Top Questions On Ebola: Simple Answers Developed by the Association of State and Territorial Health Officials
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I. Introduction

ASTHO sponsored the development of Top Questions On Ebola: Simple Answers Developed by the Association of State and Territorial Health Officials1 with risk communication consultants2 and a working group of state health officials3 using the science-based, risk communication message mapping development process. "Message Maps” are risk communication tools used to help organize complex information and make it easier to express current knowledge. The development process distills information into easily understood messages written at a 6th to 8th grade reading level.

Messages are presented in no more than 3-5 short sentences that convey 3-5 key messages, ideally in the least number of words possible. The approach is based on surveys showing that lead or front-page media and broadcast stories usually convey only 3-5 key messages usually in less than 9 seconds for broadcast media or 27 words for print. Each primary message has 3 supporting messages that can be used when and where appropriate to provide context for the issue being mapped. A brief description of the message mapping strategy can be found in the Appendices.

In the following pages, you will find 60+ message maps related to Ebola. It is strongly recommended that you review the Appendix “Media Interviews: Tips and Pitfalls” before you engage with the media.

Other prominent public health organizations have also produced Ebola Q&As. ASTHO’s Top Questions on Ebola is based on message maps and follows the belief that state health officials need both short and long answers. Other organizations’ Ebola Q&As, such as those from the CDC, tend to be more narrative with greater levels of complexity and complement this document.

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3 The ASTHO Ebola communications work group includes: Joseph Acierno (Nebraska), Cheryl Bartlett (Massachusetts), Wendy Braund (Wyoming), John Dreyzehner (Tennessee), Marissa Levine (Virginia), Chris Van Deusen (Texas), and Carrie Williams (Texas) from the States; and Jim Blumenstock, Scott Briscoe, Paul Jarris, and Shawn Polk from ASTHO.
II. Preface

State and Territorial Health Officials (S/THOs) play a critical role in the health security of our nation. The demands are many and the margin of error is small. S/THOs must translate the best available public health evidence and science into actionable policy advice for our elected leaders and other cabinet agencies. They must act as a credible, timely, source of accurate information to healthcare providers. Equally important, the S/THO and the public health team must convey a clear, compassionate, and caring message to the public to motivate appropriate protective behaviors without instilling inappropriate fear. All of this must occur while leading and managing complex public health agencies strained under the demands of an emergency response.

The role is all the more complex in a rapidly evolving situation in which many unknowns remain. Overconfidence or utilizing an inaccurate mental model of an issue can lead to missteps and diminish public trust. It is critical for this reason to be very cognizant of what is known, what is unknown, what is controllable and what is beyond our control. This humility allows rapid adjustments to strategies and tactics and allows an accurate and credible message to be delivered to and received by the public and policy makers.

ASTHO staff and an ad hoc committee of members have worked with Dr. Randall Hyer and Dr. Vincent Covello from the Center for Risk Communication and CrisisCommunication.net to develop this communication guide to assist S/THOs in preparing to communicate with the public, media and policy makers about Ebola. The committee identified key questions and issues to be prepared in advance to respond to. Of course, S/THOs judgment will determine the most appropriate response to an issue in their jurisdiction. It is our hope that this messaging guide can provide S/THOs with a baseline of consistent messages across our nation that will necessarily be modified as events evolve and more is known.

Thank you for your service to protecting and improving the health of our nation.

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Association of State and Territorial Health Officials
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101. What is Ebola?

Shorter answer:

1. *Ebola is a virus that causes Ebola virus disease.*
2. *Ebola spreads by direct contact with an infected person’s body fluids or by direct contact with objects (like needles and syringes) that have been contaminated with the virus.*
3. *Treatment to prevent or control the effects of Ebola is the current most effective treatment.*

Longer answer:

1. *Ebola is a virus that causes Ebola virus disease.*
   - Ebola virus causes Ebola virus disease, which is an acute, communicable, and serious illness that is often fatal if untreated.
   - In people, Ebola is characterized by a sudden onset of fever, fatigue, muscle pain, headache, and a sore throat.
   - Fever, sore throat, muscle pain, headache, and weakness typically start 2 days to 3 weeks after infection, followed by vomiting, diarrhea and rash, and then in some cases bleeding.
   - Death, if it occurs, is typically 6 to 16 days after symptoms start.
   - People who recover from the disease will be immune from the strain that caused their illness and can help others who are infected with that strain.

