in its path that is not engineered to resist tornado-strength winds. Tornadoes can be predicted according to the recognition of generative factors—though warnings may



provide only minutes to make last-minute preparations and to respond appropriately.

Ice Storms

Ice storms are precipitation events involving freezing rain that accumulates on exposed surfaces to a thickness greater than one-quarter of an inch. The damage associated with ice storms results from the weight of ice accumulation, which causes tree limbs to break, power lines to fall, and roofs to collapse. Icy roads lead to transportation accidents. Power outages can leave people exposed to extremely cold temperatures, and can cause economic impacts due to business interruption.

Severe Winter Storms

Severe winter storms are cyclonic weather hazards associated with excessive precipitation of snow, sleet, and ice. Many classifications of winter storms dictate that at least four inches of accumulation must occur within 12 hours, or six inches within 24 hours. A blizzard is a type of severe snowstorm accompanied by very low temperatures (below 20° F) and high winds (35 miles per hour or greater).

Hailstorms

Hailstorms are meteorological events characterized by the precipitation of balls or lumps of clear ice and compact snow. Cold ground temperatures are not necessary for hailstorms to occur, and these events commonly occur throughout the world—including the tropics. A hailstorm's primary impact is property damage, especially to windows, roofs, and vehicles.

Windstorms

Windstorms are periods of high wind not associated with convective events. They are considered severe if sustained winds of 40 miles per hour or more persist for an hour or longer or if sustained winds of 58 miles per hour or more are sustained for any amount of time. Windstorms cause damage primarily due to powerful wind forces and, secondarily, due to flying debris.

Sandstorms

Sandstorms, or dust storms, occur when very strong winds blow over loose soil or sand, picking up significant amounts of material in the process. Areas where the ground is extremely dry and has very little vegetation are most susceptible to sandstorms. Once the particles become airborne, they can reduce visibility up to a few feet, cause respiratory problems, and have a damaging and abrasive effect on machinery and structures.



Thunderstorms

Thunderstorms are local storms with lightning and thunder, which are produced by a cumulonimbus cloud. They are usually accompanied by gusty winds, heavy rain, and occasionally hail. Severe thunderstorms develop when wind speeds exceed 58 miles per hour and hail forms in balls greater than three-quarters of an inch in diameter.

Extreme Cold

Extreme cold temperatures, which may be fleeting or may persist for days or weeks, can have severe negative consequences. What constitutes extreme cold, and its effects, vary across geographic regions. For example, in regions relatively unaccustomed to winter weather, near-freezing temperatures are considered “extreme cold.” Generally, a significant drop below the average low temperature for an area will cause adverse effects to unprepared people or property.


Extreme Heat

Extreme heat, like extreme cold, is a temperature-related hazard associated with a significant deviation above normal high temperatures for a given geographical area. Periods of extreme heat are often called “heat waves.” Extreme heat most significantly affects humans, though stresses upon electrical infrastructure related to intense demand caused by widespread overuse of air conditioners often causes secondary, exacerbating disasters. Transportation infrastructure, including rails and roadways, can also be adversely affected by heat.


Wildfires

A wildfire, which is a brush or wildland fire that is burning out of control over great geographic range, is often considered a meteorological event because it is so closely associated with the weather conditions necessary to sustain and spread it. These conditions are called “fire weather.” Other factors also contribute to the generation and spread of wildfire, including hydrological conditions, topography, and vegetation. The weather conditions that promote ignition and rapid spread of fires include low humidity, high winds, dry thunderstorm (i.e., lightning without rain), and unstable air. Wildfires can cause incredible environmental damage and destroy any unprotected structure or vehicle within its path. Many deaths occur when people become stranded within zones of major burning. Once the fires have passed or have been extinguished and a major loss of vegetation has occurred, secondary hazards can occur, including mudslides, landslides, river silting, and flooding.





Natural Disaster Awareness for
Caregivers of Senior Citizens





Hazards That Could Affect Your Community

- Tsunami
- Volcanic Eruption
- Flood (river or coastal)
- Earthquake
- Fire (wildland and structure)
- Windstorms
- Heavy Snowfall
- Coastal Sea Storms with Storm Surges
- Extreme or Prolonged Cold Spells
- Terrorism
- Avalanche/Landslide
- Oil/Fuel Spills and HAZMAT or Chemical Releases
- Community Power/Utility Failure

2 - 9

Slide 2-9. Hazards That Could Affect Your Community



Natural Disaster Awareness for
Caregivers of Senior Citizens

WHAT TO EXPECT

The 72-Hour Rule

1. Individuals, families, and businesses are on their own for at least 72 hours after a disaster.
2. Includes seniors living at home or at a senior care facility.
3. Assistance may take longer for remote locations.

2 - 10

Slide 2-10. What to Expect: The 72-Hour Rule

When dealing with a natural disaster, the knowledge that one is prepared to take action will minimize the uncertainty in decision-making.

Caregivers should be prepared to manage on their own for at least 72 hours after a disaster.

Although the first priority of responders is to ensure that all community members are in safe and secure locations, there are numerous gaps between the response capabilities of governmental and non-governmental emergency response groups and the response requirements and needs of a senior citizen, especially senior citizens with disabilities.

A delay in assistance could prove very difficult for a senior citizen with one or more of the vulnerabilities outlined in the response requirements section of this module.

The loss of electrical power, access to natural gas (for heating, air conditioning, or cooking), sewage and/or water, and the length of time it takes for these utilities to be restored can severely impact senior citizens, particularly senior citizens who depend upon life-sustaining equipment or treatments.

There are numerous issues that a senior citizen can encounter during an evacuation. These issues include hearing and accepting the evacuation order, transportation, accessing and residing in an emergency shelter or



temporary housing, access to medicines and medical care, language barriers, and disruption in routine.

Sheltering in place, which may include staying at home, in a caregiver's home, or in a senior care facility before, during, and after a disaster can present numerous problems for a senior citizen. These problems include the ability for someone to check on them regularly, access to food, water, and other critical items, access to medicines and medical care, receiving critical supplies over time, and receiving outside communications.

Additionally, an isolated senior citizen cannot rely on government and non-governmental groups from outside of their neighborhood or community to check on them before, during, or after a disaster. A senior citizen who is isolated at home in an urban area or who lives in an isolated rural area may not have contact with a response group for days after a disaster strikes.



Example: Ready America states:

You may need to survive on your own after an emergency. This means having your own food, water, and other supplies in sufficient quantity to last for at least three days. Local officials and relief workers will be on the scene after a disaster, but they cannot reach everyone immediately. You could get help in hours, or it might take days. In addition, basic services such as electricity, gas, water, sewage treatment, and telephones may be cut off for days, or even a week or longer (Ready America, <http://www.ready.gov/america/getakit/index.html>).

Additionally, FEMA states:

The need to prepare is real. Disasters disrupt hundreds of thousands of lives every year. Each disaster has lasting effects, both to people and property. If a disaster occurs in your community, local government and disaster-relief organizations will try to help you, but you need to be ready as well. Local responders may not be able to reach you immediately, or they may need to focus their efforts elsewhere. You should know how to respond to severe weather or any disaster that could occur in your area such as hurricanes, earthquakes, extreme cold, flooding, or terrorism. You should also be ready to be self-sufficient for at least three days. This may mean providing for your own shelter, first aid, food, water, and sanitation (FEMA, 2004).




Key Point: Emergency management professionals both in the public and private sectors also acknowledge that local first



responders (fire, police, and emergency medical technicians, etc.) and local emergency managers are likely to be on their own for the first 72 hours after a disaster strikes.

A caregiver who is helping to develop an emergency plan and building an emergency kit for a senior citizen should incorporate the likelihood of a senior citizen being on their own for at least the first 72 hours after a disaster strikes. Caregivers should include adequate supplies of food, water, and other materials in the emergency kit.




WHAT TO EXPECT

Disaster Response - The First 4 Hours

1. Emergency response teams initiate immediate life-saving rescue operations.
2. Medical service personnel begin deployment.
3. Emergency shelters begin opening.

2 - 11

Slide 2-11. What to Expect: Disaster Response – The First 4 Hours



WHAT TO EXPECT

Disaster Response - The First 4 Hours (continued)

4. Begin the public information messaging program.
5. First responders and volunteer agencies are activated (local fire, police, and emergency medical service, Red Cross, Salvation Army).

2 - 12

Slide 2-12. What to Expect: Disaster Response – The First 4 Hours (continued)



The existing response capabilities among the governmental and non-governmental groups that respond regularly to disasters focus on:

- Performing immediate life-saving rescue operations.
- Maintaining crowd control, traffic control, and public safety.
- Deploying medical service personnel where needed and providing immediate medical treatment to disaster victims and transporting the critically injured to medical facilities.
- Suppressing and controlling fires.
- Identifying safe locations to accommodate displaced persons while emergency shelters are being opened.
- Identifying and notifying at-risk populations, and initiating evacuation, if necessary.

Additional response capabilities include:



- providing emergency food, water and shelter to evacuees and victims displaced by the disaster;
- distributing vital supplies such as food and water to disaster victims in the disaster zone;
- addressing the unique needs of children in disasters such as keeping families together;
- providing medical and psychosocial care and providing recreational and education opportunities; and
- helping disaster victims to recover and get back on their feet after a disaster has struck.

These services should also include special needs and considerations that may be required for individuals with disabilities.

During a disaster response, a senior citizen could receive assistance from one or more of the traditional response organizations. In a growing number of instances, these traditional response organizations have become more sensitive to the needs of senior citizens. However, the primary focus of these groups is to serve as many of the disaster victims as quickly as possible. Therefore, it is no guarantee that affected senior citizens will receive the assistance they would require in a disaster scenario. This uncertainty makes the role of senior caregivers—especially those caring for individuals with disabilities—that much more important.

A senior citizen's response requirements will depend on many factors, such as his or her mobility, medical conditions, disabilities (physical, cognitive, sight, hearing, etc.), as well as other social and economic factors. Each will be discussed in turn later in the module.



Natural Disaster Awareness for
Caregivers of Senior Citizens

WHAT TO EXPECT


After the natural disaster


<u>Stay in Communication</u>	<u>Responder Priorities</u>
<ul style="list-style-type: none">• Listen to updated emergency information• Do not return to an evacuated area until receiving the “all-clear” message	<ul style="list-style-type: none">• Life• Environment• Property

2 - 13

Slide 2-13. What to Expect After the Natural Disaster



 Natural Disaster Awareness for
Caregivers of Senior Citizens



Caregiver Preparedness

What you NEED to know before a disaster	1. Important Information
	2. Support System
	3. Critical Equipment
	4. Food & Water
	5. Shelter => Evacuation


2-14


Slide 2-14. Caregiver Preparedness

As noted earlier in this module, emergency management officials strongly recommend that all community members are prepared to be on their own for up to the first 72 hours after a disaster strikes.

Caregiver preparedness is key to reducing the vulnerability of a senior citizen in an emergency.



 Natural Disaster Awareness for
Caregivers of Senior Citizens



Important Information

Information to keep updated and have on hand:

- Name, Address, Phone
- Language
- Insurance
- Medical Information
- Medication
- Doctors and Dentist
- Optometrist / Ophthalmologist
- Emergency Contacts

2 - 15

Slide 2-15. Important Information



Participant Note: Important Documents

It is important to periodically review, update, and organize your documents. Be sure to make photocopies of your important documents and leave the originals in a bank safe, home safe that is secured to the floor or wall, or with close relatives.

