

**University at Albany
Center for Public Health
Preparedness**

Grand Rounds Series

December 8, 2005

**Potential Roles of the
Community Health Nurse
During Disaster Surge
Capacity Needs**

Presented by the University at Albany
School of Public Health

A Member of the New York Consortium for
Emergency Preparedness Continuing
Education (NYCEPCE)

In Association with the University at Albany
School of Public Health

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Sponsored by

- **Centers for the Disease Control
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Evaluation

<http://tinyurl.com/7f4gb>

Concerns for the CHN

- The world is different today:
 - Terrorism threats
 - New emerging infectious diseases
 - Climate changes
- More people are surviving major disaster events

Morbidity and Mortality of Major Worldwide Disasters, 1950-2000

	Decade					Total
	1950	1960	1970	1980	1990	
Disasters	367	717	1,162	2,081	2,985	7,312
Persons affected	11,176,496	233,704,495	767,985,585	1,453,553,034	2,129,297,606	4,595,717,196
Persons killed	4,177,884	2,088,942	1,408,749	829,441	754,206	9,259,222

(Source: Sundnes, 2003)

CHN Can Be Key Players in all Types of Disasters



Important Emerging Infectious Diseases

- Avian influenza pandemic
- SARS
- West Nile Virus
- Monkey pox

Surge Capacity

- A health care system's ability to expand quickly (beyond normal services) to meet an increased demand for care in the event of large-scale disaster
- Key elements:
 - Core system capacities
 - Equipment and supplies
 - Space
 - Personnel

Core System Capacities for Public Health

- Information Systems
- Communication
- Epidemiology / Surveillance
- Laboratory
- Policy and evaluation
- Well trained workforce
- **Preparedness and response**

(Source: CDC Health Alert Network, 2000)

Framework for Emergency Response During Major Incidents

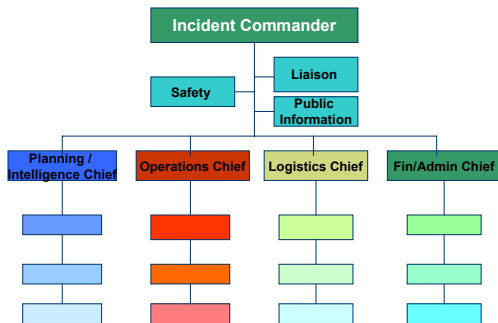
- National Incident Management System NIMS
- Structure enabling responders from different jurisdictions and disciplines to work together
- Provides a unified approach to incident management
- Standardizes command and management structures through the use of the incident command system (ICS)

Framework for Emergency Response During Major Incidents

(cont.)

- Emphasizes preparedness, mutual aid and resource management.
- However, each locality must be prepared to support itself for at least 72 hours before major federal assets can be expected to arrive.

Generic ICS Organization Tree



Equipment and Supplies: The Strategic National Stockpile (SNS)

- Life-saving pharmaceuticals, vaccines, antidotes, medical supplies and equipment necessary to counter the effects of nerve agents, biological pathogens, and chemical agents.

(cont.)

Equipment and Supplies: The Strategic National Stockpile (SNS)

- Stored in strategic locations across the country
- Used to supplement local resources



Space

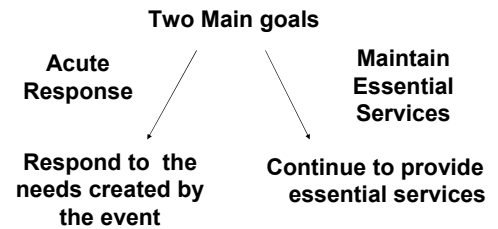


Personnel: The CHN Works Within Various Systems

- Community setting
- Public Health
- Volunteer organizations:
 - Medical Reserve Corps
 - Disaster Medical Assistance Teams
 - American Red Cross
- Hospitals
- Pre-hospital setting



Goals of Any Public Health Agency During Disaster Response

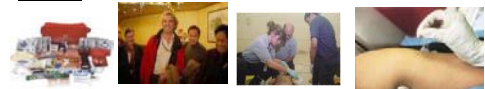


CHN Role in Maintaining Services

- May stay at usual place of practice, or move to a new setting
- Some examples of CHN responsibilities in this area:
 - Determine which services need to continue, and which can be postponed (triage of the non-disaster cases)
 - Provide direct care to those left in the system
 - Assume responsibilities for others who are diverted to the disaster scene

CHN Role in Responding to a Disaster

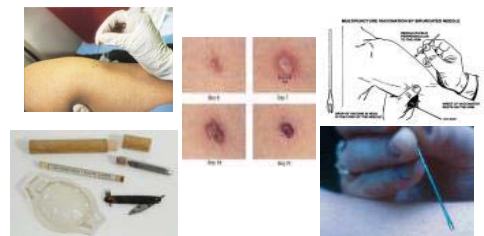
- Performing their emergency response functional role...
- May be the same or similar to what is done every day
- May be different from what is usually done (but competent to perform)
- May be what is done every day but by different people