2. *Ebola spreads by direct contact with an infected person’s body fluids or by direct contact with objects (like needles and syringes) that have been contaminated with the virus.*
   - Body fluids containing Ebola virus may include: blood, saliva, mucus, sweat, urine, feces, vomit, breast milk, and semen.
     - According to the World Health Organization, blood, feces and vomit are the most infectious fluids.
     - The Ebola virus is found in saliva mostly once patients are severely ill.
   - There is no evidence of any cases of Ebola spreading through the air by small droplets.
     - The Ebola virus is not spread in the air the same way the flu or the measles virus spreads through the air.
• The virus in blood and body fluids can enter another person’s body through broken skin or unprotected mucous membranes like the eyes, nose, or mouth.
• Ebola can be spread through contact with objects that have been contaminated with the virus.
  o A 2007 study in an Ebola treatment facility in Uganda showed no Ebola in samples from 31 surfaces including bed frames, a spit bowl and a used stethoscope (listening device used by healthcare providers).
• Spread of Ebola by water or by food has not been documented.
  Note: There is a small chance that Ebola could be spread by handing or eating bush meat (i.e., wild animals hunted for food in Africa). In Africa, Ebola may be spread as a result of handling wild animals or contact with infected bats.

3. **Treatment to prevent or control the effects of Ebola is the current most effective treatment.**

4. **Early intervention with treatment of symptoms improves survival.**

• Treatment is given to a patient to control or relieve side effects.
• Treatment is given to a patient to improve the patient’s comfort and quality of life.
• Currently there is no licensed treatment proven to neutralize or kill the virus.
  o No FDA-approved vaccine or medicine (e.g., antiviral drug) is available for Ebola.
  o Several medications and vaccines for Ebola are currently being developed or tested.
• New ways are being tested to use the blood of someone who has recovered.
• Risk of death in previous outbreaks has varied between 25% and 90%, and is currently estimated at 50-60% in the current West African outbreak.
102. Why is the Ebola virus called “Ebola”?

Shorter answer:

1. The Ebola virus is named after the Ebola River in the Democratic Republic of Congo (formerly Zaire).
2. Since 1976, there have been small outbreaks throughout equatorial Africa, typically with small number of cases and short duration.
3. There are five different strains of the Ebola virus, named after the areas where they originated.
4. Scientists believe that fruit bats may be the natural host of the Ebola virus in Africa, passing on the virus to other animals such as apes and monkeys.

Longer answer:

1. The Ebola virus is named after the Ebola River in the Democratic Republic of Congo (formerly Zaire).
   - The current Ebola outbreak in West Africa began in Guinea in December 2013.

2. Since 1976, there have been small outbreaks throughout equatorial Africa typically with small number of cases and short duration.
   - As of 29 October, the current outbreak has lasted nearly 11 months with more than 10,000 cases and nearly 5,000 deaths.
   - Prior to the current outbreak, the largest outbreak of Ebola was in Uganda in 2000 lasting 5 months with 425 cases and 224 deaths.
   - Previous outbreaks were limited to single countries – the current outbreak has affected 8 countries including the United States and Spain.

3. There are five different strains of the Ebola virus, named after the areas where they originated.
   - All five strains of Ebola cause a disease known as “viral hemorrhagic fever,” which is a type of disease that affects multiple organs in the body and is often accompanied by bleeding.
   - Three of the five strains of Ebola have been associated with large outbreaks of viral hemorrhagic fever in Africa.
• Of the five strains of Ebola, the Zaire strain -- the first to be identified -- is considered the most deadly.
• Preliminary tests done by the World Health Organization indicate that the current outbreak in West Africa is the Zaire strain of Ebola.

4. **Scientists believe that fruit bats are the natural carrier of the Ebola virus in Africa, passing on the virus to other animals such as apes and monkeys.**

• People became infected after contact with the body fluids of infected fruit bats or infected animals.
• People become infected when the virus enters the body through broken skin or unprotected mucus membranes.
• Outbreaks in Africa spread in areas where hospitals have poor infection control and in areas with limited access to resources like running water or personal protective equipment.
103. What should people know about the current Ebola situation?

Shorter answer:

1. To get Ebola, people must come in direct contact with an infected person’s body fluids.
2. Health workers, family, and friends in close contact with Ebola patients are at the highest risk of getting sick.
3. Ebola has spread quickly in West Africa primarily because of inadequate healthcare facilities and practices.
4. Medicines and vaccines are being developed.
5. Actions taken now are intended to limit the spread of Ebola.

Longer answer:

1. To get Ebola, people must come in direct contact with an infected person’s body fluids.
   - You can stay informed by visiting official local, state and federal government webpages, such as [http://www.cdc.gov/vhf/ebola/](http://www.cdc.gov/vhf/ebola/).

2. Health workers, family, and friends in close contact with Ebola patients are at the highest risk of getting sick.
   - Healthcare workers, family, and friends are most at risk because they are most likely to come in contact with the blood or body fluids of infected people.

