

What is Hazard Vulnerability Analysis (HVA)?

Hazard Vulnerability Analysis is a way to focus attention on those hazards that are most likely to have an impact on your facility and the surrounding community. It is intended that a HVA be seen as a evolving document and be reviewed at least annually. There are four categories that are used to help place each hazard into perspective. These categories are Probability, Response, Human Impact, and Property Impact on a facility. Each of these categories is based on a point system, ranging from 0 to 3. For each hazard, a point estimate of 0 (NA) to 3 (high) is given for each of the four categories.

Hazard and Vulnerability Analysis

This document is a sample Hazard Vulnerability Analysis tool. It is not a substitute for a comprehensive emergency preparedness program. Individuals or organizations using this tool are solely responsible for any hazard assessment and compliance with applicable laws and regulations.

INSTRUCTIONS:

Evaluate potential for event and response among the following four categories (Natural, Technological, Human Hazards and Hazardous Materials Incidents) using the hazard specific scale. Assume each event/incident occurs at the worst possible time (e.g. during peak patient loads).

Please note specific score criteria on each work sheet to ensure accurate recording.

Issues to consider for **probability** include, but are not limited to:

1. Known risk
2. Historical data
3. Manufacturer/vendor statistics

Issues to consider for **response** include, but are not limited to:

1. Time to organize an on-scene response
2. Scope of response capability
3. Historical evaluation of response success

Issues to consider for **human impact** include, but are not limited to:

1. Potential for staff death or injury
2. Potential for patient death or injury

Issues to consider for **property impact** include, but are not limited to:

1. Cost to replace
2. Cost to set up temporary replacement (rental, purchase)
3. Cost to repair
4. Time to recover (stay in business, resume normal operations)

Issues to consider for **business impact** include, but are not limited to:

1. Business interruption (how long?)
2. Employees unable to report to work
3. Customers unable to reach facility
4. Company in violation of contractual agreements
5. Imposition of fines and penalties or legal costs
6. Interruption of critical supplies
7. Interruption of product distribution
8. Reputation and public image
9. Financial impact/burden

Hazard and Vulnerability Analysis

Issues to consider for **preparedness** include, but are not limited to:

1. Status of current plans
2. Frequency of drills
3. Training status
4. Insurance
5. Availability of alternate sources for critical supplies/services

Issues to consider for **internal resources** include, but are not limited to:

1. Types of supplies on hand/will they meet need?
2. Volume of supplies on hand/will they meet need?
3. Distribution of supplies
4. Staff availability
5. Coordination with MOB's
6. Availability of back-up systems
7. Internal resources ability to withstand disasters/survivability

Issues to consider for **external resources** include, but are not limited to:

1. Types of agreements with community agencies/drills?
2. Coordination with local and state agencies
3. Coordination with proximal health care facilities
4. Coordination with treatment specific facilities
5. Community resources

Complete all worksheets including Natural, Technological, Human and Hazmat.

The summary section will automatically provide your specific and overall relative threat.

**HAZARD AND VULNERABILITY ASSESSMENT TOOL
NATURALLY OCCURRING EVENTS**

EVENT	PROBABILITY <i>Likelihood this will occur</i>	SEVERITY = (MAGNITUDE - MITIGATION)			PREPARED- NESS <i>Preplanning</i>	INTERNAL RESPONSE <i>Time, effectiveness, resources</i>	EXTERNAL RESPONSE <i>Community/ Mutual Aid staff and supplies</i>	RISK <i>Relative threat*</i>
		HUMAN IMPACT <i>Possibility of death or injury</i>	PROPERTY IMPACT <i>Physical losses and damages</i>	BUSINESS IMPACT <i>Interruption of services</i>				
SCORE	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 - 100%
Tornado				2				0%
Severe Thunderstorm				2				0%
Snow Fall								0%
Blizzard								0%
Ice Storm								0%
Earthquake								0%
Temperature Extremes								0%
Flood, External								0%
Epidemic								0%
AVERAGE SCORE	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0%

*Threat increases with percentage.

