CONTINUITY OF OPERATIONS PLANNING IN THE HEALTH CARE SECTOR

Finger Lakes Regional Training Center
for Healthcare Emergency Preparedness
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UNIVERSITY *of* ROCHESTER
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Finger Lakes Regional Training Center

Presented by: *in conjunction with:*

EnMagine Inc
Plan, Prepare, Perform

INDUSTRIAL EMERGENCY COUNCIL
Emergency Response Training

Consider

- Two dry cleaners operate at either end of Main Street in a small town in New York State.
  - Hung Out to Dry has put a modest amount of effort into hardening its business.
    - The computer and cash register are strapped down and business files are backed up online.
  - Spiffy Cleaners has taken no substantive actions to ensuring its robustness.
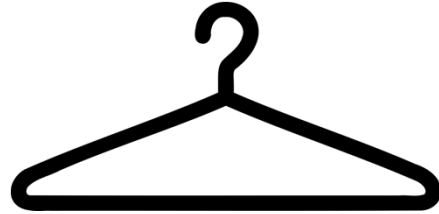
Consider…

- An aged natural gas pipeline equal distance from each of these establishments has a leak and finds an ignition source, resulting in an explosion that causes significant impacts throughout downtown.
- Neither dry cleaners has received structural damage but windows are broken and there is significant damage at both stores.
- Which one is still in business next year?

Now Consider

Boiler room explosion causes hospital evacuation (7/16/2006)

PASSAIC CITY (AP) — A boiler room explosion knocked out water and air conditioning at St. Mary's Hospital early Saturday, leading to an evacuation of patients, authorities said.

Boiler explosion at Appleton Medical Center injures two men (10/2/2009)

APPLETON - A boiler explosion at Appleton Medical Center injured two men Friday afternoon.

Explosion in boiler at Raigmore Hospital in Inverness (3/23/15)

There has been an explosion in one of two biomass boilers at Raigmore Hospital, NHS Highland has said.
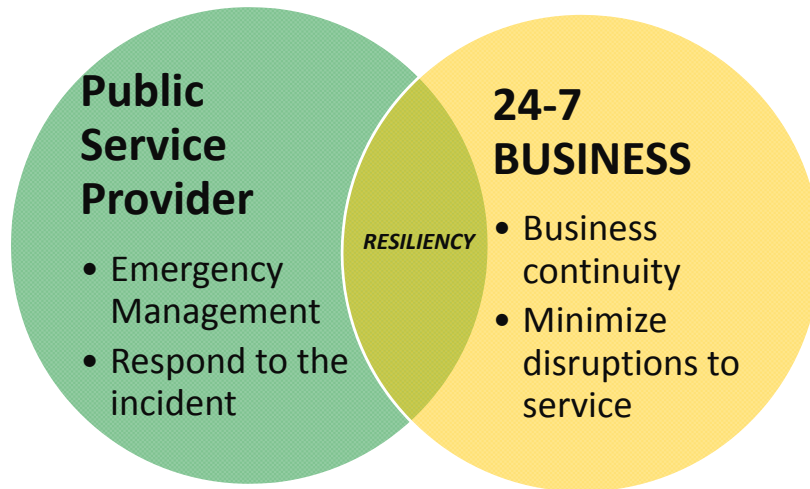
How About….

- The boiler in the hospital explodes causing structural damage to a large part of the facility including the ED, L&D, laboratory, computer server, and to utilities (e.g., water, gas, electricity, steam)

- The VP of Operational Support and Chief Engineer whose offices are nearby and several engineering staff are critically injured.

- The next closest hospital is 20 miles away.

- Hospital is damaged to the point that it can not resume normal operations for at least one year.

- Hospital has insurance to cover the cost of repairing the facility and replace damaged equipment.

## What's business continuity got to do with it?

Healthcare needs both (integrated)

Public Service Provider

- Emergency Management
- Respond to the incident

RESILIENCY

24-7 BUSINESS

- Business continuity
- Minimize disruptions to service

WELCOME, OVERVIEW, AND INTRODUCTIONS

NYS Disasters

Date	Event	Date	Event
12/22/2014	Severe Winter Storm, Snowstorm, and Flooding	03/04/2009	Severe Winter Storm
07/08/2014	Severe Storms and Flooding	08/31/2007	Severe Storms, Flooding, and Tornado
07/12/2013	Severe Storms and Flooding	07/02/2007	Severe Storms and Flooding
04/23/2013	Severe Winter Storm and Snowstorm	04/24/2007	Severe Storms and Inland and Coastal Flooding
10/30/2012	Hurricane Sandy		
09/13/2011	Remnants of Tropical Storm Lee	12/12/2006	Severe Storms and Flooding
08/31/2011	Hurricane Irene	10/24/2006	Severe Storms and Flooding
06/10/2011	Severe Storms, Flooding, Tornadoes, and Straight-line Winds	07/01/2006	Severe Storms and Flooding
		04/19/2005	Severe Storms and Flooding
02/18/2011	Severe Winter Storm and Snowstorm	10/01/2004	Severe Storms and Flooding
10/14/2010	Severe Storms, Tornadoes, and Straight-line Winds	10/01/2004	Tropical Depression Ivan
04/16/2010	Severe Storms and Flooding	08/03/2004	Severe Storms and Flooding
12/31/2009	Severe Storms and Flooding Associated with Tropical Depression Ida and a Nor'easter	08/29/2003	Severe Storms, Tornadoes and Flooding
		05/12/2003	Ice Storm
		05/16/2002	**Earthquake**
09/01/2009	Severe Storms and Flooding	03/01/2002	Snowstorm
		09/11/2001	**Terrorist Attack**
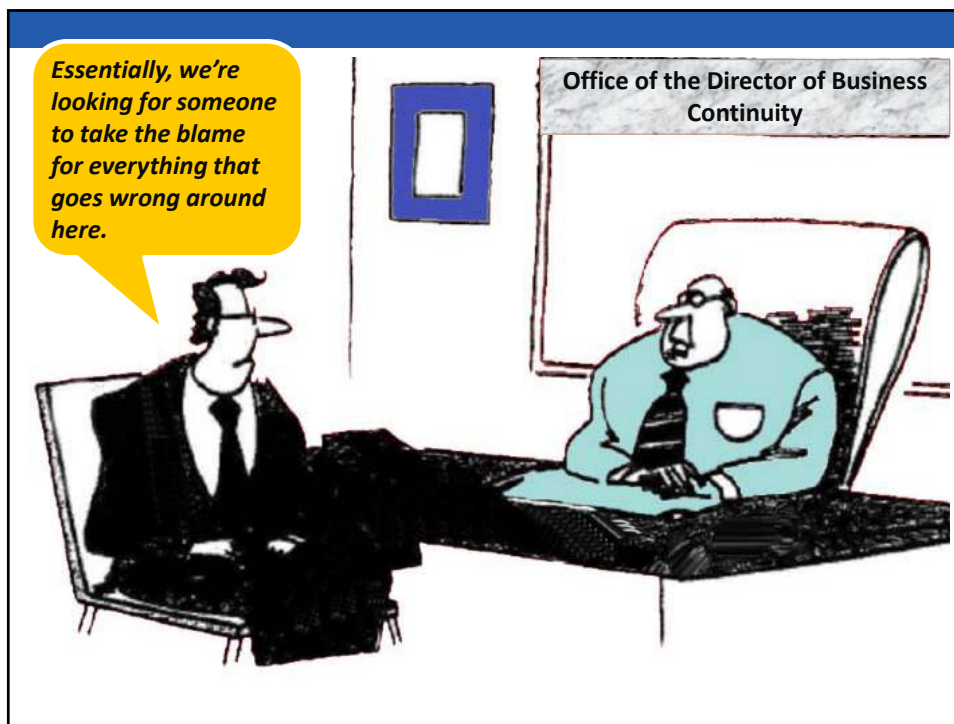
Why are we here today?

