AzCHER
Arizona Coalition for Healthcare Emergency Response

Hazard Vulnerability Assessment (HVA) and Resource Gap Analysis (RGA) 2024-2025

Arizona Coalition for Healthcare Emergency Response

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Executive Summary

Statewide Hazard Vulnerability Assessment and Resource Gap Analysis

In July 2024, the Arizona Coalition for Healthcare Emergency Response (AzCHER) conducted a Statewide Hazard Vulnerability Assessment (HVA) and Resource Gap Analysis (RGA) to update the coalition's most significant risks and resource gaps previously identified in 2023. The HVA/RGA analyzes members' capacities and capabilities to respond to regional and statewide emergencies within the healthcare system. Identified hazards inform AzCHER's preparedness priorities in training, exercising, and planning. Members may incorporate identified risks and hazards into their own HVAs and exercises. This report directly aligns with the standard healthcare hazard vulnerability analysis (HVA) and the public health jurisdictional risk assessment (JRA).

The objective of the HVA/RGA is to represent the whole community and the collective needs through a member-driven process. Members reported their individual HVA results and current resources through a statewide survey (Appendix 1). Results were aggregated to perform a comprehensive community analysis and evaluate relative risk scores. Aggregated RGA data was analyzed using Power BI and presented to regional steering committees, who identified and prioritized likely hazards and gaps in plans and resources. The HVA/RGA process engaged 132 member organizations and consulted each region's steering committee representing core healthcare sectors. The lists below provide a high-level overview of the key findings described in detail in this report.

Hazard Vulnerability Assessment: Comparison of the top 5 ranked hazards between 2023 and 2024

2024 Top Hazards	2023 Top Hazards
1. Extreme Heat	1. Temperature Extreme (Heat)
2. Monsoon Weather	2. Staffing Shortage
3. Communications/ Telephone/ Network Failure	3. Severe Weather
4. Staffing Shortage	4. Cyberattack
5. Cyberattack	5. Communications/ Telephone/ Network Failure

Table 1

Planning Gaps

Top Gaps in Planning (assessed in 2022)
• AzCHER Emergency Response Plan and Annexes
• Hospital Crisis Care/ Crisis Standards of Care Plan
• Healthcare Emergency Operations Plan
• Healthcare Training and Exercise Plan

Table 2

Resource Gaps Identified in 2024 and 2023

2024 Resource Gaps	2023 Resource Gaps
HAZMAT PPE	Transportation resources for specific emergency type (burn, pediatric, HAZMAT)
Documentation of transportation resources across all member types	Notification platforms for Outpatient, Home Health, and Hospice
Advanced ICS training for EOC staff	HAZMAT supplies (patient redress kits, chemical assets)
Evacuation resources- patient tracking and documentation of transport options	Documentation of transportation resources across all member types
Lack of comprehensive documentation of EMS resources throughout the state	PPE in hospitals for highly infectious disease

Table 3

Introduction

Hazard Vulnerability Assessment (HVA) and Resource Gap Analysis (RGA)

The Hazard Vulnerability Assessment (HVA) identifies Arizona's most significant risks, both natural and manmade, impacting healthcare services. Administered by AzCHER, the HVA informs coalition priorities annually through a member-engaged analysis of capacities and capabilities. The Resource Gap Analysis (RGA) identifies essential healthcare resources and services for continuity during emergencies, uncovering vulnerabilities that could impede medical care. Both assessments guide future planning, training, and exercises, via the Healthcare HVA/RGA Summary Report.

Purpose: A Foundation for Medical and Healthcare Readiness

The ***HVA*** builds a foundation for medical and healthcare readiness by identifying regional risks and resources, and further strategizing healthcare coalition functions based on the recommendations and requirements of the U.S. Health and Human Services (HHS), Hospital Preparedness Program (HPP) Cooperative Agreement, administered by the Arizona Department of Health Services (ADHS). Organizational perceptions are evaluated in a regional context, representing the collective needs of Arizona's health system.

The ***RGA*** identifies essential healthcare resources and services for continuity during and after an emergency. It highlights resource vulnerabilities that could impede medical care during emergencies, as well as identifies shareable resources. Assessment data is specific to each sector type (hospital, home health, EMS, etc.) but addresses resources required to care for all populations, such as pediatric equipment and long-term care beds.

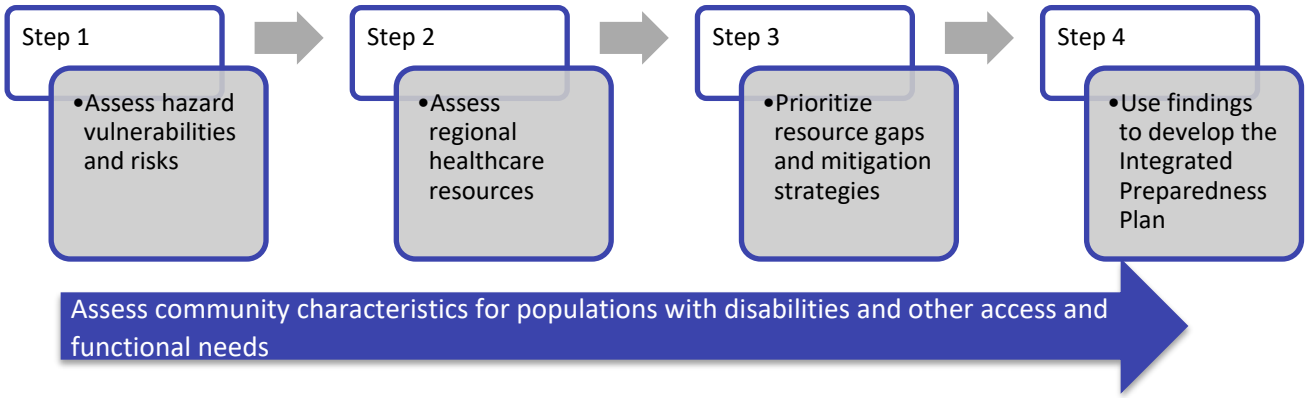


Figure 1: Preparedness Planning Sequence. The HVA represents the first step to build the foundation for medical and healthcare readiness of the risk identification process. The RGA represents the second step of the risk identification process. Populations with disabilities and other access and functional needs (DAFN) are considered throughout the entire process. The full process is outlined in the AzCHER Integrated Preparedness Plan (IPP).

Planning Assumptions

- While there is likely significant overlap between the HVA for AzCHER and the HVA for an individual healthcare organization or jurisdiction, these are separate and distinct processes.
- The HVA/RGA is not a replacement for an organization- or facility-specific HVA or resource assessment.
- A specific vulnerability may not exist across all coalition member organizations; however, coalition members will generally face many of the same hazards.
- The HVA/RGA is based upon responses received by participants and is not a comprehensive assessment of all partners. Survey respondents, while invited to complete the surveys via email, were self-selected based on interest. The data provided by these participants are influenced by their own organizational experience and planning efforts.
- The assessment of hazards and planning gaps across the regions and state are based on a combination of quantitative data (such as the occurrence of naturally occurring events) and qualitative estimations (Low-Medium-High scales).
- This assessment does not provide details regarding the unique attributes and risks for individual counties. Threats and vulnerabilities in this assessment may appear to be more homogenous throughout the state than they are at the local level.
- It must be recognized that this assessment alone cannot represent the coalition's knowledge of the state of plans, threats, and issues in an area and should only be used as a guide, with local leaders and subject matter experts having significant input into the decisions on priority gaps and actions.
- This HVA/RGA process incorporates state and local emergency management organization assessments and other public health hazard assessments, though the primary focus of this assessment is the impact on healthcare.

Arizona's Healthcare Coalition

AzCHER is a statewide healthcare coalition which facilitates collaboration among public health, healthcare, pre-hospital and transport entities, emergency management, and various other community partners to 1) build,

strengthen, and sustain a healthcare preparedness and response system in Arizona; and 2) assist Emergency Management and Emergency Support Function 8 (ESF-8) with meeting the National Preparedness Goal's five objectives: prevention, protection, mitigation, response, and recovery as related to healthcare disaster operations. AzCHER has four distinct regions: Central, Northern, Southern, and Western. Each region is described in further detail at the end of this report in Appendices 3-10.

As a sub-recipient of the HPP grant, overseen by ADHS, AzCHER is required to conduct an annual HVA/RGA by the Administration for Strategic Preparedness and Response (ASPR), a division of the US Department of Health and Human Services.[1] ASPR requires core healthcare coalition capabilities for AzCHER, which informs the healthcare coalition's purpose and function.[1] The purpose of AzCHER is to build resilience in the state's healthcare delivery system so that it is prepared to respond to and recover from a large-scale emergency or disaster.

Methods

A cross-sectional survey was administered to designated representatives from various coalition partners to assess hazard vulnerabilities and resource gaps within healthcare facilities across Arizona. The survey covered a range of organizations, including hospitals, EMS entities, public health agencies, tribal nations, emergency management, behavioral health, and volunteer organizations. Hazard probabilities, healthcare impacts, and mitigation measures were assessed, with results aggregated at statewide and regional levels. The survey was distributed to the membership via Microsoft Forms and analyzed in Power BI using formulas provided by the Kaiser Permanente HVA tool.

Once preliminary data was collected, the results were presented to regional steering committees for discussion to identify top hazards and resource priorities, ensuring a comprehensive and collaborative approach to emergency preparedness and response. The final report was prepared by the Planning Manager and Logistics Manager.

AzCHER Staff, Work Group, and Member Responsibilities

The HVA/RGA process involves AzCHER staff, steering committees, and the general membership as described below.

AzCHER Staff

- Administered HVA/RGA survey via emails and monthly AzCHER newsletter.
- Reviewed/updated the regional vulnerability profile, and participated in HVA/RGA meetings.
- The Statewide Planning Manager and Statewide Logistics Manager outlined the process, providing subject matter guidance, templates, facilitating the work group meetings and general body meetings, analyzing data, and authoring the final statewide summary report.

Steering Committee Work Groups

- Comprised of core member representatives to produce a coalition-specific risk and resource assessment consensus based on the survey results.
- Sort and prioritized hazards and vulnerabilities, considering the likeliness to result in a Coalition-wide response, considering statewide resources, public health statistics, and county hazard mitigation plans.

General Membership

- Volunteered their time to complete the survey with their facility-specific emergency preparedness teams, so their data could be aggregated into a statewide and community perspective.
- Conduct their own HVA and resource assessments.
- Use this report to add a community perspective to their emergency preparedness programs.

Figure 2

Survey Administered to All Coalition Partners

A designated representative from each organization/facility (***Appendix 2: List of Participating Organizations***) was asked to complete an online survey (Appendix 1: HVA/RGA Survey Questions) for each licensed facility. AzCHER's HVA/RGA survey questions facilitate member reporting on their facility's most recent HVA and resources. The HVA survey questions were adapted from previous AzCHER HVAs, using the same scoring scale as the 2017 Kaiser Permanente (KP) HVA. The KP HVA employs a worksheet method to systematically evaluate hazard vulnerability based on value-based quantitative inputs. To complete a more thorough analysis of the survey data, responses were synthesized in Power BI. Completion of this survey fulfills the Centers for Medicare and Medicaid Services (CMS) and Joint Commission requirements for a healthcare facility's participation in a *Community* HVA.

The RGA survey questions were developed from the ASPR Resource and Gap Analysis Tool. This tool is designed to help coalition partners develop a common understanding of their resources and existing gaps, and strategies for prioritizing which gaps to close. Gaps may include inadequate plans or procedures, staffing, equipment and supplies, skills and expertise, and/or services. AzCHER has modified the tool to reflect its members' resources and provide a coalition-based perspective.

The survey was administered to designated member representatives through Microsoft Forms from July 31-

August 23. All member representatives for organizations/facilities were instructed to report data from their current HVA and resource analysis. Only one response from each member organization/facility was recorded to reduce any duplication.

Member facilities that were invited to participate in the survey include (not limited to):

- Hospitals and healthcare organizations
- EMS / patient transport entities
- Local public health
- Tribal nations
- Local emergency management
- Behavioral health

Survey Data Collection and Analysis

Healthcare facilities and pre-hospital providers were asked to report hazard vulnerabilities and resource gaps based on their organizational perception, including available resources and emergency planning questions specific to their sector (hospital, public health, emergency medical services, etc.). Definitions for rating each HVA measure are present in Table 4. Survey questions specifically examined hazards identified from the 2023 HVA/RGA for the purpose of updating the state's top priority hazards. An updated ranking of the top 10 hazards was identified upon completion of survey analysis. A full list of questions and answers is available in ***Appendix 1: HVA/RGA Survey Questions***.

The survey responses were aggregated statewide and by region to calculate mean scores for each hazard. Commonly perceived hazard vulnerabilities, as well as the historical hazard incident responses, were equally weighted in ranking the top ten hazards by the risk of occurrence and risk of response.

Risk was calculated using the following formulas, where the average score for each element was used to calculate the final risk score:

$$Risk\ Score = Probability\ of\ Occurrence * (Impact + Preparedness + Response)$$

$$Risk\ Percentage = \frac{[Probability\ of\ Occurrence * (Impact + Preparedness + Response)]}{Maximum\ Possible\ Score} * 100$$

Probability, impact, preparedness, and response rating methods are described below.

Measure	Definition	Rating
Probability	Occurrence: Likelihood of the incident to occur	0 = Rare or N/A 1 = Low (Every 10-50 years) 2 = Moderate (Every 1-10 years) 3 = High (Annually)
Healthcare Impact	Percentage of population, properties, and business likely to be affected under an average occurrence of the hazard	0 = No impact expected 1 = Low, causes minimal disruption; managed at daily level (<1% affected) 2 = Moderate, causes disruption outside of normal means but does not threaten regional healthcare service delivery (1-10% affected)

Measure	Definition	Rating
		3 = High, causes significant disruption and threatens regional service delivery (>10% affected)
Mitigation/Preparedness	Preparedness: Current level of planning, resources, and capacity at the organizational level	0 = Sustainability only- strong capability in place, with regular ongoing planning, testing/training, sufficient resources available 1 = Adequate planning requires minor modifications based on training, exercises, events, or other evaluation; resources are available to procure if needed 2 = Inadequate or possibly adequate planning / training / exercises (i.e. plan has not been evaluated, tested, and/or incomplete training), difficult to procure necessary resources 3 = No planning/training/exercises currently exist or not applicable; unable to procure necessary resources
	Response: healthcare system/ mutual aid staff and supplies required for a hazard response at the community level	0 = Negligible - no response (rare minor injury, no significant effects from information compromise, minor property/economic damage to the community) 1 = Moderate - a few major injuries/hospitalizations in the community, compromise of information with limited impact on community agencies, moderate damage/economic impact (e.g. 1-20% of assets damaged or lost) 2 = Significant - few deaths but multiple major injuries/hospitalizations in the community, significant property damage/economic impact (e.g. temporary closure, 25-50% of community assets damaged or lost) 3 = Extensive - multiple deaths, compromise of information with significant ongoing impact, extensive property damage/economic impact (e.g. potential emergency declaration, >50% loss of assets)

Table 4 -. Definition of HVA measures used in the statewide survey.

Regional Steering Committee Input

Regional steering committees from each region (Northern, Central, Western, Southern) reviewed the HVA/RGA survey prior to dissemination and provided input to the development of the survey questions. Regional Steering Committees represented the coalition's perspective, as opposed to being representatives of individual facilities, to ensure that the data reflected regional and statewide gaps and vulnerabilities. Representatives submitted feedback in an open discussion forum directly to the facilitators to evaluate the top coalition hazards and resource gaps.

All core member types were represented in the work groups and contributed to the discussion by adding sector-specific considerations to the hazard vulnerabilities and resource assessment deficiencies.

Prioritization of Resource Gaps and Mitigation Strategies

Assessing resources and identifying current hazards and resource gaps contributes to the prioritization of future activities, fulfilling the first step in the Preparedness Cycle. The list of top hazards assists the coalition in quickly identifying where to focus plans, training, and exercises. The resource gaps include a lack of, or inadequate, plans and procedures, staff, equipment and supplies, skills and expertise, services, or any other resources required to respond to an emergency. The resource assessment provides a way to prioritize needs for various member types. Members should prioritize gaps based on consensus and determine mitigation strategies based on the time, materials, and resources necessary to address and close any disparities. Deficiencies may be

addressed through coordination, planning, training, or resource acquisition, which can be accomplished through the Coalition activities. Ultimately, AzCHER will focus its time and resource investments on closing those gaps that affect the Coalition's ability to respond.

Certain response activities may require external support or intervention, as emergencies may exceed established preparedness thresholds. Thus, during the prioritization process, planning to access and integrate external partners and resources (i.e., federal, state, and/or local) is a key part of gap closure. A complete description of AzCHER's prioritization process can be found in the Integrated Preparedness Plan.

Data Inputs

This report provides an Arizona healthcare community perspective by incorporating data from three main inputs: regional vulnerability profiles, member survey, and regional steering committee discussion:

1. The HVA/RGA survey collects data from a wide range of healthcare partners, representing the healthcare community.
2. The regional vulnerability profiles contribute local context and population-based information under a healthcare system preparedness lens for the HVA/RGA. AzCHER Regional Vulnerability Profiles can be found in ***Appendices 7-10*****.** Below is a list of vulnerability profile contents:
    a. Review of county Multi-Jurisdictional Hazard Mitigation Plans to gather information on physical characteristics and infrastructure capabilities of the region, including geography, weather, roads, transportation, power, water, fuel, information technology, and communication.
    b. Collection of county and regional data on vulnerable populations such as children, seniors, pregnant women, persons with access and functional needs, persons with disabilities, and those with unique medical needs.
    c. Summary of healthcare facility assets including hospitals, licensed pharmacies, long-term care facilities, and bed capacity.
3. The regional steering committee discussion and qualitative analysis allows for discussion of unique regional considerations and confirmation of the survey results.

Results

Survey

The survey captured responses from 132 participants out of 603 member organizations, representing a 22% response rate. Diverse healthcare sectors are represented including ambulatory surgery centers, skilled nursing/ long-term care facilities, acute care hospitals, home health, hospice organizations, public health agencies, and emergency management. There are strengths and gaps based on the variety of responses collected by member type. Strengths identified in survey responses are 23 ambulatory surgery centers, 18 LTC/SNF, and 20 hospitals. In addition, Emergency Medical Service (EMS)/Fire participation increased from 1 to 14 agencies participating this year. However, overall participation was much lower this year compared to last year. Increasing engagement across all sectors remains a priority. AzCHER will work to recruit additional members and develop partnerships with the member types missing from the survey responses. A limitation of the survey is that some healthcare organizations only filled out one survey, representing numerous facilities, however it was only counted as one facility in the table below. For instance, only 20 acute care hospitals filled out the survey, but several respondents only submitted one entry for multiple hospitals that are part of a larger healthcare system.

Organization Type	Number of Respondents	Percent of Respondents
Ambulatory Surgery Center	23	17.42%
Hospital-Acute Care	20	15.15%
Skilled Nursing or Long-Term Care Facility	18	13.64%
Emergency Medical Services (EMS) / Fire Dept	15	11.36%
Hospice	10	7.58%
Public Health Agency (County or Tribe)	10	7.58%
Emergency Management Organization (County or Tribe)	7	5.30%
End-Stage Renal Disease Facility	7	5.30%
Hospital-Critical Access	6	4.55%
Community Health Center / Federally Qualified Health Center	5	3.79%
Home Health Agency	3	2.27%
Hospital-Behavioral Health	2	1.52%
Hospital-Rehabilitation	2	1.52%
Outpatient Clinic	2	1.52%
Behavioral Health Facility	1	0.76%
CERT or MRC Organization	1	0.76%
Total	**132**	**100.00%**

Figure 3- 132 organizations responded to the survey. Ambulatory Surgery Centers, Acute Care Hospitals, Skilled Nursing/Long Term Care, and emergency medical service fire organizations represented the top responder groups.

Participation by Region

Participants from diverse geographic regions were also represented with 39% of respondents representing the Central Region (Gila, Maricopa, and Pinal counties), 24% from the Southern Region (Cochise, Graham, Greenlee, Santa Cruz, and Pima counties), 20% from the Northern Region (Apache, Coconino, Navajo, and Yavapai counties), and 17% from the Western Region (La Paz, Mohave, and Yuma counties).

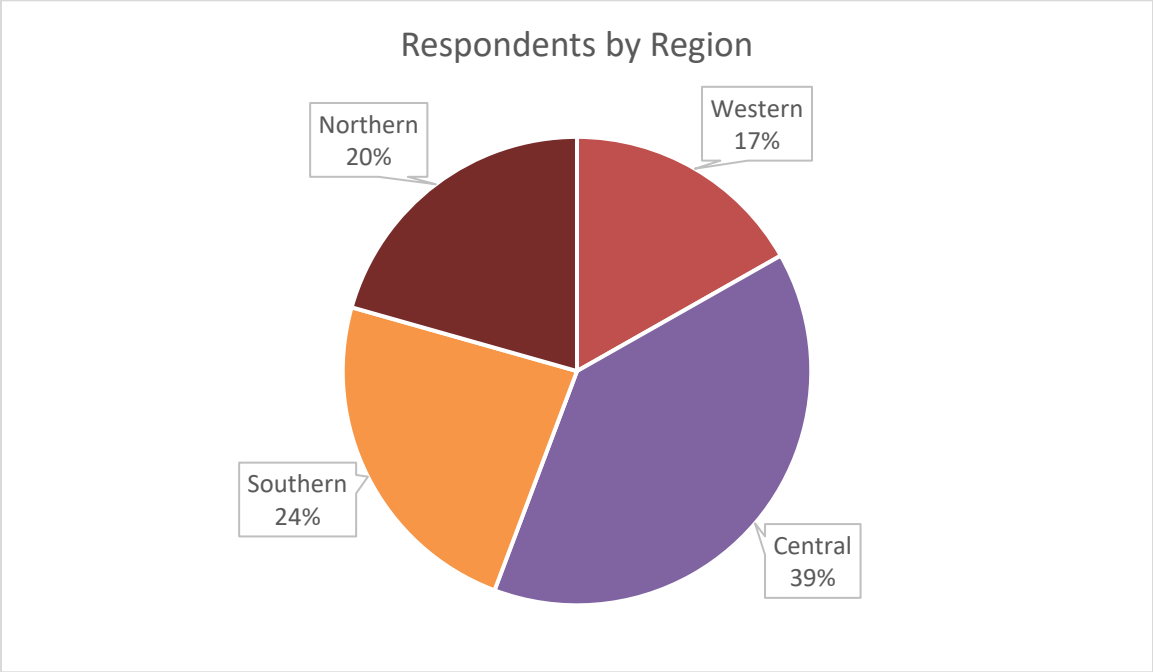


Figure 3- Responses by coalition region are shown as a percentage out of the total number of statewide responses.

Statewide HVA Results

The hazards are listed highest to lowest weighted and non-weighted risk score, with higher scores indicating a higher level of risk of the given hazard. The overall risk increases with percentage on a scale of 0-100%. The non-weighted risk increases with the number on a scale of 0-72. A total of 132 member organizations rated hazards.

In addition to the survey data, the hazard rankings were further developed with input from member-based work groups with an emphasis on healthcare partners. As such, it is not a comprehensive assessment of all members or disciplines and does not provide details regarding the unique attributes and risks for individual counties or facilities. The AzCHER HVA is not a replacement for an organization- or facility-specific HVA.

Hazard Vulnerability List 2024-2025

Weighted and Non-Weighted Scores

Hazard	Impact	Preparedness	Occurrence Probability	Response Capability	Risk Score	Risk Percentage	Weighted Risk Score	Weighted Risk Percentage
Extreme Heat	1.86	1.44	2.78	1.58	13.59	50%	18.76	52%
Monsoon Weather	1.67	1.48	2.70	1.55	12.75	47%	17.27	48%
Network Failure	2.12	1.67	2.05	1.71	11.29	42%	15.65	43%
Staffing Shortage	1.80	1.73	2.14	1.88	11.55	43%	15.40	43%
Cyberattack	2.08	1.76	1.72	1.76	9.63	36%	13.22	37%
Supply Chain Failure	1.73	1.82	1.66	1.83	11.55	43%	11.84	33%
Wildfire	1.52	1.52	1.90	1.51	8.66	32%	11.56	32%
Pandemic/Epidemic	2.05	1.60	1.60	1.50	8.24	31%	11.52	32%
Active Threat	1.76	1.72	1.50	1.76	7.86	29%	10.50	29%
Winter Weather	0.89	1.52	0.92	1.45	3.57	13%	4.39	12%
Total	**1.75**	**1.63**	**1.90**	**16.54**	**9.87**	**37%**	**13.01**	**36%**

Table 6- List of scores for impact, preparedness, occurrence probability, and response capability, accumulating to weighted and non-weighted risk scores.

Ranking of Top 5 Hazards, Weighted vs Unweighted Risk Scores

Weighted Risk Scores- Top 5

Hazard	Weighted Risk Score	Weighted Risk Percentage
Extreme Heat	18.76	52%
Monsoon Weather	17.27	48%
Network Failure	15.65	43%
Staffing Shortage	15.40	43%
Cyberattack	13.22	37%

Unweighted Risk Scores- Top 5

Hazard	Risk Score	Risk Percentage
Extreme Heat	13.59	50%
Monsoon Weather	12.75	47%
Staffing Shortage	11.55	43%
Supply Chain Failure	11.55	43%
Network Failure	11.29	42%

Table 7- A comparison of how the top 5 hazards ranked with weighted and non-weighted scores.

Weighted scores considered those hazards with the highest impact to delivery of healthcare services. The following formula was used to calculate weighted scores:

$$Risk\ Score = Probability\ of\ Occurrence * [Impact(2) + Preparedness + Response]$$

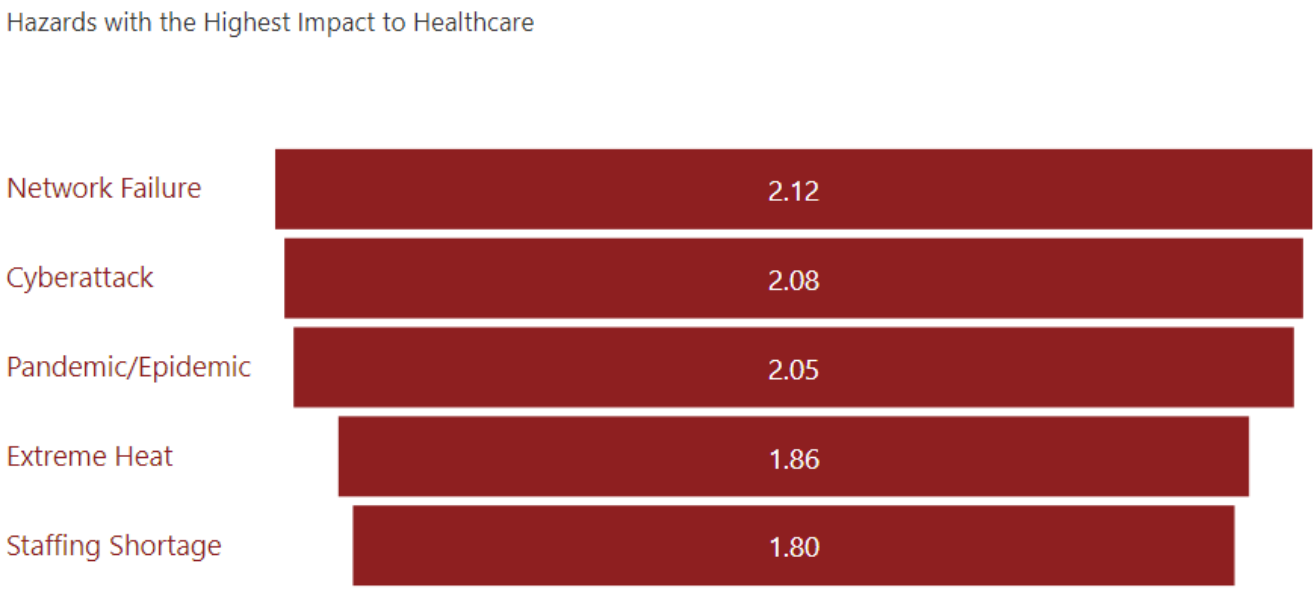


Figure 4- List of Coalition-based hazards in order of highest to lowest impact. Healthcare Impact: the highest rated hazards that impact the healthcare delivery system.

Definitions of Hazards

Below is a list of hazards and definitions as they appear in the list of top 10 hazards for the state.

1. **Communications, Telephone, and Network Failure:** the complete or partial failure of a component or components in a network because of malfunction or natural or human-caused disasters.
2. **Staffing Shortage:** staffing shortage occurs when there is a lack of employees within an industry. Healthcare often sees staffing shortages for physicians and nurses.
3. **Extreme Heat:** a period of high heat with temperatures above 90 degrees for at least two to three days. Humans may struggle to compensate and regulate their core body temperature, leading to heat-related illnesses and potentially death. Cooling systems and power supply are also tested.
4. **Pandemic (coronavirus, influenza, etc.):** a pandemic is a disease outbreak that spans several countries and affects many people. Pandemics are most often caused by viruses, like Coronavirus Disease 2019 (COVID-19), which can easily spread from person to person.
5. **Supply Chain Failure:** temporary or permanent loss of a key supplier. This might be due to material shortages or increased taxation, or it might be due to a business continuity issue faced by the supplier, such as production problems and bankruptcy.
6. **Cyberattack:** any offensive maneuver that targets computer information systems, computer networks, infrastructures, personal computer devices, or smartphones.
7. **Workplace Violence / Active Threat:** any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the work site. An active threat incident is a dynamic, quickly evolving situation involving an individual (or individuals) using deadly physical force, such as firearms, bladed weapons, or a vehicle. An active threat incident typically involves an individual (or individuals) presenting an immediate threat or imminent danger to people by displaying a weapon, having made threats, and/or shown intent to cause harm or perform violence.

8. **Monsoon Weather:** a weather event unique to Arizona which may result in flashfloods, lightening storms, high winds, tornadoes, dust storms, haboobs, and other sudden, extreme weather changes during the summer months.
9. **Winter Weather:** snow, ice, and extreme cold events which may impact transportation, access to heating, and pose a risk to vulnerable individuals.
10. **Wildfire:** Wildland fires which may cover a large area, threaten homes, hospitals, businesses and infrastructure. Wildland fires may also cause air pollution which may exacerbate allergies and those with respiratory illness.

Regional HVA Results

The same formulas listed above were used to calculate risk scores by region. Unweighted scores were used in this comparison. The statewide ranking of hazards is included for reference.