Photocopies of documents should be placed in a Ziploc bag or waterproof container to protect them from water and dirt, and should be brought along in the event of an evacuation.


Important documents may include (State of Hawaii, 2010):

- State ID card or Driver's License
- Credit/Debit Card Number(s)
- Bank Account Information
 - It may be worthwhile to set up automatic deposit of any checks and payments received. Post-disaster postal service may have difficulty getting paper checks delivered if roads have not been cleared or are not safe.




- The U.S. Department of Treasury recommends direct deposit (<http://www.godirect.org>) into checking accounts or the Direct Express Debit MasterCard.
- Medical Insurance:
 - Be sure to carry originals of any Medicare and Medicaid Cards.
- Last Will and Testaments and Advance Directives
- Title/Deeds to Property/Home
- Prescriptions for Medications, Hearing Aids, and/or Glasses






Natural Disaster Awareness for
Caregivers of Senior Citizens



Start a Personal Support Network



(Source: FEMA, 2001)

- Who will know where you are?
- Identify relatives, friends, and neighbors that can assist the senior quickly in the event of a disaster.

2 - 16


Slide 2-16. Start a Personal Support Network

It is important to identify those who can assist the senior citizen quickly in the event of a disaster:


- close relatives,
- out-of-state relatives,
- friends
- and/or neighbors who live in or near the home.

If the senior citizen lives in a multi-story dwelling, work with the property manager or condo board to address disaster planning.





Natural Disaster Awareness for
Caregivers of Senior Citizens



Personal Support Network

<u>Special Considerations:</u> <ul style="list-style-type: none">• Isolation• Language Barriers• Communication• Trust	<u>Have a Plan:</u> <ul style="list-style-type: none">• How will you communicate the warning?• Who will check to make sure that the senior is safe?• Whom does the senior trust?
--	--

2 - 17

Slide 2-17. Personal Support Network

Additional considerations include:

- Exchanging important key(s).
- Sharing where emergency supplies are kept.
- Keeping your personal support network informed of scheduled leaves.
- Learning about each other's needs and how to help each other in an emergency.



Natural Disaster Awareness for
Caregivers of Senior Citizens

Critical Equipment and Resources

Personal Needs:

- Back-up batteries
- Extra eyeglasses, hearing aids, oxygen tanks
- Extra canes / walkers
- Non-motorized wheelchairs
- Minimum 3-day supply of medicines
- Prescription information
- Medical device and equipment information
- Back-up attendants and service providers

2-18



Slide 2-18. Critical Equipment and Resources

The following issues require the caregiver's attention:

- Will the senior citizen have access to a proper diet, prescription medicine, and the medical staff to support everyday living?
- Will the caregiver be able to regularly check in and assist the senior citizen?
- Will the senior citizen have access to needed medical equipment and the power needed to make this equipment function?
- If evacuated, will the caregiver or medical personnel have access to medical records and will the senior citizen be placed in a facility that is adequately heated or air conditioned?

Access to doctors, nurses, and personal attendants who provide regular and emergency care may be required. Also, caregivers must plan to check in regularly to monitor medicines and medical conditions of senior citizens. Senior citizens may also require access to medical equipment such as oxygen tanks, ventilators, dialysis, and medical records if an evacuation is ordered.



Natural Disaster Awareness for
Caregivers of Senior Citizens

Food & Water

Food Storage



- Special dietary needs: Check with your doctor to make sure you have recommended supplies.
- Low-sodium food is a good investment.

Water

Rule of thumb:
A gallon of water per day per person (and pet).





2 - 19

Slide 2-19. Food and Water

Natural Disaster Awareness for
Caregivers of Senior Citizens

Food & Water (Continued)

- If you anticipate the electricity going out, set the refrigerator to the coldest temperature.
- Check expiration dates on non-perishables (canned goods).
- Canned foods should be eaten within two hours after opening.
- Smaller cans are more appropriate for single and smaller families.



2 - 20

Slide 2-20. Food and Water (Continued)



Participant Note: Food and Water


The Challenges of Preparing Food (State of Hawaii, 2010):


- In a disaster situation, the electricity typically goes out, and the refrigerator, freezer, and electric oven will not work. A gas oven, however, should still work, although matches may be necessary (and should be kept in a waterproof container) to replace the electronic ignition.



- If you anticipate the electricity going out, set your refrigerator to the coldest temperature possible beforehand, so foods will last longer after the power outage.
- Food that is in the refrigerator, such as milk, sour cream, and yogurt should be eaten first since it will spoil most quickly.
- Food that is in the freezer, such as frozen meats that can be grilled, should be eaten next. Food in a side-by-side refrigerator/freezer will stay frozen for approximately 12 hours, while food in a top or bottom-mount freezer will stay frozen up to 24 hours. Items in a separate freezer may remain frozen for 48 to 72 hours.
- A grill may be used to cook food, but should never be used inside the home to prevent fires.
- Canned goods and dried fruit are non-perishables but should be stored in a cool, dry place, with a note indicating the purchase date. These foods should be eaten last, after the perishable foods have either spoiled or already been consumed. Canned goods should be eaten within two hours of opening.
- Low-sodium food is a good investment, as salt will make you thirsty. If you are on a sodium-restricted diet, rinse all canned goods thoroughly before eating, as appropriate. Salt, however, is important in the daily diet.
- Most fruits and vegetables hold their quality at room temperature for several days.
- Water is extremely important and can be used not only for drinking, but also for rehydrating dried foods, cooking, brushing teeth, and for sanitation. At least a gallon of water per day per person (and pet) in a household is necessary.
- Many canned goods (e.g., canned fruits and juices, etc.) also contain water.



 Natural Disaster Awareness for
Caregivers of Senior Citizens



Shelters → Evacuation

Special Considerations: <ul style="list-style-type: none">• Mobility• Medical Conditions• Disabilities• Social / Economic factors	Know your needs and the services available ahead of time: <ul style="list-style-type: none">• Can you shelter in place?• Where is the nearest shelter?• Do you require a shelter that can accommodate access and functional needs?• How will you get from your home to the shelter?
---	---

2 - 21

Slide 2-21. Shelters ⇒ Evacuation

Planning is the key to reducing the vulnerability of senior citizens during a major emergency or disaster event.

Participants can reduce panic and confusion by creating supports to increase mobility prior to a disaster event.

Individuals in a senior citizen's support network can assist in identifying and registering for evacuation assistance provided by government and non-profit transportation services, including those outfitted with wheelchair lifts.

In addition, senior citizens should evacuate to hotels located in communities outside the evacuation area if they can afford it. Network members should also identify community and out-of-community emergency shelters that provide access and accommodations for senior citizens with mobility issues.

Support network individuals can also ensure that wheelchairs are in working condition with full batteries charged and extra batteries ready. Wheelchairs and walkers should also be stored in a designated place at a senior citizen's home so that they are easily located and accessible during an emergency.



Additional Medical Issues

Additional medical issues in shelters or temporary housing include proper waste disposal, functioning heat and air conditioning, and the ability to isolate individuals to reduce exposure to contagious diseases and/or other infections. Also, the accommodation of specific dietary and nutritional needs will need to be considered.

Senior Citizens with Disabilities

Senior citizens with disabilities will need special care. To reduce their vulnerability during a major emergency or disaster event, there are many issues that must be planned for in advance. Most senior citizens with disabilities will need privacy in emergency shelters. Senior citizens with cognitive disabilities like dementia or Alzheimer's disease may have difficulty comprehending what is happening. The disruption in their routine will be difficult to explain to them and may result in agitation. These senior citizens may have difficulty accessing emergency shelters and temporary housing as well as receiving information before, during, and after a disaster. Access to prescription medicines and doctor, nurse, or caregiver assistance may also be limited.

Care for the Caregiver

An important concern involves the additional stress on caregivers. Volunteers and relief/response workers need rest in order to be effective in a disaster event. Accordingly, a plan should be developed that includes the appropriate care of caregivers.



Natural Disaster Awareness for
Caregivers of Senior Citizens

Shelter-in-Place: Preparing Your Shelter

- Let families and neighbors know you are sheltering in place.
- Put a "sheltering in place" sign visible in the window.
- Shut all doors and windows.
- Clear clutter from exit paths.
- Choose a room with bathroom facilities and water available.
- Bring emergency supplies into the room.
- Turn off all motors and fans.
- Close vents to keep inside air in.
- Remain sheltered until the "all-clear" message.

2-22

Slide 2-22. Shelter-in-Place: Preparing Your Shelter

To "shelter-in-place" is to remain wherever you are during a disaster. If you are sheltering in place, here are some safety tips for preparing your home in the event of a disaster (State of Hawaii, 2010):

- Shut all doors and windows of the house. In the event of a hurricane, all glass windows should be covered to minimize the possibility of glass shattering and causing injury.
- Clear the clutter from hallways and exit paths.
- Move heavy furniture or wall hangings that could fall upon beds, couches, and other places where people sit or sleep.
- Store all flammable objects away from the stove and electrical appliances.
- Move fragile or breakable items away from the edges of tables and shelves.
- Move electrical devices, such as hair-dryers, shavers, and electric toothbrushes, away from water sources, such as showers and sinks.
- Close all vents to keep inside air in and outside air out.
- Turn off all motors and fans. Non-moving air is best. Turn off anything that creates wind, generates extra heat, or could generate sparks.
- If possible, choose a room with bathroom facilities and water available. Bring emergency supplies into this room in preparation for sheltering in place for several hours.
- Let family and neighbors know you are sheltering in place.
- Listen to the radio and/or TV for public announcements.



- Put a “sheltering in place” sign in a window visible to passersby, so if you are unable to get out after an “all-clear” message is given, someone will come to look for you.
- Remain sheltered until an “all-clear” message is given.




Participant Note:


Knowing how to shut off the gas, water, and electricity is important!

- Do NOT shut off your gas UNLESS you are directed to evacuate from your area by emergency management officials.
- Keep tools handy and contact the Gas Company before a natural disaster to find out where your meter or valve is and how to shut it off.
- Only the Gas Company can turn gas back on safely.
- NEVER attempt to turn the gas back on yourself.






Natural Disaster Awareness for
Caregivers of Senior Citizens



Finding a Suitable Shelter

If you need to
evacuate from your
home:



(Source: FEMA, 2008)

Shelters:

- Is the shelter open?
- Is the shelter suitable for the senior?
- What types of services are available at the shelter?
- What to bring?
- Pets?

2 - 23

Slide 2-23. Finding a Suitable Shelter

Although sheltering in place may be the preferred option for a senior citizen and caregiver, **ALWAYS EVACUATE WHEN DIRECTED TO DO SO!**

The following issues require the caregiver's attention with the need to evacuate:

- Where is the nearest shelter?
- Does the shelter accommodate individuals with special needs?
- Are pets allowed at the shelter?
- How will the senior citizen get from their home to the shelter? If the elevator does not work, how will they get down the stairs? If they will require assistance getting down the stairs or to a shelter, it is important to contact those who will be helping them before a disaster occurs.
- Medical considerations include:
 - Will the senior citizen have access to a proper diet, prescription medicine, and the medical staff who support them in their everyday lives?
 - Will the caregiver be able to regularly check in and assist them?
 - Will the senior citizen have access to needed medical equipment and the power needed to make this equipment function?
 - Will the caregiver or medical personnel have access to their medical records



- Will the senior citizen be placed in a facility that is adequately heated or air conditioned?
- If the senior citizen needs to evacuate to a professional facility, the caregiver should request, at a minimum, to see the emergency management procedures of the facility.



