

Integrated Healthcare, Hospital and Medical Contingency Planning

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Overview

- Historically, BC is not something hospitals have worried about - they are 'response oriented'
 - That is quickly changing due to many factors
- Add to this the current economic & political / regulatory environment
 - risk mitigation vs take your chances
- Increased federal / accreditation creep
- ***How aware are executives in healthcare about these issues & prepared to decide on level of risk?***

Landscape of Healthcare BC

- Most hospitals have not initiated a BC management program.
- IT centric disaster recovery programs exist
- Approximately 1/3 of hospitals today are operating in the red
- An increase in use of "just in time" supply practices, while helpful in reducing day-to-day inventory costs, have left hospitals unable to cope with a surge from a disaster
- Facilities and infrastructure are aging
- Politics , regulation, and statutes continue to grow (i.e the Joint Commission Elements of Performance for emergency preparedness have increased 34% between 2008 to 2009)

Today efficient supply chains are critical

Healthcare delivery organizations critically depend on a wide variety of supplies and suppliers. Efficient supply chains are a major factor for an hospital's effective delivery of healthcare services.



H.R. 1

An Act

To provide for the implementation of the recommendations of the National Commission on Terrorist Attacks Upon the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) **SHORT TITLE.**—This Act may be cited as the “Implementing Recommendations of the 9/11 Commission Act of 2007”.

TITLE IX—PRIVATE SECTOR PREPAREDNESS

H. R. 1—107

TITLE X—IMPROVING CRITICAL INFRASTRUCTURE SECURITY

BC/EM Standards



Voluntary Private Sector Accreditation and Certification Preparedness Program

- Hospitals are regulated and accredited under existing comprehensive standards that address leadership, sustainability of services, continuity of operations and maintenance of facility operations under adverse conditions.
- Examples of these standards and regulations include:
 - The Joint Commission Emergency Management Standards;
 - American Osteopathic Association (AoA) – Healthcare Facility Accreditation Program;
 - CMS Hospital and Critical Access Hospital Conditions of Participation;
 - Det Norske Veritas Healthcare Inc.'s (DNV) National Integrated Accreditation for Healthcare Organizations;
 - National Fire Protection Association (NFPA) – 99 and 1600.

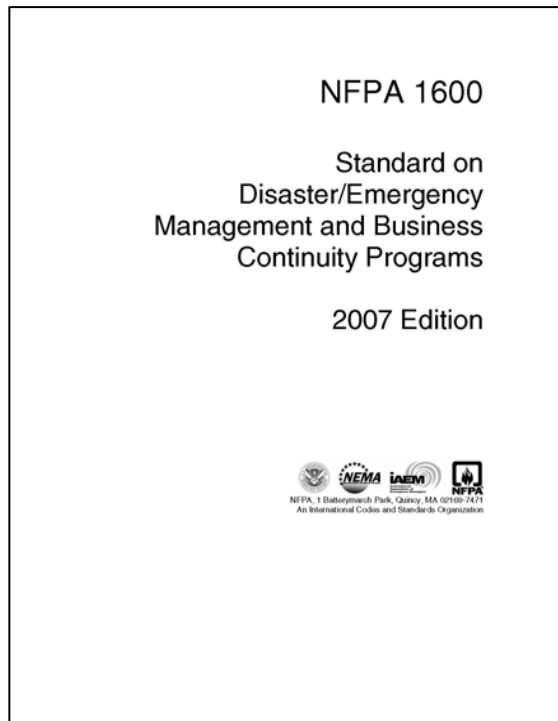
BC/EM Standards



HELPING HEALTH CARE ORGANIZATIONS HELP PATIENTS

- The 2009 standards also allow for a "scalable" approach to manage events that can involve variability in type, intensity, and duration for a individual hospital, numerous organizations or the community as a whole.
 - The standards continue to emphasize the importance of pre-planning and evaluation through drills, exercises and other methods of testing.
 - In 2008 the JC emphasized the need to develop plans for events where the hospital should not anticipate community support.
- Each of these six critical areas supports an "all hazards" approach that is not new but reorganized.
- The six critical functions are:
 - Communicating during emergency conditions.
 - Managing resources and assets during emergency conditions.
 - Managing safety and security during emergency conditions.
 - Defining and managing staff roles and responsibilities during emergency conditions.
 - Managing utilities during emergency conditions.
 - Managing clinical activities during emergency conditions.

Business Continuity Standards



- The NFPA 1600 Standard on Disaster/Emergency management and Business Continuity Programs 2010 edition was released for comments
- The proposed 2010 standard identifies hundreds of elements of performance for hospitals
- Det Norske Veritas Healthcare Inc.'s (DNV) National Integrated Accreditation for Healthcare Organizations has chosen NFPA 1600 as their benchmark standards

National Fire Protection Association (NFPA)

Business Continuity Standards and Assessment/Certification Tools

- Pas56
- BS 25999
- Business Continuity Maturity Model[®]

BC Associations

- BCI
- ACP
- DRI International
- BCPWHO
- BCPA
- SURVIVE
- RMI
- ACCP

Yale New Haven Health System BCP Program Overview Case Study

Yale New Haven Health System

BCP Program Overview

Business continuity planning is a hospital or healthcare system-wide initiative utilizing a holistic approach to prepare the organization to recover after an interruption of its essential functions and business operations. The process involves assessing, developing, testing, and maintaining a system-wide business continuity plan which addresses any type of disaster.

The business continuity planning process for your healthcare organization will be undertaken in multiple steps over the course of approximately 24-36 months.

