Mississippi Hospital Association
All Hazards Disaster Recovery Planning
Welcome and Overview

Welcome to this training session planned and facilitated by Healthcare Ready.

Objectives for the morning:

- Better understand all-hazards preparedness, response, and recovery principles
- Contextualize the emergency management lifecycle within these principles
- Review case studies and best practices
Agenda

- Overview of disaster preparedness, response and recovery for healthcare facilities
- Overview of the emergency management lifecycle and planning
  - Natural Hazards, Human-cased Events, Cyber Threats
- Response Principles
  - Building an effective response plan
  - Coordinating response plans across vendors and partners
  - Challenges in response coordination
  - Transition from response to recovery
- Recovery Principles
Why We Exist

Mission: Healthcare Ready leverages unique relationships with government, nonprofit and medical supply chains to build and enhance the resilience of communities before, during and after disasters.

Lessons Learned

Hurricane Katrina

- Protecting public health after a disaster requires continued access to essential medicines
- Better coordination & communication between sectors was needed
- A forum for resolving issues in real-time was needed

Industry Call to Action

Rx Response (now Healthcare Ready) was built as a critical new asset to help ensure the continued flow of medicine to patients during:

- Severe natural disaster
- Large-scale terrorist attack
- Pandemic or disease outbreak
Cross-Sector Collaboration

**Scope:** Strengthening supply chain operations and healthcare system resilience through public-private collaboration.

**Supply Chain**
- **Manufacturers:** Sharing information, prescription assistance programs
- **Distributors:** Facilitating access, routing requests
- **Healthcare facilities:** Pharmacies, dialysis centers, urgent care

**Healthcare Providers & Organizations**
- **Pharmacies:** Business continuity, share resources
- **Dialysis:** Coordinate resources
- **Hospitals:** Resource needs
- **Ancillary Care:** Information sharing

**Federal Government**
- **DHS:** Communicate supply chain equities
- **FEMA/NBEOC:** Share information, escalate requests
- **HHS/ASPR:** Share information, route requests

**State, Territorial, and Local Government**
- **EMA (BEOC):** Share information
- **Public Health:** Meet resource requests
Disaster preparedness, response, and recovery for healthcare facilities
Healthcare, hospitals and disasters

• Need to think holistically
  • Hospitals *plus* partners

• Understanding healthcare operations
  • Typical citizen interfaces with their:
    • Physician: 2 - 4 times a year
    • Pharmacist: 12 times a year
    • Dialysis center: 150 times a year

Most disasters have a healthcare component – not just pandemics!

Healthcare expands beyond hospitals – all components need to plan

What does ‘disaster’ mean to you?

Do you think your hospital could handle the surge it would experience during a pandemic? Massive power outage?
Healthcare and Disasters

92% of healthcare owned by private sector

Public sector relies on healthcare during emergency response

Disaster response depends on supply chain capacity

Protecting access to healthcare a primary objective

Awareness of which facilities are open during emergencies is essential

Leveraging existing health networks more efficient than disaster-based solutions

Operational status generally known and shared, public health needs less clear

Facility status gives patients and responders options

Need to engage all of healthcare and broader private sector to address disaster-related health needs

Responders & EM need common operating picture

Bi-directional information sharing is critical

Collective response requires clear coordination points
Current Demands

- CMS Emergency Preparedness Rule
  - Review/development of emergency plans (esp. ancillary care) heightening awareness and need for stronger relationships with supply chain
  - Partnership requirement

- HPP Preparedness and Response Capabilities
  - Integration of supply chain assessment with minimal guidance

- Lessons Learned
  - Recent disaster responses and after-action reviews have impressed the need for stronger investments in risk reduction and resilience-focused business strategies
Current Trends

Adjusting to the “new normal” disaster cycle
- Little downtime, and no slow season
- Recovery bleeding into response gives little time to plan or prepare
- Broad range of events
  - More extreme events – natural, man-made, disease outbreak

Federal response posture is quickly evolving
- More “response forward” stance
- Aggressive private sector engagement, from different vantage points, complicates information-sharing
- Reorganizations of DHS and ASPR

Visibility on supply chain and interest in measuring supply chain resilience
- DHS, HHS, NSC interest in supply chain granularity
- Preparedness and response supply chain reporting expected
- Exploring levers and incentives to pull info from the sector
Business Strains

- Impact of recent crises and litigation
  - Opioid crisis, negative public perception
  - National coverage of recent shortages and patient impacts

- Keen interest on disaster preparedness from a community health resilience perspective
  - Promoting resilience as a positive component of the transformational care model, without much specificity (yet)

