



## LASSA FEVER IN NEW JERSEY, 2015

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## Background on Lassa Fever (LF)

- Acute viral illness caused by Lassa virus (arenavirus) with very limited endemic transmission
  - 4 West African countries
- Annual number of cases ranges from 100,000-300,000
- Mild or asymptomatic illness in 80% of cases
- Case fatality low, around 1%



## Transmission of LF

- Host is the multimammate rat (*Mastomys natalensis*)
- Usually transmitted through inhalation or ingestion of rodent excreta
- Secondary transmission occurs through direct contact with infected body fluids
- Symptoms usually occur in 1-3 weeks



## Signs and Symptoms of LF

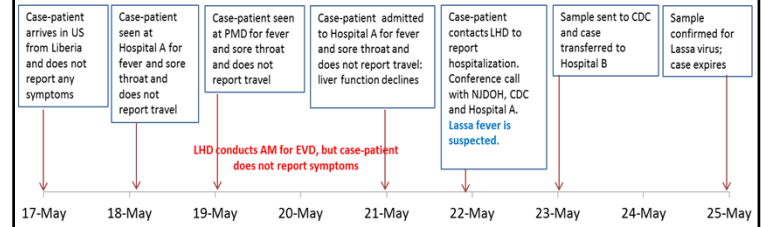
- Signs and symptoms include:
  - Fever
  - Malaise and/or weakness
  - Headache
  - Sore throat and/or cough
  - Bleeding in gums, eyes, or nose
  - Respiratory distress
  - Vomiting
  - Facial swelling
  - Pain in chest, back, and abdomen
  - Encephalitis or other neurological problems



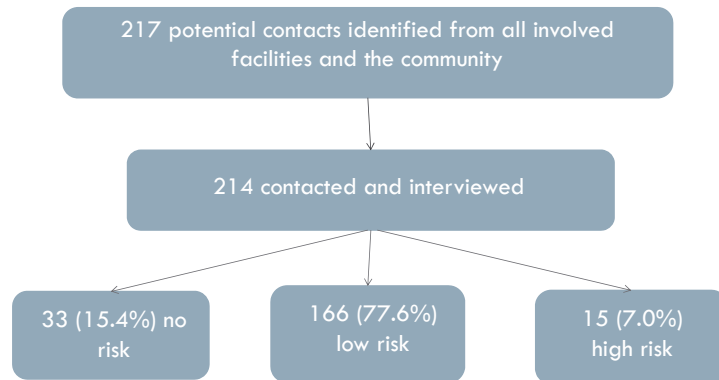
## Lassa Fever in New Jersey (NJ)

- Previously, 5 cases of LF have been reported in the United States
- On May 25, 2015, the Centers for Disease Control and Prevention (CDC) confirmed the presence of Lassa virus in a NJ resident with recent travel to Liberia
- A large-scale investigation was conducted with coordination among New Jersey Department of Health (NJDOH), CDC, several local health departments (LHDs), and two hospitals

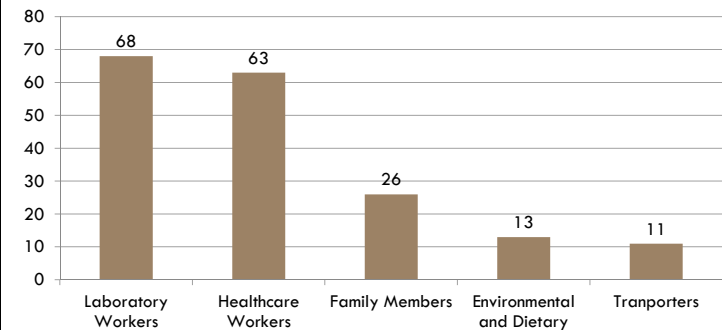
## NJ Lassa Fever Case Timeline



## Contact Tracing



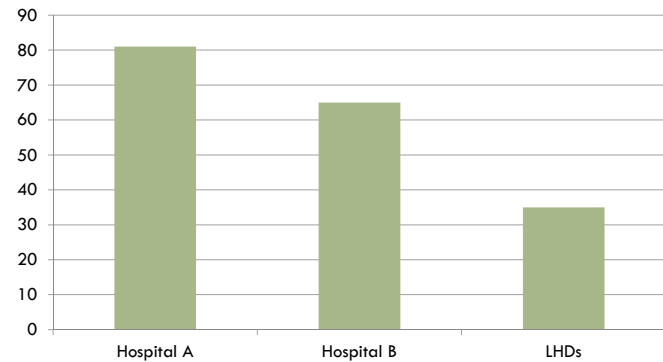
## Types of Exposure



## Facility Tours

- CDC's Ebola Response Team and NJDOH conducted walk-through's of Hospital A and B
- Subject matter experts met with staff from Hospital A and B to provide education/counseling and infection control expertise
- CDC, NJDOH, LHD and Hospital B implemented safe burial practices in accordance with the family's customs
- Technical expertise provided at community forum sponsored by the LHD and at PEP clinic at Hospital B

## Active Monitoring



## Active Monitoring of Contacts

- "Low Risk" contacts=active monitoring (reporting once per day to report twice daily temperatures)
  - No travel restrictions
  - Symptomatic individuals assessed at frontline hospitals if need arose
- "High Risk" contacts=direct active monitoring (reported twice per day with at least one visual observation)
  - DNB and travel restrictions applied
  - Symptomatic individuals assessed at Ebola assessment facilities if need arose



## Active Monitoring of Contacts

- By June 19, 2015 all contacts had completed their 21 days of active or direct active monitoring
- Total, there were 3 incidents where person was evaluated for Lassa fever during monitoring
  - 1 was tested at CDC on two separate occasions
  - Lassa fever ruled out
  - No secondary cases

## Discussion

- Active monitoring of all contacts concluded by June 19th
- No secondary cases resulted from LF case
- Case may not have reported symptoms and travel due to fear of stigma
- Reduced learning curve and easier implementation for contact tracing of nearly 200 persons due to tools already in place for Ebola active monitoring

## Recommendations

- Healthcare providers should always consider other travel associated infectious diseases beyond Ebola in order to remain vigilant
- Stakeholders should address stigma associated with being traveler or citizen from Ebola-affected countries
- Health departments should consider using Ebola monitoring systems and protocols for investigations requiring large-scale contact tracing

## Acknowledgements

- “Thank You!” to the following people who were crucial to investigation and response:
  - NJDOH Lassa Fever Team
  - CDC Team
  - Newark Department of Health and Human Services
  - Essex Regional Health Commission
  - Irvington and Livingston Health Departments
  - Partners at Hospitals A and B
  - And many more!!!

## Questions?

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