From Frontline to the Executive Office: Disaster Planning That Works

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Agenda

- Describe the impact of large-scale disasters on healthcare organization's business operations.
- Identify planning options to support operations during a disaster.
- Review tools available to prepare staff for disasters.
- Identify tools to evaluate disaster preparedness and business continuity planning within an organization.


Past
Future

Disaster Management

What You Don't Know You Don't Know

What You Know You Don't Know

What You Know

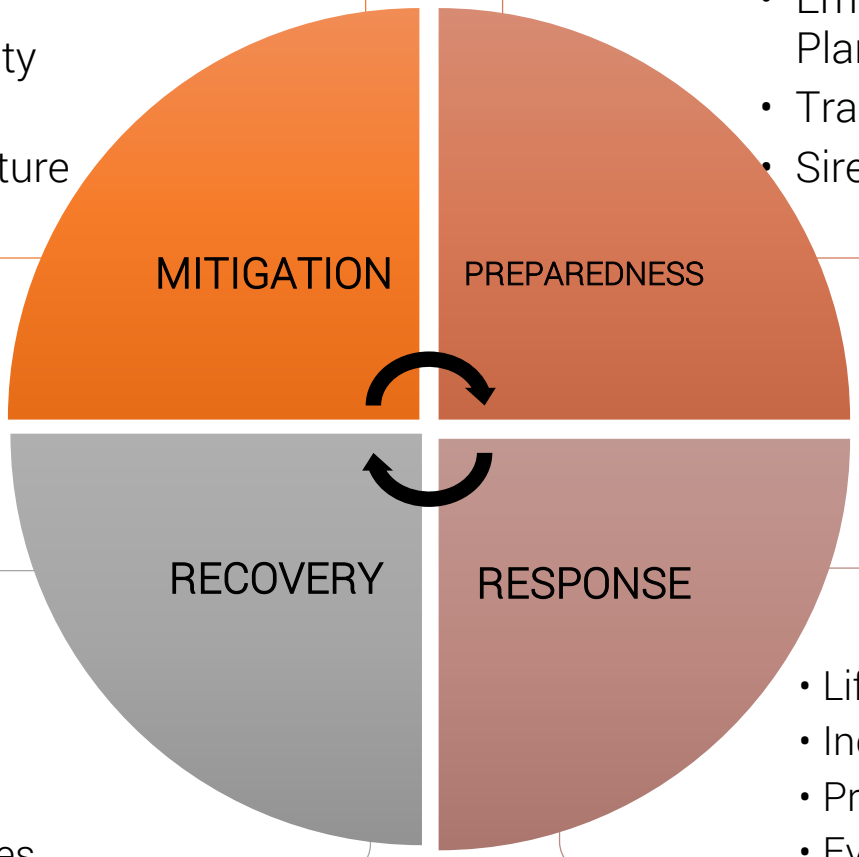
Why This Focus?

- Increasing rate of disaster(s) – natural and man made.
- Less about if this will happen in your practice and more about *when* it will happen.
- Most disasters involve/touch healthcare.
- Part of healthcare community service mission.
- Compliance requirements continue to demand preparedness, executive leadership, staff knowledge, skills and ability.

The Phases of Emergency Management

- Public Education
- Hazard & Vulnerability Assessment
- Improved Infrastructure

- Emergency Response Plans
- Training & Exercises
- Sirens



- Economic Recovery
- Debris Management
- Housing
- Health & Social Services

- Life Safety
- Incident Stabilization
- Property Preservation
- Evacuation & Shelters

Definitions

- Disaster: When the anticipated or actual needs exceed the resources available.
- Emergency Management: The comprehensive approach for the mitigation of, preparedness for, response to, and recovery from disasters.
- Mitigation: Reducing the impact of uncontrollable hazards or threats.
- Hazard: A source of potential harm.
- Threat: Something/some action that has potential to cause harm.
- Risk: The likelihood of being injured by a threat caused by a hazard.
- Vulnerability: A weakness that may be exploited by a hazard.
- Disaster Recovery Plan: A documented process or set of procedures to recover and protect a business IT infrastructure in the event of a disaster.
- Business Continuity Plan: A documented plan to help ensure that business processes can continue during a time of emergency or disaster.

Disaster Impacts to Public Health

- Premature deaths, illnesses, injuries that may exceed capacity.
- Healthcare infrastructure destruction.
- Mass population movement.
- Environmental shifts/changes
- Psychological/mental health impacts.
- Shortages providers, blood, supply, equipment.
- Shortages materials, food, safe shelter.

