



# Ebola SITREP and Response—2014

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# What is Ebola?

- Ebola is caused by infection with a virus of the family *Filoviridae*, genus *Ebolavirus*.
- There are five identified Ebola virus species, four of which are known to cause disease in humans:
  - Ebola virus (*Zaire ebolavirus*); currently associated with 2014 outbreaks in Western Africa (99% match)
  - Sudan virus (*Sudan ebolavirus*);
  - Taï Forest virus (*Taï Forest ebolavirus*, formerly *Côte d'Ivoire ebolavirus*); and
  - Bundibugyo virus (*Bundibugyo ebolavirus*).
  - The fifth, Reston virus (*Reston ebolavirus*), has caused disease in nonhuman primates, but not in humans.
- Ebola viruses are found in several African countries. Ebola was first discovered in 1976 near the Ebola River in what is now the Democratic Republic of the Congo.
- The natural reservoir host of Ebola virus remains unknown, although researchers believe that the virus is animal-borne and that bats are the most likely reservoir.

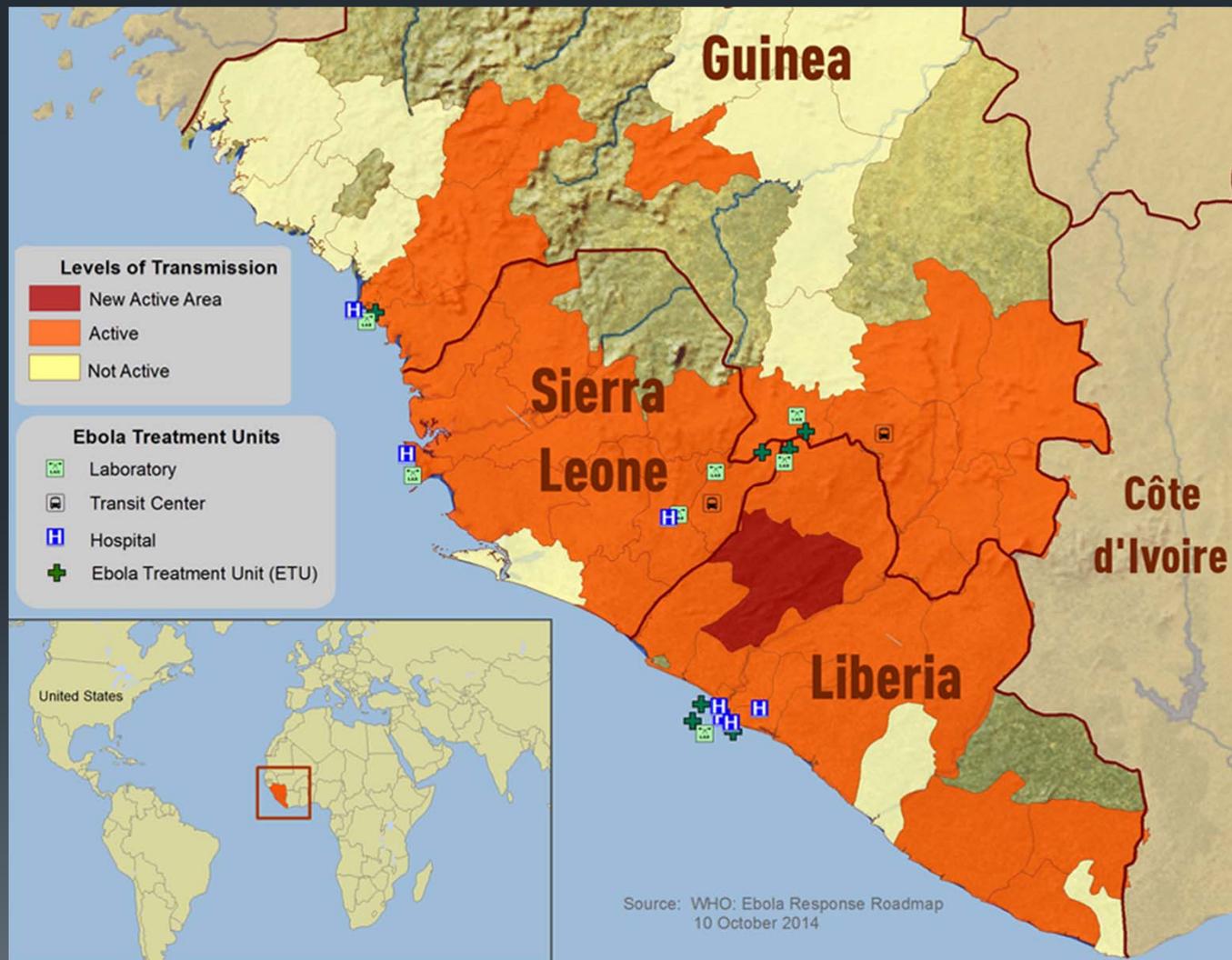




# Signs and Symptoms

- Fever
- Severe headache
- Muscle pain
- Weakness
- Diarrhea
- Vomiting
- Abdominal (stomach) pain
- Unexplained hemorrhage (bleeding or bruising)

# Where are Ebola outbreaks currently?



# Case counts of Ebola

## Countries with Widespread Transmission

Country	Total Cases	Laboratory-Confirmed Cases	Total Deaths
Guinea	1472	1184	843
Liberia	4249	950	2458
Sierra Leone	3252	2849	1183
<b>Total</b>	<b>8973</b>	<b>4983</b>	<b>4484</b>

