

Bioterrorism
and weapons of mass destruction

The Impact of Socially Disruptive Events on the Healthcare System

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BIOTERRORISM PLANNING MODEL

ACUTE HEALTH CARE

PUBLIC HEALTH

PUBLIC SAFETY/EMS

Hospital Council of Western Pennsylvania

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Defining A “Credible Threat”

- Geographically, temporally increased incidence
- More severe than typical for the pathogen
- Disease outbreak affects both humans & animals

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Credible Threat 2

- Atypical antibiotic resistance patterns
- Intelligence from reliable sources
- Claims from terrorists

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Credible Threat 3
Hazard Vulnerability Analysis
(Community Based Planning)

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Key Concepts: System Response

1. Hospital Incident Command System (HICS)
2. National Incident Management System (NIMS)
3. Emergency Support Function #8 (ESF 8)

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Key Concepts in Hospital Response:

Surgical Resources vs. Medical Resources

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HOSPITAL READINESS
Key Concepts: WMD Vs. Bio-Terrorism

	Weapons of Mass Destruction	Bio-Terrorism
Clinical Picture	Trauma	Medical
Onset	Rapid/ Dramatic	Gradual/Insidious
Assessment	Triage	Surveillance
Scope	Defined # Patients	Unlimited # Patients
Health Care Resources	EMS, Hospitals	Emergency Rooms, Clinics, Physician offices, HAZMAT, Public Health

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HOSPITAL READINESS
Key Concepts: WMD Vs. Bio-Terrorism

	Weapons of Mass Destruction	Bio-Terrorism
Hospital Resources	Surgeons, Anesthesia, Operating Rooms, Surgical ICUS, Burn Units, Blood & Blood Products, Expanded EDs	ID Physicians, Isolation Units, Medical ICUS, Clinical Labs, Security
Physical Plant	Nominal Impact	Significant Impact, HVAC, Sewerage, Contamination
Personnel	Blood Borne Pathogens	Personal Protective Equipment (PPE)

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CONCEPT:
Socially Disruptive Event

September 11, 2001
 RI Nightclub Fire – 2/21/03
 Northeast Blackout – 8/15/03
 PA Hepatitis Outbreak – 11/03
 Florida Hurricanes – 2004
 Katrina/Rita - 2005

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**Determining the Outcome of a
 SDE on the Healthcare Resource:
 Two Dichotomous Variables**

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Socially Disruptive Events

	Victims +	Victims -
Emergent	Cell A	Cell B
Evolving	Cell C	Cell D

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Socially Disruptive Events

	Victims +	Victims -
Emergent	=Plane Crash	=Power Failure
Evolving	=Disease Outbreak	=Hurricane

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SURGE PRESSURE – Type 1

Healthcare Resources

- Beds/Staff
- 1. Capacity = Number
- 2. Capability = Type
- Pharmaceuticals
- Supplies

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SURGE PRESSURE – Type 2

“Domiciliary”

- Green = 3 Hots & A Cot
- Yellow = ADL Assistance
- Red = Acute Assistance

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Socially Disruptive Events

	Victims +	Victims -
Emergent	=Plane Crash =Tornado	=Power Failure =Fire
Evolving	=Disease =Chemical Release	=Hurricane =Flood

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SURGE PRESSURE – Type 3

Information

- =Victim Tracking
- =Media
- =“Official” reporting

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Planning Question:

Who Decides When Local Resources are Exhausted?

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Planning Question:
Once Local Resources are Exhausted, What Happens?

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In a socially disruptive event, the hospital becomes a place of refuge for the entire community!

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Questions??

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Basic Planning Questions:

- =What do we need to do in-house?
- =What assistance might we need from the region/community?

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Characteristics of Cells A & B:

- Immediate disruption of social norms
- Clear delineation of start of incident & need to respond
- Immediate need to implement emergency mgt. Plans
- Need for resource management information time critical

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Characteristics of Cells C & D:

- Onset may be insidious w/ late recognition
- No clear trigger to implement surge demand response
- Impact may be defused over wide a area
- High priority need for resource planning information





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