#### Infectious Fear

The 2014 Ebola Crisis

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## Outline

- Background information on the Ebola virus and current epidemic
- The Dallas Case
- How our fear of Ebola fits with previous experiences with other infectious diseases



## Ebola Virus Disease, 2014-2015

- 19,497 reported cases
- 7588 deaths
- Major Countries
  - Guinea
  - Liberia
  - Sierra Leone
- Minor Countries
  - Mali
  - Nigeria
  - Senegal
  - Spain
  - United States





As of 12/24/14, WHO

# History of Ebola Virus

- First identified in 1976
- Five species
- Zoonotic virus, unknown reservoir
- Clusters and cases probably more common than reported

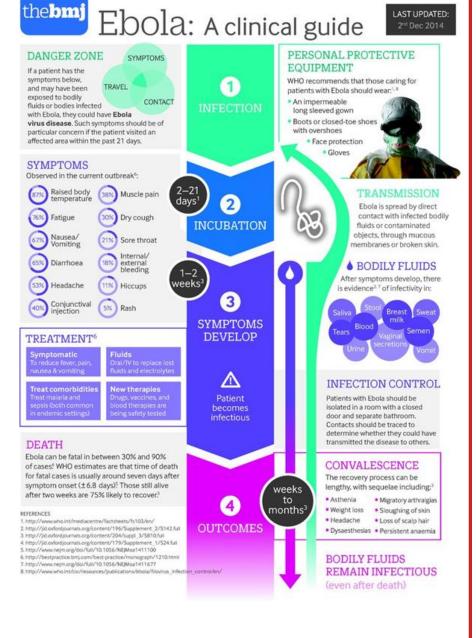




Feldmann H, Geisbert TW. Ebola Haemorrhagic Fever. Lancet. 2011; 377:849-62. Peters CJ, and Peters JW. An Introduction to Ebola: The Virus and the Disease. J Infect Dis. 1999; 179 (S1): ix-xvi.

## **Transmission**

- Mainly through contact with body fluids of symptomatic patients
- No evidence of airborne transmission
- WHO Ebola Emergency Response Team. NEJM. 2014; 371: 1481-95.
  Mahanty S and Bray M.
  Pathogenesis of filoviral haemorrhagic fevers. Lancet Infectious Diseases. 2004; 4(8): 487-98.



### Ebola in Dallas

- Thomas E. Duncan, exposed to Ebola on 9/15/14, arrives on 9/19/14
- Presents to Presbyterian Hospital on 9/26 with symptoms
- Returns to hospital on 9/28
- Dies on 10/8/14
- Two healthcare workers infected
- Hundreds of contacts monitored

#### Media

- "Reporters can be part of the problem or part of the solution"- Mayor Mike Rawlings
- County Medical Society Social Media Campaign reached 2.4 million viewers







### **Politics**

- Elected Officials
  - Respond to needs of constituents
  - Convey to the public how government is responding
  - Leverage public-private partnerships

Carlo J. Politics of Disasters in Oxford American Handbook of Disaster Medicine. 2012; Oxford: New York





## Public Health Law

- Law is used to establish norms for healthy behavior and create social conditions for people to be healthy<sup>1</sup>
- The Constitution does not set forth an explicit right to health care
- Federal law (Public Health Service Act, 42 U.S.C. § § 243 and 244) provides assistance and prevents introduction into states or one state to another
- 1. Gostin LO, Burris S, Lazzarini Z. The Law and the Public's Health: A Study of Infectious Disease Law in the U.S. Columbia Law Review. 1999; 99(1): 59-128.

#### Public Health Law

- Enforcement is a state's responsibility
- Sec. 81.002: The state has a duty to protect public health. Each person shall act responsibly to prevent and control communicable disease.
- Sec. 81.082: Administration of Control Measures

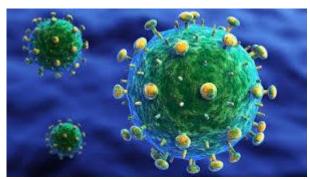
# Major Conclusions to Date

- Ebola transmission was not airborne
- Primal fears caused reactions above what was necessary
  - Anti-science beliefs
  - Media exploitation
  - Political theater
- Fear-driven suspicion led to poor decisions
  - School closures
  - Quarantine of contacts in unsafe conditions
- Follows long history of stigma, discrimination, and marginalization of people suffering from infectious diseases

## HIV/AIDS

- "Everyone with AIDS should be tattooed"
- Constitutional quarantine measures
- Targeted the four H's
- Funeral homes would not accept bodies of people who died of AIDS





Buckley, WF. The New York Times. March 18, 1986. OP-ED.

Gonsalves G and Staley P. Panic, Paranoia and Public Health – The AIDS Epidemic's Lessons for Ebola. NEJM. 2014; 371(25): 2348-9.

Strub S. Body Counts. A Memoir of Politics, Sex, AIDS, and Survival. 2014; Scribner: New York.

# Other Examples

- Neglect of African Americans in the South to Tuberculosis
- Mary Mallon (Typhoid Mary)
- Bubonic plague in San Francisco (1900)

Roberts, Samuel. Infectious Fear: Politics, Disease and the Health Effects of Segregation. 2009; University of North Carolina Press.

Leavitt, Judith Walzer. Typhoid Mary. Captive to the Public's Health. 1996; Beacon Press: Boston, MA.

Chase, Marilyn. The Barbary Plague: The Black Death in Victorian San Francisco. 2004; Random House: New York, NY.

# **Ancient History**

- Venice (1370), Bubonic plague required 40 days before coming ashore
- New York (1892), Typhus in Russian Jewish immigrants
- Lepers (1300), Europe, persons were forced to carry a bell to warn others they were coming

# Summary

- The Ebola epidemic still remains a global threat
- Many lessons are to be learned from the first case here in Dallas

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