Top 5 Hazards as Identified by Region

Statewide	Central	Northern	Southern	Western
Extreme Heat	Extreme Heat	Network Failure	Extreme Heat	Extreme Heat
Monsoon Weather	Monsoon Weather	Staffing Shortage	Monsoon Weather	Monsoon Weather
Staffing Shortage	Staffing Shortage	Monsoon Weather	Staffing Shortage	Network Failure
Supply Chain Failure	Network Failure	Wildfire	Cyberattack	Staffing Shortage
Network Failure	Supply Chain Failure	Extreme Winter Weather	Network Failure	Cyberattack

Table 7- A comparison of unweighted risk scores by region.

Statewide RGA Results

Resources and Assets

The below assets are identified by ASPR's Resource and Gap Analysis Tool as important when preparing for a healthcare system response. A total of 132 member organizations completed this section of the survey.

Coalition Assets and Member Resources			
Item	**Number (%)**	**Definition**	**Comments**
Coalition Assets			
Communication Assets	132/132 (100%)	Number of survey participants that have the necessary equipment to provide redundancy in their communication (e.g., traditional phone lines, cellular, satellite, internet-based radios with 800mhz, amateur radio or other web-based systems, ability to receive HAN alerts, etc.)	Total responses = 132
Notification Platform	3 platforms	Electronic systems that provide notification to coalition leadership and partners. These systems are designed for event notification only.	AzCHER uses the Health Alert Network (HAN), AzCHER Connect listserv, Microsoft Outlook email lists
Arizona Health Alert Network (AzHAN)	122/132 (92%)	Number of members that receive alerts from AzHAN	There is still a barrier to the number of members who respond to AzHANs during AzCHER drills. A 3% increase is noted from last 2023's survey (89%).
Staff	6 team members	Designated coalition response staff / team	AzCHER has a staff of 6 full-time employees
Virtual Coordination	3 platforms	Platform for virtual coordination	Phone (FirstNet access, GETS card, Verizon wireless service), Zoom web-based platform, Microsoft Teams
County/Tribal Public Health Department Resources			
Alternate Care Sites	9/11 (82%)	Includes supplies or equipment for alternate care sites – may be managed by hospitals or local/tribal/state EM or federal	Some PH have mass cache equipment, PPE, and mobile clinic units. Most PH rely on support from local healthcare and state health department
Communication Assets	11/11 (100%)	Number of public health departments that possess communication assets for primary and back-up emergency communication.	PH has the following: two-way radios, Amateur radios, individuals' amateur radio certified, text alert system, email, Microsoft teams, phone lines (cellular and traditional), satellite phones, social media
Mass Mortuary / Body Bags	10/11 (91%)	Plans and/or resources for processing / identification / storage	There was a 10% increase in mass fatality capability as reported in 2023 (80%).

Coalition Assets and Member Resources			
Item	**Number (%)**	**Definition**	**Comments**
Medical Countermeasures Administration/Distribution	10/11 (91%)	Includes physical assets that support Chempack, antidote, vaccination, prophylaxis operations and distribution of other countermeasures from the SNS and/or state and local assets that may include databases, electronic systems, as well as physical resources (signage, badging systems, coolers, etc.)	Some PH indicated the ability to receive and distribute vaccines or medical supplies through points of dispensing (PODS), with the assistance of staff and Medical Reserve Corp (MRC) volunteers. Most PH have vaccine coolers, refrigerators, or freezers to store vaccines, while others indicated no physical assets on hand.
PPE Stockpile	10/11 (91%)	Available supplies and storage capacity, PPE stockpile	Most PH have stockpiles of gowns, gloves, surgical masks, N95 masks, shoe covers, head covers, googles, safety glasses, etc. However, they are limited in storage space.
Healthcare Volunteer Management	8/11 (73%)	Healthcare volunteer management: Resources or MOUs for healthcare volunteers (e.g., CERT or MRC)	Several PH or other county departments have Medical Reserve Corp (MRC), Community Emergency Response Teams (CERT), or other volunteer programs (nursing students and COAD/VOAD partners)
Call Center Capability	10/11 (91%)	Call centers: Capability to set up a call center for a public health emergency	PH has the ability and equipment to set up call centers
County/Tribal Emergency Management Department Resources			
Communication Assets / Call Center Capability	11/11 (100%)	Number of county/tribal emergency management departments possess communication assets for primary and back-up emergency communication - may have the ability to receive community alerts Most EM partner with PH to set up a call center for a public health emergency	EM has the following: phone lines (landlines, cellular, and satellite), internet apps (Microsoft Teams, social media), email, two-way radios, Amateur radios and certified operators, text alert system
EMS/Fire Resources			
Response Transportation Resources	15/15 (100%)	Includes capabilities for agent identification, mass decontamination and throughput for ambulatory/non-ambulatory casualties, storage location, and contact info to request	ALS Ambulances 72 BLS Ambulances 24 Fixed Wing Units 1 Rotor Wing Units 6 Mass Casualty Bus/Vehicle 0

Coalition Assets and Member Resources			
Item	**Number (%)**	**Definition**	**Comments**
			There is a lack of data available on EMS resources in the state.
HAZMAT Response Vehicle/Trailer	6/15 (40%)	Includes capabilities for agent identification, mass decontamination and throughput for ambulatory/non-ambulatory casualties, storage location, and contact info to request. - antidote availability considered	The EMS agencies that don't have this resource are smaller, rural organizations
Community Paramedics	5/15 (30%)	Represents other community-based EMS personnel that may assume alternate roles in a disaster (e.g., paramedics are also firefighters, volunteer or paid, reserve personnel who can be called to assist with an MCI; those who are BLS or ACLS trained)	Community paramedics are more common in rural locations.
Technical/ Swiftwater/ Collapse Rescue	11/15 (73%)	Resources that may be engaged locally or regionally to assist with technical/urban search & rescue situations	Agencies share this resource with each other
HAZMAT Radiation Assets	6/15 (40%)	Includes detection/survey equipment	No comments
Wildfire Response Team	12/15 (80%)	Team trained to respond locally or regionally to assist with wildfires	Agencies share this resource with each other
Evacuation Resources (Sleds, Stair Chairs, Pediatric Equipment, Evacuation Buses)	14/15 (93%)	Resources that may be engaged locally or regionally to assist with hospital or healthcare facility evacuation	Agencies share this resource with each other
Hospital Resources			
Morgue Capacity	230 spaces	Number of spaces to store decedents	41/41 hospitals reported, 13 hospitals report 0 spaces
Platform to communicate with organization/system	15/32 (47%)	Number of hospitals that use a designated platform to communicate with other organizations or larger healthcare system	
System to communicate with families/patients	8/32 (25%)	Number of hospitals that have a designated system for communication with patients and families	
Mass Communication Platform	16/32 (50%)	Number of hospitals that use a mass communication platform to notify staff, patients, families, community partners, etc.	
Satellite Phones	15/32 (47%)	Number of hospitals that use satellite phones as back-up communication	
HAM Radio	13/32 (41%)	Number of hospitals that use HAM radios as back-up communication	
Public Safety Radios	32/32 (100%)	Number of hospitals that use public safety radios	
Crisis Care Supplies	23/41 (56%)	Possession of cots that could be appropriately placed in flat space areas on hospital premises to create alternate care areas and including utilizing space where patients can be held	Data collected from 2023 survey

Coalition Assets and Member Resources			
Item	**Number (%)**	**Definition**	**Comments**
		awaiting treatment, actual treatment space (using cots, chairs, recliners, mobile vans, tents, air mattresses etc.).	
Hospital Emergency Response Team (HERT)	20/41 (49%)	Number of hospitals that have at least one HERT	Data collected from 2023 survey
Hospital Emergency Response Team (HERT) Resources	29/41 (71%)	Hospital decontamination resources - may include hard showers and tents	Data collected from 2023 survey
Hospital Emergency Response Team (HERT) Trained Employees	300 trained staff	Number of hospital employees trained to respond to decontamination situation	Data collected from 2023 survey
Evacuation Resources (Sleds, Stair Chairs, Pediatric Equipment, Evacuation Buses)	32/32 (100%)	May be listed in Evacuation Plan annex from above. Equipment (may be facility or cache-based) including patient movement, triage/tracking supplies. Include availability of adult, child and infant evacuation equipment	21 have sleds 20 have stair chairs 7 have pediatric equipment 12 have bariatric equipment 5 have wheelchair vans 4 have evacuation buses
Personal Protective Equipment (PPE)– Highly Infectious Disease	29/32 (91%)	PPE ensembles for the care of a patient with suspects/confirmed highly infectious disease agent	22 hospitals have decontamination team PPE 19 hospitals have biohoods 29 have PAPRs 22 have Tyvek suits
PPE Ensemble for HAZMAT	23/41 (57%)	PPE ensembles for the decontamination team including respiratory protection.	Data collected from 2023 survey
Long Term Care/Skilled Nursing Facility Resources			
Communication Assets	18/18 (100%)	Number of LTC/SNF that possess communication assets for primary and back-up emergency communication - primarily cellular phones	LTC have an increased number of communication resources than reported last year (2023)
System to communicate with families/patients	14/18 (78%)	Number of LTC/SNF that have a designated system for communication with patients and families	
Ability to receive community alerts (mobile apps, email subscriptions, etc.)	13/18 (72%)	Number of LTC/SNF that receive community alerts	
Mass Communication Platform	4/18 (22%)	Number of LTC/SNF that use a mass communication platform to notify staff, patients, families, community partners, etc.	
PPE Cache	18/18 (100%)	Includes N95 masks, procedural/surgical masks, goggle, isolation gowns, and face shields	0/37 LTC/SNF have PAPRs 0/37 have Tyvek suits 1/37 have biohoods
Evacuation Resources (Sleds, Stair Chairs, Pediatric Equipment, Evacuation Buses)	16/18 (89%)	Equipment (may be facility or cache-based) including patient movement, triage/tracking supplies	14 LTC/SNF have wheelchair vans 9 have bariatric equipment 3 have sleds 2 have evacuation busses

Coalition Assets and Member Resources			
Item	**Number (%)**	**Definition**	**Comments**
Hospice and Home Health Resources			
Communication Assets	13/13 (100%)	Number of hospice and home health that possess communication assets for primary and back-up emergency communication.	Home health and hospice have phones (landline, cellular, and satellite), email, social media. Very few two-way radios and satellite phones with one reporting the use of HAM radio
System to communicate with families/patients	1/13 (8%)	Number of hospice and home health that have a designated system for communication with patients and families	
Ability to receive community alerts (mobile apps, email subscriptions, etc.)	7/13 (54%)	Number of hospice and home health that receive community alerts	
PPE Cache	13/13 (100%)	Includes N95 masks, procedural/surgical masks, goggle, isolation gowns, and face shields	0 have PAPRs 0 have Tyvek suits 1 has biohoods 0 have decon PPE
Outpatient Care Resources			
Communication Assets	36/36 (100%)	Number of outpatient care facilities that possess communication assets for primary and back-up emergency communication.	Outpatient care has the following: landline and cellular phones, email, two-way radios, social media.
System to communicate with families/patients	12/36 (33%)	Number of outpatient care facilities that have a designated system for communication with patients and families	
Ability to receive community alerts (mobile apps, email subscriptions, etc.)	29/36 (81%)	Number of outpatient care facilities that receive community alerts	
Mass Communication Platform	2/36 (6%)	Number of outpatient care facilities that use a mass communication platform to notify staff, patients, families, community partners, etc.	
PPE Cache	36/36 (85%)	Including N95 masks, training/fit testing. Do not need to track masks at individual facilities but should reflect overall situation as well as any caches / specific assets	1 has PAPRs 2 have Tyvek suits 0 have biohoods 5 have decon PPE

Table 8- List of Coalition and member-specific resources.

Appendices

Appendix 1: HVA/RGA Survey Questions

AzCHER Community Hazard Vulnerability Assessment & Resource Gap Analysis

Thank you for taking this survey regarding hazards in your community and available resources. We appreciate your efforts to move Arizona's healthcare preparedness forward.

Complete the survey by August 23 at 5pm

What we need from you:

- Review all hazards and provide your opinion of the potential impact of each on healthcare services.
- Report facility/organizational resources and communications.
- 30 minutes of your time to complete the survey
- You might need to gather information from other departments before beginning.
- **If you oversee multiple facilities or organizations, please submit one survey per facility/organization.**

You may may need collect the following prior to starting the survey:

- Your facility's Hazard Vulnerability Assessment
- Your facility's inventory of PPE, communication devices, and other medical equipment
- A list of active MOUs

The regional and statewide summary reports will be completed and shared with members and partners in October 2024.

The assessments will be used to create site-specific HVAs and guide plans, trainings, and exercises over the next five years that address top hazards and identify gaps in the healthcare community.

Please note that you can save and edit your responses any time before **August 23 at 5pm**. Make sure to save your responses before exiting (you will need to submit your responses first, remember to come back!)

You will be bale to download your responses at the end for your records.

If you have any questions, please contact
Shawna Murphy at smurphy@azhha.org or
Amy Di Miceli at adimiceli@azhha.org

* Required

1. Your Name *

2. Email *

3. Organization Name *

4. Facility Name *

5. What is your facility/organization/agency or member type? Choose one (1) option that best fits. *

- ◯ Ambulatory Surgery Center
- ◯ Behavioral Health Facility
- ◯ CERT or MRC Organization
- ◯ Community Health Center / Federally Qualified Health Cente
- ◯ Correctional Health Facility
- ◯ Emergency Management Organization (County or Tribe)
- ◯ Emergency Medical Services (EMS) / Fire Dept
- ◯ End-Stage Renal Disease Facility
- ◯ Freestanding Emergency Department
- ◯ Health Care Clinic
- ◯ Home Health Agency
- ◯ Hospice
- ◯ Hospital-Acute Care
- ◯ Hospital-Behavioral Health
- ◯ Hospital-Critical Access
- ◯ Hospital-Post Acute Care
- ◯ Hospital-Rehabilitation
- ◯ Hospital Post Acute Care
- ◯ Hospital-Specialty
- ◯ Hospital-Long-term Acute Care
- ◯ Non-Governmental Organization
- ◯ Outpatient Clinic
- ◯ Professional Association/Academic Institution
- ◯ Public Health Agency (County or Tribe)
- ◯ Retail Pharmacy
- ◯
- ◯

6. In which county or tribe is your facility/organization/agency located? *

- [ ] Ak-Chin Indian Community
- [ ] Apache County
- [ ] Cochise County
- [ ] Coconino County
- [ ] Cocopah Indian Tribe
- [ ] Colorado River Indian Tribe
- [ ] Fort McDowell Yavapai Nation
- [ ] Fort Mojave Indian Tribe
- [ ] Fort Yuma Quechan Tribe
- [ ] Gila County
- [ ] Gila River Indian Community
- [ ] Graham County
- [ ] Greenlee County
- [ ] Havasupai Tribe
- [ ] Hopi Tribe
- [ ] Hualapai Tribe
- [ ] Kaibab Paiute Tribe
- [ ] La Paz County
- [ ] Maricopa County
- [ ] Mohave County
- [ ] Navajo County
- [ ] Navajo Nation
- [ ] Pascua Yaqui Tribe
- [ ] Pima County
- [ ] Pinal County
- [ ]
- [ ]
- [ ] San Juan Southern Paiute Tribe

- [ ] Santa Cruz County
- [ ] Tohono O'Odham Nation
- [ ] Tonto Apache Tribe
- [ ] White Mountain Apache Tribe
- [ ] Yavapai County
- [ ] Yavapai-Apache Nation
- [ ] Yavapai-Prescott Tribe
- [ ] Yuma County

Hazard Vulnerability Assessment

Please provide feedback on the most important local and regional hazards that we face, as well as the impact they could have on our healthcare system.

Note: You may have to consult with your emergency preparedness team or use your facility's HVA to accurately answer these questions.

List of Hazards
Please refer to the following terms for the ranking below:

Occurrence Probability: Likelihood or probability of the incident to occur.
Consider known risk or historical data.
0 = Rare or N/A
1 = Low (Every 10-50 years)
2 = Moderate (Every 1-10 years)
3 = High (Annually)

Impact: Possibility of impact to humans, property, and business.
Consider potential for death and injury, interruption to business and critical supplies, cost to replace or repair property.
0 = No impact expected
1 = Low (causes minimal disruption; managed at daily level)
2 = Moderate (causes disruption outside of normal means but does not threaten service delivery)
3 = High (causes significant disruption and threatens service delivery)

Preparedness: Level of preplanning, frequency of drills, trainings, exercises.
Consider your current status of planning, frequency of drills, training and exercise implementation, insurance/liability protection, availability of alternate sources for critical supplies/services
0 = N/A
1 = High preparedness
2 = Moderate preparedness
3 = Low preparedness

Response: Capacity to respond required by your organization.
Consider type of supplies on hand and volume, staff availability, availability of back-up systems, coordination with community resources, local emergency response availability, memorandums of understanding
0 = N/A
1 = High response capacity
2 = Moderate response capacity
3 = Low response capacity

7. Please rate the **occurrence probability** for the following

	Rare or N/A	Low (Every 10-50 years)	Moderate (Every 1-10 years)	High (Annually)
Temperature Extreme (Heat)	◯	◯	◯	◯
Staffing Shortage	◯	◯	◯	◯
Monsoon Weather	◯	◯	◯	◯
Cyberattack	◯	◯	◯	◯
Communications/Telephone/Network Failure	◯	◯	◯	◯
Pandemic/Epidemic	◯	◯	◯	◯
Wildfire	◯	◯	◯	◯
Supply Chain Failure	◯	◯	◯	◯
Active Threat/Workplace Violence	◯	◯	◯	◯
Extreme Winter Weather	◯	◯	◯	◯

8. Please rate the **impact** of the following

	No impact expected	Low (causes minimal disruption; managed at daily level)	Moderate (causes disruption outside of normal means but doe not threaten service delivery)	High (causes significant disruption and threatens service delivery)
Temperature Extreme (Heat)	◯	◯	◯	◯
Staffing Shortage	◯	◯	◯	◯
Monsoon Weather	◯	◯	◯	◯
Cyberattack	◯	◯	◯	◯
Communications/Telephone/Network Failure	◯	◯	◯	◯
Pandemic/Epidemic	◯	◯	◯	◯
Wildfire	◯	◯	◯	◯
Supply Chain Failure	◯	◯	◯	◯
Active Threat/Workplace Violence	◯	◯	◯	◯
Extreme Winter Weather	◯	◯	◯	◯

9. Please rate the **level of preparedness** for the following

	N/A	High Preparedness	Moderate Preparedness	Low Preparedness
Temperature Extreme (Heat)	◯	◯	◯	◯
Staffing Shortage	◯	◯	◯	◯
Monsoon Weather	◯	◯	◯	◯
Cyberattack	◯	◯	◯	◯
Communications/Telephone/Network Failure	◯	◯	◯	◯
Pandemic/Epidemic	◯	◯	◯	◯
Wildfire	◯	◯	◯	◯
Supply Chain Failure	◯	◯	◯	◯
Active Threat/Workplace Violence	◯	◯	◯	◯
Extreme Winter Weather	◯	◯	◯	◯

10. Please rate your facility's **response capacity** for the following

	N/A	High Response Capacity	Moderate Response Capacity	Low Response Capacity
Temperature Extreme (Heat)	◯	◯	◯	◯
Staffing Shortage	◯	◯	◯	◯
Monsoon Weather	◯	◯	◯	◯
Cyberattack	◯	◯	◯	◯
Communications/Telephone/Network Failure	◯	◯	◯	◯
Pandemic/Epidemic	◯	◯	◯	◯
Wildfire	◯	◯	◯	◯
Supply Chain Failure	◯	◯	◯	◯
Active Threat/Workplace Violence	◯	◯	◯	◯
Extreme Winter Weather	◯	◯	◯	◯

Resource Gap Analysis

The following questions will ask about sector-specific resources.

11. Please indicate your sector type from the below options. *

You will be directed to answer resource questions for your sector.

- ◯ Emergency Medical Services (EMS) / Fire Dept
- ◯ Hospital (all types, including emergency managers, behavioral health and specialty hospitals)
- ◯ Public Health (county or tribe)
- ◯ Long-term Care / Skilled Nursing Facility
- ◯ Outpatient Care (i.e. Ambulatory Surgery Centers, Dialysis Clinics, Federal Qualified Health Centers)
- ◯ State/County/Tribal Emergency Management
- ◯ Home Health / Hospice
- ◯ Other (academic institutions, volunteer organizations, pharmacy, etc.)

EMS/Fire Department Resource Questions

Response Transportation Resources: Please indicate your capacity/inventory for the following categories by entering a number. Type "0" if you do not have a certain resource or if it does not apply to your EMS Agency.

12. BLS Ambulances

May include scheduled and 911 assets

The value must be a number

13. ALS Ambulances

May include scheduled and 911 assets, critical care transport, scheduled assets, reserve rigs, and specialized units (pediatric, bariatric, isolation, etc.)

The value must be a number

14. Fixed Wing Units

Units capable of responding within 60 minutes to area, specific for flight time to scene/facility

15. Rotor Wing Units

Units Capable of responding within 60 minutes to area, specific for flight time to scene/facility

The value must be a number

16. HAZMAT Response Vehicle/Trailer

Includes capabilities for agent identification, mass decontamination and throughput for ambulatory/non-ambulatory casualties, storage location, and contact info to request

The value must be a number

17. MCI trailer

Includes contents necessary to treat casualties

The value must be a number

18. MCI Bus/Vehicle

Includes contents to treat/transport casualties

The value must be a number

19. Wheelchair Vans or ADA Compliant Vehicles

The value must be a number

EMS / Fire Department Resource Questions

20. Please document **Burn Mass Casualty** transportation resources you may have

21. Please document **Radiation Emergency** transportation resources you may have

22. Please document **Pediatric Mass Casualty** transportation resources you may have

23. Please document **any other** transportation resources you may have

24. Please indicate your possession and maintanace of the following resources.

	Yes	No	Unsure
Community Paramedics: other community-based EMS personnel that may assume alternate roles in a disaster (e.g., paramedics are also firefighters, volunteer or paid, reserve personnel who can be called to assist with an MCI; those who are BLS or ACLS trained)	◯	◯	◯
Technical/Swiftwater/Collapse Rescue: resources that may be engaged locally or regionally to assist with technical / US&R situations	◯	◯	◯
HAZMAT Radiation Assets: includes detection/survey equipment	◯	◯	◯
Wildfire Response Team: team trained to respond during wildfires	◯	◯	◯

25. Other Resources Maintained:

26. Do you have anything else to add regarding EMS / Fire Department resources?

Hospital Questions

27. **Fatality Management:** What is your current morgue capacity?
    Number of spaces for decedents

    The value must be a number

28. What resources do you utilize for **patient tracking** (i.e. bands, identification kits, system, etc.)?

    - [ ] Bands
    - [ ] Identification Kits
    - [ ] Software System
    - [ ] Mobile Application
    - [ ] None of the above
    - [ ] Other

29. Do you have anything else to add regarding hospital resources?

Public Health Questions

30. Please indicate if you possess and maintain the following resources.

Note- listed resources are not required to maintain. Answers used for informational purposes only.

	Yes- Maintain within our facility	Yes- Have access to via eternal partners and/or MOU	No- Do not have access to	Unsure
Alternate Care Sites: materials for alternate care sites – may be managed by hospitals or EM	◯	◯	◯	◯
Mass mortuary capacity: Includes body bags and other space for processing / identification / storage	◯	◯	◯	◯
Medical Countermeasures Administration / Distribution: Physical assets that support Chempack, antidote, vaccination/prophylaxis operations and distribution of other countermeasures from SNS and state and local assets that may include databases and electronic systems as well as physical resources (signage, badging systems, coolers, etc.)	◯	◯	◯	◯
PPE Stockpile: Available supplies and storage capacity	◯	◯	◯	◯
Healthcare volunteer management: Resources or MOUs for healthcare volunteers (e.g. CERT or MRC)	◯	◯	◯	◯
Call centers: Capability to set up a call center for a public health emergency	◯	◯	◯	◯

31. Do you have anything else to add regarding public health resources?

Long-term Care / Skilled Nursing Facility Questions

32. Does your facility have a Memorandum of Understanding or similar agreement with another facility or hospital for the following?

	Yes	No	Unsure
To receive patients in the event of evacuation?	◯	◯	◯
To transport patients in the event of evacuation?	◯	◯	◯

33. Do you have anything else to add regarding long-term care resources?

Resource Questions

34. Does your facility require Emergency Operation Center (EOC), Command Center, or Incident Command Staff to have any of the following?

Note- training may not be required for your facility. Responses are used for informational purposes only.

- [ ] Basic ICS Course- IS 100, 200, 700, and 800
- [ ] Advanced ICS courses - IS 300 and 400
- [ ] Specific length of time in position before working in EOC or IC
- [ ] No requirements
- [ ] Other

35. Do you maintain any PPE for the following items?

Check all that apply.

- [ ] N95 masks
- [ ] Procedural/surgical masks
- [ ] Goggles
- [ ] Isolation gowns
- [ ] Face shields
- [ ] PAPR kits
- [ ] Tyvek suits
- [ ] Bio hoods
- [ ] Decontamination team PPE
- [ ] Not applicable due to organization type

36. What evacuation resources do you have?

Select all that apply.

- [ ] Sleds
- [ ] Stair Chairs
- [ ] Pediatric Equipment
- [ ] Bariatric Equipment
- [ ] Evacuation Buses (and certified drivers)
- [ ] Wheelchair Vans
- [ ] Not applicable due to facility type
- [ ] Other

37. Emergency Communication Assets:

Please identify all communications methods you use during emergencies. Check all that apply.

- [ ] Landline telephones
- [ ] Cellular phones
- [ ] Satellite phones
- [ ] Internet-based phone
- [ ] Email
- [ ] Two-way radios
- [ ] HAM radio
- [ ] System to communicate with patients and families
- [ ] Ability to receive community alerts (mobile apps, email subscriptions, etc.)
- [ ] Platform to communicate within organization/system
- [ ] Social Media
- [ ] Mobile communication apps (What's App, etc.)
- [ ] Mass communication platform (Everbridge, AlertMedia, etc.)
- [ ] Other

38. If you have HAM radio assets, do you have trained staff or volunteers to utilize them?

- ◯ Yes
- ◯ No
- ◯ Unsure

39. Do you receive Arizona Health Alert Network (AzHAN) notifications from AzCHER? *

- ◯ Yes
- ◯ No

40. Do you have anything else to add regarding healthcare-related resources?

Appendix 2: List of Participating Organizations

Participating organizations are listed alphabetically by organization name.

