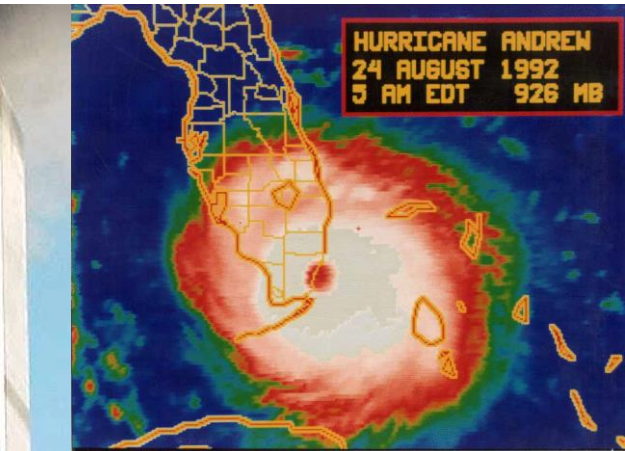


# Preparing For and Responding to Public Health and Medical Emergencies/Disasters

Michigan's Premier Public Health Conference  
October 16, 2019

Ronald C. Burger





# The first emergency preparedness and response to disasters:





THE FIRST TIME  
ONE OF THEM  
SNEEZES,  
CUT THE  
ROPE ....



# What is an Emergency?

An Emergency is , “An unscheduled, serious occurrence or situation urgently requiring prompt action.”

– Webster’s II, New Riverside Dictionary

***It is an unscheduled event; it is not unplanned!***



# Why are we: Public Health Ready?



**Public Health**  
*Prevent. Promote. Protect.*




# Why are we Public Health Ready?

Because an emergency threatens people's basic needs:

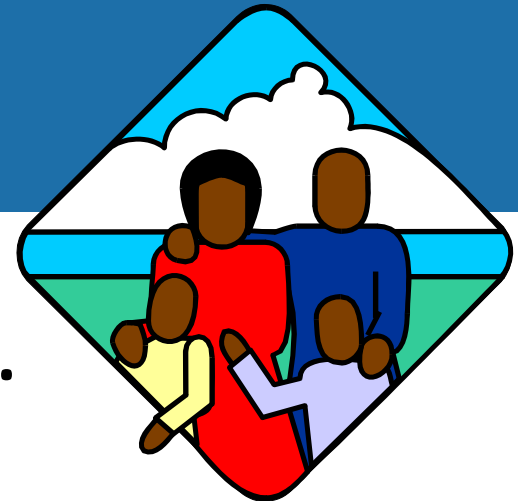
 Electricity

 Health and  
Medical Care

 Communications

 Safe and adequate food,  
water and shelter

 Safety



**Threats to those needs impact public health.**



Preparedness for natural disasters, technological problems, and terrorism is necessary for rapid public health assistance.

- **Natural Problems**

- Hurricanes
- Severe Weather
- Earthquakes/  
Tsunamis
- Volcanic Eruptions



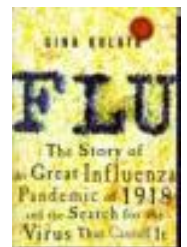
# Preparedness for natural disasters, technological problems, and terrorism is necessary for rapid public health assistance.

- **Natural Problems**

- Floods
- Severe Heat/Cold
- Disease Clusters/  
Outbreaks
- Drought
- Fires
- Avalanche



Fight the Bite

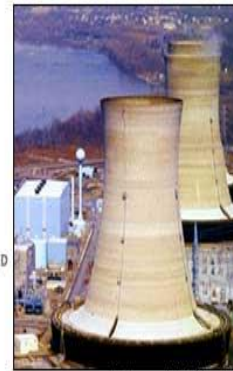
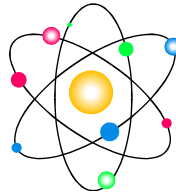




# Preparedness for natural disasters, technological problems, and terrorism is necessary for rapid public health assistance.

## • Technological Problems

- Radiation
- Hazardous Chemical
- Oil
- Biological
- Water Systems



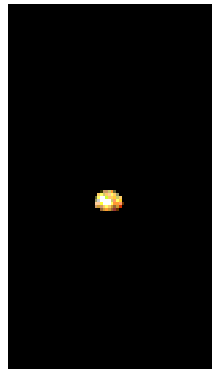
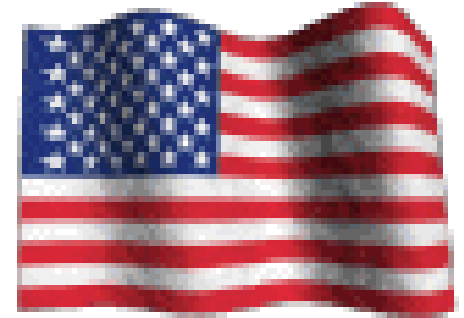
Bettmann / UPI file • 1979



# Preparedness for natural disasters, technological problems, and terrorism is necessary for rapid public health assistance.

