Hazard Vulnerability Assessment for Long Term Care Facilities

Dave Seebart
WHEPP Reg. 3, Project Manager
April 23, 25, & 26, 2013
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.
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
Is there a good HVA source of information from which to start?

- Partner Communications and Alerting (PCA) Portal
• The tool is generally defined by five color-coded areas:
  
  • Blue – Hazard Scenarios.
  • Pink – Probability.
  • Orange – Impact.
  • Green – Emergency Preparedness
  • Yellow – Relative Risk Value.
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.
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.

<table>
<thead>
<tr>
<th>PROBABILITY</th>
</tr>
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</table>

- 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 – likelihood of future occurrence.

- Ranking Scale (events/year):
  - 0 = Implausible
  - 1 = Low
  - 2 = Moderate
  - 3 = High
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
HVA for LTCFs

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

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.

<table>
<thead>
<tr>
<th>LTCF SERVICE IMPACT</th>
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<tbody>
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<td>Percentage of healthcare services likely to be affected under an average occurrence of the hazard</td>
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<td>3 = High (&gt;10% affected)</td>
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</table>
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
HVA for LTCFs

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

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

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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
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.

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</table>
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
HVA for LTCFs

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

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

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

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

Preparedness Table:

<table>
<thead>
<tr>
<th>Internal (Your LTCF)</th>
<th>External (Local)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Substantial</td>
<td>1 = Substantial</td>
</tr>
<tr>
<td>2 = Moderate</td>
<td>2 = Moderate</td>
</tr>
<tr>
<td>3 = Limited or none</td>
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</tr>
</tbody>
</table>
HVA for LTCFs

- Ranking Scale
  - 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.
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?
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?
Is the HVA an annual requirement for LTCFs?
Hazard Scenario Definitions — page 10

<table>
<thead>
<tr>
<th>Natural Hazard Scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blizzard</td>
</tr>
<tr>
<td>Cold – extreme and prolonged</td>
</tr>
<tr>
<td>Earthquake</td>
</tr>
<tr>
<td>Flood – flash due to rain and local terrain</td>
</tr>
<tr>
<td>Heat – extreme and prolonged</td>
</tr>
<tr>
<td>Ice Storm</td>
</tr>
<tr>
<td>Landslide</td>
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<tr>
<td>Tornado</td>
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<tr>
<td>Wild Fire</td>
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<tr>
<td>Other</td>
</tr>
</tbody>
</table>
## Man-Made Hazard Scenarios

<table>
<thead>
<tr>
<th>Hazard Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airplane Crash</td>
</tr>
<tr>
<td>Biological/Infectious Outbreak</td>
</tr>
<tr>
<td>Civil Disturbance – adjacent to facility</td>
</tr>
<tr>
<td>Communication Disruption – major and prolonged</td>
</tr>
<tr>
<td>Computer Failure – system</td>
</tr>
<tr>
<td>Explosion – adjacent to facility</td>
</tr>
<tr>
<td>Flood – dam or reservoir failure</td>
</tr>
<tr>
<td>Fuel Shortage – for facility operation</td>
</tr>
<tr>
<td>HazMat Release – from fixed facility</td>
</tr>
<tr>
<td>HazMat Release – from transportation</td>
</tr>
<tr>
<td>Nuclear Facility Incident – with 10 or 50 miles</td>
</tr>
<tr>
<td>Power Outage – major and prolonged</td>
</tr>
<tr>
<td>Supply Disruption</td>
</tr>
<tr>
<td>Water Supply Contamination – municipal</td>
</tr>
<tr>
<td>Water System Failure – facility or municipal</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>
Break for 15 minutes

After the break, we will complete 2 scenario HVAs.
Before we continue, are there any questions?
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
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