

### Hazard Vulnerability Analysis (HVA) How to Guide

2023

# How To Conduct an HVA

- What Is It and Why
- Internal Process / How To
- Involving External Partners
- Using the Kaiser Permanente Model
- Mitigation Planning
- Using the Data





# **The Annual Risk Assessment**

### **Hazard Vulnerability Analysis (HVA)**

- Systematic approach to recognizing hazards that may affect the ability to care for residents.
- The risks associated with each hazard are analyzed to prioritize planning, mitigation, response, and recovery activities.





# **The Annual Risk Assessment**

#### Why conduct an HVA?

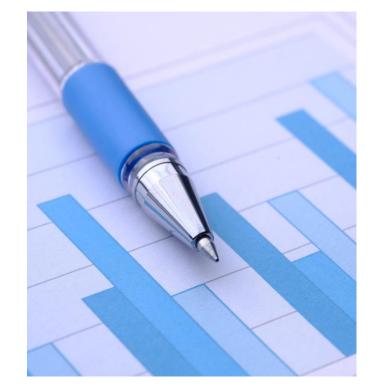
#### LTC Facilities are **REQUIRED** to do so annually.

**§ 483.73 (a)(1)-(3): Emergency plan.** The LTC facility must develop and maintain an emergency preparedness program that must be reviewed, and updated at least annually. The plan must do all of the following:

(1) Be based on and include a documented, facility-based risk assessment, utilizing an all-hazards approach, including missing residents.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(3) Address resident population, including, but not limited to, persons atrisk; the type of services the LTC facility has the ability to provide in an emergency; and continuity of operations, including delegations of authority and succession plans.





JENSEN HUGHES

# Why Conduct an HVA?

### **Conducting an HVA assists you in developing your:**

- Preparedness Plans (what emergency response plans should be in place for known hazards)
- Exercise / Drill Plans (what should the focus be for the year)
- **Mitigation Plans** (can infrastructure be hardened to mitigate hazards, or equipment purchased, etc.?)





# How To Conduct an HVA: Choose a Model

JENSEN HUGHES





# **Partners and Stakeholders**

- Keys to success: coordination and collaboration
- Keys to being well prepared for emergencies: Developing relationships, sharing information, effective coordination, and collaboration with local, regional and state emergency management and partners, as well as other organizations
- Keys to assessing risks properly: Engaging your stakeholders can help you better understand how the organization operates and what resources it has available in an emergency.





### **Examples of Partners and Stakeholders**

#### LOCAL

#### **STATE/REGIONAL**

- Local Emergency Management
- Local Fire & Police Departments
- Local Health Department
- Hospitals
- Other local LTC / AL facilities

- VHCA-VCAL
- VA Dept of Emergency Management
- Virginia's Healthcare Coalitions
  - <u>Learn more</u> about Healthcare Coalitions





# How To Conduct an HVA

#### **Conduct an Internal and Exterior Tour**

- Review External Hazards
- Review Internal (Facility) Hazards

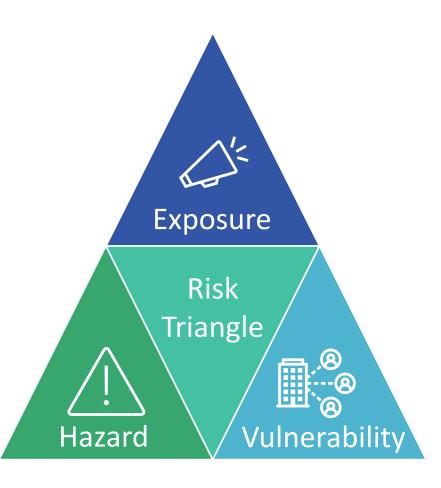
### **Complete the HVA Develop Mitigation & Preparedness Plans**