- Launch a multi-year process aimed at improving hospital business continuity capabilities
- Demystify business continuity in a healthcare context
- Identify path towards improved resiliency

Today we will:

- Define business continuity
- Compare and contrast business continuity with emergency management
- Describe the elements of a viable continuity plan
- Illustrate the process used to plan for continuity of operations
- Identify strategies for building support for business continuity activities and programs
- Review case studies and identify the lessons learned

Introductions

- Name and Organization
- What you want to get out of this course
- Identify an area of significant vulnerability facing your organization/community

3 questions/messages
27 words
9 seconds*

→

•**Name and Organization**
•**e.g., Learn about disasters beyond the initial response**
•**Our office is in the Flood Plain**

* V. Covello Center for Change/Risk Communication- Message Mapping

Administrivia

- Four hour overview course
- Break maybe/occasionally
- Place cell phones on "stun"
- Keep side conversations to a minimum
- Have fun

DEFINE BUSINESS CONTINUITY

Defining Business Continuity

- There are different definitions and approaches to emergency management and business continuity
- "Plans, procedures and resources established to **maintain and/or recover** essential services and functions impacted by an event causing an interruption of normal healthcare delivery operations and integrated with emergency operations plans."*
- *We will use the terms COOP and BCP interchangeably.*

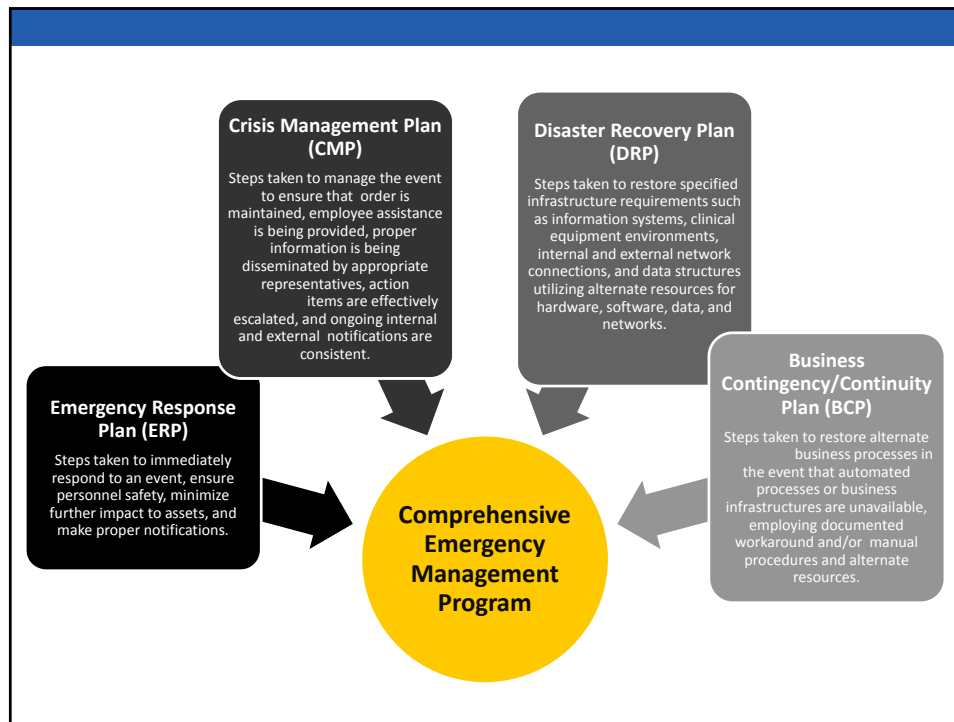What about COG?

Source: Wakefield Brunswick

Business Continuity Management Definitions

"Business Continuity Management (BCM)

- "Planning focuses on assuring continuous business processes and is a major factor in an organization's survival during and after a disruption. BCM is a key component of Comprehensive Emergency Management.
- Companies that don't have good business continuity plans often fail to survive a business disruption. Good continuity planning can make the difference -- and in the long run make you more profitable." *(Davis Logic, BCM, 2005)*

Business Continuity Program

- An ongoing process supported by senior management and funded to ensure that the necessary steps are taken to identify the impact of potential losses, maintain viable recovery strategies and recovery plans, and ensure continuity of services through personnel training, plan testing and maintenance. *(NFPA 1600, 2004)*

Crisis Management Plan (CMP)

Steps taken to manage the event to ensure that order is maintained, employee assistance is being provided, proper information is being disseminated by appropriate representatives, action items are effectively escalated, and ongoing internal and external notifications are consistent.

Disaster Recovery Plan (DRP)

Steps taken to restore specified infrastructure requirements such as information systems, clinical equipment environments, internal and external network connections, and data structures utilizing alternate resources for hardware, software, data, and networks.

Emergency Response Plan (ERP)

Steps taken to immediately respond to an event, ensure personnel safety, minimize further impact to assets, and make proper notifications.

Business Contingency/Continuity Plan (BCP)

Steps taken to restore alternate business processes in the event that automated processes or business infrastructures are unavailable, employing documented workaround and/or manual procedures and alternate resources.

Comprehensive Emergency Management Program

# Business Continuity Branch (from HICS)

- The function of the Business Continuity Branch is to
  - Assist impacted hospital functions, departments and areas to maintain, restore, or augment critical business functions, and;
  - Meet the designated recovery objectives and recovery strategies outlined in the Incident Action Plan (IAP).

The Business Continuity Branch:

- Ensures the continued effective and efficient operation of the hospital's information system and information technology through the Information Technology (IT) Systems and Application Unit Leader and Services Continuity Unit Leader.
- Facilitates the acquisition of and access to essential recovery resources, including business records (e.g., patient medical records, purchasing contracts) through the Records Management Unit Leader.
- Supports the Infrastructure and Security Branches with needed movement or relocation to alternate business operation sites.

The Business Continuity Branch (cont.):

- Coordinates with the Logistics Section Communications Unit Leader, Information Technology/Information Services (IT/IS) Equipment Unit Leader, and the impacted area(s) to expand and/or restore business functions and review technology requirements.
- Maintains and repairs information technology equipment with logistical support from the IT/IS Equipment Unit Leader in the Service Branch of the Logistics Section.
- Assists other branches and impacted areas with the restoration and resumption of normal operations.