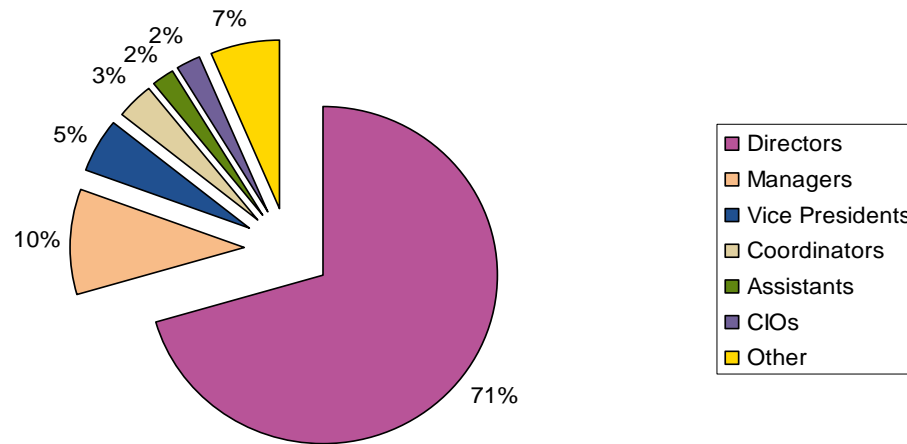
Business Continuity Planning Steps and Timeline

- **Step 1** of the YNHHS BCP Project included the establishment of the BCP Project Steering Committee and other initiation activities; **Step 1** was completed during the fall of 2007.
- During the Spring of 2007, YNHHS completed **Step 2**, the YNHHS Business Impact Analysis with the Virtual Corporation
- **Step 3** (development of delivery network hospital departmental Business Continuity Plans) has been initiated and will be completed in early Spring of this year.
- To support the successful execution of all **Step 3** deliverables, the YNHHS BCP Project Support Team and the YNHHS BCP Steering Committee recommended the development of a DN BCP Planning Team at each location that includes an appointed team leader who possesses the management authority necessary to make and recommend any reasonable team decisions (personnel scheduling, assignment scheduling, expenditures, etc.).
- **Step 4**, Implementation of Recommendations/Plans (completion date TBD).
- **Step 5**, Test, Exercise and Maintenance (completion date TBD).

Step 2 – Business Impact Analysis

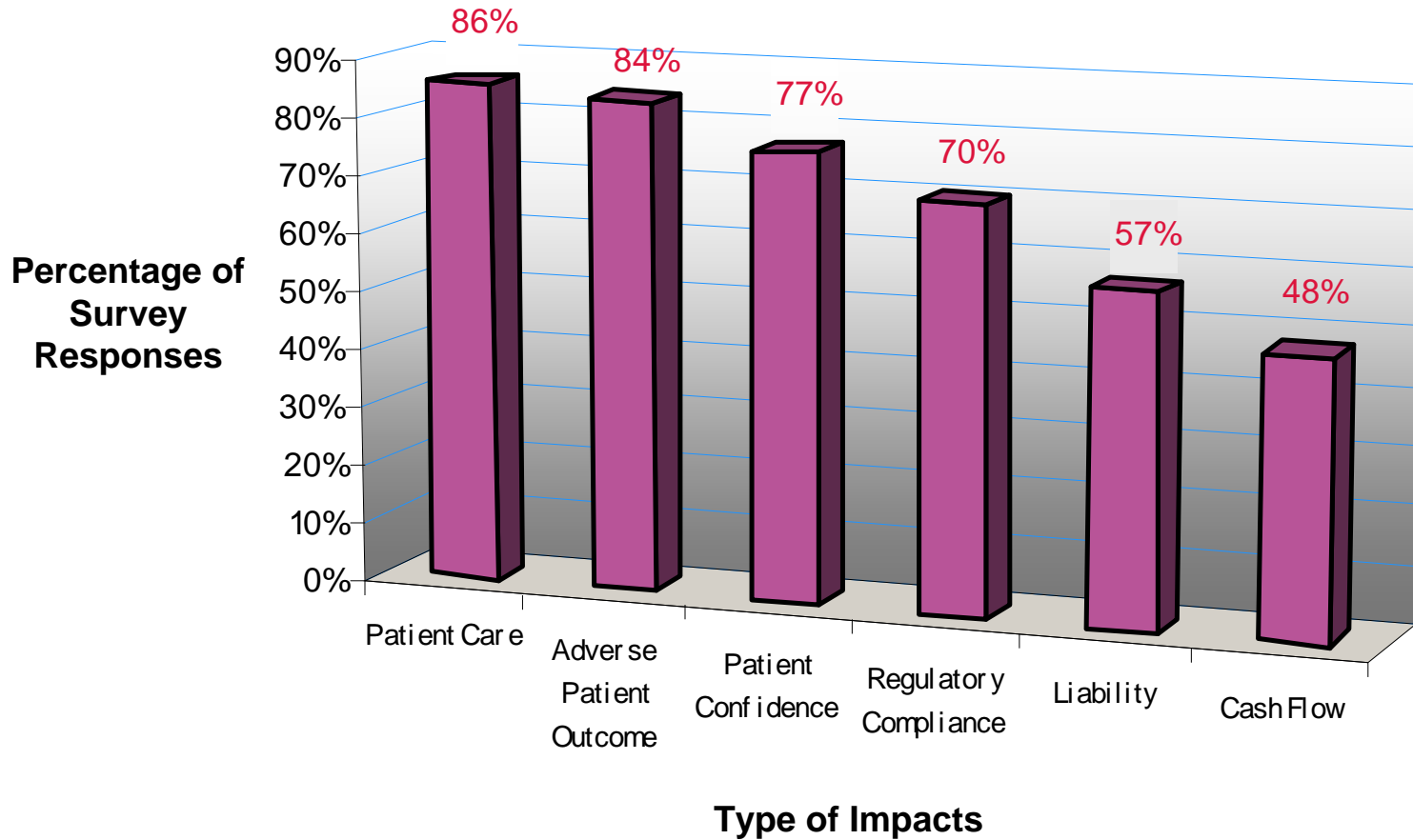
A Business Impact Analysis survey was completed by YNHHS staff, at its three Delivery Networks, using a computer-based data collection tool

