Understanding and Improving Communications in Public Health Emergencies

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“I have a patient with a fever who just returned from Guangdong, China. What should I do?”
“We need to set up mass tetanus clinics.”
TERRORIST ATTACKS

INFECTIOUS DISEASES

NATURAL DISASTERS

MANMADE DISASTERS
Timelines differ significantly

- **Hours/Days**
- **Weeks/Months**
- **Months/Years**
Level of uncertainty varies

LESS UNCERTAINTY

MORE UNCERTAINTY
Affected population varies

Specific People

Specific Groups

Everyone (?)
Information develops in different places
Information develops over time

Ebola outbreak

An outbreak of the deadly Ebola virus has killed at least 59 people in Guinea. Ebola is spread by close contact and kills between 25 and 90 percent of victims; there is no cure or vaccine.

Ebola virus' typical path through a human being

Day 7-9: Headache, fatigue, fever, muscle soreness
Day 10: Sudden high fever, vomiting blood, passive behavior
Day 11: Bruising, brain damage, bleeding from nose, mouth, eyes, anus
Day 12: Loss of consciousness, seizures, massive internal bleeding, death

Geographic distribution of Ebola virus disease outbreaks in humans and animals

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Processing risk and threat information

Gather Information

Determine Risk, Level of Uncertainty

Disseminate Information About Risks and Actions to Mitigate Risk

Effective Communication
Information “supply chain”

- CDC/WHO
- State Health Dept.
- County/Local Health
- Responders
- Clinicians
- Public
An ideal situation
An ideal situation
Timely and accurate threat assessment
Seamless communication
Rapid and appropriate action
Minimization of negative effects (health, social, economic, ...)

Elements of the ideal response
Need for leadership from CDC (and others)
Need for coordination of information
Need for communication preparedness
Challenges

Each Emergency is Different

Difficult to Predict Emergencies

Information evolves and is uncertain
More challenges

Rapid Communication is needed

Many People to Coordinate

Public Health is already overburdened
I think we may need to update our disaster recovery plan. This one suggests we all run around in circles shouting 'what do we do?!!' 'what do we do?!!'

Thank you