### What about the hazards are we assessing?

- Probability
- Impact
- Preparedness
- Internal Response
- External Response







	Hazard Vuln	erability Asse	ssment			RISK	PROBABILITY	SEVERITY
	NATU	JRAL HAZARD	s			#DIV/0!	#DIV/0!	#DIV/0!
				SEV	ERITY			
			IMPACT			MITIGATION	l	
HAZARD	PROBABILITY (0-4)	HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED- NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	Relative Risk
	(0 4)	Possibility of death or injury	Physical losses and damages	Interruption of services	Preplanning	Time, effectiveness, resources	Community/ Mutual Aid staff and supplies	
Avalanche								
Blizzard								
Coastal Tsunami / Erosion								
Dam Failure								
Drought								
Dust / Sand Storm								
Earthquake								
Flooding / Flash (External)								
Flooding (Internal)								
Damaging Winds								
Hail Storm								
Hurricane								
Ice Storm								
Infection Disease (SARS, Flu, etc)								
Landslide								
Severe Thunderstorm								
Snow / Ice Storm								
Subsidence / Sink hole								
Temperature Extremes								
Tornado								
Volcanic Eruption								
Wild Fire								
Other 1 (provide hazard name)								
Other 2 (provide bazard pame)								
Instructions Scor	ing Scale 🛛 🛚 🛚 🔊	atural Tech	nological I	-luman Facil	ity Summary	Top 10 Haza	rds Top 10 N	litigation Plans

# How to Conduct an HVA

Model shown is based upon the Kaiser tool





# How To Conduct An HVA

#### ENTER FACILITY NAME

CONSIDERATIONS FOR COMPLETING THE ANALYSIS FORMS

- 1) Change "Facility Name" at the top of this Instruction Tab to populate your facility's name throughout.
- 2) Facilities using this tool shall complete each worksheet as it pertains to their organization.
- 3) When completing the individual risk tabs (Natural, Technological, Human):
- Complete all worksheets, including Natural, Technological, and Human
- If a hazard does not pertain to you (e.g., "volcanic eruption", "mass casualty") simply score the "probablity" as a zero (0)
- Assume each event occurs at the worst possible time (e.g, during peak census, lowest staffing levels) when considering Impact and Response
- 4) The Facility Summary tab will automatically provide general overall relative risk by risk type (Natural, Tech or Human).
- 5) The Top 10 Hazards tab will automatically provide the Top Ten by risk type (Natural, Tech or Human) and the Top Ten Overall.
- 6) These top relative risks will help to determine priorities for mitigation efforts, planning efforts and / or needed exercises or training.
- Issues to consider for probability include, but are not limited to:
  - 🕨 Known Risk
  - Historical Data (10 Year Time Frame)

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

Acuity and volume of injury/death to staff, residents, & visitors

- Issues to consider for preparedness include, but are not limited to:
  - Status of current plans
  - Frequency of drills
  - Training and implementation status
  - Insurance
  - Availability of alternate sources for critical supplies/services



# **How To Conduct An HVA**

Pay attention to and follow the tabs at the bottom of the workbook



**Please note** that in this instructional presentation, some slides have suggestions or notes in the notes area that may be helpful.





	Hazard Vulr	nerability Asse	ssment			RISK	PROBABILITY	SEVERITY	
	NATU	IRAL HAZARD	S			0.00	0.00	0.00	
				SEV	ERITY				
			IMPACT			MITIGATION			
HAZARD	PROBABILITY	HUMAN	PROPERTY	BUSINESS	PREPARED-	INTERNAL	EXTERNAL		
HAZARD	(0-4)	IMPACT	IMPACT	IMPACT	NESS	RESPONSE	RESPONSE	Relative Risk	Comments
	1	Possibility of	Physical losses	Interruption of	Preplanning	Time, effectiveness,	Community/ Mutual Aid staff		
		death or injury	and damages	services	Prepianning	resources	and supplies		
walanche						i coorces	und supplies	0.00	1
lizzard								0.00	(
oastal Tsunami /								0.00	[
am Failure				٥	Ne weekshilik	the end of Alet A	nuliaabla	0.00	
)rought				<u>0</u>	No probabilit	y to occur/Not A	pplicable	0.00	Į.
)ust / Sand S	Historical re-	view of last 10 y	oars and the	4	Unlikely to or	cur, but possible	in 10 yr pariod	0.00	
arthquake	historicarie	view of last 10 y	ears and the	<u>1</u>	Uninkely to oc	cui, but possible	in to yi periou	0.00	[
looding (Ext Damaging Wi	likelihood th	at the event will	occur within	2	Likely to occu	r at least once ir	10 vr neriod	0.00	ĺ
	inkennood th	at the event will	occur within	<u> </u>			1.1	0.00	
lail Storm	the next 10	vears.		3	Will occur sev	eral times withi	n 10 vr period	0.00	
lurricane	che next 10	(cursi		<u> </u>	This becar set	erar ennes men	r zo fi penoa	0.00	
nfection Dise				4	Will likely occ	ur frequently in :	10 vr period	0.00	
andslide				-				0.00	
evere Thunderstorm						2		0.00	
now / Ice Storm									
emperature Extremes ornado								0.00	
						-		0.00	
olcanic Eruption Vild Fire								0.00	le la
								0.00	
Other 1 (provide hazard name)								0.00	
Other 2 (provide hazard name) Other 3 (provide hazard name)								0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Average Score	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

