SAND2013-1775P

# Iraq-US Cooperative Tabletop Exercise
# Human Health Scenario

***March 2013***

***Istanbul, Turkey***

SAND
Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000

# Ground Rules

- **Agent fact sheets** are available for reference
- Allow colleagues to **share** their views and experience
- More **open and honest communication** will give better idea of your priorities and help identify areas for potential assistance
- Focus on how the system actually functions in **day to day operations**

# Workshop Objectives

- Outline existing public and veterinary health systems from **sample collection through diagnostic testing** and confirmation
- Identify **how disease-related information is reported** in the public and private sectors
- Identify the **division and effectiveness of biosurveillance** activities in **public and private sectors** for public and veterinary health systems and political and cultural impediments to biosurveillance activities
- Determine if an appropriate electronic disease surveillance reporting system could be **feasibly expanded** and utilization points outside of the Central government

# Breakout Session Agenda

## Monday, March 18

- Review the ground rules
- Introductions in small groups
- Scenario information
- "Homework"
- Small group discussion
  - Select a spokesperson and a recorder
  - Spokesperson will present summary of small group discussion to the large group
  - Recorder will write group answers on flip chart
  - Questions for group regarding their roles
- Large group discussion
  - Do all the disciplines roles fit together?
  - What may be missing?

# Clinical, Laboratory Diagnostic, and Epidemiology Groups

- Scenario information presented
  - Within group fill-in information related to expected actions for detection, diagnosis, response, and control
    - What **would you do** in your role and how would you accomplish it?
    - What **information** would you consider and have available to help make decisions?
    - Where do you get this information?
  - Review how each discipline sees their role in:
    - Sample collection through diagnostic testing and confirmation
    - Reporting disease related information
      - Are there different reporting mechanisms for public versus private sector?
    - Identify the division and effectiveness of biosurveillance activities in public and private sectors

# Homework

- Take the information from all disciplines and with colleagues develop a presentation on how disease surveillance and response is structured
- Present to other sectors (policy and human health) tomorrow
  - Develop with the information from today's discussions
  - Work together with all the disciplines to diagram surveillance and response system
    - Consider incorporating each element from initial detection to control and indicate responsible parties and where information is obtained
  - Presentation type depends on group decision
    - Flip-Charts and markers, PowerPoint, or other presentation method

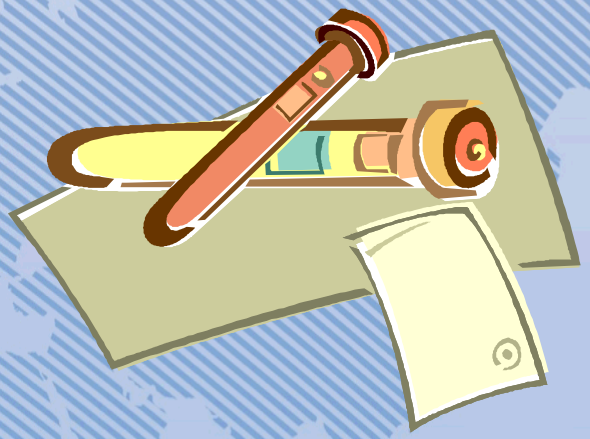
# Introductions

# Febrile illness with gastro intestinal symptoms

- Tal'Afar District, Ninewa Governorate
- 37 year old male with sudden onset fever, muscle aches, and bloody diarrhea
  - Does not improve with oral rehydration
  - Taken to Tal'Afar General Hospital
  - Disoriented and unable to answer questions
    - Brother provides answers for him
- Physician asks about animal contact
  - No household animals
  - Only animal contact is a lamb patient slaughtered a week prior to symptoms

# Detection of disease

- Khadra district in Tal'Afar
- 53 year old male with sudden onset fever (42°C), maculopapular rash on trunk, bleeding from gums, headache
- Reports several nosebleeds before arrival at hospital
- Works as abattoir
- Blood samples are collected for serologic testing
- Physicians suspect Crimean-Congo Hemorrhagic Fever
  - Report the case to the National Surveillance System



