The Pearls and Pitfalls of Including Colleges & Universities in Community Metropolitan Medical Response Systems

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The Miriam Hospital, Disaster Committee

Discussion Objectives

- Define the Metropolitan Medical Response System

- Detail the Rationale for including Colleges/Universities in MMRS

- Discuss Themes, Pearls & Pitfalls of Including a College/University in your MMRS

- Suggest a Project Roadmap for your Planning

- Provide Resources for including Colleges & Universities in your planning

What is a MMRS? [1]

- An <u>operational system</u> at the <u>local level</u>, which responds to incidents that create <u>mass casualties</u> requiring unique care
  - Emerging Infectious Diseases
  - Terrorist Attacks
  - Other Public Health Emergencies
- This system allows a metropolitan area to manage an event "*until state or federal response resources are mobilized*"

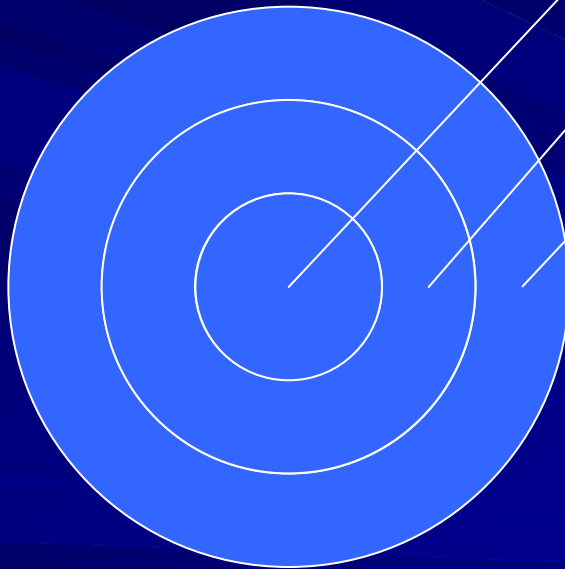# MMRS Development History [2]

- 1997: Presidential Directive 62
- Spans 20 years
- Original MMRS: 27 major cities
  - Boston, NYC, Baltimore, Philadelphia, Washington DC, Atlanta, Miami, Memphis, Jacksonville, Detroit, Chicago, Milwaukee, Indianapolis, Columbus, San Antonio, Houston, Dallas, Kansas City, Denver, Phoenix, San Jose, Honolulu, Los Angeles, San Diego, San Francisco, Anchorage, Seattle
- 1999: 21 metropolitan areas added
- 2000: 26 areas added
- 2001-Present: 15-20 areas added per year
- 1998 - 2005: Rhode Island State

MMRS Rationale [2]