	Hazard Vulr	erability As	sessment				RISK	PROBABILITY	SEVERITY	
	NATU	RAL HAZAI	RDS				0.00	0.00	0.00	
					SEV	ERITY				
			IMPACT				MITIGATION	i i		
	PROBABILITY	HUMAN	PROPERTY		SINESS	PREPARED-	INTERNAL	EXTERNAL		
HAZARD	(0-4)	IMPACT		IM	IPACT	NESS	RESPONSE	RESPONSE	Relative Risk	Comments
		Possibilit			votion of		Time,	Community/		
		deat				Preplanning	effectiveness, resources	Mutual Aid staff and supplies		
Avalanche							resources	and supplies	0.00	1
Blizzard									0.00	
Coastal Tsunami / Erosion			IMPAC						0.00	
Dam Failure	-		IIIII AC						0.00	
Drought	HUN	/IAN	PROPERT	Y	BU	SINESS			0.00	
Dust / Sand Storm	IMP	ACT		88	IN	IPACT			0.00	)
Earthquake	IIVIP	ACT	IMPACT		IIV	IFACI			0.00	
Flooding (External)									0.00	
Damaging Winds	Possib	ility of	Physical los	ses	Interr	uption of			0.00	
Hail Storm						rvices			0.00	
Hurricane	death o	r injury	and damag	ges	se	rvices			0.00	
Infection Disease (SARS, Flu, etc)				10	1				0.00	
Landslide									0.00	
Severe Thunderstorm									0.00	1
Snow / Ice Storm									0.00	1
Temperature Extremes									0.00	
Tornado									0.00	
Volcanic Eruption									0.00	
Wild Fire									0.00	
Other 1 (provide hazard name)									0.00	
Other 2 (provide hazard name)									0.00	
Other 3 (provide hazard name)									0.00	
Average Score	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	

	Hazard Vulnerability As	sessment			RISK	PROBABILITY	SEVERITY	
	NATURAL HAZAF	RDS			0.00	0.00	0.00	
			SEV	ERITY				
		IMPAC			MITIGATION			
HAZARD	PROBABILITY HUMAN	PROPERT		PREPARED-	INTERNAL	EXTERNAL		
HAZARD	(0-4) IMPACT		IMPACT	NESS	RESPONSE Time,	RESPONSE Community/	Relative Risk	Comments
	Possibility		terruption of	Preplanning	effectiveness,	Mutual Aid staff		
	death		ices	Treplaning	resources	and supplies		
Avalanche			V	t			0.00	
Blizzard	he total number of patients and the	0	No injuries or death/ Not ap	oplicable			0.00	
ICoastal Isunai	cuity of injury and/or the potential for	1	Low Acuity/Low Volume inj	uries			0.00	
Dam Failure Human Impact	eath to employees, patients, and visitors	2	Low Acuity/High Volume inj	juries			0.00	
Diought	A REAL PROPERTY AND A REAL	3	High Acuity/Low Volume inj	juries or death			0.00	
	aused by an incident occurring. <sup>2</sup>	4	High Acuity/High Volume in	juries or death			0.00	
Earthquake	he extent of damage and/or loss of	0	No property damage/ Not a	applicable			0.00	
Flooding (Exte	frastructure that could limit or	1	Minor damage, recovery le	ss than 2 weeks			0.00	
Damaging Wir Hail Storm Property Impact el	iminate medical care and impact the	2	Moderate damage, recover	ry less than 1 month			0.00	
Hurricane	bility to provide care and the financial	3	Severe damage, recovery le	ess than 6 months			0.00	
	ost to resume normal operations.	4	Total losses likely, recovery	greater than 1 year			0.00	÷
The second se		0	No service disruption/ Not a	applicable			0.00	
Course we Theread	he loss resulting from the extent of	1	Disruption to non-essential	services			0.00	
Spour / Ico Sto Rusiness Impact	ervice interruption or termination of	2	Disruption to non-essential	services, possibility o	f interruption to essen	tial service:	0.00	<u>.</u>
Temperature	ervices that may impair the facility's	3	Termination of non-essentia	al services, Interrupti	ion to essential service	s	0.00	
Tornado	bility to provide care.	4	Termination of both non-es	sential and essential	services		0.00	
Volcanic Erupt		0	Not applicable				0.00	
	he plans, policies, and procedures	1	Plan(s) in place, training up	to date			0.00	
	plemented by the facility that will be	2	Update to plan(s) & training	g required			0.00	
Other 2 (provi	plemented should the incident occur.	3	Plan(s) and training in devel	lopment			0.00	
Other 3 (provi		4	No plan(s) or training in pla	ce			0.00	
Average Score						00	0.00	

