Outline

- Quick review of Ebola Virus Disease (EVD)
- Developments in the US
- Relevance of Ebola for the college/university community
- Relevance of Ebola for Student Health
- Keeping current with new information
WHAT IF I TOLD YOU 
EBOLA HAS AN ICD-10 CODE
Ebola Cases by Country

- **CDC Level 3 Warning - Avoid non-essential travel**
  - Liberia
  - Sierra Leone
  - Guinea

- **CDC Level 2 Alert - Practice Enhanced Precautions**
  - Democratic Republic of the Congo

- **Cases imported from affected countries in West Africa to**
  - Germany, Norway, France, UK, United States, Spain, Nigeria, Mali

- **Secondary cases have occurred in**
  - United States, Spain, Nigeria
Ebola Transmission

- By direct contact with bodily fluids of an infected person on mucosal surfaces, broken skin or via percutaneous route
- Blood, vomit, stool most infectious
- In droplets
- Not airborne
- Ebola virus also found in urine, semen, sweat, tears, breast milk
- Likelihood of transmission increases with duration and severity of symptoms as viral load increases
Who Is Most at Risk?

- People with close contact with acutely ill patients
  - Family caregivers
  - Health care providers
- People who have touched dead bodies or participated in funeral rites for Ebola victims
Incubation Period

• 2-21 days after exposure
• Average 8-10 days
• Not infectious until symptoms develop
Clinical Presentation

Initial presentation is non-specific
• Fever (100.4 degrees or higher)
• Headache
• Anorexia
• Fatigue
• Myalgias

Later stages
• Vomiting
• Abdominal pain
• Diarrhea
• Bleeding
• Multi-organ failure
Putting Ebola Into Perspective

- 36,000 people entered the U.S. in the last six months from Guinea, Liberia, and Sierra Leone
- Approximately 300 were college students
- One case of ebola in a non-student
- Malaria and other health conditions of concern in travelers and college students more likely than ebola
More Americans have been married to Kim Kardashian than have contracted Ebola in the U.S.
CDC Update on Returning Travelers

Travelers are screened before leaving the affected countries, and approximately 94% of travelers from the affected countries arrive at airports where risk assessment is also performed on arrival:

JFK
Dulles
Newark
O’Hare
Atlanta
Active Monitoring

All travelers from affected areas coming into the 5 airports are referred to the CDC’s Active Monitoring Program

Names and contact information sent to local public health authorities who monitor travelers for 21 days

Level of risk determines extent of monitoring/quarantine

Confidentiality very important

Public health authorities may ask colleges to assist monitoring
Management of Returning Travelers is Evolving

- Quarantine possibilities
  - At home with family caregivers
  - For colleges – case by case decision making
  - Restricted travel
How does Ebola Affect the College Community

- International students from endemic countries
- Student, faculty and staff travel
- Study abroad students
- Exchange students
- Students, faculty, staff providing direct care in endemic countries
- Visiting scholars
- Speakers
Student Health Role in Campus Wide Planning

- Participate in development of all-hazard plans
- Be the voice of public health on campus and crisis response team
- Provide consultation to campus leadership
- Educate the community
- Be attentive to risk of stigmatization of students from affected countries
How can Student Health Prepare?

• Establish operational plan
• Collaborate with key campus stakeholders and community partners
• Employ best public health practices
• Communicate thoughtfully
  – Respond to the fears and concerns of the community
• Provide evidence-based care for our students and safe practices for our staff. Take travel history in office encounters.
Operational Plan for Student Health

- Establish a plan for management of phone calls and patient visits
- Designate a dedicated exam room with appropriate supplies
- Set aside area for donning and doffing PPE
- Identify area for disposal of used PPE and equipment
- Order supplies
- Train staff
- Conduct drills
Campus stakeholders and community partners

- Campus Police
- Residence Life
- Education Abroad
- International Students and Scholars
- Dining Services
- Facilities
- Counseling Center
- Local Hospital
- EMS
- Public Health
Travel and Study Abroad

• Collaborate with Education Abroad office
• Communicate to students, faculty and staff – again check content with public affairs and others
  – Inform about procedures for return to U.S. and return to your college
• Current CDC Level 3 Travel Warning to avoid non-essential travel to Guinea, Liberia and Sierra Leone
Resources for Best Practices in Public Health

● State and local public health agencies
● CDC
● WHO
● CIDRAP
● ACHA
● NECHA
● Local student health colleagues
● UpToDate
Communication and Education Considerations

- Personal calls to students, faculty and staff who are traveling to or from endemic countries
- Campus-wide email, health center website and social media
- Clear and accurate information in a non-alarmist way
- Approval by crisis team, public affairs, vice-president....
- Conversations with colleagues
NOT TODAY EBOLA
NOT TODAY!!!!!!
Triage at the Front Desk in the Ambulatory Setting

No CDC guidelines yet.