## Countries with Travel-associated Cases

Country	Total Cases	Laboratory-Confirmed Cases	Total Deaths
Senegal	1	1	0
Spain	1	1	0
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>

## Countries with Localized Transmission

Country	Total Cases	Laboratory-Confirmed Cases	Total Deaths
Nigeria	20	19	8
United States	3	3	1
<b>Total</b>	<b>23</b>	<b>22</b>	<b>9</b>

# Index Case (First US case of Ebola) timeline:

## Ebola patient dies at Dallas hospital

The first Ebola patient diagnosed in the United States died in a Dallas hospital, a little more than a week after his diagnosis exposed gaps in the nation's defenses against the disease.

### TIMELINE OF THE EBOLA-INFECTED PATIENT



SOURCE: World Health Organization

AP

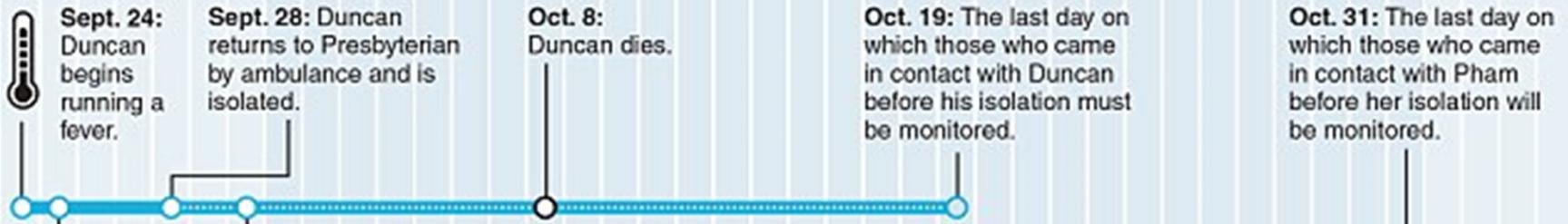
# Important Ebola messaging begins:

- Cannot transmit disease from a “contact to a contact”
- MUST have direct contact with Ebola patient
- Ebola is not known to be airborne at this point:
  - WHO, CDC and Doctors Without Borders confirm this point: no known cases out of current outbreak demonstrated airborne transmission; direct contact only
- Federal and State communications have led to public misunderstanding; locally, we focus on the science involved with our current situation
- Quarantine and isolation only in demonstrated direct contact AND signs/symptoms with fever
- Voluntary quarantine with contacts; complete compliance in Denton County to date
- Plans call for control orders, court orders and possible detention of those contacts not complying with monitoring guidelines

