Hazard Vulnerability Assessment for Long Term Care Facilities

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April 23, 25, & 26, 2013

Hazard Vulnerability Assessment (HVA) for Long Term Care Facilities (LTCF)

Learning Objectives:

- Understand the purpose of an HVA.
- Become familiar with the HVA tool sections and headers.
- Become familiar with key term definitions.
- Understand how to apply the resulting HVA relative risk values.
- Become familiar with the recommended list of natural and man-made hazard scenarios.
- As a group, complete an analysis of one natural and one man-made hazard scenario.

HVA for LTCFs

PURPOSE

The purpose of the HVA tool is to assist Long Term Care Facilities (LTCFs) of all sizes in identifying the greatest threats and vulnerabilities within your facility or local community, as well as using the tool to plan for emergencies and address resource gaps.

HVA for LTCFs

Information about the spreadsheet tool:

- Use the most current data available.
- Use examples of community-specific issues from staff or partners.
- An educated guess can yield a reasonable risk calculation.
- You can always update your data as it becomes available.

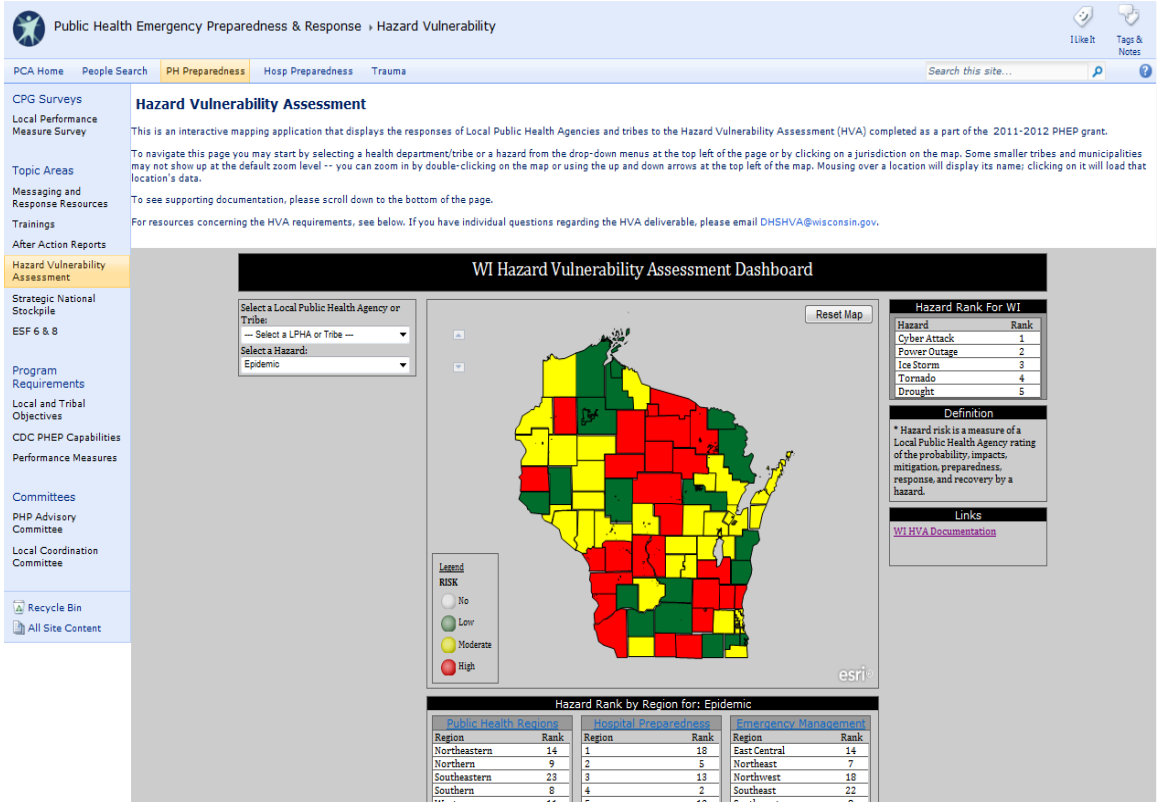
HVA for LTCFs

- Who are your partners?
  - All LTCF staff
  - Health Department
  - Fire and HazMat
  - Law Enforcement
  - Emergency Management
  - Human Services Department
  - Managed Care Organizations

HVA for LTCFs

Is there a good HVA source of information from which to start?

- Partner Communications and Alerting (PCA) Portal
  - http://www.dhs.wisconsin.gov/pca/index.htm



HVA for LTCFs

- The tool is generally defined by five color-coded areas:
  - Blue – Hazard Scenarios.
  - Pink – Probability.
  - Orange – Impact.
  - Green – Emergency Preparedness
  - Yellow – Relative Risk Value.