- Changing market
  - Mergers and acquisitions across the pharmaceutical and medical-surgical markets
  - Mergers and acquisitions across health systems and facility types
Current Environment

Threats and Challenges

- Evolving disaster landscape, with extreme events more frequent
- Longer disaster recovery trajectory
- Economic impact of disasters and disease outbreaks
- Dependence on healthcare industry to maintain public health in events – need business resumption (and fast)
- Need to focus on continuity of society/community/government

Opportunities

- Refocusing on regions based on risk (and the assets therein)
- Smarter, more consistent disaster preparedness investments ($1/ $6)
- Engagement of private sector and non-governmental actors:
  - Business continuity
  - Community resilience
  - “Whole of community”
- Rethinking preparedness/response partnerships and approaches to build resilience
What Can Change During an Emergency Response?

Emergency powers can change the enforcement of laws and regulations to protect lives, health, and property.

**Local**
- Curfews
- Access for employees and vendors
- Fuel
- Power

**State**
- Practice Act
  - Immunizations
  - Protocols
  - Emergency supply
  - Distribution
  - Insurance

**Federal**
- Emergency Use Authorization\(^1\)
- PREP Act: Liability\(^2\)
- DEA
- CMS\(^3\)
- EPAP

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(1) Source: FDA. [Emergency Use Authorizations](http://www.fda.gov/EmergencyPreparedness/Counterterrorism/ucm182568.htm), Accessed April 9, 2019
(2) Source: HHS. [Public Readiness and Emergency Preparedness Act](http://www.phe.gov/Preparedness/legal/prepact/Pages/default.aspx), Accessed April 9, 2019
(3) Source: CMS. [Emergency](https://www.cms.gov/About-CMS/Agency-Information/Emergency), Accessed April 9, 2019
Health System Operations

- **Departments**
  (esp. Emergency Department, clinic functions, surgical departments)

- **Medical Product Supply**
  (Supply chain operations, warehousing and storage, shortage/allocation)

- **Staff**
  (all critical personnel, including medical staff, janitorial staff, etc.)

- **Patients**
  (Communication with patients and advocates)

- **Continuity of Care**
Emergency Preparedness and Response
Within the System and the Jurisdiction

Health System Response
- Emergency Response/ Business Continuity

State / Local Response
- Healthcare Coalitions
- ESF-8: Public Health and Medical
- BEOC/ Private Sector Liaison: Healthcare and Public Health

Federal Response
- FEMA
- FEMA/NBEOC
- HHS/Assistant Secretary for Preparedness and Response
- DHS/ Cybersecurity and Infrastructure Security Agency

Including partners from nearby health systems
Emergency Preparedness and Response
Within the System and the Jurisdiction

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Staff
Structure
Supplies
Systems
Business Continuity 101

Identify what hazards apply to your business
(Hazard Analysis)

Determine the risk that these hazards pose to your business
(Hazard Vulnerability Assessment)

Develop plans and procedures to help your business prepare
for, respond to and recover from interruptions (Emergency
Response Plan)

Continue to refine your plans through exercises and evaluating
performance in real events
(Continued Improvement – Testing and Exercising)
Healthcare requires a number of critical sectors for ideal operations.

**Telecommunications**
- Expected back ups
- IT infrastructure

**Water**
- Potential for non-potable water access
- Expected back ups

**Power**
- Generator status (and expected duration)

**Transportation**
- Potential for delay in deliveries
- Priority supply needs
Current Environment

Threats and Challenges

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• Refocusing on regions based on risk (and the assets therein)
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  • “Whole of community”
• Rethinking preparedness/response partnerships and approaches to build resilience
Emergency Management Lifecycle
Emergency Preparedness Lifecycle

Plan

Organize / Equip

Train

Exercise

Evaluate / Improve

Preparedness Lifecycle
Hazard-Specific Challenges

**Notice Events**
- Ability to plan and forecast needs for the duration of the event
- Advance deliveries are available – can plan for surge
- Build communication plans in advance of landfall

**No-Notice Events**
- Existing staff and supply is what is available
- Surge deliveries may or may not be possible, depending on context
- Supplies needed may not be readily available, depending on hazard
Hazard-Specific Challenges

**Natural Disasters (Notice)**
- Ability to stockpile / preposition
- Dependence on other sectors

**Natural Disasters (No Notice)**
- Restricted supply / staff
- Transportation

**Disease Outbreak**
- Long-term demand
- Demand for minimally available product

**Man-Made Event (No Notice)**
- Secure transport
- Awareness / communication of need

**Large Scale Security Event (Notice)**
- Anticipating needed product
- Quickly moving product
Natural Hazards and Cyber-event – Key Considerations