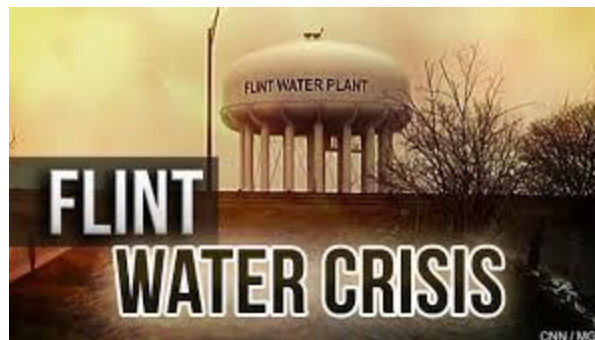
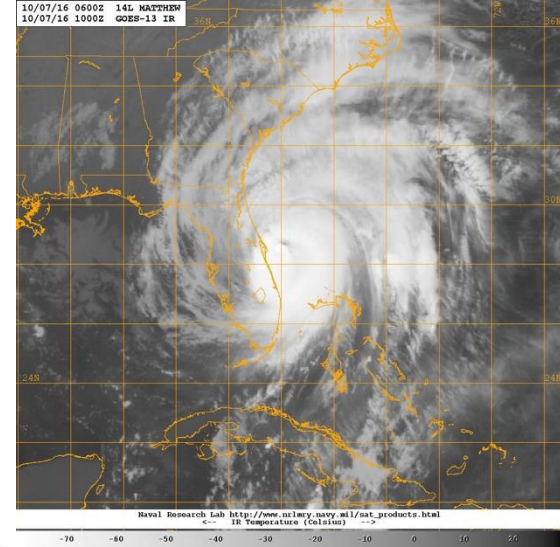
- **Terrorism**

- Chemical
- Biological
- Radiological
- Nuclear
- Explosion

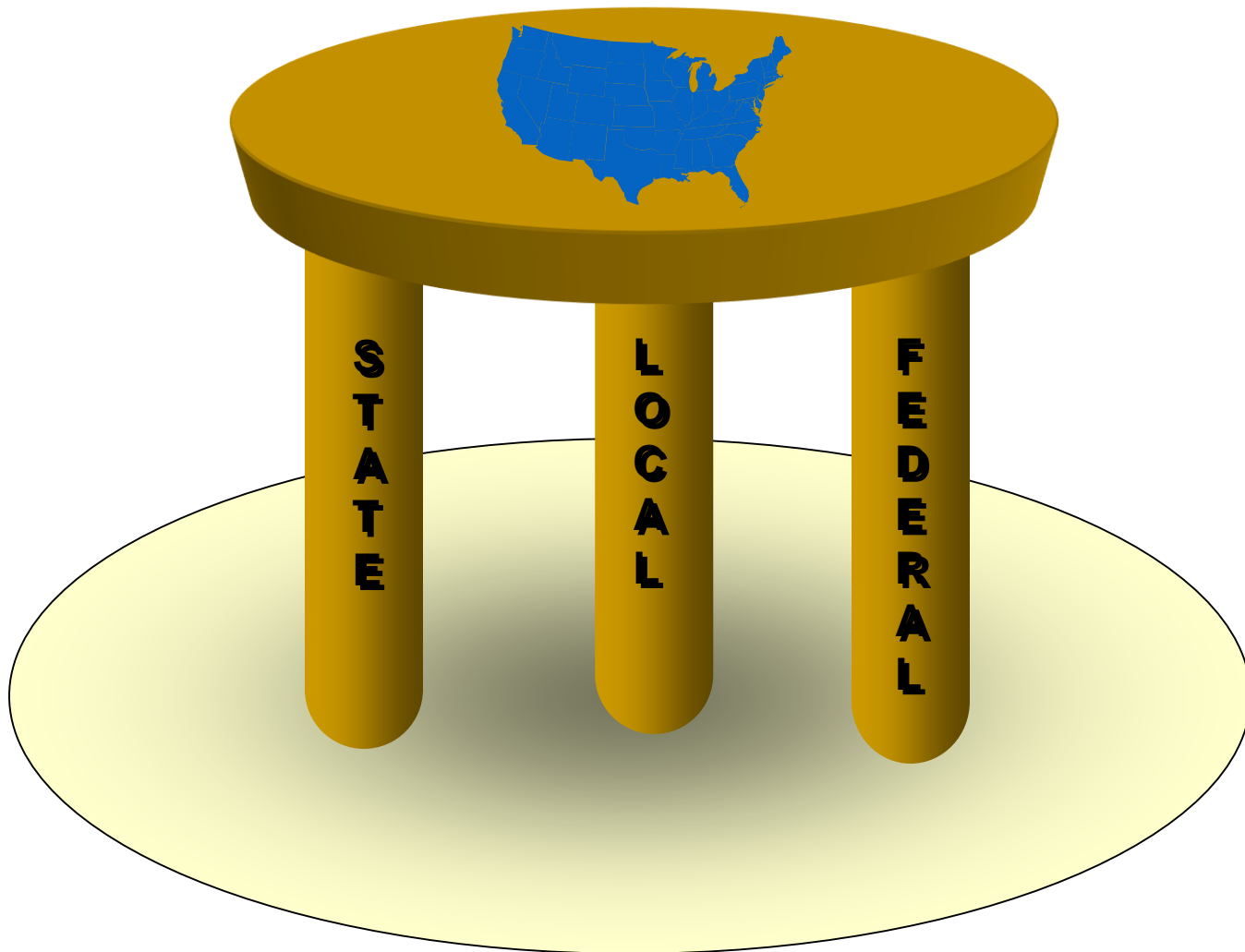




Disasters, terrorism and other public health emergencies all require **rapid mobilization of resources** and **experts across agencies and across jurisdictional lines**.



# The American Public Health System is defined by its Partnerships





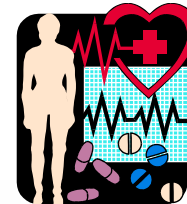
# An all-hazards approach means responding in the same way to every incident.

*Kelly, as you look over ground zero, close your eyes—now, that could be the result of a hurricane, tornado, unintentional explosion, or two planes intentionally flying into two buildings. **Public health is responding the same know matter how the cat got out of the bag.***

Ron Burger, CDC, September 13, 2001,  
Ground Zero to Kelly McKinney, NYCDHMH  
Environmental Health Incident Commander



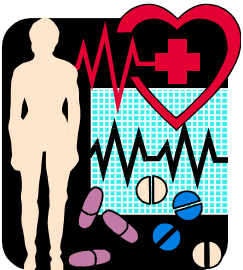
# Public Health & Medical Issues After a Public Health Emergency





# Public Health & Medical Issues After a Public Health Emergency

## 1- Rapid Assessment of Health and Medical Care Delivery



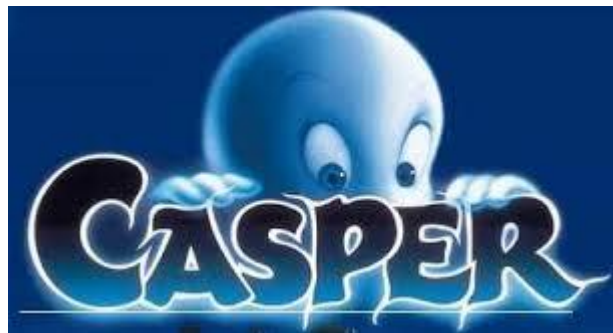
# Public Health & Medical Issues After a Public Health Emergency

## 2- Delivery of Health and Medical Care



# Public Health & Medical Issues After a Public Health Emergency

## 3- Community Assessment for Public Health Emergency Response (CASPER): Public Health and Emergency Management Tool





# Public Health & Medical Issues After a Public Health Emergency

## 4- Special Medical Needs Shelter (SpNS): site; staff; supplies; Federal Medical Stations



# Public Health & Medical Issues After a Public Health Emergency

## 5- Injury & Illness Surveillance and Follow-up: Epidemiology and Strike Teams



### Injuries and Illnesses Related to Hurricane Andrew 1992

#### WORLD TRADE CENTER SURVEILLANCE

Eye injuries (12%)  
Lung injuries (11%)  
Headache (8%)  
Blisters (5%)  
Sprains/strains (5%)

*Surveillance for Illness  
and Injury After  
Hurricane Katrina ---  
New Orleans, Louisiana,  
September 8--25, 2005*