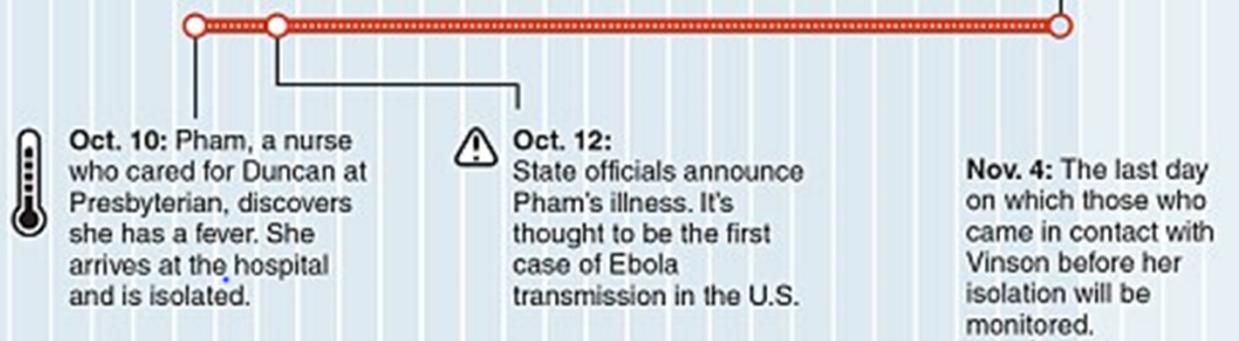
# Ebola Outbreak timeline, cont'd:

## Timeline of patients

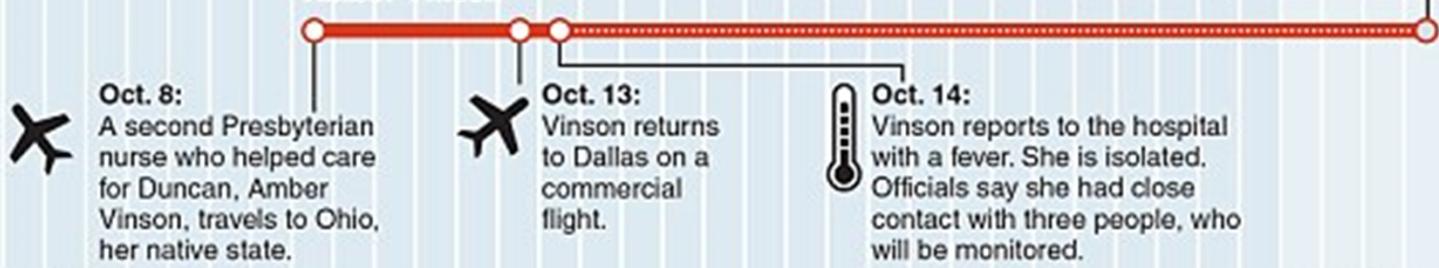
### Thomas Eric Duncan



### Nina Pham



### Amber Vinson



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Source: Wire reports, Dallas Morning News research  
Graphic: Troy Oxford, Dallas Morning News

September

October

November

27 28 29 30 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 1 2 3 4

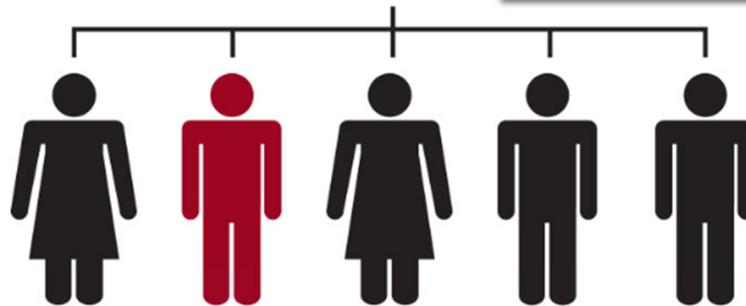
# DCHD: Contact Tracing efforts

## Ebola contact tracing

Contact tracing is being used by health organizations to stop the Ebola virus from spreading further. Here's a look at how it works:



Contact tracers ask the Ebola patient who they have been in direct contact with.



All contacts are monitored for **21 days**. Any that show Ebola symptoms are put into isolation and tested for the virus.



The contact tracing process repeats with each new patient who is found, until there are no new patients.

If no symptoms show after 21 days, the contact is not at risk of developing Ebola.