Telephone triage by front desk:
Travel history to one of the affected countries in 21 days?

If yes: clinician to speak to patient
If no: usual management

Ask all students or only students with sx?
Phone Triage Questions for Clinician

• Travel within the past 21 days to affected country?

• Symptoms: fever, headache, abdominal pain, vomiting, diarrhea, bleeding?

• Direct exposure to or care for anyone with Ebola?

• Participated in funeral preparation or rites for person with possible Ebola?
If phone screen is positive for suspected Ebola

• Instruct the patient to stay in place
• Call Public Health, 911 and/or local ER depending on your pre-established plan
• Notify individuals with need to know on campus as defined in response plan
• Confidentiality important
Signage Considerations

• This is controversial
• Some offices may place signs at office door
  – To notify people with potential exposure to Ebola to call first
  – To notify students about travel screening
  – To offer educational information
Walk-ins who are not Acutely Ill

Ask about travel history to affected countries (confidentially)
If travel history positive and patient not acutely ill:
• Escort the patient to a room with private bathroom
• Maintain 6 feet distance from the patient
• Obtain a more detailed history
• Have patient take own temperature
• If Ebola suspected based on travel history/ symptoms:
  Provide written instructions for student
  Leave the room and close the door
  Call Public Health, 911 or ER to ask for guidance
  Do not examine the patient if stable
  May not need to don PPE
Response to the Acutely Ill Patient

Ask about travel history to affected countries (confidentially)

If travel history positive and patient acutely ill:

• Goals are to isolate the patient, limit contact with staff to absolute minimum and activate EMS
• Clear waiting room - Consider isolating patient there
• Maintain 6 feet distance from the patient
• Don PPE if required - one provider only
• Escort to exam room if required - close door
• Obtain more detailed history & vital signs if safe
• Call Public Health, 911 or ER to ask for guidance
• No lab tests, needles, nebulizers
MINNEAPOLIS (The Borowitz Report)—A new study, by the University of Minnesota, indicates that fear of contracting the Ebola virus is highest among Americans who did not pay attention during math and science classes.
Personal Protective Equipment

CDC Guidelines

• **Standard, contact and droplet** precautions required

• Repeated training and demonstrated **competency** required in performing all Ebola-related infection control practices, procedures, donning and doffing PPE

• **No skin exposed**

• PPE donning/doffing procedure supervised by a **trained observer** in PPE
PPE guidelines evolving

For the non-acutely ill patient:
  6 ft. distancing may be sufficient
Basic PPE
  Non-permeable gown
  Double gloves
    Regular Nitrile gloves under sleeves of gown
    Extended cuff Nitrile gloves as top layer over sleeves of gown
  Surgical Mask
  Face Shield
PPE guidelines continued

PPE observer
  Basic PPE
Acutely ill patient
  Basic PPE with use of N-95 or PAPR (Powered Air Purifying Respirator)
  Jump suit or gown with hood and booties and leg covers
  Scrubs
Masks

• Surgical masks vs. N-95 masks - consider need and costs
  – Fit testing for N-95
    • OSHA Respiratory Questionnaire $40 per employee
    • Respiratory Fit test (n95) $65 per employee
    • Respiratory Exam (if needed) $80 per employee
    • PFTs (if needed) $55 per employee
    • New Organization Sign up Fee $150 per organization
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Procedure for Donning and Doffing PPE

Key Principles:

Must have training and practice

Must have a trained observer who states each step aloud

Should follow specific written guidelines - see CDC
Waste Removal

• Virus is fragile

• Waste disposal
  – Call Public Health
  – Cleaning should be done ONLY by individuals designated by CDC or Public Health
  – Follow CDC guidelines

Record Keeping

• Keep a record of all persons possibly exposed to the patient in the office, with nature of exposure and contact information

• Include all office staff, patients in waiting rooms, other family members that may have accompanied patient
Ebola Resources

- [http://www.cidrap.umn.edu/search/ebola](http://www.cidrap.umn.edu/search/ebola)
- [http://www.acha.org/Topics/ebola.cfm](http://www.acha.org/Topics/ebola.cfm)
- [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6341a4.htm?s_cid=mm641a4_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6341a4.htm?s_cid=mm641a4_w)
CANTON, OH (The Borowitz Report)—An Ohio man has become infected with misinformation about the Ebola virus through casual contact with cable news, the Centers for Disease Control has confirmed.
Thank you

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