RISK = PROBABILITY * SEVERITY		
0.00	0.00	0.01

**HAZARD AND VULNERABILITY ASSESSMENT TOOL
TECHNOLOGIC EVENTS**

EVENT	PROBABILITY <i>Likelihood this will occur</i>	SEVERITY = (MAGNITUDE - MITIGATION)			PREPARED- NESS <i>Preplanning</i>	INTERNAL RESPONSE <i>Time, effectiveness, resources</i>	EXTERNAL RESPONSE <i>Community/ Mutual Aid staff and supplies</i>	RISK <i>Relative threat*</i>
		HUMAN IMPACT <i>Possibility of death or injury</i>	PROPERTY IMPACT <i>Physical losses and damages</i>	BUSINESS IMPACT <i>Interruption of services</i>				
SCORE	0 = N/A Low Moderate High	1 = 2 = 3 =	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High Moderate Low or none	2 = 3 =	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 - 100%
Electrical Failure								0%
Generator Failure								0%
Fuel Shortage								0%
Natural Gas Failure								0%
Water Failure								0%
Sewer Failure								0%
Steam Failure								0%
Fire Alarm Failure								0%
Communications Failure								0%
Medical Gas Failure								0%
Medical Vacuum Failure								0%
HVAC Failure								0%
Information Systems Failure								0%
Fire, Internal								0%
Flood, Internal								0%
Hazmat Exposure, Internal								0%
Supply Shortage								0%
Structural Damage								0%
AVERAGE SCORE	0.00		0.00	0.00	0.00	0.00	0.00	0%

*Threat increases with percentage.

RISK = PROBABILITY * SEVERITY
0.00 0.00 0.00

**HAZARD AND VULNERABILITY ASSESSMENT TOOL
HUMAN RELATED EVENTS**

EVENT	PROBABILITY	SEVERITY = (MAGNITUDE - MITIGATION)			PREPARED- NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	RISK
		HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT				
	<i>Likelihood this will occur</i>	<i>Possibility of death or injury</i>	<i>Physical losses and damages</i>	<i>Interruption of services</i>	<i>Preplanning</i>	<i>Time, effectiveness, resources</i>	<i>Community/ Mutual Aid staff and supplies</i>	<i>Relative threat*</i>
SCORE	0 = N/A Low Moderate High	1 = 0 = N/A 1 = Low 2 = Moderate 3 = High	1 = 0 = N/A 1 = Low 2 = Moderate 3 = High	1 = 0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A = High Moderate Low or none	1 = 0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 - 100%
Mass Casualty Incident (medical/infectious)								0%
Terrorism, Biological								0%
Hostage Situation								0%
Civil Disturbance								0%
Labor Action								0%
Forensic Admission								0%
Bomb Threat								0%
VIP Situation								
Infant Abduction								
AVERAGE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%

*Threat increases with percentage.

