

The Dutchess County



Community Building for Emergency Preparedness

Northern Metropolitan Health Care Foundation

June 2004



Medical Reserve Corps in Dutchess County

- Mission: To assist existing medical response professionals & facilities in response to a large scale disaster
- A demonstration project that is:
 - Directed by the Northern Metropolitan Health Care Foundation
 - Funded by the US Department of Health & Human Services, through the Office of the Surgeon General
 - A program of the US Citizen Corps
 - Based on needs of local Founding Partners



Founding Partners

County Executive's Office

County Department of Health

County Department of Emergency Response

County Department of Mental Hygiene

American Red Cross

Hudson Valley VA Healthcare System

3 Community Hospitals

*Northern Metropolitan Hospital Association &
Healthcare Foundation*

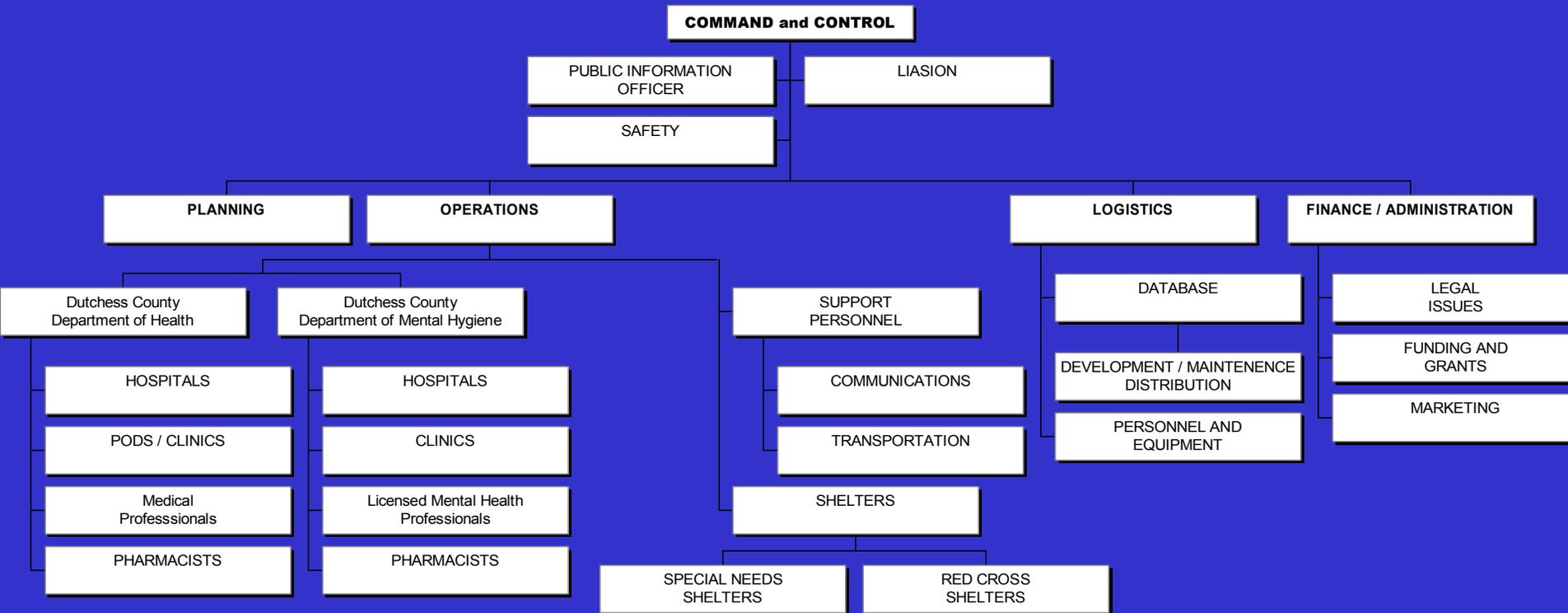


Underlying Perspectives

- MRC a vital part of County ER plan
 - Fits into existing Emergency Response structure & utilizes ICS
 - Supplements resources of founding partners
- All-hazards approach
- Our roles:
 - Involve the founding partners
 - Keep founding partners connected
 - Educate leaders of the community



Dutchess County Medical Reserve Corps Works within ICS/NIMS





Foundational Concepts to Involve and Connect the Partners

Effective emergency preparedness and response:

- Involves multidisciplinary response organizations
- Includes bioterrorism *and* traditional hazards
- Addresses the “greatest good”
- Puts government in new and more visible roles than ever before
- Communicates simple but meaningful messages to the public
- Demands more of hospitals than ever before



Educating Community Leaders Who are Not Emergency Response Professionals

- Emergency preparedness involves terrorism, but also natural disasters
- Government more visible role than ever before
 - Department of Health
 - Department of Emergency Response/Services
 - Department of Mental Health/Hygiene
- More demanded of hospitals than ever before
- Community and individual responsibility to prepare



Terrorism Seems Foreign and Remote to Many...



... Despite Higher Prevalence of Domestic Acts of Terrorism



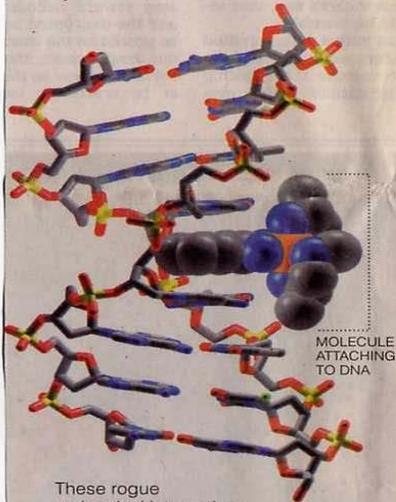
Oklahoma City Bomber
Timothy McVeigh



Overuse of Antibiotics + Newer, Stronger Bacterial Organisms = Increased Antibiotic Resistance

THE NEW YORK TIMES, TUESDAY, MARCH 2, 2004

UNWELCOME VISITOR Molecules with flat areas that resemble DNA bases can insert into the stack of base-pairs, mimicking the interactions made by natural systems.



MOLECULE ATTACHING TO DNA

These rogue molecules' interactions can lead to DNA damage. But they can also be used to study the properties of DNA.

Illustrations by Dr. David F. Green, Massachusetts Institute of Technology

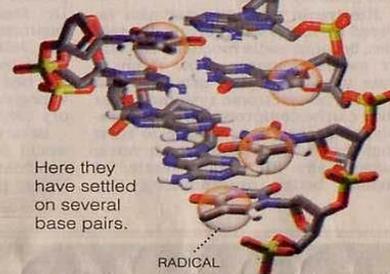
LEGEND

Colored areas in these DNA computer models represent individual atoms:

- OXYGEN
- CARBON
- HYDROGEN
- PHOSPHORUS
- NITROGEN

SEEDS OF MUTATIONS

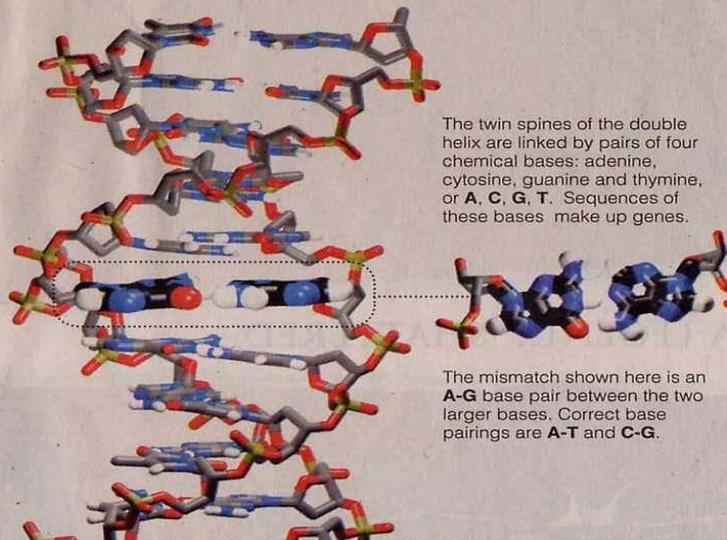
Radicals generated by radiation or carcinogens can travel up and down the helix, causing damage.



Here they have settled on several base pairs.

RADICAL

MISMATCH Incorrectly paired bases can sometimes be incorporated into a DNA helix. This can lead to mutations if not repaired.



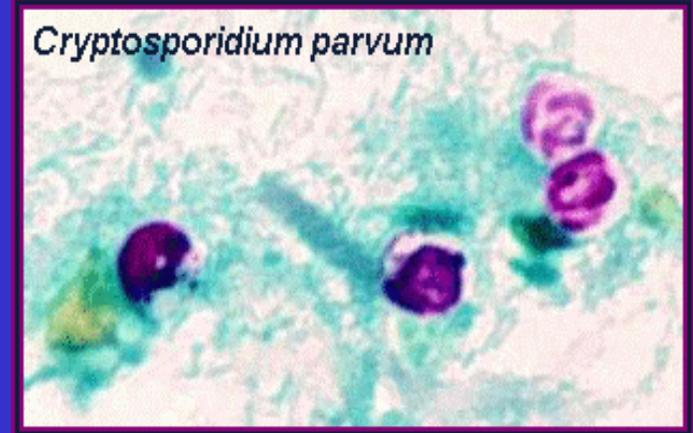
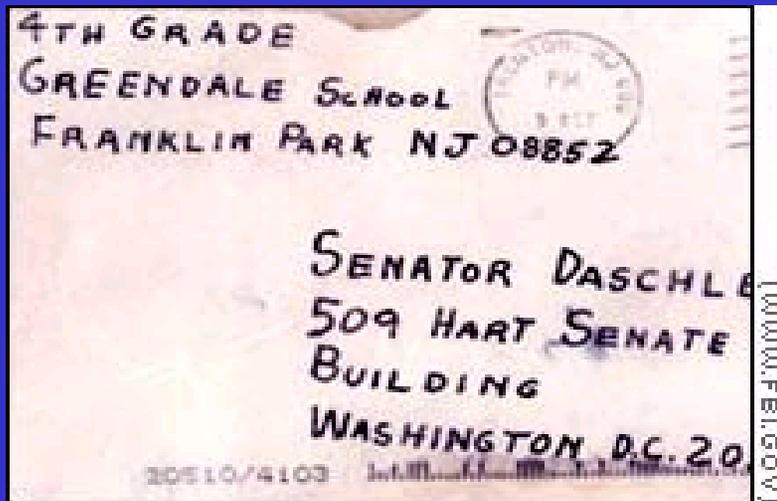
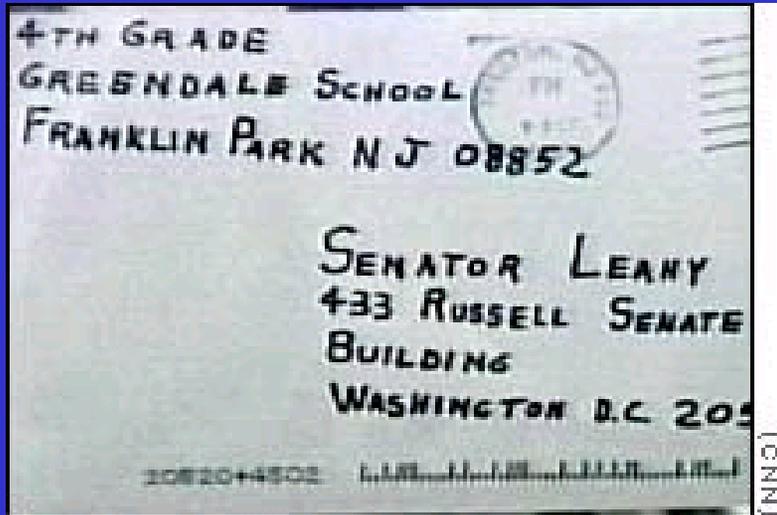
The twin spines of the double helix are linked by pairs of four chemical bases: adenine, cytosine, guanine and thymine, or **A, C, G, T**. Sequences of these bases make up genes.

The mismatch shown here is an **A-G** base pair between the two larger bases. Correct base pairings are **A-T** and **C-G**.

Bacteria Run Wild, Defying Antibiotics



Biological Agents Attack

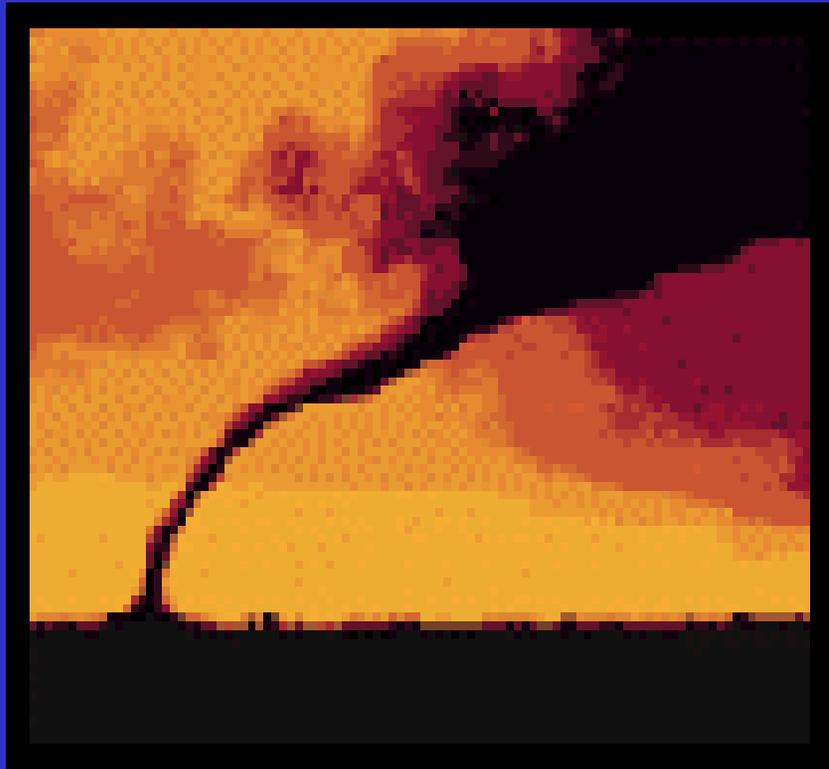


- Waterborne outbreaks
- Incubation 2-10 days
- Symptomatic 1-2 weeks: diarrhea, cramping, vomiting, headache, aches, fever
- No effective therapy
- TX '84, GA '87, OR '92
- WI '93: 400,000 victims

2001 Anthrax Letters



Natural Disasters Debilitate



**Tornado –
2004**



**Blizzard - President's
Day Weekend 2003**

Hurricanes

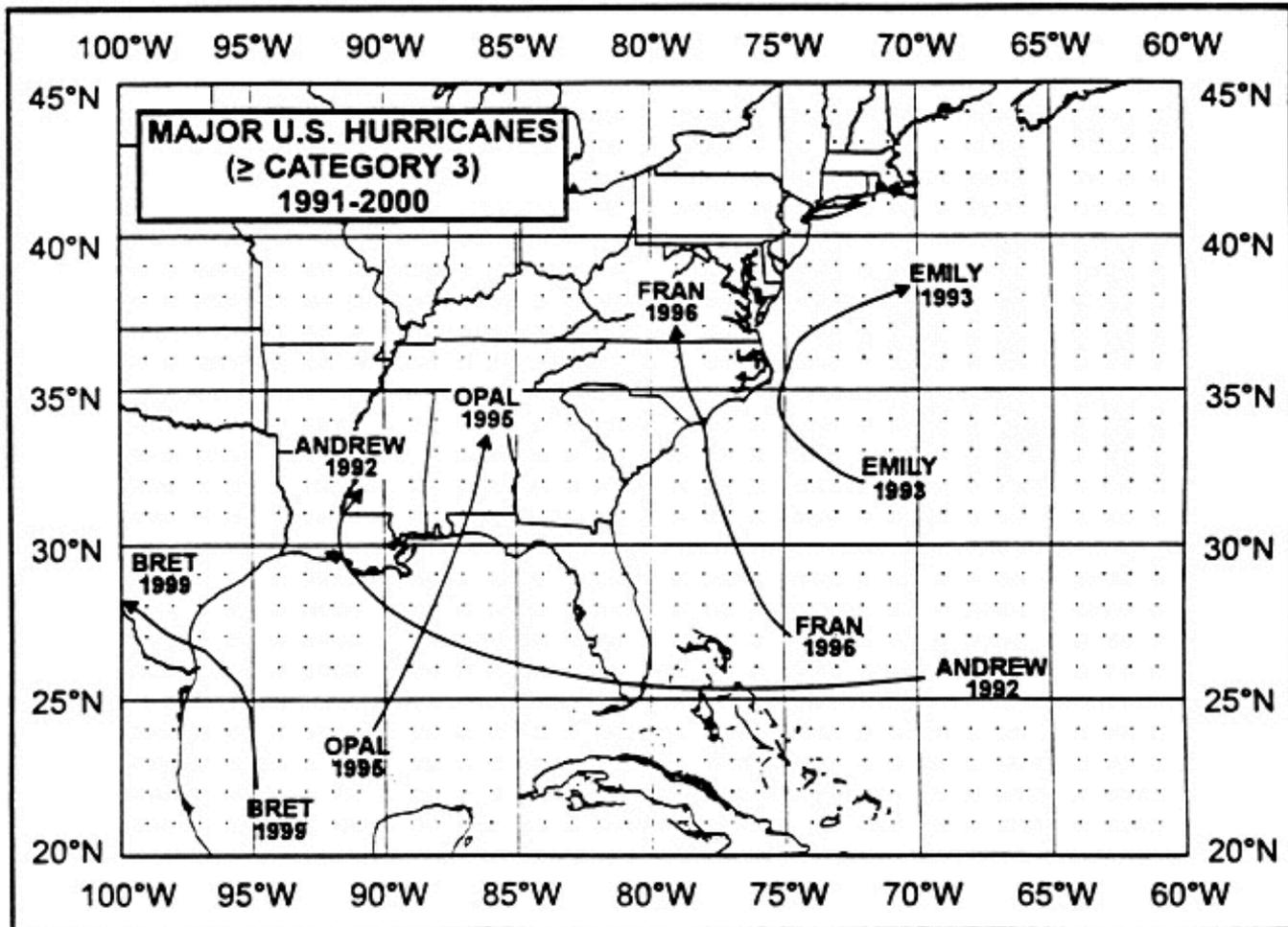


Figure 10. Landfalling United States major hurricanes (stronger than or equal to a category 3) during the period 1991-2000.



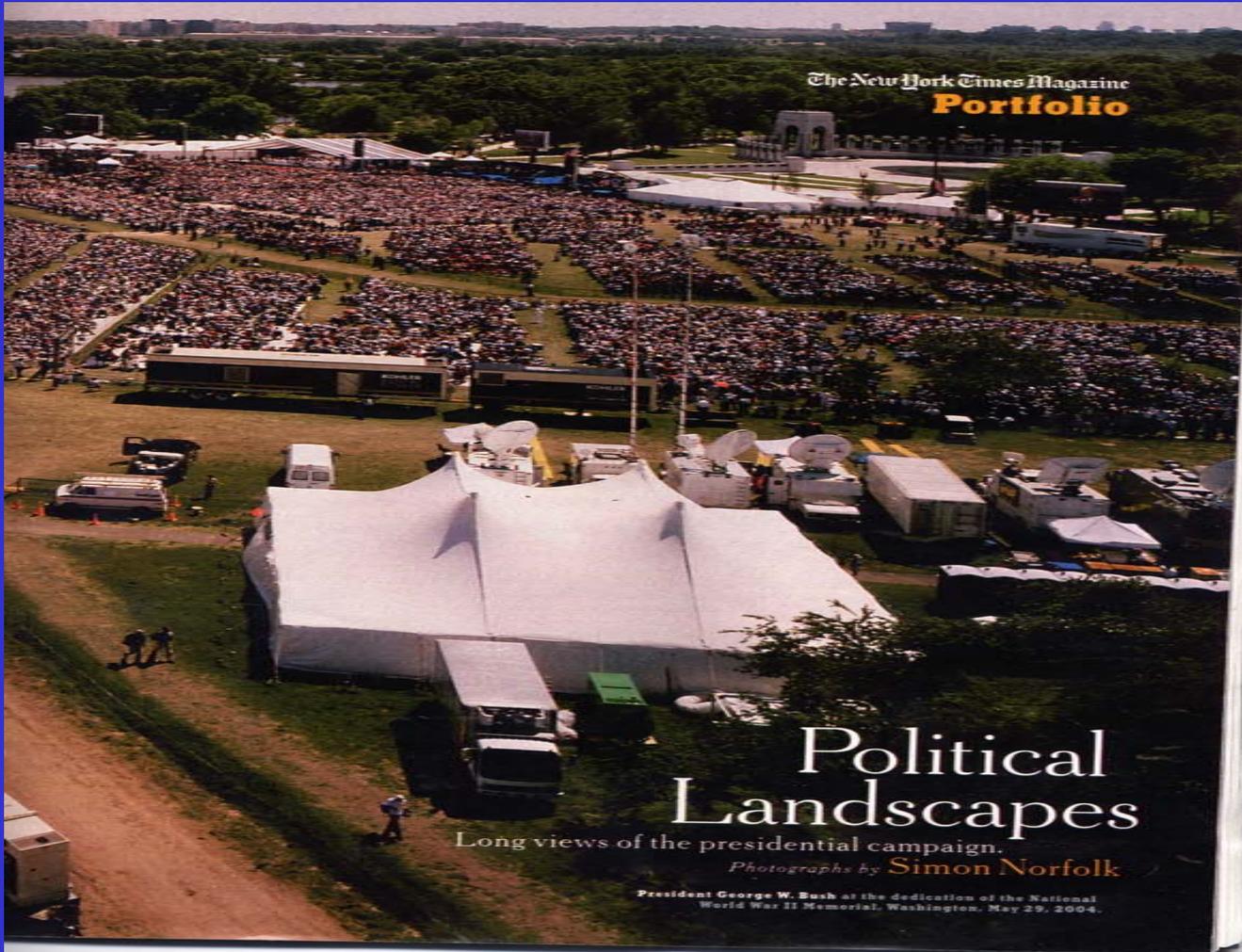
Natural Disasters Debilitate



**California at Night During Fires
November 2003**



Even Without Terrorists, Human Beings Can Create Chaos





Organizational Recruitment

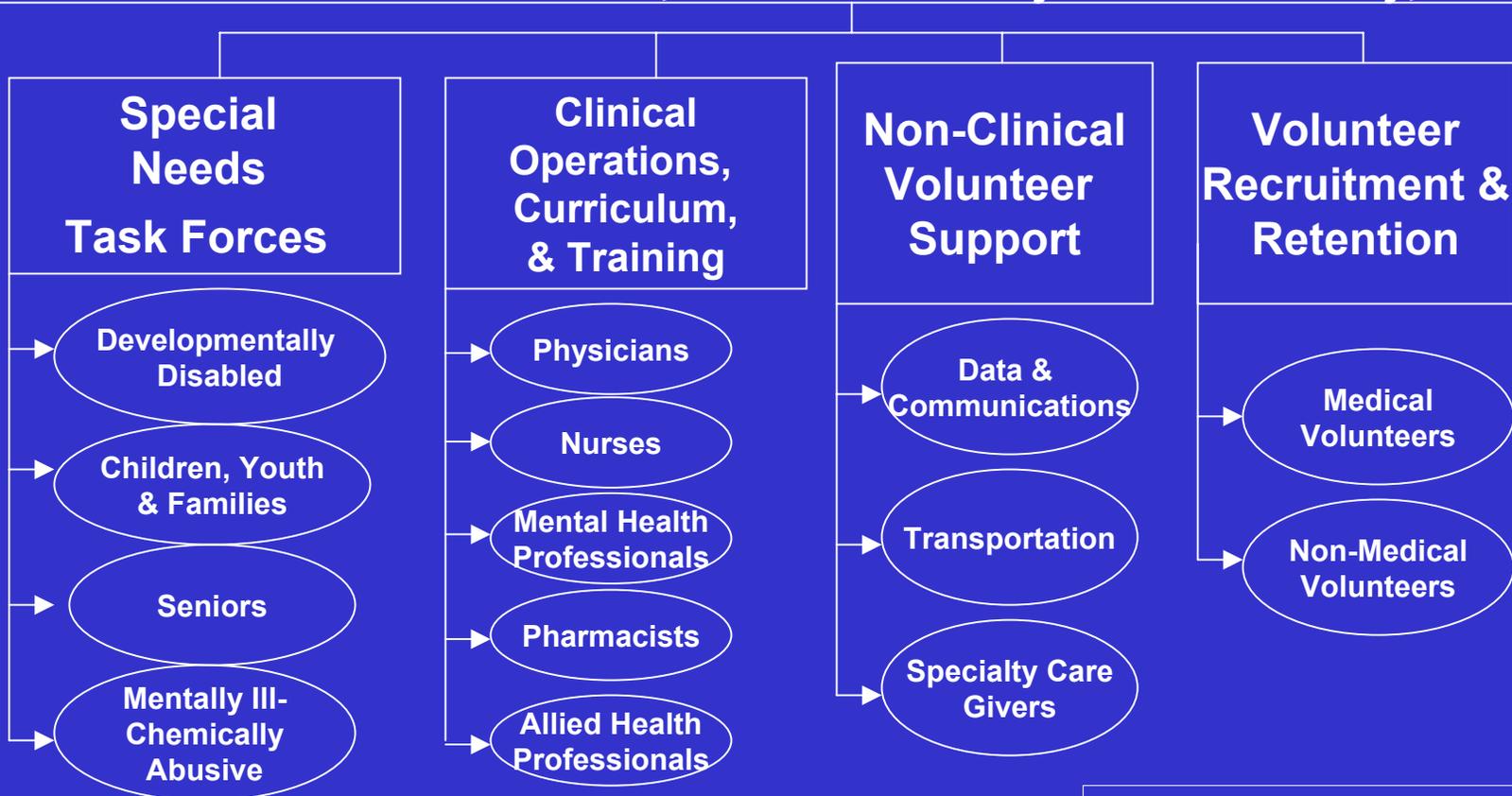
- Organizational, *noncompetitive* recruitment strategy
 - Hospital staff members accessed through hospital agreement to release them as agents of the county
 - EMS, fire & police volunteer role is to help educate MRC volunteers PRIOR to disaster – already committed *during* disaster so highly *unlikely* to be activated as MRC volunteers
- Have already worked with over 60 organizations to develop MRC
 - Natural partners in emergency response
 - Leading health & human service organizations



