NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the NATIONAL HEALTH LABORATORY SERVICE

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Background

• Specific goals of IDSR – strengthen district-level surveillance and response for priority diseases.
• Laboratory-strengthening strategy developed.
• Four epidemic prone bacterial diseases targeted.
  - cholera, epidemic shigellosis, bacterial meningitis and plague.
Plague Training

• 10 plague endemic countries identified.

• Invitations sent out for training course.

• 5 countries sent technologist.
Identified Plague Endemic Countries
Botswana, DRC, Kenya, Malawi, Mozambique, Namibia, Uganda, Zambia, Zimbabwe & Tanzania
Course Participants
Malawi, Mozambique, Namibia, Zambia & Tanzania
Plague

- Participants on course
- Tests covered
- Materials given (enough for 50 tests)
  - CDC plague manual
  - All reagents needed for 50 tests
    - Biochemical sugars
    - Bacteriophage strips
    - Dipsticks
EQA Results

- First sample – slides – good response
- Second sample – serum – no results
- Third sample – simulated pus – 2 correct/2 assessed
- Fourth sample – simulated pus – used as training exercise (awaiting results)

- CDC (Fort Collins) & Institut Pasteur de Madagascar (WHO CC) used as referees, to check specimen quality
Limitations

- Limitations of tests that can be sent.

- Transport of dangerous goods
  - e.g., *Yersinia pestis*, *Bacillus anthracis* etc.
Plague Tests Required

- What tests should laboratories do?
- Human
  - Clinical symptoms (take into account)
  - Dipstick, staining, culture and identification.
- Animal
  - PHA with inhibition or ELISA
  - Culture and identification
Facilities

- All 10 laboratories said in questionnaire that they test for plague.
- All doing staining.
- All should at least do hemagglutination test.
- The 5 course students were given materials for testing.
Suggestions

• One or two technologist to be trained at a time – where? (Fully equipped lab or their own labs)

• What tests should these labs be able to do

• Help with supplies (as a lot of material is not commercially available)