500,000 people, 3000 hospital beds: 250,000 affected, =150,000 deaths. (Kaufman & Meltzer)
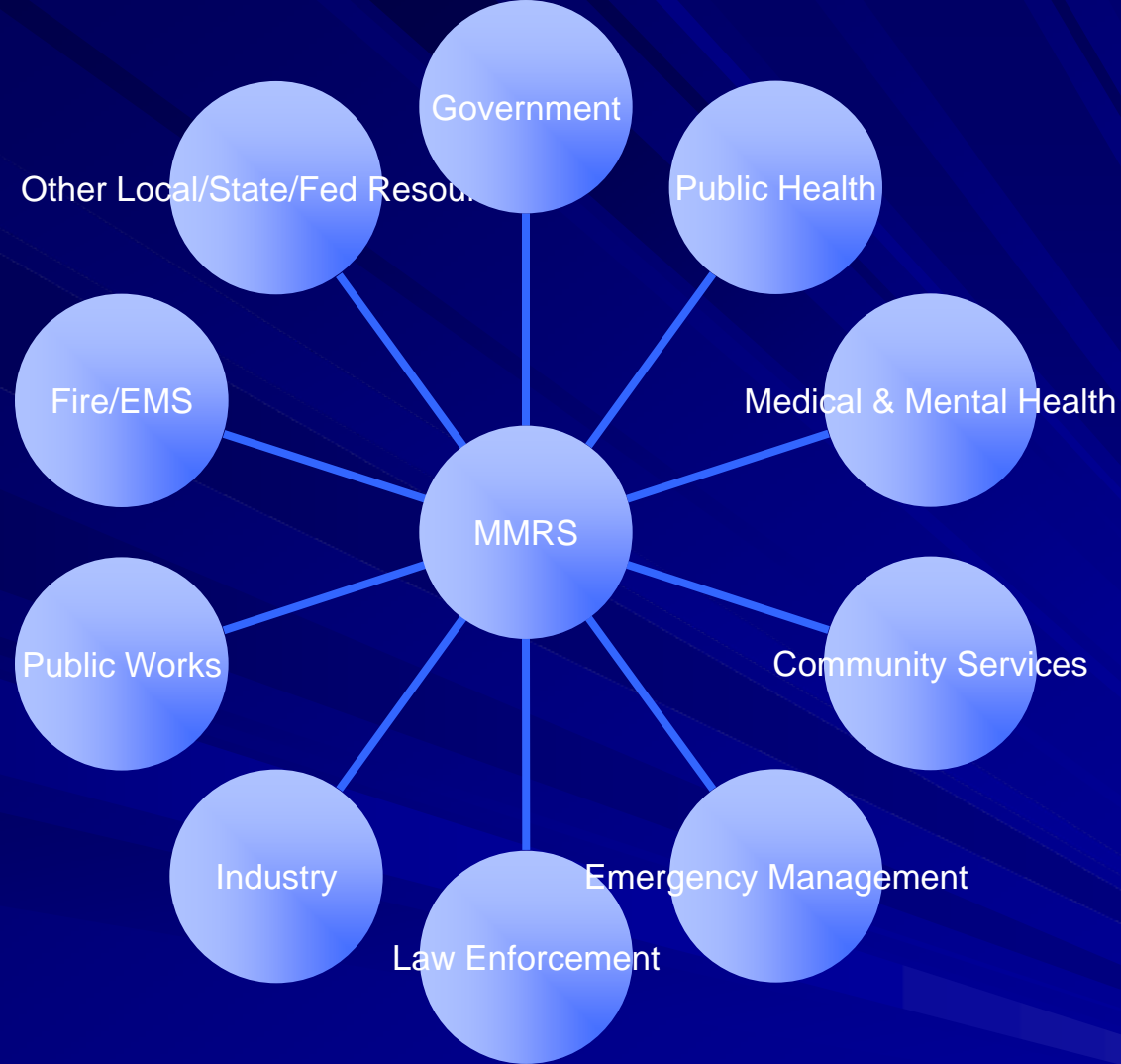
Expand capacity by ACS, Home Care, Evacuation

Massive, Immediate Health Care Demand

MMRS Purpose [1]

- Effectively Respond to Crisis
- Develop/Enhance Existing Emergency Preparedness Systems
- Originally Designed for Weapons of Mass Destruction (WMD) Events

MMRS is a locally developed, owned, and operated mass casualty response system

Integrated Functional Perspective [1]
- Across the spectrum of hazards
-Among various levels of government
-Only Federal program to support local linkages

MMRS Activities [1]

- **Integration is achieved through cross-functional *coordination* and *collaboration:***
  - Review of existing response plans
  - Development of new plans, policies, and procedures
  - Conduct joint training and exercises
  - Identification of existing resources and future equipment needs
 - Establish and define interagency communication and organizational SOPs

MMRS Outcomes [1]

MMRS

- Integrated medical response system
- Detailed response and operations plans
- Specially trained responders at all levels
- Specialized response equipment
- Specialized medical equipment and pharmaceutical cache
- Enhanced community-based medical treatment and transport capabilities