Participant Note: Not All Shelters May Be Open in an Emergency.

- During an emergency, listen to your battery-powered radio for information on which shelters are open, whether they are special needs shelters, and if they accept pets (if applicable).
- If you do evacuate to a shelter, inform your family and neighbors of which shelter you are going to.
- Depending on the type of emergency, shelters may not have cots, food, running water, or electricity.



Key Point: It is important for caregivers and senior citizens to plan for the possibility of evacuating to a shelter. Preparedness is critical to maintaining senior resiliency.



Participant Note: What to Bring to the Shelter

- Caregivers will not be provided at the shelter. If the senior citizen requires a caregiver, arrangements should be made ahead of time regarding an accompanying caregiver.
- There are several resources available on “go kits” and what to bring to a shelter.
- A backpack with wheels or a small wheeled suitcase is recommended. Remember to bring only what you can carry, as space will be limited at the shelter.

Other Consideration: Coping with Evacuation



A senior citizen’s ability to respond and cope with evacuating to a shelter is based on many factors. The following issues require the caregiver’s attention:

- Is the senior citizen a shut-in or residing in an isolated rural area?
- Are there language issues or other communication obstacles such as vision or hearing impediments?
- What happens when everyday services provided by government and non-profit groups are interrupted?



- Will the senior citizen feel comfortable interacting with strangers who may provide care or assistance in the aftermath of a disaster?



Natural Disaster Awareness for
Caregivers of Senior Citizens

Conclusion

- 1) Know what hazards can affect your community
- 2) Disasters are caused by hazards.
- 3) Be prepared
- 4) Know what to expect
- 5) Use information and tools to increase senior resiliency and minimize risk

2 - 24

Slide 2-24. Conclusion



Preparedness begins with knowing what to expect and understanding the what one must be prepared for.

Caregivers and senior citizens need to be prepared to manage on their own for at least 72 hours after a disaster.

Knowing “what to expect” when dealing with a natural disaster – and the knowledge that one is prepared to take action – will minimize the uncertainty in decision-making.

Preparedness is key to maintaining senior citizen resilience during and after a natural disaster.



Natural Disaster Awareness for
Caregivers of Senior Citizens

Summary

In this module, you learned:

- To identify natural hazards and natural disasters.
- Preparedness steps.
- The roles of a personal support network.
- Types of critical equipment and resources.

2-25

Slide 2-25. Summary

This module familiarized participants with natural hazards. Participants learned about the different categories of natural hazards and the hazards that are included in each category. Also, this module discussed the need for caregivers and senior citizens to have a plan for evacuation, sheltering, and maintaining medical care during and after a natural disaster.



Natural Disaster Awareness for Caregivers of Senior Citizens: Building Senior Resilience

Module 3: Senior Constraints, Vulnerabilities, and
Resilience

February 2013



FEMA

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Module 3: Senior Constraints, Vulnerabilities, and Resilience – Administration Page



Slide 3-1. Senior Constraints, Vulnerabilities, and Resilience

Duration

50 minutes

Scope Statement

This module will familiarize participants with the attributes unique to and indicative of the senior citizen population, including senior citizens with disabilities. Senior citizens with disabilities are inherently more vulnerable to disasters. Participants will learn the dynamics behind each vulnerability factor, the mechanisms by which vulnerability is measured, and solutions by which these factors are minimized or eliminated. Each of the physical, social, and economic vulnerabilities will be explained and addressed.

Terminal Learning Objective (TLO)

Participants will be able to describe the constraints and vulnerability factors associated with senior citizens.



Enabling Learning Objectives (ELOs)

Natural Disaster Awareness for
Caregivers of Senior Citizens

Enabling Learning Objectives

3-1 Describe senior citizens' constraints and dependencies related to mobility, medical, disability, social and economic factors.

3-2 Explain how senior citizens can become more resilient.

3-2

Slide 3-2. Enabling Learning Objectives

At the conclusion of this module, participants will be able to:

- 3-1 Describe senior citizens' constraints and dependencies related to mobility, medical, disability, social and economic factors.
- 3-2 Explain how senior citizens can become more resilient.

Resources

- Instructor Guide (IG)
- Module 3 presentation slides
- Laptop with presentation software installed and CD-ROM capability
- Audio-visual (A/V projection unit)
- Projector screen
- Chalkboard (and chalk) OR whiteboard (and dry erase markers) OR easel and easel paper (and permanent markers)
- One of each of the following items per participant:
 - Participant Guide (PG) available for download from <http://ndptc.hawaii.edu/>
 - Participant Handout

Instructor-to-Participant Ratio

2:25



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Practical Exercise Statement

N/A

Assessment Strategy

- Instructor observation of participant involvement in classroom discussion
- Instructor-led discussion to gauge participant grasp of subject matter and to ensure that participant understands both how performance will be evaluated and how evaluation will impact participant outcomes



Natural Disaster Awareness for Caregivers of Senior Citizens: Building Senior Resilience

Icon Map



Knowledge Check: Used when it is time to assess the learners' understanding.



Example: Used when there is a descriptive illustration to show or explain.



Key Points: Used to convey essential learning concepts, discussions and introduction of supplemental material.



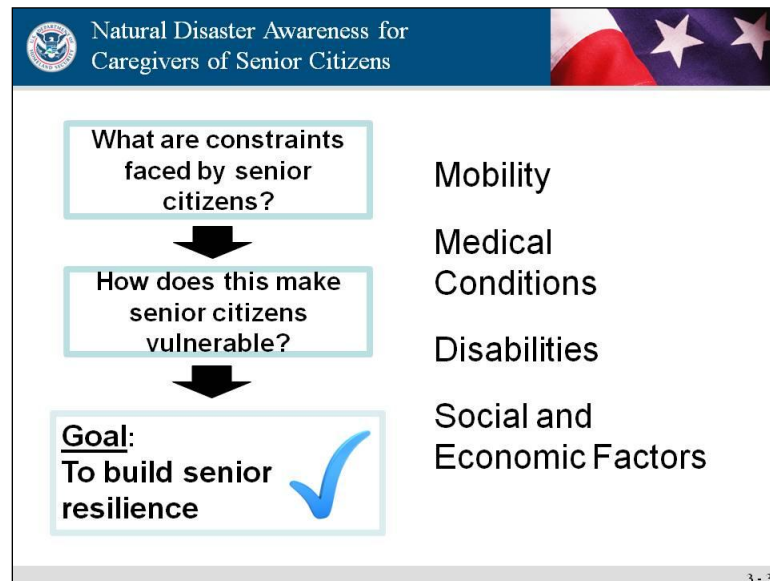
Hint: Used to cover administrative items or instructional tips that aid in the flow of the instruction.



Participant Note: Used to indicate text that has been included as additional information for the participant. The text may not be directly addressed in the slide presentation or during class discussion.



Participant Notes:



Slide 3-3. Goal: To Build Senior Resilience

Module 3 will examine the various constraints and dependencies of senior citizens, including:

- Mobility
- Medical Conditions
- Disabilities (physical: sight, hearing, etc.; cognitive; etc.)
- Social and Economic factors

In addition, the role of caregivers in an at-home situation and in senior care facilities will be examined.

Based on an understanding of the constraints, dependencies, and special considerations of senior citizens, this module will examine how the special needs of senior citizens contribute to their increased vulnerability to major emergencies and disaster events. For example, participants will learn how senior citizens with disabilities and/or other severe medical conditions may be at greater risk of injury and death during an evacuation scenario. They will also learn how individuals who are visually or hearing impaired may have problems receiving disaster warnings and how individuals with cognitive disorders may become agitated in an emergency situation that disrupts their regular routine.

Numerous constraints and dependencies exist in the lives of senior citizens. Many government and private organizations have conducted research on this topic. For example, the AARP reports that:



Participant Notes:

Older persons are likely to be disproportionately vulnerable during disasters because they are more likely to have chronic illnesses; functional limitations; and sensory, physical, and cognitive disabilities than those of younger ages. In addition, they often take multiple medications, rely on formal or informal caregivers for assistance, and, especially at advanced ages, and experience general 'frailty.' Other factors that increase older persons' vulnerability in emergencies and disasters include living alone and in isolated rural areas. (Gibson 2006)

In addition, the U.S. Fire Administration (USFA) publishes a factsheet entitled *Fire Safety Lasts a Lifetime*. This factsheet explains the heightened risk of older adults by stating:

[D]ecreased mobility, health, sight, and hearing may limit a person's ability to take the quick action necessary to escape during a fire emergency. Depending on physical limitations, many of the actions an individual can take to protect themselves from the dangers of fire may require help from a caregiver, neighbor, or outside source. (USFA 2006)

The Centers for Disease Control and Prevention (CDC) has noted that:

[R]ecent disasters, such as the September 11, 2001, terrorist attacks and Hurricanes Katrina and Rita in 2005, have made emergency planners aware that: (1) not all disasters are over in a few days or weeks, and (2) people with pre-existing chronic health conditions are vulnerable to adverse effects if they do not receive their usual medical treatment during the disaster recovery phase. (CDC, not dated)

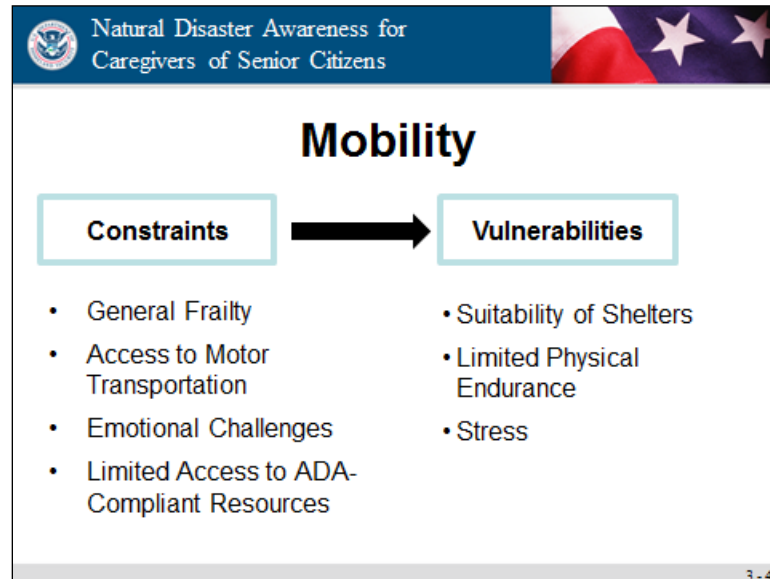
Finally, a paper entitled *Planning for a Pandemic/Epidemic or Disaster: Caring for Persons with Cognitive Impairment*, prepared collectively by seven healthcare professional organizations, states:

Approximately 50% of all nursing home residents have some form of dementia with 26% experiencing mild cognitive impairment. Among residents in assisted-living programs, 42% or more have some form of dementia (Alzheimer's Association, not dated).

This means that caregivers for senior citizens must be well informed, prepared, and trained to assist all senior citizens during a disaster event, particularly those with disabilities.