RISK = PROBABILITY * SEVERITY
0.00 0.00 0.00

**HAZARD AND VULNERABILITY ASSESSMENT TOOL
EVENTS INVOLVING HAZARDOUS MATERIALS**

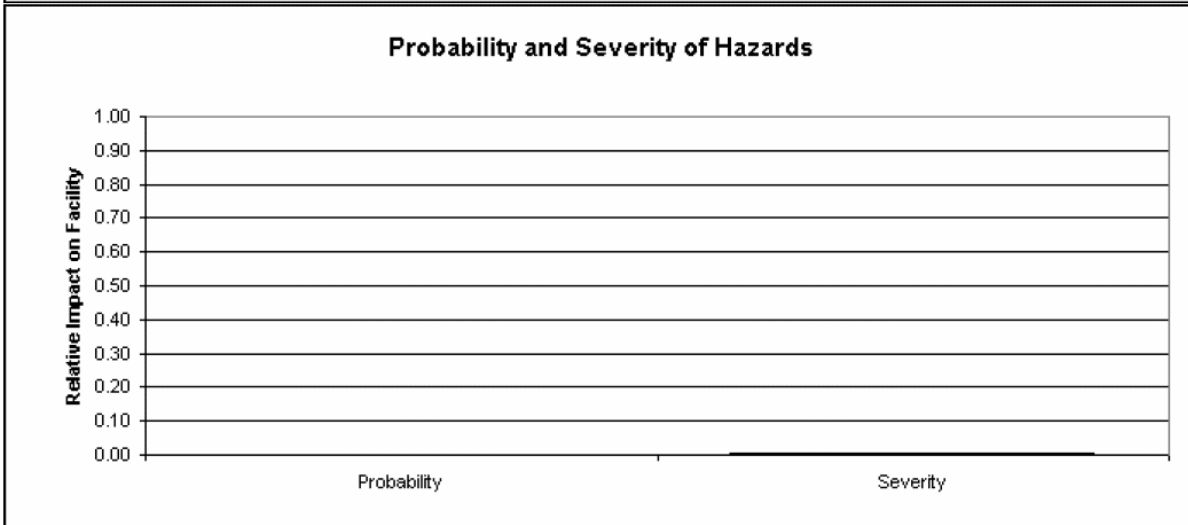
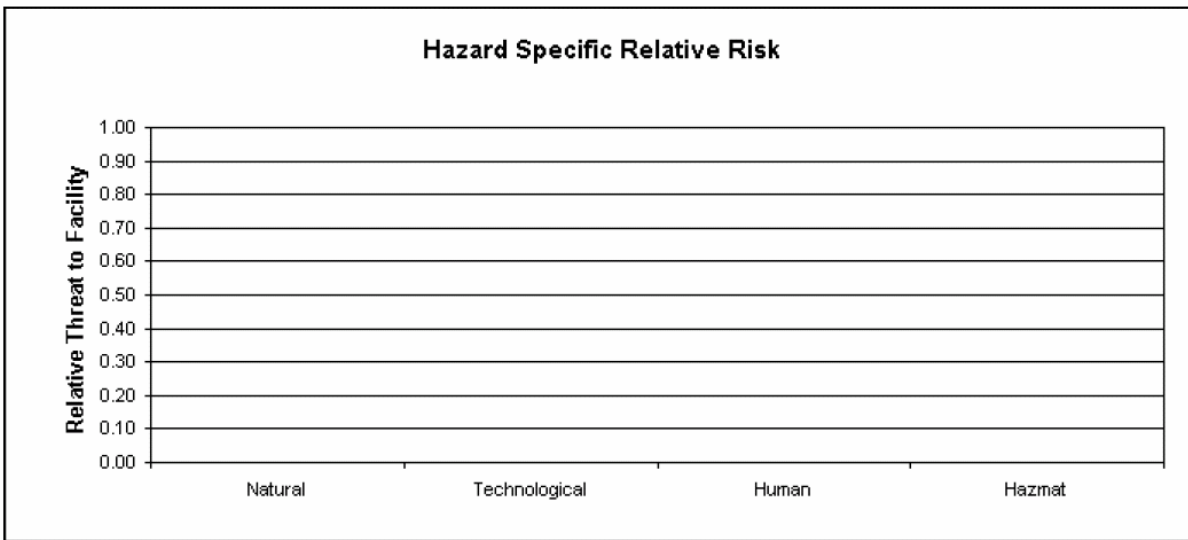
EVENT	PROBABILITY <i>Likelihood this will occur</i>	SEVERITY = (MAGNITUDE - MITIGATION)						RISK <i>Relative threat*</i>	
		HUMAN IMPACT <i>Possibility of death or injury</i>	PROPERTY IMPACT <i>Physical losses and damages</i>	BUSINESS IMPACT <i>Interruption of services</i>	PREPARED-NESS <i>Preplanning</i>	INTERNAL RESPONSE <i>Time, effectiveness, resources</i>	EXTERNAL RESPONSE <i>Community/ Mutual Aid staff and supplies</i>		
SCORE	0 = N/A Low Moderate 1 = 2 = 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 - 100%
Mass Casualty Hazmat Incident <i>(From historic events at your MC with >= 5 victims)</i>								0%	
Small Casualty Hazmat Incident <i>(From historic events at your MC with < 5 victims)</i>								0%	
Chemical Exposure, External								0%	
Small-Medium Sized Internal Spill								0%	
Large Internal Spill								0%	
Terrorism, Chemical								0%	
Radiologic Exposure, Internal								0%	
Radiologic Exposure, External								0%	
Terrorism, Radiologic								0%	
AVERAGE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%	

*Threat increases with percentage.

RISK = PROBABILITY * SEVERITY		
0.00	0.00	0.00

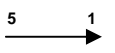
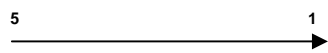
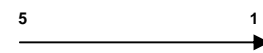
SUMMARY OF HAZARDS ANALYSIS

	Natural	Technological	Human	Hazmat	Total for Facility
Probability	0.00	0.00	0.00	0.00	0.00
Severity	0.01	0.00	0.00	0.00	0.00
Hazard Specific Relative Risk:	0.00	0.00	0.00	0.00	0.00



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Hazard Vulnerability Analysis Chart - Internal and External Risk Assessment for Emergency Preparedness 200_

Type of Emergency	Probability		Human Impact	Property Impact	Business Impact	Internal Resources	External Resources	Total	
	High	Low	High Impact	Low Impact			Weak Resources		Strong Resources
	5	1	5				5		1
									
Snow /Ice Emergency (External)									
Automobile Accident (External)									
Tornado (External)									
Fire/ Explosion (External)									
Fire/Explosion (Internal)									
Utility Failure (Internal)									
Electrical Source from Supplier (External)									
Workplace Violence (Internal)									
Child Abduction (Internal)									
Civil Disturbance (External)									
Hazmat Incidents (External)									
Hazmat Incidents (Internal)									
Flood(Internal/External)									
Biohazard Exposure (Internal)									
Biohazard Exposure (External)									
Terrorism – Weapons of Mass Destruction (External)									
• Chemical									
• Biological									
• Nuclear									
VIP Incident (External)									
Airplane Disaster (External)									
Steel Plant/Gas /Chemical Explosion (External)									
Railroad Accidents (External)									
Boiler Explosion – (Internal)									

Date of Survey: