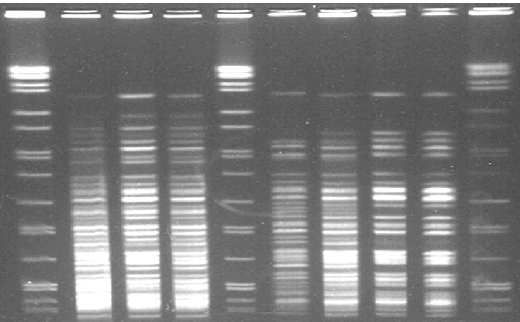# Disease Surveillance Tabletop Exercise

Understanding new and emerging challenges to effective
disease surveillance activities

Sandia National Laboratories

International
BIOLOGICAL THREAT REDUCTION

Exceptional

service

in the

national

interest

Objectives

- Understand the tabletop exercise format and purpose

- Feel comfortable participating in discussion to identify areas for potential future engagement activities

- Communicate and provide feedback during discussions

- Take information home to share with colleagues

International
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Why do we use tabletop exercises?

Tabletops are tools to simulate an emergency situation

- Informal, safe, stress free environment
- See how different roles, agencies interact during an emergency
  - Identify functional roles and responsibilities
  - Meet colleagues working in similar areas, facing same challenges
- Review plans, procedures, and policies

- Many types of tabletop exercises exist
  - Plan and test emergency preparedness systems
  - Small group discussions to system strengths and weaknesses

International
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Why ask so many questions?

- Have answers ready in case of a real-life incident

- Understand the process from start to finish
  - Identify opportunities for collaboration
  - Prioritize areas needing improvement

- Develop a more comprehensive accurate model
  - Identify efficient use of resources
  - Identify strengths and gaps in the system
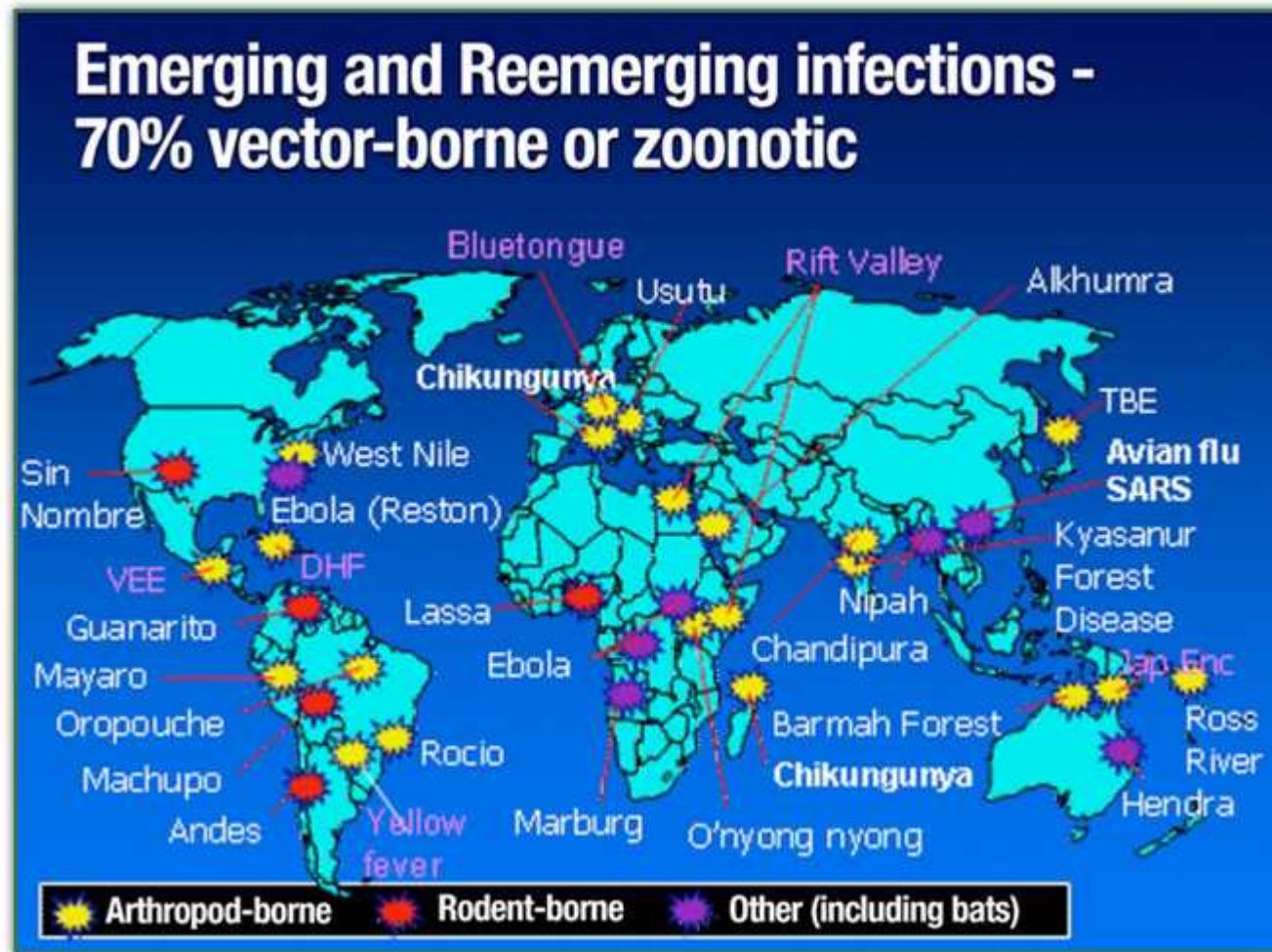
Who participates in this tabletop?