Participant Notes:



Slide 3-4. Mobility

Numerous mobility issues among senior citizens will be identified and will be considered during this course. In the midst of a disaster event, senior citizens may not be able to move as quickly as is necessary due to general physical frailty. They may have difficulties moving or changing directions quickly, climbing stairs, or walking without a walker or cane. Some senior citizens may not be able to walk long distances and may need access to standard transportation such as an auto, bus, or van. Caregivers must keep these factors in mind when planning for a disaster event.

Senior citizens with disabilities may need access to specialized transportation such as vans or buses with wheelchair lifts. In addition, the available supply of specialized vehicles during a disaster may be inadequate. Senior citizen caregivers must consider their transportation needs and options if specialized vehicles are not available during a disaster event. Senior citizens living on their own and still able to drive may not be able to drive in the dark or during a crisis when there is panic. In this case, caregivers can discuss transportation options with their clients or family members ahead of time and decide on an appropriate course of action.

The Center for Disease Control and Prevention (CDC) published a paper written by Nancy Aldrich entitled *Disaster Planning Tips for Older Adults and Their Families*. In this paper, Aldrich presents other issues that could affect a senior citizen's mobility during a disaster event. For example: Emotional challenges, such as a feeling of being overwhelmed, can impact a senior citizen's ability to move out of danger. Senior citizens




Participant Notes:

that are not able to move on their own could be trapped in their home as a result of a power outage that could also disable critical life-sustaining equipment. In addition, senior citizens who are living on their own but no longer drive a car will need assistance evacuating.


Planning is the key to reducing the vulnerability of senior citizens during a major emergency or disaster event. The above list of mobility issues includes examples of the types of challenges that could occur. Evacuation transportation must be prepared prior to a disaster event in the form of automobiles, disability vans, and buses with wheelchair lifts. It is important to prepare the shelters and temporary housing for those with disabilities by obtaining manual ramps for evacuation, elevators, and first floor accommodations and by developing means for moving senior citizens up and down stairs, and creating support to increase mobility prior to a disaster event, which should reduce panic and confusion.




Participant Notes:




Natural Disaster Awareness for
Caregivers of Senior Citizens





Mobility: Becoming Resilient

- Register for evacuation assistance.
- Provide needed transportation.
- Identify accessible and accommodating shelters.
- Track wheelchairs and walkers.



(Source: FEMA, 2005)

3 - 5

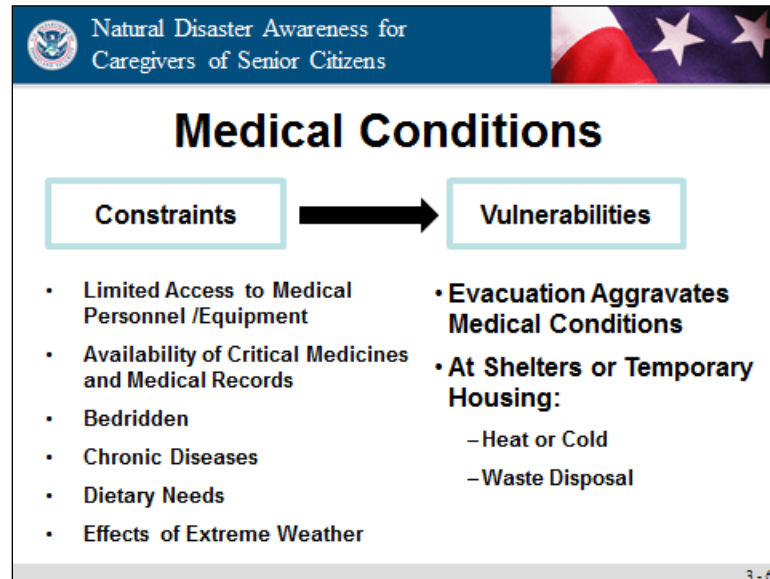
Slide 3-5. Mobility: Becoming Resilient

Members of a senior citizen's personal support network can help the senior citizen deal with identified mobility vulnerabilities by:

- Helping the senior citizen to understand their mobility vulnerabilities and to assess how these mobility vulnerabilities can impact them during an emergency.
- Providing needed transportation during an emergency evacuation for those senior citizens who do not own or who do not drive an automobile. When the senior citizen involved is disabled and requires wheelchair-compatible transportation a further challenge is presented.
- Assisting senior citizens in identifying and registering for evacuation assistance provided by government and non-profit transportation services, including those outfitted with wheelchair lifts.
- Identifying hotels in communities outside the evacuation area where a senior citizen can evacuate to, if they can afford it.
- Assisting senior citizens in identifying community and out-of-community emergency shelters that provide access and accommodations for senior citizens with mobility issues.
- Ensuring that wheelchairs are in working condition with charged and extra batteries available. Wheelchairs and walkers should also be stored in a designated place in a senior citizen's home so that they are easily accessible during an emergency.



Participant Notes:



Slide 3-6. Medical Conditions

Many senior citizens have medical conditions that require the care of medical personnel. In the event of a disaster, arrangements must be made to maintain access to doctors, nurses, or personal caregivers to treat chronic conditions and/or conditions precipitated by the disaster.

During a disaster, access to medical equipment may be limited. Equipment needed for regular treatment such as dialysis, heart monitors, oxygen and colostomy bags are essential for many senior citizens. Maintaining access to prescription drugs and the availability of critical medicines are crucial during a disaster. Since pharmacies may not be open, caregivers of senior citizens will need to have a contingency plan in place to obtain access to prescription drugs that senior citizens require. Numerous other medical conditions can also be at issue. Senior citizen caregivers will also need to consider how they will access information about the senior citizen's medical requirements to know what is appropriate care and what is not.

Numerous medical conditions prevalent among senior citizens have been identified and will be considered in this course. Certain medical conditions will require significantly more attention in terms of their disaster preparedness requirements. For instance, some senior citizens are bedridden or have chronic diseases that may require regular medicine to be delivered by injection.

Also, senior citizens can be negatively impacted by extreme weather; some have a sensitivity to hot or cold temperatures. If the power is out



Participant Notes:

during a disaster and it is a particularly hot or cold climate, the stress on a senior citizen can be significant. The potential lack of safe food or clean drinking water could jeopardize the senior citizen's health even further, especially if they are on a special diet.

Additional medical issues that will need attention include those that arise at shelters or temporary housing. These issues include proper waste disposal, functioning heat and air conditioning, and the ability to isolate individuals to reduce opportunities for infections or exposure to contagious diseases. Also, specific dietary and nutritional needs must be accommodated.

Other adverse situations can also occur if senior citizens do not have access to essential medications for their chronic diseases such as diabetes or heart conditions.



Participant Note: How will the medical needs of a senior citizen be met? These issues must also be planned for during disaster management planning. Consideration should be given to emergency access of prescription medicines, access to power for medical equipment or equipment that requires a battery supply, access to doctors and nurses, and the location of emergency senior care facilities in the community that will receive evacuees.

An additional concern involves the stress experienced by caregivers. In a disaster event, the volunteers and workers need rest in order to be effective. A plan should be developed that includes appropriate care of the caregivers.




Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

✓ Medical Conditions: Becoming Resilient

Preparation:

- Have a supply of prescription medicines.
- Inspect local shelters.
- Identify hotels outside the evacuation area.
- Include caregiver and support system in planning.



(Source: FEMA, 2005)

3 - 7

Slide 3-7. Medical Conditions: Becoming Resilient

Members of a senior citizen's personal support network can help the senior citizen deal with identified medical vulnerabilities by:

- Helping a senior citizen create a three-day to one-month supply of prescription medicines in case of an evacuation.
- Checking in on a senior citizen post-disaster to ensure they have power for medical equipment and, if not, transporting the senior citizen to a location with access to power.
- Identifying and inspecting local community emergency shelters to ensure these shelters are accessible, have functioning heat and air conditioning, have appropriate waste disposal facilities for senior citizens, and do not isolate senior citizens.
- Identifying hotels in communities outside of the evacuation area and determining if they can accommodate a senior citizen who has been evacuated.
- Helping senior citizens and their caregivers to create an emergency health information card that describes their medical, diet, and nutrition needs.
- Ensuring that any public or non-profit evacuation program that a senior citizen may use or any emergency shelter that a senior citizen may be evacuated to will also accommodate the senior citizen's caregiver.



Example: The City of New Orleans Citizen Assisted Evacuation Plan (CAEP) provides public transportation during an evacuation for those individuals without access to an automobile or who are sick or disabled. During an

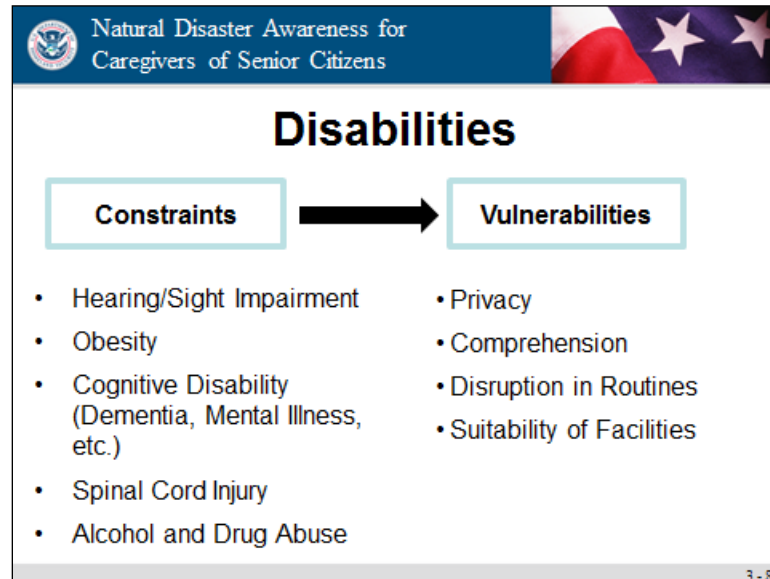


Participant Notes:

emergency evacuation, the CAEP allows caregivers to accompany senior citizens in their charge as they are evacuated via public transportation.



Participant Notes:



Slide 3-8. Disabilities

As people age, they are more susceptible to disabilities such as hearing loss, sight impairment or loss, and obesity. Senior citizens who cannot hear will not respond to auditory warning signals. Those who cannot see will not respond to flashing lights. People struggling with severe obesity or other mobility problems may not be able to get out of harm's way. These constraints must be planned for in the case of a disaster event.

Additionally, some senior citizens have cognitive disabilities such as dementia, Alzheimer's disease, or mental illness. Planning to provide assistance for them is critical. Senior citizens with spinal cord injuries are constrained to a wheelchair or bed and will need special care.

Another area of concern is senior citizens who are dependent on drugs or alcohol. SeniorJournal.com (2010) reports that alcohol and drug use among senior citizens is rising. Between 1995 and 2002, treatment for senior citizens who suffer from drug and alcohol abuse rose 32%. Drug dependent senior citizens will be reluctant to leave their homes even during a disaster and the caregiver will need to be prepared to help them. Additionally, although individuals currently using illegal drugs are not completely protected from discrimination, the Americans with Disabilities Act (ADA) prohibits the denial of health services to individuals using illegal drugs if the individual is otherwise entitled to such services.

Many senior citizens, especially those with hearing or cognitive impairments, could have trouble becoming aware of or understanding evacuation instructions. Under the ADA, notifications from 9-1-1 and other emergency services are required to be accessible for hearing-




Participant Notes:

impaired individuals who rely on teletypewriters (TTYs). Senior citizens who are deaf may also require written notes or hand gestures (if a sign-language interpreter is not available) to receive information about an evacuation or other need. These types of conditions should be addressed during the planning activities for responding to a disaster event.