# Public Health & Medical Issues After a Public Health Emergency

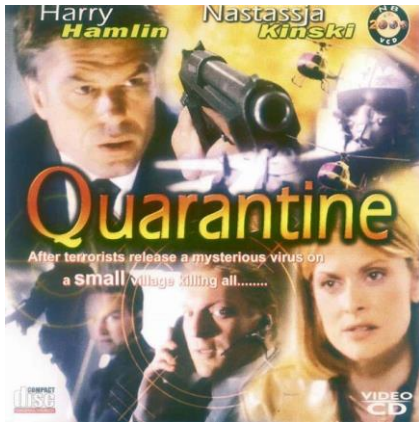
## 6- Laboratory: routine and special needs





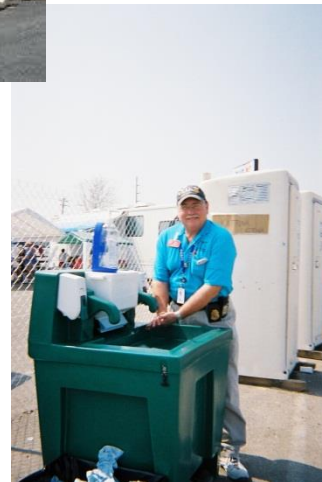
# Public Health & Medical Issues After a Public Health Emergency

## 7- Isolation (ill)- Quarantine (exposed not ill) Measures



# Public Health & Medical Issues After a Public Health Emergency

## 9- Potable Water, Safe Food, and Sanitation and Hygiene: shelters; comfort stations; medical care areas





# Public Health & Medical Issues After a Public Health Emergency

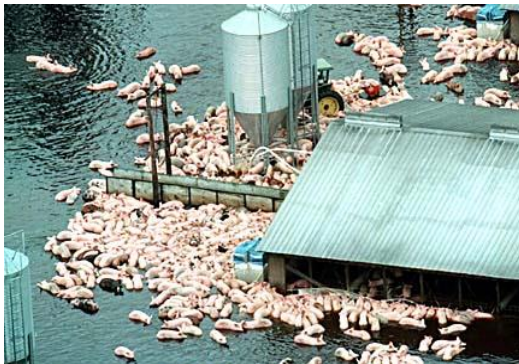
## 10- Vector Control: stinging/biting critters





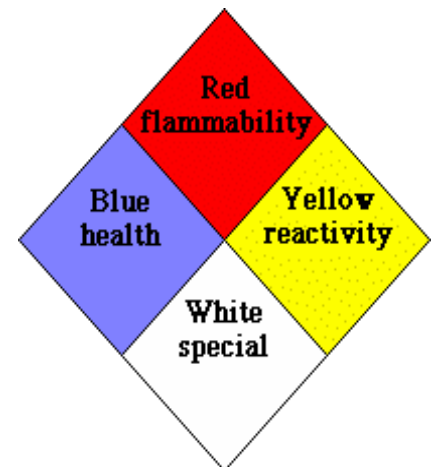
# Public Health & Medical Issues After a Public Health Emergency

## 11- Solid Waste: household refuse; hazards and critters



# Public Health & Medical Issues After a Public Health Emergency

## 12- Hazardous Materials: household; plants; stores





# Public Health & Medical Issues After a Public Health Emergency

## 13- Decontamination/ Environmental Surety: hazmat; molds





# Public Health & Medical Issues After a Public Health Emergency

## 14- Worker health and safety: we are all workers



# Public Health & Medical Issues After a Public Health Emergency

## 15- Behavioral Health: Critical Incident Stress Management





# Public Health & Medical Issues After a Public Health Emergency

## 16- Sheltering and Housing: Mass Congregation; needs injury/illness surveillance





# Public Health & Medical Issues After a Public Health Emergency

## 17- Animal Health, Care, and Sheltering

NDMS-NVRT, VMATs, Animal Control,  
ASPCA, HSUS; pet-friendly shelters



**THE HUMANE SOCIETY  
OF THE UNITED STATES**

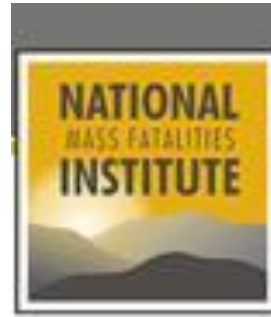
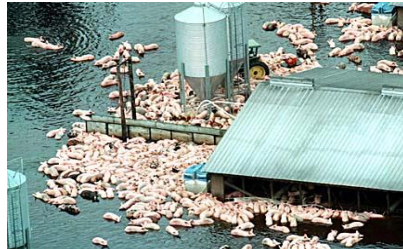


DO NOT LEAVE YOUR PETS  
BEHIND! These shelters are  
accepting dogs and cats and  
any other pets in cages 🐾  
miami.hurricaneirma