- Of the 101 departments, 33 were from Bridgeport Hospital, 25 from Greenwich Hospital and 43 from Yale-New Haven Hospital
- The chart below identifies survey responses based on their title and positions



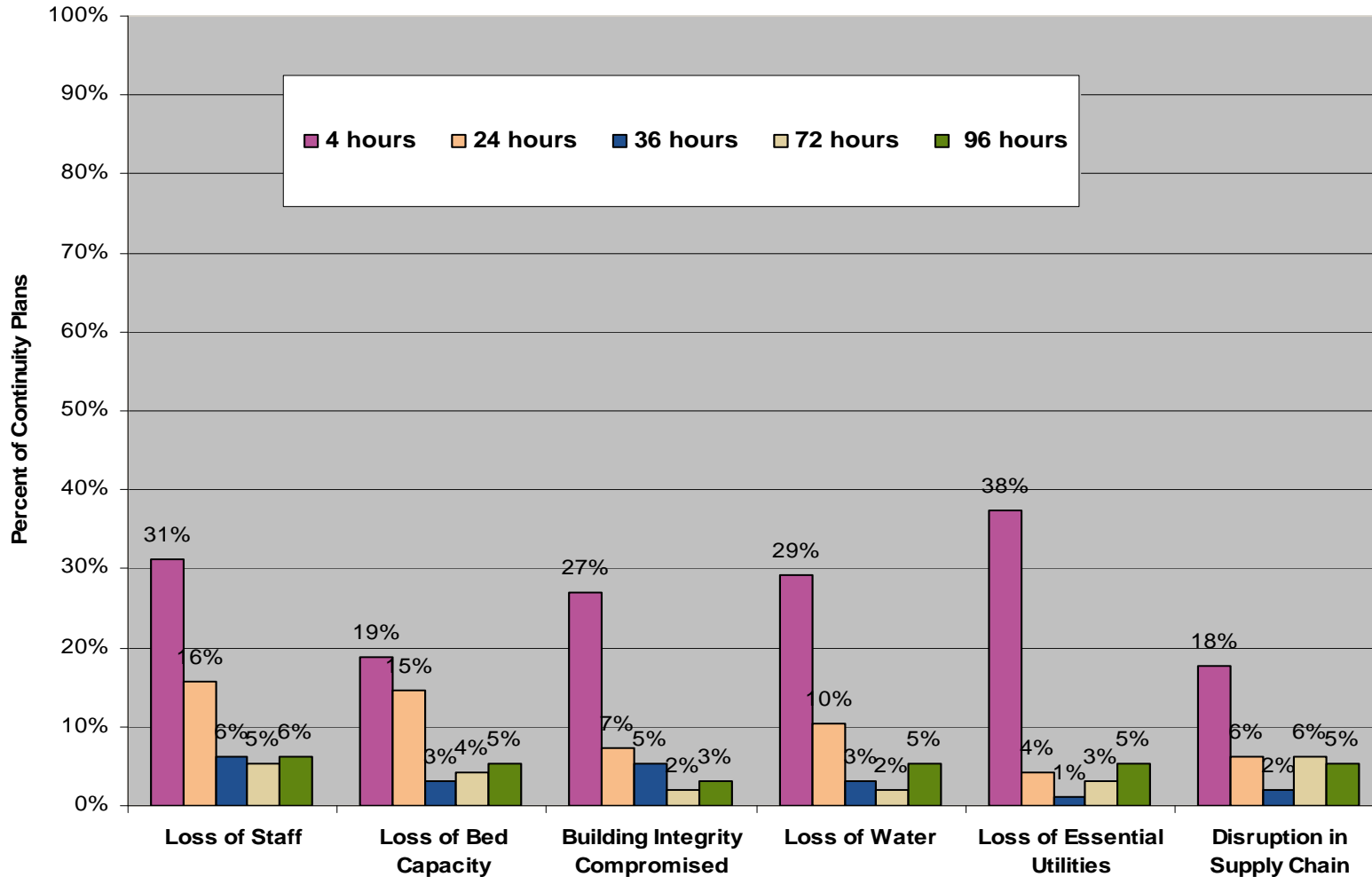
BIA Findings

Impact on the Delivery Network from Departmental Disruption



Departmental Mitigation Strategies

Percentage of DN Departments with Continuity Plans Cover 4 to 96 Hour Periods



Type of Continuity Plans by Period of Time Covered

Achievements, Recommendations and Next Steps

Achievements

- Approval by the System Executive Committee (SEC) was provided on April 29, 2008
- Based on the lack of departmental business continuity plans and mitigation strategies at the DNs, it was important that **Step III** of the BCP project (Business Continuity Plan Development) be initiated.
- Due to the importance of continuing to provide patient care without disruptions, the following departments were identified as most essential. In-depth interviews were initiated in this phase of **Step III** of the BCP project (Business Continuity Plan Development) with:
 - **Admitting, Patient Registration & Out Patient Registration**
 - **Building Services, Facilities Design & Construction**
 - **Finance, Patient Financial Service & Financial Planning & Analysis**
 - **Food and Nutrition**
 - **Housekeeping/Hospitality**
 - **Human Resources**
 - **Imaging, Diagnostic, Intervention & Lab Services**
 - **Information Technology / Communications**
 - **Materials Management**
 - **Medical Records**
 - **Patient Care Services**
 - **Pharmacy**
 - **Purchasing**
 - **Physician Services**
 - **Respiratory Services**
 - **Security/Protective Services**
 - **Social Services/Case Management and Social Work**

Achievements

- Additional support departments have been identified to be interviewed in the business continuity plan development during the second phase of BCP project (**Step III**) and are listed below. Once plans have been developed for those departments/services that directly support patient care, the scope of business continuity plan development will be expanded to include other departments and services at each DN.
 - Compliance
 - Credit Union
 - Day Care
 - Legal Services
 - Mail Room
 - Marketing and Planning
 - Medical Education
 - Medical Library
 - Occupational / Employee Health
 - Parking and Transportation
 - Pastoral Care
 - Performance Management
 - Rehabilitation Services
 - Risk Management
 - School of Nursing
 - Staff Education
 - Volunteer / Auxiliary