In addition, many senior citizens become dependent on their regular caregiver. If their regular caregiver(s) are not available during a disaster event, it could cause significant stress and confusion. Planning ahead and acquainting the senior citizen with other caregivers could reduce the level of potential stress.




Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens






Disabilities: Becoming Resilient

Arrange in Advance:

- Hotel or Motel Accommodations
- Temporary Housing
- Alert Management and Staff
- Medical Practitioners and Pharmacies



(Source: FEMA, 2009)

3 - 9

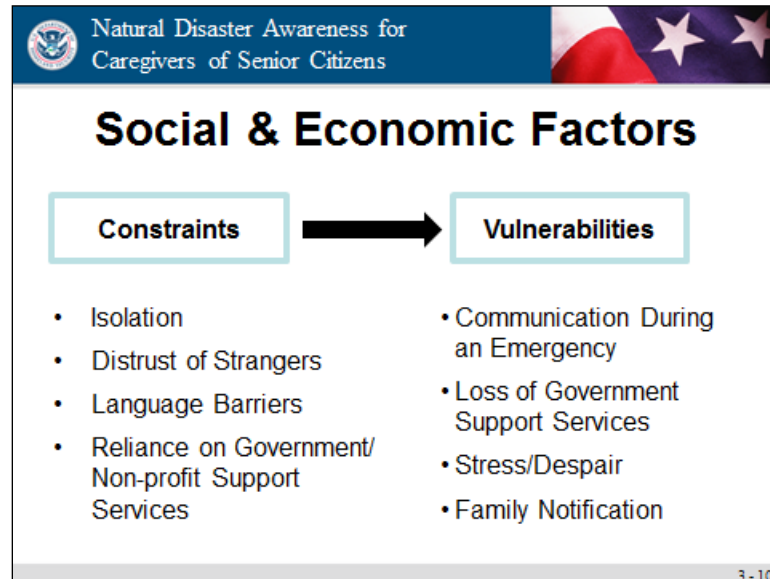
Slide 3-9. Disabilities: Becoming Resilient

Members of a senior citizen's personal support network can help the senior citizen deal with vulnerabilities related to identified disabilities by:

- Arranging for senior citizens to reside in a hotel or motel during an evacuation if they can afford it. If a senior citizen cannot afford a hotel or motel during an evacuation, identifying and inspecting out-of-town emergency shelters that a senior citizen is likely to evacuate to in order to address privacy concerns.
- Making the manager and staff of an emergency shelter aware of the physical or cognitive disability of a senior citizen and suggesting ways the shelter staff could help the senior citizen maintain some semblance of their normal routine. Network members can take similar actions in identifying and securing temporary housing for senior citizens.
- Identifying in advance the medical practitioners and pharmacies in out-of-town locations that could serve the needs of senior citizens with disabilities.
- Working with senior citizens during the pre-disaster period to comprehend emergency warnings and alert notifications and to understand what actions the senior citizen will need to take when a warning or alert notification is made.



Participant Notes:



Slide 3-10. Social & Economic Factors

Many social and economic factors need to be taken into consideration when caring for senior citizens during a disaster. Senior citizens without a good personal support network may be isolated from family, have few friends, and may not trust strangers. A clear plan is needed to bring them out of their homes when in harm's way.

In addition, senior citizens living on their own in remote locations may not have access to emergency alerts or information. They may not have cellular phones or cellular phone coverage. Some may speak native languages other than English making communication a challenge. Furthermore, some may not be aware of an impending disaster. Some senior citizens may be dependent on government or non-profit support for meals. These dependencies need to be thought out ahead of time in order to be fully prepared in the event of a disaster.

Senior citizens displaced from their homes may not have the financial resources or family support to find living arrangements after the disaster event is over. Planning ahead for such a situation will reduce the stress, confusion, and concern on the part of the senior citizen.

Caregivers should assume that senior citizens may not have access to their doctors or pharmacies for some period of time after a disaster event and should plan for contingencies.

In order to reduce the vulnerability of senior citizens during a major emergency or disaster event, the following issues must be planned for as




Participant Notes:

they relate to social and economic factors. Caregivers need to be able to contact the senior citizen's friends and family to ensure emergency notifications are received. Caregivers need to design an approach to increase their senior citizens' trust in authorities. Caregivers should develop a method to reach rural locations to check on or evacuate senior citizens.


There are many social and economic vulnerabilities that must be considered when preparing to care for senior citizens during a disaster, especially those senior citizens with disabilities. The loss of access to government and non-profit support services can have a detrimental effect on senior citizens during a disaster. Support must be provided to those experiencing mental distress such as stress, despair, and disruption to regular routines. Additionally, a system must be implemented to notify family members if the senior citizen is evacuated from a senior care facility.




Participant Notes:




Natural Disaster Awareness for
Caregivers of Senior Citizens





Social and Economic Factors: Becoming Resilient

- Coordinate contact with senior on a regular basis.
- Assist with communication and comprehension of emergency warning.
- Provide support and care during an emergency.
- Notify family of evacuation.



(Source: FEMA, 2007)

3 - 11

Slide 3-11. Social and Economic Factors: Becoming Resilient

Members of a senior citizen's personal support network can help the senior citizen deal with identified social and economic vulnerabilities by:

- Assisting senior citizens with receiving and understanding emergency warnings and actions senior citizens should take when the warnings are issued.
- Ensuring that senior citizens register for emergency notifications from emergency officials where available.
- Serving as trusted messengers concerning emergencies. Senior citizens may be more likely to trust what a network member tells them about an emergency rather than hearing the same message from a public emergency official.
- Checking in regularly by phone and personal visits with senior citizens who live in rural locations to discuss emergency planning and actions.
- Ensuring that should a senior citizen be evacuated from their home or from a senior care facility, the senior citizen's family will be notified of the evacuation and evacuation location.

Senior citizens can become isolated in their community and may answer the door or the phone for only those persons whom they know and trust. Network members can regularly visit with isolated senior citizens to ensure they are ready to deal with an emergency and connect them to neighborhood-based emergency preparedness activities.

Emergencies can cause stress and despair to a senior citizen and will almost always disrupt their routines. Personal support network members




Participant Notes:


can provide support, comfort and a steady presence during an emergency.




Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens





(Source: FEMA, 2007)

Conclusion

By understanding
our vulnerabilities
and constraints, we
foster our own
resiliency.

3 - 12

Slide 3-12. Conclusion



Key Point: It is important for caregivers and senior citizens to understand their own vulnerabilities and constraints in order to foster resiliency by planning for and minimizing risks.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Summary

- 1) Identified senior constraints and vulnerabilities:
 - Mobility
 - Medical Conditions
 - Disabilities
 - Social and Economic Factors
- ✓ 2) Build resilience.

3 - 13

Slide 3-13. Summary

Based on an understanding of the constraints, dependencies, and special considerations of senior citizens, this module examined how their special needs contribute to an increased vulnerability during major emergencies and disaster events. Participants learned how, during an evacuation scenario, senior citizens with disabilities and other severe medical conditions may be at a greater risk for injury and death. They also learned how individuals who are visually or hearing impaired may have problems receiving disaster warnings and how individuals with cognitive disorders may become agitated in an emergency situation that disrupts their regular routines.



Participant Notes:

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Natural Disaster Awareness for Caregivers of Senior Citizens: Building Senior Resilience

Module 4: Preparedness Exercise & Conclusion

February 2013



FEMA

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Module 4: Preparedness Exercise and Conclusion – Administration Page



Slide 4-1. Preparedness Exercise and Conclusion

Duration

60 minutes

Scope Statement

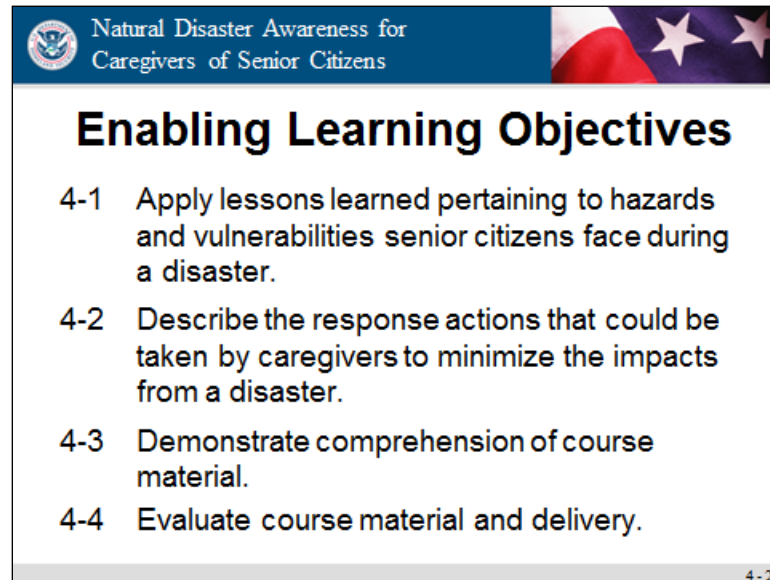
In this module, participants will take part in an exercise based on a type of disaster scenario that could occur in their geographic area. The purpose of the exercise is to demonstrate participants' understanding of hazard response, particularly in how it impacts senior citizens under their care and how to accommodate various types of constraints and vulnerabilities that frequently affect senior citizens.

Terminal Learning Objective (TLO)

Participants will be able to apply their knowledge of materials covered in Modules 2 and 3 for at-risk senior citizens and their caregivers impacted by either a tsunami, hurricane, or tornado through taking part in an in-class practical exercise scenario.



Enabling Learning Objectives (ELOs)



Slide 4-2. Enabling Learning Objectives

At the conclusion of this module, participants will be able to:

- 4-1 Apply lessons learned pertaining to hazards and vulnerabilities senior citizens face during a disaster.
- 4-2 Describe the response actions that could be taken by caregivers to minimize the impacts from a disaster.
- 4-3 Demonstrate comprehension of the course material.
- 4-4 Evaluate course material and instruction.

Resources

- Instructor Guide (IG)
- Module 4 presentation slides
- Laptop with presentation software installed and CD-ROM capability
- Audio-visual (A/V projection unit)
- Projector screen
- Chalkboard (and chalk) OR whiteboard (and dry erase markers) OR easel and easel paper (and permanent markers)
- One of each of the following items per participant:
 - Participant Guide (PG) available for download from <http://ndptc.hawaii.edu/>
 - Participant Handout
 - Course Evaluation Forms
 - Post-test answer sheet corresponding to post-test version



Instructor-to-Participant Ratio

2:25

Reference List

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West Coast & Alaska Tsunami Warning Center. The Great Alaskan Earthquake & Tsunamis of 1964. Last accessed June 6, 2011. <<http://wcatwc.arh.noaa.gov/64quake.htm>>

Practical Exercise Statement

Participants will take part in practical exercises in assigned groups. This course's exercise module will allow participant caregivers to consider how a hypothetical disaster selected for their geographical area could impact senior citizens, including those affected by constraints or vulnerabilities. Participants will report these findings to the group, as facilitated by the instructor.

