

Jordan Disease Surveillance & Response Exercise

SAND2015-7166PE



Public Health Response to an Outbreak

*Amman, Jordan
September 2015 1*

What is an outbreak?



Definition

- Occurrence of more cases of disease than expected in a population during a certain time

Examples

- Smallpox
- Human influenza caused by a new subtype
- Cases of CCHF in areas without vector
- Salmonella in populations associated with common food item

Margibi Cluster Key Events



New positive lab result

Field-EOC

Sequencing results released

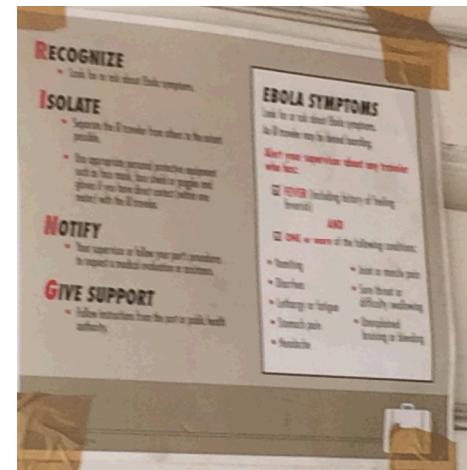
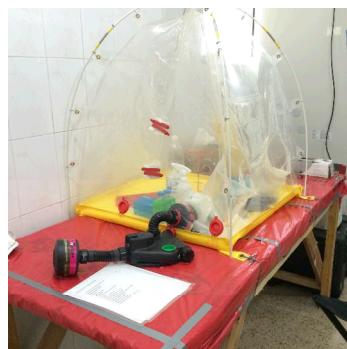
Survivors released from ETU

Public Health Response



- **Detect Outbreak**
 - Use surveillance to identify when unexpected occurs
- **Investigate Outbreak**
 - Define what is a “case”
 - Continue to detect new cases
 - Coordinate with other agencies, disciplines
- **Response**
 - Implement Control Measures
 - Continue Assessing Risk
 - Coordinate with other agencies, disciplines

STEP 1: Detection



4 AUGUST 2015



Liberia: IMS Wants Community Heads Demand Swabbing of Dead Bodies

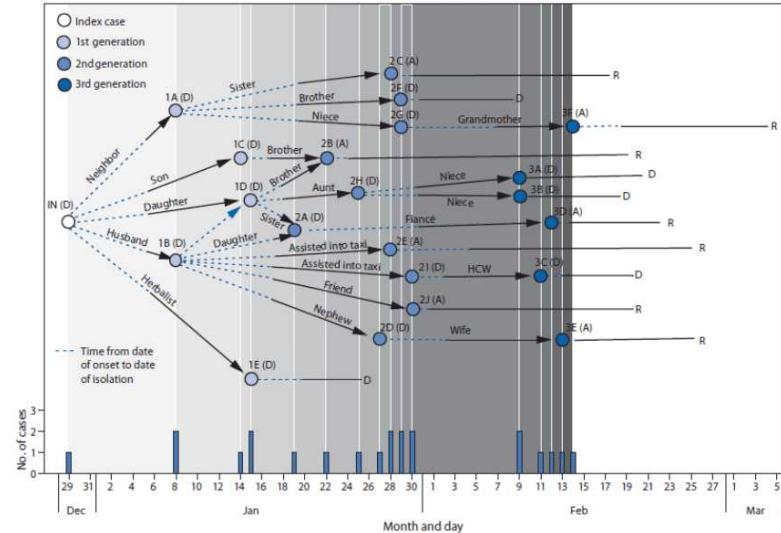
Step 2: Investigation



Step 3: Hypotheses



FIGURE 1. Transmission diagram for the last known cluster of Ebola virus disease cases (N = 22) — Liberia, December 29, 2014–March 5, 2015*



Abbreviations: D = dead; A = alive; R = recovered.

* In this transmission network diagram, date of onset of Ebola symptoms of confirmed cases (dot) is followed by a period of infectiousness (dotted line); time from date or isolation or safe burial to onset of the next generation case (black arrow); and time from date of isolation or safe burial to final disposition (solid black line). Dot color represents generation. Cases are identified by a two character abbreviation: generation number and sequential lettering based on onset date. Survival status is indicated after each case abbreviation.

Alternate Text: The figure above is a transmission diagram for the last known cluster of Ebola virus disease cases (N = 22) in Liberia during December 29, 2014–March 5, 2015.