Achievements

- DN BCP Planning Teams incorporating representatives from every major operational area were identified for the initial phase of **Step III (Business Continuity Plan Development)**
- A BCP Planning Team was established at each DN that is comprised of team members who provide leadership in their respective areas in **Steps III, IV and V** of the Business Continuity Planning process:
 - Administration
 - Facilities
 - Finance
 - HICS Business Continuity Branch Director
 - Human Resources
 - Information Systems & Technology
 - Legal/Compliance
 - Medical Affairs
 - OEP
 - Operations (Clinical Support)
 - Operations (Non Clinical Support)
 - Patient Care Services
 - Performance Management

YNHHS BCP Project Support Team

The YNHHS BCP Project has been developed by the YNHHS BCP Project Support Team. These members serve as the Delivery Network, System and BCP project liaisons and provide day-to-day support and integration of all DN BCP activities. The following are the YNHHS BCP Project team members.

- Project Manager
- Project Co-Lead
- Project Co-Lead
- Project Database Administrator
- IS&T Disaster Recovery
- IS&T Support
- Bridgeport Hospital (POC)
- Yale-New Haven Hospital (POC)
- Greenwich Hospital (POC)
- BCP Training and Planning Specialist (Bridgeport Hospital)
- BCP Training and Planning Specialist (Yale-New Haven Hospital)
- BCP Training and Planning Specialist (Greenwich Hospital)
- BCP Consultants

Next Steps

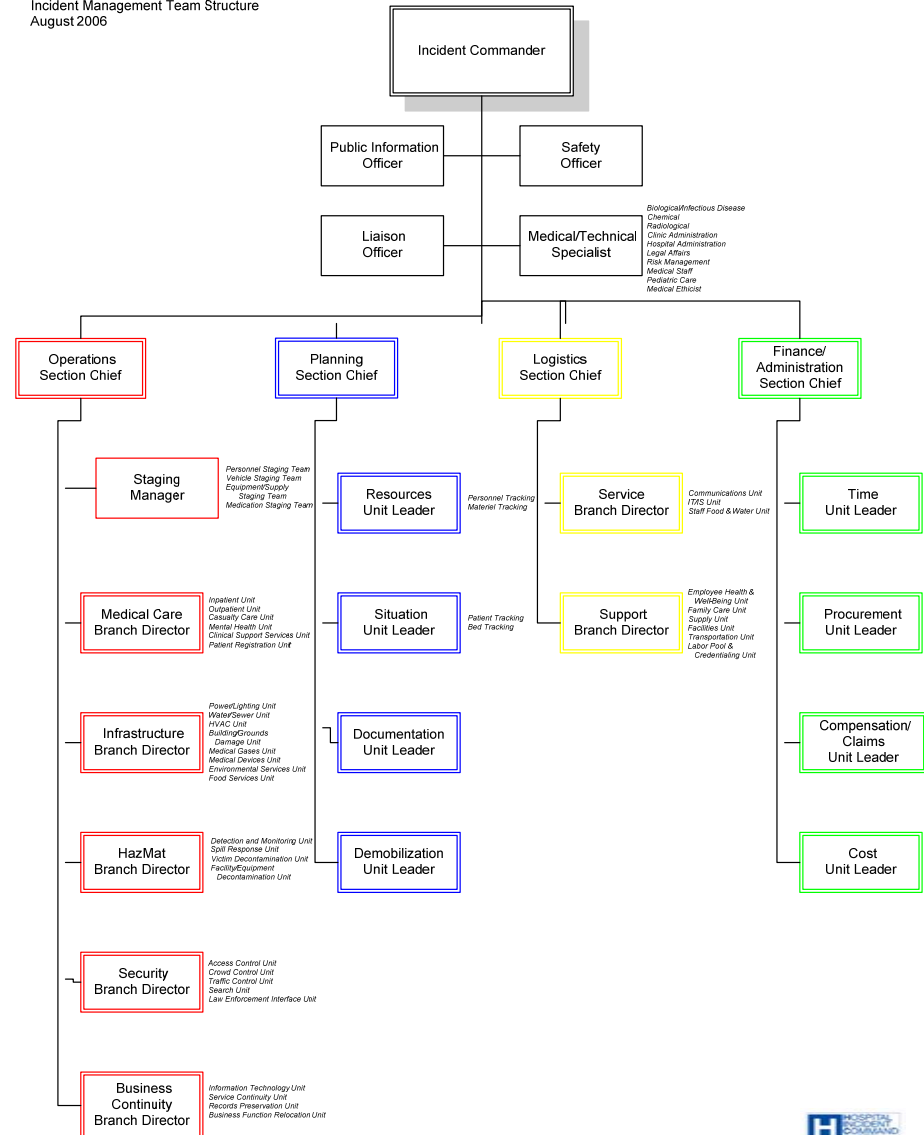
Complete the design of a consistent departmental business continuity plan format and structure to be used across all delivery networks that is integrated with the existing emergency management processes:

- Overview
 - Recovery Plan Overview
 - Plan Distribution & Storage
 - General Plan Scope
- Recovery Team Task Lists
 - Recovery Team Roles & Assignments
 - Delegation of Authority
 - Department Response Team Procedures
 - Loss of Bldg Access
 - Loss of Key Personnel
 - Loss of IT Applications
 - etc.
 - Resumption of normal operations
- Call Lists
 - Department Call List
 - Vendor Call List
 - Personnel Notification Procedure
- Recovery Resources
 - Internal / external personnel
 - Environmental Resources
 - Fixed and Portable Medical Equipment
 - Critical Supplies
- Strategy Support Materials
 - How All BC Plans Fit Together
 - Department Planning Assumptions
 - Directions to Recovery Location
- Forms
 - Activity Log
 - Move and Relocation Forms
 - Plan Testing and Maintenance procedures
- Reference Materials
 - Recovery Time Objectives (all depts.)
 - Business Impacts (all depts.)
 - Dept Business Impact Analysis Findings
 - Business continuity policies
 - Physical and security assessments
 - Vital records and off-site storage program
 - Department and corporate succession plans
 - Budget considerations for capital and operating expenses
- Links to Emergency Response Procedures
 - Damage impact assessment procedures
 - Command center activation procedures

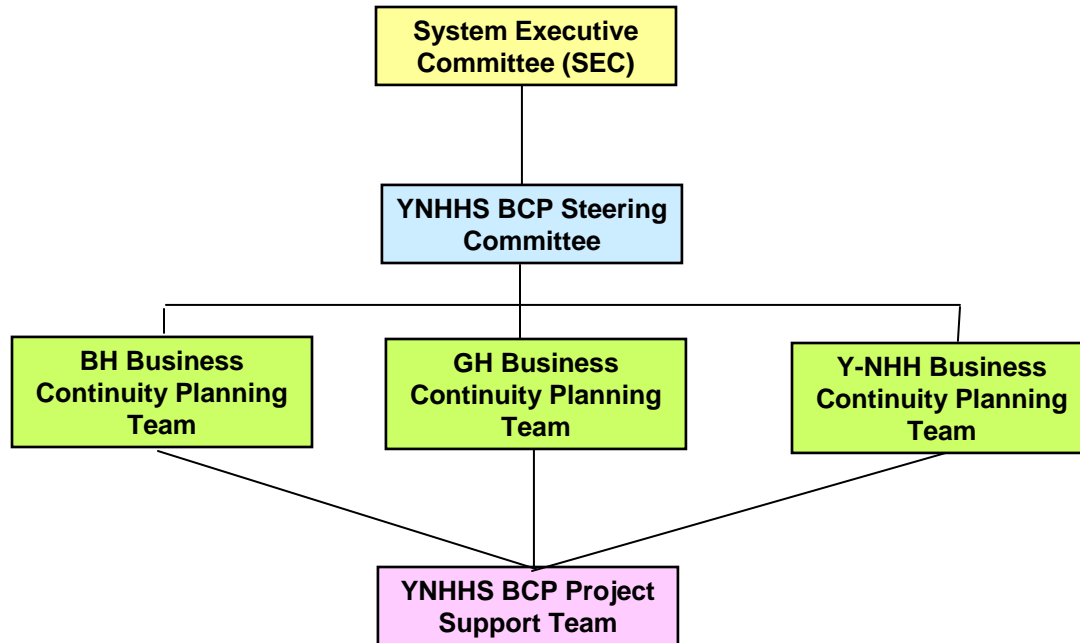
Recommendation

Hospital Incident Command System
Incident Management Team Structure
August 2006

- Expand usage of the “Hospital Incident Command System” (HICS) to define responsibilities, clear reporting channels, and a common nomenclature to help unify hospital recovery and restoration activities with other emergency responders
 - Add the position of Business Continuity Branch Director to each DN HICS Incident Management Team structure
 - Reports through the Operations Section Chief
 - Update all HICS Job Action Sheets (JAS) addressing “Recovery Role” for ICS personnel



YNHHS BCP Program Table of Organization



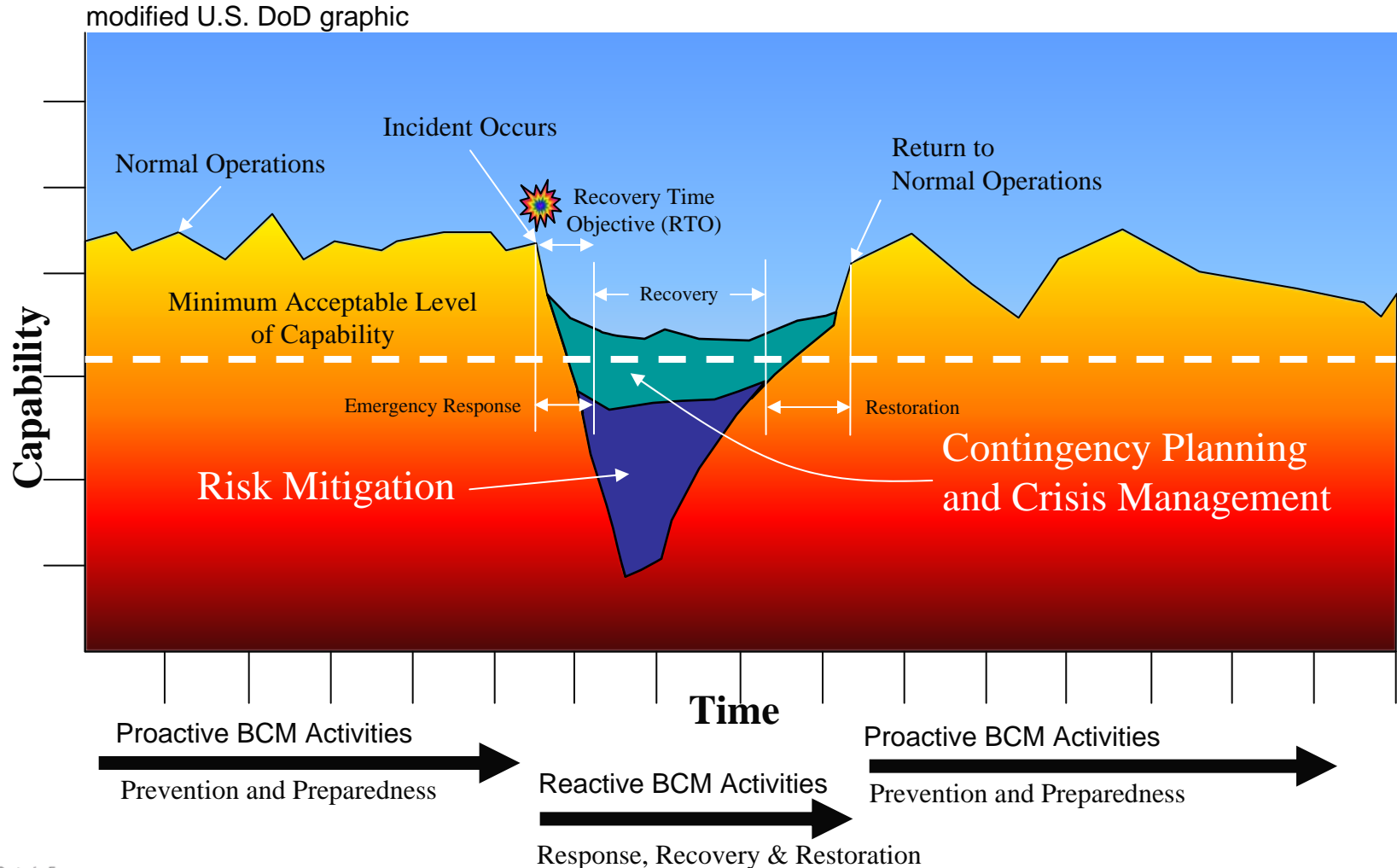
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Sample Healthcare Continuity