Public Health Risks

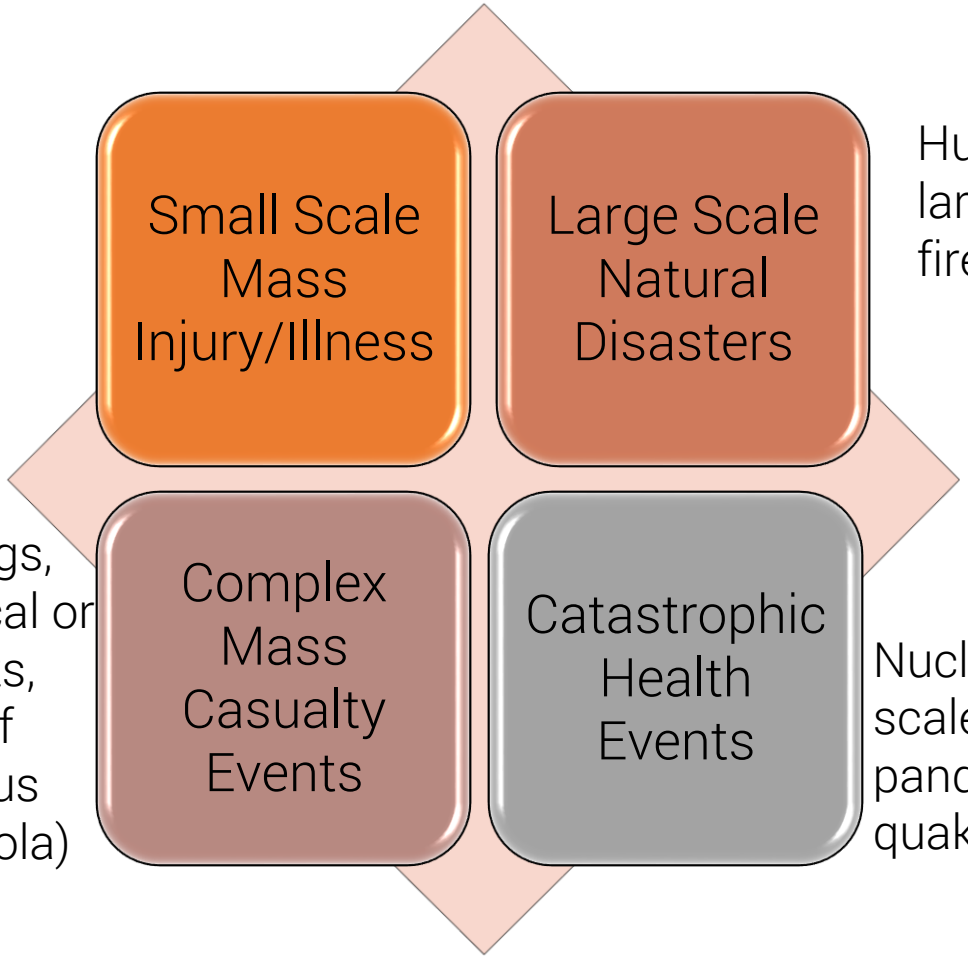
- Damage to the Public Health infrastructure.
- Resource/service disruption.
- Inability to provide surveillance of population health.
- Difficulty in patient tracking.
- Delays in care and treatment.

Impact of Disasters in the US

- 1,200 tornado touch downs in US every year.
- 2017 over 6.5 million people evacuated from California, Florida, Puerto Rico & Houston
- Cost of downtime reaching >$400,00/event

Different Disaster Categories Require Different, Overlapping Approaches

Bus crash, tornado, multiple shootings, local epidemics



Hurricanes, earthquakes, large –scale flooding, fires, mudslides

Large-scale shootings, burn events, chemical or radiological incidents, Limited outbreaks of Contagious infectious Diseases (SARS, Ebola)

Nuclear detonation, large-scale bioterrorism, severe pandemics, or major earth-quakes

A Framework for Healthcare Disaster Resilience, Center for Health Security

Fires

Flooding

Evacuations

Why Do We Need a Plan?

