Collaboration and Communication

Airport Roles in Reducing Transmission of Communicable Diseases

A healthier community through leadership in health strategy.
Basics – The Importance of Time

Natural History of Disease Timeline

Image from Principles of Epidemiology in Public Health Practice, 3rd Edition, CDC 2012
Basics – Modes of Transmission

• Direct
  – Contact
  – Droplet
  – Contact with soil
  – Inoculation into skin or mucosa
  – Vertical, e.g., Transplacental

• Indirect
  – Vehicle borne, e.g., food, water
  – Vector
  – Airborne
  – Fomite
- **DFW Airport**
  - Owned by Dallas and Fort Worth
  - Operates as semi-separate jurisdiction
    - Dedicated fire department and EMS
    - Public Safety
  - Serves the Dallas-Fort Worth metroplex area of 13 counties with 7,233,323 people
  - Sits on the dividing line between Dallas and Tarrant Counties
Communication relative to inbound passengers

- Plane notifies Air Traffic Control who notifies Airport Operations who notifies Public Safety and EMS.
  - Some airlines have their own medical response who are notified as well.
- DFW EMS responds and assesses situation while in contact with Houston Quarantine Station
  - Meets notification criteria?
    - For international and interstate flights notify Quarantine Station, Houston
    - In-state flights notify Tarrant County Public Health (TCPH)
  - Possible exposure on plane?
    - Passenger Locator Forms

- For patients transported to the hospital, local public health follows up as part of it’s authority to investigate and on behalf of the needs of the quarantine station.
Communication for illness onset after travel

• Public health investigates condition and assesses:
  – Travel history, onset of illness, incubation period, likely infectious period.
  – Infectious during travel? Notify the Quarantine Station
    • Passenger manifests
    • Assessment of close contacts
    • TCPH notifies airport of situation and advises any precautions.
    • TCPH and DFW public information work together on messages and lead
Air travel and communicable disease – Lagos, 2014
2015 a MERS case from South Korea

- Flies to Hong Kong, May 26
- Two buses to Guangdong, May 26
- Visited 2 hotels, 2 restaurants. May 26-38
- Isolated by health authority, May 28
- Contact racing conducted via:
  - Airline and Bus passenger information
  - Personal interviews in the community
  - Case travel information published in media and hotline used for people to self report
  - Video footage reviewed with police departments at bus stations and communities.

- 110 contacts of these 27 air travel, 24 land travel, and 59 community contacts.

- 14 day quarantine in designated facilities for close contacts and majority of community contacts, some community contacts monitored at home

For Demonstration Only
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