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Biorisk Management in Disease Detection Tabletop Exercise

Exercise Scenario

Bali, Indonesia

May 2014

Overview



Review exercise objectives, limitations, assumptions

Begin working through scenario

- Designate 1 spokesperson per table
- Designate 1 note-taker per table
- Small groups, write on flip charts & report out
- Information will be used to fill in large charts on walls
- Feel free to notes in your handouts

Complete by developing after-action report as large group



Exercise Assumptions

- This is a hypothetical, fictional exercise. It is based on historical events, but is entirely contrived for the purposes of *this exercise*.
- To ensure the best outcomes of the exercise we want you to feel comfortable sharing experiences, questions, concerns, and ideas for plans. *Comments, questions, concerns, and the like will NOT be attributed to the individual who made them.*
- This is a judgment-free zone. Please make sure comments are constructive.



Exercise Assumptions

- Everyone here is well versed in their ministries policies and procedures for disease surveillance and response
- We expect you to respond based on your current understanding of **existing policies and current practices**
- You will be asked to play the “role” you or someone in your agency would have during this incident
- It is absolutely acceptable not to know the answer to a question. *There are no “right” or “wrong” answers!*

Exercise Limitations



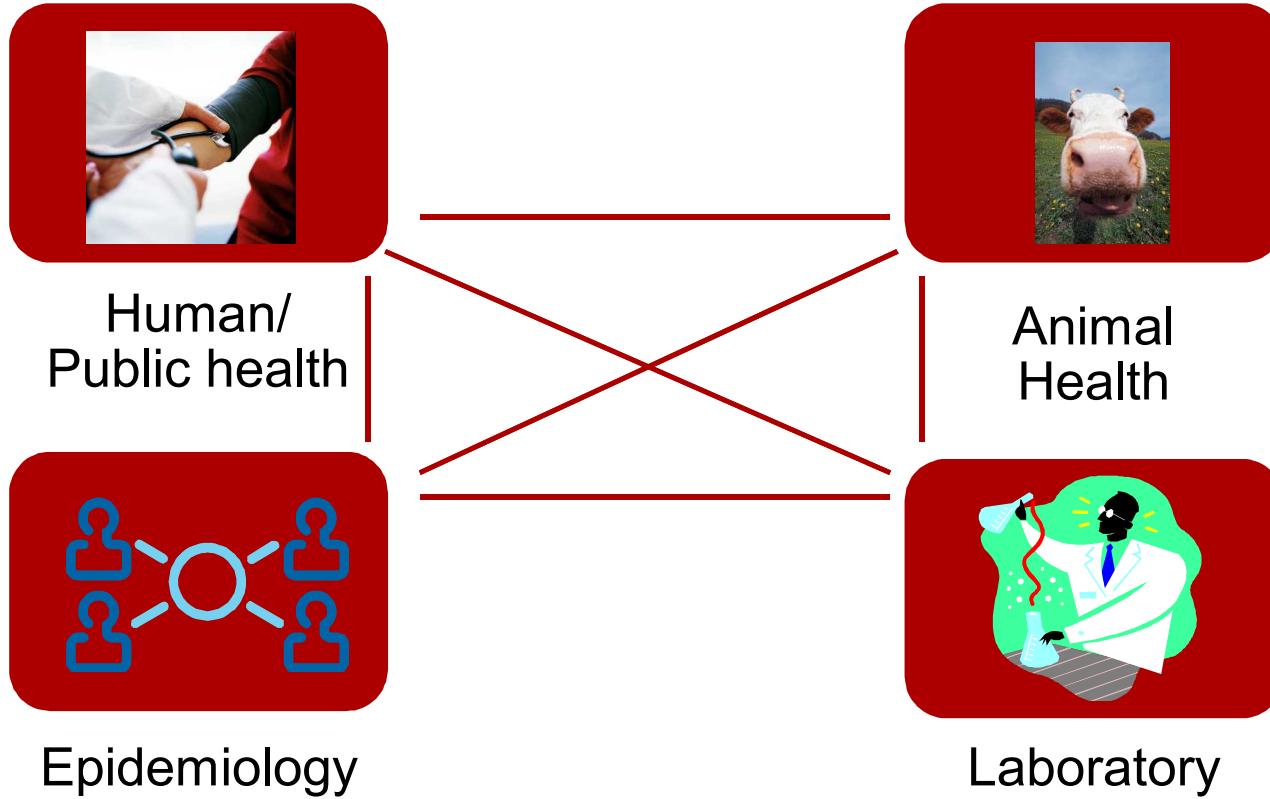
- The focus of this exercise is on biosecurity practices during an outbreak investigation. The focus is not on clinical or technical diagnostic topics.
- Keep discussion focused on ***this exercise*** - not prior outbreaks.
- It is common to have different opinions/ideas on what would happen—there is not a “right” answer
- We cannot replicate the timeline of an outbreak during one week; all timelines are hypothetical