Group	Where are they from	Role
Facilitators	US- Sandia National Laboratories	Guide discussion
Note takers		Capture information shared Help prepare takeaway messages
Epidemiologists	Yemen	Provide background on outbreak investigation & surveillance
Laboratorians		Share expertise in lab roles in disease surveillance

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What focus on a zoonotic agent?

Animal and human interaction:
A risk in disease emergence

Emerging and Reemerging infections – 70% vector-borne or zoonotic

Bluetongue, Usutu, Rift Valley, Alkhumra, Chikungunya, TBE, Avian flu, SARS, Kyasanur Forest Disease, Nipah, Chandipura, Jap Enc, Barmah Forest, Chikungunya, Ross River, Hendra, O'nyong nyong, Marburg, Yellow fever, Rocio, Ebola, Lassa, Machupo, Andes, Oropouche, Mayaro, Guanarito, VEE, DHF, Ebola (Reston), West Nile, Sin Nombre

- Arthropod-borne
- Rodent-borne
- Other (including bats)

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One Health

- **One Health movement**
  - Interdisciplinary collaborations to address the interconnected health issues facing people, animals and the environment

- **Zoonotic disease**
  - Contagious diseases spread between animals and people
  - 61% of human pathogens are zoonotic
  - 75% of emerging, reemerging infections are vector-borne or zoonotic

- **Early warning of impending outbreaks**
  - Animals are sentinels, showing signs before people
    - May show signs of exposure to toxic or infectious hazards in environment before humans

Taylor, et al. Risk factors for disease emergence. *Pilos Trans R. Soc Lond B Biol Sci* 2001. Jul 29; 356 (1411):983-9.

Zoonotic disease surveillance matters

- **Early detection of health hazards**
  - Biological agents or toxins in the environment

- **Interdisciplinary communication, collaboration can improve disease detection and response**

- **Prevention of infectious diseases transmission**
  - Animal contact can pose a risk of zoonotic infectious disease
  - Disease control in animals can help limit human exposure

What makes a tabletop successful?

- YOU!
- Let us develop a set of guidelines or rules to operate by during these discussions:

Reasons to actively participate

- Unique opportunity to identify priority areas for cooperative engagement before an emergency occurs
  - World is more interconnected today
  - Diseases do not stop at borders
    - Prevention often requires cooperative approach in global community

- Identify training needs to improve surveillance systems
  - Address needs for timely disease detection in animals, people
  - Leverage knowledge from colleagues within country and region
  - Useful to prepare donor requests
  - Budget justifications

Discussion overview

- **Scenario presentation**
  - Discuss the information
  - Compare scenario to what actually happens
  - Compare what happens to what you would like to see happen
  - Identify additional information needs

- **Share role in addressing the issues in the scenario**
  - What information do you share
  - When do you share information
  - With whom is information shared
  - Where do the specimens go
  - How are results reported
  - To whom do you reach out for assistance

Roles and responsibilities

Name	Role	Responsibility

How this information will be used

- Not identified on an individual basis

- Develop model based on participant responses
  - Answers to the questions important to design accurate model

- Participate evaluation and input on process model

- Prioritize engagement focus
  - Use as a tool to inform decision making
    - Identify systems working well and why they are successful
    - Can successes be replicated in other, lower-performing areas

Break