		erability Assess	ment				RISK PROBABILI 0.00 0.00	TY SEVERITY 0.00	
	NATO	INAL HALANDS		SEVE	NTY		0.00 0.00	0.00	
HAZARD	PROBABILITY (0-4)		IMPACT PROPERTY IMPACT Physical losses and damages	BUSINESS IMPACT Interruption of services	PREPARED NESS		ITIGATION NTERNAL EXTERNAL NSE RESPONSE Community, Al Aid st		Comments
Avalanche	-	death of mjary	and damages	services			tie		
Blizzard						0	Not applicable		_
Coastal Tsunami / Erosion			2 Y			-		2	_
Dam Failure			The plans, p	olicies, and procedure	S	1	Plan(s) in place, training up t	o date	
Drought		Preparedness	implemente	ed by the facility that w	ill be	2	Update to plan(s) & training	required	
Dust / Sand Storm				ed should the incident		3		•	
Earthquake			implemente	a should the incident	sccur.	2	Plan(s) and training in develo		
Flooding (External)						4	No plan(s) or training in place	e	
Damaging Winds						0	Not applicable		
Hail Storm			-1	tot to the second		2			
Hurricane			The ability of	of the facility to coordi	nate	1	Sufficient resources available		
Infection Disease (SARS, Flu, etc)		Internal Response	resources in	the event an incident		2	Limited resources, mustering	additional internal staff	viable
Landslide			occurs.			3	Limited resources, mustering		
Severe Thunderstorm			occurs.			2		61	not intery
Snow / Ice Storm						4	No resources available, exter	nal response required	
Temperature Extremes		-				0	Not applicable/Not needed		
Tornado		-	Frank Low			4	11		_
Volcanic Eruption		-	External res	ources available to the		1	Resources readily available		
Wild Fire		External Response	hospital to a	aid in incident respons	e and	2	Resources available, prolong	ed response likely	
Other 1 (provide hazard name)		-	recovery op	1999 - Contractor - Contractor		3	Limited resources available,		2
Other 2 (provide hazard name)		-	recovery op	ciacions.			- 100 000 000		
Other 3 (provide hazard name)						4	No external resources availab	ble	
Average Score	0.00								

	Hazard Vulr	erability Asse	ssment			RISK	PROBABILITY	SEVERITY	
	NATU	RAL HAZARD	s			0.00	0.00	0.00	
				SEV	ERITY				
			IMPACT			MITIGATION			
HAZARD	PROBABILITY (0-4)	HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED- NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	Relative Risk	Comments
	(0-4)	Possibility of death or injury	Physical losses and damages	Interruption of services	Preplanning	Time, effectiveness, resources	Community/ Mutual Aid staff and supplies		
Avalanche								0.00	
Blizzard						ie.		0.00	
Coastal Tsunami / Erosion								0.00	
Dam Failure			8				3	0.00	
Drought						19		0.00	
Dust / Sand Storm								0.00	
Earthquake								0.00	
Flooding (External)			) (					0.00	
Damaging Winds			2					0.00	
Hail Storm							3	0.00	
Hurricane								0.00	
Infection Disease (SARS, Flu, etc)			8					0.00	
Landslide					[]			0.00	
Severe Thunderstorm								0.00	
Snow / Ice Storm								0.00	
Temperature Extremes								0.00	
Tornado								0.00	
Volcanic Eruption								0.00	
Wild Fire								0.00	
Other 1 (provide hazard name)								0.00	
Other 2 (provide hazard name)								0.00	
Other 3 (provide hazard name)						10		0.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

The tool separates the various hazards into categories: Natural, Technological, and Human-caused.