Case Studies

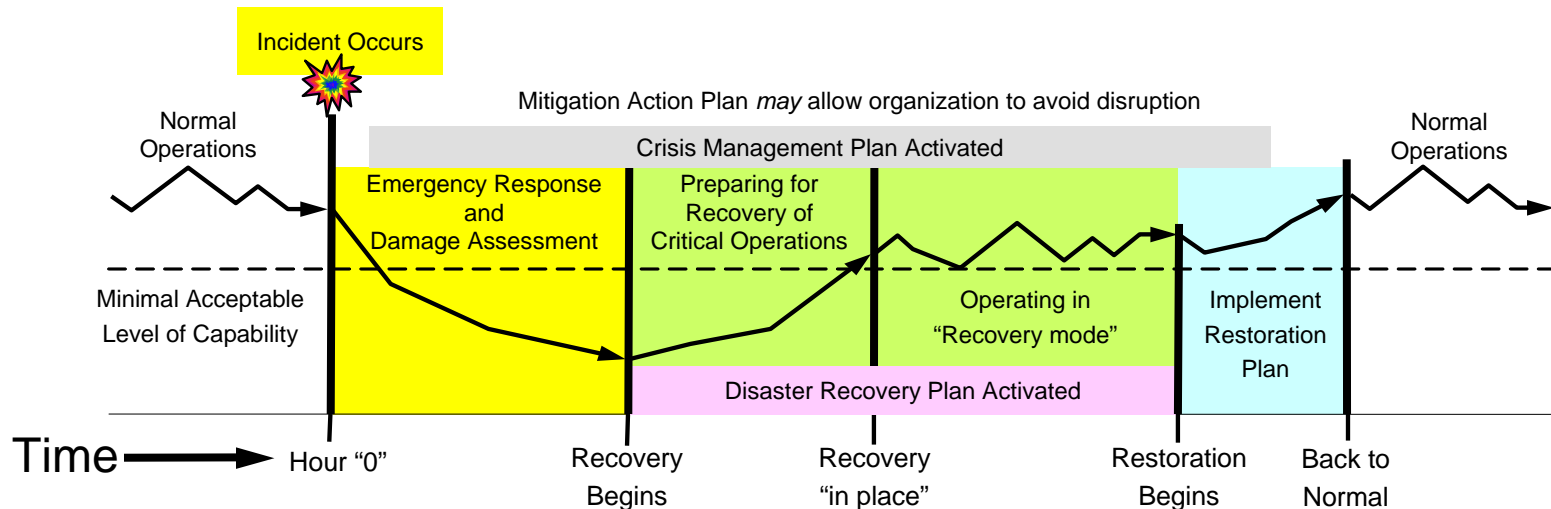
The Business Continuity Program Life Cycle

" a process not a project "



The Business Continuity Plans

6 BC Plans – Working Together ...



- **Emergency Response Plan**

- Save lives and protect assets
- Conduct damage assessment
- Site Emergency Operations Center (EOC)

- **Crisis Management Plan**

- Executive Command Center (ECC)
- Regional and/or higher ECC(s) activated
- Command, Control, and Communications

- **Mitigation Action Plan**

- Tasks to initiate mitigation action(s)
- Avoid or minimize disruption

- **Business Recovery Plan**

- Ensure that critical functions continue to be performed
- Departmental Recovery Plans
- Requires EOC communications and authorizations

- **Disaster Recovery Plan**

- Ensure critical technical infrastructure is available
- Hot site recovery

- **Restoration Plan**

- A plan to return to normal operations

From the headlines ...

- Iowa River Flood, June 12-13, 2008
 - Cedar Rapids, IA
 - Mercy Medical Center faces evacuation
- Midwest Ice Storm, January 29, 2009
 - Paducah, Kentucky
 - 90% of area hospitals without power
 - Homes and county services affected

HVAdvantage™ Facility

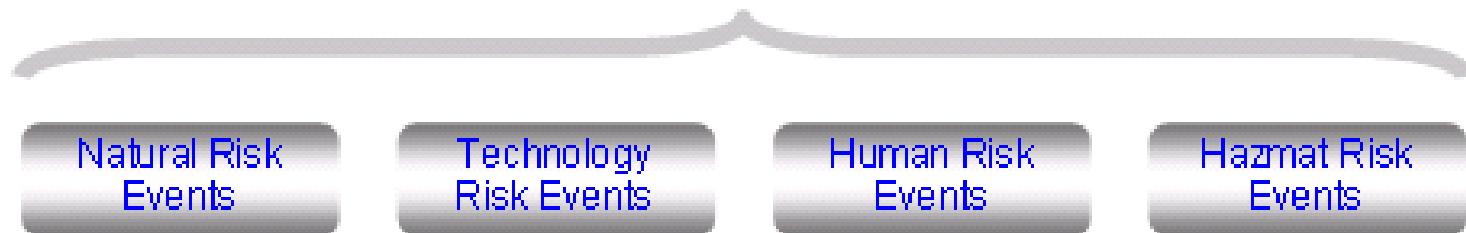
Assisting a Mid West Medical Center

- Objectively assess preparedness risk and ability to mount an effective response
- Reduce facility infrastructure damage
- Reduce impact on the community
 - limiting level and extent of care
 - evacuation of patients
 - impact on surrounding healthcare delivery facilities

