Hazard Vulnerability Assessment (HVA)

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Children's Hospital Colorado
Quick Survey

• What is a Hazard Vulnerability Assessment (HVA)?
• What are the benefits?
• How many people have conducted a HVA?
• What tool did you use?
• What did you think of the process?
• Were the results valuable?
Hazard Vulnerability Assessment

- **Definition:** Detailed evaluation of probable risk/events which could impact your facility.
  - If conducted properly, the results identify gaps in the four phases of emergency management (mitigation, preparedness, response, and recovery) planning and are used to understand where to focus limited resources.
# Sample HVA

**HAZARD AND VULNERABILITY ASSESSMENT TOOL**

**HUMAN RELATED EVENTS**

<table>
<thead>
<tr>
<th>EVENT</th>
<th>PROBABILITY</th>
<th>SEVERITY = (MAGNITUDE - MITIGATION)</th>
<th>RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Likelihood this will occur</td>
<td>HUMAN IMPACT</td>
<td>PROPERTY IMPACT</td>
</tr>
<tr>
<td></td>
<td>0 = N/A 1 = Low 2 = Moderate 3 = High</td>
<td>0 = N/A 1 = Low 2 = Moderate 3 = High</td>
<td>0 = N/A 1 = Low 2 = Moderate 3 = High</td>
</tr>
<tr>
<td>Score</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

- Mass Casualty Incident (trauma) 0%
- Mass Casualty Incident (medical/infectious) 0%
- Terrorism, Biological 0%
- VIP Situation 0%
- Infant Abduction 0%
- Hostage Situation 0%
- Civil Disturbance 0%
- Labor Action 0%
- Forensic Admission 0%
- Bomb Threat 0%

| AVERAGE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Benefits of Effective HVAs

• Baseline information
• Focuses risk mitigation efforts
• Cost-benefit approach to decision making
• Identifies high risk events/blind spots
• Others?
Barriers to Effective HVAs

- Multiple HVA formats – Difficult to compare results within industry
- Events are not standardized – What should be rated? Open to interpretation.
- Knowledge on how to conduct an HVA
- May be intuitive and highly subjective
- Results interpretation – What does it mean?
- Agency/entity silos
A New Tool

- Children’s Hospital renamed the HVA to the Community Hazard Vulnerability Assessment (CHVA) due to the many partnerships used to create the tool and its potential value for any industry to use.
### Natural Disaster – Major Earthquake

<table>
<thead>
<tr>
<th>Children's Hospital Colorado</th>
<th>COMMUNITY HAZARD VULNERABILITY ASSESSMENT TOOL</th>
<th>National Planning Scenarios</th>
<th>Occurrence</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trauma Rating: 1</td>
<td>Probability</td>
<td>Human Impact</td>
<td>Property Impact</td>
<td>Business Impact</td>
</tr>
<tr>
<td>Natural Disaster – Major Earthquake</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

#### Average

<table>
<thead>
<tr>
<th>Naturally Occurring Events</th>
<th>Occurrences</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>1.53</td>
<td>1.13</td>
</tr>
</tbody>
</table>
CHVA Improvements

- Response column added under probability.
- Three distinct ways to evaluate the data (occurrence, response, and non-weighted).
- Extensive listing of potential events affecting the facility.
- Ability to better document input from external partners.
CHVA Improvements

• Multiple graphs for identifying gaps in the four phases of emergency management, both internal and external.
• Print Tab to shorten the CHVA to one page.
• Additional Tabs to document compliance with accrediting/regulatory groups
• Written for the Emergency Manager
• Standardized events
• Fully customizable
Other Uses for the CHVA Format

• Joint Risk Assessments
• Continuity of Operations Planning (COOP)
• Information Technology Disaster planning
• Business Continuity
• Risk/Vulnerability Assessments
Questions?

What’s Next?
Joint Risk Assessment (JRA)

• The JRA is a web-based, database driven system designed to summarize data into a high-level composite view.
• At its foundation, it incorporates the CHVA tool.
Why Develop the JRA?

- Inability to assess multiple CHVAs
- Inability to integrate external feedback in multiple CHVAs
- Lack of centralized data repository
- Federal Requirement to conduct a JRA
- Assist the Emergency Manager
- Limited JRA applications
- Inability to normalize data
- Facilitate community input
- Web based version of the CHVA
Benefits

• Ability to include other locations
• Support multiple browsers
• Customized reports
  ▪ Group/Coalition reports
• Standardized
• Normalized events
• Centralized data
Thank You!!