Welcome to Campus!
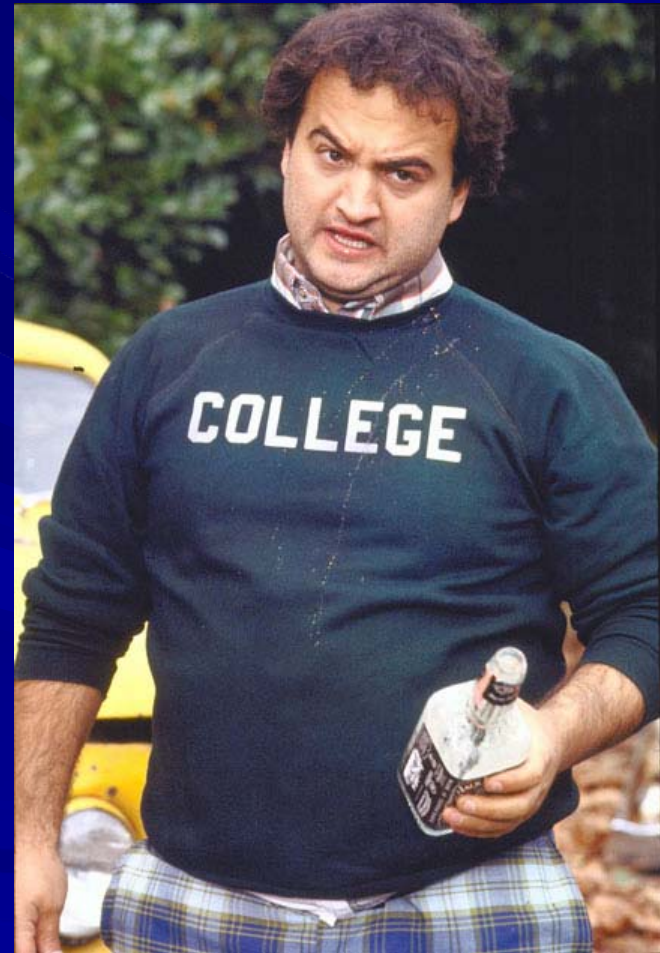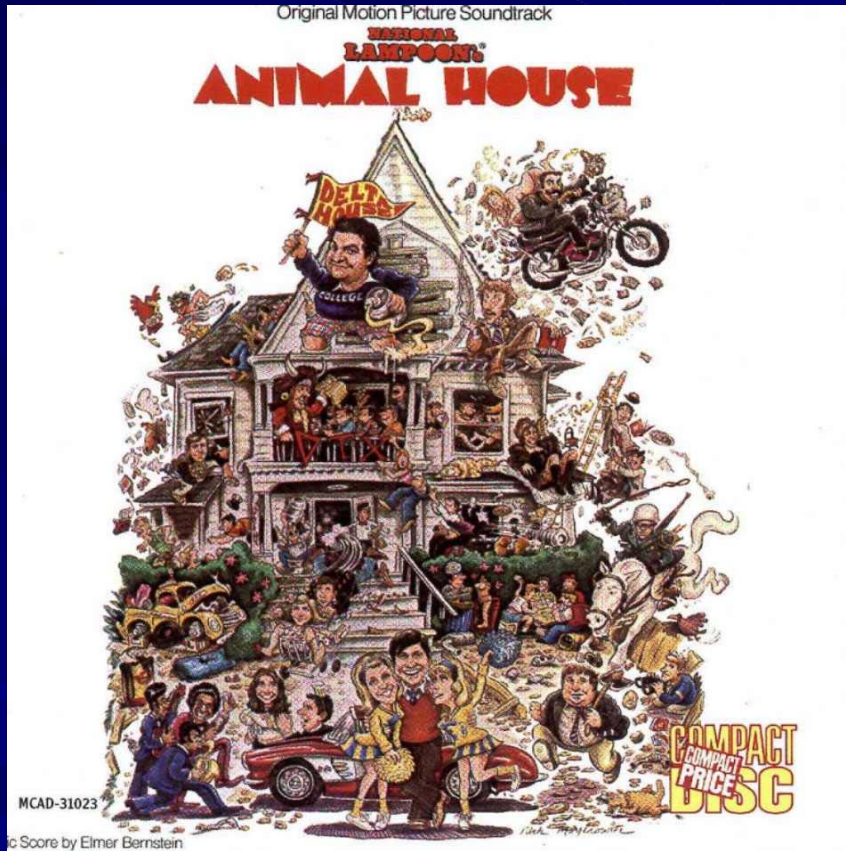
Why Include the University in Disaster Planning?

- **Federally "Mandated"**
  - "Individuals responsible for coordinating campus emergency planning should be active in the planning efforts of the surrounding community."[3]

- **Rich University Resources**

- **(Un) Common Sense**
  - "The purpose of a MMRS is to rally the resources of the community, a part of which is the university."
  - "Did you fully consider #2, above?"
  - "The best we can do is to realize nobody can save his own skin alone. We must all hang together." *Eleanor Roosevelt, 1938*

University Resources

Food Service/Custodial

Real Estate

Security Force

Allied Health Sciences

Your Idea!