HICS Org Chart: Operations
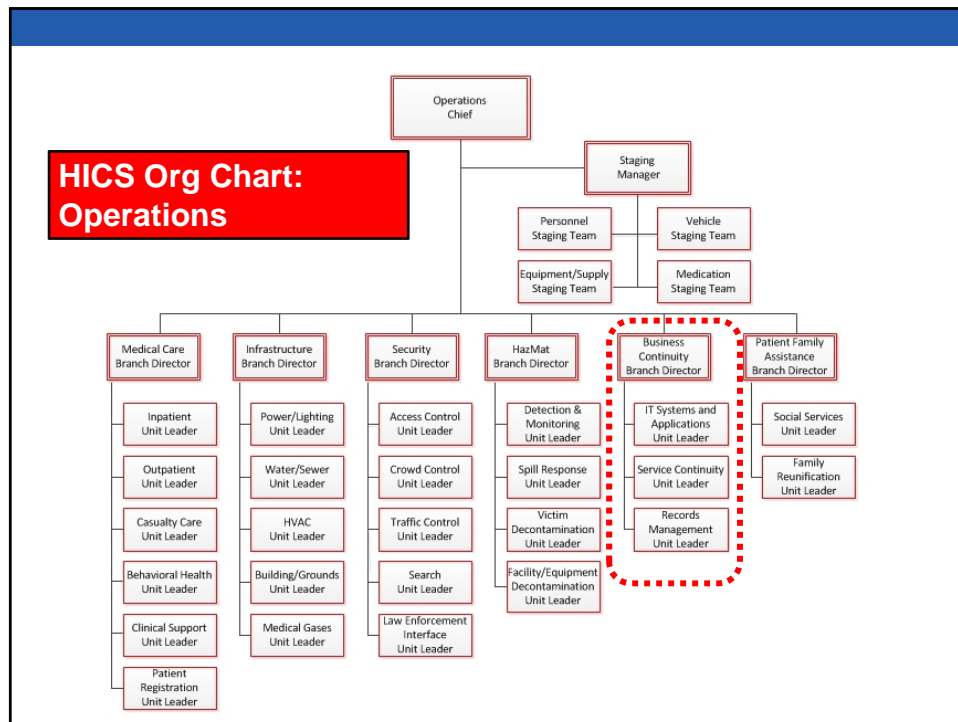
How BC supports resilience. Consider…

- The hospital in the opening scenario has only planned for mass casualties accessing their ED and for short term utility failure, not impacts to the infrastructure disrupting essential functions.
  - Is that hospital able to serve the community and get on a sound financial footing?

COMPARE AND CONTRAST BUSINESS CONTINUITY WITH EMERGENCY MANAGEMENT

EM and BC are both similar in that:

- Figure out what
  - is going on and what may happen
  - needs to be done
  - resources are needed to get the job done
- Apply those resources
  - Stuff
  - Staff (Don't forget succession planning)
  - Space
  - Systems
- Monitor
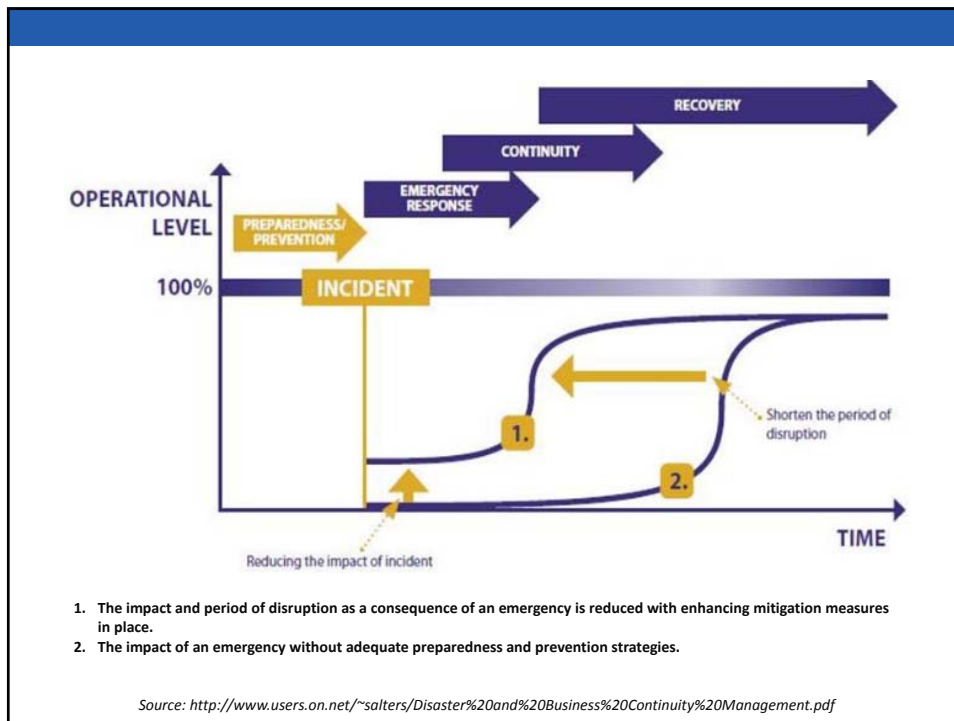- Adjust as appropriate (Have a Plan B and C and D)
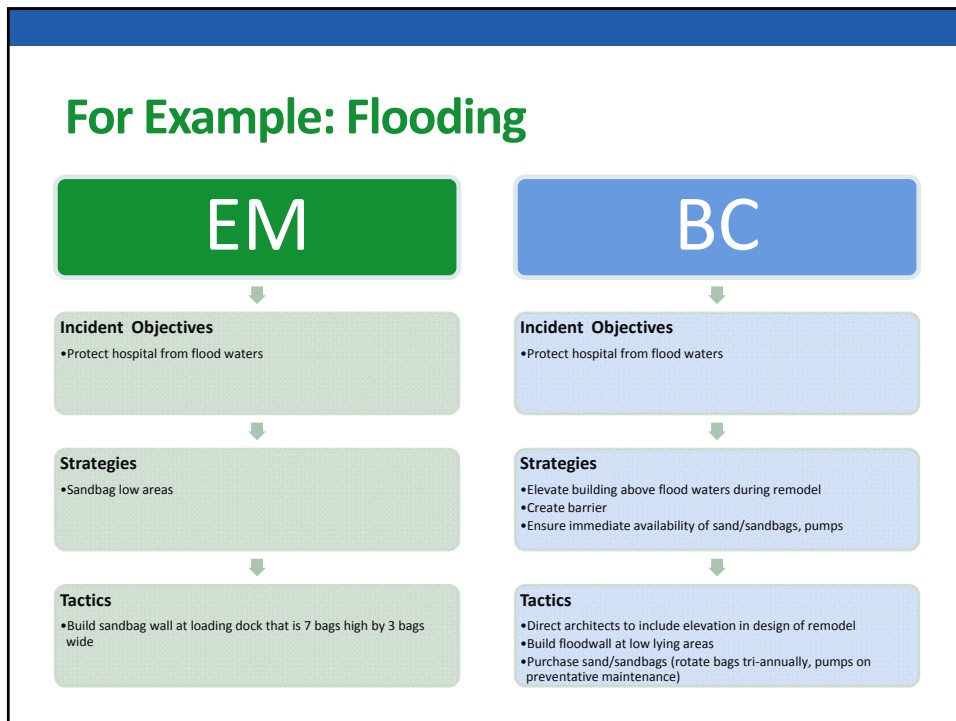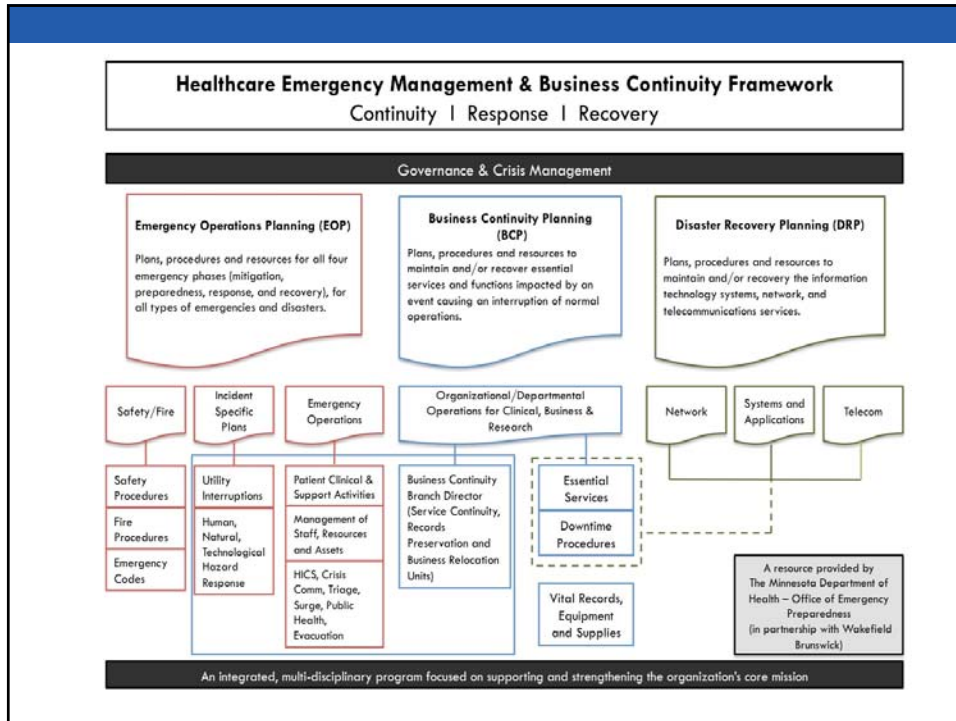
EM and BC are different in that:

Emergency Management
focuses on meeting the
incident objectives to
address the hazard

Business Continuity
focuses on meeting
organizational strategies,
ensuring the viability and
functionality of the
organization, and
minimizing lost revenue

OPERATIONAL LEVEL

RECOVERY

CONTINUITY

EMERGENCY RESPONSE

PREPAREDNESS/ PREVENTION

100% INCIDENT

Shorten the period of disruption

1.

2.

Reducing the impact of incident

TIME

1. The impact and period of disruption as a consequence of an emergency is reduced with enhancing mitigation measures in place.
2. The impact of an emergency without adequate preparedness and prevention strategies.

Source: http://www.users.on.net/~salters/Disaster%20and%20Business%20Continuity%20Management.pdf

For Example: Flooding

EM	BC
Incident Objectives •Protect hospital from flood waters	**Incident Objectives** •Protect hospital from flood waters
Strategies •Sandbag low areas	**Strategies** •Elevate building above flood waters during remodel •Create barrier •Ensure immediate availability of sand/sandbags, pumps
Tactics •Build sandbag wall at loading dock that is 7 bags high by 3 bags wide	**Tactics** •Direct architects to include elevation in design of remodel •Build floodwall at low lying areas •Purchase sand/sandbags (rotate bags tri-annually, pumps on preventative maintenance)

DESCRIBE THE ELEMENTS OF A VIABLE CONTINUITY PLAN

The Continuity Plan documents

- **What** will occur in a continuity situation
- **How** and **how quickly** continuity actions must occur
- The **priorities** of the continuity actions
- **Where** continuity operations will occur
- **Who** will participate in continuity operations

First, a recommended plan structure

Vol. 1	Vol. 2	Vol. 3	Vol. 4	Vol. 5
Emergency Operations Guide	**Annexes**	**Tools**	**Administrative Manual**	**Department Plans**
•Guiding document that describes the general response to be taken Applies to all types of hazards	•Hazard-specific Annexes Supplemental Annexes that apply to multiple hazards Functional Annexes (Can apply to everyone or specific coalition)	•Job Action Sheets Forms Resource Materials	•Non-operational document Describes healthcare coalition operations Compliance	•Detailed department level guidance

FEMA's Continuity of Operations Planning (COOP) for government has [*some*] applicability for healthcare

What Is an Essential Function?

- **T**hose functions that enable an organization to:
  - Provide vital services
  - Exercise civil authority
  - Maintain the safety of the general public
  - Sustain the industrial or economic base during an emergency
- In other words, essential functions are the hospital business functions that must continue with no or minimal interruption.

Orders of Succession

- Succession to office is critical in the event that the agency's leadership is unavailable, debilitated, or incapable of performing their legally authorized duties, roles, and responsibilities.
- Orders of succession provide for the orderly and predefined assumption of senior agency offices, during an emergency, in the event that any officials are unavailable to execute their legal duties. Orders of succession are not merely a continuity function. They should be developed to support day-to-day operations.
- Orders of succession should be at least "three deep" and include at least one person whose day-to-day job is physically located at a different site from the primary facility.

Delegations of Authority

- Delegations of authority are formal documents specifying the activities that may be performed by those who are authorized to act on behalf of the agency head or other key officials.
- Delegations of authority document the legal authority for officials to make key policy decisions during a continuity situation. Delegations of authority are required to ensure:
- Continued operations of agencies and their essential functions.
- Rapid response to any emergency situation requiring continuity plan implementation.

Continuity Facilities

- FCD 1 and CGC 1 assume that, if continuity activation is required, an agency's primary operating facility is unavailable and that essential functions will require relocating.
- The continuity facility should be far enough away from the primary facility so that it will not be impacted by the incident that is occurring at the primary facility.
- Hospitals should also identify continuity—or devolution—sites in case the continuity facility is made inoperable.

Continuity Guidance Circular 1 (CGC 1),Continuity Guidance for Non-Federal Entities.

Federal Continuity Directive (FCD)
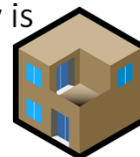
Continuity Communications

- Continuity of communications provides the capability to perform essential functions, in conjunction with other agencies, until normal operations can be resumed.
- Continuity communications must be:
  - Redundant.
  - Available within 12 hours or sooner, depending on the mission and requirements of the organization.
  - Sustainable for up to 30 days or until normal operations can be resumed.

Essential Records Management

- Every hospital has documents, files, and other materials vital to the agency and its operations. Essential records are categorized as:
  - **Emergency operating records** required for agency essential functions during and after a continuity event.
  - **Rights and interests records** critical to carrying out an agency's essential legal and financial functions.
- These assets depend on an essential records program to manage the identification, protection, and ready availability of the electronic and hardcopy documents, references, and records needed to support PMEFs and MEFs during a continuity situation.
- An essential records program is mandatory for the Federal executive branch and suggested for non-Federal organizations.