3		Hazard Vuln	erability Asses	ssment			RISK	PROBABILITY	SEVERITY
4		NATU	RAL HAZARD	5			0.00	0.00	0.00
5					SEVE	ERITY			
6		70		IMPACT			MITIGATION	Ŋ	
7	HAZARD	PROBABILITY (0-4)	HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED- NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	Relative Risk
8		(04)	Possibility of death or injury	Physical losses and damages	Interruption of services	Preplanning	Time, effectiveness, resources	Community/ Mutual Aid staff and supplies	
9	Hurricane				~	53		2	0.00
10	Infection Disease (SARS, Flu, etc)				89 12	6		8	0.00
11	Landslide				~			2	0.00
12	Severe Thunderstorm				8° 5	65 65			0.00
13	Snow / Ice Storm							2	0.00
14	Temperature Extremes	To include al	classifications of						0.00
15	Tornado	tornado				2		2	0.00
16	Volcanic Eruption								0.00
17	Wild Fire								0.00
18	Other 1 (provide hazard name)	<b></b>	1						0.00
19	Other 2 (provide hazard name)				~	55			0.00
20	Other 3 (provide hazard name)					8 0			0.00
21	Average Score	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Some hazards contains notes to help guide you. Hover over the red dot or the cell to see the notes.

F	lazard Vulnerab	ility Assessme	nt			RISK	PROBABILITY	SEVERITY
	TECHNOLOGI	CAL HAZARDS				0.00	0.00	0.00
				SEV	ERITY	•		
			IMPACT			MITIGATION		
	PROBABILITY	HUMAN	PROPERTY	BUSINESS	PREPARED-	INTERNAL	EXTERNAL	
HAZARD	(0-4)	IMPACT	IMPACT	IMPACT	NESS	RESPONSE	RESPONSE	Relative Ris
	x	Possibility of	Physical losses	Interruption of	10 A. 10 A.	Time,	Community/	
		death or injury	and damages	services	Preplanning	effectiveness,	Mutual Aid staff	
Carbon Monoxide Release (Internal)				No. Concernation		resources	and supplies	0.00
Commercial Power Failure	-							0.00
Communications Systems Failure	-						·	0.00
Contamination of Outside Air			c				61	Charles and a second
Contamination of Outside Air Cyber Attack		-						0.00
				·				0.00
EHR/Information Systems Disruption Fire Alarm System (Detection) Failure								0.00
Fire Protection System Loss (Suppression)	-							0.00
Fire, Internal	-	-						0.00
Flood, Internal	-			di di				0.00
Fuel Shortage		2	2			÷	2	0.00
Generator Failure		ci	-			. 3	2	0.00
Hazmat Exposure, External	-	÷ .	2	5. S			0	0.00
Hazmat Exposure, Internal	-							0.00
HVAC Failure		-						0.00
Medical Gas Failure								0.00
Medical Vacuum Disruption							2	0.00
Natural Gas Failure				°			÷	0.00
Nuclear Facility EPZ								0.00
Public Transportation Disruption				1				0.00
Sewer Disruption								0.00
Steam Disruption							<u>.</u>	0.00
Vendors: Inability to deliver supplies		ас.						0.00
Vendors: Inability to respond for repairs		e e		2 7			÷	0.00

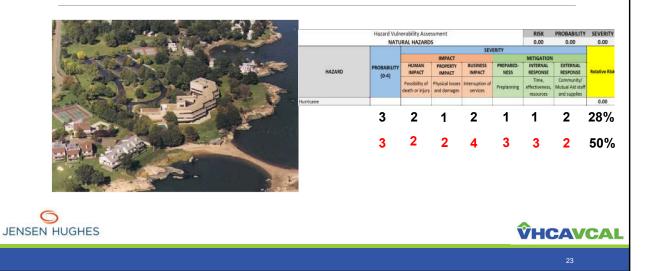
This process requires you to look at all hazards and consider their risk to your facility, not just the ones you have at the top of your head. This may confirm your worries, or it could make you realize there are other higher risks you should be addressing.