Organization Name	Facility Name
A Better Life Pain Treatment Center	A Better Life Pain Treatment Center
American Premier Home Health Care	American Premier Home Health Care
American Premier Hospice	American Premier Hospice
Apache County	Emergency Management
Arizona Department of Veteran Services	Arizona State Veteran Home - Tucson
Arizona Department of Veteran Services	Arizona State Veteran Home - Yuma
Arizona Retirement Center	Sierra Winds Health Center
Arizona Skin Cancer Surgery Center, PC	Arizona Skin Cancer Surgery Center, PC
Arizona State Hospital	Arizona State Hospital
Assisted Home Health & Hospice	Assisted Home Health & Hospice
Avenir Senior Living LLC	Avenir Behavioral Health Center
AZDHS	BORR
Banner Health	Banner Rehabilitation Hospital East
Bisbee Fire Department	Station 81
Canyon Vista Medical Center	Canyon Vista Medical Center
Carl T Hayden Phoenix VA Health Care System	Phoenix VA HCS
Carondelet Health Network	St. Joseph's and St. Mary's Hospitals
Casa Grande Fire Department	Casa Grande Fire Department
Catalina Surgery Center LLC	Catalina Surgery Center
Chinle Service Unit, Indian Health Services	Chinle Comprehensive Healthcare Facility
Chiricahua Community Health Centers INC.	115 Calle Portal Dental and Administration
Christian Care Nursing Center	Christian Care Nursing Center
City of Maricopa	Emergency Management
City Of Winslow Fire Department	City OF Winslow Fire Department
City of Yuma Fire Department	Fire Department
Cochise County Health & Social Services	Bisbee Location
Cochise Eye and Laser	Cochise Eye and Laser
Coconino County Health and Human Services	Coconino County Health and Human Services
Cocopah Indian Tribe	Office of Emergency Management
Community Health System	Tucson Surgery Center
Copper Queen Community Hospital	Copper Queen Community Hospital

Community Health Systems	Western Arizona Regional Medical Center
DaVita	DaVita Maryvale
DaVita	DaVita Tuba City
DCI	Desert Dialysis
DCI	Desert Dialysis Tucson south
DCI	Douglas Dialysis
Dignity Health	Dignity Health YRMC
Dignity Health	St Joseph's Hospital Medical Center
EAST VALLEY OUTPATIENT SURGERY	EAST VALLEY OUTPATIENT SURGERY
Eden Home Health and Hospice	Eden Home Health and Hospice
El Rio Health	El Rio Health
Elements of Elder Care	Elements of Elder Care
Encompass health	Encompass health Northwest Tucson
Ensign Services	South Mountain Post Acute
Ensign Services	Park Avenue Health
Everest Hospice	Everest Hospice
Fort Mojave Mesa FD	FMMFD
Golder Ranch Fire District	Golder Ranch Fire District
Good Samaritan Society - Prescott Valley	Good Samaritan Society - Prescott Valley
Hacienda Healthcare	Hacienda ICF-IID
Havasu Regional Medical Center	Havasu Regional Medical Center
Haven Health	Haven
Haven Health	Haven Health Cottonwood
Haven Health	haven health of show low
Haven Health	Haven Health Sky Harbor
Haven Healthcare	Haven of Sedona
Horizon Health and Wellness	Horizon - Apache Junction
Hospice of Havasu, Inc.	Hospice of Havasu
Indian Health Service	Whiteriver Service Unit
La Paz County Health Department	Emergency Management/PHEP
La Paz HD	Lpchd
La paz Regional Hospital	La Paz Regional Hospital
Life Care Centers of America	Life care center of Sierra Vista
Little Colorado Medical Center	Little Colorado Medical Center
Maricopa County Department of Public Health	N/A
Mayo Clinic	Mayo Clinic
Medical Reserve Corps of Southern Arizona	N/A
Minimally Invasive Spine Surgery Center of Paradise Valley	Minimally Invasive Spine Surgery Center of Paradise Valley

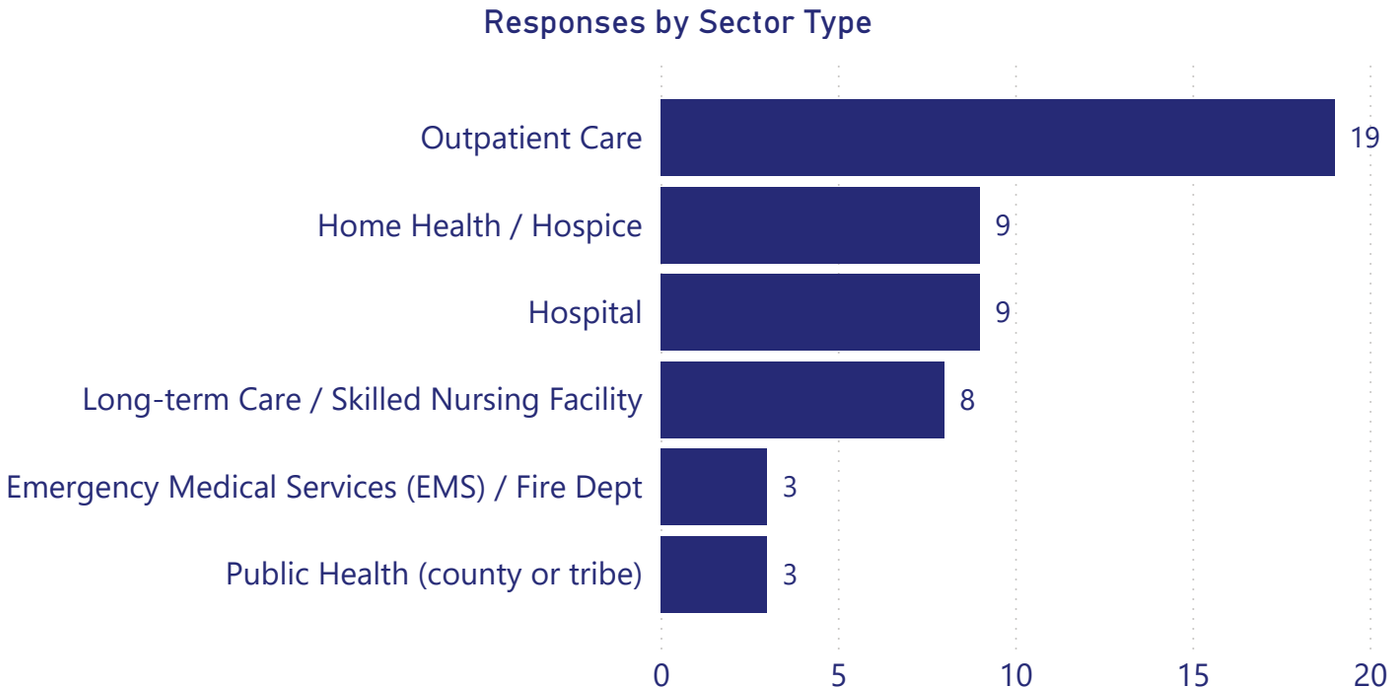
Mohave County Department of Public Health	Mohave County
Mohave County Emergency Management	Mohave County
Mountain Park Health Centers	Mountain Park Health Centers
Mt Graham Regional Medical Center	Mt Graham Regional Medical Center
National Cardiovascular Surgery Center LLC	Peak Surgery Center of Avondale
Navajo County	Emergency Management
Navajo County PHEP	Navajo County PHEP
Noble Hospice	Noble Hospice
Northern Arizona Healthcare	Flagstaff Medical Center
Northern Arizona Healthcare	Verde Valley Medical Center
Northern Cochise Community Hospital (NCCH)	NCCH
Oasis Pavilion Nursing & Rehab	Oasis Pavilion Nursing & Rehab
Oatman Fire District	Oatman Fire Station 66
Outpatient Surgical Care, Ltd.	Outpatient Surgical Care, Ltd.
Peak Cardiovascular Center, LLC	Peak Cardiovascular Center
Phoenix Eye	Arizona Ophthalmic Outpatient Surgery
Phoenix Spine Goodyear	Phoenix Spine Goodyear
Pima County Office of Emergency Management	Pima Emergency Communications and Operations Center (PECOC)
Pinal County Public Health Services District	Pinal County Public Health Services District
Plaza Healthcare	Plaza Healthcare
Puerco Valley Fire District	Fire Chief
Rio Rico Medical & Fire District	N/A
River Medical Inc	NA
Rummel Eye Care	Rummel Eye Care Eye Surgery Services
San Carlos Apache Tribe	SCAT DHHS Epidemiology/PHEP
San Luis Walk-In Clinic, Inc.	San Luis Outpatient Surgical Center
San Luis Walk-In Clinic, Inc.	San Luis Walk-In Clinic, Inc., San Luis Urgent Care, Parker Walk-In Clinic, Inc. Lake Havasu Pediatric & Family Clinic, Kingman Family Walk-In Clinic.
San Simon Fire District	Station 25
Santa Rita Fire District (formerly Green Valley Fire)	Santa Rita Fire District
Scottsdale Eye Institute	Scottsdale Eye Institute
Sedona Fire District	Sedona Fire District
Shanti Hospice	Shanti Hospice

Southern AZ VA Healthcare	Southern AZ VA Healthcare
Steward Health Care	Mountain Vista Medical Center
Stoneridge Hospice	Stoneridge Hospice
Suncrest Health Care inc	Suncrest Health Care
Sunset Hospice LLC	Sunset Hospice LLC
SurgCenter Tucson LLC	SurgCenter Tucson LLC
Swagel Wootton Eye Institute	Swagel Wootton Eye Institute
The Guidance Center	The Guidance Center
Tolleson Fire Department	Tolleson Fire Department
Tri City Surgery Center	Tri City Surgery Center
Tri-City Surgery Center	Tri-City Surgery Center
Tuba City Regional Healthcare Corporation	TCHRCC
United Hospice & Palliative Care of Arizona	United Hospice
Urology ASC Phoenix	Urology ASC Phoenix - Deer Valley, Phoenix, Perimeter
US Renal Care	Avondale
US Renal Care	USRC Southwest Mesa
USPI	Metro Surgery Center
USPI	Southwest Endoscopy & Surgicenter
USPI	Westgate Surgery Center
USPI/Tenet	Surgery Center of Peoria
Valley View Medical Center	Valley View Medical Center
Valleywise Health	Valleywise Health
VVMC--Acute care	Valley View Medical Center
White Mountain Regional Medical Center	White Mountain Regional Medical Center
Wickenburg Hospital	Wickenburg Hospital
Yavapai County Community Health Services	Yavapai County Community Health Services
Yuma County	Yuma County Public Health Services District
Yuma Regional Medical Center (Onvida)	Yuma Regional Medical Center (Onvida)

Appendix 3: Central Region HVA/RGA Results

Appendix 3: Central Region Results

Organization Type	Number of Respondents
Hospital-Critical Access	1
Hospital-Rehabilitation	1
Community Health Center / Federally Qualified Health Center	2
Home Health Agency	2
Hospital-Behavioral Health	2
Emergency Medical Services (EMS) / Fire Dept	3
End-Stage Renal Disease Facility	3
Public Health Agency (County or Tribe)	3
Hospital-Acute Care	5
Hospice	7
Skilled Nursing or Long-Term Care Facility	8
Ambulatory Surgery Center	14
Total	**51**



Central Region HVA Results

Hazards for the Central Region are ranked by weighted risk score, with unweighted scores producing the same ranking. Risk scores were calculated taking the average ranking for occurrence probability, impact, preparedness, and response capacity using the previously defined formula. Impact was weighted by multiplying the impact score by 2 to account for both business and human impact in the healthcare delivery setting. Taking this into account, the top 5 hazards for the Central Region are extreme heat, monsoon weather, communications/network failure, staffing shortage, and cyberattack.

Unique Regional Hazard Considerations:

- Extreme heat: the potential for rising temperatures leading to worse droughts and wildfires
- Central, urban location with high population density
- Population increases during the winter months
- Industrial hazards are frequent due to the nearby manufacturing facilities or plants
- Supply chain failure: impacts in central region often radiate to all other regions

Hazards for Central Region

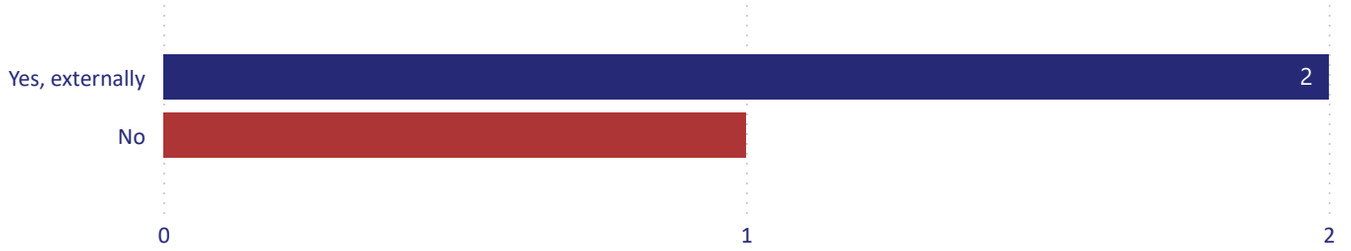
Hazard	Occurrence Probability	Impact	Preparedness	Response Capacity	Weighted Risk Score	Unweighted Risk Score
Extreme Heat	2.98	1.94	1.33	1.57	20.22	14.43
Monsoon Weather	2.76	1.67	1.43	1.55	17.46	12.85
Staffing Shortage	2.06	1.76	1.57	1.76	14.13	10.50
Communications/Network Failure	1.90	2.02	1.54	1.65	13.74	9.90
Supply Chain Failure	1.80	1.82	1.76	1.82	13.05	9.76
Cyberattack	1.67	1.96	1.71	1.70	12.21	8.94
Pandemic/Epidemic	1.61	2.22	1.63	1.49	12.14	8.58
Wildfire	1.76	1.33	1.73	1.51	10.42	8.06
Active Threat/Workplace Violence	1.41	1.71	1.67	1.78	9.69	7.28
Extreme Winter Weather	0.27	0.47	1.25	1.25	0.95	0.82

Central Region
County/Tribe Public Health Resources

Public Health agencies, both county and tribal, were asked if they maintained the following resources. Definitions of what constitutes each resource are provided in each graphic. Participants were provided with three answer choices: "Yes, internally," Yes, externally," and "No." A "Yes, internally" indicates the agency maintains that resource within their own site and under their own control. A "Yes, externally" response indicates the agency may have access to the resource through memorandums or understanding, mutual aid, or other agreement with community partners.

Alternate Care Sites

Includes supplies or equipment for alternate care sites – managed by hospitals or local/tribal/state EM or federal



Call Centers

Call centers: Capability to set up a call center for a public health emergency

Healthcare Volunteer Management

Healthcare volunteer management: Resources or MOUs for healthcare volunteers (e.g., CERT or MRC) Several PH or other county departments have Medical Reserve Corp (MRC), Community Emergency Response Teams (CERT), or other volunteer programs (nursing students and COAD/VOAD partners)

Mass Mortuary Capacity

Plans and/or resources for processing / identification / storage. May plan with local ME office or nearby counties and tribes to increase fatality management capacity

Medical Countermeasures and Administration

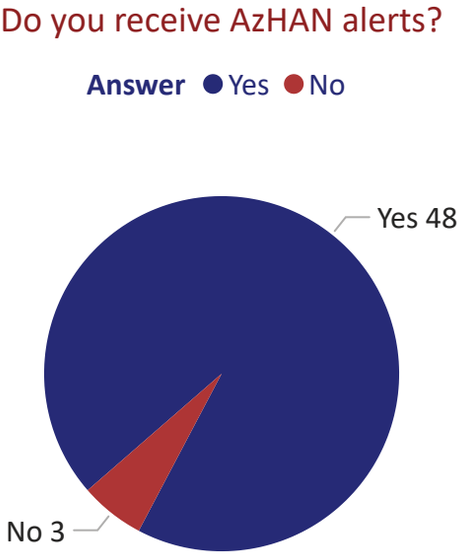
Includes physical assets that support Chempack, antidote, vaccination, prophylaxis operations and distribution of other countermeasures from the SNS and/or state and local assets that may include databases, electronic systems, as well as physical resources (signage, badging systems, coolers, etc.)

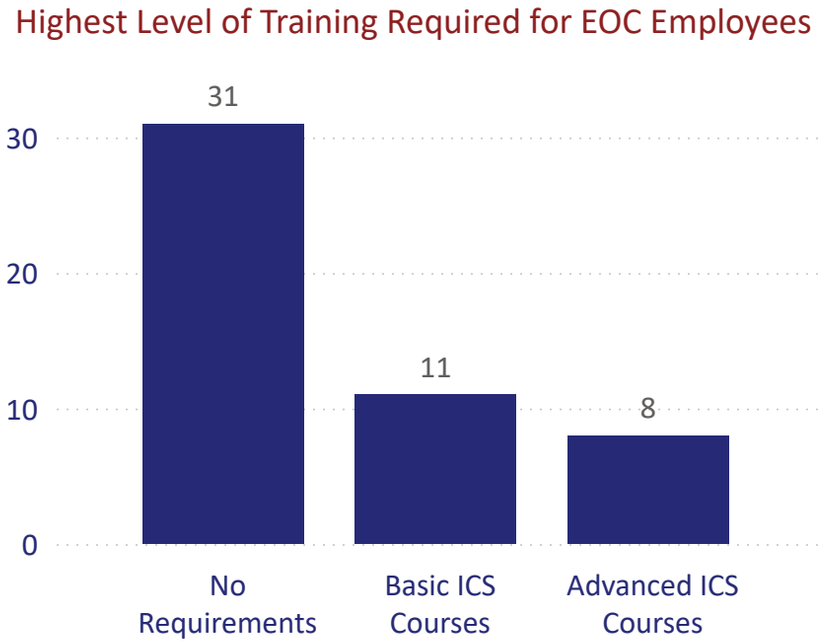
PPE Stockpile

Available supplies and storage capacity, PPE stockpile Most PH have stockpiles of gowns, gloves, surgical masks, N95 masks, shoe covers, head covers, googles, safety glasses, etc.

Central Region Resource Gap Analysis

Arizona Health Alert Network Alerts provide healthcare providers fast access to information regarding emergent threats and threats. Both Arizona Department of Health Services and AzCHER utilize this platform to quickly notify members of current and planned incidents. Respondents were asked if they receive these alerts in an effort to identify gaps in reach and opportunities for expansion or training.





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Generally, there are no requirements for an employee to work in an EOC. A need for basic ICS courses has been identified.

Central Region- Communications Assets

Phone/Mobile Phone Assets

Phone and mobile phone related assets maintained by facilities are shown below. Most do not maintain satellite phones, but have access to cell phones.

Sector	Cell Phones	Internet-based phone	Landline telephones	Mobile communication apps	Satellite phones
Outpatient Care	19	12	13	4	
Hospital	9	6	7	1	5
Long-term Care / Skilled Nursing Facility	8	3	8	6	
Home Health / Hospice	10	3	8	3	
Public Health (county or tribe)	3	2	3	2	1
Emergency Medical Services (EMS) / Fire Dept	3	3	2	1	1

Community Communications

Assets used to communicate with the general public are shown below. Means to communicate with patients and families are lacking among most sector types.

Sector	Ability to Receive Community Alerts	Mass communication platform	Platform to communicate within organization/ system	Social Media	System to communicate with patients and families
Emergency Medical Services (EMS) / Fire Dept	2	2	2	2	
Public Health (county or tribe)	3	3	2	2	
Home Health / Hospice	5	1	6	6	1
Long-term Care / Skilled Nursing Facility	7	2	6	6	5
Hospital	6	4	6	7	4
Outpatient Care	16	1	9	6	7

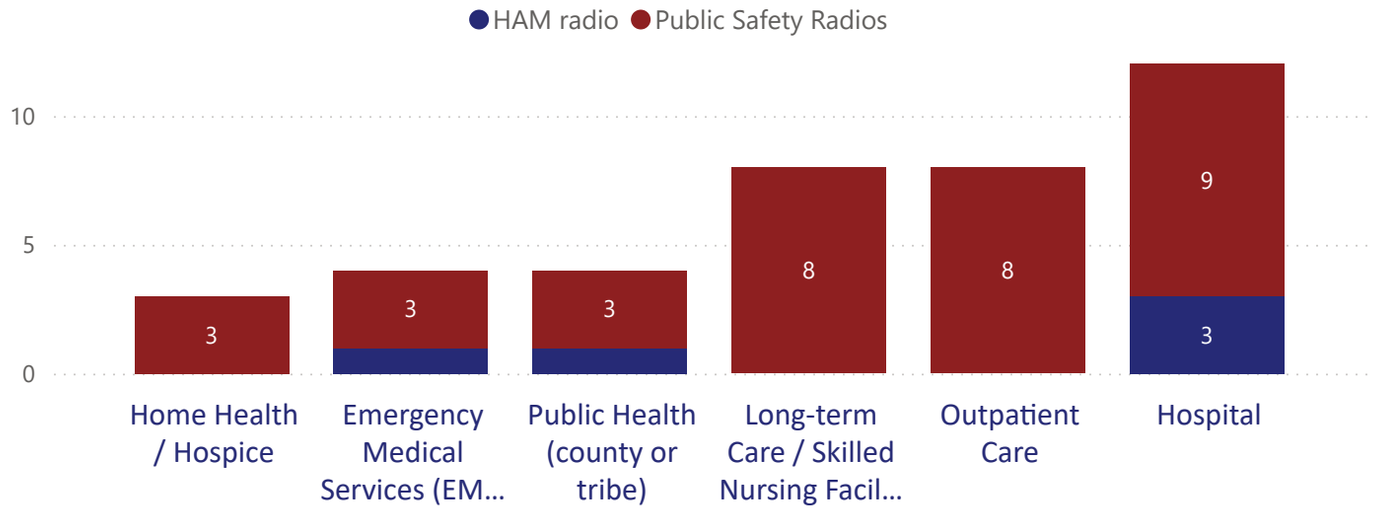
Central Region- Communications Assets

100%

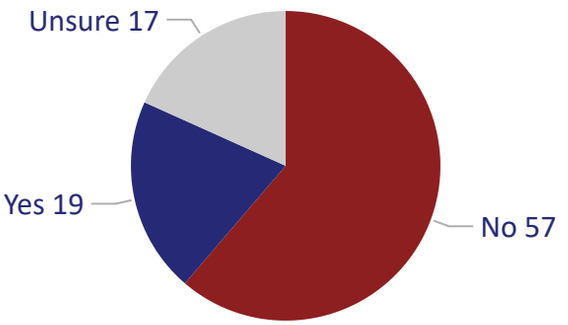
Percent of Agencies with Email Access

Radio Assets

The type of radio assets maintained by facility type are shown below. Public safety radios are the most common, with few agencies utilizing HAM radios.



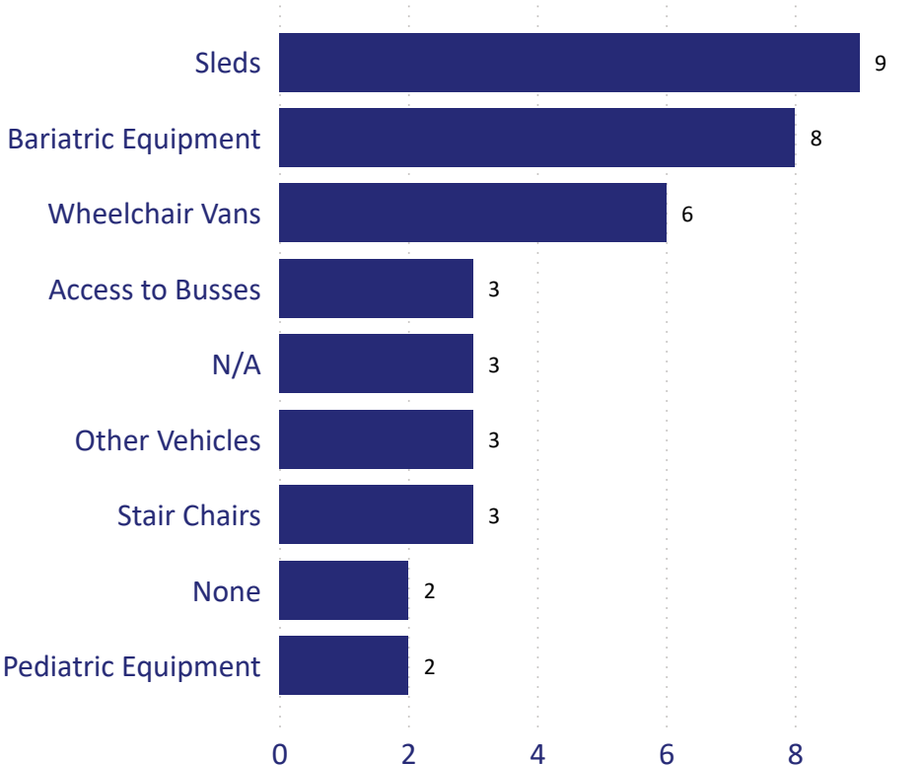
Number of Agencies with Personnel Trained to Use HAM Radios



Central Region Hospital Resources

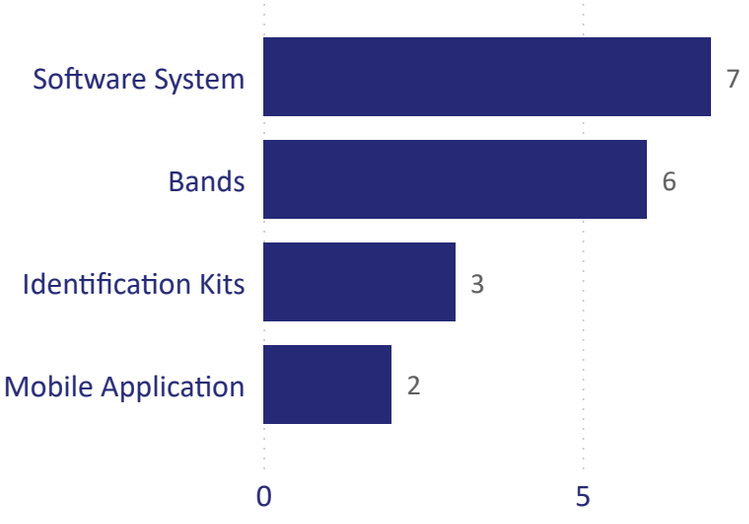
Hospitals throughout the state were asked to provide information on the resources available at their facilities. The results of this inquiry are illustrated and extrapolated below. Data collected is used to form work groups, develop trainings, and provide resource sharing opportunities in times of low-resource availability.

Evacuation Resources



Data on evacuation resources available among regional hospitals was collected to identify gaps and opportunities for resource sharing. Access to a variety of evacuation resources is critical to effectively respond to an incident which requires the prompt evacuation of a hospital or local healthcare provider.
The graph to the left indicates how many hospitals in the region possess and maintain the identified resource, not necessarily the quantity of that resource available.

Patient Tracking Resources



The ability to track patients being transferred, evacuated, or accepted by a facility in times of crisis is a complex endeavor. In response to the results collected here and in steering committee groups, AzCHER developed a work group in November 2024 to identify gaps and solutions in tracking patients during a crisis, multi-casualty incident, evacuation, or other large-scale event requiring the use of these resources. Identifying resources already available provides AzCHER and its members the ability to expand on what is already in place and identify training and resource gaps.

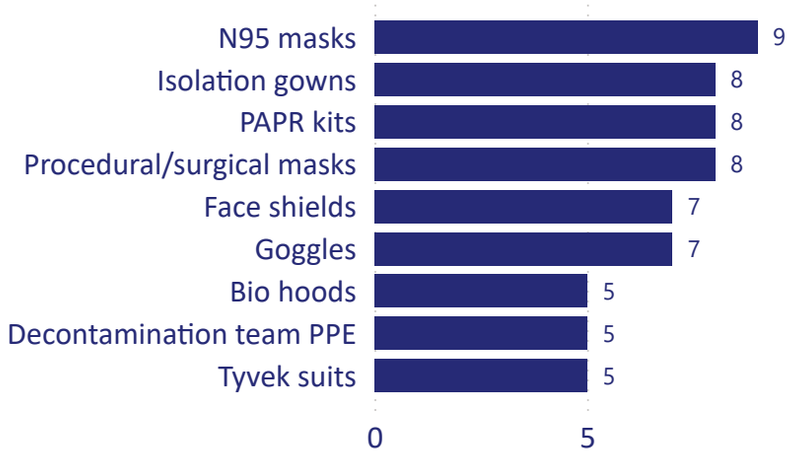
Central Region Hospital Resources

Combined, the 9 reporting hospitals have a total morgue capacity of 163.
A higher participatory rate among hospitals were produce a more accurate count of morgue capacity in the central region.

Hospital Morgue Capacity

163

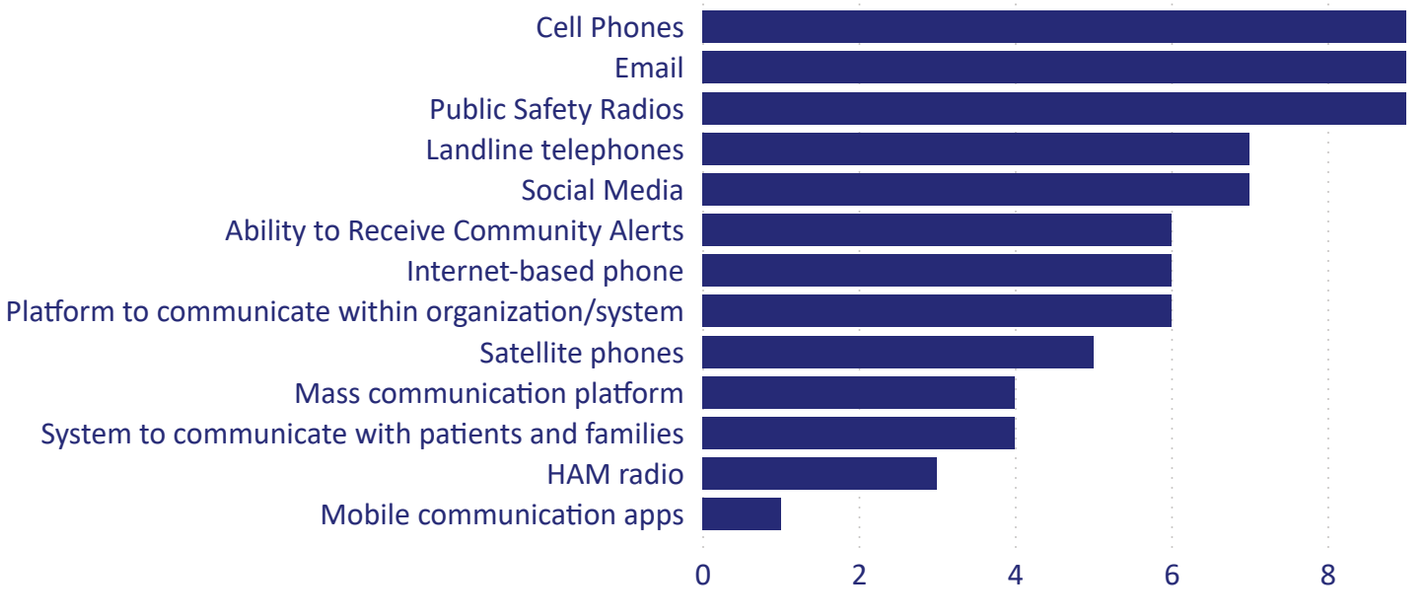
PPE Resources



Hospitals in the central region reported maintaining substantial PPE.
Gaps were identified in the maintenance of decontamination PPE, bio hoods, and Tyvek suits, with 4 of the 9 hospitals reporting to not maintain these items.

All 9 reporting hospitals maintain cell phones, email, and public safety radios as communication assets. 6 have social media and landline phones. A substantial gap identified is the availability of a system to communicate with patients and families, with less than half the hospitals reporting to maintain this asset.

Communication Assets in Hospitals



Central Region- Evacuation Resources

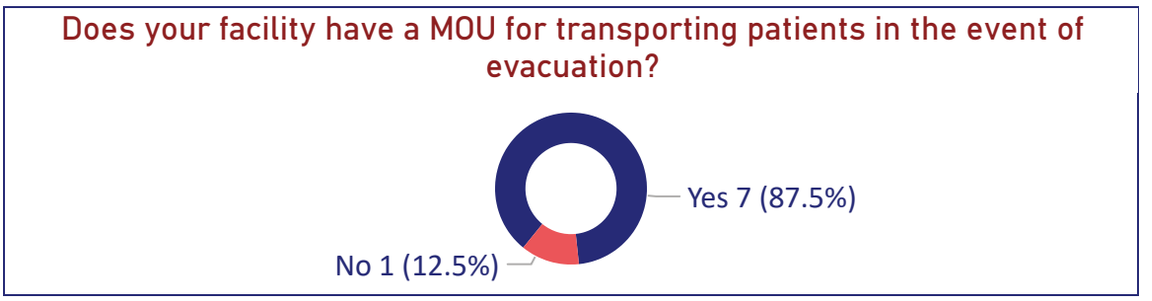
Evacuation Resources

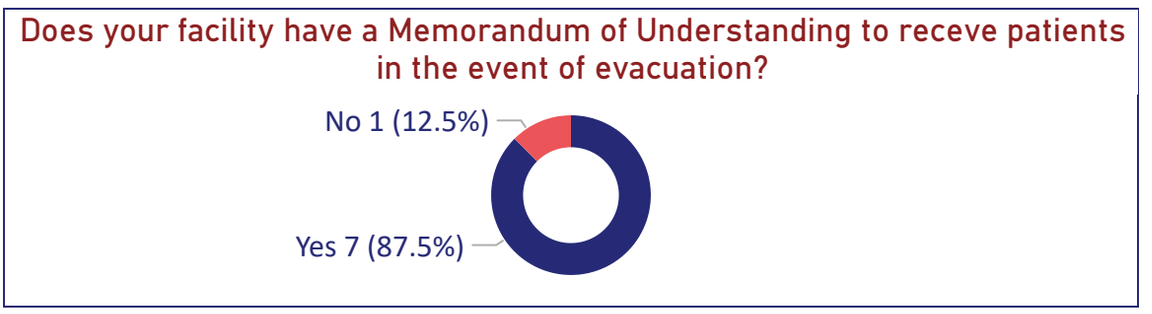
Evacuation resources for EMS, Hospitals, and Long Term Care Facilities were evaluated. Access to pediatric equipment, other vehicles, and wheelchairs were identified as resource gaps.