Objectives



- 1) Identify roles and responsibilities your agency would provide during a zoologic biological incident/outbreak
- 2) Characterize and identify gaps and opportunities to improve biorisk management during sample
 - Sample Collection
 - Sample Package and Transport
 - Sample Storage (short & long term)
 - Analysis
 - Disposal of samples
- 3) Practice biological incident risk communication among agencies involved in cross-sector response

Participant Groups



Setting the stage



East Java, Indonesia



Scenario Part 1a



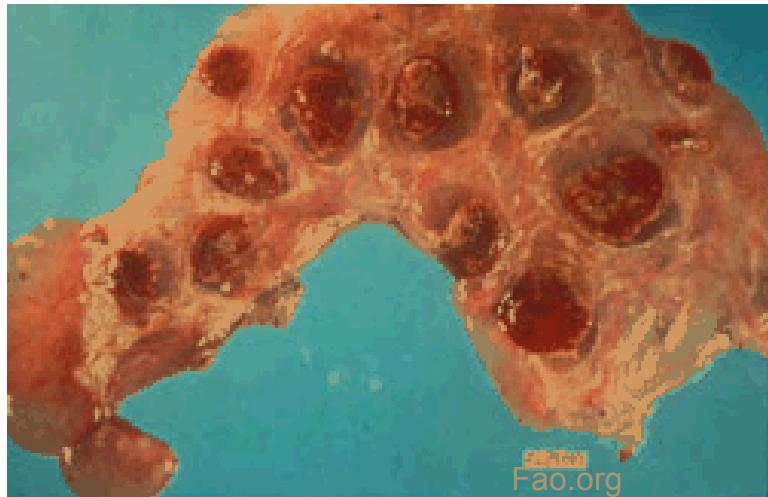
0800 March 10 2014 Economic News EAST JAVA NEWS RADIO

Farmers shared concerning news this week that health issues among local dairy cows may impact the growing dairy industry in the Parsuruan area of East Java.

The head of the local dairy cooperative (KUD) tells our reporter that many dairies have experienced unprecedented numbers of late-term abortions and retained placentas as well as a number of cows having trouble walking.

East Java is home to the largest dairy sector in Indonesia, with over 230,000 cattle and over 530,000 tonnes of fresh milk produced annually.

One local dairy herder says families should expect rising dairy costs if the health issues continue.