Building/Grounds/Safety

EMS

Campus

Invested Families

Public Health Expertise

Volunteer Pool

Grants

Investors

Research Laboratories

Term Paper/Community Service Requirements

Student Health Clinic

Leadership Infrastructure
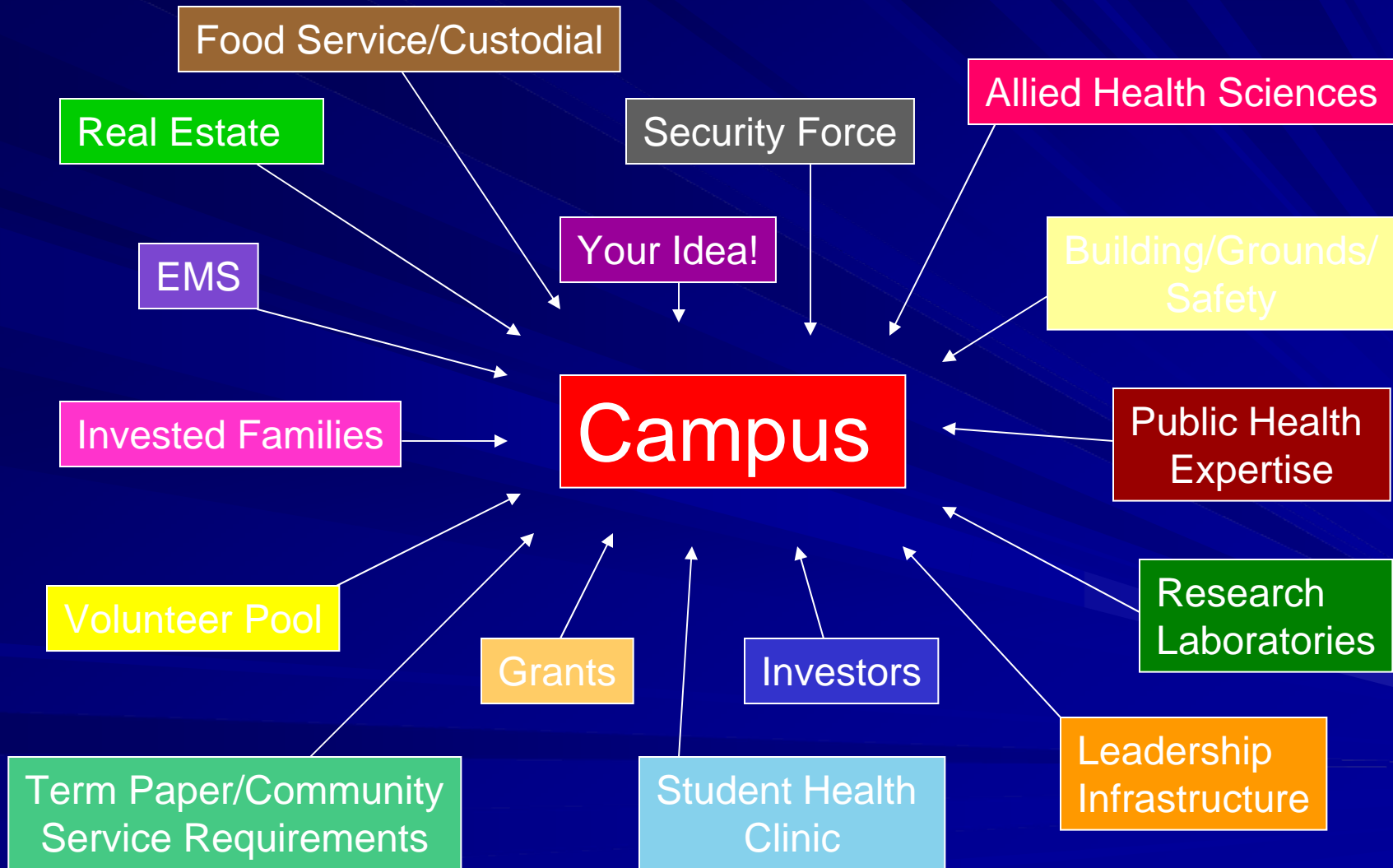
University Resources, Meet MMRS!

MMRS Activities/Outcomes

- Integrated Medical Response System

- Detailed response and operations plans, (Institutional & Regional)

- Specially trained responders at all levels

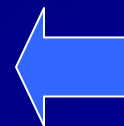## University Resource

← EMS, Security, Public Health Experts, Communications/Radio, Allied Health, Student Health, Safety

← Community Planning, Architecture, Public Health, Safety, Security, Public Policy, Health Services & Sciences, ROTC, Administration

← Educated volunteers, EMS, Medicine, Nursing, Researchers, Epidemiologists, Educators, Language Translation, Computer/Technical, Audio-Visual

University Resources, Meet MMRS, cont….