	Emergency Medical Services (EMS) / Fire Dept	Hospital-Acute Care	Skilled Nursing or Long-Term Care Facility	**Total**
Sleds	1	9	2	**12**
Bariatric Equipment		8	3	**11**
Wheelchair Vans		3	5	**8**
Pediatric Equipment	1	2	2	**5**
Stair Chairs	2	3		**5**
Access to Busses		3	1	**4**
Other Vehicles		3		**3**
Wheelchairs and Gurneys			1	**1**
Total	**4**	**31**	**14**	**49**

Memorandums of Understanding for Long-Term-Care Facilities

- Long-Term Care and Skilled Nursing Facilities were asked if they had memorandums of understanding (MOU) in place for evacuation scenarios, either to receive or transfer out patients.
- Most (87%) had MOUs for both scenarios.





Central Region- EMS and Fire Resources

Data on Emergency Medical Service and Fire resources has historically been difficult to gather. Only a small percentage of EMS and Fire agencies are members of AzCHER, and even fewer participated in the RGA. Increasing engagement among these partners will provide a more robust and thorough examination of resources available to the region. Below are the results received, but due to the limited participation rate, results are likely not reflective of actual resources.

Wheelchair Vans or ADA Compliant Vehicles

3

MCI Trailer

1

HAZMAT Response Vehicle/Trailer

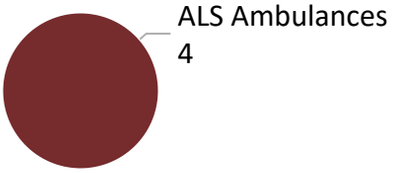
1

MCI Bus/Vehicle

0

Number of ALS & BLS Ambulances

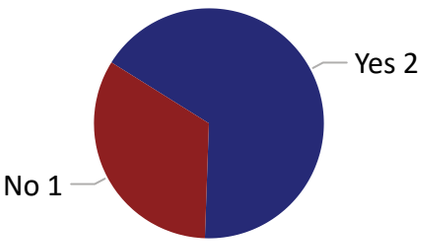
No BLS ambulances were reported, reflecting the limited data available.



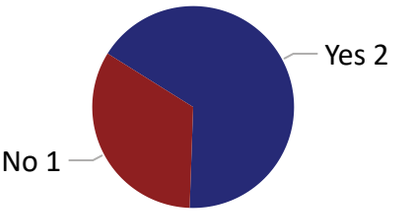
Fixed Wing Units and Rotor Wing Units

No resources reported

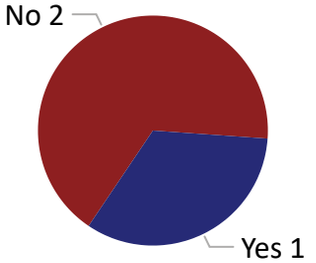
Wildfire Response Teams



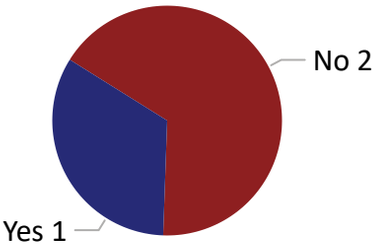
Technical/Swiftwater/Collapse Rescue



Community Paramedics



HAZMAT Radiation Assets



Central Region- PPE Maintained by Agency Type

PPE Maintained by Each Sector

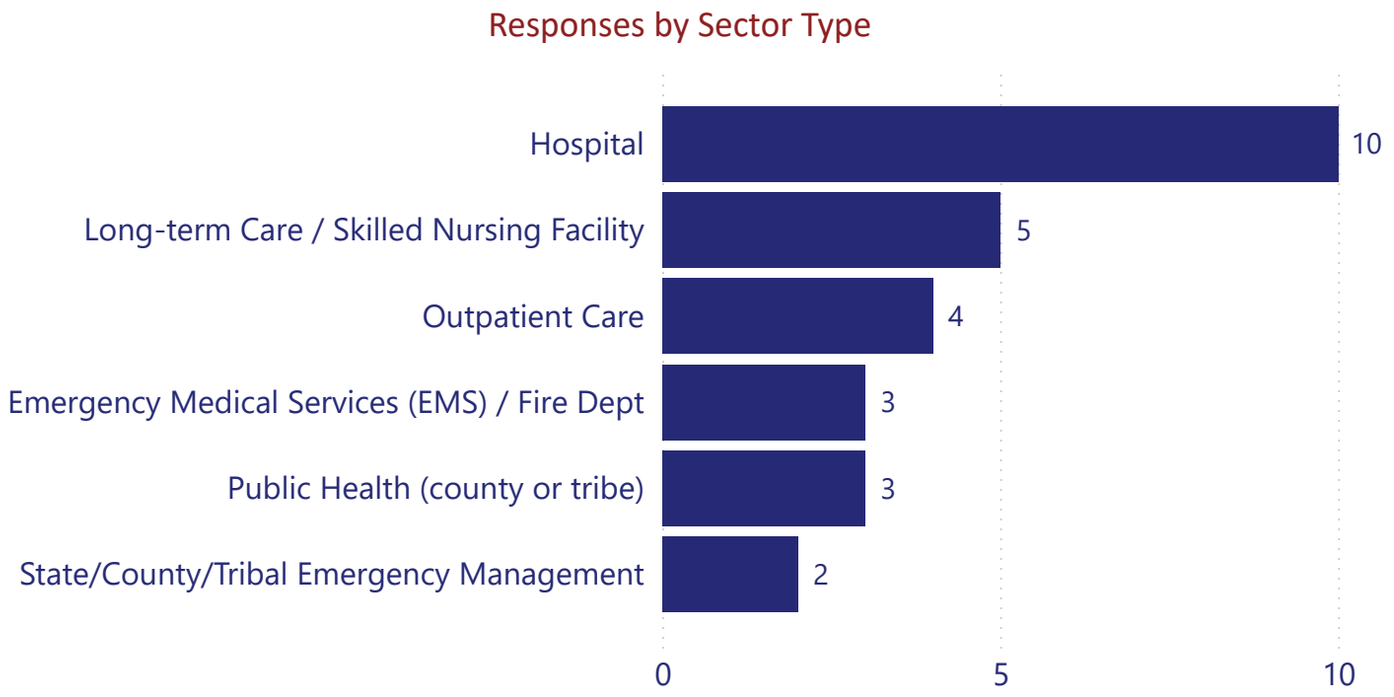
Agencies were asked what personal protective equipment (PPE) they maintain an inventory for. Decontamination PPE was identified as a gap and high need, particularly for hospitals.

PPE	Emergency Medical Services (EMS) / Fire Dept	Home Health / Hospice	Hospital	Long-term Care / Skilled Nursing Facility	Outpatient Care	Public Health (county or tribe)
Bio hoods			5	1		
Decontamination team PPE	1		5	1	3	
Face shields	2	9	7	8	10	2
Goggles	3	8	7	6	11	2
Isolation gowns	3	9	8	8	10	2
N95 masks	3	8	9	8	12	2
PAPR kits			8	2		1
Procedural/surgical masks	3	9	8	7	19	2
Tyvek suits	1		5	1		

Appendix 4: Northern Region HVA/RGA Results

Appendix 4: Northern Region Results

Organization Type	Number of Respondents
Hospital-Acute Care	6
Skilled Nursing or Long-Term Care Facility	5
Ambulatory Surgery Center	3
Emergency Medical Services (EMS) / Fire Dept	3
Hospital-Critical Access	3
Public Health Agency (County or Tribe)	3
Emergency Management Organization (County or Tribe)	2
Behavioral Health Facility	1
End-Stage Renal Disease Facility	1
Total	**27**



Northern Region HVA Results

Hazards for the Northern Region are ranked by weighted risk score, with unweighted scores producing the same ranking. Risk scores were calculated taking the average ranking for occurrence probability, impact, preparedness, and response capacity using the previously defined formula. Impact was weighted by multiplying the impact score by 2 to account for both business and human impact in the healthcare delivery setting.

Unique Regional Hazard Considerations:

- Severe weather (cold)
- Rural area
- Distance between healthcare services
- High traffic (highways, railway, gas lines, etc.)

Ranked Hazards

Hazard	Occurrence Probability	Impact	Preparedness	Response Capacity	Weighted Risk Score	Unweighted Risk Score
Communications/Network Failure	2.30	2.33	1.78	1.88	19.13	13.77
Staffing Shortage	2.19	1.67	2.15	2.15	16.68	13.04
Wildfire	2.31	2.15	1.44	1.35	16.38	11.41
Monsoon Weather	2.52	1.56	1.59	1.62	15.91	12.00
Extreme Winter Weather	2.07	1.74	1.67	1.81	14.43	10.82
Extreme Heat	2.07	1.48	1.81	1.81	13.66	10.59
Cyberattack	1.59	2.15	1.93	1.96	13.03	9.61
Active Threat/Workplace Violence	1.59	1.78	1.78	1.81	11.37	8.54
Pandemic/Epidemic	1.44	2.12	1.59	1.69	10.86	7.80
Supply Chain Failure	1.52	1.56	2.00	2.00	10.80	8.44

Northern Region
County/Tribe Public Health Resources

Public Health agencies, both county and tribal, were asked if they maintained the following resources. Definitions of what constitutes each resource are provided in each graphic. Participants were provided with three answer choices: "Yes, internally," Yes, externally," and "No." A "Yes, internally" indicates the agency maintains that resource within their own site and under their own control. A "Yes, externally" response indicates the agency may have access to the resource through memorandums or understanding, mutual aid, or other agreement with community partners.

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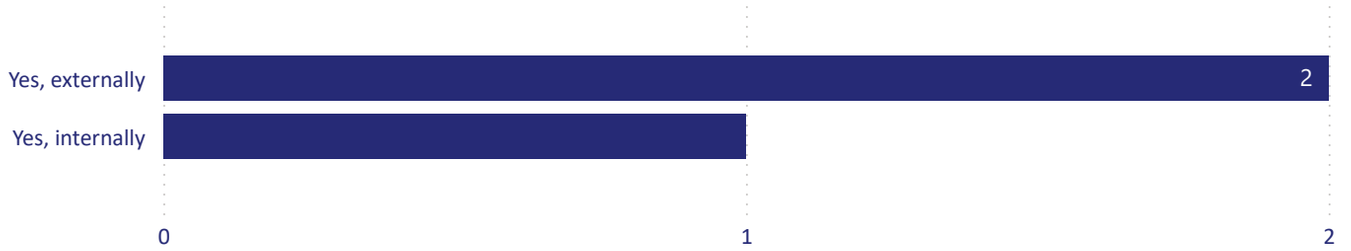

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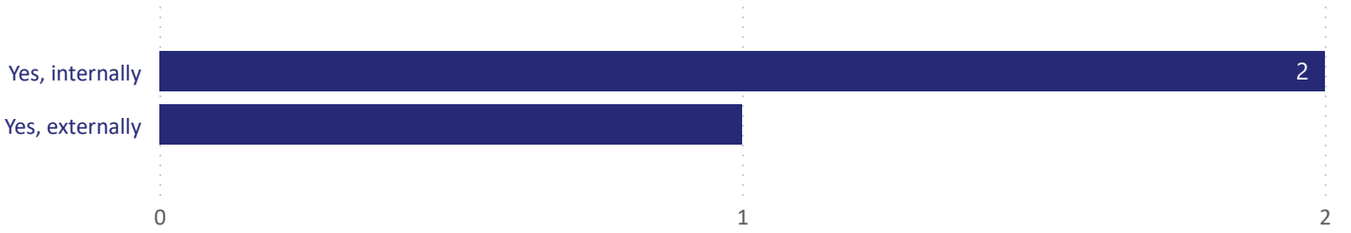

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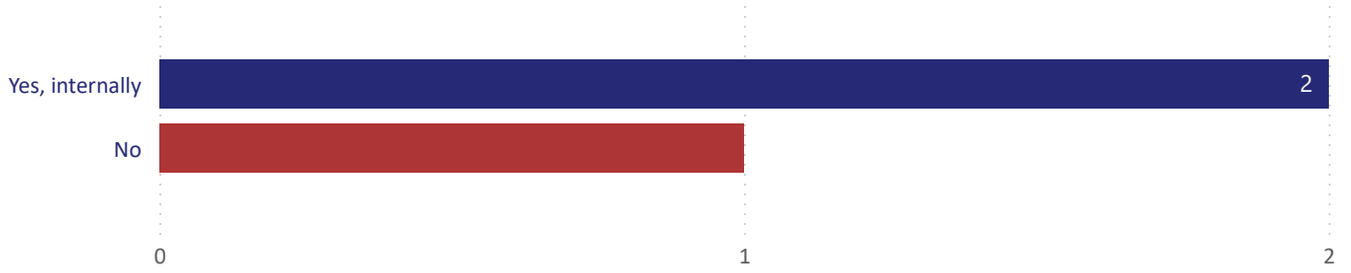

Northern Region
County/Tribe Public Health Resources (cont'd)

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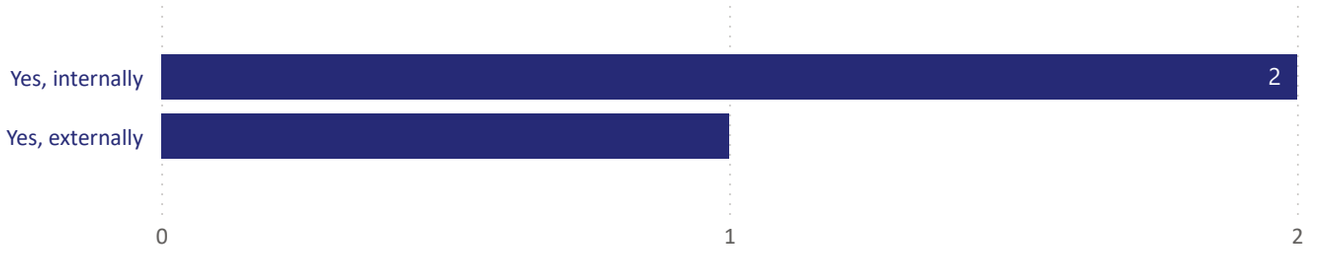
Plans and/or resources for processing / identification / storage. May plan with local ME office or nearby counties and tribes to increase fatality management capacity



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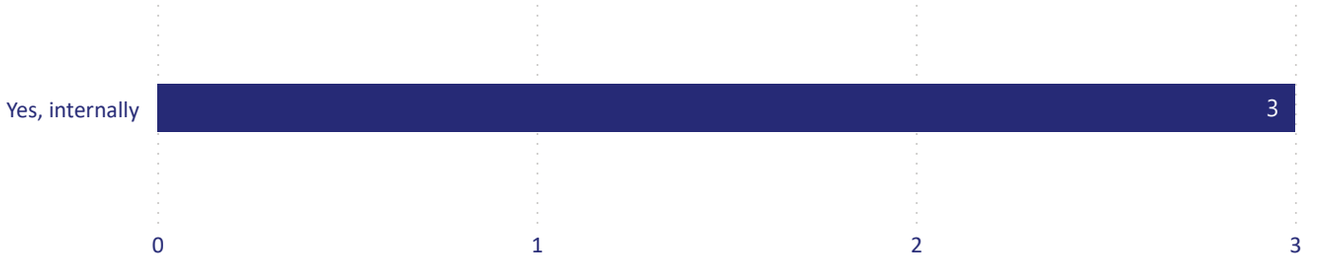

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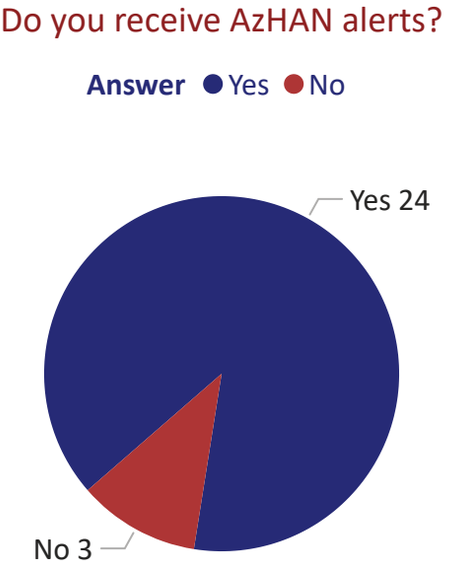

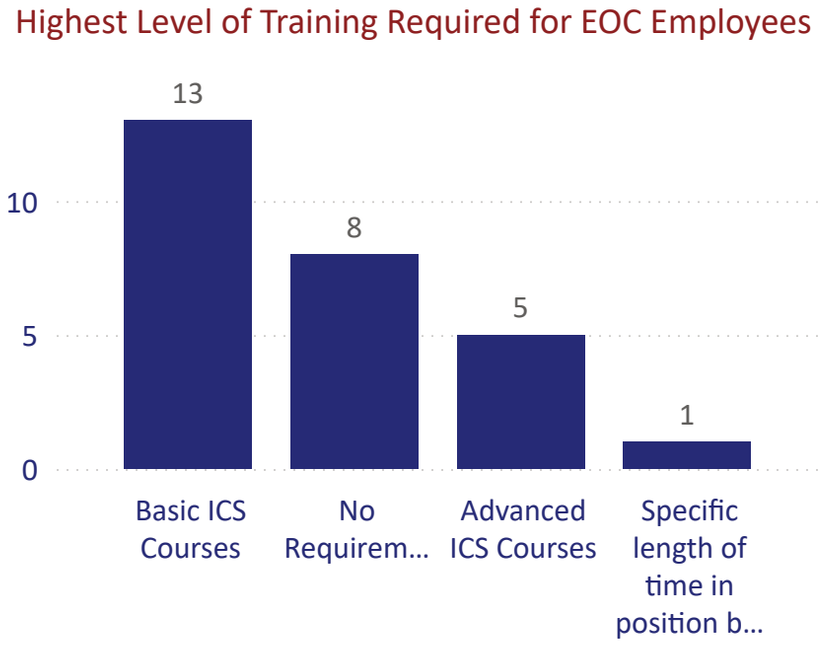

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Most require basic ICS courses, representing a strength for the coalition.

Northern Region- Communications Assets

Phone/Mobile Phone Assets

Phone and mobile phone related assets maintained by facilities are shown below. Most do not maintain satellite phones, but have access to cell phones.

Sector	Cell Phones	Internet-based phone	Landline telephones	Mobile communication apps	Satellite phones
Hospital	10	5	8	3	4
Long-term Care / Skilled Nursing Facility	5	2	5	4	
Outpatient Care	4	2	4		
Public Health (county or tribe)	3	2	2	1	1
Emergency Medical Services (EMS) / Fire Dept	3	2	2	1	
State/County/Tribal Emergency Management	2	2	2	1	1

Community Communications

Assets used to communicate with the general public are shown below. Means to communicate with patients and families are lacking among most sector types.

Sector	Ability to Receive Community Alerts	Mass communication platform	Platform to communicate within organization/ system	Social Media	System to communicate with patients and families
Emergency Medical Services (EMS) / Fire Dept	1	1		2	
State/County/Tribal Emergency Management	2	2	1	2	
Long-term Care / Skilled Nursing Facility	2	1	4	1	1
Outpatient Care	3		1	4	1
Public Health (county or tribe)	3	2	2	3	1
Hospital	9	7	5	9	2

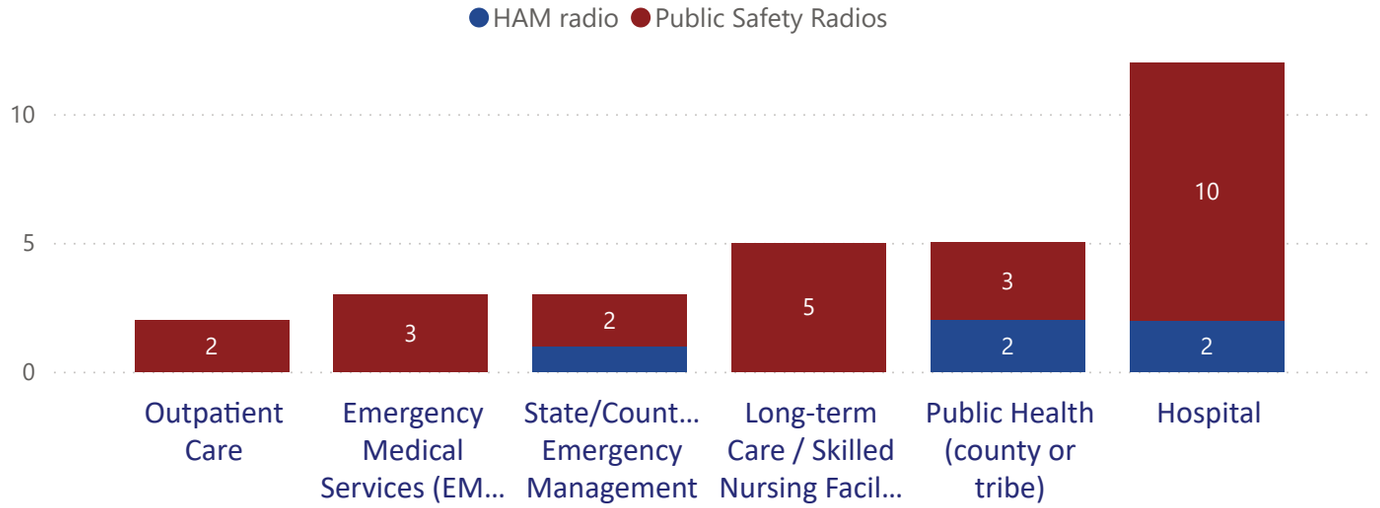
Northern Region- Communications Assets

100%

Percent of Agencies with Email Access

Radio Assets

The type of radio assets maintained by facility type are shown below. Public safety radios are the most common, with few agencies utilizing HAM radios.



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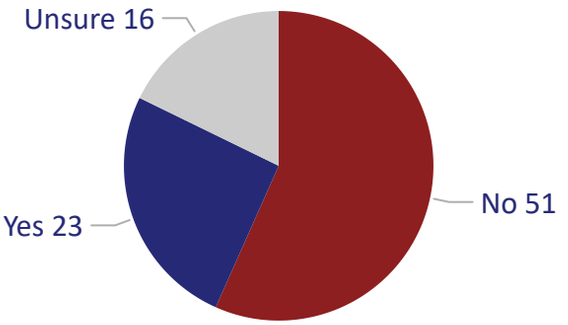

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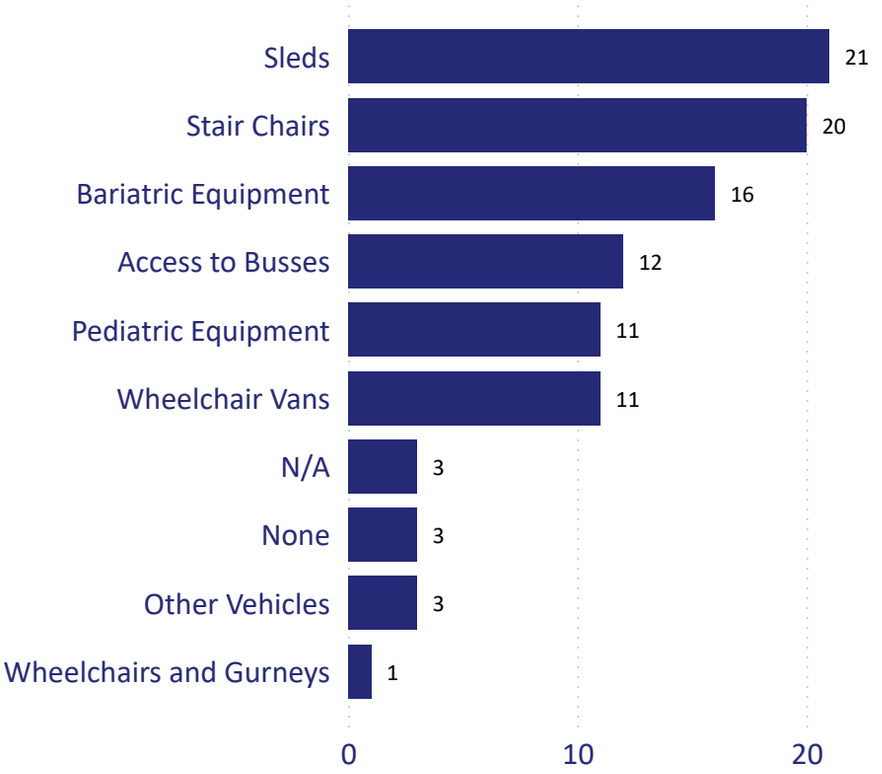
Evacuation Resources



Data on evacuation resources available among regional hospitals was collected to identify gaps and opportunities for resource sharing. Access to a variety of evacuation resources is critical to effectively respond to an incident which requires the prompt evacuation of a hospital or local healthcare provider.
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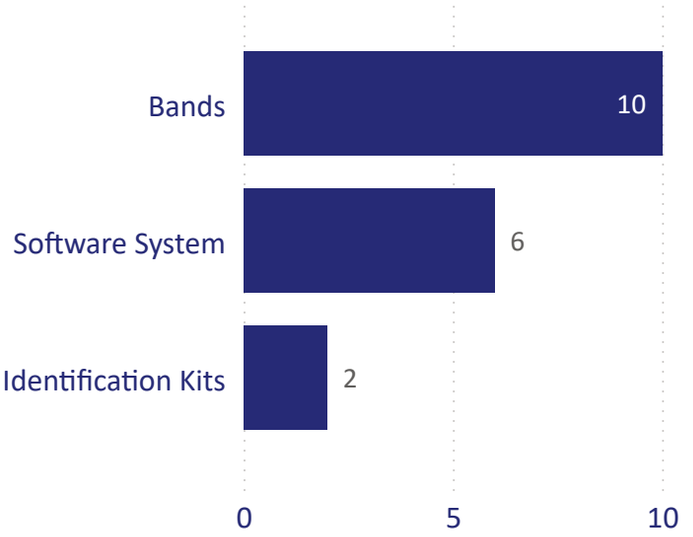
Patient Tracking Resources



The ability to track patients being transferred, evacuated, or accepted by a facility in times of crisis is a complex endeavor. In response to the results collected here and in steering committee groups, AzCHER developed a work group in November 2024 to identify gaps and solutions in tracking patients during a crisis, multi-casualty incident, evacuation, or other large-scale event requiring the use of these resources. Identifying resources already available provides AzCHER and its members the ability to expand on what is already in place and identify training and resource gaps.

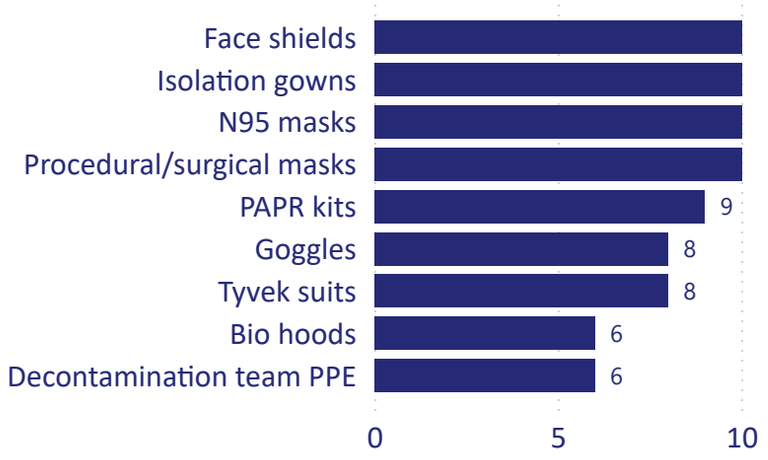
Northern Region Hospital Resources

Combined, 10 reporting hospitals have a total morgue capacity of 10.
A higher participatory rate among hospitals were produce a more accurate count of morgue capacity.

Hospital Morgue Capacity

10

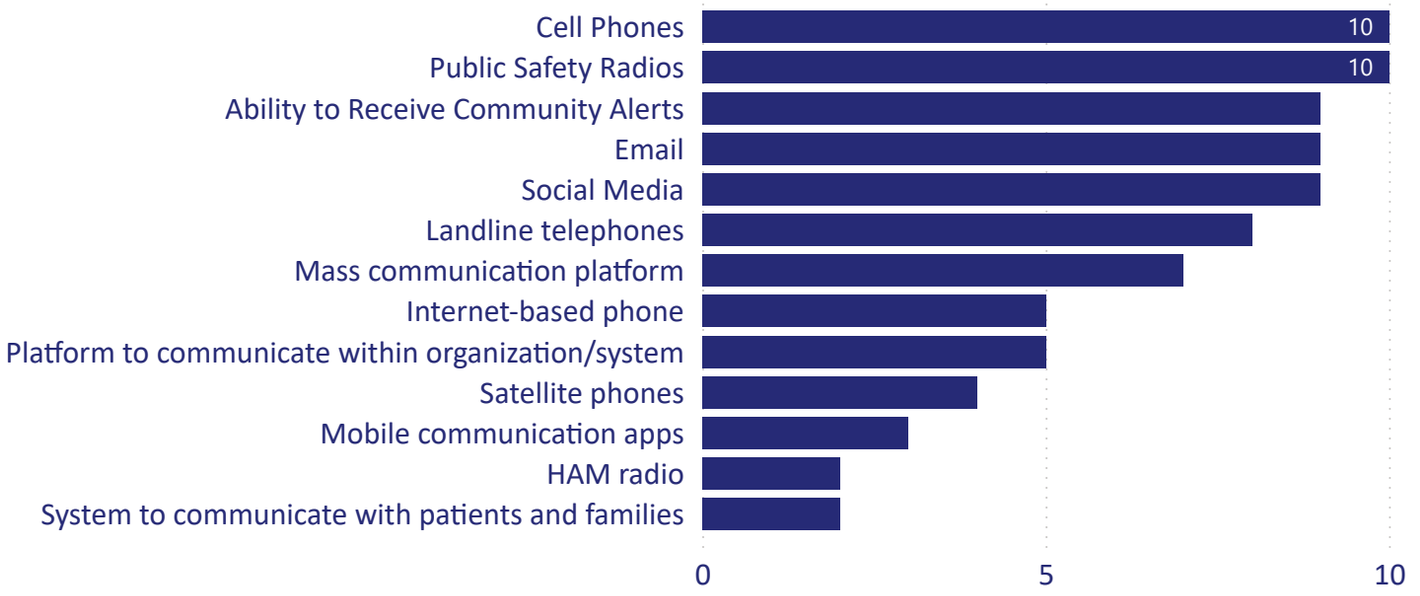
PPE Resources



Hospitals in the northern region reported maintaining substantial PPE. Gaps were identified in the maintenance of decontamination PPE, bio hoods, and Tyvek suits.

All 10 reporting hospitals maintain cell phones, email, and public safety radios as communication assets. A substantial gap identified is the availability of a system to communicate with patients and families, with less than half the hospitals reporting to maintain this asset.