- Centers for Medicare & Medicaid Services, Conditions of Participation (2016)
- The Joint Commission, Emergency Management
- National Fire Protection Assn.
- US Department Homeland Security
- American College of Surgeon's
- State and Regional Level Disaster Plan
- Federal Emergency Management Agency (FEMA)

Common Needs

- Stuff
- Staff
- Space (lots of space)
- Command Authority, Response Structure
- Communication
- Someone in-charge
- Department capabilities and capacity understanding
- Coordination with community, region, state, & federal partners
- Security
- Processes and Systems

Changing - Common Needs

- Information Access
- Technology Access
- Data Access
- Electronic Systems and Interface Access
- Downtime Competency

- Stuff
- Staff
- Space (lots of space)
- Command Authority, Response Structure
- Communication
- Someone in-charge
- Department capabilities and capacity understanding
- Coordination with community, region, state, & federal partners
- Security
- Processes and Systems

Northeast Blackout of 2003

August 15, 2003

15 Degree Wind Shift to Evacuation of >600 Patient

Our Challenges and Wake Up Call

- Multi-hospital health system with individual and central command centers that could not communicate.
- No communication all cell tower were down
- Variety of levels of food availability
- No system redundancy
- Limited recovery plans including physician and nursing coverage
- Community needs & demands
- Loss of water flow to one hospital
- Blown switchboards controlling back up generators
- Lost Mental & OB Unit electronic security
- Limited fleet gas and diesel fuel
- IT Command Center not on priority grid to return to operations.

Planning Process

Planning Process

Planning Focused Goals

- Identify hazards and threats to the organization.
- Prioritize the threats based on likelihood and impact to determine risk.
- Build mitigation strategies, plan policy and organizational priorities.

Risk and Hazard Identification

HAZARD AND VULNERABILITY ASSESSMENT TOOL
HUMAN RELATED EVENTS

KAISER PERMANENTE

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

Event	PROBABILITY	ALERTS	ACTIVATIONS	SEVERITY = (MAGNITUDE - MITGATION)						RISK
				HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	
	Likelihood this will occur			Possibility of dealth or injury	Physical losses and damages	Interuption of services	Preplanning	Time, effectiveness, resources	Community/Mutual Aid staff and supplies	* Relative threat
SCORE	0 = N/A 1 = Low 2 = Moderate 3 = High	Number of Alerts	Number of Activations	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High 2 = Moderate 3 = Low	0 = N/A 1 = High 2 = Moderate 3 = Low	0 = N/A 1 =High 2 = Moderate 3 = Low	0 - 100%
Active Shooter										
Acts of Intent										
Bomb Threat										
Building Move										
Chemical Exposure, External										
Civil Unrest										
Communication / TelephonyFailure										
Dam Failure										
Drought										
Earthquake										
Epidemic										
Evacuation										
Explosion										
External Flood										
Fire										
Flood										
Forensic Admission										

Developing Mitigation Strategies

Key risk	Financial impact	Mitigation strategies
Significant water quality incident leading to deteriorating public health or unsuitable aesthetic customer impacts or *Operating Licence* non-compliance.	Capital Operating costs Revenue	• Emergency response plans and • Quality management system to incidents. • Installation of temporary powde at Orchard Hills and Warragam • Catchment to tap risk assessm compounds and algal toxins risl • Established protocols with Sydr NSW Health.
Lack of integration of organisation structure and unclear roles and responsibilities lead to poor decision-making for Sydney Water as a whole.	Capital Operating costs Revenue	• Application of the Leadership F general managers. • Cross-divisional decision-makir Executive meetings. • New organisation structure fron
Significant accident with loss of life.	People Capital Operating costs Revenue	• Workplace safety-culture chang and mentoring, focus on line m training and key performance in performance agreements. • Rigorous work health and safet • Key risk project and improved i
Failure to deliver accurate and integrated information to support decision-making.	Capital Operating costs Revenue Fixed assets	• Incident analysis. • Ongoing improvements to data accuracy. • Risk-based management audit process. • Validation and verification of data and reports. • Implementation of data improvement initiatives.
IT security breach leading to confidential information being disclosed or an IT system modified without authority.	Capital Operating costs Revenue	• Password, network perimeter security, virus, training and communication controls. • Long-term strategy for IT security. • ISO27000 governance framework. • Implementation of long-term security improvements.

Mitigation Strategy Action Worksheet

This mitigation strategy follows through on the 2016 IFMC Hazard Vulnerability Analysis conducted by the Emergency Management Committee. Strategy identification and progress tracking information shall be maintained for three years by the IFMC Office of Emergency Management.