MMRS Activities/Outcomes

University Resources

- Specialized response, medical, and pharmaceutical equipment

  ← Allied Health (own it v. donate it), laboratory, education, technical/AV, data collection, communication

- Enhanced community-based medical treatment and transport capabilities

  ← Student health services, security, safety, nutrition, sanitation, EMS, MEDS site, Alternate Care Site, Motor pool

- Conduct Joint Training and Exercise

  ← Student projects, Translation, Security Emergency Preparedness, Administration, Community Relations

- Establish and define interagency communication and organizational SOPs

  ← Technical/AV, Computer Science, GIS, Engineering, Administration, Emergency Preparedness, Families

Your Project: "Operation Animal House"

- Realize the Rich Resources on Campus
- You have an idea for collaboration
- Understand university needs:
  - Internal Plan: just like any agency or institution
  - External Plan: intra-agency collaboration, community-wide
- By investing in University disaster capacity, you develop your MMRS!
- What else do I need to know?

"Pearls & Pitfalls"

- Sources:
  - Brown University Crisis Management Committee
  - Brown University Medicine Emergency Distribution System (MEDS) Task Force
  - *Key Informant Interviews, 2006[4]
  - Regional Pandemic Influenza Planning, Recruiting RI State Colleges & Universities
- Format:
  - Thematic representation of KEY CONCEPTS!

Key Informant Interviews[4]

"Qualitative Exploration of Key Emergency Planners' Experiences and Perspectives on Barriers to Collaboration and the University's Role in Disaster Response Planning"

~ Educational Thesis, Master of Public Health Program, Brown University

David B. Bouslough, MD

Depth Interview Methods[4]

12 Key Informants

Qualitative, Depth Interviews

April – May, 2006

90 Minute Maximum

Audio-Taped

Transcribed

Analyzed

Themes
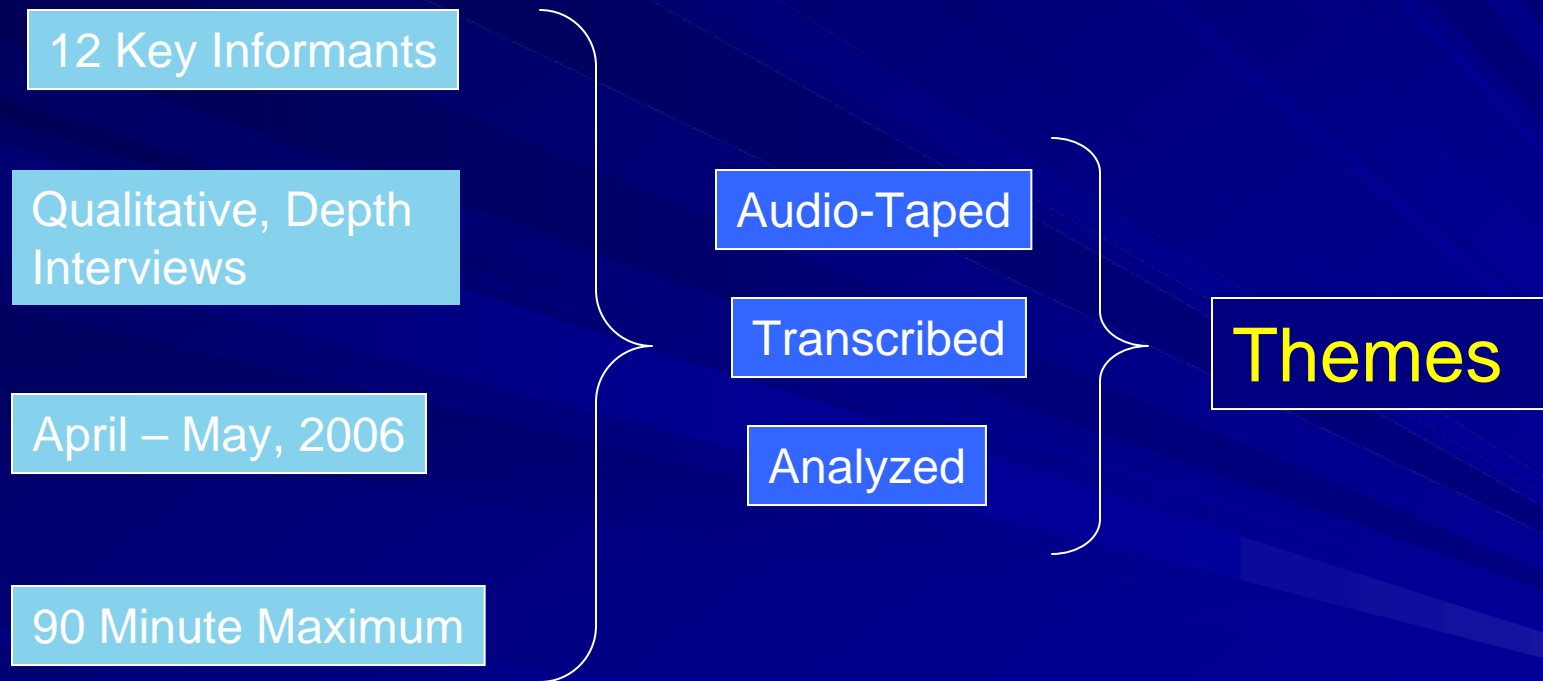
Institutions & Agencies Represented by Key Informants[4]