Natural Hazards

• Impact to communications
• Likelihood for patient surge
• Impact to neighboring ancillary care facilities
• Coordination the public sector

Cyber Events

• Loss of IT
• Interruption to EHRs
• Cyber hygiene of staff
• Understanding physical impacts and cascading events
Response Principles:

Building an Effective Response Plan
Importance of Response Plans and Business Continuity

Among businesses without a disaster plan, 40% do NOT reopen following a disaster

• Of those that do reopen, 25% fail within one (1) year

Business Continuity is especially important for standalone facilities, but should be a vital part of any facility’s emergency operations plan

Business Continuity has the following tangible impacts:

• Reputation and perception (client trust)
• Cost-savings (including insurance)
• Potential government partnerships (CMS, HHS/ASPR)
Business Continuity and Workforce Protection

General Recommendations

• Review and update business continuity plans including preparing for prolonged teleworking
• Make a clear plan for what business would look like if there are staff shortages due to quarantine
• Identify essential functions, goods, and services that your company needs to operate
• Identify essential functions, goods, and services your company provides that are considered essential to the economy or your sector

Cybersecurity Recommendations

• Ensure virtual private networks (VPNs) and other remote access networks are fully patched
• Ensure your company has licenses to support a remote workforce
• Enhance system monitoring is set to receive early alerts on unusual activity
• Ensure all remote access networks can handle firewalls
## Communications Best Practices

| Email Listservs | Develop and manage distribution lists  
| Coordinate with EMA, Health Department, other gov’t partners |
| Physical Co-Location | Send representatives to local BEOC  
| Send representatives to partner organizations |
| Coordination Calls | Share information  
| Make requests |
| Coordination with Local Media | Identify “point person”  
| Streamline messages  
| Take advantage of radio, TV, social media |
| Centralizing Information | Create shareable documents  
| Use intranets and shared technology |
Response Principles:

Coordinating response plans across vendors and partners
General Best Practices

• Consider the partnerships outside of healthcare required to maintain operations and build them into the plan
  • Telecommunications, power, water, etc.

• Anticipate that new patients may come to you for care, be prepared to manage that potential surge

• Determine which components of your response plan should be shared with vendors

• Know what your vendors business continuity (BC) plans

• Understand where you fit in, and what your expectations should be

• Have clear reciprocal and mutual aid agreements
Coordinating response plans across vendors and partners

Determine which components of your response plan should be shared with vendors

• How can or do you exercise together?
• What parts of your plan do you share?

Knowing what your vendors’ BC plans are

• Understanding where you fit in, and what your expectations should be
  • How much information can they share?
  • Alternate points of contact?

Reciprocal or mutual aid agreements

• Locations
• Upfront costs
• Recovery time
Response Plan Coordination Checklist

• Identify the public agencies, if any, that should know your plan
  • Identify the private sector and NGO partners

• Seek out opportunities to exercise together
  • Are you a part of your local healthcare coalition? What about neighboring coalitions?

• Document changes to your response plan

• Identify public-private partnerships
  • Local BEOCS and LEPCs
  • Industry-specific working groups (DRI International, InfraGuard)

• Understand public sector response plans
  • Include elements in your exercises and trainings
Response Principles:

Challenges in Response Coordination
Why Partnerships are so Important

Knowing where to turn for needed resources and expertise

Establishing a foundation of trust, both between organizations and with the community

Protecting health care systems’ capability to meet surge needs and focus on most critical patients

Increasing your situational awareness

Knowing where you’re needed most and where to put your limited resources
Start by Understanding Priorities...

Public Sector
• Protecting the public
• Response operations
• Accountability
• Working through a bureaucracy
• Saving and restoring community

Private Sector
• Protecting clients (customers)
• Continuity of operations
• Efficiency
• Flexibility
• Minimizing revenue loss
• Protecting organizational reputation
...Then Understand Language

Public Sector Says...

- Activation
- Critical Personnel – Law Enforcement

During a response

Emergency Operations Center

Exercises

Preparedness

Private Sector Says...