Human Resources

- Human resources is the sum of talent, energy, knowledge, and enthusiasm that people invest in their work.
- During continuity activation, hospitals have to perform their essential functions with reduced staffing from a variety of work locations. All Emergency Relocation Group (ERG) personnel need to be adequately trained and cross-trained to enable the performance of all essential functions.
- Concerns for human resources in continuity situations include:
  - Designating the ERG.
  - Communicating with all employees.
  - Providing guidance to all employees.
  - Determining the best way to use continuity personnel.

Test, Training, and Exercise (TT&E)

- A TT&E program provides the framework for promoting consistency and uniformity of mission-readiness activities.
- TT&E measures an agency's capacity to support the continued execution of its essential functions throughout the duration of a continuity situation.
- An effective TT&E program:
  - Provides training in areas appropriate to mission readiness.
  - Provides opportunities to acquire and apply the skills and knowledge needed for continuity operations.
  - Builds team unity.

Devolution of Control and Direction

- Devolution is the capability to transfer statutory authority and responsibility for PMEFs and MEFs from an agency's primary operating staff and facilities to other employees and facilities.
- A devolution plan is an extension of an agency's concept of operations in the continuity plan. The devolution plan ensures continuity capability if:
  - Continuity personnel are unable to perform the continuity mission.
  - The continuity facility is unavailable.

Reconstitution Operations

- Reconstitution of operations is the process by which surviving and/or replacement agency personnel resume normal agency operations from the original or replacement primary operating facility.
- The reconstitution process involves three broad tasks:
  - Transitioning from continuity status to normal operations after the threat or disruption has passed.
  - Coordinating and planning options for reconstitution, regardless of the level of disruption.
  - Outlining procedures necessary to effect a smooth transition from a relocation site to a new or restored facility.

ILLUSTRATE THE PROCESS USED TO PLAN FOR CONTINUITY OF OPERATIONS

The Planning Process

- **1. DATA** — Identifying Essential Services and Applications
- **2. INTEGRATION** — Developing Business Continuity Strategies
- **3. PLANNING** — Developing and Integrating Business Continuity Plans
- **4. EXECUTION** — Testing and Measuring Business Continuity Programs

Governance

You can't build a successful program without substantive support from leadership.

- External Partners
- Committee Members
- Department Managers
- LEADERSHIP
- General Workforce
- Technical Experts
- Physicians
- What/Who Else?

Governance and Project Management

- This is a collaborative process
- Program (ongoing) or a project (end date)
- Leadership empowers a program/project manager and a committee
  - Can be a subset of Safety/Emergency Management Committee

Establish a planning committee

- The planning committee should have representation from all major subunits of the organization: management, IT, operations, logistics, legal, risk management, HR, etc..

- Every department is involved in an integrated plan, giving everyone a stake in that plan's success. When disaster strikes, everyone starts from the same plan & procedure.

Oh no! Not another committee!

Activity Integrate or Separate?

Integrate in EM Program

Separate but coordinated
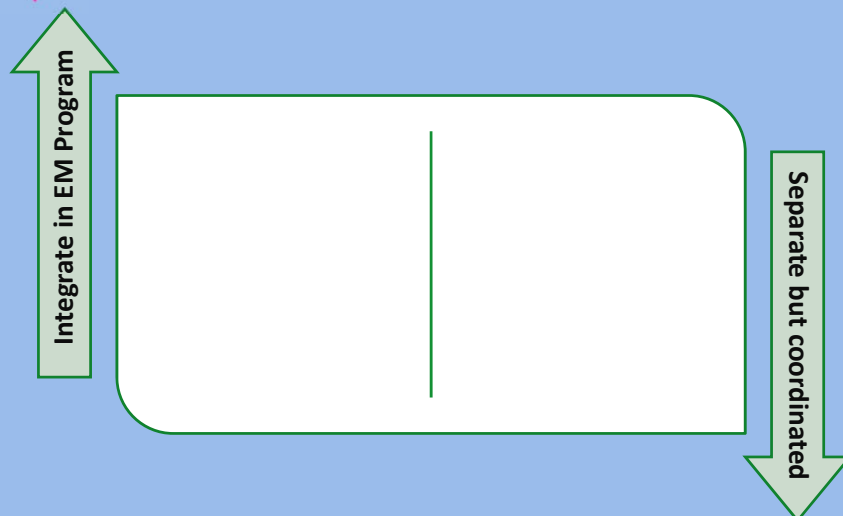
The Planning Process

Your Hazard Vulnerability Assessment (HVA)

- You should have one
- High level understanding about the hazards and risks that the hospital faces
- Helps you prioritize program resources and attention
- Tools are simplistic in nature
- Just one type of analysis

HVA vs. BIA

HAZARD VULNERABILITY ANALYSIS (HVA)	BUSINESS IMPACT ANALYSIS (BIA)
• Event focused	• Process focused
• A systematic approach to identify, assess, and prioritize each hazard that may affect a community to show vulnerabilities	• A systematic approach to identify, assess, and prioritize each hazard that may affect a community to show vulnerabilities
• The vulnerability is related to both the impact on the organizational function and the likely service demands created by the hazard impact	• The purpose is to identify, prioritize and document the relative importance of various business processes conducted by business units (departments)
• Hurricane • Sever Thunderstorm • Fire • Earthquake	• Patient Care • Billing & Payroll • Patient Records • Supply Management

Business Impact Analysis

Gather information across departments
•Critical Business Processes
•Critical Equipment or Resources
•Technology & Equipment Critical Processes
•Staffing Positions
•Critical Records
•Departmental Dependencies
•Finanical Impact

A tool systematically measures the potential impact if any business function was unable to operate for a period of time for any reason

Results in the identification and prioritization of essential functions

Perform Data Collection

Source: CA Hospital Association

Perform Data Collection

Source: CA Hospital Association

The Planning Process

1. DATA
Identifying Essential Services and Applications

2. INTEGRATION
Developing Business Continuity Strategies

3. PLANNING
Developing and Integrating Business Continuity Plans

4. EXECUTION
Testing and Measuring Business Continuity Programs

Governance

Establish priorities for processing and operations

Simplify recovery by taking a tiered approach. Prioritize the processes and applications that must come online first, and design your plan so that the supporting infrastructure for these processes and applications become available first.

MISSION CRITICAL BUSINESS FUNCTIONS

Business Functions that are deemed most important and need to be restored as soon as possible. These functions are those that support the core mission that, if not restored rapidly would be a threat to life/safety or irreversible damage to the organization or its clients/patients.