3. Ebola has spread quickly in West Africa primarily because of inadequate healthcare facilities and practices.
   - Many people in West Africa are malnourished and have poor shelter.
   - Many people in West Africa have little or no access to adequate healthcare providers and facilities.
   - Many of the existing healthcare facilities in West Africa are overwhelmed by the existing as well as the increasing Ebola caseload.
   - Burial practices in West Africa including extensive touching of the deceased contribute to the spread of Ebola.

4. Medicines and vaccines are being developed.
5. **Actions taken now are intended to limit the spread of Ebola.**

- Early diagnosis of cases is important.
- Early supportive care with rehydration and treatment of symptoms improves an infected person's chances of survival.
- Hospitals and government agencies have activated their Ebola emergency plans.
- Everyone will need to work together to effectively prevent the spread of Ebola.
- People should take the preventive and control actions recommended by federal, state, and local healthcare officials’ statements and instructions offered in their respective websites.
- Researchers are working to identify and test Ebola medicines and vaccines (see, for example, [http://www.nih.gov/health/ebola.htm](http://www.nih.gov/health/ebola.htm).)
- The path a drug travels from the laboratory to the patient is long and every drug takes an unique route: [http://www.fda.gov/drugs/resourcesforyou/consumers/ucm143534.htm](http://www.fda.gov/drugs/resourcesforyou/consumers/ucm143534.htm)
- It is important to stop the outbreak at its source, which are countries in West Africa.
104. How is Ebola different from other diseases that pass from one person to another?

Shorter answer:

1. *Ebola spreads only through direct contact with an infected person’s body fluids.*
2. *Ebola is caused by a virus that is new to the United States.*
3. *The chance of getting Ebola is very low.*
4. *People with Ebola are more likely to die than people who are infected with many other communicable diseases.*

Longer answer:

1. **Ebola spreads only through direct contact with an infected person’s body fluids.**
   - The Ebola virus spreads only through direct contact with body fluids or contaminated objects unlike other communicable diseases such as the flu or tuberculosis which are airborne.
   - Because a person must have direct contact with infected body fluids, Ebola is hard to get.
   - Under the right circumstances, such as weakened healthcare systems and lack of public health control, Ebola can spread easily.
   - Unlike the flu, Ebola does not spread through the air.
   - The fact that Ebola is not spread by airborne means greatly limits its transmission capabilities.

2. **Ebola is caused by a virus that is new to the United States.**
   - The only treatment currently available for Ebola is supporting the patient and correcting any general problems like low blood pressure and loss of fluids so they can fight the disease.
   - Numerous medications and vaccines are being tested.
   - Various experimental treatments are being tested, including blood transfusions from people who have recovered.

3. **The chance of getting Ebola is very low.**
   - As of Oct. 26, 2014, four Ebola cases have been diagnosed in the United States, with one death.
The patient who died from Ebola in the United States was a man who had contracted the disease in Liberia and had travelled to Dallas.

4. **People infected with Ebola are more likely to die than people who are infected with many other communicable diseases.**

- People at the highest risk of Ebola infection are health workers, family members, or others in close contact with infected people.
- In West Africa, mourners at burial ceremonies who have direct contact with the bodies of the deceased have an especially high risk of infection.
- Risk of death from Ebola in previous outbreaks varied between 25% and 90%, and is estimated at 50-55% in the current West African outbreak.
- As of Oct. 26, 2014, four Ebola cases have been diagnosed in the United States, with one death.
  - The patient who died from Ebola in the United States was a man who had contracted the disease in Liberia and had travelled to Dallas.
- If a person gets Ebola, the risk of death is substantially higher other common communicable diseases like flu.
105. Is Ebola the most dangerous disease that humans have ever encountered?

Shorter answer:

1. It is a myth that Ebola is the most dangerous disease that humans have ever encountered.
2. Other communicable diseases such as malaria and HIV have killed many more people than Ebola.
3. Other diseases have even a higher likelihood of death.

Longer answer:

1. It is a myth that Ebola is the most dangerous disease that humans have ever encountered.
   - Ebola is, and remains, a rare disease.
   - Ebola outbreaks capture media attention because Ebola strikes quickly and many people with Ebola die.
   - Ebola is hard to get – a person must have direct contact with an infected person’s body fluids when that person has symptoms of Ebola.

2. Other communicable diseases such as malaria and HIV have killed many more people than Ebola.
   - Malaria, HIV, and tuberculosis kill millions of people each year.
   - HIV kills 1.5 million people each year and is rising despite effective medicines.
   - There have been approximately 6000 documented deaths from Ebola since its discovery in 1976.
   - The influenza pandemic (worldwide epidemic) of 1918-19 killed an estimated 50 million people.