Hazard	d Vulnerability	Assessment				RISK	PROBABILITY	SEVERITY
	HUMAN HAZA	ARDS				0.00	0.00	0.00
				SEV	ERITY			
			IMPACT			MITIGATION		
	PROBABILITY	HUMAN	PROPERTY	BUSINESS	PREPARED-	INTERNAL	EXTERNAL	
HAZARD	(0-4)	IMPACT	IMPACT	IMPACT	NESS	RESPONSE	RESPONSE	Relative Risk
		Possibility of	Physical losses	Interruption of	Proplonning	Time,	Community/ Mutual Aid staff	
		death or injury	and damages	services	Preplanning	effectiveness, resources	and supplies	
Active Shooter / Person with a Weapon				,		100001000	and oupprice	0.00
Bomb Threat (Called in)	· · · · · ·	,	· · · · · · · · · · · · · · · · · · ·	· · · · ·				0.00
Civil Disturbance	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		· · · · ·				0.00
Community Surge				· · · · · ·				0.00
Forensic Admission			['	· · · · · · · · · · · · · · · · · · ·				0.00
Hostage Situation			['	· · · · · · · · · · · · · · · · · · ·				0.00
Labor Dispute/Strike				<u> </u>				0.00
Mass Casualty Incident < 5 Patients								0.00
Mass Casualty Incident < 5 Patients needing Decon								0.00
Mass Casualty Incident > 5 Patients								0.00
Mass Casuatly Incident > 5 Patients needing Decon				[]				0.00
Missing Patient (NH Resident)								0.00
Natural Gas Odor/Leak								0.00
Sheltering in Place (Staff, Staff Families, Pets)								0.00
Suspicious Package or Substance								0.00
Surge or Influx or Patients (NH Residents)								0.00
Community or Regional Terrorism (CBRN)								0.00
VIP Admission		['	['	[!				0.00
Workplace Violence				[]				0.00
Other 1 (provide hazard name)				[]				0.00
Other 2 (provide hazard name)	· · · · ·	<b></b>	· · · · · · · · · · · · · · · · · · ·	· · · ·				0.00
Other 3 (provide hazard name)				!				0.00
Average Score	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hazal	rd vulnerability					RISK	PROBABILITY	SEVERITY
	HUMAN HAZ	ARDS				0.00	0.00	0.00
				SEVI	ERITY			
			IMPACT			MITIGATION		
HAZARD	PROBABILITY	HUMAN IMPACT	PROPERTY IMPACT	BUSINESS	PREPARED- NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	Relative Ris
	(0-4)	Possibility of death or injury	Physical losses and damages		Preplanning	Time, effectiveness, resources	Community/ Mutual Aid staff and supplies	
Active Shooter / Person with a Weapon								0.00
Bomb Threat (Called in)								0.00
Civil Disturbance								0.00
Community Surge								0.00
Forensic Admission								0.00
Hostage Situation						10 U		0.00
_abor Dispute/Strike								0.00
Mass Casualty Incident < 5 Patients								0.00
Mass Casualty Incident < 5 Patients needing Decon						8	64	0.00
Mass Casualty Incident > 5 Patients						9	a	0.00
Mass Casuatly Incident > 5 Patients needing Decon								0.00
Missing Patient (NH Resident)	0	)ther 1 (n	rovide h	azard na	me)			0.00
Natural Gas Odor/Leak					-			0.00
Sheltering in Place (Staff, Sta		)ther 2 (n	rovide h	azard na	me)			0.00
Suspicious Package or Substa	010-01011-011							0.00
Surge or Influx or Patients (NI		)ther 3 (n	rovide h	azard nai	me)		e: 34	0.00
Community or Regional Terrol	111111 111111 111 🖬 🛎		To vide m	uzuru nu	ine)		e: 3:	0.00
/IP Admission		1.111111						0.00
Workplace Violence								0.00
Other 1 (provide hazard name)								0.00
Other 2 (provide hazard name)			8				2	0.00
Other 3 (provide hazard name)		0						0.00
Average Score	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

There are spaces provided in each category to add additional hazards so you can customize the tool to your facility and address all the potential hazards that exist.