Brown University:
Administration   Environmental Health & Safety   Core Crisis Management Team   Health Services   Facilities Management
University of Rhode Island
Providence Emergency Management Agency (PEMA)
Rhode Island Emergency Management Agency (RIEMA)
Federal Emergency Management Agency (FEMA)
Rhode Island Department of Health (RIDOH)
Center for BioDefense and Emerging Pathogens (CBEP)
Disaster Medical Assistance Team (DMAT)
Rhode Island Disaster Initiative (RIDI)
Regional Hospitals: The Miriam Hospital   Rhode Island Hospital   Memorial Hospital of Rhode Island
Forensic Archeology Recovery Team (FAR)

Key Informant Characteristics[4]

Characteristic	Quantitative Data
Number of Key Informants:	12
Current Disaster Planning Position: mean yrs (range)	4.9 (1-6)
Career Disaster Planning Experience: mean yrs (range)	13.9 (4-38)
Exercise Participation: mean no. events (range)	19.1 (6-34)
Disaster Response Participation/All Hazards: mean yrs (range)	6.1 (0-17)
Military Experience:	50.0%
Cumulative years, Those who served: mean (range)	13 (2-21)
Incident Command System Training Level:	
None	25.0%
100-200	25.0%
300	33.3%
400+	16.6%
University Teaching Appointment:	50.0%
Advanced Medical and Health Professions Degrees:	66.6%

Key Informant Training[4]
(* Denotes "Train the Trainer" Level)

All Hazards Disaster Training Programs

Chemical, Biological, Radiological and Nuclear Devices (CBRN)

Tactical Operations, Logistics, and Disaster Training

Incident Command System Training (multiple levels)*

Weapons of Mass Destruction Training (WMD)

Office of Domestic Preparedness Training*

Personal Protective Equipment Training*

National Disaster Medical System Conferences

Risk and Hazard Assessment Training

FEMA Emergency Response Training

FEMA Metropolitan Medical Response Training

CDC Risk Communications Training

Explosive Device Response Training

Forensic Archeological Recovery Training

"Grand Tour" & "Drill Down" Questions[4]

- "Please talk me through your involvement in disaster planning at your current place of employment."
- "What types of barriers to collaboration did you witness?"
- "What methods of successful resolution to these barriers were employed?"
- "What should the role of [Brown] University be in a disaster event?"

T1: __Perceptions__ and __Priorities__ of Emergency Response Stakeholders are Important Predictive Factors for Ultimate Preparedness.

- Community Perception:
  - Based on University reputation and philosophy
- University Administrative Priority = Education:
  - May require gentle prodding, additional funding, or mandate from regional emergency planning agencies for initial "Buy In."
- University Staff Priority = Punch the Clock:
  - A Top-Down support structure ensures a "Culture of Quality!" Seek University contacts with the highest rank and political clout.
- University Student Priority = Fun:
  - Recruit Dedicated > Qualified Volunteer Personnel, Community service hours
- University Student Family Priority = Safety:
  - Tuition payers have clout. Disaster preparedness is safety, not to mention a great career choice!