3. Other diseases have even a higher likelihood of death.
   - If you are infected with Rabies and develop symptoms you are unlikely to survive.
   - Rabies still kills some 26,000 people each year.
   - Some 3,000-46,000 Americans die from influenza or influenza-related medical complications each year.
106. What should people be doing about Ebola?

Shorter answer:

1. Most actions need to be taken by public health agencies, hospitals, healthcare facilities, and others involved in responding to communicable disease cases or outbreaks.
2. For most people, staying informed about Ebola is most important.
3. People should take common-sense actions to keep from spreading germs.

Longer answer:

1. Most actions need to be taken by public health agencies, hospitals, healthcare facilities, and others involved in responding to communicable disease cases or outbreaks.
2. For most people, staying informed about Ebola is most important.
   - People should understand the nature of the disease, how it is transmitted, and how to prevent it from spreading further.
     o Public health officials have provided information on the signs and symptoms of Ebola.
     o Public health officials have provided information concerning which people should be monitored for signs and symptoms of Ebola.
     o People can stay informed by visiting their State’s website.
     o People can stay informed by visiting the CDC’s Web site: http://www.cdc.gov/vhf/ebola/.
     o People can stay informed by talking with their healthcare provider.
   - People should use information about prevention and control actions to prepare should they need to care for themselves and their loved ones.
   - It appears that good health is associated with survival and therefore people should practice good health habits.
   - People should discuss individual health concerns with their healthcare provider or local health department.
3. People should take common-sense actions to keep from spreading germs.
   - People should wash their hands frequently.
   - People should be current with recommended vaccinations including the flu vaccine.
   - While Ebola is believed to be able to survive for some days in liquid outside an infected organism, chlorine disinfection, heat, direct sunlight, soaps and detergents all can kill the virus.
107. What are the symptoms of Ebola?

Shorter answer:

1. Initial symptoms of Ebola are sudden onset of fever, intense weakness, muscle pain, headache and sore throat.
2. The initial symptoms of Ebola are typically followed by vomiting, diarrhea, rash, impaired kidney and liver function, and in some cases, both internal and external bleeding.
3. Initial symptoms of Ebola are similar to many other communicable diseases.
4. Symptoms of Ebola disease usually appear 2-21 days after infection.
5. Recovery depends upon access to healthcare, good clinical care, and a person’s state of health.

Longer answer:

1. Initial symptoms of Ebola are sudden onset of fever, intense weakness, muscle pain, headache and sore throat.
   - Since initial symptoms could be many illnesses, an accurate travel history is critical.

2. The initial symptoms of Ebola are typically followed by vomiting, diarrhea, rash, impaired kidney and liver function, and in some cases, both internal and external bleeding.
   - With Ebola, a person’s physical condition can change quickly.

3. The initial symptoms of Ebola are similar to other communicable diseases.
   - The initial symptoms of Ebola -- high fever, sore throat, headache, fatigue, diarrhea, vomiting -- can seem much like those of influenza and tropical diseases like malaria.

4. Symptoms of Ebola disease usually appear 2-21 days after infection.
   - The average time from Ebola infection to having symptoms is 8 to 10 days.

5. Recovery depends upon access to healthcare, good clinical care, and a person’s state of health.
   - People who recover can develop natural immunity that can last for as long as 10 years and experts believe is probably lifelong.
108. How long does the Ebola virus live on contaminated hospital objects like bed sheets, pillows, stethoscopes, etc.?

Shorter answer:

1. The Ebola virus does not live long outside the human body or infected body fluids.
2. If the Ebola virus stays in wet body fluids, it can cause infection.
3. Though there are no studies, experts suggest that 24 hours outside of body fluids is enough time for the Ebola virus to die.

Longer answer:

1. **The Ebola virus does not live long outside the human body or infected body fluids.**
   - The Ebola virus eventually dries out in the air and dies.
   - Experts believe 24 hours is enough time for Ebola to die.

2. **If the Ebola virus stays in wet body fluids, it can cause infection.**
   - The Ebola virus has evolved to live inside blood or other body fluids.
   - No case of transmission to a human from a dry surface has ever been confirmed.

3. **Though there are no studies, experts suggest that 24 hours outside of body fluids is enough time for the Ebola virus to die.**
   - A 2007 study in an Ebola treatment facility in Uganda showed no Ebola in samples from 31 surfaces including bed frames, a spit bowl and a used stethoscope (listening device used by healthcare providers).
109. Can a blood test show if a person has the Ebola virus before they have symptoms?

Shorter answer:

1. **There is no blood test available to detect the Ebola virus before someone has symptoms.**
2. Existing blood tests are designed only to confirm a suspicion of Ebola.
3. Screening people’s blood with the existing Ebola tests would not work because they cannot detect the virus until a person has symptoms.