Communication Assets in Hospitals



Northern Region- Evacuation Resources

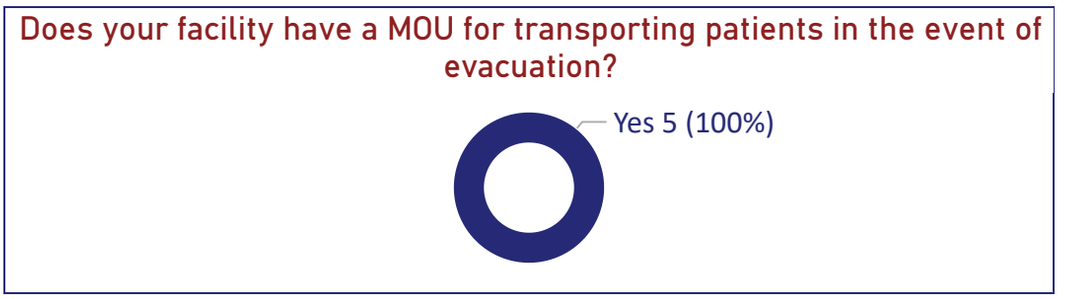
Evacuation Resources

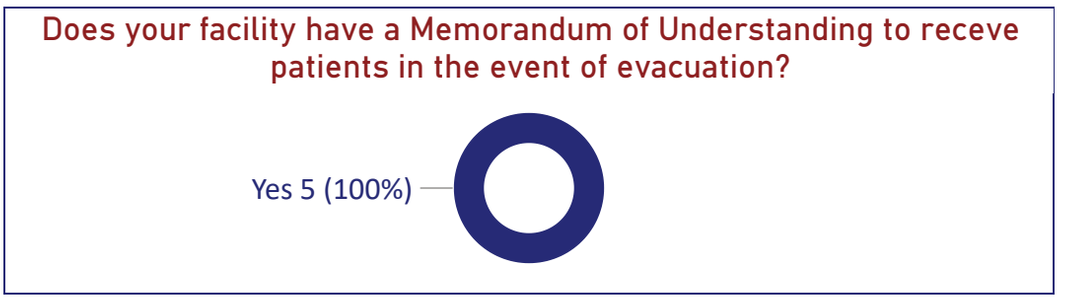
Evacuation resources for EMS, Hospitals, and Long Term Care Facilities were evaluated. Access to pediatric equipment, other vehicles, and wheelchairs were identified as resource gaps.

	Emergency Medical Services (EMS) / Fire Dept	Hospital-Acute Care	Hospital-Critical Access	Skilled Nursing or Long-Term Care Facility	**Total**
Access to Busses			8		**8**
Bariatric Equipment		1	4	3	**8**
Sleds	1	7			**8**
Wheelchair Vans			4	4	**8**
Stair Chairs	1	5			**6**
Pediatric Equipment	1		4		**5**
ATV	1				**1**
Wheelchairs and Gurneys			1		**1**
Total	**4**	**13**	**21**	**7**	**45**

Memorandums of Understanding for Long-Term-Care Facilities

- Long-Term Care and Skilled Nursing Facilities were asked if they had memorandums of understanding (MOU) in place for evacuation scenarios, either to receive or transfer out patients.





Northern Region- EMS and Fire Resources

Data on Emergency Medical Service and Fire resources has historically been difficult to gather. Only a small percentage of EMS and Fire agencies are members of AzCHER, and even fewer participated in the RGA. Increasing engagement among these partners will provide a more robust and thorough examination of resources available to the region. Below are the results received, but due to the limited participation rate, results are likely not reflective of actual resources.

Wheelchair Vans or ADA Compliant Vehicles

1

MCI Trailer

0

HAZMAT Response Vehicle/Trailer

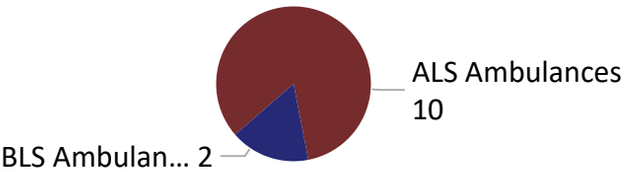
1

MCI Bus/Vehicle

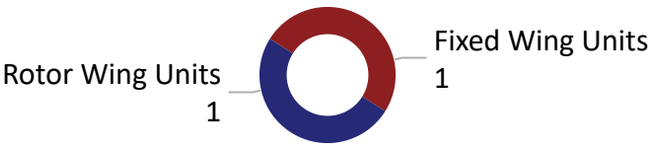
0

Number of ALS & BLS Ambulances

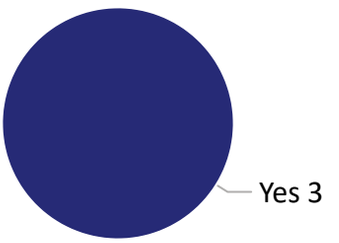
No BLS ambulances were reported, reflecting the limited data available.



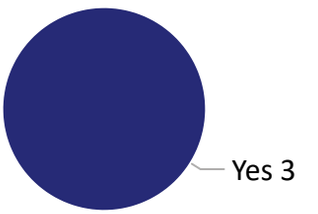
Fixed Wing Units and Rotor Wing Units



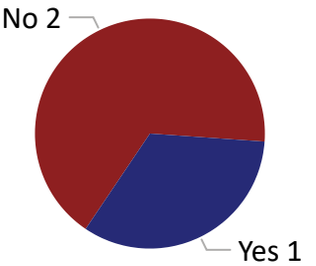
Wildfire Response Teams



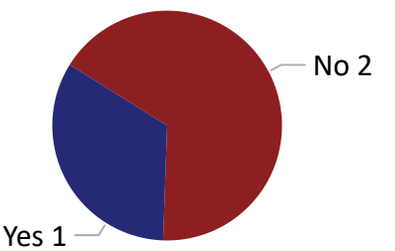
Technical/Swiftwater/Collapse Rescue



Community Paramedics



HAZMAT Radiation Assets



Northern Region- PPE Maintained by Agency Type

PPE Maintained by Each Sector

Agencies were asked what personal protective equipment (PPE) they maintain an inventory for. Decontamination PPE was identified as a gap and high need, particularly for hospitals.

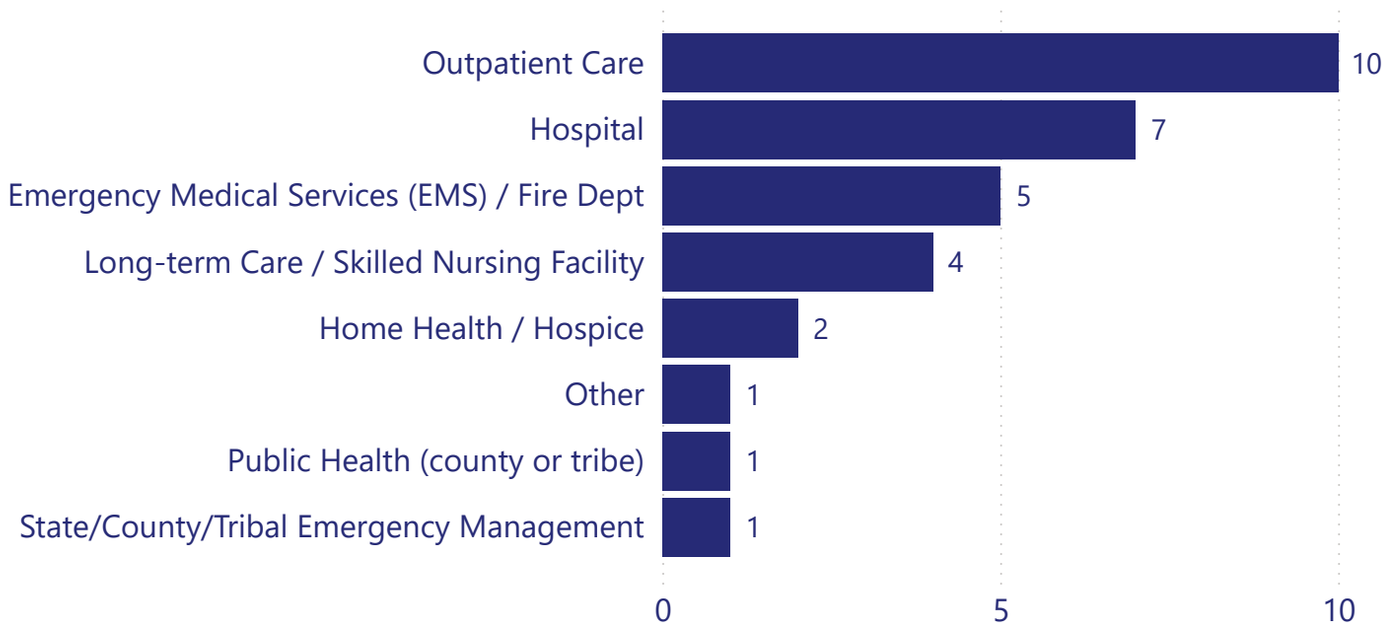
PPE	Emergency Medical Services (EMS) / Fire Dept	Hospital	Long-term Care / Skilled Nursing Facility	Outpatient Care	Public Health (county or tribe)	State/County/ Tribal Emergency Management
Bio hoods	1	6	1			
Decontamination team PPE	1	6	1			
Face shields	2	10	5	3	3	1
Goggles	2	8	5	3	3	1
Isolation gowns	2	10	5	3	3	1
N95 masks	3	10	5	4	3	2
PAPR kits	1	9	1		3	
Procedural/surgical masks	3	10	5	4	3	1
Tyvek suits	3	8	1	1	2	1

Appendix 5: Southern Region HVA/RGA Results

Appendix 5: Southern Region Results

Organization Type	Number of Respondents
Ambulatory Surgery Center	5
Emergency Medical Services (EMS) / Fire Dept	5
Hospital-Acute Care	4
Skilled Nursing or Long-Term Care Facility	4
End-Stage Renal Disease Facility	3
Community Health Center / Federally Qualified Health Center	2
Hospital-Critical Access	2
CERT or MRC Organization	1
Emergency Management Organization (County or Tribe)	1
Home Health Agency	1
Hospice	1
Hospital-Rehabilitation	1
Public Health Agency (County or Tribe)	1
Total	**31**

Responses by Sector Type



Southern Region HVA Results

Hazards for the Northern Region are ranked by weighted risk score, with unweighted scores producing the same ranking. Risk scores were calculated taking the average ranking for occurrence probability, impact, preparedness, and response capacity using the previously defined formula. Impact was weighted by multiplying the impact score by 2 to account for both business and human impact in the healthcare delivery setting.

Unique Regional Hazard Considerations:

- Asylum seekers and border crossings
- Active threat is a concern for the security side—increasing with behavioral health issues and increased immigration

Ranked Hazards

Hazard	Occurrence Probability	Impact	Preparedness	Response Capacity	Weighted Risk Score	Unweighted Risk Score
Extreme Heat	2.90	1.84	1.35	1.47	18.87	13.53
Monsoon Weather	2.87	1.74	1.39	1.43	18.10	13.10
Cyberattack	1.84	2.29	1.81	1.81	15.07	10.85
Staffing Shortage	2.13	1.81	1.58	1.81	14.90	11.06
Communications/Network Failure	1.90	2.06	1.77	1.71	14.47	10.55
Wildfire	1.97	1.33	1.52	1.65	11.47	8.84
Active Threat/Workplace Violence	1.58	1.81	1.71	1.68	11.06	8.21
Supply Chain Failure	1.57	1.71	1.74	1.74	10.82	8.14
Pandemic/Epidemic	1.61	1.68	1.58	1.42	10.25	7.54
Extreme Winter Weather	1.03	0.81	2.00	1.61	5.39	4.56

Southern Region
County/Tribe Public Health Resources

Public Health agencies, both county and tribal, were asked if they maintained the following resources. Definitions of what constitutes each resource are provided in each graphic. Participants were provided with three answer choices: "Yes, internally," Yes, externally," and "No." A "Yes, internally" indicates the agency maintains that resource within their own site and under their own control. A "Yes, externally" response indicates the agency may have access to the resource through memorandums or understanding, mutual aid, or other agreement with community partners.

Alternate Care Sites

Includes supplies or equipment for alternate care sites – managed by hospitals or local/tribal/state EM or federal

Call Centers

Call centers: Capability to set up a call center for a public health emergency

Healthcare Volunteer Management

Healthcare volunteer management: Resources or MOUs for healthcare volunteers (e.g., CERT or MRC) Several PH or other county departments have Medical Reserve Corp (MRC), Community Emergency Response Teams (CERT), or other volunteer programs (nursing students and COAD/VOAD partners)

Southern Region
County/Tribe Public Health Resources (cont'd)

Mass Mortuary Capacity

Plans and/or resources for processing / identification / storage. May plan with local ME office or nearby counties and tribes to increase fatality management capacity

Medical Countermeasures and Administration

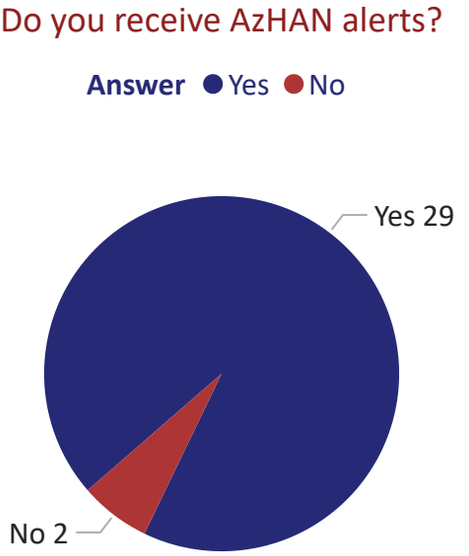
Includes physical assets that support Chempack, antidote, vaccination, prophylaxis operations and distribution of other countermeasures from the SNS and/or state and local assets that may include databases, electronic systems, as well as physical resources (signage, badging systems, coolers, etc.)

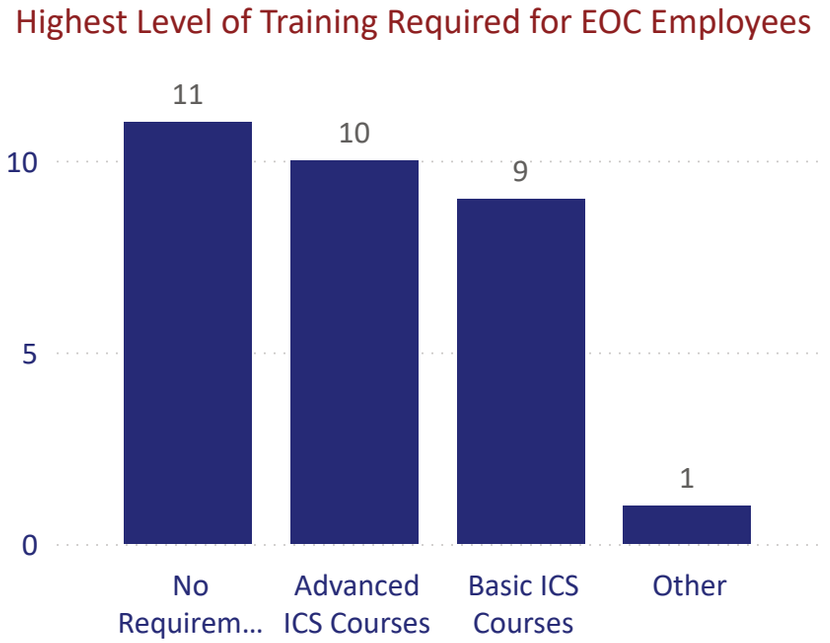
PPE Stockpile

Available supplies and storage capacity, PPE stockpile Most PH have stockpiles of gowns, gloves, surgical masks, N95 masks, shoe covers, head covers, googles, safety glasses, etc.

Southern Region Resource Gap Analysis

Arizona Health Alert Network Alerts provide healthcare providers fast access to information regarding emergent threats and threats. Both Arizona Department of Health Services and AzCHER utilize this platform to quickly notify members of current and planned incidents. Respondents were asked if they receive these alerts in an effort to identify gaps in reach and opportunities for expansion or training.





A new inquiry for the 2024-2025 Resource Gap Analysis was in regards to the level of training required for employees to work in the Emergency Operations Center (EOC). It is highly recommended employees complete IC courses 100, 200, 700, and 800 prior to working in the EOC. Response data will be used to identify training gaps and opportunities for the different regions.
Generally, there are no requirements for an employee to work in an EOC. A need for basic ICS courses has been identified.

Southern Region- Communications Assets

Phone/Mobile Phone Assets

Phone and mobile phone related assets maintained by facilities are shown below. Most do not maintain satellite phones, but have access to cell phones.

Sector	Cell Phones	Internet-based phone	Landline telephones	Mobile communication apps	Satellite phones
Outpatient Care	10	5	10	2	
Hospital	7	5	6	4	4
Emergency Medical Services (EMS) / Fire Dept	5	2	4	3	
Long-term Care / Skilled Nursing Facility	4	2	3	4	
Home Health / Hospice	2	1	2	2	
Public Health (county or tribe)	1	1	1	1	1
State/County/Tribal Emergency Management	1	1	1		
Other	1				

Community Communications

Assets used to communicate with the general public are shown below. Means to communicate with patients and families are lacking among most sector types.

Sector	Ability to Receive Community Alerts	Mass communication platform	Platform to communicate within organization/ system	Social Media	System to communicate with patients and families
Other	1	1	1		
Public Health (county or tribe)	1	1	1	1	
State/County/Tribal Emergency Management	1	1	1	1	
Home Health / Hospice	2		2	2	
Long-term Care / Skilled Nursing Facility	3	1	3	4	2
Emergency Medical Services (EMS) / Fire Dept	3	3	3	5	
Hospital	5	3	1	6	
Outpatient Care	7	1	4	3	2

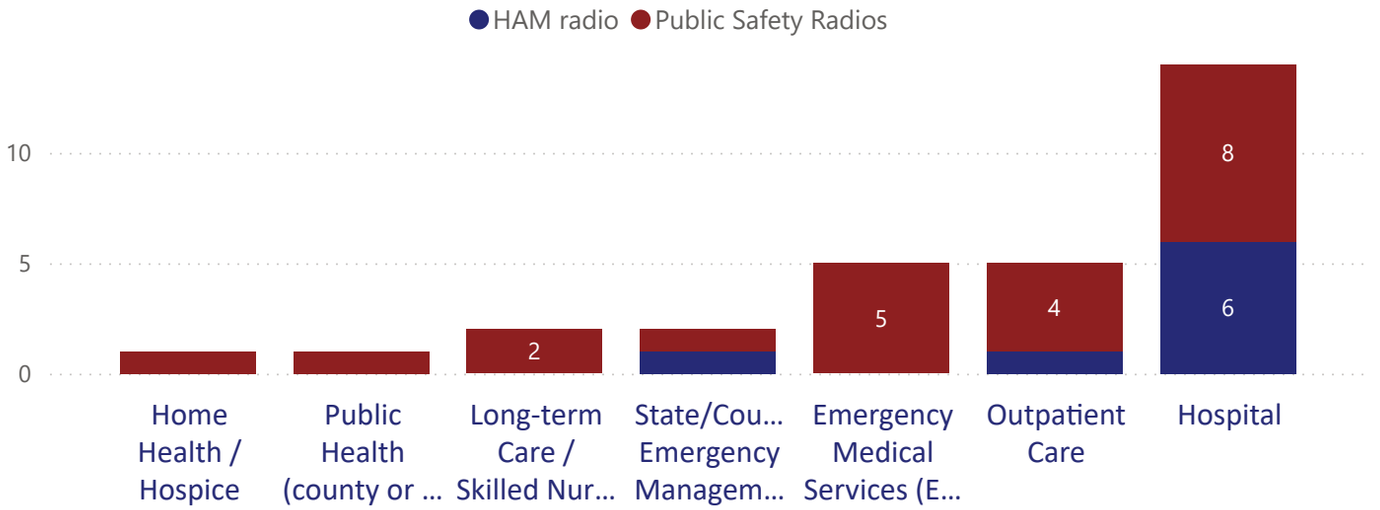
Southern Region- Communications Assets

100%

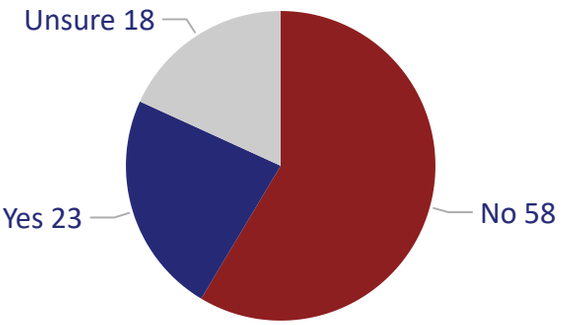
Percent of Agencies with Email Access

Radio Assets

The type of radio assets maintained by facility type are shown below. Public safety radios are the most common, with few agencies utilizing HAM radios.



Number of Agencies with Personnel Trained to Use HAM Radios



Southern Region Hospital Resources

Hospitals throughout the state were asked to provide information on the resources available at their facilities. The results of this inquiry are illustrated and extrapolated below. Data collected is used to form work groups, develop trainings, and provide resource sharing opportunities in times of low-resource availability.

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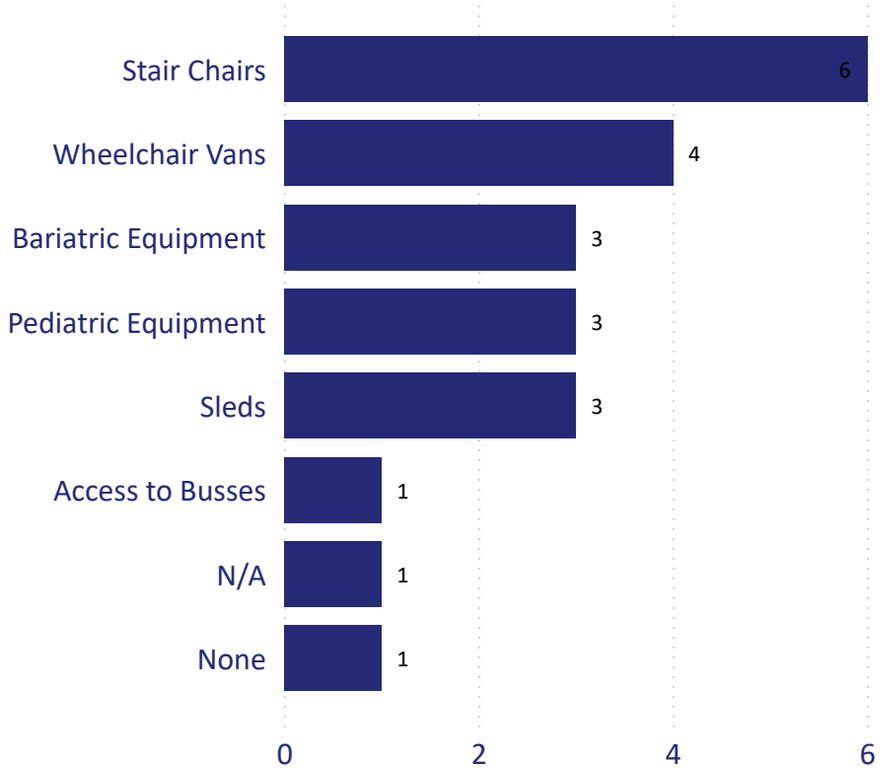

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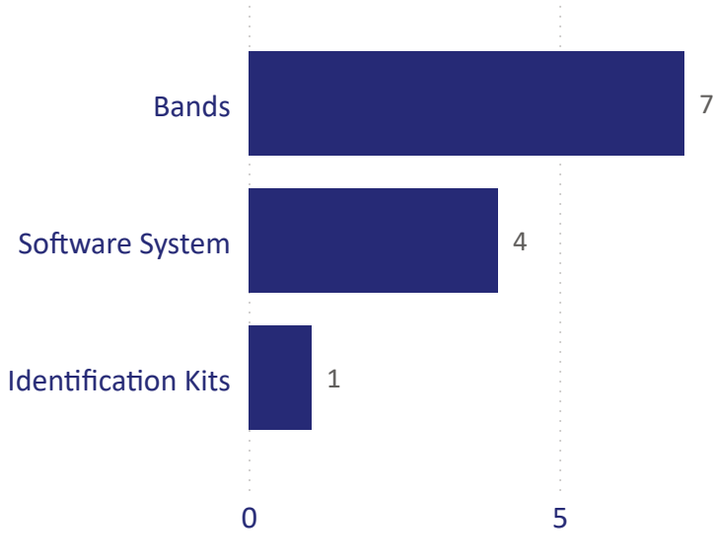


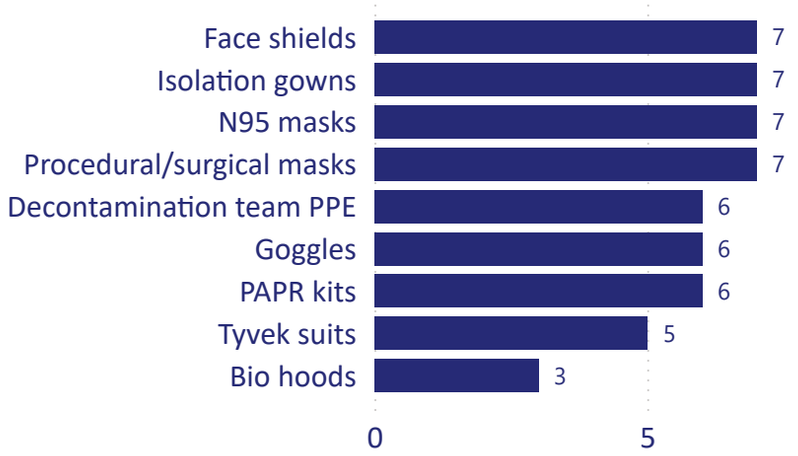
The ability to track patients being transferred, evacuated, or accepted by a facility in times of crisis is a complex endeavor. In response to the results collected here and in steering committee groups, AzCHER developed a work group in November 2024 to identify gaps and solutions in tracking patients during a crisis, multi-casualty incident, evacuation, or other large-scale event requiring the use of these resources. Identifying resources already available provides AzCHER and its members the ability to expand on what is already in place and identify training and resource gaps.

Southern Region Hospital Resources

Hospital Morgue Capacity

28

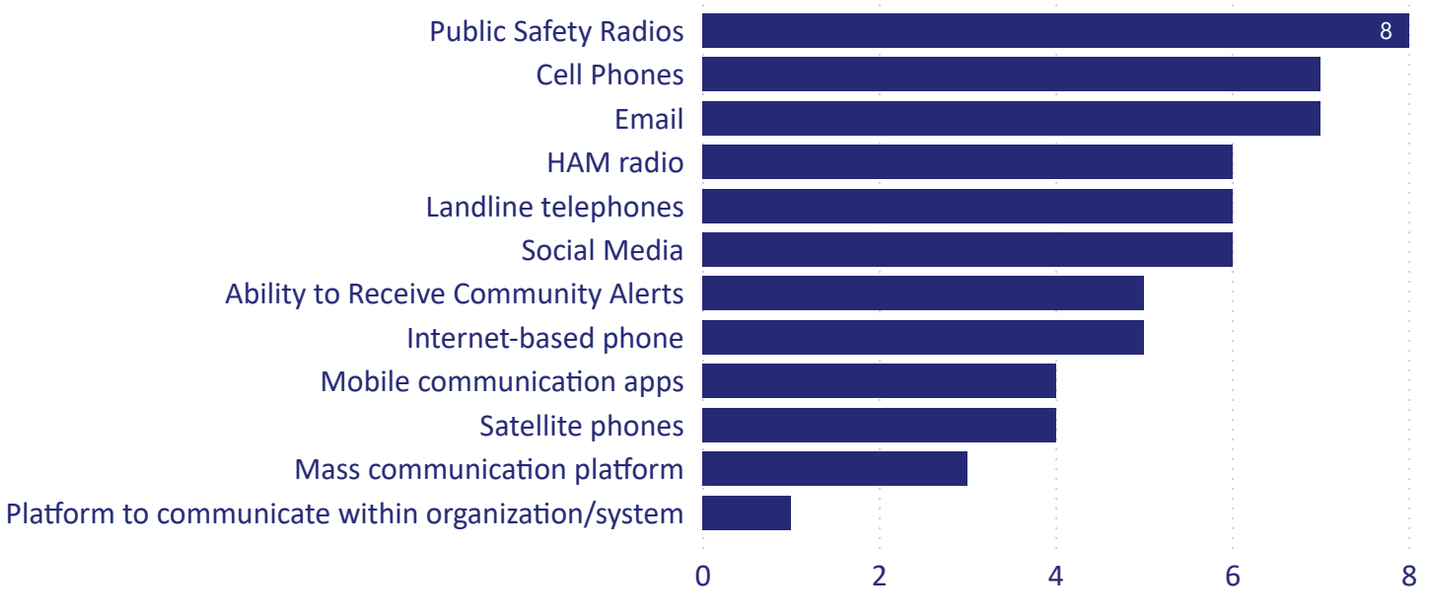
PPE Resources



Hospitals in the southern region reported maintaining substantial PPE. Gaps were identified in the maintenance of Tyvek suits and biohoods.

All 7 reporting hospitals maintain cell phones, email, and public safety radios as communication assets. 6 have social media and landline phones. A substantial gap identified is the availability of a system to communicate with patients and families, with less than half the hospitals reporting to maintain this asset.

Communication Assets in Hospitals



Southern Region- Evacuation Resources

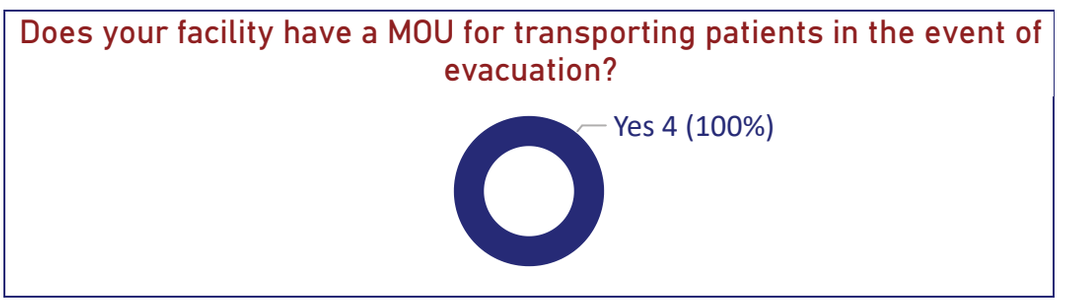
Evacuation Resources

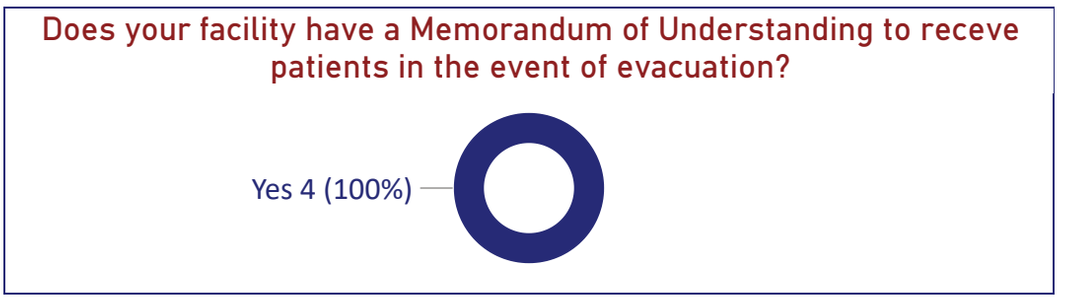
Evacuation resources for EMS, Hospitals, and Long Term Care Facilities were evaluated. Access to pediatric equipment, other vehicles, and wheelchairs were identified as resource gaps.