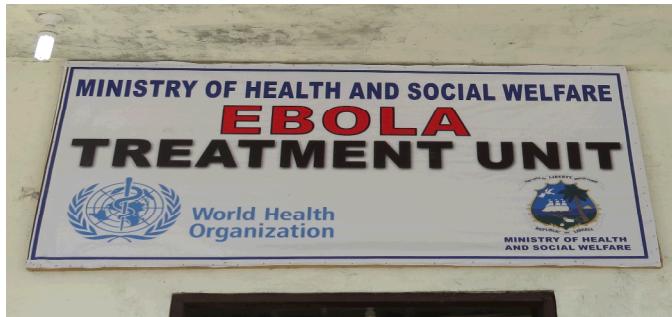
Controlling the last known cluster of ebola virus disease—Liberia, January–February 2015

Nyenswah et al

MMWR 64 (18):500-504

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6418a5.htm?s_cid=mm6418a5_w

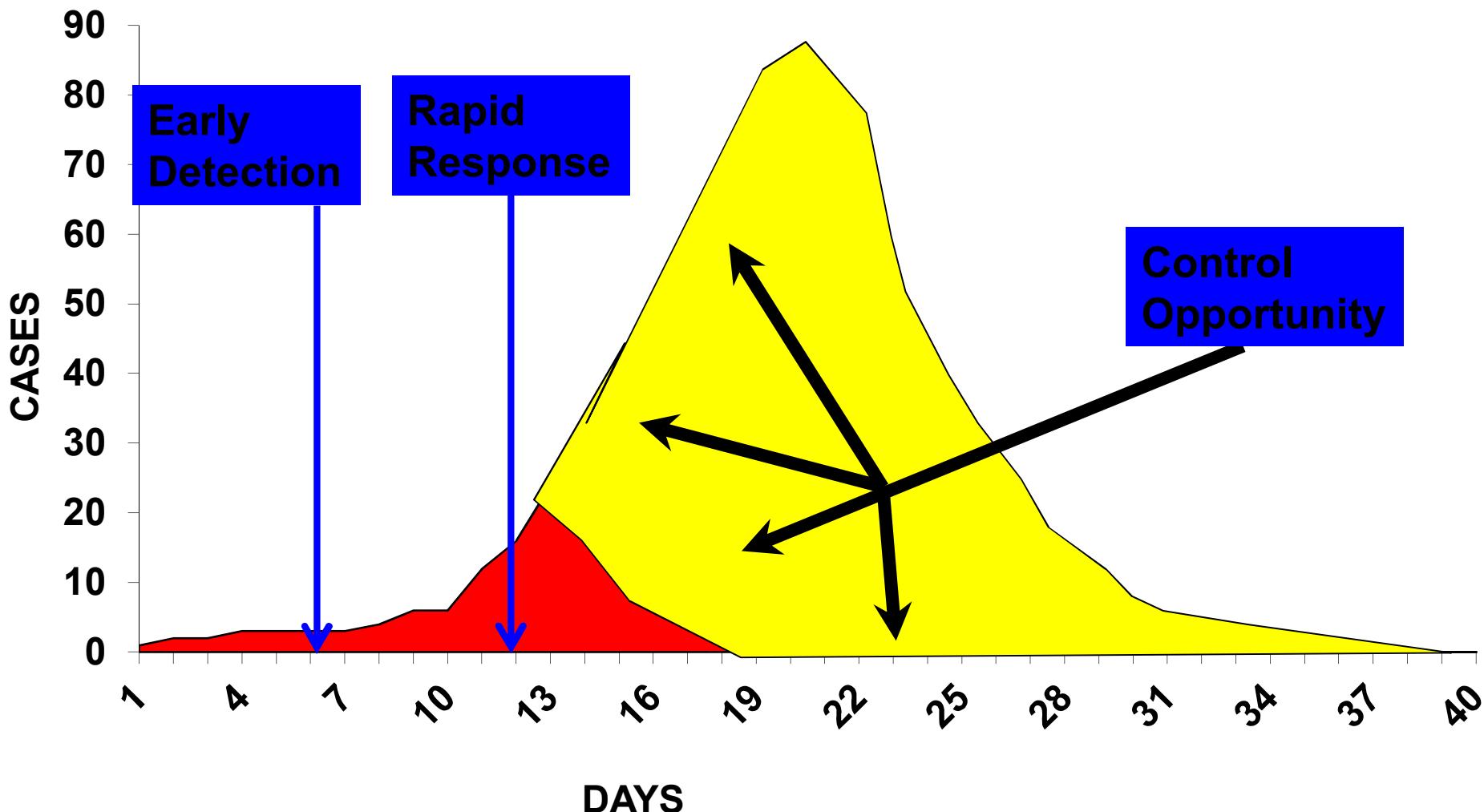
Step 4: Control Measures



Step 5: Communication



Outbreak Alert and Response: a model to demonstrate effectiveness of public health control



Questions?