Determine Recovery Strategies

- Analytics and Strategy: Review BIA and Hazard Vulnerability Analysis (HVA) findings to understand what risks pose the greatest threat to essential functions. Use data to make decisions to reduce risks that will have the greatest adverse patient care and financial impacts.
- Develop Business Continuity Strategies
  - **Clinical**: Examine 96-hour capabilities and identify and finalize strategies for ensuring continuity of essential clinical services
  - **Research**: Identify strategies for continuity during an interruption of essential services. Determine alternate locations for continuity of research operations in the event the primary location is unavailable (For academic medical centers/facilities with research functions)
  - **Administrative**: Identify strategies for continuity during an interruption of essential services. Determine alternate locations for continuity of business and finance operations in the event the primary location is unavailable
- Develop format and approach to align and/or integrate emergency operations and hospital continuity plans (See EOP/Continuity Plan Table)

Source: CA Hospital Association

The Planning Process

1. DATA
Identifying Essential Services and Applications

2. INTEGRATION
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4. EXECUTION
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Governance

Where should the plan reside?

Emergency Management Plan (EMP)

Includes Business Continuity

or

Crisis Management

COOP

Emergency Management Plan (EMP)

Integrate FEMA's 10 elements into EMP

Vol. 1	Vol. 2	Vol. 3	Vol. 4	Vol. 5
Emergency Operations Guide	**Annexes**	**Tools**	**Administrative Manual**	**Department Plans**
•Essential Functions •Orders of Succession •Delegations of Authority •Continuity Facilities	•Continuity Communications •Essential Records Management •Human Resources •Devolution of Control and Direction	•(Business Impact Analysis)	•Test, Training, and Exercise (TT&E)	•Reconstitution Operations

Stand alone BC plan should include:

- Management commitment to plan
- Line of authority and Succession
- Activation Process
- Alternate Operations
- Essential Crisis Management Team
- Accounting for staff
- Identification of Essential Business Functions
- Recovery Plans
- Communications with stakeholders
- Maintenance and exercise cycle.

The Planning Process

1. DATA
Identifying Essential Services and Applications

4. EXECUTION
Testing and Measuring Business Continuity Programs

Governance

2. INTEGRATION
Developing Business Continuity Strategies

3. PLANNING
Developing and Integrating Business Continuity Plans

Train the Staff and Test the Plan

Binder's Law #10: You exercise plans and train staff.

The plan should be tested through a series of tabletop and functional exercises.
- This allows for the identification of unintentional failure points.
- Participants are likely about to suggest better approaches.

Staff must be trained on what their roles would be if the plan is activated.
- This can be done in workshops, by providing staff plan summaries and through exercises.
- If staff does not know what is expected of them, management has failed, not the staff person.

Approve and Commit to the Plan

- The senior leadership of the organization needs to approve the plan. Each organization has their definition of who needs to approve the plan.
- Examples include
  - Community Hospital: Administration, Medical Staff and Board, plus Corporate Management may all have to approve this far reaching plan.
  - County Health Agency: Division Managers, Health Officer/Agency Administrator and the County Executive.
  - County Emergency Management: Emergency Services Director, County Administrative Officer, Board of Supervisors, Emergency Council
  - Private organization: Department managers, COO, CFO, CEO.

Review and update plan

- The plan should be maintained and updated regularly to ensure that the organization remains ready to handle incidents despite internal and external changes that may affect the plan.
- Key aspects of the plan be tested annually (or more) and that the test be based on clear objectives. (Suggestion: conduct a hazard based emergency response exercise; follow up with a biz continuity scenario based on the same hazard)

Take It a Step Further- Third Party Certification

- ISO 27000 Information Security Management Systems
- ISO 28000 Supply Chain Security Management Systems
- NFPA 1600

Forms follow function

Background: Each organization has different essential business functions and need to get back up and running.

Question: What are your (and the community's) essential business functions and what is your/(their) tolerance for each to be reestablished?

Assignment: Choose a healthcare and non-healthcare organization and list the essential business functions and prioritize which would need to be back on line. Prepare to report to the class.

IDENTIFY STRATEGIES FOR BUILDING SUPPORT FOR BUSINESS CONTINUITY ACTIVITIES AND PROGRAMS

What is executive support?

- The Executive is not the Program/Project Leader
- They are not required to be an expert in the topic
- Their commitment to a program or project is demonstrated by their long-term behavior
  - Provide clear direction for to ensure linkages with the organization's overall **strategy**
  - Secure **resources** and accountability throughout the organization
  - Serve as a **champion** to their peers and beyond to educate and secure buy-in
  - **Authority** to troubleshoot accountability issues with managers
  - **Remove** organizational roadblocks hindering progress

No executive support means…

- Efforts are futile
- Staff is frustrated
- Resources and time are wasted
- Organization has false sense of security
- Organization is vulnerable
- Can't get on executive agendas or you can but are the first one bumped
- Lack the financial resources to complete the assigned work
- No accountability for completion of work from committee members or other managers
- Work is undermined regularly, not intentionally
- Feels like no one but you cares
- Hard to get approval for activities that impact others (e.g. planning, training, exercises, etc.)

Why is executive support is hard to come by for EM/BC programs?

ORIGIN	VALUE	STRUCTURE	COMPREHENSION
• Compliance driven • Low interest when not organic	• Low probability, high consequence • Hard to quantify	• Poorly defined role and responsibilities for sponsor • Intentional lack of clarity is reflection of culture	• Complex specialty with own language • Glazed eyes • Work forces executives to know less about more
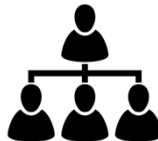
Reality Check

- You can do everything right and still lack executive support
- Current events impact interest and support for BC and EM
- Address each challenge at its source

When the origin isn't organic...ALIGN

Align with Organizational Strategy

- Alignment is one key to ensuring topic is on the radar
- Examples:
  - Minimize liability
  - Meet compliance, regulatory and funding requirements
  - Maintain public image and market share
  - Protect patient safety
  - Etc.

This is how you do it

IDENTIFY organizational vision, values, strategy etc. from published documents

↓

ALIGN organizational strategy with your program on 1 page summary

↓

ARTICULATE the program in these context when communicating with management and leadership

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When the value isn't clear...ROI (sort of)

Help others understand the value

- Think of BC/EM like insurance, not a revenue generating department
- ROI combined with prudent management and ethics is the foundation of prudent management
- The absence of such opens executives up after the fact
- Hard costs are often subsided by grants
- Soft costs are absorbed by the organization

This is how you do it

IDENTIFY areas where costs can be quantified and where they can not

↓

TRACK costs and estimates whenever possible

↓

ARTICULATE the program costs and values annually (even if not asked to)

What is an Executive Sponsor?

- Senior executive (or just below) who is responsible to the hospital for the success
  - May or may not be the direct supervisor of BC team members
- Hands off of daily management of the program
- Communicate regularly about progress with Program Manager
- Involvement allows for policy decisions to be made during the process
- Primary responsibilities include:
  - Providing clear direction for the project to ensure linkages with the organization's overall **strategy**
  - Securing **resources** and accountability throughout the organization
  - **Championing** the project at the executive level to secure buy-in
  - **Authority** to troubleshoot accountability issues with Department Managers
  - **Remove** organizational roadblocks hindering progress

When executive sponsors are lost…J.A.S.

Clarify their role and responsibilities

- Who from executive team has oversight of BC?
- Is it in their job description?
- Is their role and responsibilities clear and documented?
- Are they held accountable to it in their annual review process?
- Are there clear boundaries between the sponsor and manager?

