Civil Medical Readiness
“Defining the Concept: Implications for Research in Homeland Security”

Glenn C. Hamilton, M.D.
Professor and Chair
Wright State University Boonshoft School of Medicine
Department of Emergency Medicine
“This is not our world as we once knew it. It is no longer sufficient to develop disaster plans and dust them off if a threat appears imminent. Rather, a system of preparedness across communities must be in place every day...”

*Health Care at the Crossroads*

JCAHO
Taking Medical Readiness to the Edge……

Post 9-1-1 Era……
Post Katrina Era…..
Civil Medical Readiness – the components

A. Human Population Risk Assessment
B. Human Access Care and Evacuation
C. Dynamic Medical Systems
D. Health Care System Recovery
Human Population Risk Assessment

- Public health
  - Location
  - Geography
  - Population
  - Threat
- Preparedness
- Education
- Compliance
Human Access Care and Evacuation

- Ill, injured, trapped = must be found
- Importance of stabilizing care
- Principle of patient evacuation
Human Access Care and Evacuation

- Complex situations
- Requirement: concurrent training and preparation
- Application: novel educational concepts
Dynamic Medical Systems

- How do systems surge?
- What is patient surge?
- Surge capacity vs. capability
- Best practices
- The science of surge
- Surge meets reality
- The MEMS System
Dynamic Medical Systems

- Factors in Surge Capacity and Capability
  - 500 beds/1M population for acute infection
  - 50 beds/1M population for noninfectious/injury
  - Ohio with almost 12M means 6600 added beds
  - Self-sufficient for 72-96 hours
  - Little flex in current system: Hospitals 4-5% open beds, 24 hour JIT planning, many systems with single suppliers, EDs ‘on-divert’ 20-40%
Dynamic Medical Systems

- Extraordinary situations
  - CBRNE
  - Emerging infectious disease
- Atypical or austere operations
- Altered standards of care
Dynamic Medical Systems

- MEMS
  - Pre 9-1-1 DoD
  - Army developed
  - Components:
    - Acute Care Centers
    - Neighborhood Emergency HELP Centers
  - Non-hospital based
  - Multiple, cost effective patient beds
Figure 3-2. ACC Flow Diagram
Health Care System Recovery

- Logistics and supply chain management
- Application to disaster and normal healthcare operations
Health Care System Recovery

- Logistics principles
- Academic programs
- Civil – military interface
- International focal point
Questions and Answers
Mark E. Gebhart, MD
(937)-775-1320
Glenn C. Hamilton, MD
(937)-395-8839