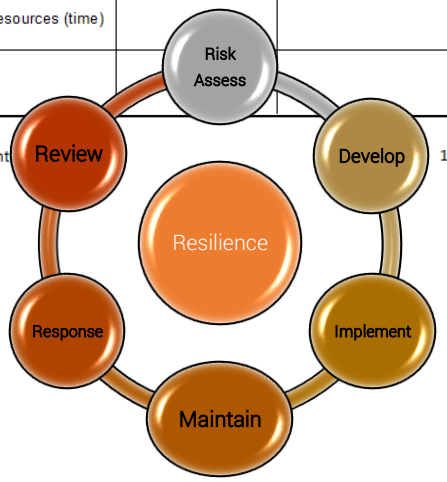
I. Introductory Information

Complete project initiation

Hazard:	Active Violence
Description:	An active violence situation includes, but is not limited to, a hostile person with a weapon, a hostage situation, or other situation that involves an unstable criminal environment.
Lead Department:	Security
Lead POC:	Dan Rutledge, Gary Switzer
Supporting Departments:	Emergency Management, Safety, Security
Due Date:	12/31/2016
Long-Term Goal:	IFMC will have in place a staff that is comfortable handling security situations and will effectively coordinate with community responders

II. Mitigation Strategy

	Objective	Anticipated Outcomes	Human/Material Resources	Projected Cost	Projected Completion Date
1	100% of staff will be able to recognize and respond appropriately to violence in the workplace	Staff will be comfortable with security situations	Human Resources (time)		12/31/2016
2	Security and hospital leadership will coordinate effectively with community responders	Smooth operations with free-flowing information and an understanding of expectations	Human Resources (time)		12/31/2016
3	Internal emergency communications will be coordinated and expectations understood for all key players	Smooth operations with free-flowing information and an understanding of internal expectations	Human Resources (time)		
4					



Engaging Staff

- Team planning for hazards.
- Scenario building using threats and planned processes
- Staff needs and knowledge review(s)
  - New equipment, processes
- Learning strategies and simulations

Engaging Executives & Boards

- Risks and hazards to patients and community
- Mitigation strategies
- Strategic goal alignment
- Financial commitment and return on investment
- Staff training and development
- Observation of incident command structures
- Consensus to invest in redundancy, business continuity, and constant readiness.

Implementing Processes

- Create a foundational plan built to address various disaster impacts.
  - Information Management
  - Communication Flow
  - Resource Access for Patient Care
  - Technology Access
  - Resource Allocation
  - Department Role
  - Individual Roles
  - Disaster and Recovery Plans
- Create unique disaster variations based on history and geographical experience.

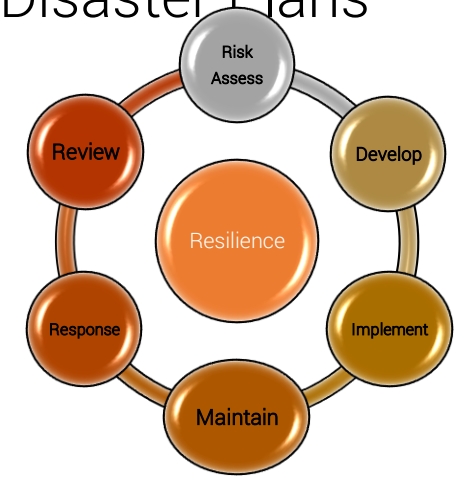
Maintaining – All Hazards Plan

- How do we organize our staff, space, and resources?
- Does everyone know their roles, responsibilities, key policies, practices.
- Test plans and update.

Snowstorms and Evacuations

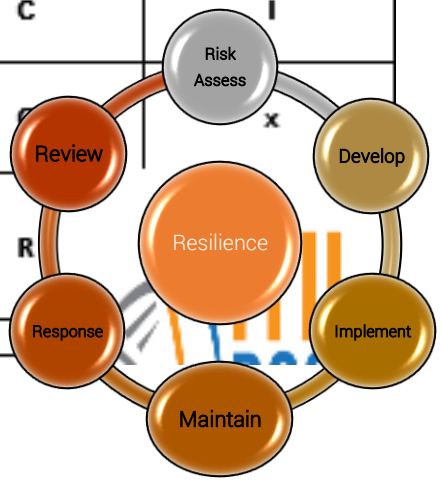
Beyond The Disaster Plan: IT Continuity

- Understanding the larger picture and how critical the IT need is.
- Hazards and Risks assessment
- *Clear Disaster Recovery Plan (DRP)*
  - Organization Structure
  - Communications Procedures
  - Recovery Steps
  - Testing
- *Clear Business Continuity Plan (BCP)*
  - Critical System Availability
  - Redundancy of Power, AC, Facilities, Communications
  - All Business Systems
  - Regional Disaster Plans