This is how you do it

APPROACH this subject carefully

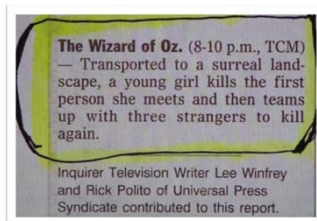AIM to document the roles, responsibilities and boundaries

BUILD a mutually beneficial relationship that helps the executive sponsor, program manager and organizational resiliency

How to prevent glazed eyes…TARGET

Communicate in their style

- Speak (and write) in plain English whenever possible
- Be clear and brief
- Write to the reader not the author
- Understand their perspective

> **The Wizard of Oz.** (8-10 p.m., TCM) — Transported to a surreal land-scape, a young girl kills the first person she meets and then teams up with three strangers to kill again.
>
> Inquirer Television Writer Lee Winfrey and Rick Polito of Universal Press Syndicate contributed to this report.

This is how you do it

CONDUCT a stakeholder analysis that focuses on perspective and language

⬇

STRATEGIZE how to communicate with each stakeholder group more effectively

⬇

COMMUNICATE regularly with stakeholders and reevaluate strategies frequently

Tips:

- Do your homework
- Cultivate allies and champions
- Develop the compelling argument
- Know what motivates individual decision makers and be able to communicate to that motivation
- Show the benefits
- Anticipate push back
- Identify resources
- Identify funding sources (have some skin in the game)

REVIEW CASE STUDIES AND IDENTIFY THE LESSONS LEARNED

Putting it all together!
- Sandy
- Tornadoes
- Earthquakes

Hurricane Sandy Mitigation Assessment Team Report

- Facility-Specific Descriptions of Critical Facilities and Key Assets
  - Bayonne, Hoboken, Jersey City, and Palisades in New Jersey; and Bellevue, Coney Island, Long Beach, and New York University (NYU) Langone in New York

Impacts of Sandy: Days of Hospital Services Lost

Hospital Services	New Jersey				New York			
	Bayonne[a]	Hoboken[b]	Jersey City	Palisades	Bellevue	Coney Island	Long Beach	NYU Langone
					Approximate Days of Service Lost			
Emergency Department Services	0	14	0	1	40-100	14	>60	>60
Out-Patient Clinic								
Medical/primary care	0	7	7	1	20-34	16	30	7+
Surgical clinics	0	NA	7	1	20-34	5	>60	7+
Ob/gyn clinics	0	7	7	NA	20-34	5	>60	7+
Pediatric clinics	0	7	7	NA	20-34	5	>60	7+
Surgical Services								
Major operative procedures	0	14	7	1	100	>30	>60	60
Minor procedures	0	14	7	1	100	>30	>60	49
Endoscopic procedures	0	14	7	1	100	>30	>60	60
Other specialty procedures	0	14	NA	1	100	>30	>60	60
Obstetric/delivery Services	NA	14	0	NA	100	>30	NA	>60
Rehab/physical therapy	0	14	0	1	100	21	>60	>60
Laboratory services	0	14	0	1	5	3	>60	49
Radiology Services								
Plain radiographs/x-rays	0	3	0	1	40	3	>60	49
Computed tomography (CT) scans	3	3	0	3	40	3	>60	49
Magnetic resonance imaging (MRI)	0	3	0	1	100	>30	>60	60
Ultrasound	0	3	0	1	40	3	>60	49
Interventional procedures	0	NA	0	7	100	>30	NA	49
Blood Bank	0	NA	NA	1	40	>30	NA	49
Non-Clinical Services								
Kitchen	0	NA	0	1	60	0	>60	>60
Laundry	0	NA	0	1	60	0	>60	>60
Administrative	0	7	0	0	5	0	0	moved
Medical records	0	0	0	0	NA	0	0[c]	0

NA = Not available at that facility
a. Took patients transferred from Hoboken Hospital
b. Hospital closed for 14 days
c. Lost records in the out-patient clinic only

Source: http://www.fema.gov/media-library-data/1385590865538-0c10ec4ba66e38db446a93689445ba9e/Sandy_MAT_AppH_508post.pdf

Impacts of Sandy: Days of Critical Infrastructure Loss

Logistic Support/Infrastructure	New Jersey				New York			
	Bayonne	Hoboken	Jersey City	Palisades	Bellevue	Coney Island	Long Beach	NYU Langone
					Approximate Days of Service Lost			
Electrical Power								
Municipal power service	7	6	4	1	5	3	14	>30
Hospital backup power	0	<1	0	0	0	<0.5	NA	3
Water								
Municipal water – all	0	0	0	0	7	0	9	1
Municipal water drinking	0	0	0	0	7	0	9	1
Hospital backup – all	NA	NA	NA	NA	3	NA	NA	NA
Hospital backup drinking	NA	NA	NA	NA	3	NA	NA	NA
Medical Gases								
Oxygen	0	0	0	0	40-100	3	NA	NA
Other gases	0	0	0	0	40-100	3	NA	NA
Suction	0	0	0	0	40-100	3	NA	NA
HVAC								
Heating system	0	1	0	0	600	7	>30	1
Cooling/air conditioning	0	1	0	0	100	7	>30	1
Information Systems								
Computer system	0	0	0	0	0	NA	0	3
Medical records	0	0	0	0	0	NA	0	3
Communications								
Telephones (land lines – internal)	0	10	0	0	5	3	>30	7
Telephones (land lines – external)	1.5	10	0	0	5	3	21	7
Telephones (cellular)	1	5	2	2	30	3	5	3
Elevators	0	1	0	0	7	7	>30	2

NA = Not applicable because hospital closed
HVAC = Heating, Ventilation, and Air Conditioning

Source: http://www.fema.gov/media-library-data/1385590865538-0c10ec4ba66e38db446a93689445ba9e/Sandy_MAT_AppH_508post.pdf

Palisades- Outcomes

- The Palisades Medical Center staff realized that such a multi-event outage had not been anticipated or addressed in their emergency response plans; they intend to modify the plans to include increasing coordination at all staffing levels, training staff in evacuation procedures, increasing the capacity of emergency generators, and creating redundancy between generators.

- Staff reported that Hurricane Sandy resulted in both a power outage and flooding that cut off road access and reduced ambulance availability.

Bellevue- Outcomes

- Bellevue Hospital recovery plans include moving selected elevator equipment up to the ground floor so the elevators can function during an emergency.

- Also, the emergency power distribution system is being expanded to bring emergency generator power to key areas of the hospital, including sections that house CT scanners and MRI machines, pharmaceutical and chemotherapy facilities, and research laboratories.

Bellevue- Outcomes (continued)

- Options for water pumps include moving them to a higher floor or bringing in additional pumps at street level that can be used as a backup system. Engineering experts are looking for ways to improve protection for the fuel oil pumps and medical gas tanks.
- The hospital is also adding connections for mobile boilers that can be brought in to provide heat and hot water if necessary.