Scenario Part 1b



0800 May 16 2014 Health Report EAST JAVA NEWS RADIO

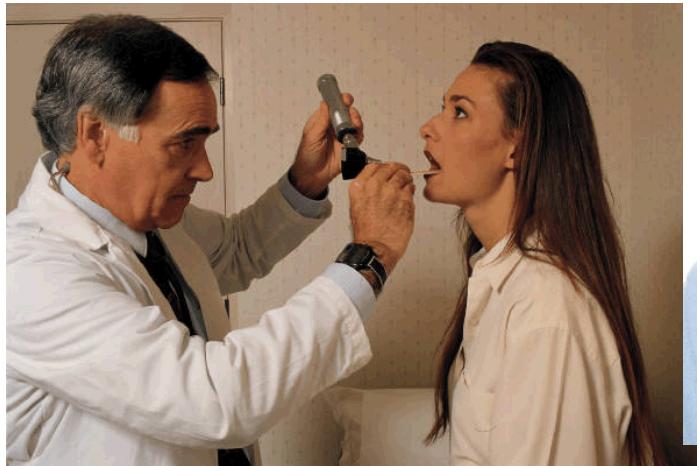
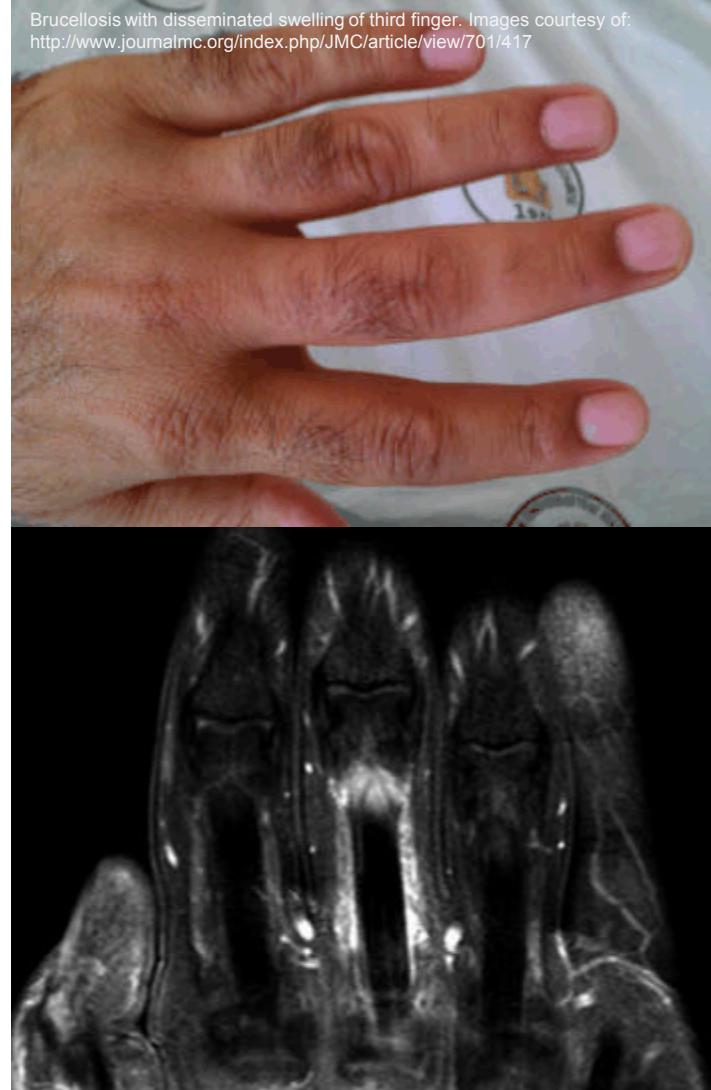
Soedarsono General Hospital has reported 15-month old has died from bronchopneumonia (acute inflammation of walls of the bronchioles) from an unknown cause.

The baby presented to the local hospital with an intermittent fever, vomiting and respiratory distress. Hospital physicians report that bloodwork and physical examination were consistent with infectious disease.

Seven adults from the same rural, farming community are currently hospitalized, but stable, with intermittent fevers, body aches and sweating. One of the adult men, who declined to be interviewed, presented with swollen testicles. It is unknown if other in the community have similar illness.

Tune in tomorrow, when we hope to be able to let you know how the patients are doing and whether you need to take any special precautions at home.

Brucellosis with disseminated swelling of third finger. Images courtesy of:
<http://www.journalmc.org/index.php/JMC/article/view/701/417>



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Scenario Part 1



Objective 1—Roles and Responsibilities

Please read your card to the rest of the table

- Each table may have a different number of cards
- You can pair up to answer questions on the cards
- Please write notes on the flip charts
- Appoint one spokesperson to report findings after 25 minutes

Scenario Part 1



Objective 2—Identify strengths and gaps in BRM

Take 25 minutes with your table colleagues to think about potential biological during each of your roles identified during Objective 1.

- What are the biological risks?
- Prioritize and rank these risks (#1 as highest risk)
- Given current practice and existing plans, how would you address the biological risks?
 - Can you identify any strengths in biorisk management?
 - Can you identify gaps in biorisk management that are not currently addressed?
- How would you recommend improving biorisk management for the roles and responsibilities you identified during Objective 1?

Scenario Part 1



Objective 3: Cross- Sector Communication

At your tables, take 5-10 minutes to talk about how your organization would be communicating across sectors during this part of the scenario. It is possible they might not be.

