



# Emergency Preparedness Plan (EPP) Series 1: Hazard Vulnerability Assessment (HVA)

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February 15, 2023

# Objectives

- Identify 2023 EPP Educational Opportunities
- Highlight the HSAG EPP Website
- Explore HVAs, Tools, and Results

# EPP Webinars

- 3rd Wednesday of the month, 3–3:45 p.m. PT
- Register at: [bit.ly/epp-series](http://bit.ly/epp-series)

EPP Webinar: 1. Hazard Vulnerability Assessment

EPP Webinar: 2. Incident Command System

EPP Webinar: 3. QSO-21-15-ALL and the EIDs Self-Assessment Tool

EPP Webinar: 4. Transportation: Know Thy Neighbors

EPP Webinar: 5. Business Continuity Planning and Supply Chain Management

EPP Webinar: 6. Care Coordination and Surge

EPP Webinar: 7. Engaging Your Staff—Being Prepared at Home

EPP Webinar: 8. Table-Top Exercises: Planning and the After-Action Report

EPP Webinar: 9. Top Ten ETag Deficiencies

# HSAG EPP Website

## Emergency Preparedness



Healthcare providers, community-based organizations, and individuals in the community need to be ready to respond to emergencies, including Emerging Infectious Diseases (EIDs) and viral outbreaks such as COVID-19 or influenza, which can spread quickly and require a rapid, robust response to minimize spread. It is vital that all entities self-assess their ability to manage emergencies, are prepared with comprehensive and actionable emergency preparedness plans (EPPs), and are armed with checklists to operationalize logistics in the event of an emergency or healthcare crisis.

### Register for the Emergency Preparedness Webinars

February 15–October 18, 2023 (Sessions 1–9)  
3rd Wednesday of the month, 3–3:45 p.m. PT  
[bit.ly/epp-series](https://bit.ly/epp-series)

## Nursing Homes

HSAG is supporting nursing homes to ensure that your center's EPP encompasses EIDs as stated in QSO-21-15-ALL. Below is a streamlined EID self-assessment checklist to download and complete with your team. This will give you a barometer reading of your center's EID preparedness strengths and opportunities for further focus. After completing the checklist please submit your EID results using the button below so HSAG can offer your center specific assistance.



## Hospitals

HSAG is querying hospitals to attest that an EPP is in place. Please submit your responses to these three questions by using the button below. HSAG is available to provide EPP support to hospitals in need of assistance.



Hospitals
Care Coordination
▶ Emergency Preparedness
Infection Prevention
Opioid Stewardship
QIO Events

<https://www.hsag.com/emergency-preparedness>

# Poll Questions

1. Do you need assistance with your EPP?

- a. Yes
- b. No

**2. Nursing Homes Only:**

What template are you using for your EPP?

- a. CAHF
- b. MED-PASS
- c. American Health Care Association (AHCA)
- d. Other



# HVA Training

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FEBRUARY 15, 2023



# Welcome and Opening Remarks

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Healthcare Coalition Coordinator

County of Santa Clara Public Health Department, Emergency Preparedness

***Yvette Barajas***

SNF Coordinator

County of Santa Clara Public Health Department, Emergency Preparedness

***Jason Belden***

Director of Emergency Preparedness

CAHF

# Agenda

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- Welcome
- HVA Overview – ***Jason Belden***
- HVA Tool and Results – ***Marina Zamarron & Yvette Barajas***
- Questions and Closing – ***All***



# What is an HVA?

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Hazard Vulnerability Assessment (HVA) is a Risk Assessment.

Based off of the assessment the administrator will guide their Planning, Response, Mitigation, and Exercise cycle.

# HVA Requirements

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**CMS:** Emergency Plan, which includes conducting facility-based and community-based risk assessments

- Every 2 years, except for long-term care facilities (LTCFs), which must review and update on annual basis

**TJC EM.11.01.01:**

The hospital conducts a HVA utilizing an all-hazards approach

**Note:** *The hospital considers prioritized hazards identified in HVA in emergency operations plan (EOP), Communications Plan, Staffing Plan, and plans for patient care and clinical support, safety and security, resources and assets, utilities management, etc.*

# Who?

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- Generally conducted by a safety, response planner and or a risk management type professional; i.e., other duties as assigned for you or your staff
- How often: Annually
- Beneficial to obtain stakeholder input, so in other words, don't let the person who is "voluntold" to do this do this alone. Each department should have input.
- *Requirements: TJC, DNV, HFAP, and CMS*