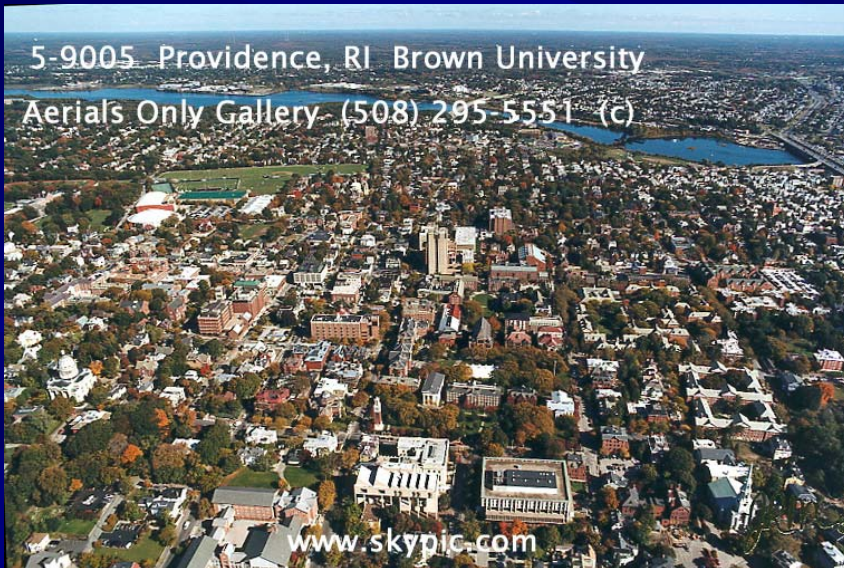

- "Gentle Prodding" = Gnat Buzzing in the ear
- College is a "FT Job" → Beware the Academic Calendar
- Your Proposal is Creating Work → No Dumping = Do your Share
- You are not on a "Fault Finding Mission" → Don't Critique, Build!

T2: <u>Organizational Structure</u> Differences Between Agencies in Day-to-Day Operations Create Barriers to Effective Emergency Response.

■University Community Challenge:
– Physical Setting & Sprawl, Limited Health Resources, Decentralized, Multi-tiered Administration.

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5-6436 Roger Williams University., Bristol RI
Aerials Only Gallery 508-295-5551(c)

T2: <u>Organizational Structure</u> Differences Between Agencies in Day-to-Day Operations Create Barriers to Effective Emergency Response.

- **University Community Challenge:**
  - Physical Setting & Sprawl, Limited Health Resources, Decentralized, Multi-tiered Administration.
- **Stove Pipes:**
  - Vertical versus Horizontal Management [5]
- **Excuse me, Do you speak "ICS"?**
- **University Administrative Structure:**
  - rarely practices "Span of Control"
- **Beware! Delegation:**
  - time delay, poor quality control, inconsistent dedication.

- Baseline organizational status = Disaster Readiness!
- Learn to speak "Academia," and teach "ICS."
- Facilitate the shift toward "ICS-like" operations in the day-to-day.
  - Expand "Emergency Preparedness" to a "Crisis Management Team"
- "Build In" to the University Emergency Preparedness plan, don't just "add on."

T3: <u>Funding Priorities</u> Create Division Between Potential Collaborators in Emergency Planning.

- New Activities = Added Expense
- Money Talks!
  - Dollars create "Buy in" and ensure a "product."
- Small grants aren't hard to find.
  - Encourage the Administration to "match" funds
- "Product" scope must = $$ Amount
- Dollars ear-marked for collaboration!
- University planning frees up planning $$

- Academic funding priorities:
  - Differ from disaster preparedness initiatives
- Academic initiatives may undermine operational budgets.
- The University is not a funding source!
- Resist the "funding cycle" approach.
- Federal funding source stipulations: private, but not public

T4: <u>Communication</u> failures are attributed to systems, operator, or message inadequacies.

- Names, titles and phone numbers change:
  - Maintaining current information is laborious
- All devices/modalities have limits:
  - Land lines, cell phones, radio, internet, satellite phone, smoke signals, and redundancy!
- Communication etiquette is a "language"
- Well-Informed, Timely, and Unified Responses are difficult to produce.
- Baseline inter-agency rapport is weak.

- Practice "early and often" during planning and exercise.
- Link the University Crisis Management Team to a Community EOC
- University PIO trains with those from the hospital/community/DOH
- Test systems during planning, and before exercise
- Link University CMT to federal and community "alert" list serves

T5: <u>Education</u> and <u>Exercise</u> are necessary for planners and participants to ensure a "culture of preparedness."