If there is communication, note the ways communication would occur: phone, email, fax, in-person

We will discuss this topic as a large group

Scenario Part 1



Objective 3: Cross- Sector Communication Strengths

At your tables, take 5-10 minutes to talk about the strengths in how your agency communicates with other agencies during a response.

We will discuss this topic as a large group

Scenario Part 1



Objective 3: Cross- Sector Communication Gaps

At your tables, take 5-10 minutes to talk about the gaps or areas in need of improving how your agency communicates with other agencies during a response.

We will discuss this topic as a large group

Locations of ill people & animals



East Java, Indonesia & Jakarta



Update: End of Day 1



1830 May 16 2014 JAKARTA TV NIGHTLY NEWS

Health professionals are on alert tonight after three people working in the hospital laboratory fell ill with symptoms of fever, sweat, headaches and muscle pain. Over the past two days, over two dozen persons have presented with similar symptoms. So far, preliminary tests for a pandemic influenza are negative.

We will continue to monitor the situation and provide updates on the morning news.

Review of Scenario from Day 1

- 1) How many people and animals are sick?
- 2) Where are they located?
- 3) What is the timeline of the illnesses?
- 4) What has been currently done by each sector to address the scenario?

Scenario Part 2a



1830 May 17 2014 East Java News Radio

Investigations continue in Parsuruan to identify the cause of ill dairy cows. This reporter has learned that veterinarians are ruling out moldy food and toxins as the cause of the cow abortions and reproductive issues. One of the local dairies had imported several hundred new head of cattle earlier this year to improve herd genetics and is concerned that the loss of milk production from this outbreak may bankrupt his farm.

Veterinarians explain that samples sent out yesterday to the laboratory did not arrive and are concerned that the samples may have been stolen from the courier's vehicle during transport. They advise anyone with information on this to contact the regional animal and public health offices and not to touch the containers as this may be a disease that could make people sick as well.



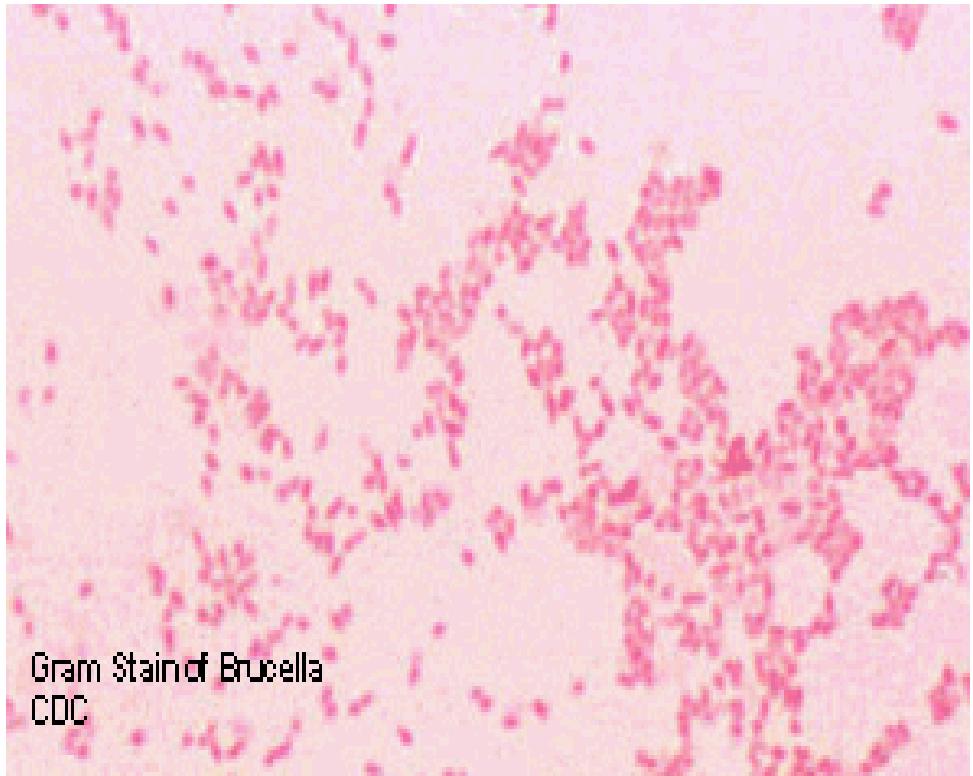
Scenario Part 2b

1830 May 17 2014 East Java News Radio

Soedarsano General Hospital has reported that East Java is experiencing a rare outbreak of *Brucella abortus*—or *brucellosis*—particularly among rural, farming residents.