Assessment Strategy

- Instructor observation of participant involvement in classroom discussion.
- Instructor-led discussion to gauge participant grasp of subject matter and to ensure that participant understands both how performance will be evaluated and how evaluation will impact participant outcomes.
- Instructor administration of objectives-based post-test to assess the knowledge participants have gained in each module.



Natural Disaster Awareness for Caregivers of Senior Citizens: Building Senior Resilience

Icon Map



Knowledge Check: Used when it is time to assess the learners' understanding.



Example: Used when there is a descriptive illustration to show or explain.



Key Points: Used to convey essential learning concepts, discussions and introduction of supplemental material.



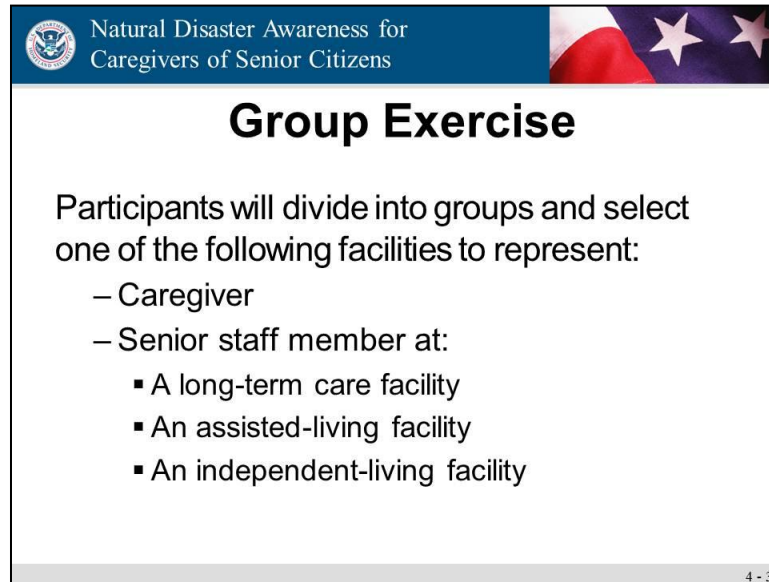
Hint: Used to cover administrative items or instructional tips that aid in the flow of the instruction.



Participant Note: Used to indicate text that has been included as additional information for the participant. The text may not be directly addressed in the slide presentation or during class discussion.



Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens

Group Exercise

Participants will divide into groups and select one of the following facilities to represent:

- Caregiver
- Senior staff member at:
 - A long-term care facility
 - An assisted-living facility
 - An independent-living facility

4 - 3

Slide 4-3. Group Exercise

In this module, participants will engage in a group activity involving one of several simulated scenarios that will help them apply the knowledge gained in previous modules. Each group will assume a role as listed in the above slide.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Group Exercise Scenarios:

Scenario 1: Located within $\frac{1}{4}$ mile of the
Pacific Coast

Scenario 2: Located within $\frac{1}{4}$ mile of the
Southern Atlantic coast

Scenario 3: Located in the Great Plains

4 - 4

Slide 4-4. Group Exercise Scenario Options



Key Point: While all of the above disaster scenarios could occur in many areas, these scenarios are used to illustrate the type of disaster typical of various geographic regions.

These scenarios are designed to give participants an opportunity to use the knowledge they have learned in this course to come up with possible reaction plans they'd use before, during, and after a natural disaster.

Scenario 1: Slides 4-7 to 4-14

Scenario 2: Slides 4-15 to 4-22

Scenario 3: Slides 4-23 to 4-31



Participant Notes:

This slide features a blue header with the U.S. Department of Homeland Security logo and the text "Natural Disaster Awareness for Caregivers of Senior Citizens". To the right of the header is a graphic of the American flag. The main content area is white with the title "Let's Get Ready!" in bold. Below the title, there are two paragraphs of text. The first paragraph states that after attending a recent disaster preparedness training, one starts noticing how unprepared their home or facility would be if a disaster were to strike. The second paragraph states that one begins assessing the potential hazards in their community, as well as the constraints and vulnerabilities of their senior citizen(s). The slide number "4-5" is in the bottom right corner.

Natural Disaster Awareness for
Caregivers of Senior Citizens

Let's Get Ready!

After attending a recent disaster preparedness training, you start noticing how unprepared your home or facility would be if a disaster were to strike.

You begin assessing the potential hazards in your community, as well the constraints and vulnerabilities of your senior citizen(s).

4-5

Slide 4-5. Let's Get Ready!

This slide features a blue header with the U.S. Department of Homeland Security logo and the text "Natural Disaster Awareness for Caregivers of Senior Citizens". To the right of the header is a graphic of the American flag. The main content area is white with the title "Discussion Part 1" in bold. Below the title, there is a numbered list of three questions. The first question asks what natural disasters could threaten a senior citizen(s). The second question asks what steps should be taken to ensure continued care of the senior citizen(s). The third question asks what steps need to be taken into account for special needs such as medication requirements, mobility constraints, or cognitive difficulties. The slide number "4-6" is in the bottom right corner.

Natural Disaster Awareness for
Caregivers of Senior Citizens

Discussion Part 1

1. What natural disasters could threaten your senior citizen(s)?
2. What steps should you take to ensure continued care of the senior citizen(s)?
3. What steps need to be taken into account for special needs such as medication requirements, mobility constraints, or cognitive difficulties?

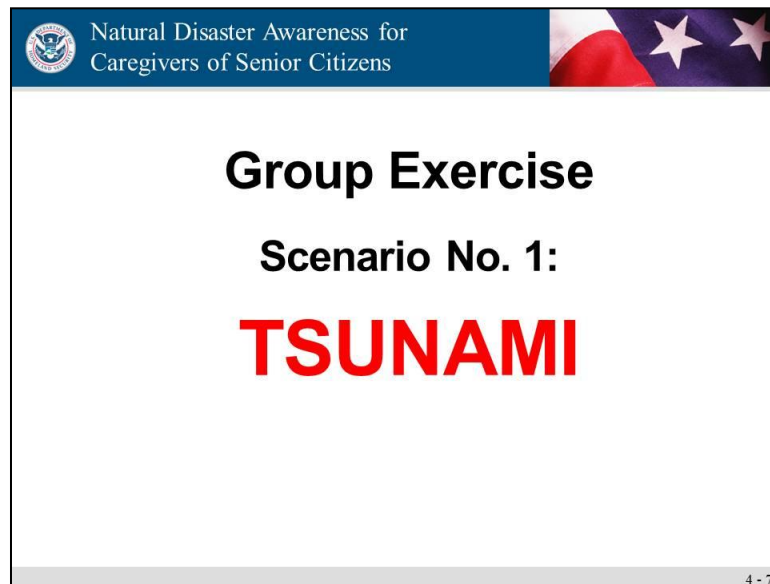
4-6

Slide 4-6. Discussion - Part 1



Participant Notes:

Scenario No. 1: Tsunami



Slide 4-7. Group Exercise Scenario No 1: Tsunami



Participant Note: Tsunamis have had devastating impacts on the Pacific Basin. Examples include the 2009 tsunami in Samoa which claimed 189 lives, and the tsunami generated by a magnitude 9.1 earthquake off the west coast of Sumatra, Indonesia, which swept across the Indian Ocean in 2004, killing more than 227,000 people. More recently, another very strong earthquake off the eastern coast of the island of Honshu in Japan created a tsunami that caused numerous deaths and widespread destruction.



Participant Notes:



Slide 4-8. Tsunami Video

This video montage gives participants a glimpse of the power of tsunamis.



Participant Note: The March 11, 2011 earthquake off Japan's eastern coast, which was later determined to have a magnitude of 9.0, and the tsunami it generated devastated many coastal areas of Japan. Five months after it struck, the death toll stood at 15,647 deaths with an additional 4,643 still missing in Japan. In addition, more than 100,000 residents known as "nuclear refugees" remained displaced from their homes located in evacuation zones established as a result of damage resulting from the tsunami to the Fukushima Dai-Ichi nuclear plant.

UNEDITED TRANSCRIPT:

All across northern Japan they felt it. A violent, magnitude 9-point-zero earthquake on March 11, 2011. It was centered about 80 miles offshore, and tsunami warnings went up immediately. In coastal cities, people knew what to do next: run to higher ground. It's from these vantage points on hills and in tall buildings that incredible footage was captured on video.

In Kesennuma, people retreated to a hi-rise roof top and could only watch in horror as tsunami waves inundated their city, knocking buildings into rubble and mixing into a kind of tsunami 'soup' filled with vehicles, building parts and contents.



Participant Notes:

Sea water cascaded over sea walls, and into cities.

This video shows the water rushing over an 18-foot seawall into Kamaishi City. The seawall here was the world's deepest and largest, but not enough for the magnitude of the March 11 disaster.

It was the largest quake ever known in Japan, and one of the 5 largest recorded in the world. More than 28-thousand people are confirmed dead or missing.

When two tectonic plates push together under the sea, the resulting earthquake sends an enormous burst of energy up through the ocean, displacing enormous quantities of water.

With the upward motion, a series of waves expands in all directions. In deep water, these waves travel fast – up to 500 miles an hour – but only reach a height of a few feet. A passing ship might not even notice.

But as the waves enter shallow waters, friction with the ocean floor lowers the waves' speed but raises their height.

This video is from a Japan Coast Guard ship, confronting a tsunami wave in shallow water on March 11th.

And a rare view from the air: video of a tsunami wave approaching the shoreline.

In Japan, some tsunami waves reached as far as three miles inland.



Japan may be the most seismologically studied country in the world, and with more than 1200 high precision GPS stations, a geophysicist at the University of Alaska used the GPS data to create a visualization of the March 11 quake. The waves of displacement that you see were moving as fast as 5 miles per second

In this photo, the ripples of tsunami waves are seen moving upstream in the Naka River at Hitachinaka City.

New technology left an enormous amount of visual evidence for study in years to come, and can perhaps help us better understand the power of earthquakes and tsunamis and prevent loss of life in the future.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Tsunami: 1st Communication

1800 UTC, April 18, 20XX

A strong earthquake occurs off the coast of Japan. According to the USGS, the preliminary estimate of the tremor's magnitude is 8.7. The Pacific Warning Center issues a tsunami warning for Japan, Hawai'i and the West Coast of the U.S.

4-9


Slide 4-9. Tsunami: 1st Communication




Participant Note: Participants in this scenario are now aware that a tsunami has been generated, and residents of a broad area have been put on notice of the impending danger.



Participant Notes:




Natural Disaster Awareness for
Caregivers of Senior Citizens



Discussion

Part 2

4. What steps would you begin taking?
5. Whom can you count on?



(source: FEMA, 2007)

4-10

Slide 4-10. Discussion - Part 2

For this part of the exercise, participants are to formulate the initial steps they would take in the face of the tsunami threat to protect the senior citizens in their care.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Tsunami: 2nd Communication

The series of tsunami waves has struck, and, as anticipated, power and other utilities have been disrupted. Cellular phone service is the only means of communication still operable but it is hampered by heavy traffic.

4 - 11

Slide 4-11. Tsunami: 2nd Communication

Natural Disaster Awareness for
Caregivers of Senior Citizens

2nd Communication (Continued)

While the building you are sheltering in has sustained considerable damage, it is structurally sound.

Scattered radio reports indicate widespread destruction along the coastline.