	Emergency Medical Services (EMS) / Fire Dept	Hospital-Acute Care	Hospital-Critical Access	Hospital-Rehabilitation	Skilled Nursing or Long-Term Care Facility	**Total**
Stair Chairs	5	6				**11**
Wheelchair Vans			2	2	4	**8**
Sleds	2	3			1	**6**
Bariatric Equipment		3			2	**5**
Pediatric Equipment	2	3				**5**
Access to Busses		1				**1**
Total	**9**	**16**	**2**	**2**	**7**	**36**

Memorandums of Understanding for Long-Term-Care Facilities

- Long-Term Care and Skilled Nursing Facilities were asked if they had memorandums of understanding (MOU) in place for evacuation scenarios, either to receive or transfer out patients.





Southern Region- EMS and Fire Resources

Data on Emergency Medical Service and Fire resources has historically been difficult to gather. Only a small percentage of EMS and Fire agencies are members of AzCHER, and even fewer participated in the RGA. Increasing engagement among these partners will provide a more robust and thorough examination of resources available to the region. Below are the results received, but due to the limited participation rate, results are likely not reflective of actual resources.

Wheelchair Vans or ADA Compliant Vehicles

0

MCI Trailer

0

HAZMAT Response Vehicle/Trailer

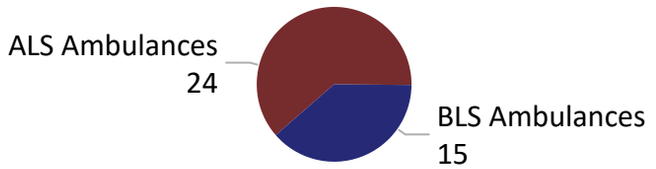
3

MCI Bus/Vehicle

0

Number of ALS & BLS Ambulances

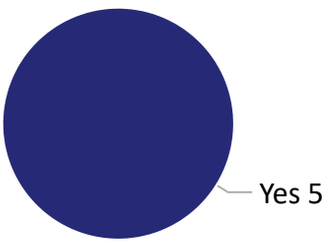
No BLS ambulances were reported, reflecting the limited data available.



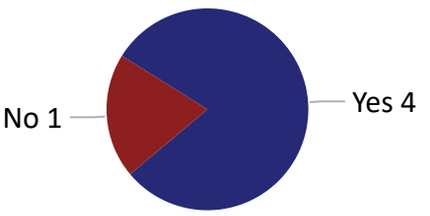
Fixed Wing Units and Rotor Wing Units

No resources reported

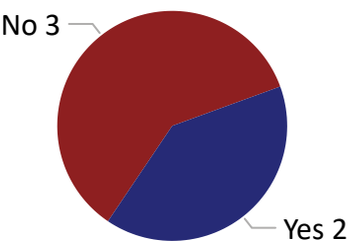
Wildfire Response Teams



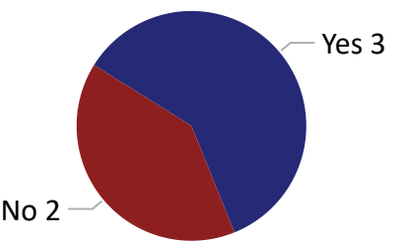
Technical/Swiftwater/Collapse Rescue



Community Paramedics



HAZMAT Radiation Assets



Southern Region- PPE Maintained by Agency Type

PPE Maintained by Each Sector

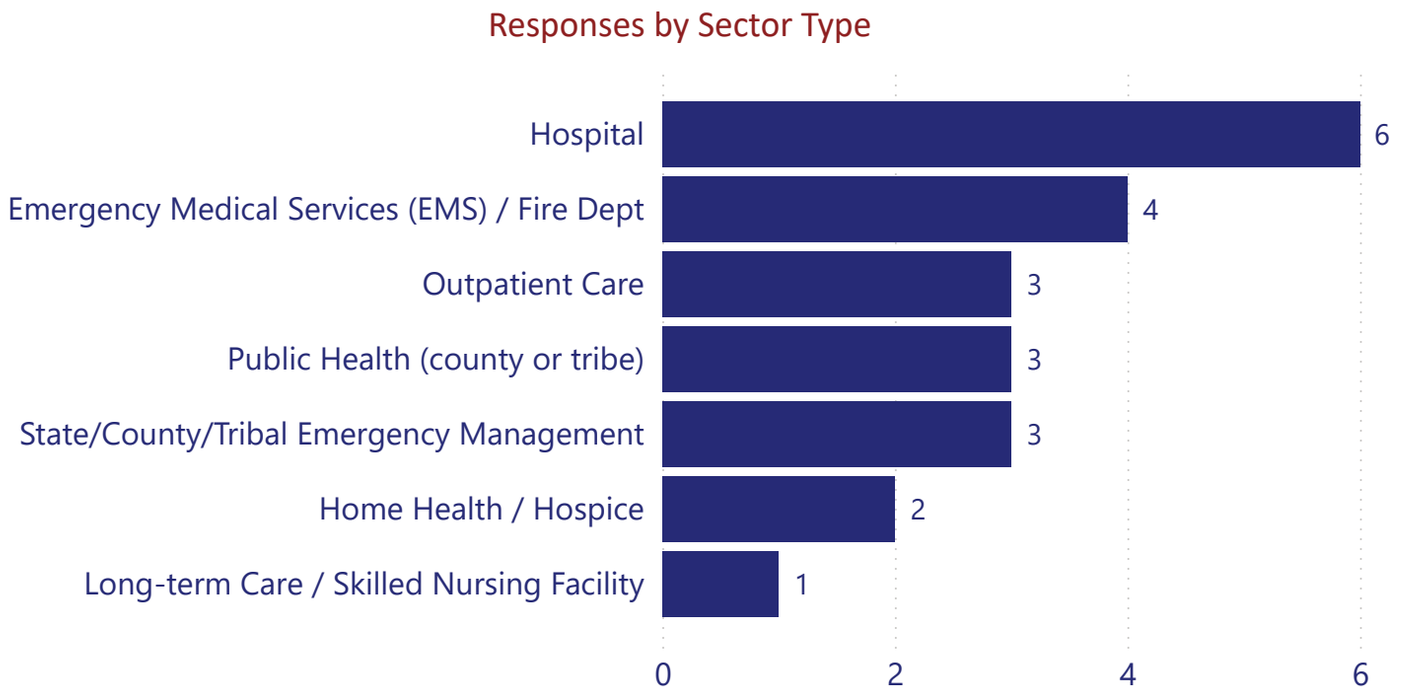
Agencies were asked what personal protective equipment (PPE) they maintain an inventory for. Decontamination PPE was identified as a gap and high need, particularly for hospitals.

PPE	Emergency Medical Services (EMS) / Fire Dept	Home Health / Hospice	Hospital	Long-term Care / Skilled Nursing Facility	Outpatient Care	Public Health (county or tribe)	State/County /Tribal Emergency Management
Bio hoods	1	1	3				
Decontamination team PPE	2		6		2		
Face shields	3	2	7	4	10	1	
Goggles	4	2	6	3	9	1	1
Isolation gowns	5	2	7	4	9	1	
N95 masks	5	2	7	4	10	1	1
PAPR kits	2		6		1		
Procedural/surgical masks	5	2	7	4	10	1	1
Tyvek suits	5		5		1		

Appendix 6: Western Region HVA/RGA Results

Appendix 6: Western Region Results

Organization Type	Number of Respondents
Hospital-Acute Care	5
Emergency Management Organization (County or Tribe)	4
Emergency Medical Services (EMS) / Fire Dept	4
Hospice	2
Outpatient Clinic	2
Public Health Agency (County or Tribe)	2
Ambulatory Surgery Center	1
Community Health Center / Federally Qualified Health Center	1
Skilled Nursing or Long-Term Care Facility	1
Total	**22**



Western Region HVA Results

Hazards for the Western Region are ranked by weighted risk score, with unweighted scores producing the same ranking. Risk scores were calculated taking the average ranking for occurrence probability, impact, preparedness, and response capacity using the previously defined formula. Impact was weighted by multiplying the impact score by 2 to account for both business and human impact in the healthcare delivery setting.

Unique Regional Hazard Considerations:

- Colorado River concerns – Dams, fault lines
- High potential for extreme earthquakes (Yuma and Mohave)
- Mohave – 5th largest county but only 3 city centers
- US/Mexico, Arizona/California, Nevada/California/Utah border considerations
- Extreme heat combined with drought
- Limited volunteer workforce

Ranked Hazards

Hazard	Occurrence Probability	Impact	Preparedness	Response Capacity	Weighted Risk Score	Unweighted Risk Score
Extreme Heat	3.00	2.24	1.36	1.55	22.16	15.44
Communications/Network Failure	2.32	2.18	1.64	1.59	17.60	12.54
Monsoon Weather	2.55	1.77	1.59	1.64	17.24	12.73
Staffing Shortage	2.23	2.00	1.76	1.86	16.98	12.53
Cyberattack	1.86	2.00	1.55	1.55	13.21	9.49
Pandemic/Epidemic	1.76	2.05	1.59	1.41	12.49	8.89
Supply Chain Failure	1.73	1.82	1.77	1.71	12.30	9.16
Active Threat/Workplace Violence	1.45	1.77	1.77	1.77	10.31	7.74
Wildfire	1.64	1.41	1.18	1.50	9.00	6.69
Extreme Winter Weather	0.86	0.91	1.23	1.23	3.69	2.90

Western Region
County/Tribe Public Health Resources

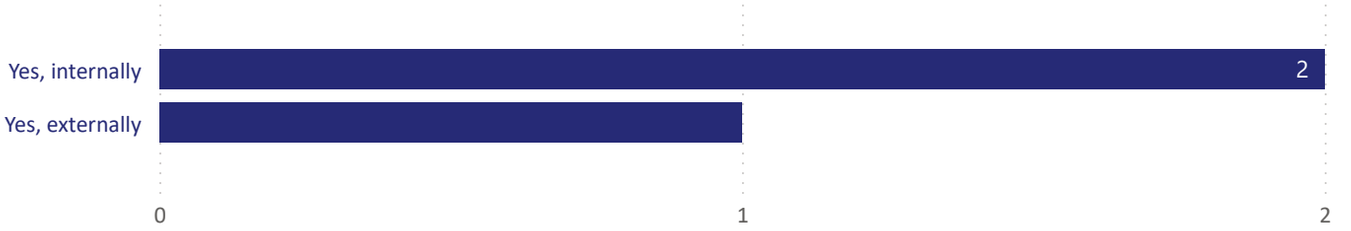
Public Health agencies, both county and tribal, were asked if they maintained the following resources. Definitions of what constitutes each resource are provided in each graphic. Participants were provided with three answer choices: "Yes, internally," Yes, externally," and "No." A "Yes, internally" indicates the agency maintains that resource within their own site and under their own control. A "Yes, externally" response indicates the agency may have access to the resource through memorandums or understanding, mutual aid, or other agreement with community partners.

Alternate Care Sites

Includes supplies or equipment for alternate care sites – managed by hospitals or local/tribal/state EM or federal

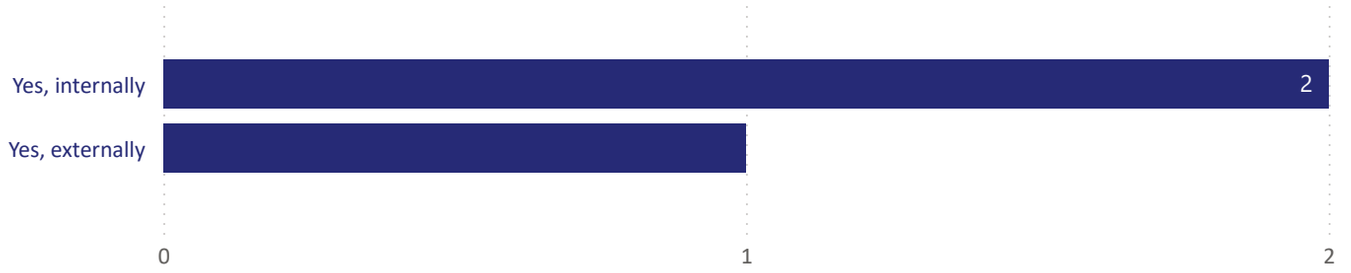
Call Centers

Call centers: Capability to set up a call center for a public health emergency



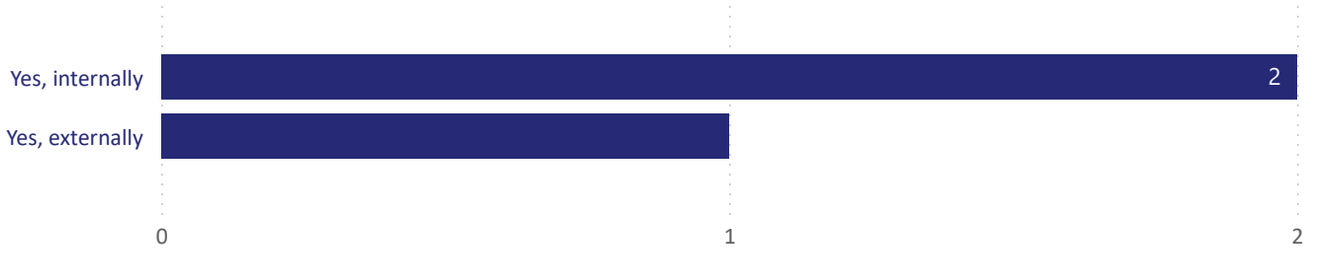
Healthcare Volunteer Management

Healthcare volunteer management: Resources or MOUs for healthcare volunteers (e.g., CERT or MRC) Several PH or other county departments have Medical Reserve Corp (MRC), Community Emergency Response Teams (CERT), or other volunteer programs (nursing students and COAD/VOAD partners)



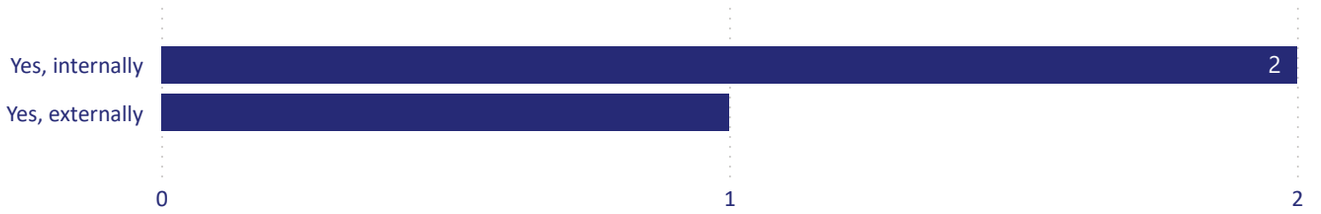
Mass Mortuary Capacity

Plans and/or resources for processing / identification / storage. May plan with local ME office or nearby counties and tribes to increase fatality management capacity



Medical Countermeasures and Administration

Includes physical assets that support Chempack, antidote, vaccination, prophylaxis operations and distribution of other countermeasures from the SNS and/or state and local assets that may include databases, electronic systems, as well as physical resources (signage, badging systems, coolers, etc.)

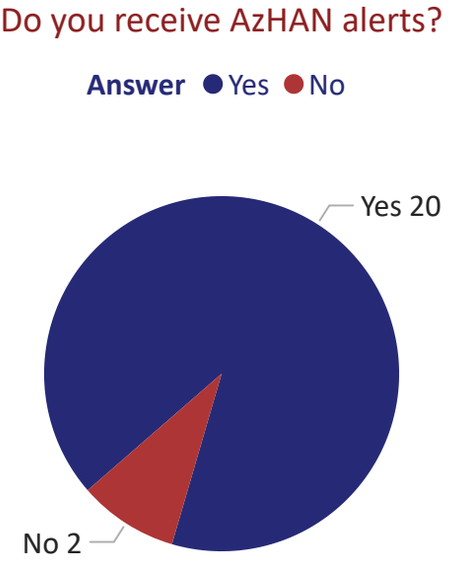


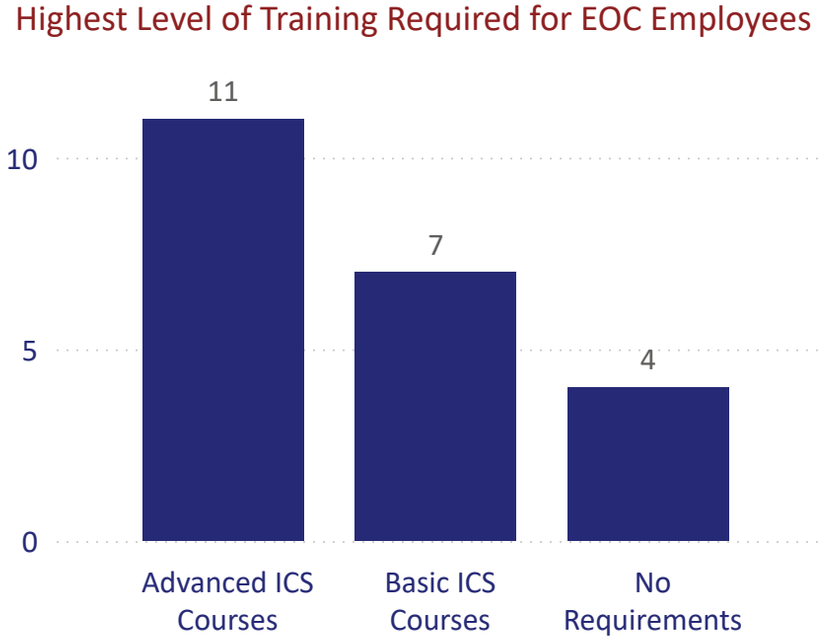
PPE Stockpile

Available supplies and storage capacity, PPE stockpile Most PH have stockpiles of gowns, gloves, surgical masks, N95 masks, shoe covers, head covers, googles, safety glasses, etc.

Western Region Resource Gap Analysis

Arizona Health Alert Network Alerts provide healthcare providers fast access to information regarding emergent threats and threats. Both Arizona Department of Health Services and AzCHER utilize this platform to quickly notify members of current and planned incidents. Respondents were asked if they receive these alerts in an effort to identify gaps in reach and opportunities for expansion or training.





A new inquiry for the 2024-2025 Resource Gap Analysis was in regards to the level of training required for employees to work in the Emergency Operations Center (EOC). It is highly recommended employees complete IC courses 100, 200, 700, and 800 prior to working in the EOC. Response data will be used to identify training gaps and opportunities for the different regions.

Most agencies in the western region require advanced ICS courses, a strength for the coalition.

Western Region- Communications Assets

Phone/Mobile Phone Assets

Phone and mobile phone related assets maintained by facilities are shown below. Most do not maintain satellite phones, but have access to cell phones.

Sector	Cell Phones	Internet-based phone	Landline telephones	Mobile communication apps	Satellite phones
Hospital	6	1	6	3	2
Outpatient Care	3	3	1	2	3
State/County/Tribal Emergency Management	3	2	3	2	2
Emergency Medical Services (EMS) / Fire Dept	4	2	3	1	
Public Health (county or tribe)	3	3	2	2	
Home Health / Hospice	2		2		
Long-term Care / Skilled Nursing Facility	1	1	1	1	

Community Communications

Assets used to communicate with the general public are shown below. Means to communicate with patients and families are lacking among most sector types.

Sector	Ability to Receive Community Alerts	Mass communication platform	Platform to communicate within organization/ system	Social Media	System to communicate with patients and families
Home Health / Hospice				2	
Long-term Care / Skilled Nursing Facility	1		1	1	1
Emergency Medical Services (EMS) / Fire Dept			2	3	
Outpatient Care	3		2	3	2
Public Health (county or tribe)	3	2	2	3	
State/County/Tribal Emergency Management	2	2	2	3	1
Hospital	5	2	3	5	2

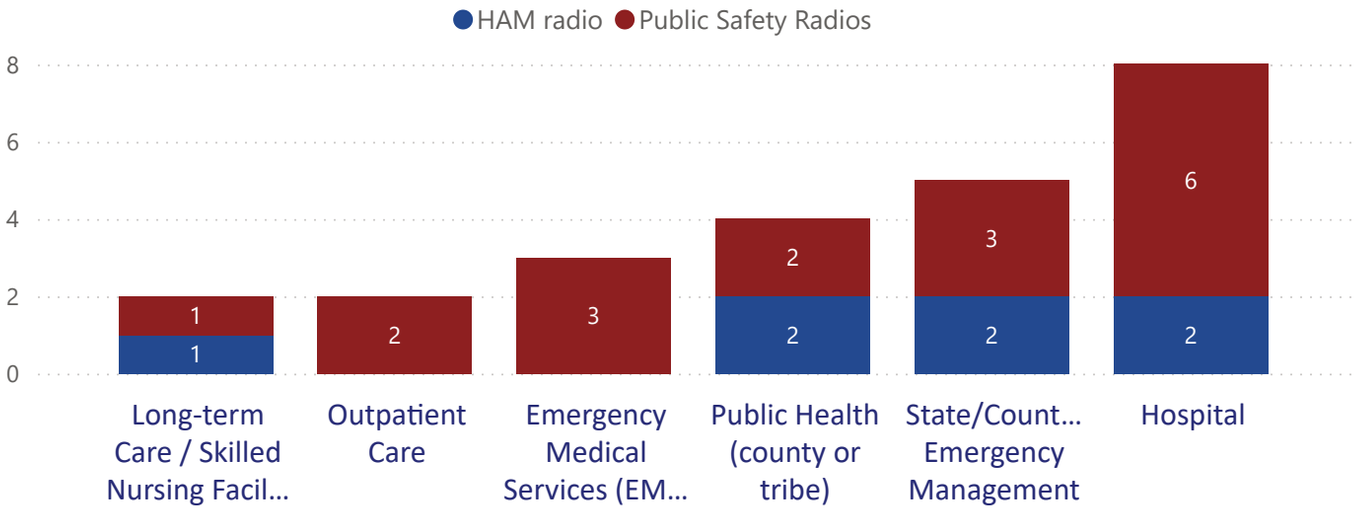
Western Region- Communications Assets

100%

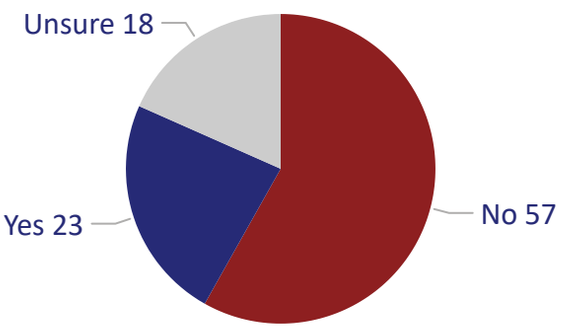
Percent of Agencies have Email Access

Radio Assets

The type of radio assets maintained by facility type are shown below. Public safety radios are the most common, with few agencies utilizing HAM radios.



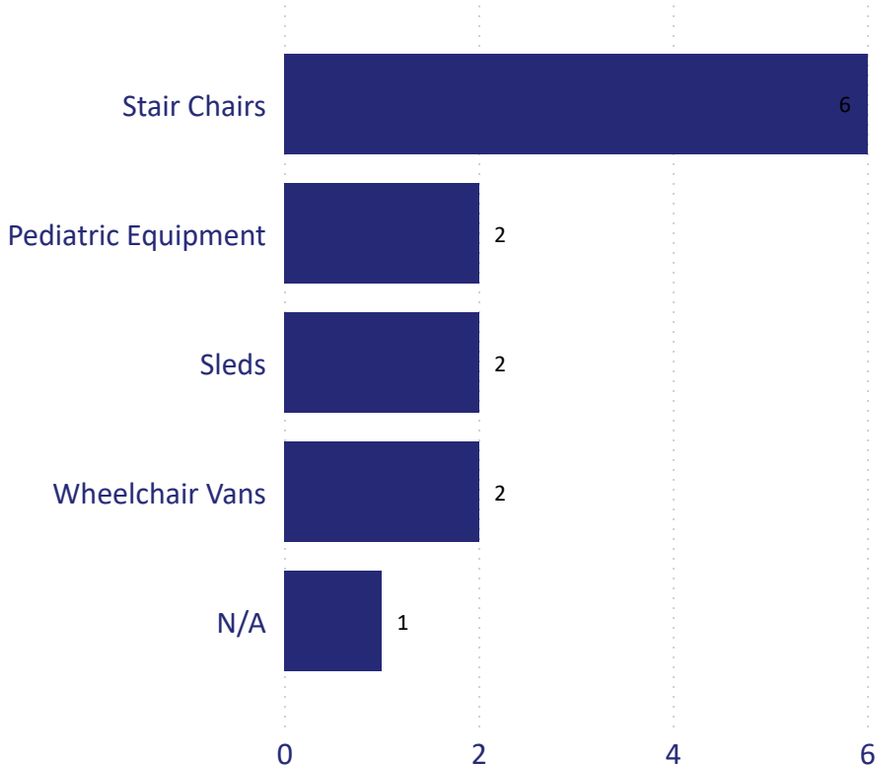
Number of Agencies with Personnel Trained to Use HAM Radios



Western Region Hospital Resources

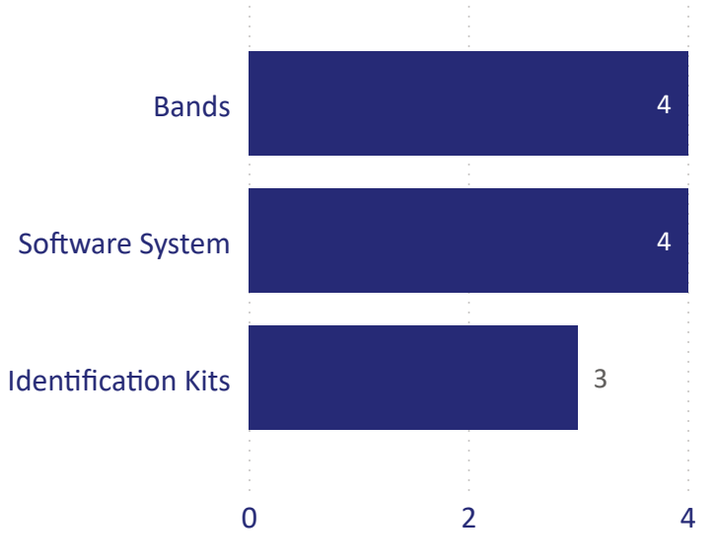
Hospitals throughout the state were asked to provide information on the resources available at their facilities. The results of this inquiry are illustrated and extrapolated below. Data collected is used to form work groups, develop trainings, and provide resource sharing opportunities in times of low-resource availability.

Evacuation Resources



Data on evacuation resources available among regional hospitals was collected to identify gaps and opportunities for resource sharing. Access to a variety of evacuation resources is critical to effectively respond to an incident which requires the prompt evacuation of a hospital or local healthcare provider.
The graph to the left indicates how many hospitals in the region possess and maintain the identified resource, not necessarily the quantity of that resource available.

Patient Tracking Resources



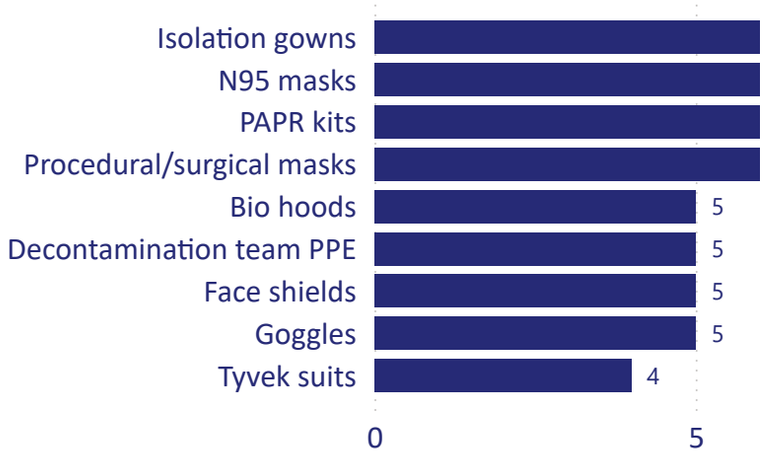
The ability to track patients being transferred, evacuated, or accepted by a facility in times of crisis is a complex endeavor. In response to the results collected here and in steering committee groups, AzCHER developed a work group in November 2024 to identify gaps and solutions in tracking patients during a crisis, multi-casualty incident, evacuation, or other large-scale event requiring the use of these resources. Identifying resources already available provides AzCHER and its members the ability to expand on what is already in place and identify training and resource gaps.