#### **Case Study: Coastal Facility**



#### Example of How to Enter Information into the Tool and Its Impact on Scoring:

#### Facility A – Relative Risk Score = 28%

**Probability** - A facility is right on the shore and based on historical data and the local town's mitigation plan, a hurricane is likely to occur at least once in 10 years = **Enter 3** 

**Human impact** - If a hurricane happens the human impact is determined to be potentially low acuity but has the possibility of high volume = **Enter 2** 

**Property impact** is considered minor damage and less than two-week recovery, as they have hurricane shutters and have weathered hurricanes previously = **Enter 1** 

**Business impact** is considered as there is expected disruption to non-essential services and/or possible disruption to essential transportation for vendors and supplies = **Enter 2** 

**Preparedness** - The facility has detailed plans (for all phases of the hurricane approach) and practices annually just before hurricane season = **Enter 1** 

**Internal response** - The facility has robust staff, family, and even staff pet sheltering plans, disaster staffing plans, and are confident they will be able to assemble sufficient resources to shelter in place = **Enter 1** 

**External response** - After discussion with the local fire department and emergency management agency, the facility realizes that although resources may be available in the town, they may not be able to prioritize the facility and may struggle with access due to expected flooding = **Enter 2** 

#### Facility B – Relative Risk Score = 50%

Probability - Same as Facility A

Human impact - Same as Facility A

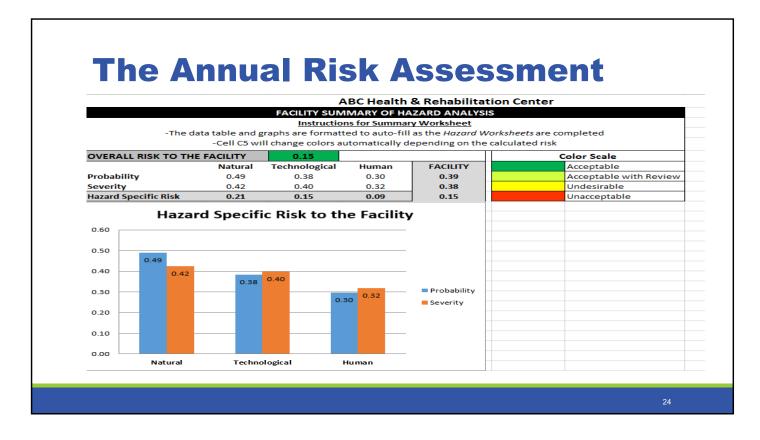
**Property impact** is considered moderate damage and less than 1-month recovery, as they only have a few hurricane shutters and have one generator that only runs part of the building = **Enter 2** 

**Business impact** is considered as there is expected termination of both non-essential and essential services = **Enter 4** 

**Preparedness** - The facility is in the process of creating the plans and training for a hurricane response but has not disseminated to or trained staff = **Enter 3** 

**Internal response** - The facility has continuing and regular struggles with having enough supplies and staff to cover shifts = **Enter 3** 

External response - Same as Facility A



The facility summary delineates the relative risks of the different categories and provides an overall risk rating for the facility.

This is a culmination of your assessments and data entry. This does not provide benchmark type data for comparison against other facilities as the risks and hazards are historically unique to the facility. Examples of scoring impact from one facility versus another, even when in the same community can be exampled by but not limited to – age of the building, staff training, infrastructure mitigations implemented (i.e., number of generators), and more.

			ABC Health & Rehabil	itation Cen	ter			
Natural Disa		<b>D</b> 1 1	Technogical Dis		<b>D</b> 1 1	Human Events		
TOP 10 HVA	RANK	Risk	TOP 10 HVA	RANK	Risk	TOP 10 HVA	RANK	
nfection Disease (SARS, Flu, etc)	1	63%	Natural Gas Failure	1	63%	Suspicious Package or Substance	1	34%
lurricane	2	56%	Medical Vacuum Disruption	2	56%	Active Shooter / Person with a Weapon	2	31%
Coastal Tsunami / Erosion	3	47%	Communications Systems Failure	3	47%	Community Surge	3	31%
Earthquake	4	47%	Fire, Internal	4	47%	Mass Casualty Incident > 5 Patients	4	31%
Snow / Ice Storm	5	47%	Hazmat Exposure, External	5	47%	Sheltering in Place (Staff, Staff Families, Pets)	5	31%
Wild Fire	6	47%	Sewer Disruption	6	47%	VIP Admission	6	31%
Dam Failure	7	38%	Water Supply Disruption (Potable)	7	47%	Hostage Situation	7	25%
Dust / Sand Storm	8	31%	Contamination of Outside Air	8	38%	Missing Patient (NH Resident)	8	25%
Damaging Winds	9	31%	Flood, Internal	9	38%	Bomb Threat (Called in)	9	19%
Hail Storm	10	31%	EHR/Information Systems Disruption	10	31%	Mass Casualty Incident < 5 Patients	10	19%

Г

The tool also breaks down the Top 10 Hazards by each category. The Risk ranking is relative only to the other hazards assessed in the tool. It is intended to provide a ranking methodology to allow for prioritization and subsequent planning.

