

### The Disease

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Sources: WHO, CDC

#### **History**

• Ebola first appeared in 1976 in 2 simultaneous outbreaks, in Nzara, Sudan, and in Yambuku, Democratic Republic of Congo. The latter was in a village situated near the Ebola River, from which the disease takes its name.

#### **Chronology of previous Ebola virus disease outbreaks (1)**

Year	Country	Ebolavirus species	Cases	Deaths	Case fatality
<b>2012</b>	Democratic Republic of Congo	Bundibugyo	57	29	51%
2012	<b>U</b> ganda	Sudan	7	4	57%
2012	<b>U</b> ganda	Sudan	24	17	71%
<b>2011</b>	<b>U</b> ganda	Sudan	1	1	100%
2008	Democratic Republic of Congo	Zaire	32	14	44%
2007	<b>U</b> ganda	<b>B</b> undibugyo	149	37	25%
2007	Democratic Republic of Congo	Zaire	264	187	71%
2005	Congo	Zaire	12	10	83%
2004	Sudan	Sudan	17	7	41%
2003 (Nov-Dec)	Congo	Zaire	35	29	83%
2003 (Jan-Apr)	Congo	Zaire	<b>1</b> 43	128	90%

Chronology of previous Ebola virus disease outbreaks (2)					
Year	Country	<b>Ebolavirus species</b>	Cases	Deaths	Case fatality
<mark>20</mark> 01-2002	Congo	Zaire	59	44	<b>75</b> %
<mark>20</mark> 01-2002	Gabon	<b>Z</b> aire	65	53	<b>82</b> %
2000	<b>U</b> ganda	Sudan	425	<mark>22</mark> 4	<b>53</b> %
1996	South Africa (ex-Gabon)	Zaire	1	1	100%
<mark>19</mark> 96 (Jul-Dec)	Gabon	<mark>Zaire</mark>	60	45	<b>75</b> %
<mark>19</mark> 96 (Jan-Apr)	Gabon	<mark>Zaire</mark>	31	21	68%
1995	Democratic Republic of Congo	Zaire	315	254	81%
<b>1</b> 994	Cote d'Ivoire	Taï Forest	1	0	0%
1994	Gabon	<mark>Zai</mark> re	52	31	<b>60</b> %
<b>1979</b>	Sudan	<mark>Sud</mark> an	34	22	<b>65</b> %
1977	Democratic Republic of Congo	Zaire	1	1	100%
<b>1976</b>	Sudan	Sudan	284	<b>151</b>	<b>53</b> %
1976	Democratic Republic of Congo	Zaire	318	<b>2</b> 80	88%

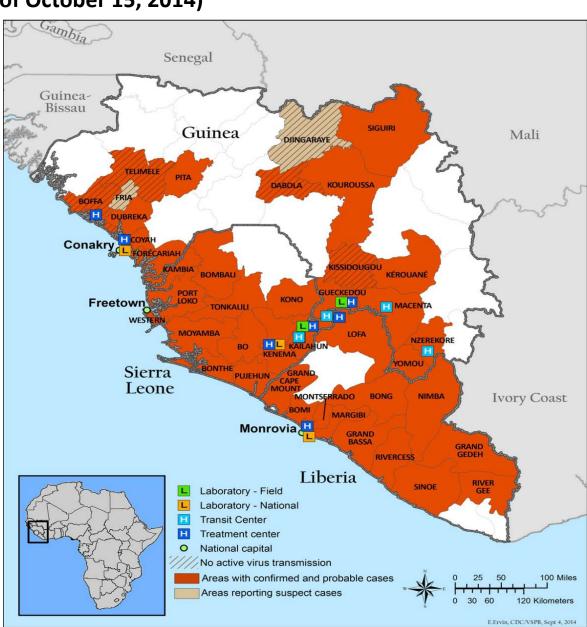
#### **Current outbreak: Total Reported Cases**

(As of October 15, 2014)

#### **Cases / Deaths**

Total: 8997 / 4493

- Fatality rate:49.9%
- Laboratory Confirmed Cases: 5006



#### Countries with Widespread Transmission

(As of October 15, 2014)

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

## Countries with Travel-associated Cases

(As of October 15, 2014)

Country	<b>Total Cases</b>	Laboratory -Confirmed Cases	Total Deaths
Senegal	1	1	0
Spain	1	1	0
United States	2	2	1
Total	4	4	1

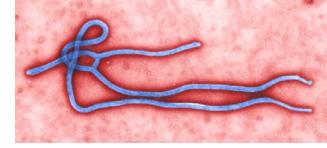
## Countries with Localized Transmission

(As of October 15, 2014)

Country	Total Cases	Laboratory- Confirmed Cases	Total Deaths
Nigeria	20	19	8
Total	20	19	8



#### What is Ebola?



- Ebola virus is a viral hemorrhagic fever disease from the *Filoviridae* family (filovirus)
- **Incubation period:** 2 to 21 days after exposure, although 8-10 days is most common.

#### Signs & symptoms:

Sudden onset of fever, intense weakness, muscle pain, headache and sore throat, followed by vomiting, diarrhea, rash, impaired kidney and liver function, and in some cases, internal and external bleeding.

 People are infectious as long as their blood and secretions contain the virus.

## Laboratory findings & differential diagnosis

- Low white blood cell and platelet counts and elevated liver enzymes.
- Differential diagnosis include other HF, malaria, some diarrheal diseases...

- EVD outbreaks have a case fatality rate of up to 90%.
- PCR lab test is done outside Lebanon (France)

#### How is Ebola transmitted? (1)

- Ebola is introduced into the human population through close contact with the blood, secretions, organs or other body fluids of infected animals.
- In Africa, infection has been documented through the handling of infected animals (such as chimpanzees, gorillas, fruit bats, monkeys, forest antelope and porcupines found ill or dead or in the rainforest).
- human-to-human transmission, with infection resulting from direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other body fluids of infected people, and indirect contact with environments contaminated with such fluids.

#### How is Ebola transmitted? (2)

- Burial ceremonies with direct contact with the body of the deceased person can also play a role in the transmission of Ebola.
- Men who have recovered from the disease can still transmit the virus through their semen for up to 7 weeks after recovery from illness.

## Can Ebola be transmitted through the air or via contaminated food and water?

 No. Ebola is not a respiratory disease like the flu, so it is not transmitted through the air, and it is not a foodborne nor a watreborne illness.

# Can Ebola be transmitted from a person who is infected but doesn't have any symptoms?

 No. A person infected with Ebola virus is not contagious until symptoms appear.

#### **VACCINE & TREATMENT**



#### Vaccine and treatment

- No licensed vaccine for EVD is available. Several vaccines are being tested, but none are available for clinical use.
- Severely ill patients require intensive supportive care. Patients are frequently dehydrated and require oral rehydration with solutions containing electrolytes or intravenous fluids.
- No specific treatment is available. New drug therapies are being evaluated

## Are there any cases of individuals contracting Ebola in Lebanon?

- **No.** As of October 17, no confirmed Ebola cases have been reported inside Lebanon or among Lebanese people in African countries.
- Three Patients under investigation in Lebanon have tested negative for Ebola.

### Thank you