

Our Job:

Prevent “dis-ease”
as well as “disease”

Kansas Ebola Virus Preparedness and Response Plan: Revised 15 October 2014

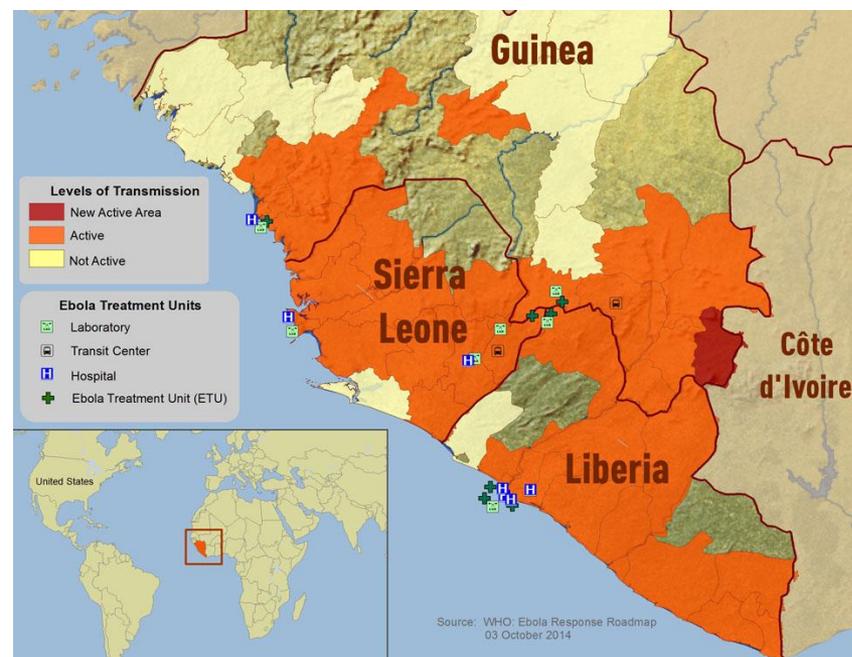


Background and Situation Update

West Africa

(As of 12 October 2014)

	Total Cases	Total Deaths
Guinea	1,472	843
Liberia	4,249	2,458
Sierra Leone	3252	1183
TOTAL	8,973	4,484

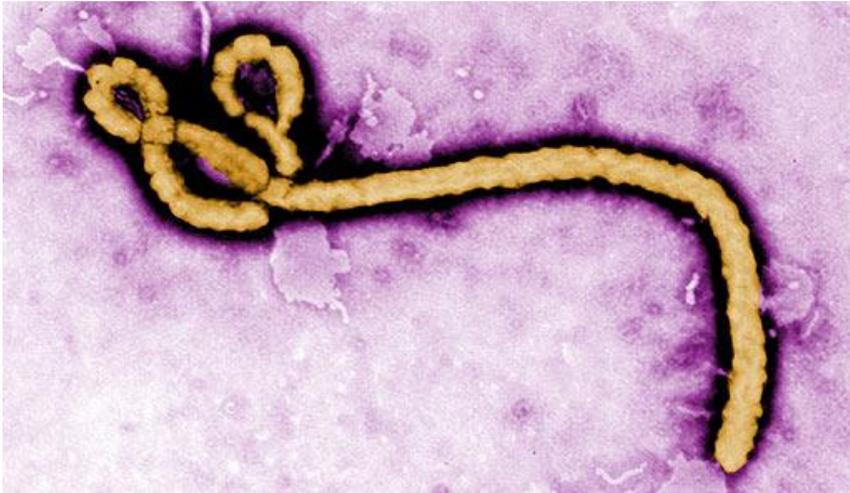


Democratic Republic of the Congo

- Separate outbreak starting in August, 2014
- 70 cases
- 43 deaths



About Ebola Virus



- First discovered in 1976
- Causes viral hemorrhagic fever with high fatality rate
- Natural reservoir most likely bats
- Occurs in sporadic outbreaks among humans
 - More than 30 events

Ebola Virus Disease

- Incubation period
 - Typically 8- 10 days (Range 2 - 21 days)
- Symptoms
 - Fever (greater than 38.6°C or 101.5°F)
 - Severe headache
 - Muscle pain
 - Weakness
 - Diarrhea
 - Vomiting
 - Abdominal (stomach) pain
 - Unexplained hemorrhage (bleeding or bruising)

How do you get the Ebola virus?

Direct contact with:

- 1 Bodily fluids of a person who is sick with or has died from Ebola.**
(blood, vomit, pee, poop, sweat, semen, spit, other fluids)
- 2 Objects contaminated with the virus** (needles, medical equipment)
- 3 Infected animals** (by contact with blood or fluids or infected meat)

When is someone able to spread the disease to others?

