

## The OSU Medical Center 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 categories 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 marshal 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
- 3 Cost to repair
- 4 Time to recover

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

- 1 Business interruption
- 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

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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 Staff availability
- 4 Coordination with MOB's
- 5 Availability of back-up systems
- 6 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**

Categories of Risk							EVENT	HISTORY	PROBABILITY	SEVERITY = (MAGNITUDE - MITIGATION)						RISK	
Reputation	Compliance	Strategic	Financial	Operational	Hazard	HUMAN IMPACT				PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE			
						<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	<i>Incidents in the last 5 years</i>	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%	
							Hurricane	0									0%
							Tornado	Several alerts per year									0%
							Severe Thunderstorm	Several alerts per year									0%
							Snow Fall	1 or less per year of significance									0%
							Blizzard	1978, minor 1987, 2008									0%
							Ice Storm	1981									0%
							Earthquake	Minor tremors occur									0%
							Tidal Wave	0									0%
							Temperature Extremes	0									0%
							Drought	0									0%
							Flood, External	Major threat 2005, minor threat 2007									0%
							Wild Fire	0									0%
							Landslide	0									0%
							Volcano	0									0%
							Epidemic	0									0%
							Pandemic Flu										0%
<b>AVERAGE SCORE</b>							<b>NA</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0%</b>

*\*Threat increases with percentage.*

<b>RISK = PROBABILITY * SEVERITY</b>
<b>0.00            0.00            0.00</b>

Revised 7/08

## HAZARD AND VULNERABILITY ASSESSMENT TOOL TECHNOLOGIC EVENTS

Categories of Risk						EVENT	HISTORY <i>Frequency of past incidents</i>	PROBABILITY <i>Likelihood this will occur</i>	SEVERITY = (MAGNITUDE - MITIGATION)						RISK <i>Relative threat*</i>
Reputation	Compliance	Strategic	Financial	Operational	Hazard				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	<i>Incidents in last 5 years</i>	<i>0 = N/A 1 = Low 2 = Moderate 3 = High</i>	<i>0 = N/A 1 = Low 2 = Moderate 3 = High</i>	<i>0 = N/A 1 = Low 2 = Moderate 3 = High</i>	<i>0 = N/A 1 = Low 2 = Moderate 3 = High</i>	<i>0 = N/A 1 = High 2 = Moderate 3 = Low or none</i>	<i>0 = N/A 1 = High 2 = Moderate 3 = Low or none</i>	<i>0 = N/A 1 = High 2 = Moderate 3 = Low or none</i>	<i>0 - 100%</i>
						Electrical Failure	3								0%
						Generator Failure	1								0%
						Transportation Failure									0%
						Fuel Shortage									0%
						Natural Gas Failure									0%
						Water Failure									0%
						Sewer Failure									0%
						Steam Failure	1 in last 2 years (partial outage?)								0%
						Fire Alarm Failure									0%
						Communications Failure									0%
						Medical Gas Failure									0%
						Medical Vacuum Failure									0%
						HVAC Failure									0%
						Information Systems Failure	Addressed by E-Alerts and BIT Plan								0%
						Fire, Internal									0%
						Flood, Internal									0%
						Hazmat Exposure, Internal	No major								0%
						Supply Shortage									0%
						Structural Damage									0%
						Helicopter Accident									0%
						Construction Accident									0%
															0%
<b>AVERAGE SCORE</b>						NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%

*\*Threat increases with percentage.*

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0.00	0.00	0.00

Revised 7/08

## HAZARD AND VULNERABILITY ASSESSMENT TOOL HUMAN RELATED EVENTS

Categories of Risk							EVENT	HISTORY <i>Frequency of past incidents</i>	PROBABILITY  <i>Likelihood this will occur</i>	SEVERITY = (MAGNITUDE - MITIGATION)						RISK
Reputation	Compliance	Strategic	Financial	Operational	Hazard	HUMAN IMPACT				PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	Relative threat*	
						<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>	0 = N/A 1 = Low 2 = Moderate 3 = High		0 = N/A 1 = Low 2 = Moderate 3 = High
						Mass Casualty Incident (trauma)									0%	
						Mass Casualty Incident (medical)									0%	
						VIP Situation									0%	
						Infant Abduction									0%	
						Hostage Situation									0%	
						Civil Disturbance									0%	
						Labor Action	1								0%	
						Forensic Admission	N/A								0%	
						Bomb Threat									0%	
						Critical Staff Shortage									0%	
						Forensic Escape	1								0%	
						Patient AMA										
<b>AVERAGE</b>							NA	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0%</b>	

\*Threat increases with percentage.

Revised 7/08

**RISK = PROBABILITY \* SEVERITY**

**0.00      0.00      0.00**

## HAZARD AND VULNERABILITY ASSESSMENT TOOL EVENTS INVOLVING HAZARDOUS MATERIALS

Categories of Risk						EVENT	HISTORY <i>Frequency of past incidents</i>	PROBABILITY <i>Likelihood this will occur</i>	SEVERITY = (MAGNITUDE - MITIGATION)						RISK <i>Relative threat*</i>
Reputation	Compliance	Strategic	Financial	Operational	Hazard				HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	
									<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>	
						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%		
						Mass Casualty Hazmat Incident <i>(From historic events at your MC with &gt;= 5 victims)</i>							0%		
						Small Casualty Hazmat Incident <i>(From historic events at your MC with &lt; 5 victims)</i>	Several occurrences per year for UH						0%		
						Chem. Exposure, External (Leak/train accident)							0%		
						Small-Medium Sized Internal Spill	No significant risk in recent past						0%		
						Large Internal Spill							0%		
						Radiologic Exposure, Internal							0%		
						Radiologic Exposure, External							0%		
						Terrorism, Chemical							0%		
						Terrorism, Biologic							0%		
						Terrorism, Radiologic							0%		
						Chemotherapy Spill							0%		
													0%		
<b>AVERAGE</b>						NA	0.00	0.00	0.00	0.00	0.00	0.00	0%		

\*Threat increases with percentage.