Western Region Hospital Resources

Hospital Morgue Capacity

29

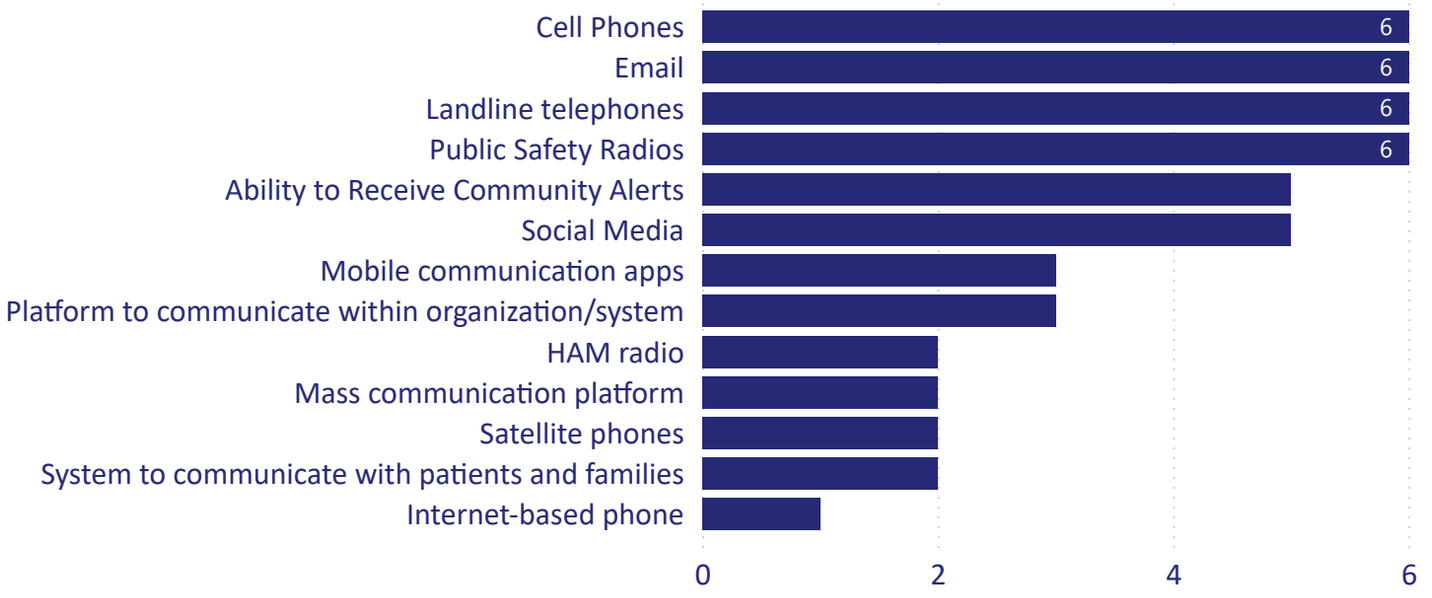
PPE Resources



Hospitals in the western region reported maintaining substantial PPE. Gaps were identified in the maintenance of decontamination PPE, face shields, goggles, and Tyvek suits.

All 6 reporting hospitals maintain cell phones, email, and public safety radios as communication assets. 5 have social media and landline phones. A substantial gap identified is the availability of a system to communicate with patients and families, with less than half the hospitals reporting to maintain this asset.

Communication Assets in Hospitals



Western Region- Evacuation Resources

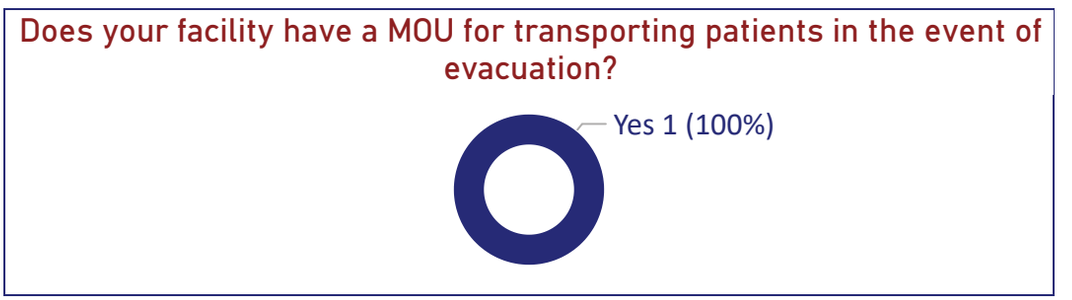
Evacuation Resources

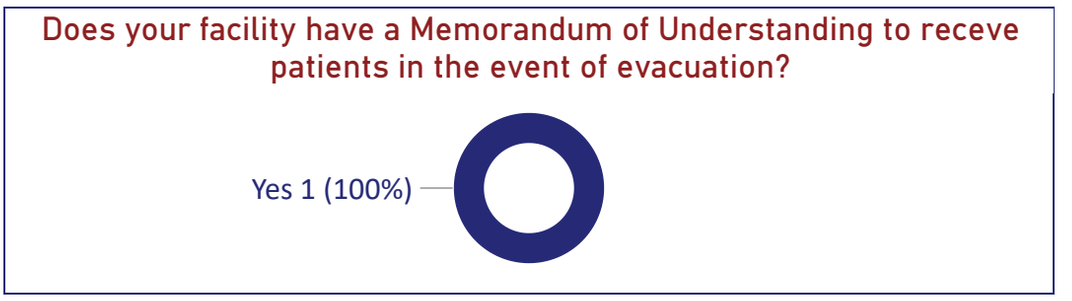
Evacuation resources for EMS, Hospitals, and Long Term Care Facilities were evaluated. Access to pediatric equipment, other vehicles, and wheelchairs were identified as resource gaps.

	Emergency Medical Services (EMS) / Fire Dept	Hospice	Hospital-Acute Care	Outpatient Clinic	Skilled Nursing or Long-Term Care Facility	**Total**
Stair Chairs	3		6	1		**10**
Wheelchair Vans		1	2	2	1	**6**
Pediatric Equipment	2		2	1		**5**
Access to Busses		2			1	**3**
Bariatric Equipment	1				1	**2**
Sleds			2			**2**
Total	**6**	**3**	**12**	**4**	**3**	**28**

Memorandums of Understanding for Long-Term-Care Facilities

- Long-Term Care and Skilled Nursing Facilities were asked if they had memorandums of understanding (MOU) in place for evacuation scenarios, either to receive or transfer out patients.





Western Region- EMS and Fire Resources

Data on Emergency Medical Service and Fire resources has historically been difficult to gather. Only a small percentage of EMS and Fire agencies are members of AzCHER, and even fewer participated in the RGA. Increasing engagement among these partners will provide a more robust and thorough examination of resources available to the region. Below are the results received, but due to the limited participation rate, results are likely not reflective of actual resources.

Wheelchair Vans or ADA Compliant Vehicles

0

MCI Trailer

0

HAZMAT Response Vehicle/Trailer

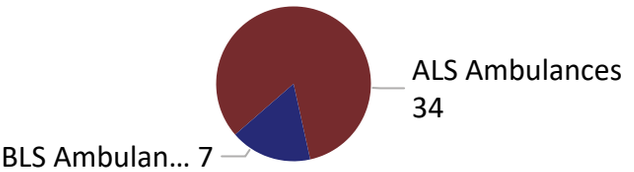
1

MCI Bus/Vehicle

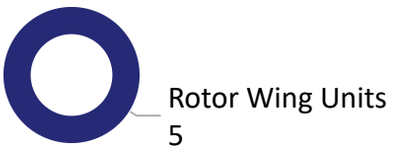
0

Number of ALS & BLS Ambulances

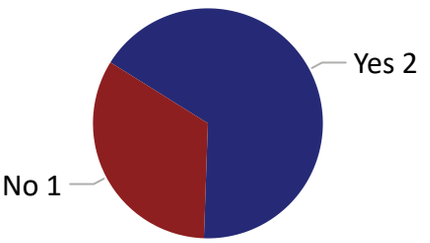
No BLS ambulances were reported, reflecting the limited data available.



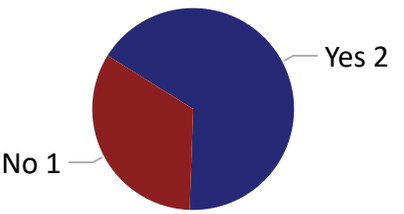
Fixed Wing Units and Rotor Wing Units



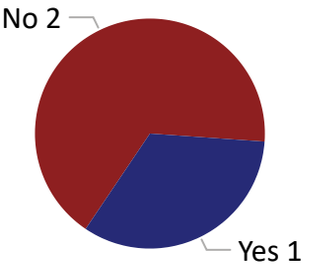
Wildfire Response Teams



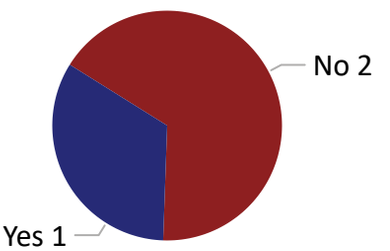
Technical/Swiftwater/Collapse Rescue



Community Paramedics



HAZMAT Radiation Assets



Western Region- PPE Maintained by Agency Type

PPE Maintained by Each Sector

Agencies were asked what personal protective equipment (PPE) they maintain an inventory for. Decontamination PPE was identified as a gap and high need, particularly for hospitals.

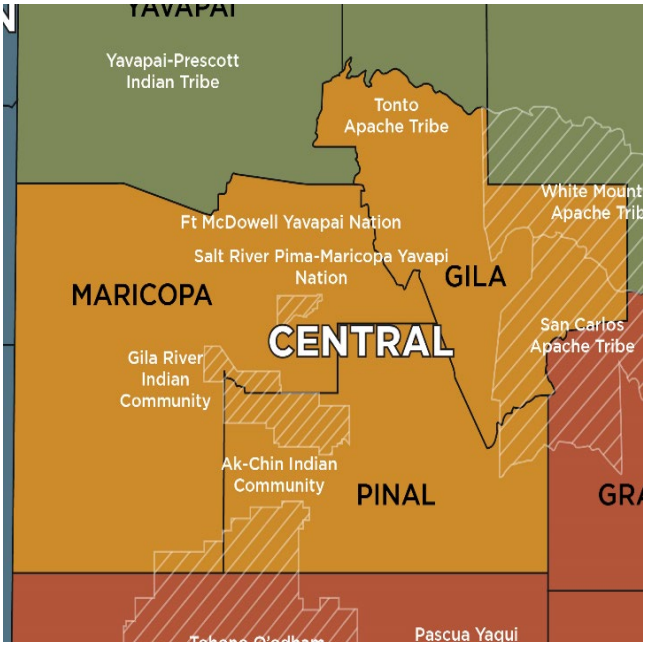
PPE	Emergency Medical Services (EMS) / Fire Dept	Home Health / Hospice	Hospital	Long-term Care / Skilled Nursing Facility	Outpatient Care	Public Health (county or tribe)	State/County /Tribal Emergency Management
Bio hoods			5			1	1
Decontamination team PPE	1		5				
Face shields	3	2	5	1	2	3	2
Goggles	3	2	5	1	2	3	2
Isolation gowns	4	2	6	1	2	3	1
N95 masks	4	2	6	1	2	2	2
PAPR kits			6				1
Procedural/surgical masks	4	2	6	1	3	2	1
Tyvek suits	3		4			2	1

Appendix 7: Central Region Vulnerability Profile

Central Region Vulnerability Profile
2024-2025 Update

Jurisdictions

The Central Region includes 7 Tribal Nations and 3 Arizona counties. There are 15 rural and 4 Indian census-recognized primary care areas (PCAs). These PCAs include multiple medically underserved areas and are geographically isolated from other healthcare services.



Tribal Nations:[1]

Salt River Pima-Maricopa Indian Community, Fort McDowell Yavapai Nation, Gila River Indian Community, Ak-Chin Indian Community, Tonto-Apache Tribe, Tohono O'odham, San Carlos

Counties:

Gila, Maricopa, Pinal

Indian PCAs:

Gila County – San Carlos Apache
Maricopa County – Fort McDowell Yavapai Nation, Salt River Pima-Maricopa Indian
Pinal County – Gila River Indian Community

Rural PCAs:

Gila County – Payson, Globe
Maricopa County – North Gateway/Rio Vista Village, Desert View Village, Deer Valley Village, Paradise Valley Village, Scottsdale North, Surprise North & Wickenburg, Surprise South, Peoria North, New River/Cave Creek, Anthem, Fountain Hills/Rio Verde, Sun City West, Glendale North
Pinal County – Saddlebrooke, Coolidge, Eloy

Urban PCAs:[1]

Maricopa County – Paradise Valley Village, North Mountain Village, Camelback East Village, Alhambra Village, Maryvale Village, Encanto Village, Estrella Village & Tolleson, Central City Village, Laveen Village, South Mountain Village & Guadalupe, Ahwatukee Foothills Village, Scottsdale Central, Scottsdale South, Peoria South, Buckeye, Glendale West, Glendale Central, Sun City, El Mirage & Youngtown, Paradise Valley, Goodyear & Litchfield Park, Avondale, Mesa North, Mesa West, Mesa Central, Mesa East, Mesa Gateway, Tempe North, Tempe South, Gilbert North, Gilbert Central, Gilbert South, Chandler Central, Chandler North, Chandler South, Queen Creek, Sun Lakes
Pinal County – Apache Junction, Gold Canyon, Florence, San Tan Valley, Maricopa, Casa Grande

Population and Vulnerable Demographics

Approximately 5,124,113[2] people reside in the Central Region. The population fluctuates with winter visitors staying for over 30 days and migrant workers arriving during the winter growing season.

During disasters, people with disabilities and others with special needs often need extra help from emergency services. In the Central region, rural counties have more people living below the poverty line and more Medicare beneficiaries compared to urban counties. Similarly, the number of Persons with Disabilities is highest in the largest county but doubles in the smallest county.

Considerations should be included for individuals who are very old or very young, live in rural areas, face transportation challenges, have limited English proficiency, have low socioeconomic status, or encounter difficulties accessing health services. Approximately 23.2% of the population lives below 150% of the federal poverty level. The inmate population is considered vulnerable due to limited access to care and communal living conditions. The Central Region houses 52.9% of Arizona's total prison inmate population.

Risk Factors	Central Region	Arizona
Persons with Disabilities (%)[3]	16%	13%
AHCCCS (Medicaid) Population[4]	1,366,122 (64.5%)	2,118,704
Medicare Beneficiaries[5]	895,320 (60%)	1,489,863
Electricity-Dependent Medicare Beneficiaries[6]	34,808 (52.4%)	66,351
Medically Uninsured (%)[7]	23.8%	23.9%
Population below 150% FPL (%)[7]	23.2%	21.6%
Correctional Facilities[8]	9	15
Correctional Facility Inmate Capacity-prisons only[8]	18,786 (52.9%)	35,511

Healthcare Utilization

The Central region has one provider for every 2,772 residents, totaling 66.5% of the total number of primary care providers in Arizona. Ambulatory care sensitive conditions - care that if delivered properly would not result in hospitalization – relieves the burden on the hospital system.

Utilization	Central Region	Arizona
Total Outpatient Health Treatment Centers (%)[9]	1,848 (66.5%)	2,777
Outpatient Health Treatment Centers (population:provider)[9]	2,772:1	2,676:1
Total Emergency Room Visits (%)[10]	1,454,341 (67.3%)	2,158,153
Hospital Beds/1000 Residents[10]	14,799 (69.4%)	21,335

Regional Healthcare Infrastructure

Diverse regional facilities and resources that serve specific populations, including pediatrics, are critical to the whole community response. The Central Region has 116 assisted living centers, 10.067 nursing home beds, 151 licensed home health agencies, and 35 ground ambulance providers.

Healthcare Infrastructure	Central Region	Arizona
General Hospitals[11]	49 (64.5%)	76
Critical Access Hospitals[12]	4 (23.5%)	17
Level I Trauma Centers[13]	11	14
Level III Trauma Centers[13]	2	6
Level IV Trauma Centers[13]	11	27
Behavioral Health Hospitals[11]	17	22
Long-term Care Hospitals[11]	3	5
Adult ICU bed capacity[14]	109 (60.9%)	179
Pediatric ICU bed capacity[14]	11 (68.7%)	16
Assisted Living Centers[15]	216 (65.9%)	328
Nursing Home Beds[15]	10,067 (62.5%)	16,101
Home Health Agencies[15]	151 (66.2%)	228
Ground Ambulance Providers[16]	35 (30.4%)	115

Air Ambulance Providers[16]	Varies*	13

*There are seventy air ambulances registered to provide care and transport within Arizona, the majority of them helicopters. Air ambulance coverage areas often span large, multi-regional areas, and therefore cannot be broken down by region.

County Hazard Identification Summary

County Multi-Jurisdictional Hazard Mitigation Plans are administered once every five years to identify the greatest risk of loss to people and critical facilities. Hazards were identified through a Threats and Hazard Identification Risk Assessment (THIRA). Experiential knowledge of the planning team, considerations of relative risk, historic context, potential for mitigation, alignment with state plans, and duplication of effects for each hazard influenced each County's process.

Central Region Hazard Lists (Referenced from County Multi-Jurisdictional Hazard Mitigation Plans and 2023 AzCHER CHVA):

Gila County (2019)[17]	Maricopa (2021)[18]	Pinal (2022)[19]
• Climate Change • Dam Inundation • Drought • Flooding/Flash Flooding • Hazardous Materials Incident • Severe Wind • Transportation Accident • Wildfire • Winter Storm	• Dam Inundation • Drought • Extreme Heat • Fissure • Flood/Flash Flood • Levee Failure • Severe Wind • Subsidence • Wildfire	• Dam Failure • Drought • Earthquake • Extreme Heat • Fissure • Flood/Flash Flood • Levee Failure • Severe Wind • Subsidence • Wildfire

Resources

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Glossary

ACS	Ambulatory Care Site
AHCCCS	Arizona Health Care Cost Containment System
CDC	Centers for Disease Control and Prevention
HHS emPOWER map	Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals. The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code. The HHS emPOWER Map gives every public health official, emergency manager, hospital, first responder, electric company, and community member the power to discover the electricity-dependent Medicare population in their state, territory, county, and ZIP Code. When combined with real-time severe weather and hazard maps, communities can easily anticipate and plan for the needs of this population during an emergency.
FPL	Federal Poverty Level
PCA	Primary Care Area: A Primary Care Area is a geographic area in which most residents seek primary health services from the same place(s). The PCA is meant to depict the "primary care service seeking patterns" of the residents.
Specialty Beds	The number of hospital beds located at “Specialty” hospitals, such as emergency or surgical hospitals

Appendix 8: Northern Region Vulnerability Profile

Northern Region Vulnerability Profile
2024-2025 Update

Jurisdictions

The Northern Region includes 6 Tribal nations and four Arizona counties.[1] There are 8 rural and 4 frontier census-recognized primary care areas (PCAs).[1] These PCAs include multiple medically underserved areas and are geographically isolated from healthcare services. Frontier designations represent the most isolated rural areas.

Tribal Nations:[1]

Hopi Tribe, Kaibab-Paiute, Navajo Nation,
White Mountain Apache Tribe, Yavapai Prescott Tribe, and
Yavapai Apache Nation

Counties:

Apache, Coconino, Navajo, Yavapai

Indian PCAs:

Apache County – Navajo Nation
Coconino County – Navajo Nation, Hopi Tribe
Navajo County – Navajo Nation, Hopi Tribe, White Mountain Apache Tribe

Rural PCAs:

Coconino County – Flagstaff
Navajo County – Snowflake/Heber, Show Low, Winslow,
Yavapai County – Black Canyon City, Cottonwood\Sedona, Chino Valley, Prescott, Prescott Valley

Frontier PCAs:

Apache County – Springerville/Eagar
Coconino County – Grand Canyon Village, Page
Yavapai County - Williamson

Population and Vulnerable Demographics

Approximately 567,764[2] people live in the Northern Region, which is Arizona's largest region with diverse climate zones. This can cause both heat and cold-related illnesses in a single day.

During disasters, individuals with disabilities or functional needs may need special assistance from emergency management. The Northern Region has higher rates of residents with disabilities (16%) and Medicare beneficiaries (10.6%) compared to the state average.

Consider those who are very old, young, living in rural areas, facing transportation issues, limited in English proficiency, low-socioeconomic status, or have difficulty accessing health services. In the Northern Region, 33.5% live below 150% of the federal poverty level. The inmate population is also vulnerable due to limited access to care and congregate living conditions, with the Northern Region housing 2.2% of Arizona's prison inmates.

Risk Factors	Northern Region	Arizona
Persons with Disabilities (%)[3]	16%	13%
AHCCCS (Medicaid) Population[4]	181,842 (8.6%)	2,118,704
Medicare Beneficiaries[5]	158,304 (10.6%)	1,489,863
Electricity-Dependent Medicare Beneficiaries[6]	13,109 (19.8%)	66,351
Medically Uninsured (%)[7]	21.5%	23.9%
Population below 150% FPL (%)[7]	33.5%	21.6%
Correctional Facilities[8]	1	15
Correctional Facility Inmate Capacity-prisons only[8]	777 (2.2%)	35,511

Healthcare Utilization

The Northern region has one provider for every 2,580 residents. These communities have fewer ambulatory care sites per elderly resident and lower hospital inpatient days than the state average.

Utilization	Northern Region	Arizona
Total Outpatient Health Treatment Centers (%)[9]	220 (66.5%)	2,777
Outpatient Health Treatment Centers (population:provider)[9]	2,580:1	2,676:1
Total Emergency Room Visits (%)[10]	163,344 (7.6%)	2,158,153
Hospital Beds/1000 Residents[10]	1,431 (6.7%)	21,335

Regional Healthcare Infrastructure

All general hospitals in the Northern Region provide short-stay, acute care, and inpatient services within their Primary Care Area (PCA).

Regional facilities and resources catering to specific populations, including pediatrics, are vital for community response. The Northern Region has 1 Level I Trauma Centers, 2 behavioral health hospitals, 1,227 nursing home beds, and 28 ground ambulance providers.

Healthcare Infrastructure	Northern Region	Arizona
General Hospitals[11]	7 (9.2%)	76
Critical Access Hospitals[12]	6 (3.5%)	17
Level I Trauma Centers[13]	1	14
Level III Trauma Centers[13]	1	6
Level IV Trauma Centers[13]	6	27
Behavioral Health Hospitals[11]	2	22
Long-term Care Hospitals[11]	0	5
Adult ICU bed capacity[14]	11 (6.1%)	179
Pediatric ICU bed capacity[14]	1 (6.2%)	16
Assisted Living Centers[15]	33(10.1%)	328
Nursing Home Beds[15]	1,227 (7.6%)	16,101
Home Health Agencies[15]	22 (9.6%)	228
Ground Ambulance Providers[16]	28 (1.7%)	115
Air Ambulance Providers[16]	Varies*	13

*There are seventy air ambulances registered to provide care and transport within Arizona, the majority of them helicopters. Air ambulance coverage areas often span large, multi-regional areas, and therefore cannot be broken down by region.

County Hazard Identification Summary

County Multi-Jurisdictional Hazard Mitigation Plans are conducted every five years to assess risks to people and critical facilities. Hazards were identified through a Threats and Hazard Identification Risk Assessment (THIRA). Each county's process was influenced by the planning team's experience, risk considerations, historical context, mitigation potential, alignment with state plans, and hazard effect duplication.

Northern Region Hazard Lists (Referenced from County Multi-Jurisdictional Hazard Mitigation Plans and 2019 AzCHER CHVA):

Apache (2017)[17]	Coconino (2021)[18]	Navajo (2017)[19]	Yavapai (2023)[20]
• Flood/Flash Flood • Severe Wind • Wildfire • Winter Storm	• Wildland Fire • Flood/Flash Flood and Post Wildfire Flood/ Debris Flows • Drought • Public Health Outbreak/ Pandemic • Excessive Heat • Hazardous Materials/ Pipeline Failure/ Transport Accident • Dam Failure • Earthquake and Seismic Hazards • High Winds/ Tornado	• Dam Failure • Drought • Flood/Flash Flood • Hazardous Materials Incidents • Levee Failure • Severe Wind • Wildfire • Winter Storm	• Earthquake • Flood • Landslide/ Mudslide • Severe Wind • Wildfires • Winter Storm

Resources

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Glossary

ACS	Ambulatory Care Site
AHCCCS	Arizona Health Care Cost Containment System
CDC	Centers for Disease Control and Prevention
HHS emPOWER map	Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals. The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code. The HHS emPOWER Map gives every public health official, emergency manager, hospital, first responder, electric company, and community member the power to discover the electricity-dependent Medicare population in their state, territory, county, and ZIP Code. When combined with real-time severe weather and hazard maps, communities can easily anticipate and plan for the needs of this population during an emergency.
FPL	Federal Poverty Level
PCA	Primary Care Area: A Primary Care Area is a geographic area in which most residents seek primary health services from the same place(s). The PCA is meant to depict the "primary care service seeking patterns" of the residents.
Specialty Beds	The number of hospital beds located at “Specialty” hospitals, such as emergency or surgical hospitals

Appendix 9: Southern Region Vulnerability Profile

Southern Region Vulnerability Profile
2024-205 Update

Jurisdictions

The Southern Region comprises four Tribal nations and five Arizona counties. It contains 18 rural and 3 frontier census-recognized primary care areas (PCAs). These PCAs encompass several medically underserved areas and are geographically distant from healthcare services. PCAs with fewer than 6 persons per square mile are coded as Frontier unless designated as an Indian Primary Care Area.

Tribal Nations:[1]

Pascua Yaqui, San Carlos Apache, Tohono O'odham, San Xavier-Tohono O'odham

Counties:

Cochise, Graham, Greenlee, Pima, Santa Cruz

Indian PCAs:

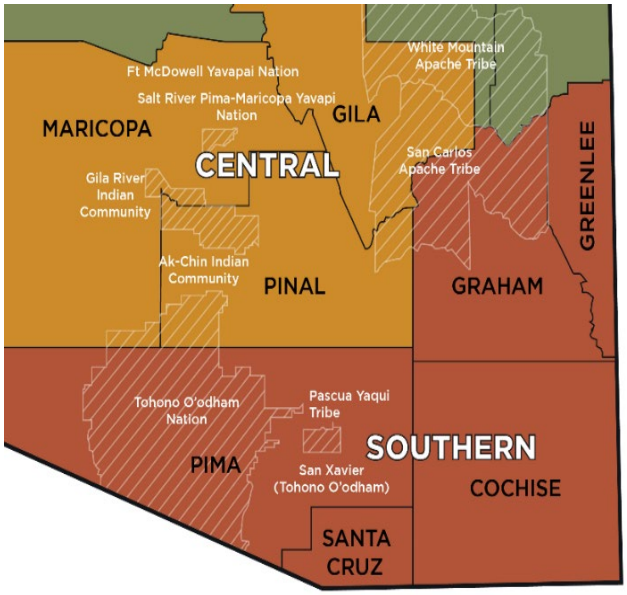
Pima County – Tohono O'odham Nation, San Xavier, Pascua Yaqui Tribe

Frontier PCAs:

Cochise County – Willcox & Bowie
Greenlee County – Morenci
Pima County – Ajo

Rural PCAs:

Cochise County – Benson, Douglas & Pirtle Ville, Sierra Vista, Bisbee
Graham County – Thatcher, Safford
Pima County – Picture Rocks
Santa Cruz County – Rio Rico, Nogales



Urban PCAs:

Pima County – Tanque Verde, Catalina Foothills, Oro Valley, Marana, Vail, Casas Adobes, Tucson West, Tucson Central, Tucson Foothills, Tucson Southeast, Tucson East, Tucson South, Flowing Wells, Tucson Estates, Drexel Heights, Valencia West, Green Valley, Sahuarita

Population and Vulnerable Demographics

Around 1,285,854[2] people reside in the Southern Region. The population fluctuates with winter visitors staying over a month and migrant workers arriving during the winter growing season.

During a disaster, individuals with disabilities, access and functional needs may need special assistance from the emergency management system. The Southern Region has higher proportions of people with disabilities (14.4%) and Medicare beneficiaries (24.2%) compared to the state average.

Considerations should be given to individuals who are very old or very young, live in rural areas, have transportation difficulties, have limited English proficiency, have low socioeconomic status, or face challenges in accessing health services. In the Southern Region, 25.4% of the population lives below 150% of the federal poverty level. The inmate population is vulnerable due to limited access to care and congregate living conditions. The Southern Region houses 22.4% of Arizona's total prison inmate population.

Risk Factors	Southern Region	Arizona
Persons with Disabilities under age 65 years (%)[3]	14.4%	13%
AHCCCS (Medicaid) Population[4]	394,165 (18.6%)	2,118,704
Medicare Beneficiaries[5]	311,193 (20.9%)	1,489,863
Electricity-Dependent Medicare Beneficiaries[6]	12,653 (19.1%)	66,351
Medically Uninsured (%)[7]	20.6%	23.9%
Population below 150% FPL (%)[7]	25.4%	21.6%
Correctional Facilities[8]	3	15
Correctional Facility Inmate Capacity-prisons only[8]	7,995 (22.5%)	35,511

Healthcare Utilization

The Southern Region has one primary care provider per 1,884 residents. Proper treatment of ambulatory care sensitive conditions can reduce hospitalizations and ease the burden on hospitals.

Utilization	Southern Region	Arizona
Total Outpatient Health Treatment Centers (%)[9]	502 (18.1%)	2,777
Outpatient Health Treatment Centers (population:provider)[9]	2,561:1	2,676:1
Total Emergency Room Visits (%)[10]	388,753 (18%)	2,158,153
Hospital Beds/1000 Residents[10]	3,848 (18%)	21,335

Regional Healthcare Infrastructure

The Southern Region is served by a total of 14 general hospitals and 5 critical access hospitals.

Regional facilities and resources serving specific populations, including pediatrics, are important to community response.

Healthcare Infrastructure	Southern Region	Arizona
General Hospitals[11]	14 (18.4%)	76
Critical Access Hospitals[12]	5 (29.4%)	17
Level I Trauma Centers[13]	2	14
Level III Trauma Centers[13]	1	6
Level IV Trauma Centers[13]	8	27
Behavioral Health Hospitals[11]	3	22
Long-term Care Hospitals[11]	2	5
Adult ICU bed capacity[14]	29 (16.2%)	179
Pediatric ICU bed capacity[14]	5 (31.3%)	16
Assisted Living Centers[15]	59 (18%)	328
Nursing Home Beds[15]	3,548 (22%)	16,101
Home Health Agencies[15]	36 (15.8%)	228
Ground Ambulance Providers[16]	36 (31.3%)	115
Air Ambulance Providers[16]	Varies*	13

*There are seventy air ambulances registered to provide care and transport within Arizona, the majority of them helicopters. Air ambulance coverage areas often span large, multi-regional areas, and therefore cannot be broken down by region.

County Hazard Identification Summary

County Multi-Jurisdictional Hazard Mitigation Plans are administered once every five years to identify the greatest risk of loss to people and critical facilities. Hazards were identified through a Threats and Hazard Identification Risk Assessment (THIRA). Experiential knowledge of the planning team, considerations of relative risk, historic context, potential for mitigation, alignment with state plans, and duplication of effects for each hazard influenced each County's process.