Ebola only spreads when people are sick.

A patient must have symptoms to spread the disease to others.



MONTH						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

After 21 days, if an exposed person does not develop symptoms, they will not become sick with Ebola.

Treatment

- Supportive care
- Balancing fluids and electrolytes
- Maintaining oxygen status and blood pressure
- Treating for complicating infections

Concerns for U.S.

- Exposed travelers returning from affected countries
- ~150 persons per day arrive in U.S. from Guinea, Liberia, and Sierra Leone
- Community concerns regarding medical evacuees coming to U.S. for treatment

First Case Diagnosed in U.S.

- Dallas, TX
- Confirmed 30 Sept.
- Traveler from Liberia
- Asymptomatic during travel
- Exit health screening information suspect?
- Died 08 Oct.

Two Health Care Workers in U.S. Infected

- On 12 October 2014, a health care worker at Texas Presbyterian Hospital who provided care for the index patient tested positive for Ebola virus infection.
- On 15 October 2014, a second health care provider who had provided care for the index patient has tested positive for Ebola virus infection.

Kansas Ebola Virus

Preparedness and Response Plan (DRAFT)

Pre-existing Resources

- Kansas Response Plan
- Biological Incident Annex
- KDHE – BEPHI Disease Investigation Guidelines

Management of Persons Potentially Exposed to Ebola Virus and Suspected EVD Cases

Risk Assessment

- Persons arriving in KS with travel within 21 days in affected countries
 - Guinea
 - Liberia
 - Sierra Leone
 - Nigeria (only prior to 30 September 2014)
 - Democratic Republic of the Congo
- Appendix 1
- Performed by local health dept., KDHE, health care provider, or other organization with consultation

Risk Assessment Exposure Categories (Appendix 2)

- High risk exposures / Some risk of Exposure
 - Ebola symptoms
 - Action: Evaluate as potential case and isolate
 - No Ebola symptoms
 - Action: Active monitoring and restricted movement
- No known exposure
 - Ebola symptoms
 - Action: Evaluate as potential case and isolate
 - No Ebola symptoms
 - Action: Self-monitor for 21 days
 - No movement restrictions

Monitoring

- Active monitoring
 - High risk and low risk exposures
 - Active monitoring requires asymptomatic contacts to
 - Measure body temperature and complete a fever log twice a day
 - Regular, preferably daily, reporting to local health dept. or KDHE
- Self-monitoring
 - Same requirements as active monitoring
 - Without follow-up from public health

Restricted Movement

- Persons must remain at their residence or other living location as determined by KDHE or the local health officer for a period of 21 days following their last potential exposure; any movement outside the residence or other living location must be approved in advance by KDHE or the local health officer on a case-by-case basis. During this 21-day period of restricted movement, there shall be no visitors to the residence or living location except those approved by KDHE or the local health officer in advance.

Special Considerations for Health Care Workers

- Health care workers, broadly defined as any person working in a health care setting, who are potentially exposed to Ebola virus while caring for a patient with EVD in Kansas will be subject to the same requirements for active monitoring and restricted movement as any other person, except such health care workers may continue to work as part of a dedicated Ebola virus disease patient care team, and may not provide care or services to any other patient until 21 days after the last known potential exposure.

Evaluation and Management

Suspected EVD Cases

Ebola Virus Disease Screening

Emergency Department Screening Criteria

1. Clinical criteria, which includes fever (subjective or measured as $\geq 100.4^{\circ}\text{F}$ or 38.0°C), and additional symptoms such as severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage

AND

2. Residence in or travel to Guinea, Liberia, Nigeria, Sierra Leone, Democratic Republic of the Congo or other countries where Ebola virus disease transmission has been reported by WHO within 21 days (3 weeks) of symptom onset

If both criteria are met, place the patient in a private room with a bathroom and with the door to hallway closed. Use STANDARD, CONTACT, and DROPLET precautions during further assessment. Avoid aerosol-generating procedures. If performing these procedures, PPE should include respiratory protection (N95 or higher filtering facepiece respirator) and the procedure should be performed in an airborne infection isolation room.