**RISK = PROBABILITY \* SEVERITY**

0.00

**RISK = PROBABILITY \* SEVERITY**

0.00      0.00      0.00

Revised 7/08



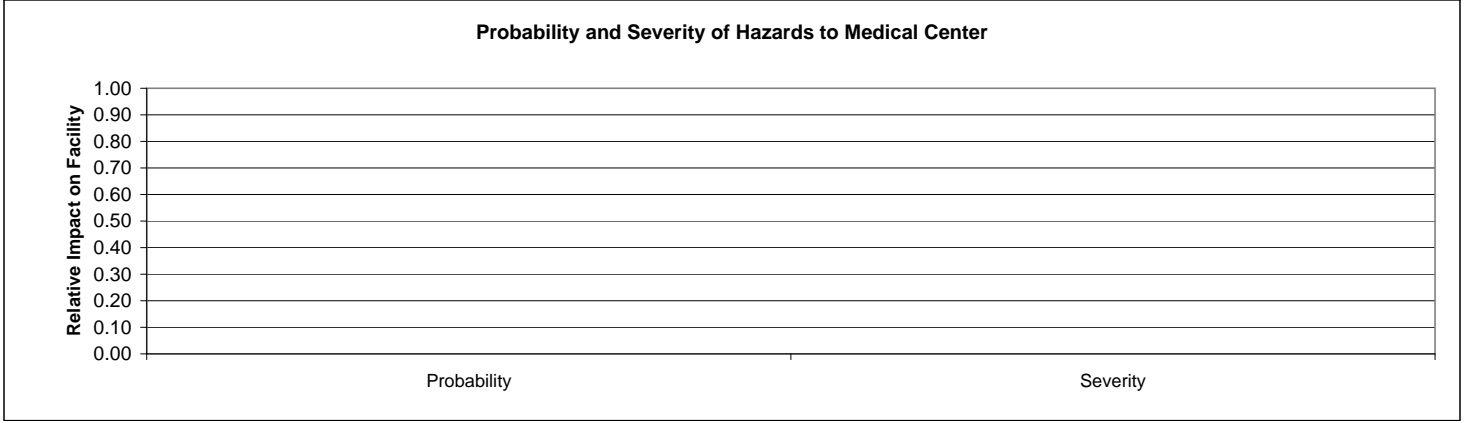
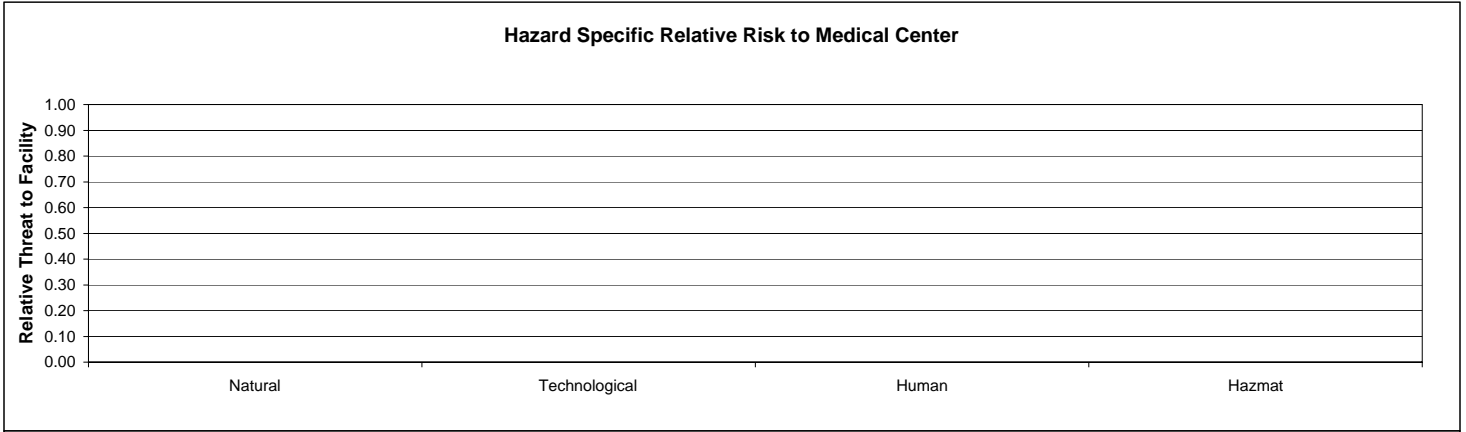






**SUMMARY OF MEDICAL CENTER HAZARDS ANALYSIS**

	Natural	Technological	Human	Hazmat	Compliance	Operations	Reputation	Financial Issues	Total for Facility
<b>Probability</b>	0.00	0.00	0.00	0.00					0.00
<b>Severity</b>	0.00	0.00	0.00	0.00					0.00
<b>Hazard Specific Relative Risk:</b>	0.00	0.00	0.00	0.00					0.00



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