# Public Health & Medical Issues After a Public Health Emergency

## 18- Handling of Deceased (humans and animals) = Mass Fatalities Management



# Public Health & Medical Issues After a Public Health Emergency

## 19- Staffing/Surge Capacity



**Surge Capacity**  
and Health System Preparedness



**Office of Force Readiness  
and Deployment**



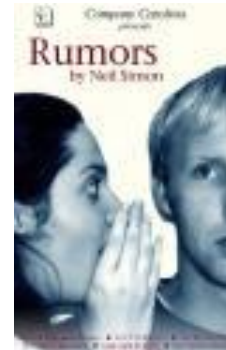


# Public Health & Medical Issues After a Public Health Emergency

20- Rumor Control: take care of before it becomes a fact

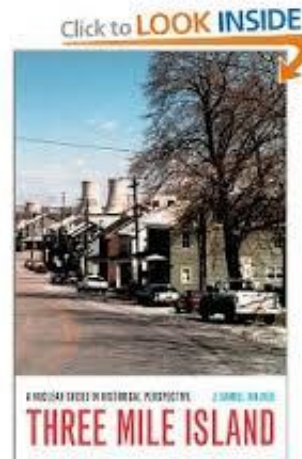
This Is **RUMOR** Control  
*News & Analysis On The Appalling Mess We're In*

## Rumor Control



# Public Health & Medical Issues After a Public Health Emergency

## 21- Registries: keeping track

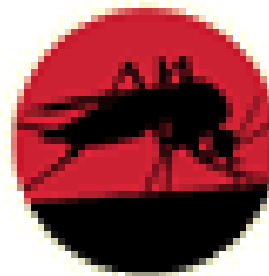


# Public Health & Medical Issues After a Public Health Emergency

## 22- Public Information and Risk Communication

- - Be first
- - Be right
- - Be credible

**Hurricane Prevention Guide**



**Fight the Bite**



# Public Health & Medical Issues After a Public Health Emergency

## 23- Political Science: parade of the dignitaries; politicians; the Boss



# All emergencies are local.

First responders may be your  
next door neighbors.



*Together, we can save a life*





# Emergency public health is not a new public health activity.

## It is a new public health priority.

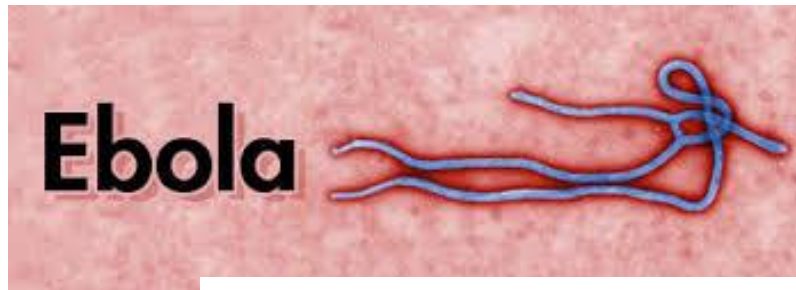
- Different culture
- Different way of doing business
- Involves national security and law enforcement



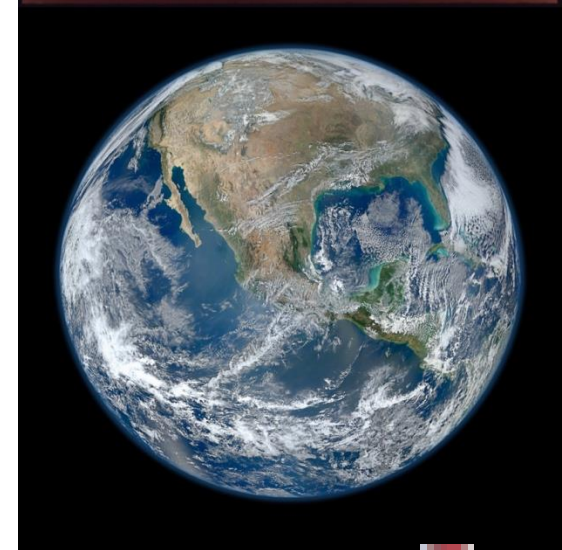


**Globalization has impacted public health.**

**Our neighbors are not just down the street—they are around the world.**



**Severe Acute Respiratory Syndrome (SARS)**



**Public health works to assure the conditions so that even people impacted by a disaster can still live, work, play, learn and worship safely and healthfully!**



**Public Health**  
*Prevent. Promote. Protect.*



# Thank you for your attention!



**Public Health**  
Prevent. Promote. Protect.

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**disasterdude15@gmail.com**