Potential Emergency Response Functional Roles for the CHN:

- Vaccinator: in a POD or practice setting
- Manager or care provider in a disaster shelter
- Disaster triage
- Risk communication: develop or deliver the message
- Disaster manager
- Case investigator
- Surveillance, case finding
- Specimen collection
- Decontamination

Vaccinator or Vaccination Take Evaluator



Disaster Shelter: Manager or Provider of Care



Disaster Triage



Do the greatest good for the greatest number of people to save the most lives. During disaster triage, some may get delayed or no treatment

Risk Communication



Effective disaster risk communication:
Constructively formulated, transmitted, and received information concerning the event that results in meaningful actions.

Case Investigation, Surveillance



Decontamination



Disaster Manager



National Incident Management System;
integrates effective practices in emergency preparedness and response into a comprehensive national framework for incident management

Medical Reserve Corps Volunteer

- **MRC's:** Assist with addressing the community's ongoing public health needs during large-scale emergency situations
- Currently there are 347 MRC's in the U.S.



Preparing for Disasters

- **First:** assure competency in "all hazards" basic emergency preparedness
- Know how the system works and where you fit into the system
- Achieve specific competency based emergency preparedness training for the likely emergency response functional roles you may perform
- Assure own personal emergency preparedness
 - Family emergency plan: to assure safety of family
 - Personal emergency plan: top assure ability and willingness to report to duty

Basic Emergency Preparedness Competencies: Public Health Workers

- **IDENTIFY & LOCATE** the emergency plan
- **DESCRIBE** the role of Public Health across a range of emergencies
- **DESCRIBE** the Chain of Command
- **DESCRIBE & DEMONSTRATE** assigned functional role(s)

Columbia University School of Nursing: Center for Health Policy.
<http://www.cumc.columbia.edu/dept/nursing/institutes-centers/chphsr/btcomps.pdf>

Basic Emergency Preparedness Competencies: Public Health Workers

(cont.)

- **RECOGNIZE** deviations from the norm
- **IDENTIFY** limits to own authority
- **DESCRIBE** communication roles
- **DEMONSTRATE** use of communication equipment
- **APPLY** creative problem solving skills

Basic Emergency Preparedness Competencies for Clinicians

- Describe response role
- Respond within emergency management system of agency or community
- Recognize event (uncommon presentation of common disease, or clusters)
- Institute steps to prevent spread

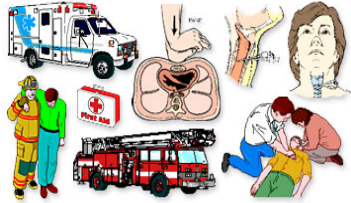
(Source: Columbia University Center for Health Policy-
<http://www.cumc.columbia.edu/dept/nursing/institutes-centers/chphsr/clincomp.pdf>)

Basic Emergency Preparedness Competencies for Clinicians

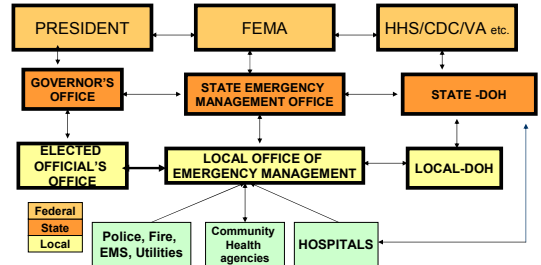
- Reporting
- Initiate care
- Use reliable sources for, and provide reliable information
- Risk communication
- Recognize and manage disaster related stress
- Participate in disaster event evaluation

Just In Time Competency Based Training

- Depends upon your likely role where you work or serve as a volunteer

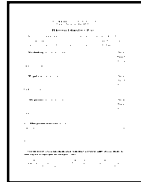


Knowledge of How the System Works Federal to Local Coordination In Emergencies



Personal Emergency Preparedness (Will Assure Your Ability and Willingness to Report to Duty)

- Family emergency plan • Personal emergency plan



Source: FEMA: <http://www.fema.gov/pdf/library/yfdp.pdf>

Conclusion: Surge Capacity Needs and CHN:

- Surge capacity needs present a particular challenge in today's' health care environment: just in time staffing and supply inventory leaves little room in the system for rapid ramp up
- CHN: highly educated / skilled professional group that can make a significant contribution to fulfilling disaster surge capacity needs of the nation
- Development of the surge capacity role for the CHN is beneficial to both the nation and CHN profession
- CHN should be key players at the strategic planning table

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Evaluation

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