IT Command Roles and Expectations

	Desk	Manager		Lead	Manager	Manager
Ticket Creation	A	C	C	X	x	x
Ticket Validation	R	A	C	C	x	x
Identifying right support team & Ticket Assignment	A	C	C	I	x	x
Updating outage board	A,R	C	x	X	x	x
Resource Engagement	R	A	C	C	x	x
Validating or Gathering Impact details	R	A	R	R	R	x
Notification at various stage as per process	I	A	C	C	C	I
Opening up Bridge call and resource engagement	R	A	x	C		x
Prepare restoration plan with help of support team	x	R	R	A	R	
Bridge call Drive	x	R	R	R		



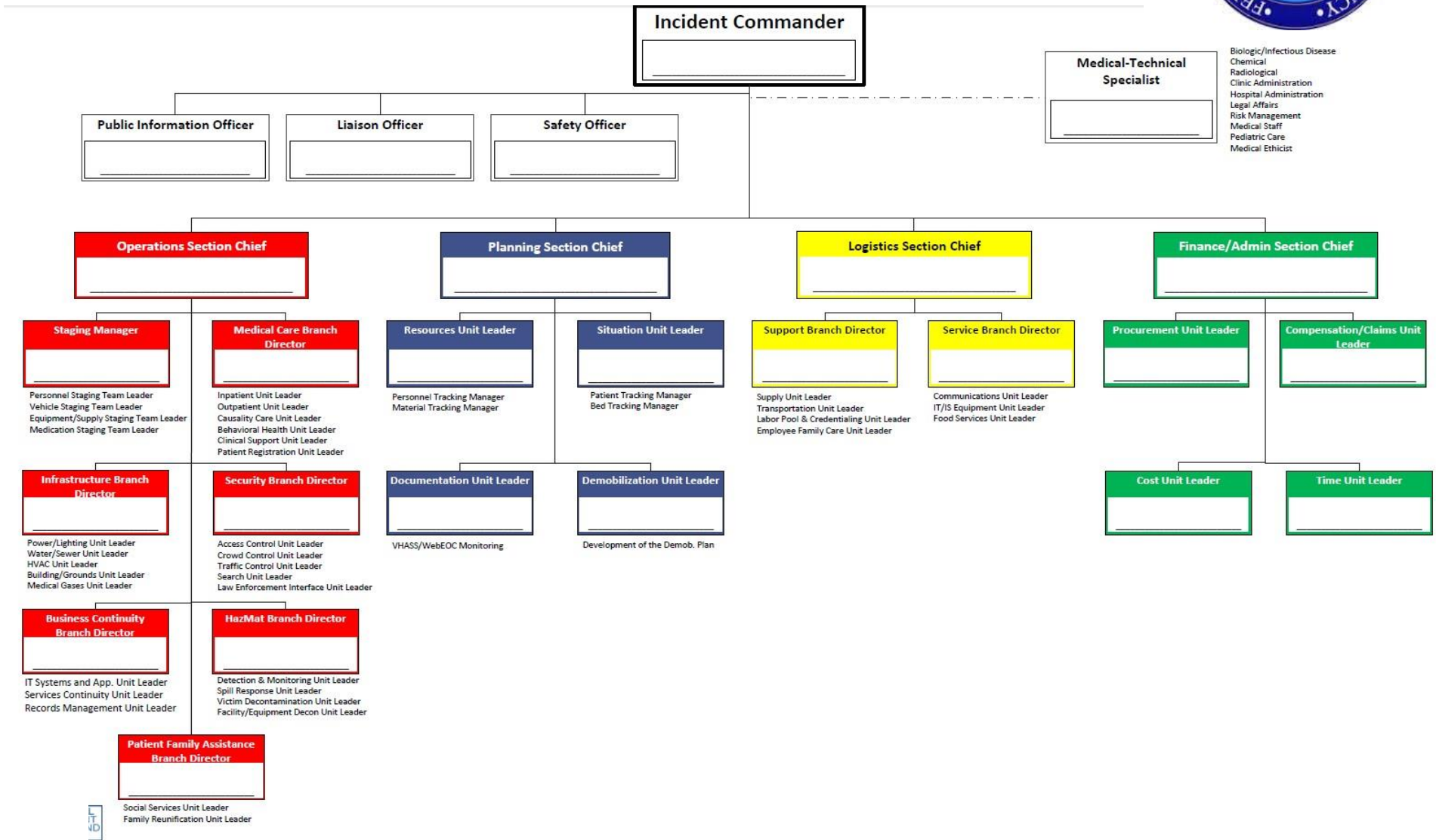
Lesson Learned From Recent Disasters

- Recognize the far-reaching effect, that disasters have that may not be easily imagined and approach others with compassion.
- Anticipate to run your organization with Incident Command at least 72 hours until external support is available.
- Move FEMA National Incident Management System (NIMS) training into plans as standard preparation.
- Leverage technology using mobile strategies for incident command, and communication.