The bacteria was identified in antibody tests from patients who had presented with intermittent fevers, aches and swollen testicles. Most of the hospitalized adults with fevers and symptoms of unknown origin have returned home after beginning antibiotic treatment.

One 15 month old is the only confirmed death in this outbreak.



Gram Stain of *Brucella*
CDC



Scenario Part 2

Objective 1—Roles and Responsibilities

Please read your card to the rest of the table

- Each table may have a different number of cards
- You can pair up to answer questions on the cards
- Please write notes on the flip charts
- Appoint one spokesperson to report findings from your table in 25 minutes

Scenario Part 2

Objective 2—Identify strengths and gaps in BRM

Take 25 minutes with your table colleagues to think about potential biological during each of your roles identified during Objective 1.

- What are the biological risks?
- Prioritize and rank these risks (#1 as highest risk)
- Given current practice and existing plans, how would you address the biological risks?
 - Can you identify any strengths in biorisk management?
 - Can you identify gaps in biorisk management that are not currently addressed?
- How would you recommend improving biorisk management for the roles and responsibilities you identified during Objective 1?

Scenario Part 2

Objective 3: Cross- Sector Communication

At your tables, take 5-10 minutes to talk about how your organization would be communicating across sectors during this part of the scenario. It is possible they might not be.

If there is communication, note the ways communication would occur: phone, email, fax, in-person

We will discuss this topic as a large group

Scenario Part 2

Objective 3: **Cross- Sector Communication Strengths**

At your tables, take 5-10 minutes to talk about the strengths in how your agency communicates with other agencies during a response.

We will discuss this topic as a large group



Scenario Part 2

Objective 3: Cross- Sector Communication Gaps

At your tables, take 5-10 minutes to talk about the gaps or areas in need of improving how your agency communicates with other agencies during a response.

We will discuss this topic as a large group

Scenario Part 3



Today, we will provide you special cards about challenges you might face when dealing with this outbreak.

Think about how each new piece of information might change your actions, your roles, your responsibilities, the biological risks and your need for cross-sector communication and collaboration.

Scenario Part 3



CARD A

Objective 1. Based on existing roles and responsibilities, tell us what action you would take with the new information and whether this changes your role during this outbreak.

- Please spend 30 minutes with your group
- Use the questions on the back of the card to give you guidance
- Write your answers on the flip chart and report out to the group.

Scenario Part 3



CARD A

Objective 2. Identify & prioritize biological risk concerns and biorisk management actions taken during the updated scenario

- Please spend 20 minutes with your group
- Write your answers on the flip chart and report out to the group.

Scenario Part 3



CARD A

Today, each table will be given a series of cards with updates on the progression of this outbreak.

Objective 3. Identify any new needed communication among the sectors. We will practice the principles of risk communication.

- Please spend 5 minutes and report what (if any) new cross-sector communication would be needed with the new information. Report to the group.
- Practice using principles of biological incident risk communication

Scenario Part 3



CARD B

Objective 1. Based on existing roles and responsibilities, tell us what action you would take with the new information and whether this changes your role during this outbreak.

- Please spend 30 minutes with your group
- Use the questions on the back of the card to give you guidance
- Write your answers on the flip chart and report out to the group.

Scenario Part 3



CARD B

Objective 2. Identify & prioritize biological risk concerns and biorisk management actions taken during the updated scenario

- Please spend 20 minutes with your group
- Write your answers on the flip chart and report out to the group.

Scenario Part 3



CARD B

Today, each table will be given a series of cards with updates on the progression of this outbreak.

Objective 3. Identify any new needed communication among the sectors. We will practice the principles of risk communication.

- Please spend 5 minutes and report what (if any) new cross-sector communication would be needed with the new information.
Report to the group.
- Practice using principles of biological incident risk communication

End of Scenario



Thank you all for your hard work throughout responding to this brucellosis scenario!

Now, it is time for the most important work—identifying lessons learned and prioritizing steps to make improvements.

