Preparing for the Unexpected

Stephen C. Redd, MD
Rear Admiral, US Public Health Service
Director, Center for Preparedness and Response

ASTHO Directors of Public Health Preparedness Annual Meeting

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Predictable Events
An event will occur, exact timing / magnitude unknown

Examples
- Gulf Coast, East Coast → Hurricanes
- Great Plains and Midwest → “Tornado Alley”
- California and West Coast → Earthquakes and Wildfires
Hurricane Florence Response Efforts

- Assistance and Consultation
- Public Health Messaging
- Provide Staff and Resources to Support the Public Health and Medical Response
Predicted Events

Event likelihood unpredictable, but expectation of readiness

Examples

– Anthrax Attack
– Bioterror threats
– Radiation event
– Chemical attack
CDC’s Preparedness Efforts for Radiological and Nuclear Events

- Risk Communication
- Radiation Expertise / Countermeasure Use
- Community Reception (decontamination) Centers
- Radiation Exposure Registry
Emerging Events
Event unexpected or without precedent

Examples
- Ebola
- Zika
- SARS
- MERS-CoV
- Opioid epidemic
Drivers of Emerging Threats

Source: UN Dept. of Economic and Social Affairs
Drivers of Emerging Threats
Cases reported in 10 health zones of two provinces.

Established IMS and EOC operations training in DRC, Rwanda, and Uganda

15 CDC SMEs deployed

Laboratory capacity established

90 vaccination rings

Public Health Emergency Management Fellowship graduates

Community resistance continues to hamper response activities.

- Inability to complete contact investigations has resulted in unknown transmission links among most recent cases.
Multiple state health departments investigating hepatitis A outbreaks among persons reporting drug use or homelessness

As of October 2018, 13 states (AR, CA, IN, KY, MI, MO, NC, MA, LA, OH, TN, UT, WV)
  - 6500 cases,
  - more than 3500 hospitalizations and
  - 71 deaths

PHEP directors to engage on implementing vaccination programs targeting at risk groups
CDC’s Response Efforts in the Opioid Response

– Enhanced Surveillance Activities for States
– Patient Safety Guidance
– Public Communication & Education (Rx Awareness Campaign)
– Rapid Response Teams
– Partnering with Public Safety
State and Local Readiness

- Prepare national public health system for emergency response
- Support and sustain response-ready public health departments
- Planning and exercising
- Fund state and local public health preparedness staff (e.g., epidemiologists, laboratorian, communicators, emergency responders)
State and Local Preparedness Priorities

- Scenario Specific Readiness
- State and Local Capability to Dispense Countermeasures
- Moving resources quickly -- Crisis NOFO
Emergency Operations Center

- Coordinates preparedness, assessment, response, recovery, and evaluation for public health emergencies
- Responsible for Emergency Operations Center (EOC)—command center for coordinating emergency responses
- EOC staffed 24/7/365 to provide worldwide situational awareness
- Central point of contact for state agencies reporting public health threats
<table>
<thead>
<tr>
<th>Year</th>
<th>Marburg Virus; Hurricanes: Katrina, Rita, and Wilma</th>
<th>CDC Public Health Responses</th>
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</thead>
<tbody>
<tr>
<td>2005</td>
<td>Mumps; Salmonella typhimurium Outbreak; E. coli</td>
<td>NH Anthrax; Maine Earthquake and Tsunami; Hurricane Irene; Polio; Multistate Meningitis Outbreak; Avian Influenza H7N9 Response; Middle East Respiratory Syndrome Coronavirus (MERS-CoV); Multistate Cyclospora Outbreak; Polio</td>
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<tr>
<td>2006</td>
<td>Tropical Storm Ernesto; E. Coli Spinach/ Botulism Carrot Juice; E. coli</td>
<td>Japan Earthquake and Tsunami; Polio; Un-Accompanied; Ebola Response; Polio</td>
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<td>2007</td>
<td>XDR/MDR TB; Hurricane Dean</td>
<td>MERS-CoV; DoD Sample Investigation; Ebola Response; Flint, Michigan Water Contamination Response; Polio</td>
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<td>2008</td>
<td>Satellite Intercept; Salmonella and E. Coli Outbreaks; Hurricanes: Dolly, Gustav, Hanna, and Ike, Tropical Storm Edouard</td>
<td>Ebola Response; Hurricane Harvey, Irma, Maria; Polio</td>
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<td>2009</td>
<td>Salmonella typhimurium Outbreak; H1N1 Influenza; Blowatch; Operation Earthquake; Presidential Inauguration</td>
<td>Polio; Multistate Meningitis Outbreak; Ebola Response; Polio</td>
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<tr>
<td>2010</td>
<td>NH Anthrax; Haiti Earthquake; Deepwater Horizon Oil Spill; Haiti Cholera Outbreak</td>
<td>MERS-CoV; DoD Sample Investigation; Ebola Response; Polio</td>
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<tr>
<td>2011</td>
<td>Japan Earthquake and Tsunami; Hurricane Irene; Polio Eradication Response (Polio)</td>
<td>Ebola Response; Polio</td>
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<tr>
<td>2012</td>
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<tr>
<td>2018</td>
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<td>Polio</td>
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</tbody>
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*Level 1 Responses
Different emergencies require different kinds of preparation

- Scenario specific readiness (predictable, predicted events)
- Emerging events not expected, require ability to adapt

Basic steps similar in disparate types of events

- Characterize → Intervene (communicate) → Evaluate

Measurement of Capabilities

- Readiness Reviews
- National Health Security Preparedness Index

Preparing for the Future
$50M Infectious Disease Rapid Response Fund
National Biodefense Strategy
Update of Public Health Preparedness Capabilities
Stephen C. Redd, MD
RADM, USPHS
Director, Office of Public Health Preparedness and Response

For more information, contact CDC
1-800-CDC-INFO (232-4636)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.