Longer answer:

1. **There is no blood test available to detect the Ebola virus before someone has symptoms.**
   - Research is being done to develop an Ebola rapid test.

2. **Existing blood tests are designed only to confirm a suspicion of Ebola.**
   - Person must have Ebola symptoms, like a fever, for the test to be accurate.
   - Local and state authorities have access to the existing Ebola test and can complete testing and rule out suspected Ebola within hours.

3. **Screening people’s blood with the existing Ebola blood tests would not work because they cannot detect the virus until a person has symptoms.**
   - The existing Ebola tests require special laboratory procedures and equipment.
   - Using the existing Ebola tests to evaluate blood from people who do not have symptoms would cause mistakes.
110. How do you confirm infection with the Ebola virus?

Shorter answer:

1. In the early stages, Ebola can be hard to distinguish from other diseases like malaria, typhoid fever, and meningitis.
2. Confirmation that a person’s symptoms are caused by Ebola is done with specialized laboratory tests.
3. Since samples from Ebola patients are extremely hazardous, special laboratory precautions and procedures are in place for transportation and handling.

Longer answer:

1. In the early stages, Ebola can be hard to distinguish from other diseases like malaria, typhoid fever, and meningitis.

2. Confirmation that a person’s symptoms are caused by Ebola is done with specialized laboratory tests.

   - Laboratory tests for Ebola virus infection are done using the following specialized techniques:
     o antibody-capture enzyme-linked immune-sorbent assay (ELISA)
     o antigen-capture detection tests
     o serum neutralization test
     o reverse transcriptase polymerase chain reaction (RT-PCR) assay
     o electron microscopy
     o virus isolation by cell culture.

3. Since samples from Ebola patients are extremely hazardous, special laboratory precautions and procedures are in place for transportation and handling.

   - Any laboratory testing on non-inactivated samples should be conducted under maximum biological containment conditions.
111. Can you catch Ebola by touching the skin of someone with symptoms?

Shorter answer:

1. Ebola is difficult to catch and requires direct contact with infected body fluids.
2. If a person has symptoms of Ebola, then body fluids can contain Ebola virus and cause infection.
3. Ebola is not spread through ordinary social contact.

Longer answer:

1. **Ebola is difficult to catch and requires direct contact with infected body fluids.**
   - Body fluids that contain Ebola include blood, urine, saliva, sweat, feces, vomit, mucus, breast milk, and semen.
   - The amount of Ebola virus in sweat is very low relative to other fluids such as blood, feces, or vomit.
   - Experts believe that sweat from an Ebola patient is a concern only when the person is severely ill.

2. **If a person has symptoms of Ebola, then all body fluids can contain Ebola virus and cause infection.**
   - Body fluids that contain Ebola include blood, urine, saliva, sweat, feces, vomit, mucus, breast milk, and semen.
   - The amount of Ebola virus in sweat is very low relative to other fluids such as blood, feces, or vomit.
   - Experts believe that sweat from an Ebola patient is a concern only when the person is severely ill.

3. **Ebola is not spread through ordinary social contact.**
   - Ebola is not spread by shaking hands, travelling on public transport or sitting beside someone who is infected and does not have any symptoms.
   - The amount of Ebola virus in sweat is very low relative to other fluids such as blood, feces, or vomit.
   - Experts believe that sweat from an Ebola patient is a concern only when the person is severely ill.
112. What is the risk of becoming infected with Ebola?

Shorter answer:

1. People with early symptoms of Ebola are not highly contagious and become increasingly contagious as they get sicker.
2. CDC’s highest risk category is “high risk” for Ebola and refers to people who have had direct contact with infected body fluids from a person showing symptoms.
3. CDC’s second highest risk category for Ebola is “some risk” and refers to people who (1) have had close contact with a person showing symptoms of Ebola or (2) in highly affected countries, direct contact with a person showing symptoms of Ebola while wearing protective equipment.
4. CDC’s third highest risk category is “low risk (but not zero)” for Ebola and refers to various settings where a person has been in close proximity to a person showing symptoms.
5. CDC’s lowest risk category is “no risk” for Ebola and refers to various settings where a person (1) has had no contact with persons showing symptoms of Ebola or (2) where it has been more than 21 days since travelling in a highly-affected country or (3) has travelled in a country with no widespread Ebola transmission.