- Emergency Response
- Critical Personnel – Distributors and Staff

In “peacetime”

Business Impact Analysis

Return on Investment

Business Continuity
Common Challenges
Likely Behaviors

Planning
- Preparing for “the last disaster”

Partnerships
- Working with national distributors, not forging relationships with regional companies

Relationships
- Making sure your relationships are with the right decision-makers in the organization

Dependencies
- Accurately accounting for dependencies in plans and operations
Likely Challenges

Operations

• Fuel requests for vehicles
• Diesel needs for generators (beyond three days)
• Issues with staff accessing warehouses
• Transportation challenges

Supply Chain Logistics

• Access and re-entry
• Distinguishing pain points in operations (current and anticipated needs)

Hospital Needs

• Planning with facility for needs during certain hazards
• Making larger deliveries in advance (planning for potential disruption) – requires an understanding of facility warehousing capacity
Reporting Hospital / Facility Needs

- **Sharing pain points and potential needs (or vulnerabilities) allows partners to plan in advance**
  - Reporting current and anticipated (within 72 hours) needs allows partners to plan and prepare with additional lead time

- **Needs reporting based on current context**
  - Flagging current limiting factors and potential events that should change (increase or decrease) the needs

- **Develop a rhythm**
  - Establish timepoints and structure for needs reporting
  - Maintaining expectations of frequency of communication with all relevant partners (including vendors)
Likely Challenges

Ancillary Care Facilities

- Growing in role and need to be incorporated in plans
- Understanding how needs will change during an event (evacuation, limited operations, etc.)

Data

- Integrating shareable data into response plans

Coordination

- Reconciling public-private equities and authorities
- Leveraging partnerships (integrated coordination)
Working with Ancillary Care

• Determining plans with ancillary care and potential impacts on supply needs
  • Evacuation plans?
  • Expected surges in patients?
  • Certain types of patients changing product demand?

• Reporting operational status
  • Vendor awareness of operational status (especially if there are limited hours or staff) helps plan for deliveries

• Use of historical demands/needs to predict future ones
  • Inform plans with data/experience from previous events

Rx Open data and aggregated Google search trends
Access and Re-entry

After a disaster, law enforcement want to:
  • Ensure safety of responders and the public
  • Protect communities from crime and looting

However, critical private sector personnel are essential to response and recovery – including healthcare distributors
Access and re-entry

Public Sector Challenges

- Coordination with law enforcement to ensure badges are recognized
- Responders coming from other jurisdictions may need access
- Managing the program (staff, funding, technical resources)

Private Sector Challenges

- Tracking programs in each state and maintaining registration
- Tracking personnel (full time and contractors)
- Determining which employees need to be registered based on multiple factors (type of event, etc.)
Current Solutions

Formal Programs
- State Run Programs
- Third Party Programs
- City and Locally-run Programs

Ad Hoc Solutions
- Emergency Declarations
- Access Letters
Planning with the Private Sector
Planning Assumptions

• Critical Personnel
  • Who might not be available?
  • Do you have a secondary POC?
  • Is your understanding of ‘critical’ the same?

• Supply Availability
  • Stockpiles
  • Cold chain considerations

• Continued Operations (Duration of Time Down)
  • Be prepared to ‘go it alone’ for a period of time

• Functioning Infrastructure
  • Reliable communications
  • Gas/diesel availability
  • No severe impacts to major transportation hubs (ports/airports)
Interdependencies

Healthcare requires a number of critical sectors for ideal operations, planning with this in mind helps supply chain partners know how to navigate your needs in a response

- **Telecommunications**
  - Expected back-ups
  - IT infrastructure

- **Water**
  - Potable/non-potable water access
  - Expected back-ups

- **Power**
  - Generator status (and expected duration)
Transition from response to recovery
Recovery and resilience

Recovery - the creation of a “new normal”

- Communities never fully ‘bounce back’
  - Hurricane Katrina
  - Hurricane Sandy
  - Joplin Tornado
  - Hurricanes Harvey, Irma, Maria
- Cascading effects continue throughout the recovery phase
- Reality that ‘disasters are the new normal’
Recovery and resilience

**RESILIENCE:**
Strengthen healthcare delivery so communities are protected through exercising, sharing best practices and developing policies and educating policymakers.

**RESPONSE:**
Working to solve critical issues such as access and fueling, bridging sectors, serving as a trusted resource for information sharing, and providing Rx Open that shows open pharmacies.

**RECOVERY:**
Fostering collaboration, identifying and promoting lessons learned.
Response ➔ Recovery

Average time period to restore to normal operations – 45 days
Case Studies from Real-world Events
2017 Hurricane Maria

Supply Chain Operations
- Learning & communicating manufacturer and distributor challenges & coordinating resources
- Challenges in making deliveries and access facilities

Supply Coordination (incl. donations)
- Identifying current and anticipated needs
- Determining greatest needs
- Reconciling needs across facilities

Communications Restoration for Healthcare
- Had to justify prioritization of healthcare facility restoration on the fly (hospitals, clinics, and ancillary care)

Patient Evacuation
- Not all patients were eligible for NDMS evacuation
- USNS Comfort procedures were unclear