# The Tool

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- The tool we are presenting today is the Kaiser Hospital Vulnerability Assessment tool
- The majority of hospitals and healthcare facilities use the Kaiser tool because it's easy to navigate and understand
- Provides hazard descriptions to support completion of the assessment
- This tool calculates the level for each hazard:  
 $SEVERITY = (MAGNITUDE - MITIGATION)$  to give you RISK
- Includes Incident Log to track real world events and Command Center activations, to be tracked throughout the year

# Emerging Infectious Disease (EID)—CMS Policy

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- EIDs are a potential threat which can impact the operations and continuity of care within a healthcare setting and should be considered.
- The type of infectious diseases to consider or the care-related emergencies that are a result of infectious diseases are not specified.
- Adding EIDs within a facility's risk assessment ensures that facilities consider having infection prevention personnel involved in the planning, development, and revisions to the EPP.

# EID—CMS Policy (cont.)

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- Some examples of EIDs may include, but are not limited to:
  - Potentially infectious bio-hazardous waste
  - Bioterrorism
  - Pandemic flu
  - Highly communicable diseases (such as Ebola, Zika Virus, SARS, or novel COVID-19 or SARS-CoV-2)
- EIDs may be localized to a certain community or be widespread (as seen with the COVID-19 PHE) and therefore plans for coordination with local, state, and federal officials are essential.
- Facilities should engage and coordinate with their local healthcare systems and healthcare coalitions, and their state and local health departments when deciding on ways to meet surge needs in their community.

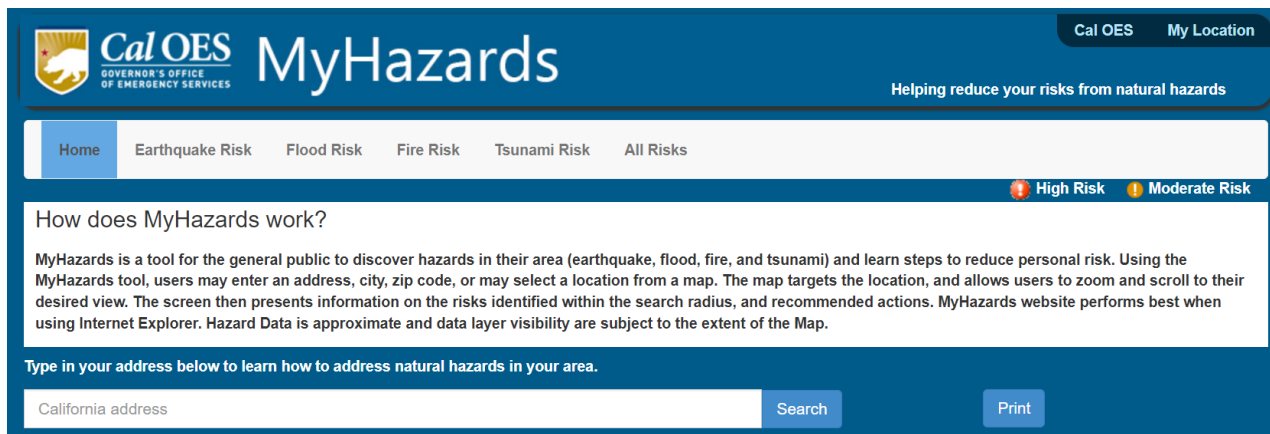
# Benefits

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- Once there are multiple years' worth of data that has been collected, you can benchmark your efforts to show improvement.
- Allows you to focus on areas that need improvement.
- CMS during survey will ask to see this; *So will other accrediting bodies*
- Your Preparedness Coordinator won't be guessing as to what is needing to be exercised.
- Insurance benefits: This tool is directly related to risk management, the more exercised the lesser your risk.
- Engage in emergency preparedness healthcare coalition trainings and exercises

# The Hazards

- Gather data on geographical vulnerabilities - <https://myhazards.caloes.ca.gov/>



The screenshot shows the MyHazards website interface. At the top, there is a blue header with the Cal OES logo (Governor's Office of Emergency Services) and the text "MyHazards". To the right of the header, there are links for "Cal OES" and "My Location", and a tagline: "Helping reduce your risks from natural hazards". Below the header is a navigation menu with buttons for "Home", "Earthquake Risk", "Flood Risk", "Fire Risk", "Tsunami Risk", and "All Risks". On the right side of the menu, there are indicators for "High Risk" (red exclamation mark) and "Moderate Risk" (yellow exclamation mark). The main content area has a heading "How does MyHazards work?" followed by a paragraph explaining the tool's purpose: "MyHazards is a tool for the general public to discover hazards in their area (earthquake, flood, fire, and tsunami) and learn steps to reduce personal risk. Using the MyHazards tool, users may enter an address, city, zip code, or may select a location from a map. The map targets the location, and allows users to zoom and scroll to their desired view. The screen then presents information on the risks identified within the search radius, and recommended actions. MyHazards website performs best when using Internet Explorer. Hazard Data is approximate and data layer visibility are subject to the extent of the Map." Below this text is a prompt: "Type in your address below to learn how to address natural hazards in your area." This is followed by a search input field containing the placeholder text "California address", a "Search" button, and a "Print" button.