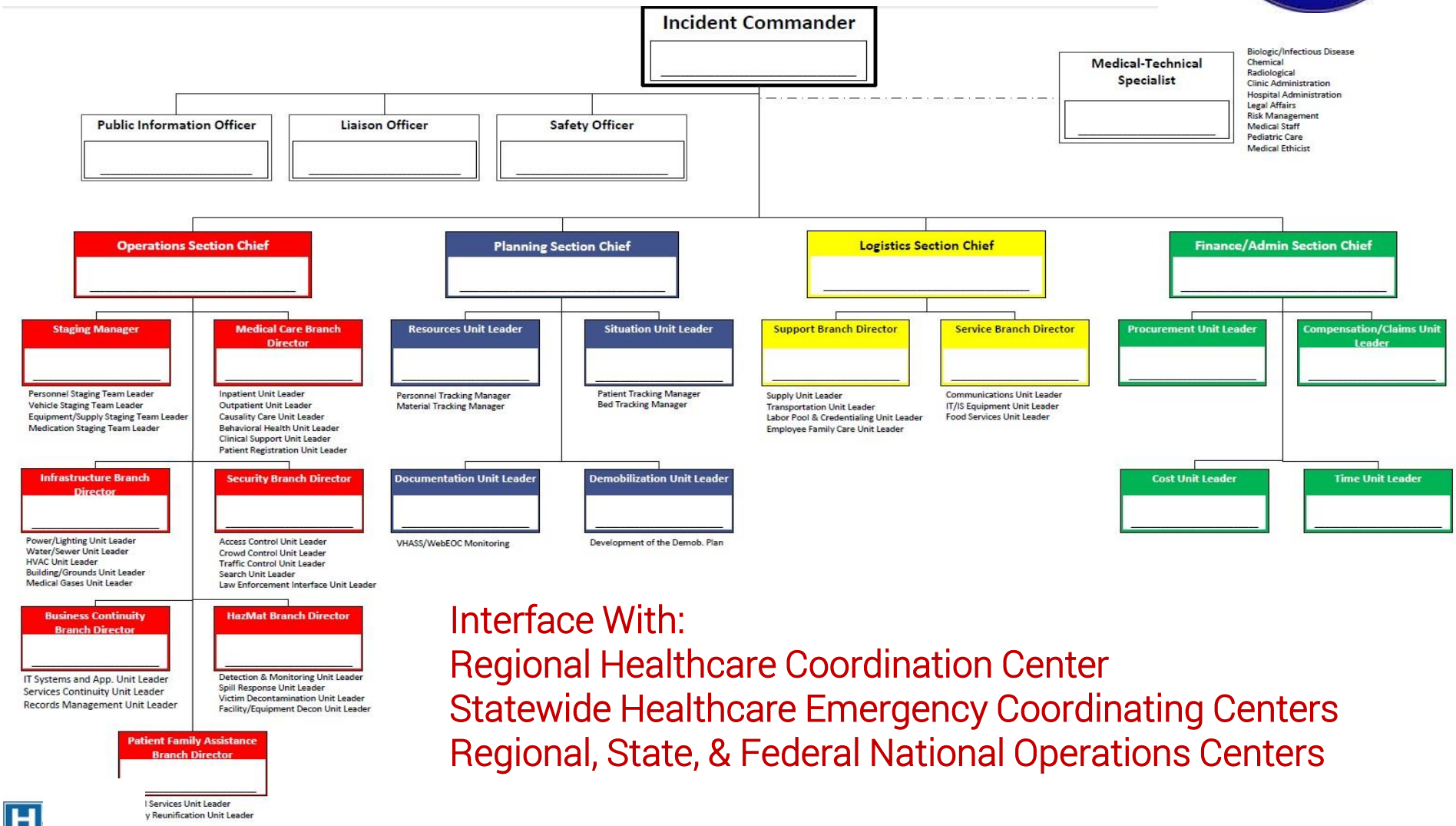
Lesson Learned From Recent Disasters

- Incident command center knowledge of IT core continuity plans.
- Shut down unnecessary applications.
- Back-up facility data prior to disaster.
- Back-up equipment/cooling units.
- Enhance security of personnel, patient & business data.
- Data center hosting away from the primary area of disaster.
- Separate staff teams during the disaster and recovery.
  - Overestimate number of critical staff
  - Increase staff downtime approaches, clarity
- Family sheltering within health facility.