IMMEDIATELY Report Person Under Investigation for Ebola to:
Kansas Department of Health and Environment at 877-427-7317

Personal Protective Equipment (PPE)

- All persons entering the patient room should wear at least:
 - Gloves
 - Gown (fluid resistant or impermeable)
 - Eye protection (goggles or face shield)
 - Facemask
- Additional PPE might be required in certain situations (e.g., copious amounts of blood, other body fluids, vomit, or feces present in the environment), including but not limited to:
 - Double gloving
 - Disposable shoe covers
 - Leg coverings

Restrict Visitors

- Avoid entry of visitors into patient room
- Exceptions on case-by-case basis
- Logbook of all persons entering room (not just visitors)
- Provide instruction
 - Hand hygiene
 - Limiting surfaces touched
 - PPE per current hospital policy

Patient Care Equipment

- Dedicated medical equipment (preferably disposable, when possible) should be used for the provision of patient care
- All non-dedicated, non-disposable medical equipment used for patient care should be cleaned and disinfected according to manufacturer's instructions and hospital policies

Patient Care Considerations

- Limit the use of needles and other sharps as much as possible
- Phlebotomy, procedures, and laboratory testing should be limited to the minimum necessary for essential diagnostic evaluation and medical care
- All needles and sharps should be handled with extreme care and disposed in puncture-proof, sealed containers

Dedicated Ebola Virus Patient Care Team

- KDHE recommends the identification of a dedicated EVD patient care team
- Members provide care and services only to EVD patient
- Members subject to same monitoring and restricted movement requirements as other persons potentially exposed to EVD
- Exception: May continue providing care and services as part of dedicated EVD patient team

Laboratory Testing

Laboratory Testing

- Notification and consultation
 - KDHE Epidemiology Hotline: 877-427-7317
 - Will involve careful assessment of patient history and clinical picture
 - CDC will not test “on demand”
 - KDHE must approve any specimens submitted to CDC
- Specimen collection
- Transport
- Packing and shipping
- Consider American Society of Microbiology guidelines

Public Health Management

Suspected EVD Case

Reporting to KDHE

- Ebola classified as “...disease unusual in incidence or behavior...”
- Immediate (within 4 hours) report required by telephone
- Epidemiology Hotline:
 - 877-427-7317



Public Health Investigation

- KDHE will work with local health department
- VHF Disease Investigation Guideline as basis
- Intensive case and contact investigation
- Contacts and potentially exposed persons managed similar to returning travelers from affected countries
 - Risk assessment
 - Public health monitoring

Isolation and Quarantine

- Pursuant to K.S.A. 65-128 and K.A.R. 28-1-5
- Suspected EVD cases isolated
 - Standard, contact, and droplet precautions
- Quarantine of asymptomatic, exposed persons
 - Not explicitly recommended
 - Considered on case-by-case basis
 - Consider issues of compliance with public health monitoring
- Movement restrictions
 - Stay at home / alternative location
 - No visitors
 - Approval for movement subject to approval by KDHE or local health department
- Other considerations
 - Alternative locations?
 - Mental health support
 - Ensuring basic needs met

Environmental Infection Control

Environmental Cleaning and Disinfection

- PPE for environmental services staff
- EPA-registered disinfectant for non-enveloped virus
- Avoid contamination of reusable porous surfaces that cannot be made single use

Waste Management

- U.S. Dept. of Transportation
 - Ebola virus is Category A infectious substance
 - Any items transported offsite subject to hazardous materials regulations
- 06 October 2014: KDHE policy defines Ebola virus and other hemorrhagic fever viruses as hazardous waste

Waste Management

- World Health Organization / United Nations recommendations
 - CDC recommendations now appear to be consistent
- All waste materials to be sterilized (autoclaved) onsite
- After sterilization, appropriately label as Regulated Medical Waste – Category B substance
- If no autoclaving capability – Handle as hazardous waste

Human Body Fluid Waste

- Options:
 - Collect for disposal as Ebola waste
 - Collect and treat with 5% bleach solution for 10 minutes before discharge to sanitary sewer
 - Waste direct from patient to toilet
 - Also treat with 5% bleach solution
 - Take toilet bowl water volume into consideration

Onsite Storage of Ebola Waste

- DOT shipping packaging adequately satisfies hazardous waste packaging requirement for untreated Ebola waste
- Outer package: rigid plastic 55-gallon drums

Autoclave Guidelines

- Follow detailed instructions
- Use biological indicator ampoule
- Chemical indicator strip may also be used
- After successful autoclave, manage and dispose of as Category B regulated medical waste

Large or Bulky Contaminated items

- Too large for autoclave or packed into approved DOT shipping containers
- Mechanical size reduction necessary
- First treat surface with EPA-registered disinfectant for non-enveloped viruses or 1:10 bleach solution (0.5% chlorine concentration)



Community Environmental / Decontamination Issues

- Local health departments and other local agencies should discuss and plan
- Identify resources
 - Local / regional HazMat
 - Private contractors



Handling Human Remains

- KDHE strongly recommends cremation
- Caution: Requires removal of pacemakers or other implants that pose risk of explosion
- Additional KDHE guidance to come
- Refer to CDC guidance

Questions?