- Seek dedicated, qualified, coordinated leadership
- Link University Leadership with community programs
  - Training: ICS, Weapons of Mass Destruction, CBRN, etc.; On-going Planning Committees
- University community attitudes:
  - Change them by promoting awareness (risk, vulnerability), and education
- Do your homework!:
  - literature, history, past experience provide a head start
- "Education" is what a University does!
  - Emergency Preparedness course work, certificates, degrees.
- Universities are "microcosms": learn from them.

- Training frequency creates "Disaster Fatigue"
- A lack of "protected time" will limit participation in exercises
- Insular university preparedness efforts threaten collaboration
- Generic plans lack disaster type-specific components

T6: <u>Labor pool</u> recruitment and management challenges create barriers to disaster preparedness

- Community workforce climate affects University:
  - Nursing shortages, lack of healthcare surge capacity, skewed compensation
- Disaster volunteerism is not safe:
  - Administrative reluctance to utilize University labor pools
- "Scope of Practice" violations are inevitable
- Labor needs are dynamic, preparedness plans are often rigid.
- "Poly-volunteerism" undermines labor planning

- Creativity/flexibility are key disaster plan components:
  - Advocate for a "COOP", and lateral aid plan
- Unionized support service industries:
  - should have "emergency" clauses ensuring participation
- Match daily university job skills with disaster assignments
- Include University personnel in "Just in Time" training

T7: Limitations to immediate local supplies requires <u>collaboration</u> between agencies, and across municipal and county borders.

- Institutional arrogance delays back-up
- Political clout/$ are the only assurance of service in disaster
- Universities suffer the "unknown" timeframe until federal help

- Encourage collaborative initiatives in the day-to-day
  - Foster respect for intra/inter-agency partners
  - Nurture personal inter-agency relationships = Trust
  - Pair university and community personnel for planning
  - Sister Institutions or "conferences" may provide a source
  - Relationship Product:
    – MOUs, Contractual Agreements

Proposed "Road Map"

1) Expect to invest personal time, effort, expertise
2) Understand your MMRS
3) Understand your specific university
4) Find funding
5) Formulate a collaborative proposal
6) Identify key university & community personnel
7) Ensure "Buy In" from participants
8) Invest in these relationships
9) Set a reasonable time table culminating with an exercise
10) Capitalize on Lessons Learned
11) Maintain your hard-fought collaborative relationship!

Questions?

Online Resources

- WHO – www.who.org
  - International lessons, emerging infectious disease trends

- CDC – www.cdc.gov
  - Emerging infectious diseases, search "university disaster preparedness"

- RIDOH – www.health.ri.gov
  - University bioterrorism preparedness, RI university disaster plans

- AHRQ- www.ahrq.gov
  - Search "university disaster preparedness", fantastic planning tools

References

[1] *Introduction to the Metropolitan Medical Response System.* Ken Williams, Lecturer, B970 Integrated Emergency Management Course, FEMA Noble Training Center, March 14, 2005.

[2] Knouss FR. National Disaster Medical System. *Public Health Reports*. 2001; 116(S2):49-52.

[3] NIMS compliance: Colleges and Universities. Online document, accessed April 29, 2006.
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[4] Bouslough DB. Qualitative Exploration of Key Emergency Planners' Experiences and Perspectives on Barriers to Collaboration and the University's Role in Bioterrorism Response Planning. *Educational thesis in partial fulfillment of a MPH degree, Brown University, April 2006*

[5] Burkle FM, Hayden R. The concept of assisted management of large-scale disasters by horizontal organizations. *Prehosp Disast Med*, 2001;16(3):128-137.

Other Resources

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Bravata DM, McDonald KM, Owens DK, Wilhelm ER, Brandeau ML, Zaric GS, Holty JEC, Liu H, Sundaram V. Regionalization of Bioterrorism Preparedness and Response. Evidence Report/Technology Assessment No. 96. (Prepared by Stanford-University of California San Francisco Evidence-based Practice Center under contract No. 290-02-0017.) AHRQ Publication No. 04-E016-2. Rockville, MD: Agency for Healthcare Research and Quality. April 2004.

Optimizing Surge Capacity: Regional Efforts in Bioterrorism Readiness. Bioterrorism and health System Preparedness, Issue Brief No. 4 (Prepared by Academy Health under contract No. 290-98-0003) AHRQ Publication No. 04-P009. Rockville, MD: Agency for Healthcare Research and Quality, January 2004.