HVA for LTCFs

- The tool is used from left to right on a horizontal line for each hazard scenario.
- For each assessment area column, a rank number value is assigned.
- The Probability and all Impact columns have a range of 0-3, with 3 being the **highest** value.
- The Emergency Preparedness columns have a range of 1-3, with 3 being the **lowest** value.

HVA for LTCFs

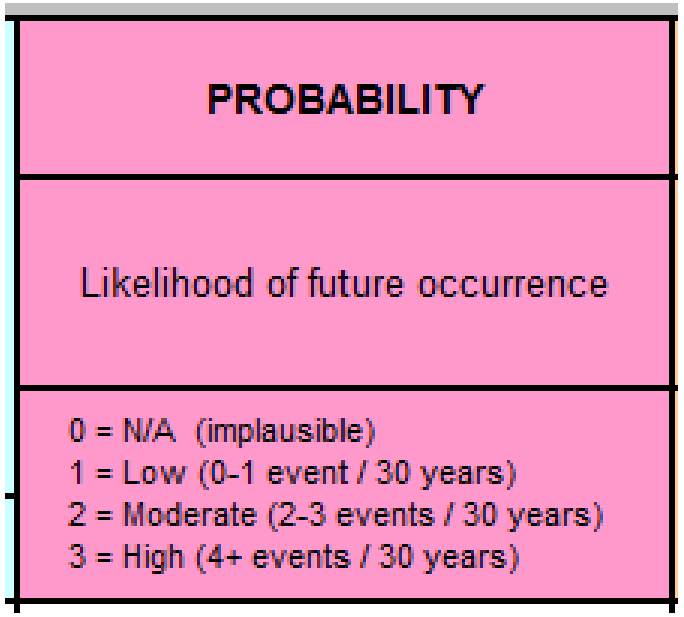
- Hazard Scenarios.
- Presented in major categories:
  - Natural.
  - Man-Made.
- These are standard and recommended lists.
- You may disregard some or add others.

HVA for LTCFs

- See page 10 of the Instruction Document.
- General definition for each hazard scenario provided.
- These definitions will be used when we perform our training activity today.

HVA for LTCFs

- Each assessment area column has three sections:
  - Title.
  - Definition.
  - Ranking scale with definition.



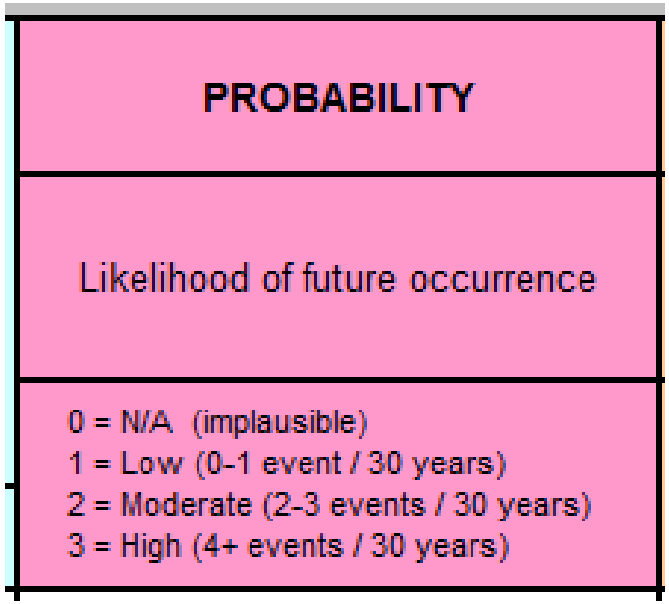
HVA for LTCFs

- Probability – likelihood of future occurrence.
- Ranking Scale (events/year):
  - 0 = Implausible
  - 1 = Low
  - 2 = Moderate
  - 3 = High

PROBABILITY
Likelihood of future occurrence
0 = N/A (implausible) 1 = Low (0-1 event / 30 years) 2 = Moderate (2-3 events / 30 years) 3 = High (4+ events / 30 years)

HVA for LTCFs

- Probability – consider:
  - Known risk.
  - Historical Data
  - Manufacturer/Vendor Statistics.



HVA for LTCFs

- Human Impact – population likely to be injured or killed under an average occurrence.

- Ranking Scale (% affected):
  - 0 = N/A (no impact expected)
  - 1 = Low
  - 2 = Moderate
  - 3 = High

HUMAN IMPACT
Percentage of population likely to be injured or killed under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

- Human Impact – consider potential for:
  - Death.
  - Injury requiring medical intervention.