Southern Region Hazard Lists (Referenced from County Multi-Jurisdictional Hazard Mitigation Plans):

Cochise County (2022)[11]	Graham County (2021)	Greenlee County (2022)[12]	Pima County (2022)[13]	Santa Cruz County (2018)[14]
• Building Collapse/ Mine Subsidence • Drought • Earthquake • Fissure • Flood/Flash Flood • Severe Wind • Wildfire	• Dam Failure • Drought • Fissure • Flood/Flash Flood • Severe Wind • Wildfire	• Drought • Flooding/ Flash Flood • Levee Failure • Wildfire	• Drought • Earthquake • Extreme Cold • Extreme Heat • Flood • Landslide • Severe Wind • Wildfire	• Dam Failure • Drought • Flooding/Flash Flooding • HazMat Incidents • Wildfire

Resources

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Glossary

ACS	Ambulatory Care Site
AHCCCS	Arizona Health Care Cost Containment System
CDC	Centers for Disease Control and Prevention
HHS emPOWER map	Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals. The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code. The HHS emPOWER Map gives every public health official, emergency manager, hospital, first responder, electric company, and community member the power to discover the electricity-dependent Medicare population in their state, territory, county, and ZIP Code. When combined with real-time severe weather and hazard maps, communities can easily anticipate and plan for the needs of this population during an emergency.
FPL	Federal Poverty Level
PCA	Primary Care Area: A Primary Care Area is a geographic area in which most residents seek primary health services from the same place(s). The PCA is meant to depict the "primary care service seeking patterns" of the residents.
Specialty Beds	The number of hospital beds located at “Specialty” hospitals, such as emergency or surgical hospitals

Appendix 10: Western Region Vulnerability Profile

Western Region Vulnerability Profile
2024-2025 Update

Jurisdictions

The Western Region includes 6 Tribal Nations and 3 Arizona Counties. There are nine Rural, two Frontier*, and two Indian census-recognized Primary Care Areas (PCAs). These PCAs include multiple Medically Underserved Areas and are geographically isolated from healthcare services.

Tribal Nations:[1]

Hualapai Tribe, Kaibab-Paiute Tribe, Fort Mojave Indian Tribe, Colorado River Indian Tribe, Fort Yuma Quechan Tribe, Cocopah Tribe

Counties:

Mohave, La Paz, Yuma

Indian PCAs:

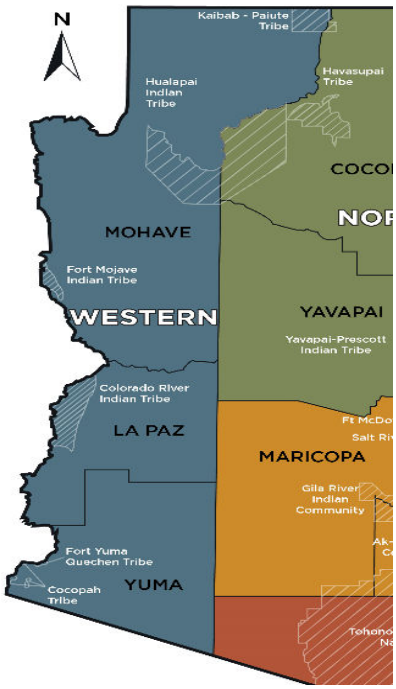
Mohave County – Hualapai Tribe
La Paz County – Colorado River Indian Tribe

Frontier PCAs:

Mohave County - Colorado City
La Paz County – Quartzsite

Rural PCAs:

Mohave County – Kingman, Golden Valley, Bullhead City, Lake Havasu City
La Paz County – Parker
Yuma County - Fortuna Foothills, San Luis, Somerton, Yuma



Population and Vulnerable Demographics

The population in the Western Region is approximately 435,613[2]. The population varies seasonally with winter visitors staying for 30 days or longer, and migrant/agricultural workers coming into communities during the winter growing season.

During disasters, individuals with disabilities and functional needs may need special assistance. The Western Region has higher percentages of people living with disabilities (19.7%) and Medicare beneficiaries (8.3%) compared to the state average.

Consideration is taken for those who are elderly, very young, live in rural areas, have transportation issues, limited English proficiency, low socioeconomic status, or difficulty accessing health services. 29.9% of the population is below 150% of the federal poverty level. The inmate population is vulnerable due to the number of non-citizen inmates, limited care access, and congregate living conditions. The Western Region houses 22.5% of Arizona's prison inmates.

*All PCAs with less than 6 persons per square mile are coded Frontier if not designated as an Indian Primary Care Area.

Risk Factors	Western Region	Arizona
Persons with Disabilities under age 65 years (%)[3]	19.7%	13%
AHCCCS (Medicaid) Population[4]	176,575 (8.3%)	2,118,704
Medicare Beneficiaries[5]	125,046 (8.4%)	1,489,863
Electricity-Dependent Medicare Beneficiaries[6]	5,781 (8.7%)	66,351
Medically Uninsured (%)[7]	24.5%	23.9%
Population below 150% FPL (%)[7]	29.9%	21.6%
Correctional Facilities[8]	2	15
Correctional Facility Inmate Capacity-prisons only[8]	7,993 (22.5%)	35,511

Healthcare Utilization

The Western Region has an outpatient health treatment center for every 2,191 residents.[1] Ambulatory care sensitive conditions - care that if delivered properly would not result in hospitalization – relieves the burden on the hospital system.

Utilization	Western Region	Arizona
Total Outpatient Health Treatment Centers (%)[9]	207 (7.5%)	2,777
Outpatient Health Treatment Centers (population:provider)[9]	2,191:1	2,676:1
Total Emergency Room Visits (%)[10]	151,715 (7%)	2,158,153
Hospital Beds/1000 Residents[10]	1,157 (5.4%)	21,335

Regional Healthcare Infrastructure

The Western Region has 6 general hospitals and 2 critical access hospitals.

Arizona has 1.9 beds per 1,000 residents. Regional facilities and resources that serve specific populations, including pediatrics, are crucial for the overall community response. The Western Region has 93 specialty beds, 4 skilled nursing facilities, 392 nursing beds, 14 licensed home health agencies, 76 licensed pharmacies, and 14 certified ambulance services.

Healthcare Infrastructure	Western Region	Arizona
General Hospitals[11]	6 (7.9%)	76
Critical Access Hospitals[12]	2 (11.7%)	17
Level I Trauma Centers[13]	0	14
Level III Trauma Centers[13]	2	6
Level IV Trauma Centers[13]	2	27
Behavioral Health Hospitals[11]	0	22
Long-term Care Hospitals[11]	0	5
Adult ICU bed capacity[14]		
Pediatric ICU bed capacity[14]		
Assisted Living Centers[15]	20 (6%)	328
Nursing Home Beds[15]	1,259 (7.8%)	16,101
Home Health Agencies[15]	19 (8.3%)	228
Ground Ambulance Providers[16]	15	115
Air Ambulance Providers[16]	Varies*	13

*There are 13 air ambulances registered to provide care and transport within Arizona, most of them helicopters. Air ambulance coverage areas often span large, multi-regional areas, and therefore cannot be broken down by region.

County Hazard Identification Summary

County Multi-Jurisdictional Hazard Mitigation Plans are conducted every five years to assess the highest risks to people and critical facilities. Hazards were identified through a Threats and Hazard Identification Risk Assessment (THIRA). The process was influenced by the planning team's experience, relative risk, historical context, mitigation potential, state plan alignment, and duplication of hazard effects.

Western Region Hazard Lists (Referenced from County Multi-Jurisdictional Hazard Mitigation Plans):

La Paz County (2020)[17]	Mohave County (2022)[18]	Yuma County (2019)[19]
• Dam Failure • Drought • Flooding/Flash Flooding • Hazardous Materials Incident • Severe Wind • Wildfire	• Biological/Disease Events • Dam Failure • Drought • Extreme Heat • Flood/Flash Flood • Hazardous Material Incidents • Power Failure • Severe Wind • Wildfire • Earthquake	• Drought • Extreme Heat • Flooding • Severe Wind • Wildfire

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Glossary

ACS	Ambulatory Care Site
AHCCCS	Arizona Health Care Cost Containment System
CDC	Centers for Disease Control and Prevention
HHS emPOWER map	Over 2.5 million Medicare beneficiaries rely on electricity-dependent medical equipment, such as ventilators, to live independently in their homes. Severe weather and other emergencies, especially those with long power outages, can be life-threatening for these individuals. The HHS emPOWER Map is updated monthly and displays the total number of at-risk electricity-dependent Medicare beneficiaries in a geographic area, down to the ZIP Code. The HHS emPOWER Map gives every public health official, emergency manager, hospital, first responder, electric company, and community member the power to discover the electricity-dependent Medicare population in their state, territory, county, and ZIP Code. When combined with real-time severe weather and hazard maps, communities can easily anticipate and plan for the needs of this population during an emergency.
FPL	Federal Poverty Level
PCA	Primary Care Area: A Primary Care Area is a geographic area in which most residents seek primary health services from the same place(s). The PCA is meant to depict the "primary care service seeking patterns" of the residents.
Specialty Beds	The number of hospital beds located at “Specialty” hospitals, such as emergency or surgical hospitals

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Glossary

Access and Functional Needs Plan or Appendix	***This plan defines populations in the community at risk of potential access/care based on emPOWER and other databases, demographic information, coordination with renal and other patient networks, liaison with cultural and advocacy groups, and defining challenges.***
Active Shooter/Armed Assailant/Active Threat Plan	This plan documents integration with law enforcement during a response to active shooter/blast event scenes prioritizing access to victims, the role of EMS providers, mass triage, rapid interventions including hemorrhage control, early evacuation, and treatment/transport.
Alerting /Notification Plan	This plan describes alert and notification of the following during an incident for public safety and private sector-based systems: 911 PSAP/dispatch centers, area hospitals, and EMS supervisors/management/ medical direction staff. Should include any indicators/triggers for activation of MCI plan.
ALS Ambulance	Advanced life support, level 1 (ALS1) is the transportation by ground ambulance vehicle and the provision of medically necessary supplies and services including the provision of an ALS assessment or at least one ALS intervention. They may include scheduled and 911 assets, critical care transport, scheduled assets, reserve rigs, specialized units (pediatric, bariatric, isolation, etc.).
Alternate Care Systems/Site	In the event of a disaster or public health emergency, Alternate Care Sites (ACS) may be created to enable healthcare providers to provide medical care for injured or sick patients or continue care for chronic conditions in non-traditional environments. It can include telephonic/telemedicine, screening/early treatment, and non-ambulatory care - EM and hospitals will have contributing responsibilities.
Alternate Care Systems/Sites Plan	An ACS plan that includes telephonic/telemedicine, screening/early treatment, and non-ambulatory care – EM and hospitals will have contributing responsibilities.
Ambulatory Surgery Centers	Ambulatory surgery centers—known as ASCs—are modern healthcare facilities focused on providing same-day surgical care, including diagnostic and preventive procedures. ASCs may be used for overflow acute care, overflow outpatient care.
Assisted Living Facilities	Facilities that include the continuity of long-term care services and provide housing, personal care services, and healthcare designed to respond to individuals who need assistance with normal daily activities.
Behavioral Health Plan	This plan includes critical incident stress support, access to information about normal stress responses, psychological first aid training, and professional behavioral health support to providers. Ideally, this should also include tracking and follow-up of at-risk employees after critical incidents.
Blood Bank Plan	This plan details support for hospitals during a mass casualty incident including delivery during access-controlled situations.
BLS Ambulance	Basic life support (BLS) is transportation by ground ambulance vehicle and the provision of medically necessary supplies and services, including BLS ambulance services as defined by the state. These may include scheduled and 911 assets.

Burn Center Beds	A burn recovery bed or burn bed is a special type of bed designed for hospital patients who have suffered severe skin burns across large portions of their bodies. These are dedicated burn beds.
Chempack/SNS Plan	In jurisdictions/organizations hosting Chempack assets, the plan should document hospital and EMS actions related to storage, maintenance, notification mechanism of need for release of assets and authority by whom to release them, accompanying security to a distribution point, resupply method. All jurisdictions should have an SNS receipt and distribution plan. Include SNS receipt, distribution, and replacement.
Closed POD Plans	Plans for internal vaccination/prophylaxis of healthcare personnel. May be helpful to quantify the number of employees who would require vaccination or prophylaxis depending on role/job class.
Communication Assets	These assets may include traditional phone lines, radios, cellular, satellite, internet-based – at least one primary and one redundant system.* Radios (800mhz, amateur radio, other), web-based system, ability to receive HAN alerts, etc.
Community Paramedics	This includes other community-based EMS personnel that may assume alternate roles in a disaster (e.g., paramedics are also firefighters, volunteer or paid reserve personnel who can be called to assist with an MCI; those who are BLS or ACLS trained). In large metro areas may summarize / list agencies rather than specific resources.
COOP, Recovery/Business Continuity Plan	Recovery activities and continuity of operations (COOP) response functions including backup for personnel, communication systems, and logistical support (assets).
Crisis Care	Number of cots that could be appropriately placed in flat space areas on hospital premises to create alternate care areas and including utilizing space where patients can be held awaiting treatment, actual treatment space (using cots, chairs, recliners, mobile vans, tents, air mattresses, etc.).
Crisis Standards of Care Plan	This plan details facility and regional approach to coordination of service and resource management, interface with State plans, and plans for on-site and community-based alternate care systems/sites. Including relevant facility and regional triggers where defined. Should also address 1135 waivers, and modifications of other pertinent local/state rules and regulations to address surge issues, ACS, volunteers, etc.
Decontamination Capacity - Ambulatory	Patients / hour based on exercises - assume 10 minutes/person through process (e.g. 6 patients/hour per decon station)
Decontamination Capacity - Non-Ambulatory	Patients/hour based on exercises - assume 10 minutes/person at each decon station
Dialysis Centers	Dialysis does the work of the kidneys by cleansing the blood – removing waste and excess water. There are two types of dialysis: hemodialysis and peritoneal dialysis. In hemodialysis, the patient's blood is passed through an artificial kidney machine, and the procedure is performed in a hospital or similar facility.

Dry Decontamination Kits	Redress kits that allow a patient to disrobe under a large bag/cover and therefore remove contaminated clothing that can then be sealed in another bag. Limits continued exposure and potential for secondary contamination of EMS/hospital assets.
Emergency Department (ED) Capacity	Bed capacity based on usual spaces used for patient care for hospital-based EDs.
ED Isolation (AIIR) Rooms	ED Isolation rooms may be ED Positive /Negative pressure rooms. Formerly, negative pressure isolation room, an AIIR is a single-occupancy patient-care room used to isolate persons with a suspected or confirmed airborne infectious disease.
ED Surge Beds	These are beds in addition to usual ED beds – overflow/surge capacity only – may include adjacent procedure or other areas used for ED care.
Emergency Operations Plan	The jurisdictional emergency management plan should specify the lead agency for health and medical issues. Either this plan or the Public Health Emergency Operations Plan should specify the integration of the hospitals and EMS into the jurisdictional plan. This should include how information is shared with and between agencies, the process for resource requests, and the role of Public Health and Emergency Management relative to the coalition partners.
EMS Agencies	Emergency Medical Services (EMS) transport agencies – includes all emergency transport agencies, may consider including scheduled BLS provider services if applicable.
Evacuation Plan	This plan describes the role and coordination efforts during an evacuation of a healthcare facility and its repatriation (when needed).
Evacuation Resources	Equipment (facility or cache-based) including patient movement, triage/tracking supplies (NOTE: this may only apply to ambulatory surgery centers and freestanding emergency rooms for non-ambulatory patients).
Evaluation Resources (Sleds, Stair Chairs, Pediatric Equipment, Evaluation Buses)	These resources may be listed in the Evacuation Plan annex from above. Equipment (facility or cache-based) including patient movement, triage/tracking supplies. Include availability of adult, child, and infant evacuation equipment.
Exercise Plan	Exercises should meet the needs of regulatory agencies/accrediting bodies and are coordinated between the coalition disciplines to assure a community-based exercise at least yearly involves the four core coalition stakeholders and ideally more.
Family Assistance Center Plan	This plan is integrated with hospitals, EOCs, and support organizations (e.g. ARC) – may include physical and virtual operations for re-unification and notifications.
Fixed-Wing Units	Fixed-wing units can respond within 60 minutes response time to the area, specific for flight time to scene/facility. Assure contact information is available for all agencies.

Group Homes	A home where a small number of unrelated people in need of care, support, or supervision can live together, such as those who are elderly or have disabilities and access/functional needs.
Hardware/Connectivity	Computers and other material resources to facilitate virtual or physical coordination center activities, including internet/data access.
HAZMAT Radiation Assets	Assets that include radiation detection/survey equipment.
HAZMAT Response Vehicle/Trailer	HAZMAT response vehicles/trailers include capabilities for agent identification, mass decontamination and throughput for ambulatory/non-ambulatory casualties, storage location, and contact info to request. Consider antidote availability.
HAZMAT/ Decontamination Plan	This plan describes roles of EMS and Fire including agent identification, setting up hot, warm and cold zones, capability for mass decontamination, and use of medical countermeasures for chemical, biological, and radiological incidents. Include use of available antidotes (including CHEMPACK reference). Addresses delivery of contaminated patients to specialty care hospitals when needed and available.
Home Health Agencies / Home Hospice	A Home Health Agency (HHA) is an agency or organization that: Meets the federal requirements in the interest of the health and safety of individuals who are furnished services by the HHA; and. Meets additional CMS requirements necessary for the effective and efficient operation of the program. May approximate in large metro areas.
Infectious Disease Plan	This plan includes guidelines for situational awareness and notification of outbreaks associated with seasonal and emerging infectious disease agents, dispatch communication to crews, hospitals, and PH, personal protective equipment, infection prevention, and control measures, specialized transport and response protocols to tiered levels of treatment facilities.
Inpatient Isolation (AIIR) Rooms	Formerly, negative pressure isolation room, an AIIR is a single-occupancy patient-care room used to isolate persons with a suspected or confirmed airborne infectious disease. Include capacity for AIIR's and cohorting.
Inpatient Psychiatry Beds	Include capacity including for adults and pediatric patients.
Intensive Care Bed Adult	Beds that have availability of mechanical ventilation and some form of renal support and other organ support for adult patients.
Intensive Care Bed Pediatric	Beds that have availability of mechanical ventilation and some form of renal support and other organ support for pediatric patients.
Intensive Care Surge Beds	Intensive care surge beds may include doubling, use of step-down areas (therefore may count stepdown and some monitored beds twice), and procedure areas. Must have dedicated cardiac monitors, appropriate medical gases, etc. Include capacity for NICU, PICU, and Adult beds. Do not include PACU space here (list under PACU-specific line) – include both PICU and adult ICU potential surge beds.

Intensive Care Unit	Bed and staff can support above plus mechanical ventilation, sedation, hemodynamic support (pressor agents), and similar advanced care for unstable or dangerously ill patients. There is not an expectation that the facility has ventilators for each identified ICU surge bed but monitors are expected. Adult and pediatric beds are bundled together as a listed resource for disaster planning purposes. Coalitions may wish to break out pediatric ICU beds for their regional planning efforts to understand conventional capabilities.
IS/IT System Failure/Compromise Plan	This plan outlines response to downtime, cyberattacks (e.g. denial of service attack on 911), redundancy measures, training, PHI substitutions, and recovery measures.
Legal Regulatory Plan	This plan defines powers of State vs. local jurisdictions and local ordinances that may affect disaster response (e.g. disaster declarations, emergency orders, seizure powers, isolation and quarantine, changes to usual rules/requirements in disasters).
Level 1 / Level 2 Trauma Centers	Level I Trauma Center is a comprehensive regional resource that is a tertiary care facility central to the trauma system. A Level I Trauma Center can provide total care for every aspect of injury – from prevention through rehabilitation. A Level II Trauma Center can initiate definitive care for all injured patients.
Level 3 / Level 4 Trauma Centers	A Level III Trauma Center has demonstrated an ability to provide prompt assessment, resuscitation, surgery, intensive care and stabilization of injured patients and emergency operations. May include other/non-designated in this category if receive trauma. A Level IV Trauma Center has demonstrated an ability to provide advanced trauma life support (ATLS) prior to the transfer of patients to a higher level trauma center. It provides evaluation, stabilization, and diagnostic capabilities for injured patients.
Long-Term Acute Care Facilities	Long-term acute care hospitals (LTACs) provide inpatient services for patients with complex medical problems requiring extended hospital stays. LTACs are defined by their average duration of stay, not by the type of patients admitted or the services provided. For prolonged, high-intensity management of chronic conditions.
Long-Term-Care Beds	Long-term care beds in skilled nursing facilities are hospital beds accommodating patients requiring long-term care due to chronic impairments and a reduced degree of independence in activities of daily living.
MAC/EOC	Emergency Operations Centers (EOCs) are the entity from which the coordination of information and resources to support incident management at the Incident Command Post (on-scene or field level activities) occurs. Multi-Agency Coordinating (MAC) Groups are policy setting entities typically comprised of agency administrators/executives, or their designees. Physical and backup location for coordination efforts.
Mass Mortuary / Body Bags	A body bag, also known as a cadaver pouch or human remains pouch, is a non-porous bag designed to contain a human body, used for the storage and transportation of shrouded corpses. Body bags can also be used for the

	storage of corpses within morgues, including processing / identification / storage.
Mass Mortuary / Fatality Plan	This plan includes the role of the facilities, medical examiner/coroner and roles and responsibilities of the local agencies.
Mass Transit	Buses (school, public) and other contingencies should be documented – does not require a specific number. Assure points of contact and timeframe available. Include mass transit and paratransit assets and their capacities, contact info, and potential timeframe to mobilize them.
MCI Bus/Vehicle	Mass Casualty Incident (MCI) Bus/Vehicles include contents, the estimated number of casualties that can be treated/transported, location, contact agency.
MCI Trailers	Mass Casualty Incident (MCI) trailers include contents, the estimated number of casualties that can be treated, location, contact agency.
Medical Countermeasures Administration/Distribution	Physical assets that support Chempack, antidote, vaccination/prophylaxis operations, and distribution of other countermeasures from SNS and state and local assets that may include databases and electronic systems as well as physical resources (signage, badging systems, coolers, etc.).
Medical Countermeasures Plan	This plan includes mass vaccination/prophylaxis (closed and open PODs), Chempack, and plans for receipt and distribution of other countermeasures from the SNS and other assets.
Medical/Surgical Beds	General medical/surgical ward bed - bed and staff can provide basic interval vital sign monitoring, oxygen, inhaled, oral, and intravenous or intramuscular medications. Patients on these units are generally stable with limited potential for acute deterioration. Pediatric and adult beds are bundled together.
Mental Health Providers	Mental health providers are professionals who diagnose mental health conditions and provide treatment. Most have at least a master's degree or more-advanced education, training, and credentials. Document interface of major associations/provider groups/MRC or other assets with coalition activities.
Military Assets	Include assets that can be state or federally activated to support a medical response (National Guard, ground/air assets including ambulances, CERF-P units, CST, etc.). Key resources may be activated by the state.
Mutual Aid Plan	This plan specifies the request process, commitment, notification, etc. between agencies and details other services/assets. Include any written MOA/MOU and other agreements.
NICU Beds	Beds that provide neonatal intensive care unit (NICU) care. Consider Level in the case of evacuating NICU to other NICUs.
Notification Platform	Electronic systems that provide notification to leadership and partners. These systems are designed for event notification only, distinct from communication platforms listed below which are designed for ongoing, interactive information sharing.
Number of Hospitals Include Critical Access Hospitals	Total hospitals in coalition providing emergency care/acute care services.

Operating Rooms	Operating rooms are specially equipped rooms, usually in a hospital, where surgical procedures are performed.
Other Response Vehicles	Other response vehicles may include, supervisor, physician, 'jump' vehicles, etc. In large metro areas may summarize/list agencies rather than specific resources.
Outpatient Clinics	An outpatient department or outpatient clinic is the part of a hospital designed for the treatment of outpatients, people with health problems who visit the hospital for diagnosis or treatment but do not at this time require a bed or to be admitted for overnight care. These also include clinics not at hospitals.
Patient Distribution Plan	This plan specifies role in conducting inter-facility transports and patient distribution to hospitals and other healthcare facilities – coordinated to minimize overload on a single facility when possible. Integrated with hospital MCI plans.
Patient Redress/Dry Decon Kits	Redress kits allow a patient to disrobe under a large bag/cover and therefore remove contaminated clothing that can then be sealed in another bag. Limits continued exposure and potential for secondary contamination of EMS/hospital assets.
Patient Tracking and Movement Plan	This plan documents the responsibilities of EMS/PH/Hospitals/EM for tracking incident-related patient tracking during field triage, emergency evacuation, and transport. Includes patient redistribution activities to minimize surge and promote load-balancing among reception and treatment facilities. Include planning for activation by NDMS as a host or reception site. Specify process to obtain multimodal patient transport assets including ground, vehicular, and marine options.
Pediatric MCI Plan	This plan includes local and regional supplies and patient distribution, pediatric referral centers, and resources. Detail the hospital's level of preparedness to manage pediatric casualties.
Personal Protective Equipment (PPE) - Infectious Disease	Infectious disease PPE includes baseline stocks that should be maintained and identify resources/caches that could be used and/or purchase caches if reasonable. Consider an acceptable par level of 20% above daily use. Includes surgical masks and N-95 masks. Consider adding the number of PAPR kits (Butyl and Biospecific), spare Tyvek suits of various sizes, and Bio hoods.
PPE HAZMAT	PPE ensembles for the decontamination team including respiratory protection.
Pre/Post Anesthesia Beds (PACU)	To be used for trauma, ICU overflow/boarding.
Public Health Agencies	A Public Health Authority is an agency or authority of the United States Government, a State, a territory, a political subdivision of a State or territory, or an Indian tribe, that is responsible for public health matters as a part of its official mandate.

Resource Plan/Annex	This plan describes the resource request and sharing process. This includes a list of specific assets purchased with federal or state funds or under the direct control of HCC partner members. Includes cache materials, response resources for CBRNE, MCI's or emergency evacuation, specific adult and pediatric patient care items, and other assets to support facility operations.
Response Equipment and Supplies (e.g., PPE, Evacuation, Medications, ventilators, mass casualty and specialty equipment)	These resources may be tracked through inventory management systems – these should be coalition-owned/managed resources.
Response Plan	This plan describes who will be notified, how, and when (specifying indicators and triggers) during a community incident; specific mechanisms for information sharing and coordination among coalition partners; responsibilities of coalition members, response partners, and HCC "Response Team" members. Document Regional Patient Tracking and Mutual Aid Plans or agreements (e.g., MOU, MOA, MAA) between coalition members or partners.
Retail Pharmacy	A pharmacy in which drugs are sold to patients, as opposed to a hospital pharmacy. Also known as a community pharmacy. Number optional – document major chains and interface with coalition activities.
Risk Communications Plan	A plan that is integrated with community/state JIS and coalition partners
Rotor-Wing Units	Rotor-wing units respond within 60 minutes response time to the area, specific for flight time to scene/facility. List contact information/agencies and priority ring down based.
Security Plan	Facility Security plans may be supported by jurisdictional EM and law enforcement. Facility plans must include access controls and policies (for example, media and family access), as well as policies and training for workplace violence, active shooter, suspected explosive devices, and civil unrest.
Shelter Support Plan	This plan outlines the provision of medical care/support in shelter environments.
Skilled Nursing Facilities	A skilled nursing facility is an in-patient rehabilitation and medical treatment center staffed with trained medical professionals.
Skilled Nursing Facility as Part of Hospital	SNF (included in the total above) that are physically connected to an acute care hospital.
Specialty Hospitals	Specialty hospitals include long-term care hospitals, psychiatric or other specialty hospitals that do not provide emergency services.
Specialty Mass Casualty Plans (e.g., MCI, Pediatrics, Burn)	Plans for specialty situations should specify coordination, patient distribution, primary and surge facilities and resources, and coordination with specialty centers.
Staff and Resource Sharing Plan	This plan details how staff and resources will be shared between facilities and policies/protocols. Include a written plan for how needed assistance will be reported to others (phone, information-sharing platform, etc.) and the hospital's role in HCC MOU/MAA to support emergency staffing and resource support.

Stepdown	Stepdown beds and staff can provide cardiorespiratory monitoring (cardiac monitor, oxygen saturation monitoring) and intravenous medications and fluid support for currently stable patients with significant oxygen or other needs and potential for dangerous rhythm disturbances and deterioration. Pediatric and adult beds are bundled together.
Stepdown (Intermediate Care) Beds	Stepdown (intermediate care) beds refer to intermediate care including cardiovascular drip medications, potentially BiPAP but not mechanical ventilation or pressor support.
Stepdown Surge Beds	Stepdown beds that can be used during a disaster event. These must include cardiorespiratory monitoring capability including remote telemetry.
Surge Beds	Beds that can be used during a disaster event. This may involve making appropriate single rooms double, using observation, pre or post-anesthesia care areas, or opening closed units. The facility should only declare the number of beds it has on hand and could achieve within 24 hours, though the Coalition may wish to track potential additional beds that could be opened with leased/supplied beds and over a longer timeframe (e.g. some remodeling / temporary walls would be constructed, etc.).
Surge Discharge Potential (beds)	The number of beds that could be made available via early discharge based on exercises or real-world events.
Surge Discharge Potential (patients)	The number of patients that could safely be moved to a discharge holding area/out of their usual rooms pending discharge to make room for incoming patients. A hospital needs to have a process for selecting these patients and generate a point estimate of the number of beds that could be made available based on exercises or real-world activation of the process. The aggregate number of beds made available across the coalition hospitals should be listed.
Surge Supplies	Surge supplies do not need to include specifics of facility supplies but each facility should be accountable to be prepared according to their role in a disaster.
Surgical/Burn MCI Plan	This plan includes local and regional supplies and patient distribution and protocols and training policies. Surgical burn mass casualty incident (MCI) plans can address events such as active shooter or bombings.
Technical/Swiftwater/Collapse Rescue	Resources and agencies that may be engaged locally or regionally to assist with technical / US&R situations. List point of contact and timeframe for rescue missions.
Telephone / Web-Based Care	Local system providers are documented and describe how they interface with coalition activities.
Urgent Care Center / Freestanding Emergency Rooms	Urgent care is a category of walk-in clinics in the United States focused on the delivery of ambulatory care in a dedicated medical facility outside of a traditional emergency department. They are not at hospitals and can be approximated in large metro areas – note they may have significant differences in the level of service/capabilities, particularly for imaging. May also include the number of ORs.

Ventilators (Hospital Owned)	A ventilator is a machine that provides mechanical ventilation by moving breathable air into and out of the lungs, to deliver breaths to a patient who is physically unable to breathe or breathing insufficiently. Do not include anesthesia machines in OR. Include transport ventilators with high/low pressure and other alarms suitable for longer-duration simple ventilation situations. Quantify adult & pediatric vents. Also, ECMO.
Virtual Coordination	A platform for virtual coordination.
Volunteer Management Plan	This plan includes capabilities, deployment parameters/priorities, and processes inclusive of Medical Reserve Corps as applicable.
Wheelchair Vans	Wheelchair vans should include private services.