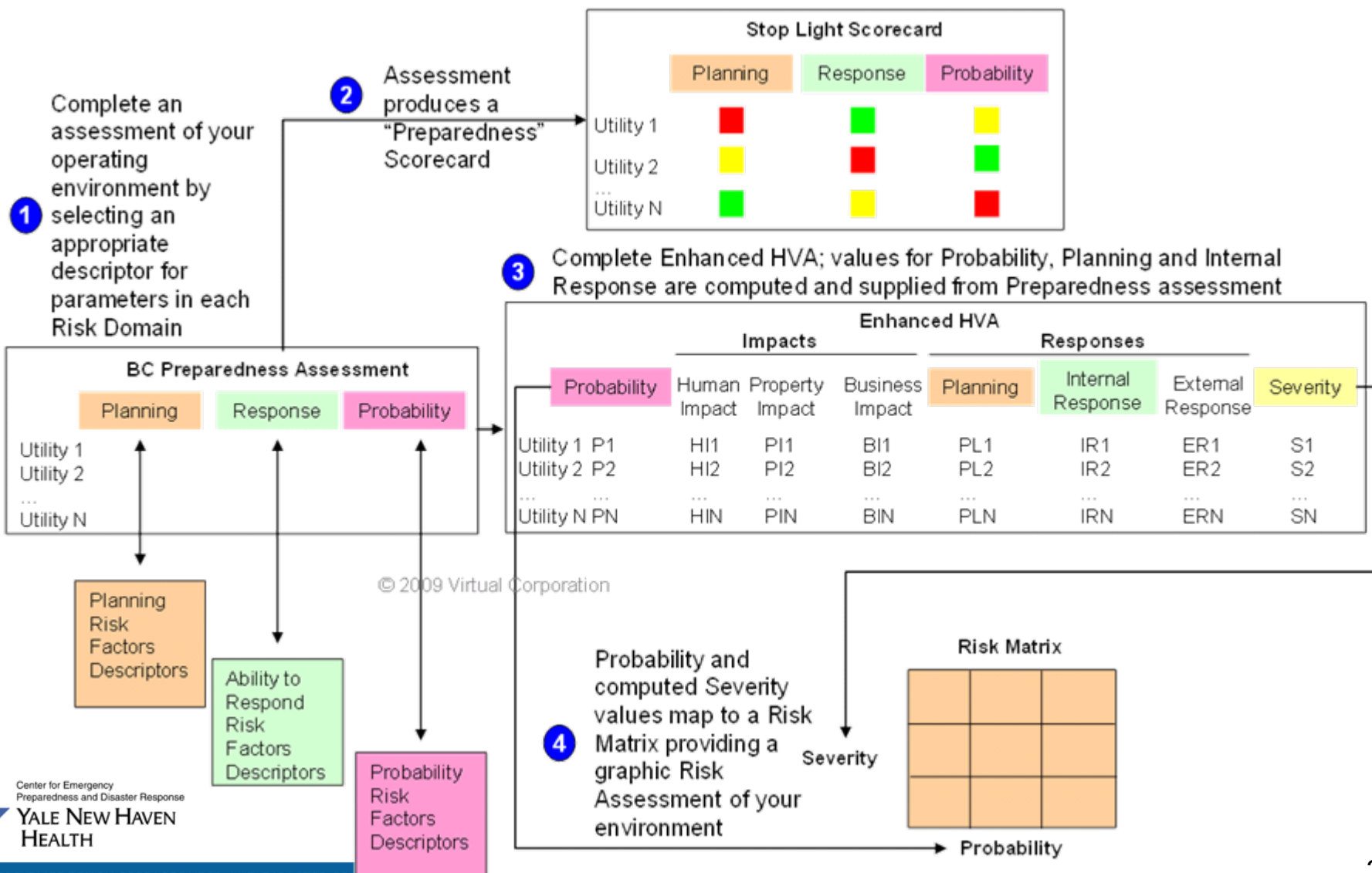
Leveraging their HVA Investment

- Joint Commission is not prescriptive
 - as to comprehensiveness and inclusiveness
 - of the data and reporting

Standard HVA



HVAdvantage™ Assessment Model



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Hard-Hitting Results

- Objective, comprehensive findings
- Detailed, actionable information for your facility staff
- Key results are communicated to Executives
- Accomplished in 10-13 weeks
- Methodology and reporting tailored to meet your specific requirements

HVAdvantage™

Operations Risk and Impact Analysis

- Large, national healthcare delivery organization
- Challenge: “We are conducting our annual BIA and want to use the results to prioritize which sites and functions require attention.”

Integrating HVA & BIA Data

- HVA data is normally gathered at site level by facilities teams
- Business Impact and Preparedness data is often best gathered at business function level as part of BIA

EVENT	PROBABILITY <i>Likelihood this will occur</i>	SEVERITY = (MAGNITUDE - MITIGATION)						RISK <i>Relative threat*</i>
		HUMAN IMPACT <i>Possibility of death or injury</i>	PROPERTY IMPACT <i>Physical losses and damages</i>	BUSINESS IMPACT <i>Interruption of services</i>	PREPAREDNESS <i>Preplanning</i>	INTERNAL RESPONSE <i>Time, effectiveness, resources</i>	EXTERNAL RESPONSE <i>Community/Mutual Aid staff and supplies</i>	
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%
Hurricane								0%
Tornado								0%
Severe Thunderstorm								0%
Snow Fall								0%
Blizzard								0%
Ice Storm								0%
Earthquake								0%
Tidal Wave								0%
Temperature Extremes								0%
Drought								0%
Flood, External								0%
Wild Fire								0%
Landslide								0%
Dam Inundation								0%
Volcano								0%
Epidemic								0%
AVERAGE SCORE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
		RISK = PROBABILITY * SEVERITY						
		0.00	0.00	0.00				

*Threat increases with percentage.