Healthcare Impacts
- Ability to meet facility and patient needs
- Identifying substitutes in real time (with limited options)
- Limited supplies available
- Forecasting needs with limited information
- Inability, or challenges, in placing orders, communicating with staff, responders, etc.
- Sustained and unanticipated surge in patient needs
2009 H1N1 Pandemic

**Hospital surge**
- Ambulatory care, emergency department and bed capacity remain areas of immediate concern

**Workforce Impacts**
- Absenteeism of healthcare workers – both in healthcare and in dependent sectors (transportation, communication, etc.)
- School closures contribute to workforce availability

**PPE and Vaccine Supply Availability**
- PPE shortages (and effects of facilities attempting to hoard supplies)
- Communication about vaccine development, approval, and production processes identified for improvement

**Payers & Role of the Strategic National Stockpile (SNS)**
- Uncertainty regarding fees and payers of those fees, particularly for use of SNS products
- Uncertainty around triggers and thresholds for SNS engagement

**Healthcare Impacts**
- Strain on staff and resources
- Need for alternative care locations
- Need for surge staff and mutual aid agreements
- Reputation of hospitals and facilities of being capable to service patients
- Impacts on supply ordering
- Reconciliation of payment
## 2017 Hurricane Season – After-Action

<table>
<thead>
<tr>
<th>Donation Coordination</th>
<th>Operational Status</th>
<th>Telecommunications</th>
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| • Need for lead donation coordination organizations and appropriate guidance  
  • Persistent challenges in coordinating transportation of supplies (packing planes, cold chain needs, etc.) | • Learning and communicating ancillary care facilities’ status  
  - Dialysis facilities, community clinics, etc.  
  • Learning facility needs, near and long-term | • Establishing communications with remote facilities  
  • Coordinating communications support  
  • Challenges in prioritizing healthcare in restoration plans |

Rx Open shows the impact to pharmacies in impacted states.
Scenario-based Discussion
Tornado Preparation Amidst a Public Health Event
Situation Report: Late November

Northern Mississippi is dealing with a surge of flu cases from an aggressive flu season.

There is a particularly high number of cases in Lafayette County schools as the number of cases across the state climbs.

Hospitals around the county are strained as they respond to this flu season, amidst concerns about vaccine and IV saline availability.
University of Mississippi football begins a home game against Mississippi State, bringing thousands of fans from around the state to Vaught-Hemingway Stadium.

A severe thunderstorm develops at 1200.
At 1230, a tornado watch is issued.
Situation Report: 1305 Saturday, November 30

There is a bit of chaos around town as visiting fans and local residents brace themselves for the possible storm.

At 1305, it escalates to a tornado warning as a tornado is sighted in the county.

Uncertainty ensues as fans try to shelter in different locations around the stadium, while others try to evacuate ahead of the tornado.
Use this time to write a few key issues or concerns in the chat box
Key Issues

- Aggressive flu season
- Traffic and chaos around town
- Preparation for storm
Discussion

Share a few primary concerns in the chat box

How much time do you expect to have to act on your concerns?
Describe your readiness posture in the chat box.

Is there a partial activation because of the large event?

How does the flu season impact your capabilities?
Describe your core planning actions or areas of focus at this point:

*Internally...*

*With key partners...*

*With emergency management...*
Discussion

Coordination – describe how you’re coordinating with partners at this point?

Are you coordinating with any external partners at this point? If so, who are your primary partners to reach at this time?

What are your most critical concerns – who would you work with to resolve them?
Discussion

What surprised you most about this scenario?

What part of this scenario would be most challenging for your facility?
Final Reflections
Reflections

What was one major takeaway from this session?

What do you want to learn more about or understand more after this session?

In the context of COVID-19, what parts of this are most likely to be used immediately?

What partner would you like to gain to improve your emergency preparedness posture?
Resources
Risk Identification Site Criticality (RISC) Toolkit

ASPR CIP RISC Toolkit: www.phe.gov/Preparedness/planning/RISC/

How to Use the Toolkit to Engage with the Private Sector:

• **Share your planning assumptions**

• **Provide results/outputs to show your anticipated need during events**
  • Allow supply chain partners to provide feedback and realism on the outputs

• **Share the vulnerability profile and criticality rating with supply chain for insights into your planning assumptions**
WELCOME TO ASPR TRACIE

Brought to you by HHS ASPR, the Technical Resources, Assistance Center, and Information Exchange (TRACIE) was created to meet the information and technical assistance needs of regional ASPR staff, healthcare coalitions, healthcare entities, healthcare providers, emergency managers, public health practitioners, and others working in disaster medicine, healthcare system preparedness, and public health emergency preparedness.
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