- Gather any real-world incident that impacted your daily operations from the previous year(s):
  - Cyber security incident
  - Fire
  - Power outage
  - Infectious disease outbreak



# Santa Clara Valley Emergency Preparedness Healthcare Coalition

## Kaiser HVA Tool

Good Care Health Facility									
Hazard Assessment - East Campus								Year - 2017	
Emergency Management - Hazard and Vulnerability Assessment Tool									
Hazard Type	EVENT	PROBABILITY	SEVERITY = ( MAGNITUDE - MITIGATION )					RISK	
		Likelihood this will occur	HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	* Relative threat
		0 = N/A 1 = Low 2 = Moderate 3 = High	Possibility of Death or Injury	Physical Losses and Damages	Interruption of Services	Preplanning	Time, Effectiveness, Resources	Community / Mutual Aid Staff & Supplies	
		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	0 = N/A 1 = High 2 = Moderate 3 = Low	0 = N/A 1 = High 2 = Moderate 3 = Low	0 - 100%
H	Active Shooter								0%
H	Bomb Threat								0%
H	Child Abduction								0%
H	Civil Disturbance								0%
H	Cyberattack								0%
H	Data Breach								0%
H	Evacuation								0%
H	Forensic Admission								0%
H	Hostage Situation								0%
H	Infant Abduction								0%
H	Labor Action / Strikes / Work Stoppage								0%

# Santa Clara Valley Emergency Preparedness Healthcare Coalition (cont.)

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Kaiser HVA Tool

4 Tabs

29	H	Patient Surge	
30	H	Seasonal Influenza	
31	H	Suspicious Package / Substance	
		Facility Info	Hazards
		Event Log	Summary

- Facility Info
- Hazards
- Event Log
- Summary

# Santa Clara Valley Emergency Preparedness Healthcare Coalition (cont.)

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Kaiser HVA Tool

## Facility Info

	A	B	C
1	Facility Name	<i>Enter Facility Name</i>	
2			
3	Report Year	<i>Enter Current Year</i>	
4			
5	Campus/Site/Location	<i>Enter Site/Campus/Location</i>	
6			
11	Last Saved Friday, January 20, 2017 at 08:26 AM		
12			
13			

# Santa Clara Valley Emergency Preparedness Healthcare Coalition (cont.)

Kaiser HVA Tool

## Hazards

Good Care Health Facility									
Hazard Assessment - East Campus								Year - 2017	
Emergency Management - Hazard and Vulnerability Assessment Tool									
Hazard Type	EVENT	PROBABILITY Likelihood this will occur 0 = N/A 1 = Low 2 = Moderate 3 = High	SEVERITY = ( MAGNITUDE - MITIGATION )					RISK * Relative threat 0 - 100%	
			HUMAN IMPACT Possibility of Death or Injury	PROPERTY IMPACT Physical Losses and Damages	BUSINESS IMPACT Interruption of Services	PREPARED-NESS Preplanning	INTERNAL RESPONSE Time, Effectiveness, Resources		EXTERNAL RESPONSE Community / Mutual Aid Staff & Supplies
			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	0 = N/A 1 = High 2 = Moderate 3 = Low		0 = N/A 1 = High 2 = Moderate 3 = Low
			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	0 = N/A 1 = High 2 = Moderate 3 = Low		0 = N/A 1 = High 2 = Moderate 3 = Low
H	Active Shooter								0%
H	Bomb Threat								0%
H	Child Abduction								0%
H	Civil Disturbance								0%
H	Cyberattack								0%
H	Data Breach								0%
H	Evacuation								0%
H	Forensic Admission								0%
H	Hostage Situation								0%
H	Infant Abduction								0%
H	Labor Action / Strikes / Work Stoppage								0%

# Santa Clara Valley Emergency Preparedness Healthcare Coalition (cont.)

## Completing The HVA

Probability

Severity

- Human Impact
- Property Impact
- Business Impact
- Preparedness
- Internal Response
- External Response