Longer answer:

1. People with early symptoms of Ebola are not highly contagious and become increasingly contagious as they get sicker.
   - Household contacts who lived with the first case while he was sick in Texas did not become infected.
   - The level of Ebola virus in an infected person increases as they get sicker.
   - Please refer to the Appendix or http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html

2. CDC’s highest risk category for Ebola is “high risk” and refers to people who have had direct contact with infected body fluids from a person showing symptoms.
   - Please refer to the Appendix or http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html
3. **CDC’s second highest risk category for Ebola is “some risk” and refers to people who (1) have had close contact with a person showing symptoms of Ebola or (2) in highly affected countries, direct contact with a person showing symptoms of Ebola while wearing protective equipment.**

- Please refer to the Appendix or 
  http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html

4. **CDC’s third highest risk category for Ebola is “low risk (but not zero)” and refers to various settings where a person has been in close proximity to a person showing symptoms.**

- Please refer to the Appendix or 
  http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html

5. **CDC’s lowest risk category is “no risk” for Ebola and refers to various settings where a person (1) has had no contact with persons showing symptoms of Ebola or (2) where it has been more than 21 days since travelling in a highly-affected country or (3) has travelled in a country with no widespread Ebola transmission.**

- Please refer to the Appendix or 
  http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html
113. How contagious is the Ebola virus?

Shorter answer:

1. *Ebola is hard to catch.*
2. *The amount of Ebola needed to cause infection is not known.*
3. *All viruses are different.*

Longer answer:

1. *Ebola is hard to catch.*
   - Direct contact with infected body fluids needs to happen in order to get Ebola.
   - An Ebola patient is only contagious—that is, able to spread or transmit the disease to other people—when they showing symptoms.
   - It takes between 2 and 21 days—but typically around 8-10 days—from infection for someone to start showing symptoms.

2. *The amount of Ebola needed to cause infection is not known.*
   - Experts believe that Ebola is difficult to catch outside of the healthcare setting.
   - The greater the contact with body fluids and the more Ebola virus in the body, the greater the risk of infection.
   - The Texas patient who died from Ebola developed symptoms and was thus contagious for days before being isolated with Ebola and none of the many people he interacted with outside of the hospital have got sick.

3. *All viruses are different.*
   - The flu virus is easily caught and is passed between people by an airborne route.
   - Ebola is not spread through the air or water or, in general, by food.
     - In Africa, Ebola may be spread as the result of handling or eating bush meat (wild animals hunted for food) or contact with infected bats.
114. How is Ebola spread?

Shorter answer:

1. *Ebola is hard to catch.*
2. *The risk of spreading Ebola is greatest when infected persons are at their sickest (critically ill or near death), which most commonly occurs in healthcare settings.*

Longer answer:

1. **Ebola is hard to catch.**
   - Ebola is spread by direct contact with blood or other body fluids (such as: vomit, mucus, feces, urine, breast milk, sweat, or semen) of an infected person who has symptoms of Ebola or who has recently died from Ebola.
   - Ebola can be spread on objects or surfaces contaminated by body fluids of an infected person, for example clothing or bedding of an ill person that have not been cleaned.
   - Ebola can only be spread from one person to another when someone has symptoms.
   - Ebola is not spread through air, food, or water.
   - Ebola is not spread through casual contact.

2. **The risk of spreading Ebola is greatest when infected persons are at their sickest (critically ill or near death), which most commonly occurs in healthcare settings.**
   - Health-care workers must consistently use proper personal protective equipment and best practice.
   - Experts believe that Ebola is difficult to catch outside of the healthcare setting.
     - The risk of Ebola in West Africa is significantly higher than elsewhere because there is insufficient Ebola isolation and treatment beds, poor sanitation, and highly dense living conditions.
     - The first U.S. patient developed symptoms and was thus contagious for days before being isolated with Ebola.
     - None of the many people the first U.S. patient interacted with outside of the hospital have gotten sick.

3. **Wild animals introduce Ebola into human populations.**
• In some circumstances, Ebola may be spread from sick or dead wild animals.
• It is not known for sure which wild animals carry Ebola, but it has been found in bats, monkeys, and apes.
• Ebola is not generally spread through food, but the hunting, butchering, and processing of bush meat brings people into contact with blood and other fluids of potentially infected animals.
  o It is illegal to bring bush meat into the United States.
• Currently, there are no reports of dogs or other pets becoming sick with Ebola or transmitting it to humans.
• There is no evidence of mosquitoes or other insects transmitting Ebola.
115. Are all body fluids (blood, mucus, tears, saliva, sweat, breast milk, semen, feces, vomit, mucus, urine) dangerous and for how long?

Shorter answer:

1. Ebola is transmitted only by direct contact with infected body fluids.
2. All body fluids from someone infected with Ebola should be considered dangerous.
3. People who survive Ebola can still carry the virus: men can have it in their semen and women can have it in their breast milk.