Organizing Staff



Organizing Staff



Interface With:
Regional Healthcare Coordination Center
Statewide Healthcare Emergency Coordinating Centers
Regional, State, & Federal National Operations Centers

Accessing Federal Resources

Strategic National Stockpile

CHEMPACK Program

Disaster Medical Assistance Teams (DMATs)

Quick Reference(s)

Planning and Training

Seminars, Tabletops, Games, Drills, and Workshops to Partial and Full Scale Exercises

Pediatric Intensive Care Unit
Evacuation Equipment Instructions

Maggie Adzima, Austin Bunker, Gina Cannon, Jennifer Feutz, Annemarie Gebhard,
Grace Gasior, Abby Palisin, Zeineb Selmane

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ALBACMAT

1. Open Velcro tab and unroll Albac Mat flat alongside

2. Roll patient on their side and tuck mat along their body

3. Secure patient with straps. Straps can be placed either "X" or horizontally. Note: Pediatric mat length can be adjusted

4. Grab handles at top or side of mat and turn patient on mat towa… wise or counter depending… rescuer is standing)

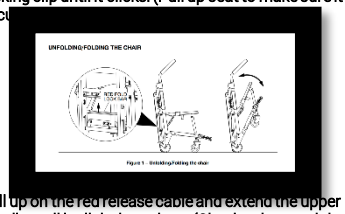
5. Lower pa… m by holding straps at … most comforta…

6. Using handles at either head or feet, determined by situation, and pull patient to safety.

-Descending Stairs: bring patient to top of stairs with feet over the edge, one rescuer holds handle at feet to steer, rescuer at top holds side or top handle and guides patient down stairs, walk down normally, mat will do the work, lift patients feet for easy steering on stairwells

STAIR CHAIR

1. Before patient placement, engage both wheel locks by pressing down on the red pedals. (Engage both wheel locks during transfers to or from the chair.)
2. Unfold chair seat by firmly pulling the seat from its locking clip until it clicks. (Pull up seat to make sure it is secu…



3. Pull up on the red release cable and extend the upper handle until it clicks into place. (Check to be sure it is securely locked.)
4. Center the "patient" in chair and secure with chest, lap and ankle straps while tucking in strap ends (head strap is optional.)
    1. Wrap each strap around the chair frame, insert the ends through the loop on the end of the strap and pull it tight
    2. Pull the strap across the passenger's chest, lengthening the strap as necessary.
    3. Pull the loose end of the strap to tighten it securely around the passenger.
    4. Repeat for the lap restrain and the ankle restraint
5. Unlock wheel and push patient to stairwell in the chair. Squeeze the red release bar to extend the stair tread until click is heard. (Verify both sides of the tread are locked by pulling up the tread.)
6. Instruct assistant team member at bottom of chair to push down on red tabs to extend foot handles and lock them into position. (Assistant verifies foot handles are locked into position.)
7. Align chair squarely and indicate when wheels are in position (about 6 inches from edge of step.)
    1. Assistant "TIP!"
    2. Operator "READY!"
    3. Assistant "GO!"

8. Select appropriate angle for descent and engage tread on stair. Descend down the stairs
9. On stair landing, tip chair to upright position, and roll it to the edge of the next flight of stairs in preparation for descent.

MED SLED

1. Remove basket and harness or optional O2 Ecav Pack upgrade from Med Sled storage device. Take harness and basket out of plastic bad. Set basket aside.
2. Disconnect the Chest Strap Buckle. Put Harness or O2 Evac Pack on. It is worn like a back pack.

3. Slip both arms through thick black straps. Adjustable male black and brown buckles will hang freely from Harness or O2 Evac Pack until attached to Basket.
4. Connect the Chest Strap Buckle and adjust for shoulder and chest comfort.