Community Building & the MRC

Founding Partners Committee

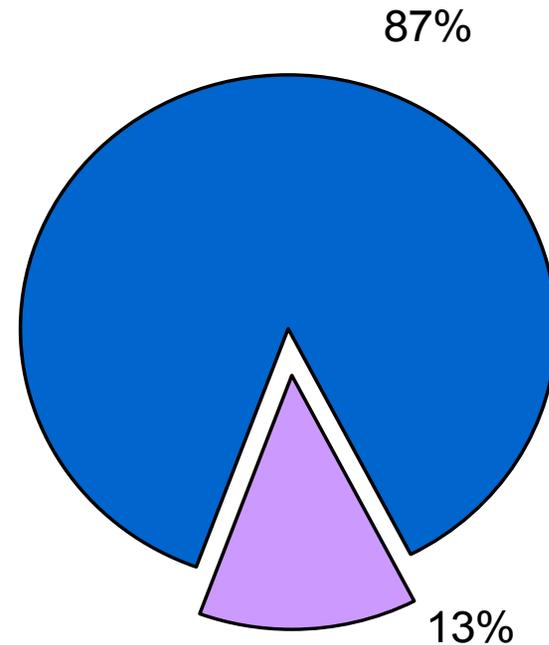
DC Executive, DC DoH, DC Dept. Emergency Response, DC Dept. of Mental Hygiene, NorMet, Northern Dutchess Hospital, St. Francis Hospital, Vassar Brothers Medical Center, VA Health System, American Red Cross, HV Pharmaceutical Association, Dutchess County Medical Society, TF Chairs





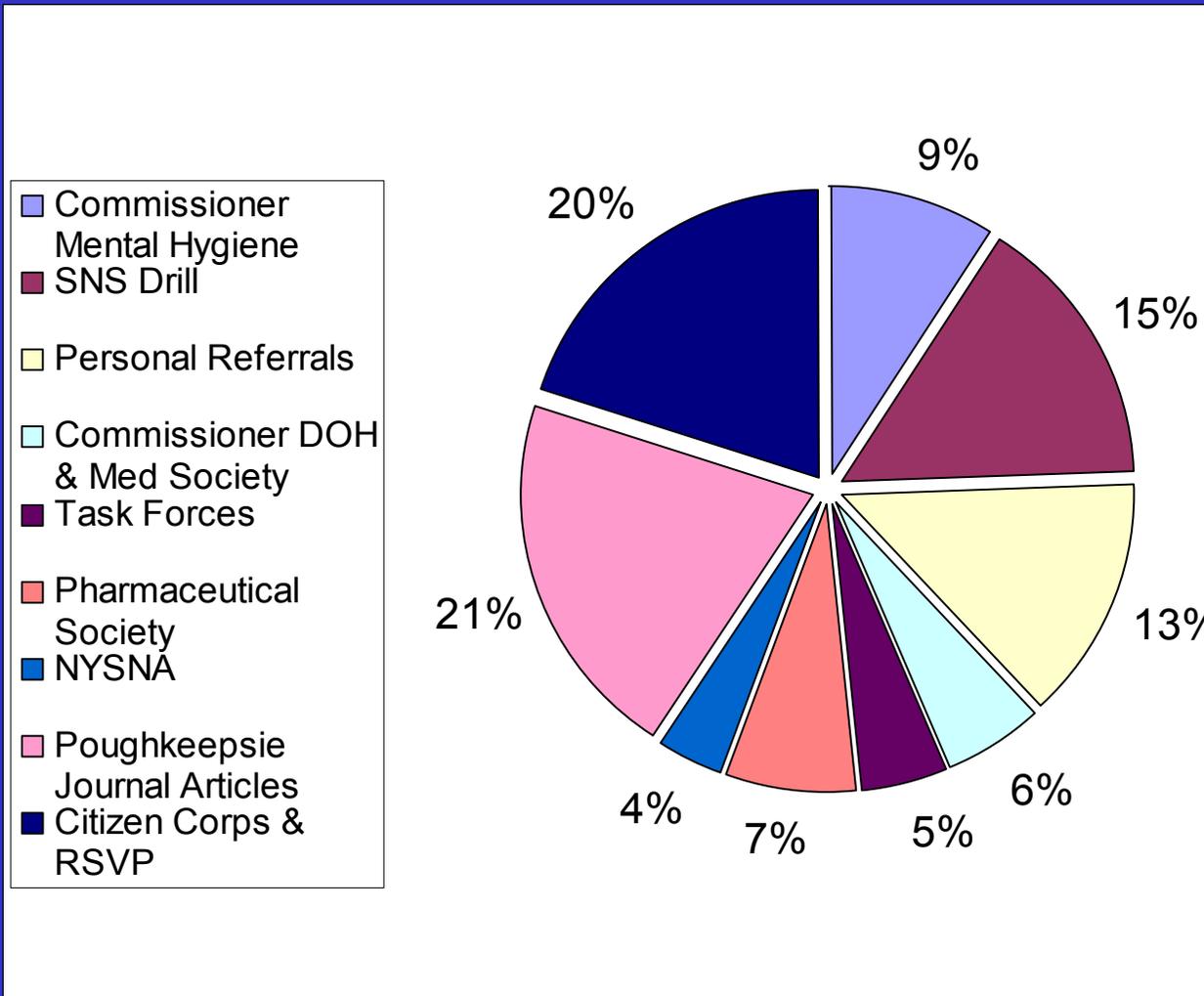
Volunteer Recruitment by Type of Outreach