PROBABILITY	SEVERITY = ( MAGNITUDE - MITIGATION )					
	HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE
Likelihood this will occur	Possibility of Death or Injury	Physical Losses and Damages	Interruption of Services	Preplanning	Time, Effectiveness, Resources	Community / Mutual Aid Staff & Supplies
0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 = N/A
1 = Low	1 = Low	1 = Low	1 = Low	1 = High	1 = High	1 = High
2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate
3 = High	3 = High	3 = High	3 = High	3 = Low	3 = Low	3 = Low

# Santa Clara Valley Emergency Preparedness Healthcare Coalition (cont.)

## Completing The HVA

Probability

PROBABILITY	SEVERITY = ( MAGNITUDE - MITIGATION )			INTERNAL RESPONSE	EXTERNAL RESPONSE
	HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT		
Likelihood this will occur	Possibility of Death or Injury	Physical Losses and Damages	Interruption of Services	Time, Effectiveness, Resources	Community / Mutual Aid Staff & Supplies
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	0 = N/A 1 = High 2 = Moderate 3 = Low

### Severity

- Human Impact
- Property Impact
- Business Impact

# Santa Clara Valley Emergency Preparedness Healthcare Coalition (cont.)

## Completing The HVA

Probability

PROBABILITY	SEVERITY = ( MAGNITUDE - MITIGATION )					
	HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE
Likelihood this will occur	Possibility of Death or Injury	Physical Losses and Damages	Interruption of Services	Preplanning	Time, Effectiveness, Resources	Community / Mutual Aid Staff & Supplies
0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 = N/A
1 = Low	1 = Low	1 = Low	1 = Low	1 = High	1 = High	1 = High
2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate
3 = High	3 = High	3 = High	3 = High	3 = Low	3 = Low	3 = Low

## Severity

- Human Impact
- Property Impact
- Business Impact
- Preparedness
- Internal Response
- External Response

# Santa Clara Valley Emergency Preparedness Healthcare Coalition (cont.)

Completing The HVA

## Risk

- Risk is an Automatic Calculation on spreadsheet

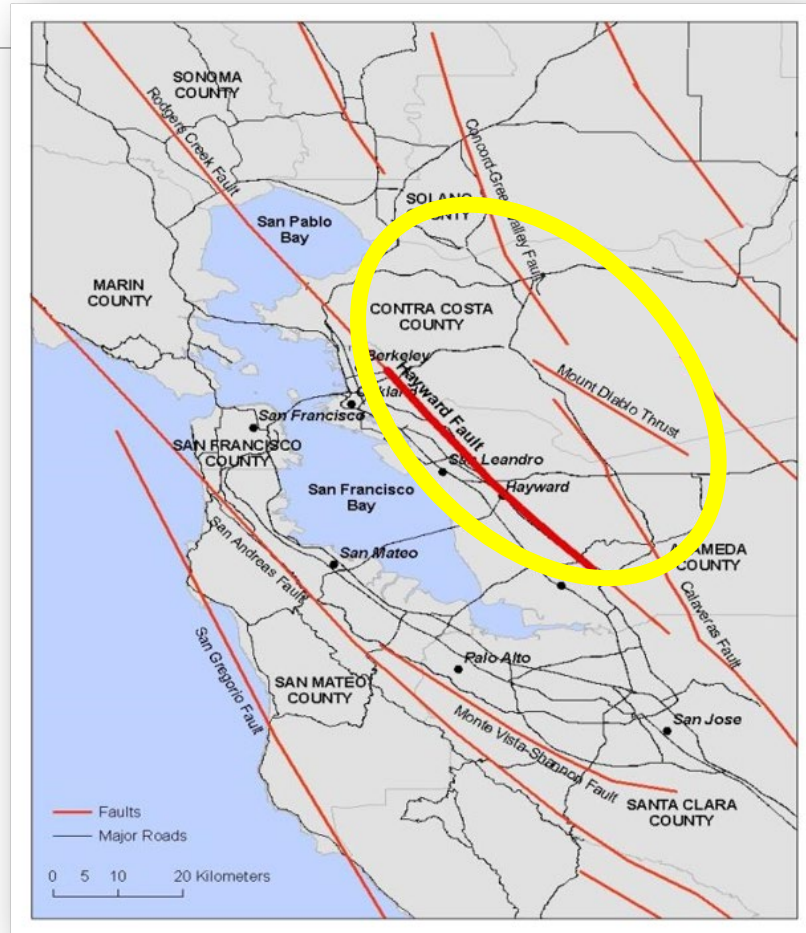
PROBABILITY	SEVERITY = ( MAGNITUDE - MITIGATION )						RISK
	HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	
Likelihood this will occur	Possibility of Death or Injury	Physical Losses and Damages	Interruption of Services	Preplanning	Time, Effectiveness, Resources	Community / Mutual Aid Staff & Supplies	* Relative threat
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	0 = N/A 1 = High 2 = Moderate 3 = Low	0 = N/A 1 = High 2 = Moderate 3 = Low	0 - 100%