# **Mitigation Plans: How To**



 There may be carry over year-to-year Determine "Top Relative Risks"

• Using the HVA as a tool, what risks are rated high?

 Could be "Top 10" or any item > Greater Than 50% Risk, etc. Review what can be done to minimize the risk?

- Infrastructure Improvement
- Equipment Purchase
- Planning
- Training
- Collaboration with other Partners



	Miti	iqa	tic	on Plans				
	EVENT TYPE	EVENT	Relative Threat *	Comments		2017 Mitigation Plans to Consider		
		Tornado	48 %	Naturally occurring events cannot be avoided; however, this facility has committed action plans	•	Staff training on these plans		
	Natural	Hurricane	48 %	when these events occur and conducts robust pre- planning prior to storm seasons, and forecasted		<ul> <li>Provide transportation evacuation survey to EMS provider that shows what type of ambulances and vehicles may be needed in</li> </ul>		
	Hazards	Earthquake	48 %	events. As detailed and evidenced in our Emergency Operations Plan.		an evacuation		
		Blizzard	52 %	Likely to occur, minimal human or property impact but business impact "high" due to need to export		Consider plans, equipment and evaluate process in this first year for snow removal		
	enerator ailure	48 %	bldg); no e	rators with no redundancy (ea serve 1/2 of external connection; external generator ised but needs 50 ft connection and set-up		Consider infrastructure improvements to have outside connect and set-up MOUs, etc.	quick	
L	oss of Water	52 %		main feeds campus, consider alternate ply connections, storage, etc.		Consider infrastructure improvements to have outside connect and set-up MOUs, etc. Consider more on-site water storage (only 60 gallons storage today)		
		Bomb Threat	48 %			Develop Plans and review with local PD Provide EOC and PD with Floor Plans		
	Human Hazards	Active Shooter/	,	Ranked "moderate" due to concerns due to no planning in place and location near large population center & staff concerns.	•	Have Local PD review security of building, considering locked doors, access points, use of electronic sign in ("Fast Pass"), access to PD of Cameras, etc.		
		Hostage Situation	48 %			Review PD access to all parts of the building, including Knox Box use (not great for PD), Card access for PD, etc. Develop and Implement a training plan for STAFF by the Local EM and PD (including training, drills, etc.)		
	Hazardous Materials Hazards	Chemical Exposure, Internal	48 %	Have chemicals on site, have some response plans but in process of re-doing SDS binders to update and make accessible to all	•	Update and distribute SDS Binders, educate staff Review in-house spill kits, consider adding to them Review training of in-house staff, consider review training – possibly by manufacture of spill kit equipment		

#### SAMPLE MITIGATION PLAN

Once this page is completed to print it then add it to your EPP prior to changing the HVA data again.

If the HVA numbers get changed the hazards and risks on this page will reorder automatically but the comments and mitigation information will remain.

# Using data from your HVA to influence your Program and Planning

#### **Preparedness Plans**

- Are emergency response plans in place for known hazards
- Do they need updating

#### **Exercise / Drill Plans**

• What should the exercises / drills focus be for the year

#### **Mitigation Plans**

• Can infrastructure be hardened to mitigate hazards, or equipment purchased, training be conducted, etc.





# **Questions?**

For questions or more information regarding the risk assessment HVA process, contact:

VHCA EMPrep: <u>emprep@vhca.org</u>





# **Thank You!**

#### **April R. Payne, MBA, LNHA**

Chief Quality & Regulatory Affairs Officer Executive Director of VCAL Virginia Health Care Association | Virginia Center for Assisted Living 2112 West Laburnum Avenue, Suite 206 | Richmond, VA 23227

W: (804) 212-1698 | M: (804) 212-9917 april.payne@vhca.org