Tornadoes

- **EF-5 Tornado, St. John's Hospital in Joplin, Mo.**
- **Event:** On May 22, 2011, Joplin, Mo., was struck by an EF-5 (winds greater than 200 mph) causing 150 fatalities and 1,000 injuries.
- **Hospital damage:** a nine-story facility, was severely damaged. The hospital windows were blown out, triggering a massive evacuation of 183 patients and 200 staff. In addition, gurneys were tossed up to five blocks away, and x-ray films were found as far as two counties (~70 miles away). St. Joplin's patients were transported to a makeshift hospital in an open field across the street, to a nearby hospital, and to a hospital in Springfield, Mo. (~70 miles away).

New Hospital Opening In Joplin After 2011 Tornado March 6, 2015

Mercy officials said the new facility is the first hospital ever built with windows that can withstand 250 mph winds. They said throughout the re-building time, Mercy kept all 2,200 workers on the payroll.

- **EF-3 Tornado, Sumter Regional Hospital in Americus, Ga.**
- **Event:** At 9:20 p.m. on March 1, 2007, an EF-3 (winds 136-167 mph) struck Taylor and Sumter counties, where Americus, Ga. (within Sumter) was the hardest hit. Americus is located 135 miles due south of Atlanta. For the total affected areas, two confirmed deaths and numerous injuries were reported.
- **Hospital damage:** Sumter Regional Hospital was the leading facility for the area. It is located 70 miles away from the nearest full-service hospital, and serves a rural population of 16,000 with a 143 bed facility. The EF-3 tornado severely damaged the building by blowing out the front wall and windows. Glass and debris projectiles became embedded into the walls. Rain also infiltrated the exposed building, and flooded the basement where medical records were kept. These records were permanently lost. No fatalities were reported at the hospital. However there were several injuries that resulted from the storm and the rescue mission, which occurred late at night.

Tornado Case Studies: Issues Faced

Emergency Management

- Hospital Evacuation
- Care for injured
- Care for critical outpatients (dialysis, infusion, etc.)

Crisis Management

- Restoration of Emergency Services
  - Field EMS
  - Emergency Department
- Provision of routine medical services for community
- Care of staff (staff are victims also)

Business Continuity

- Reestablishing physical facility in a manner that allows providers to bill
- Not going out of business

Earthquake: Holy Cross Medical Center

- The Holy Cross Medical Centre, located in the Mission Hills district, is approximately 8 km from the epicenter and experienced a horizontal ground acceleration of approximately 1.0g and a vertical ground acceleration of approximately 0.5g. It is a two-storey reinforced concrete structure with a large light steel framed mechanical penthouse situated on its roof. Following the earthquake, some 220 patients were immediately evacuated with about 140 being discharged to home care. The main hospital building was essentially paralyzed due to its loss of HVAC systems. At the time of the reconnaissance visit 3 days following the earthquake, a mechanical contractor was already on site initiating cleanup and repair and had been given 10 days to get the hospital mechanically operational again.
- Within the penthouse, ventilation ducting which had not been seismically restrained suffered shear failures at the connections to the units due to large relative displacements. Pounding from ventilation fan intakes dislocated panel grillages at the penthouse perimeter. Connections of suspended fan units to frames failed, initiating the collapse of at least one fan unit. Piping had become severely racked where attached to the roof soffit resulted in T-bar ceiling damage and tearing of doors from their hinges.

2012 Update: The South Wing was built in accordance to California's most recent seismic safety guidelines, and is expected to not only withstand an 8.0 magnitude earthquake, but to remain operational to continue to treat existing patients as well as the injured.

- NEWS
- **State Let Damaged Hospital Remain Open : Recovery: Seismic panel criticizes safety agency for not heeding reports of its own engineers that Holy Cross Medical Center in Mission Hills could collapse in another temblor.**
- January 23, 1995 | CYNTHIA H. CRAFT, L.A. TIMES STAFF WRITER
- The state's chief agency for hospital safety allowed a San Fernando Valley hospital to remain open even though the agency's inspectors reported severe damage to its steel frame and warned it could collapse in an earthquake, state records show. The Office of Statewide Health Planning and Development permitted Holy Cross Medical Center in Mission Hills to continue operating while undergoing extensive repairs to structural damage suffered in the Northridge earthquake.
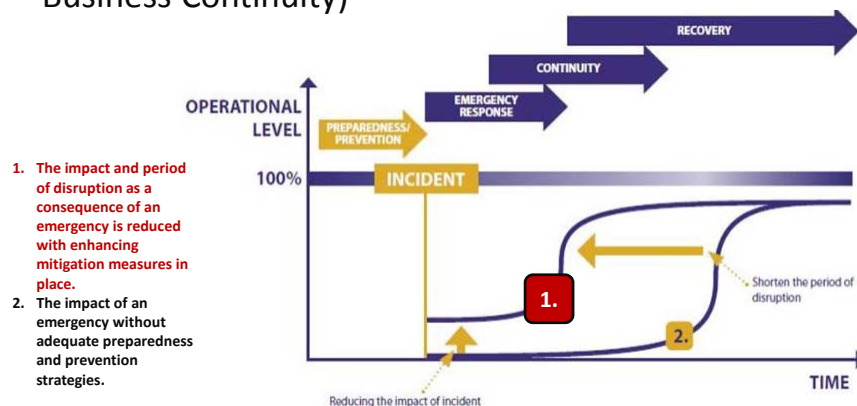
Case Studies- 4, 5, 6, 7

- San Diego Wildfires
- Sutter/Yuba floods
- Katrina, Gustav, Ike, etc
- Tropical Storm Allison

What Did These Organizations Have In Common?

- They put their efforts into Preparedness and Response but little in terms of Recovery and Mitigation (and Business Continuity)

1. The impact and period of disruption as a consequence of an emergency is reduced with enhancing mitigation measures in place.
2. The impact of an emergency without adequate preparedness and prevention strategies.

Final Group Exercise: The Talk

- **Background:** You are giving a presentation to your senior leadership about why the hospital should expand past basic preparedness and plan for business continuity. The audience will include: all senior leadership.
- **Question:** What would each senior leader want to know about how this affects their domain?
- **Assignment:** Working in small groups, select one senior leadership position (e.g. CEO, CFO, CIO, CNO, etc.) and develop a list of 5 questions they might ask during your presentation.

CONCLUSION

Free Business Continuity Resources

Acknowledgements

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Did we...?

- Define business continuity
- Compare and contrast business continuity with emergency management
- Describe the elements of a viable continuity plan
- Illustrate the process used to plan for continuity of operations
- Identify strategies for building support for business continuity activities and programs
- Review case studies and identify the lessons learned
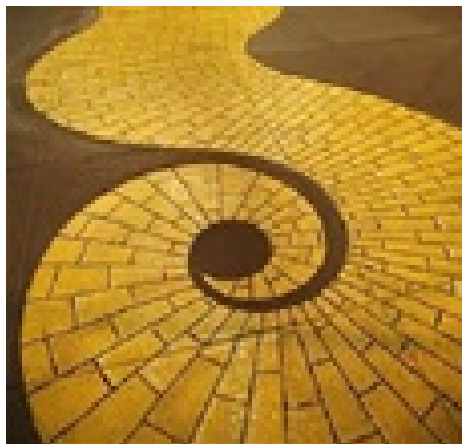
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WHERE DO YOU START?

At the Beginning

Thank You

"Adventure is just bad planning."
-Roald Amundsen (1872 - 1928)