- Risk = Probability x Severity
  - Probability = Divide the number under probability by 3
  - Severity = Add the numbers from each column and divide by 18



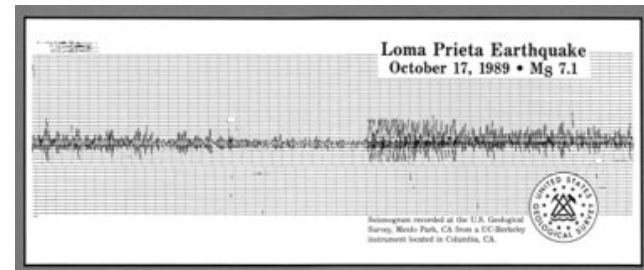
# HVA Exercise

Bay Area Faults



# HVA Exercise

## Catastrophic Event: Earthquake



# Santa Clara Valley Emergency Preparedness Healthcare Coalition (cont.)

## Completing The HVA - Sample

EVENT	PROBABILITY	SEVERITY = ( MAGNITUDE - MITIGATION )						RISK
		HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	
	Likelihood this will occur	Possibility of Death or Injury	Physical Losses and Damages	Interruption of Services	Preplanning	Time, Effectiveness, Resources	Community / Mutual Aid Staff & Supplies	* Relative threat
<b>H</b> = Human Events	0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 = N/A	0 - 100%
<b>HM</b> = Hazardous Materials	1 = Low	1 = Low	1 = Low	1 = Low	1 = High	1 = High	1 = High	
<b>T</b> = Technological Events	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	2 = Moderate	
<b>N</b> = Natural Occurrence	3 = High	3 = High	3 = High	3 = High	3 = Low	3 = Low	3 = Low	
<b>Earthquake</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>83%</b>

# Santa Clara Valley Emergency Preparedness Healthcare Coalition (cont.)

## Summary Tab

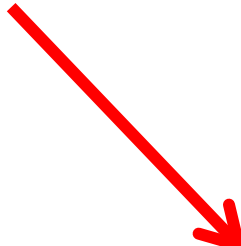
- Top 10 HVA

### Completing The HVA

**Good Care Health Facility**  
**Hazard Summary - East Campus** Year - 2015  
 Emergency Management - Hazard and Vulnerability Assessment Tool

ALERT TYPE	OCCURRENCE
Command Center Activation	56
Patient Care Impacts	56
Business / Operational Impacts	56
Structural Impacts	52
Resource Request	34
Recovery Plan Activated	28
AAR	56
<b>Total Alert</b>	<b>82</b>

2015 TOP 10 HVA			2015 TOP 10 ACTUAL ALERTS		
	RANK	OCCURRENCE		OCCURRENCE	HVA RANK
Flood	1	12	Power Outage	14	4
Fire	2	4	Patent Surge	13	3
Patient Surge	3	13	Evacuation	12	7
Power Outage	4	14	Flood	12	1
Earthquake	5	10	Earthquake	10	5
HVAC Failure	6	6	IT System Outage	6	9
Evacuation	7	12	HVAC Failure	6	6
Explosion	8	2	Fire	4	2
IT System Outage	9	6	Explosion	2	8
Water Contamination	10	0	Supply Chain Shortage / Failure	2	11



\*Automatic calculation

# I am done, now what?

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- Share this report with your stakeholders, emergency preparedness healthcare coalition
  - ASPR Health Care Readiness Near You: [link](#)
- Share with upper echelon leaders, since the HVA drives the exercise cycle this will informally alert them to what the year will look like for preparedness efforts.
- Identify resources you might need to plan for top 5 hazards:
  - Earthquake
    - 96 hours of supplies for residents
  - Infectious disease
    - 30-day supply of appropriate personal protective equipment (PPE)
  - Extreme weather events
    - Generators
    - Alternate methods of communications to City/County Emergency Operations Center

# Closing and Final Questions

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# 3 Things to Do by Next Wednesday

- Confirm that the EPP committee includes the infection preventionist.
- Ensure your HVA addresses: pandemic flu, EIDs, potentially infectious bio-hazardous waste, and bioterrorism.
- Schedule completion of the HVA with the EPP committee.

# Questions?







# Thank you!

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