HUMAN IMPACT
Percentage of population likely to be injured or killed under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

- LTCF Service Impact – services likely to be affected under an average occurrence

- Ranking Scale (% affected)
  - 0 = N/A (no impact expected)
  - 1 = Low
  - 2 = Moderate
  - 3 = High

LTCF SERVICE IMPACT
Percentage of healthcare services likely to be affected under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

- LTCF Service Impact – consider potential for:
  - Direct care.
  - Facility infrastructure.
  - Resident family support.
  - Professional support.
  - Ancillary services.

LTCF SERVICE IMPACT
Percentage of healthcare services likely to be affected under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

- Community Impact – community likely to be affected under an average occurrence.

- Ranking Scale (% affected)
  - 0 = N/A (no impact expected)
  - 1 = Low
  - 2 = Moderate
  - 3 = High

COMMUNITY IMPACT
Percentage of community likely to be affected under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

- Community Impact – consider potential for:
  - Contamination.
    - Air.
    - Water.
    - Food.
  - Supply disruption.
  - Facility evacuation.
  - Disruption.
    - Utilities.
    - Transportation.

COMMUNITY IMPACT
Percentage of community likely to be affected under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

- LTCF Property Impact – properties likely to be affected under an average occurrence.

- Ranking Scale (% affected):
  - 0 = N/A (no impact expected)
  - 1 = Low
  - 2 = Moderate
  - 3 = High

LTCF PROPERTY IMPACT
Percentage of properties likely to be affected under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

Information about the spreadsheet tool

- LTCF Property Impact – consider cost for:
  - Replacement
  - Temporary replacement
  - Repair
  - Time to recover

LTCF PROPERTY IMPACT
Percentage of properties likely to be affected under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

- LTCF Business Impact – businesses likely to be affected under an average occurrence.

- Ranking Scale (% affected)
  - 0 = N/A (no impact expected)
  - 1 = Low
  - 2 = Moderate
  - 3 = High

LTCF BUSINESS IMPACT
Percentage of businesses likely to be affected under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

- LTCF Business Impact – consider :
  - Business disruption.
  - Employees unable to report.
  - Contract violations.
  - Fines, penalties or legal fees.
  - Interrupted critical supplies.
  - Reputation or image loss.
  - Financial burden.

LTCF BUSINESS IMPACT
Percentage of businesses likely to be affected under an average occurrence of the hazard
0 = N/A (no impact expected) 1 = Low (<1% affected) 2 = Moderate (1-10% affected) 3 = High (>10% affected)

HVA for LTCFs

- We need to understand the four cornerstones of emergency preparedness:
  - Mitigation.
  - Preparedness.
  - Response.
  - Recovery.

HVA for LTCFs

- Mitigation – includes but is not limited to:
  - Emergency power.
  - Stockpiles.
  - Warning (NOAA weather radio).
  - Fire suppression.
  - Building air handling isolation.
  - Partner MOUs.
  - Insurance.

HVA for LTCFs

- Preparedness – includes but is not limited to:
  - NIMS-type emergency organization.
  - Plans and procedures.
  - Communication systems.
  - Scope of alternate sources of supply.
  - Frequency of training and drills.
  - Ability to self assess.

HVA for LTCFs

- Response – includes but is not limited to:
  - Quick access to procedures and checklists.
  - Efficient use of communication systems.
  - Access to response equipment.
  - Time needed to marshal an on-scene response.
  - Scope of response capabilities.

HVA for LTCFs

- Recovery – includes but is not limited to:
  - Business continuity plan.
  - Process to end a response.
  - Process to assess damages.
  - Insurance coverage.
  - Availability of temporary facilities.
  - Access to services:
    - Safety Inspection.
    - Cleaning.

HVA for LTCFs

- This format is common to all four cornerstones:
  - Mitigation.
  - Preparedness
  - Response.
  - Recovery

MITIGATION	
Internal (Your LTCF)	**External (Local)**
1 = Substantial 2 = Moderate 3 = Limited or none	1 = Substantial 2 = Moderate 3 = Limited or none

HVA for LTCFs

- Internal Mitigation (Your LTCF):
  - Emergency power.
  - Stockpiles.
  - Warning (NOAA radio).
  - Fire suppression.
  - Air handling isolation.
  - Partner MOUs.
  - Insurance.

MITIGATION	
Internal (Your LTCF)	**External (Local)**
1 = Substantial 2 = Moderate 3 = Limited or none	1 = Substantial 2 = Moderate 3 = Limited or none

HVA for LTCFs

- External Mitigation (Local):
  - Fire/HazMat.
  - Law Enforcement.
  - Vender & Supply.
  - Community Sirens.
  - Emergency Management.
  - Hospital/Clinic Resources.
  - EMS.