Longer answer:

1. **Ebola is transmitted only by direct contact with infected body fluids.**
   - The Ebola virus is transmitted among humans through close and direct physical contact with infected body fluids, the most infectious being blood, feces and vomit.
   - The Ebola virus has been detected in breast milk, urine and semen.
   - In a convalescent male, the virus can persist in semen for at least 70 days; one study suggests persistence for more than 90 days.

2. **All body fluids from someone infected with Ebola should be considered dangerous.**
   - Experts believe the most dangerous body fluids are blood, vomit, and feces from an Ebola patient with symptoms.
   - Body fluids like saliva and tears may carry some risk of Ebola though scientific studies to date are not conclusive.
   - Studies of additional body fluids carrying Ebola are extremely limited in sample size.
   - In studies of saliva, the Ebola virus was found most frequently in patients at a severe stage of illness.
   - The amount of Ebola virus in sweat is very low relative to other fluids such as blood, feces, or vomit.
   - Experts believe that sweat from an Ebola patient is a concern only when the person is severely ill.

3. **People who survive Ebola can still carry the virus: men can have it in their semen and women can have it in their breast milk.**
• The Ebola virus has been found in semen and breast milk beyond the acute illness.
• Persons recovering from Ebola need to take additional steps for a period of time so that others are not exposed to infected breast milk or semen.
  o Men should avoid sexual intercourse without using a condom.
  o Women should avoid breastfeeding during this period.
  o The exact duration of being infective varies by individual – people should consult their healthcare provider.
116. Who can spread the Ebola virus to others?

Shorter answer:

1. Ebola is spread only by direct contact with infected body fluids.
2. To spread Ebola, a person must have travelled in an area with an Ebola outbreak, had direct contact with infected body fluids, and have symptoms of Ebola.

Longer answer:

1. **Ebola is transmitted only by direct contact with infected body fluids.**
   - The Ebola virus is transmitted among humans through close and direct physical contact with infected body fluids, the most infectious being blood, feces and vomit.
   - The Ebola virus has been detected in breast milk, urine and semen.
     - In men who survive Ebola, the virus can persist in semen for an estimated 70 to 90 days.

2. **To spread Ebola, a person must have travelled in an area with an Ebola outbreak, had direct contact with infected body fluids, and have symptoms of Ebola.**

3. **People who survive Ebola do not carry the Ebola virus for life.**
   - The Ebola virus has been found in semen (up to 3 months) and breast milk beyond the acute illness.
   - Persons recovering from Ebola need to take additional steps so that others are not exposed to infected breast milk or semen.
117. How long can the Ebola virus survive on surfaces like table tops and doorknobs?

Shorter answer:

1. The Ebola virus usually dies very quickly on dry surfaces.
2. Sunlight, UV light, heat and exposure to oxygen all deactivate or kill the Ebola virus over time.
3. Ebola is unlikely to be caught from an object like a bowling ball.

Longer answer:

1. The Ebola virus usually dies very quickly on dry surfaces.
   - According to experts, Ebola is easily destroyed outside of the body.
   - The Ebola virus is fragile and dies when dried out.
   - Studies done in Ebola Treatment Units in Africa have found that the Ebola virus can live on surfaces only for a few hours at most.

2. Sunlight, UV light, heat and exposure to oxygen all deactivate or kill the Ebola virus over time.
   - While the Ebola virus is believed to be able to survive for some days in liquid outside an infected organism, chlorine disinfection, heat, direct sunlight, soaps and detergents can kill it.
   - Bleach and other hospital disinfectants kill Ebola
   - EPA-approved disinfectants, such as Clorox and Lysol, will work on a nonporous surface to kill the Ebola virus.
   - A dishwasher or washing machine will kill the Ebola virus.

3. Ebola is unlikely to be caught from an object like a bowling ball.
   - One can find germs on a shared bowling ball, but experts believe it is extremely unlikely that Ebola could be caught from a bowling ball or similar object.
   - There is no evidence that Ebola is passed, as colds or flu sometimes are, by touching surfaces that someone else touched after sneezing into their hand.
   - Ebola is normally passed through contact with blood, vomit or feces.
   - Ebola patients must have symptoms to be highly infectious.
   - When people are sick with Ebola, they usually are feeling poorly and are unlikely to be active in the community.
118. Can Ebola spread by airborne means?

Shorter answer:

1. Airborne spread of Ebola has never been shown.
2. Ebola is hard to catch.
3. Studies of the current and previous outbreaks show that Ebola spreads only by direct contact with Ebola patients showing symptoms.

Longer answer:

1. Airborne spread of Ebola has never been shown.
   - It has never been shown that a human can be infected with Ebola from inhaling the virus from a small cloud of dried droplets.