- Focused partnering initiatives
- Personal referrals





Volunteer Recruitment by Organization Outreach





MRC Serves as a Vehicle for Community Surge Planning

- Negotiate agreements to share information among competitive organizations
- Special Needs Task Forces
 - Fostered organizational and community preparedness in human service sector
 - Developed strategies for responders and community to support special needs populations in disaster



MRC Serves as a Vehicle for Community Surge Planning

Medical & Mental Health Committees

- Involvement from leaders of:
 - Departments of public health, emergency response, mental health
 - Medical society participation
 - Hospital emergency departments
- Discreet topics, monthly 1-2 hour meetings, actionable and measurable progress
- Define volunteer credentials, roles, and training



MRC Serves as a Vehicle

for Community Surge Planning

Pharmacy Committee

- Involves hospital, chain and private pharmacies
- Defines routine local supplies, availability & potential conflicts in resources
- Refines protocols for:
 - ChemPack and SNS
 - POD distribution & support from pharmacists
 - MRC Pharmacist Volunteer involvement



MRC Committees Help Define and Quantify Surge

- Surge Capacity = Ability to care for patients by qualified personnel, in licensed beds
 - 24 hours to one week
 - Examined & released versus admitted
 - Walking wounded versus on stretchers
 - Within existing facility
- Identify & resolve conflicting resources
 - Personnel/staffing
 - Sites for PODs/shelters/remote care facilities
 - Suppliers of generators, medical supplies, transportation



Roles & Training for MRC Volunteers

- Roles based on needs of Founding Partners
 - Medical assistance
 - Many non-medical roles, too
- Training based on enhancing the special skills that volunteers already bring
 - Bioterrorism for MDs
 - Nursing in Mass Trauma
 - P-FLASH for Mental Health Professionals
 - Childcare in Disaster
- Training provided &/or hosted by partner organizations



Activation Procedure

- Activation to be headquartered at Emergency Operations Center
 - Command hub for community-wide decisions
 - Noncompetitive accessing of resources
 - Directs community-wide announcements via press/media & Community Alert Network



Activation Procedure

- Activated only by County Executive
 - By request of one or more founding partners
 - In part or whole, dependent upon need
 - Possibly in teams to address specific needs:
 - Health teams: Physician, nurse, pharmacist & mental health
 - Non-medical teams: childcare, security, engineering, and translators for PODS



Non-Disaster MRC Role

- To be defined in 2005
- All volunteers introduced to role of volunteers in founding partner organizations
- Additional possibility to carry combined preventive health message regarding diet, exercise & screening, based on work of:
 - American Cancer Society
 - American Diabetes Association
 - American Heart Association



“Our close proximity to New York City... compels us to prepare for public safety and homeland security issues we are enhancing our preparedness by continuing our collaboration with the Northern Metropolitan Health Care Foundation, local hospitals and the Red Cross to establish a local Medical Reserve Corps... to recruit a network of trained and credentialed volunteers to provide assistance with medical care, special needs care, as well as non-technical needs such as child care and transportation in the event of any man made or natural disaster.”

*Excerpt from the 2004 State of the County Address
William R. Steinhaus, Dutchess County Executive
January 26, 2004*