5. Hold Evacuation Basket horizontally with black female buckles away from you. Connect both black male buckles hanging from Harness or O2 Evac Pack into black female buckles. Adjust straps using Velcro to secure and level basket.
6. Connect both male brown buckles hanging from Harness or O2 Evac Pack into female brown buckles on basket. Adjust straps using Velcro to secure and level basket.
7. Adjust all four straps using Velcro to ensure basket is level.
8. Wrap infants with receiving blankets so they are cocooned. We recommend lining the basket with disposable changing pad if available.
9. Place the infant(s) into Basket and secure with red Velcro straps either hori… cross infant(s) to secure comfortab…

10. Depending on size of infant(s) additional padding may be required. This can be accomplished by rolling additional infant blanket(s) and placing around the infant(s) perimeter.
11. At this time, place any additional equipment, monitors, and ventilators into basket off to the side of the infant(s) using Velcro straps that are not in use to secure equipment. If oxygen lines are in use secure line with red Velcro Loop on corner of the Basket.
12. Place any additional items in Storage Compartment below basket.

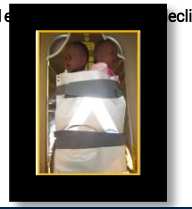
WEEVAC

1. Unfold stret… between the pegs.

2. Choose pe… ust bottom strap.

3. Load infants in correct orientation (facing out and back to…

4. Maintain head e… ecline/stairwells.



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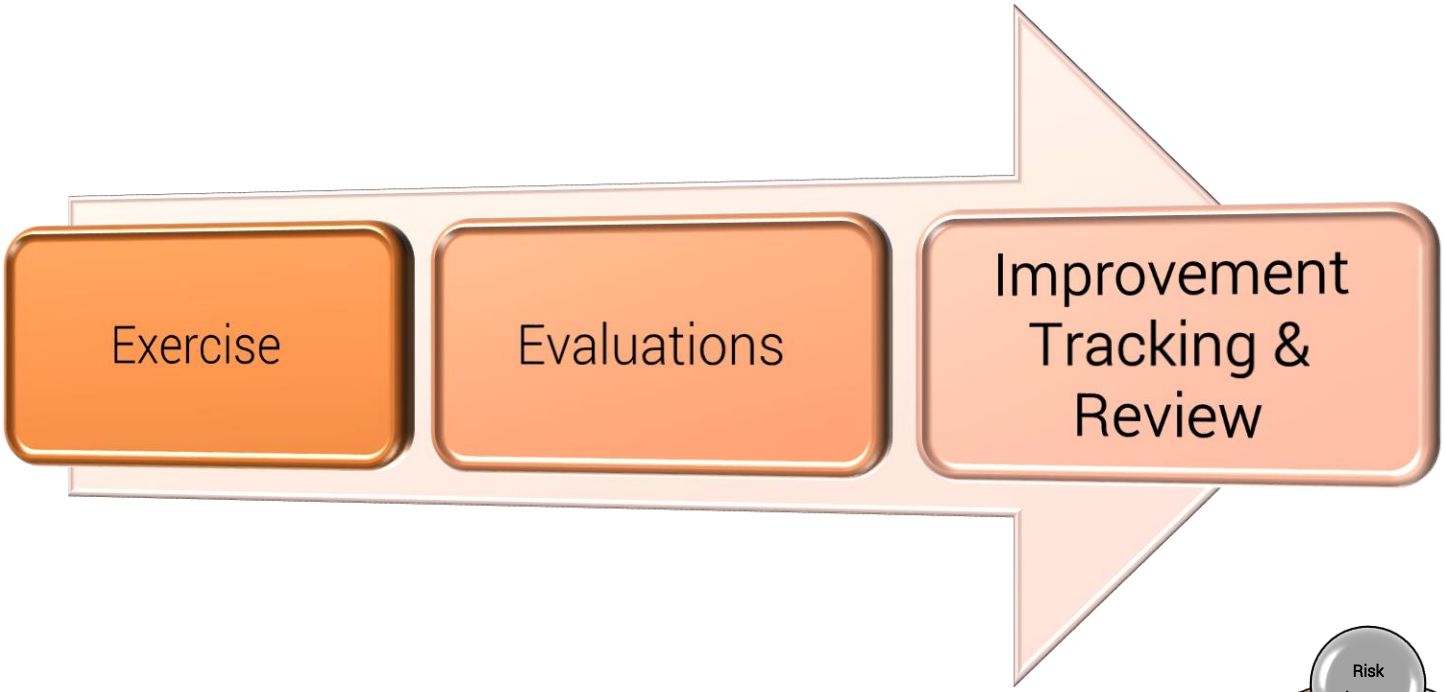
Organizational Resilience



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Question

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