MITIGATION	
Internal (Your LTCF)	**External (Local)**
1 = Substantial 2 = Moderate 3 = Limited or none	1 = Substantial 2 = Moderate 3 = Limited or none

HVA for LTCFs

- Internal Preparedness (Your LTCF):
  - Supplies, type, and volume.
  - Staff availability.
  - Condition of procedures.
  - Incident management skills.

PREPAREDNESS	
Internal (Your LTCF)	**External (Local)**
1 = Substantial 2 = Moderate 3 = Limited or none	1 = Substantial 2 = Moderate 3 = Limited or none

HVA for LTCFs

- External Preparedness (local):
  - Notification method to responders.
  - Responder:
    - Resources.
    - Knowledge of your facility.
    - Agreements & MOUs.

PREPAREDNESS	
Internal (Your LTCF)	**External (Local)**
1 = Substantial 2 = Moderate 3 = Limited or none	1 = Substantial 2 = Moderate 3 = Limited or none

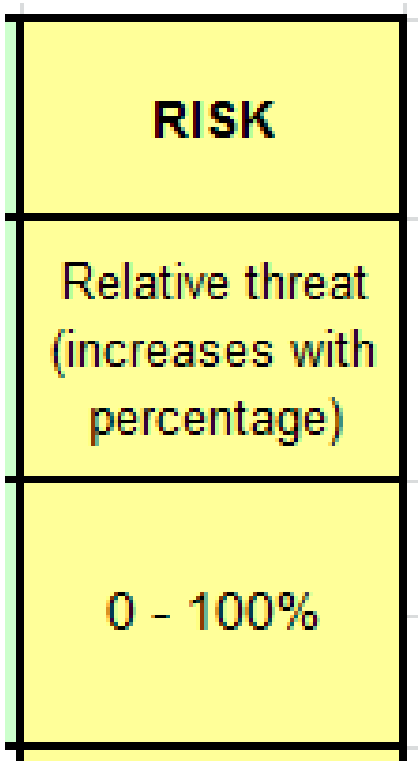
HVA for LTCFs

- Ranking Scale
  - 1 = Substantial
  - 2 = Moderate
  - 3 = Limited or none

RESPONSE	
Internal (Your LTCF)	**External (Local)**
1 = Substantial 2 = Moderate 3 = Limited or none	1 = Substantial 2 = Moderate 3 = Limited or none

HVA for LTCFs

- Relative Risk
  - In the form of a percent value.
  - High percent indicates high urgency.
  - Calculated using all entered ranking data.



HVA for LTCFs

Improve Your Emergency Planning

- Address the Results:
  - Sort the hazard scenarios in order of highest to lowest percent value.
  - Focus on the top three to five scenarios.
  - Take actions, where possible, to:
    - Reduce probability and impact.
    - Increase effectiveness of emergency preparedness.
  - Reassess and address other scenarios with a high percent value.

HVA for LTCFs

Frequently asked Questions

What is the reason for doing this?

HVA for LTCFs

Frequently asked Questions

Can multiple LTCFs coordinate to complete their HVA?

HVA for LTCFs

Frequently asked Questions

How much time should I allow?

HVA for LTCFs

Frequently asked Questions

Are there certain partners that are required to participate in the HVA?

HVA for LTCFs

Frequently asked Questions

Is the HVA an annual requirement for LTCFs?

HVA for LTCFs

Hazard Scenario Definitions – page 10

Natural Hazard Scenarios
Blizzard
Cold – extreme and prolonged
Earthquake
Flood – flash due to rain and local terrain
Heat – extreme and prolonged
Ice Storm
Landslide
Tornado
Wild Fire
Other

HVA for LTCFs

Hazard Scenario Definitions – page 10

Man-Made Hazard Scenarios
Airplane Crash
Biological/Infectious Outbreak
Civil Disturbance – adjacent to facility
Communication Disruption – major and prolonged
Computer Failure – system
Explosion – adjacent to facility
Flood – dam or reservoir failure
Fuel Shortage – for facility operation
HazMat Release – from fixed facility
HazMat Release – from transportation
Nuclear Facility Incident – with 10 or 50 miles
Power Outage – major and prolonged
Supply Disruption
Water Supply Contamination – municipal
Water System Failure – facility or municipal
Other

HVA for LTCFs

Break for 15 minutes

After the break,
we will complete 2 scenario HVAs.

HVA for LTCFs

Before we continue, are there any questions?

HVA for LTCFs

HVA activity #1
Tornado

Remember:

An HVA is for your one facility in one location. All data entered should be from the prospective of that one individual facility.

If you don't know for sure, give an educated guess and find a more accurate value to include later.

HVA activity #2

Biological / Infectious Outbreak

HVA for LTCFs

Follow-up Questions?

To obtain an electronic copy of the HVA spreadsheet and

supporting handbook

send an email to Dave Seebart

Seebart_dr@co.brown.wi.us