4 - 12

Slide 4-12. 2nd Communication (continued)

Participants should be aware that natural disasters may be accompanied by other circumstances. In this case, an associated technological hazard




Participant Notes:

in the form of loss of power and cellular phone service may be crucial to communications and back-up emergency and medical equipment.


In groups, participants should consider the available options they now have since the tsunami has disrupted the power.



Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens



Discussion

Part 3: Preparedness and Response

6. What steps would you take to ensure continued care?
7. What additional steps would be required for those with special needs such as medication requirements, mobility constraints, or cognitive difficulties?


4-13

Slide 4-13. Discussion - Part 3: Preparedness and Response


Participants should make a list of steps they could take to ensure continued care of the senior citizens in their charge, particularly those with special needs.



Participant Notes:




Natural Disaster Awareness for
Caregivers of Senior Citizens



Discussion

Part 3: Preparedness and Response (Continued)

8. What steps could you have taken in advance of the disaster to prepare for, mitigate or reduce its impacts?



(source: FEMA, 2009)

4 - 14

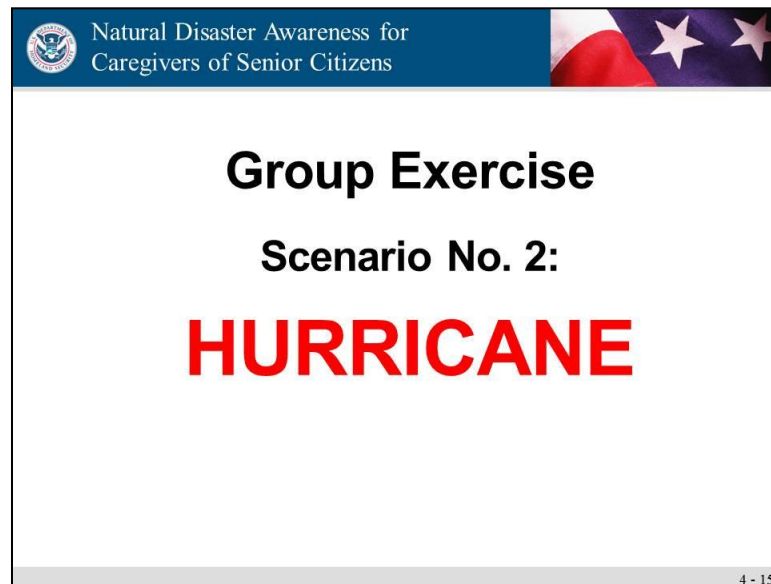
Slide 4-14. Discussion - Part 3: Preparedness and Response (continued)

To complete the exercise, participants are to consider what could have been done prior to the tornado to help prepare for the disaster and mitigate its impacts.



Participant Notes:

Scenario No. 2: Hurricane



Slide 4-15. Group Exercise Scenario No. 2: Hurricane



Participant Note: The National Weather Service warns that tropical cyclones are among nature's most powerful and destructive phenomena, and residents of areas prone to hurricanes need to be prepared. Over the past 40 years, an average of 11 tropical storms have formed each year in the area spanning the Atlantic Ocean, Caribbean Sea or Gulf of Mexico, six of which became hurricanes. Over a typical two-year period, the U.S. coastline is struck by an average of three hurricanes—including one storm of Category 3 or above, which is classified as a major hurricane.



Participant Note: Depending on its direction of movement, hurricanes can produce strong winds extending many miles from their center. In addition, hurricanes can range in size from a diameter of a little more than 100 miles to very large tropical cyclones more than 500 miles across.



Participant Notes:

Table 4-1: Tropical Cyclones: Classifications and Descriptions

Tropical Cyclones	
Classification	Description
Tropical Depression	A tropical cyclone with maximum sustained winds of 38 mph or less
Tropical Storm	A tropical cyclone with maximum sustained winds of 39 to 73 mph
Hurricane (also typhoon or cyclone, depending on location)	A tropical cyclone with maximum sustained winds of 74 mph or higher.
Major Hurricane	A tropical cyclone with maximum sustained winds of 111 mph or higher, corresponding to a Category 3 (111-129 mph), Category 4 (130-156 mph), or Category 5 (more than 156 mph) on the Saffir-Simpson Hurricane Wind Scale.

Source: NOAA National Hurricane Center.
<http://www.nhc.noaa.gov/climo/>



Participant Notes:



Slide 4-16. Hurricane Video

This video montage gives participants a glimpse of the power of hurricanes.





Participant Note: This video contains footage from a variety of storms. Included in the montage is the closing image of a roof being peeled off a home. This footage actually occurred during Hurricane Iniki, a Category 4 storm which struck the Hawaiian Island of Kaua'i in 1992. Iniki was packing sustained winds of 140 mph with gusts up to 175 mph, making it the most powerful hurricane to strike the Hawaiian Islands in recent history. Six people died and more than 100 were injured as a result of the hurricane. The Red Cross reported that the storm destroyed more than 1,400 homes and damaged nearly ten times as many. The total damage across the state was estimated at nearly \$3 billion.

Video contains no spoken word, only music.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Hurricane: 1st Communication

2:30 p.m. EST, August 2, 20XX

- A tropical storm has been gaining strength and is nearing the Atlantic Coast. A hurricane watch has been issued for much of the coast.
- Hurricane Carl has reached category 3 status, and is expected to be a category 4 storm with winds up to 155 mph and a storm surge up to 18 feet when it makes landfall within 5 days.

4 - 17


Slide 4-17. Hurricane: 1st Communication




Participant Note: Participants in this scenario are now aware that a hurricane has been generated, and residents of a broad area have been put on notice of the impending danger.



Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens

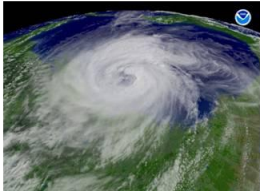


Discussion

Part 2

4. What steps
would you begin
taking?

5. Whom can you
count on?



(source: NOAA, 2008)


4 - 18

Slide 4-18. Discussion - Part 2


For the initial part of the exercise, participants are to formulate the steps they would take to protect the senior citizens in their care in the face of the hurricane threat.



Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens



Hurricane: 2nd Communication

10:30 a.m. EST, August 5, 20XX


The current storm track shows Hurricane Carl making landfall 400 miles south of your current location late on August 7, 20XX. You are still under a Hurricane Watch.

4 - 19


Slide 4-19. Hurricane: 2nd Communication



Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens



Hurricane: 3rd Communication

7:30 p.m. EST, August 7th, 20XX

Hurricane Carl has passed but has left widespread destruction. Evacuation centers are filled to capacity and many homes and apartment buildings are no longer habitable. Power and other utilities have been cut off and there is no way to know when they will be restored. Cell phone service remains but is unreliable.

4 - 20

Slide 4-20. Hurricane: 3rd Communication

Participants should be aware that natural disasters may be accompanied by other circumstances. In this case, an associated technological hazard in the form of loss of power and cellular phone service may be crucial to communications and back-up emergency and medical equipment.

In groups, participants should consider the available options they now have since the hurricane has disrupted the power.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Discussion

Part 3: Preparedness and Response

6. What steps would you take to ensure continued care of the senior citizen(s)?
7. What steps would be required for those with special needs such as medication considerations, mobility constraints, or cognitive difficulties?

4-21

Slide 4-21. Discussion - Part 3: Preparedness and Response

Participants should make a list of steps they could take to ensure continued care of the senior citizens in their charge, particularly those with special needs.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Discussion

Part 3: Preparedness and Response (Continued)

8. What steps could you have taken in advance of the disaster to prepare for it and mitigate or reduce its impacts?

4-22

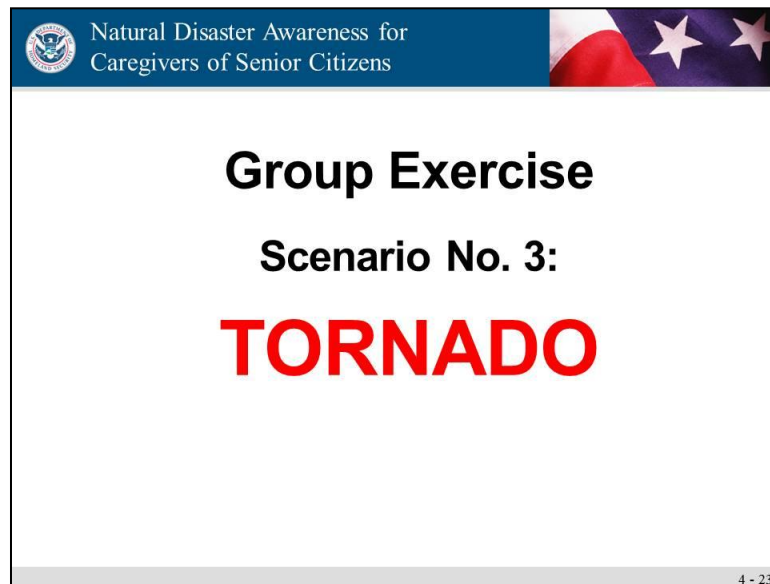
Slide 4-22. Discussion - Part 3: Preparedness and Response (continued)

To complete the exercise, participants are to consider what could have been done prior to the tornado to help prepare for the disaster and mitigate its impacts.

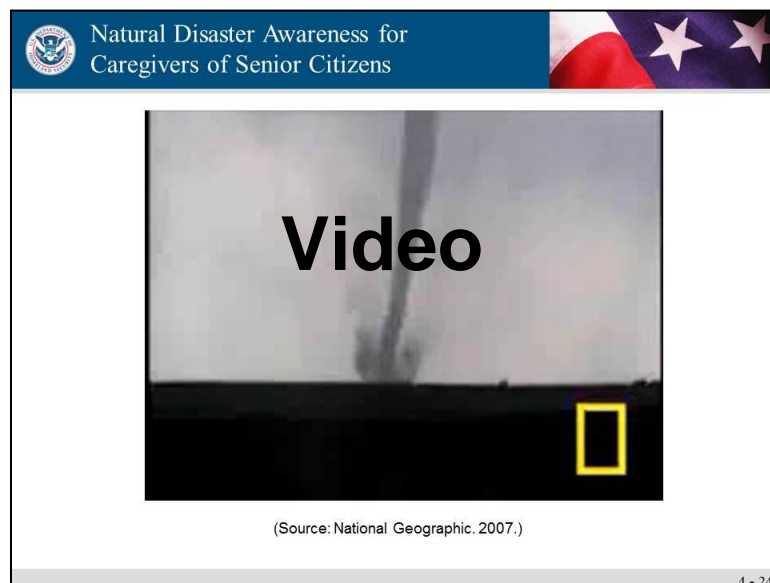


Participant Notes:

Scenario No. 3: Tornado



Slide 4-23. Group Exercise Scenario No. 3: Tornado





Slide 4-24. Tornado Video

This video montage gives participants a glimpse of the power of tornadoes. Video contains no spoken word, only music.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Tornado: 1st Communication

12:30 p.m. CST, June 5, 20XX

A weather system that has been developing throughout the day in the area of the Texas Panhandle has prompted the National Weather Service's Storm Prediction Center (SPC) in Norman, Oklahoma to issue a "moderate risk" warning for Northern Texas, Oklahoma and southern Kansas.

4 - 25

Slide 4-25. Tornado: 1st Communication




Participant Note: The mission of the Storm Prediction Center, one of nine organizations in the National Weather Service's National Centers for Environmental Prediction, is to provide timely and accurate forecasts and watches for the contiguous U.S.




Participant Note: A tornado watch issued by the Storm Prediction Center means there is a threat of large damaging hail and a possibility of multiple tornadoes. Watches typically cover an area of up to 25,000 square miles and last up to eight hours.



Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens



Tornado: 2nd Communication

3:30 p.m. CST, June 5, 20XX

With weather conditions continuing to destabilize, the SPC issues a tornado watch for central Oklahoma that includes warnings about the possibility of severe thunderstorms and very large hail.

4 - 26


Slide 4-26. Tornado: 2nd Communication




Participant Note: Participants in this scenario are now aware that a tornado has been generated, and residents of a broad area have been put on notice of the impending danger.



Participant Notes:




Natural Disaster Awareness for
Caregivers of Senior Citizens



Discussion

Part 2

4. What steps would you begin taking?
5. Whom can you count on?



(source: NOAA, 2007)


4 - 27

Slide 4-27. Discussion - Part 2


For the initial part of the exercise, participants are to formulate the steps they would take to protect the senior citizens in their care in the face of the tornado threat.



Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens



Tornado: 3rd Communication

4:15 p.m. CST, June 5, 20XX

Sightings of a large funnel cloud on the ground prompt the National Weather Service to issue a tornado warning for the county where the care facility is located. Residents are urged to take cover immediately.

4 - 28


Slide 4-28. Tornado: 3rd Communication




Participant Note: The National Weather Service issues a tornado warning when severe weather has been observed or is expected soon. The NWS advises that once a warning has been issued for your area, shelter should be taken in an underground area such as a basement or, if that is not available, moving to an interior room or hallway on the lowest floor and get under a sturdy piece of furniture. Stay away from windows as much as possible. If you are in a vehicle, stay in the car with the seat belt on and put your head below window-level, covering your head with your hands or a blanket if available. If it is possible to get noticeably lower than the level of the roadway, exit your car and lie in that area, covering your head with your hands.



Participant Notes:



Natural Disaster Awareness for
Caregivers of Senior Citizens



Tornado: 4th Communication

5:30 p.m. CST, June 5, 20XX

A powerful tornado has cut a wide swath of destruction through the area, severing power lines and leaving roadways strewn with debris. Transportation is difficult if possible at all, and emergency services are stretched thin, serving only those in the most dire need. The only telephone service still in operation is intermittent cellular service.

4 - 29



Slide 4-29. Tornado: 4th Communication

Participants should be aware that natural disasters may be accompanied by other circumstances. In this case, an associated technological hazard in the form of loss of power and cellular phone service may be crucial to communications and back-up emergency and medical equipment.

In groups, participants should consider the available options they now have since the tornado has disrupted the power.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Discussion

Part 3: Preparedness and Response

6. What steps would you take to ensure continued care of the senior citizen?
7. What steps would be required for those with special needs such as medication considerations, mobility constraints, or cognitive difficulties?


4 - 30


Slide 4-30. Discussion - Part 3: Preparedness and Response

Participants should make a list of steps they could take to ensure continued care of the senior citizens in their charge, particularly those with special needs.



Participant Notes:

 Natural Disaster Awareness for
Caregivers of Senior Citizens



Discussion

Part 3: Preparedness and Response (Continued)

8. What steps could you have taken in advance of the disaster to prepare for it and mitigate or reduce its impacts?

4 - 31

**Slide 4-31. Discussion - Part 3: Preparedness and Response
(Continued)**

To complete the exercise, participants are to consider what could have been done prior to the tornado to help prepare for the disaster and mitigate its impacts.



Participant Notes:

Natural Disaster Awareness for
Caregivers of Senior Citizens

Course Summary

- 1) What to expect: Natural hazards and natural disasters
- 2) Special considerations for seniors
- 3) Preparedness: Information and tools for caregivers

4-32

Slide 4-32. Course Summary

The instructor will provide a brief review of the course goals and the topics that were addressed in the course. Participants are encouraged to discuss with the class their impressions of all of the topics in light of the emergency management role of a senior caregiver. The instructor can provide clarification on any areas that participants still feel are unclear or suggest where additional information may be obtained if participants are interested in learning more about any of the covered topics.

The course concludes with the administration of a course evaluation and a post-test.



Participant Notes:

Natural Disaster Awareness for Caregivers of Senior Citizens

Course Evaluation

STUDENT ASSESSMENT OF COURSE AND INSTRUCTORS

Page 1: Course Information

Training Provider ID: _____

Course Name: _____

Course Catalog Number: _____

Start Date: _____ End Date: _____

Start Time: _____ End Time: _____

Room: _____

Instructor: _____

First Name: _____

Last Name: _____

Rating Scale: 1 (Strongly Dislike) to 5 (Strongly Like)

Course Evaluation

Statement	Strongly Dislike	Dislike	Neutral	Like	Strongly Like
1. The course content was relevant to my needs.					
2. The course content was presented in an easy-to-understand manner.					
3. The instructor was able to answer questions clearly and satisfactorily.					
4. The instructor provided the necessary information to complete the course.					
5. The instructor provided a positive and encouraging learning environment.					
6. The instructor was able to provide the necessary information to complete the course.					
7. The instructor was able to provide the necessary information to complete the course.					
8. The instructor was able to provide the necessary information to complete the course.					
9. The instructor was able to provide the necessary information to complete the course.					
10. The instructor was able to provide the necessary information to complete the course.					
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13. The instructor was able to provide the necessary information to complete the course.					
14. The instructor was able to provide the necessary information to complete the course.					
15. The instructor was able to provide the necessary information to complete the course.					
16. The instructor was able to provide the necessary information to complete the course.					
17. The instructor was able to provide the necessary information to complete the course.					
18. The instructor was able to provide the necessary information to complete the course.					
19. The instructor was able to provide the necessary information to complete the course.					
20. The instructor was able to provide the necessary information to complete the course.					

4 - 33

Slide 4-33. Course Evaluation

The instructor will distribute a Course Evaluation Form to participants and ask them to provide constructive feedback on the course material and instruction.



Participant Notes:

Post-test

NDPTC NATIONAL DISASTER PREPAREDNESS TRAINING CENTER
Test Answer Sheet

Please complete this form using CAPITAL letters and black ink with the pens provided.

PARTICIPANT INFORMATION (Please use the same information provided during registration)

First Name: _____

Last Name: _____

COURSE INFORMATION

Course: _____

Test Date (month/year): _____ Pre-Test: ☐ Post-Test: ☐

Fill in the bubbles completely. Do not "X" an answer or it will not be graded.
Example: ● = Correct, ○ = Incorrect

	A	B	C	D
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4 - 34

Slide 4-34. Post-test

This course concludes with a post-test, which allows the instructor to evaluate participant knowledge on the topics addressed in the course. The post-test provides participants with an opportunity to demonstrate mastery of the Terminal Learning Objectives, and is similar in design and content to the pre-test that participants completed at the beginning of the course. Participants' pre-test and post-test scores will be compared to measure the benefit of the course and identify the knowledge and skills participants gained during their attendance.

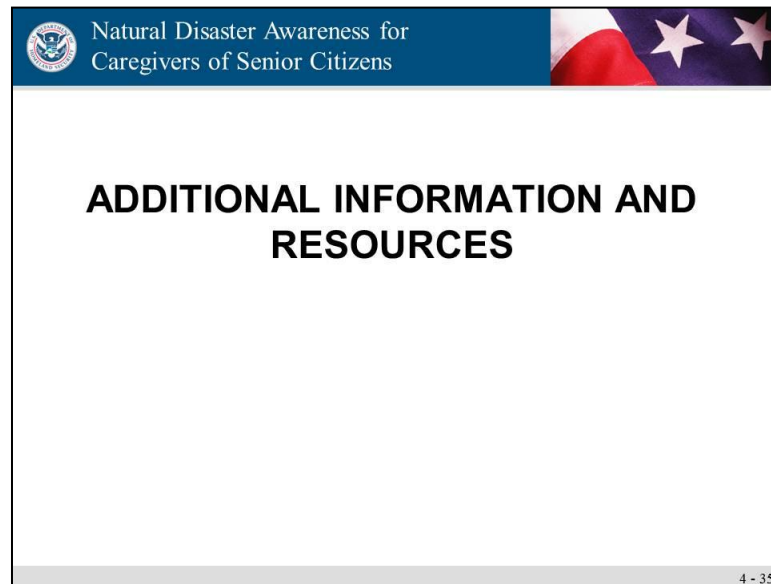
Unlike the pre-test, every question should be answered. Do not leave any answers blank on the answer sheet.

Participants will have 20 minutes to complete the post-test.

Participants should work independently to complete the answers.



Participant Notes:



Slide 4-35. Additional Information and Resources



Participant Notes:



Slide 4-36. National Domestic Preparedness Consortium

The National Domestic Preparedness Consortium (NDPC) is a professional alliance sponsored through the Department of Homeland Security/FEMA National Preparedness Directorate.

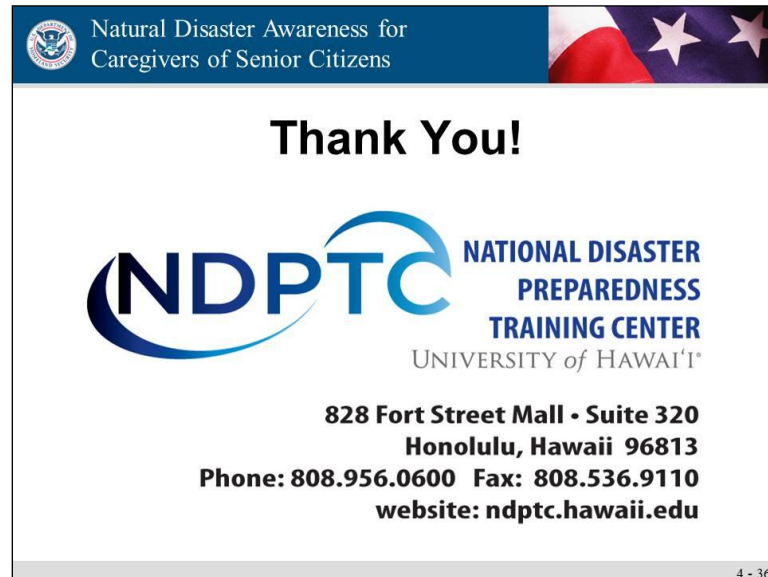
The NDPC membership includes:

- University of Hawai'i: National Disaster Preparedness Training Center (NDPTC),
- Louisiana State University's Academy of Counter-Terrorist Education: National Center for Biomedical Research and Training,
- Texas A&M: National Emergency Response and Rescue Center,
- The New Mexico Institute of Mining and Technology: Energetic Materials Research and Testing Center,
- Center for Domestic Preparedness (CDP),
- US Department of Energy Nevada Test Site: Counter-Terrorism Operations Support, and
- Transportation Technology Center, Inc./National Center for Emergency Response in Surface Transportation.

Each member brings a unique set of assets to the domestic preparedness program.



Participant Notes:



Slide 4-37. Thank You!

The instructor may close the course with a summary of NDPTC and upcoming courses.



Key Points: The NDPTC is a member of the National Domestic Preparedness Consortium (NDPC).

NDPTC works collaboratively to develop and deliver training and education in the areas of disaster preparedness, response, and recovery to governmental, private, tribal, and non-profit entities, and under-represented/under-served communities