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Source: Centers for Disease Control and Prevention  
Graphic: Tyler Davis

# Denton County Contacts Identified

	Date of Last Exposure	Last Date of Monitoring
<b>Healthcare Worker Contacts</b>		
1	9/26/2014	10/17/2014
2	9/28/2014	10/19/2014
3	10/12/2014	11/2/2014
4	10/12/2014	11/2/2014
5	10/12/2014	11/2/2014
6	10/14/2014	11/4/2014
7	10/15/2014	11/5/2014
<b>Flight Contacts</b>		
1	10/10/2014	10/31/2014
2	10/10/2014	10/31/2014
3	10/10/2014	10/31/2014
4	10/10/2014	10/31/2014
5	10/10/2014	10/31/2014
6	10/10/2014	10/31/2014
7	10/10/2014	10/31/2014
8	10/10/2014	10/31/2014
9	10/10/2014	10/31/2014
10	10/13/2014	11/3/2014
11	10/13/2014	11/3/2014
12	10/13/2014	11/3/2014
13	10/13/2014	11/3/2014

# Denton County Response—General



- In 2002-2003, identified Ebola (viral hemorrhagic fever) as a potential bioterrorism threat and a public health crisis
- Incorporated Ebola concepts for response in subsequent preparedness plans
- Considered isolation/quarantine elements in plans
- PPE training within the health department
- Participated in Advanced Disaster Life Support Training (ADLS)
- Exercised with first responders for “Category A” agents for bioterrorism and/or mass casualty events for vaccine and medication delivery
- Hospital coordination for reporting communicable and infectious diseases

# Local Response to date:

- October 1<sup>st</sup>: Sent local physicians health alert and update on positive Ebola test in Texas; linked to resources
- October 2<sup>nd</sup>: Sent 911 operators triage guidance on flu-like symptoms and travel
- October 3<sup>rd</sup>: Meeting with Health and Emergency Services Staff to set Goals, Objectives, Tactics
- October 4<sup>th</sup>: Notified of our first Denton County resident Ebola contact—monitoring was established same day
- October 7<sup>th</sup>: Meeting with Health, Emergency Services, and Sheriffs Office to set out response criteria and operations tactics
- October 8<sup>th</sup>-9<sup>th</sup>: Denton County resident transported to Dallas Presby from Frisco as a declared “contact”; tested for Ebola—**NEGATIVE** result
- October 14<sup>th</sup>: Meeting with Emergency Services and Health Department staff for situational update and guidance changes
- October 15<sup>th</sup>: Countywide meeting with Fire Chiefs and EMS providers for situational update and response briefing

# Local Responses: Ongoing



- Agency coordination:
  - School Districts
  - Public Works departments
  - Universities
  - Municipalities
  - Hospitals
  - Clinics
  - Private/Corporate businesses
- DCHD response
  - Increased call (approx. 250 calls)
  - Monitoring by several staff
  - Press/media response
  - Small staff magnified the tasks to be accomplished and required prioritization of response
- MRC response!
- Challenges: communication vs. response capacities

# Preparedness



- Maintained Direct Communications with Regional Partners and Texas Division of Emergency Management
- Participated in 2 Daily Conference Calls
- Reviewed and Implemented CDC and DSHS Guidelines into Emergency Operational Objectives and Tactics
- Communicated with Denton County Emergency Managers Working Group and Fire Chiefs with CDC and DSHS guidance.
- Conducted meetings with Denton County Fire Chiefs for Ebola Situational Update
- Conducted meetings with Denton County Sheriff's Office for Law Enforcement Response and Guidance
- Coordinate / Collaborate / Communicate Daily between Emergency Services and Health Department

# Emergency Response



- **Collaboration with Denton County Fire Chiefs and EMS agencies to create Denton County EMS response protocols and guidelines.**
- **Created Infectious Disease Response Task Force approach to field responses**
- **Enhanced Immediate Communications Countywide with Fire Chiefs and EMS Agencies for faster notification of potential Ebola calls and contacts**
- **Provided all Public Safety Answering Points with specific instructions and guidance related to call screening**

# Logistics



- **Procurement of Response PPE**
- **18 sets of PPE to Level B Protection**
- **Additional Sets to Level C Protection**
- **All PPE is staged with on-call DCES personnel.**
- **Available for Fire or LE**
- **Available to all Countywide Agencies**
- **Identified Decontamination Resources and Verified Functionality**



# Ebola Resources

- <http://dentoncounty.com/Departments/Health-Services/Health-Department/Ebola-Information.aspx>
- <http://www.dshs.state.tx.us/preparedness/ebola-outbreak.aspx>
- <http://www.cdc.gov/vhf/ebola/index.html>
- <http://www.who.int/csr/disease/ebola/en/>



Questions?