Solution: Integrated BIA/HVA

- Gather impact & preparedness data through a BIA modified to also gather risk information at the dept level

Risk Scorecard	Rating	Score Options
BUSINESS IMPACT SCORE	2	0 = N/A 1 = Low 2 = Moderate 3 = High
PREPAREDNESS SCORE	1	0 = N/A 1 = High 2 = Moderate 3 = Low or none

- Calculate department ‘Threat Severity’

Normalizing Risk Inputs from the OIA Survey

Business Impact	Preparedness
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Solution: Integrated BIA/HVA

- Apply Normalized 'Threat Severity' by Threat Class

Integrated OIA and HVA Severity Data
Natural Hazards
Technological Hazards
Human Hazards
Hazardous Materials

- And calculate 'Dept at a Site' Risk Rating

Risk = Probability * Severity			
Department At Site Risk Score	OIA Risk Score	Site Threat Probability*	Department Threat Severity
	0.27	0.48	0.57

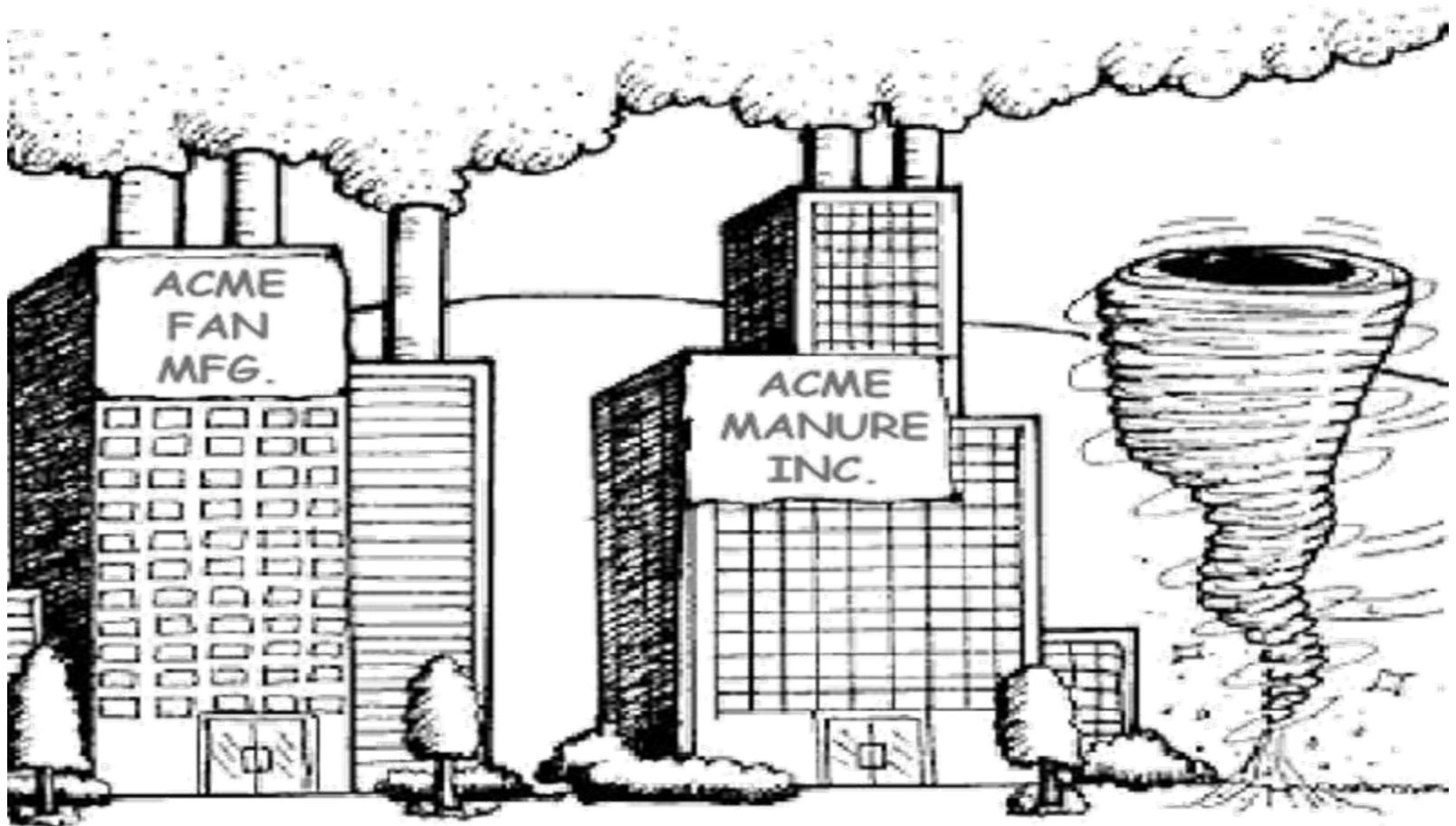
* Primary site threat probability from HVA

Solution: Integrated BIA/HVA

Prioritize departments by their relative risk rating

DEPARTMENT SUMMARY			
Type your answer here			
Risk = Probability * Severity			
	OIA Risk Score	Site Threat Probability*	Department Threat Severity
Department At This Site Risk Score	0.27	0.48	0.57
* Primary site threat probability from HVA			
Risk = Probability * Severity			
	HVA Risk Score	Site Threat Probability*	Site Threat Severity
HVA At This Site Risk Score	0.32	0.48	0.65
* Primary site threat probability from HVA			

...Sooner or later it's bound to happen



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