# Additional illness reported

- Two cleaning staff at hospital
  - Three days before symptom onset cleaned up broken glass tubes and blood from 37yo male after tubes were dropped
- Four additional males arrive with petechial rashes on shoulders, arms, and torsos
  - Also report feeling tired, neck pain and stiffness
  - Two of the males also have ecchymosis  around axila

# Questions

- What prompts people to seek medical care?
  - Do more people seek care when they hear of potential outbreaks?
  - Who covers medical costs?
    - Visit, laboratory tests, medications
- How would the additional four cases be handled?
  - What other information would you need to know about them?
- What would happen to the two cleaning staff?
  - Are all hospital and laboratory staff aware of PPE needs and how to handle specimens from patients with suspect CCHF?
    - What type of education program is in place to train the staff on these safety requirements?

# Questions

- Would the other people be reported to the National Surveillance System too?
  - How does this reporting occur?
  - How often?
  - What happens to data reported?

# Specimens collected

- Blood specimens collected for all four men
- Sent to CPHL in Baghdad for additional tests
- Hospital blood test results for liver function and blood count:

| Individual | White blood cell (WBC) count without differential | Platelet count | Aspartate Aminotransferase (AST) | Alanine Aminotransferase (ALT) | Partial thromboplastin time (PTT) |
|---|---|---|---|---|---|
| Mosul 1 | 350 | 3500 | 56 | 75 | 45 |
| Mosul 2 | 568 | 4680 | 175 | 125 | 30 |
| Mosul 3 | 4560 | 58000 | 350 | 890 | 85 |
| Mosul 4 | 2500 | 3590 | 25 | 43 | 28 |

# Questions

- Who collects specimens for testing?
- What types of specimens are collected?
- Who pays for testing?
- Where are the specimens sent?
  - How are the specimens transported?

# Questions

- Who has capability to perform these tests?
- Where is the laboratory located?
  - How do specimens arrive at this location?
    - Consider what mode of transportation, packaging, state of the specimen (leaking, putrid, on a swab in transport media, in a sterile container, in a cup)
  - What happens to the specimen in the laboratory?
    - What safety measures are in place to protect workers handling potentially infectious materials?
- To whom are test results provided?

# Response

- 2010 Awareness campaign materials are updated
  - Targeted to public and medical community
  - Messages cover disease transmission, prevention, and symptom recognition

# Questions

- What other actions would be conducted during a response to an outbreak of CCHF?
  - Would an epidemiological investigation occur?
  - Would this team visit any sites?
- Would the awareness campaign target additional groups within the public?
  - How are these groups identified?

# Control

- Animal dipping and residual indoor spraying for acaricides is encouraged to control ticks

# Questions

- How is the official policy implemented?
  - Who is responsible for making these determinations?
- Who pays for acaricide dipping?
- What is the most likely course of action for control?
  - Do all the elements mentioned occur or are they prioritized?
  - How are the control efforts prioritized?
  - What additional control measures are used?

# Small group discussion

- What additional information would you have available in a situation like this?
  - What information would be useful to have?
  - Where (what sources) could you obtain that information?
- How does availability of additional information influence decision making?
- What tools are currently used to communicate between the disciplines?

# Plenary discussion

- In what ways are the disciplines linked?
- How does information flow between the disciplines?
- How are responsibilities determined?
  - Who determines the roles and responsibilities?
- Have you heard anything from the other groups that is different from your group?
- What new information did you learn today that you can take home and share?

# Conclusion

- Review of today
- Homework—develop presentation

# Homework

- Presentation to other sectors (policy and human health) tomorrow
  - Developed with the information from today's discussions
  - Work together with all the disciplines to diagram surveillance and response system
    - Consider incorporating each element from initial detection to control and indicate responsible parties and where information is obtained
  - Presentation type depends on group decision
    - Flip-Charts and markers, PowerPoint, or other presentation method