2. Ebola is hard to catch.
   - Ebola is spread by direct contact with blood or other body fluids (such as: vomit, mucus, feces, urine, breast milk, sweat, semen) of an infected person who has symptoms of Ebola or who has recently died.
   - It can be spread on objects or surfaces contaminated by body fluids of an infected person, for example clothing or bedding of an ill person that have not been cleaned.
   - Ebola can only be spread from one person to another when someone has symptoms.
   - Ebola is not spread through air, food, or water.
   - Ebola is not spread through casual contact.

3. Studies of the current and previous outbreaks show that Ebola spreads only by direct contact with Ebola patients showing symptoms.
   - Airborne transmission of Ebola has not been observed during extensive studies of the Ebola virus over several decades.
   - Common sense and observation tell us that spread of Ebola via coughing or sneezing is rare or nonexistent.
   - Data from the current outbreak do not support an airborne transmission like measles, chickenpox, or tuberculosis.
119. What exactly do you mean when you say that “Ebola is not airborne”?

Shorter Answer

1. There are two distinct ways a virus travels in the air: airborne transmission and droplet transmission.
2. There is no evidence that Ebola infects people through airborne transmission, meaning through dust particles inhaled by the lungs.
3. In the case of airborne transmission, the virus is carried aloft in tiny droplets that dry out as they travel through the air, leaving dust particles.
4. In droplet transmission, the Ebola virus travels inside droplets of fluid released into the air.
5. UPDATE: According to CDC as to whether Ebola can be spread by coughing or sneezing.

Longer Answer

1. There are two distinct ways a virus can travel in the air: airborne transmission and droplet infection.
2. There is no evidence that Ebola infects people by airborne transmission, meaning through dust particles inhaled by the lungs.
3. In the case of airborne transmission, the virus is carried aloft in tiny droplets that dry out as they travel through the air, leaving dust particles.
   - Dust particles can float long distances, can remain infectious for hours or days, and can be inhaled by the lungs.
   -Particles of measles virus can spread through dust particles.
   -Particles of measles virus have been observed to travel half the length of an enclosed football stadium.
4. In droplet transmission, the Ebola virus travels inside droplets of fluid released into the air.
   - Ebola may be able to infect people through droplets transmission.
   - Droplets travel only a few feet.
   - Droplets eventually fall to the ground.
5. **UPDATE: According to CDC as to whether Ebola can be spread by coughing or sneezing.**

- There is no evidence indicating that Ebola virus is spread by coughing or sneezing.
- Ebola virus is transmitted through direct contact with the blood or body fluids of a person who is sick with Ebola -- the virus is not transmitted through the air (like measles virus).
- Droplets (e.g., splashes or sprays) of respiratory or other secretions from a person who is sick with Ebola could be infectious.
- Certain precautions (called standard, contact, and droplet precautions) are recommended for use in healthcare settings to prevent the transmission of Ebola virus from patients sick with Ebola to healthcare personnel and other patients or family members.
120. Can Ebola mutate to airborne transmission?

Shorter answer:

1. Experts believe that it is very unlikely that Ebola will mutate to spread by airborne means.
2. It is rare for a virus to change how it spreads.
3. Ebola is more likely to mutate to infect a different species.

Longer answer:

1. Experts believe that it is very unlikely that Ebola will mutate to spread by airborne means.
   - There is no evidence that Ebola virus disease might mutate into a form that could easily spread among humans through the air.
   - Those that suggest Ebola could mutate to airborne transmission are engaged in speculation.

2. It is rare for a virus to change how it spreads.
   - Scientists are unaware of any virus that has dramatically changed its mode of transmission.
   - Since 1997, the bird flu virus has circulated through many billions of birds and its mode of transmission has not changed.

3. Ebola is more likely to mutate to infect a different species.
   - Viruses can mutate to adapt themselves to new species.
121. How quickly can an Ebola test be done?

Shorter answer:

1. *Ebola can be difficult to diagnose because early signs and symptoms resemble those of other much more common global diseases, including malaria, influenza, and typhoid fever.*
2. *If doctors suspect a person may be infected with Ebola virus, they use blood tests to identify the virus.*
3. *It often takes at least 6-8 hours to get results from an Ebola blood test*
4. *Blood tests for Ebola need to be done by a certified laboratory, such as a state health department laboratory.*

Longer answer:

1. *Ebola can be difficult to diagnose because early signs and symptoms resemble those of other much more common global diseases, including malaria, influenza, and typhoid fever.*

2. *If doctors suspect a person may be infected with Ebola virus, they use blood tests to identify the virus.*

- Laboratory tests for Ebola virus infection are done using several specialized techniques:
  - antibody-capture enzyme-linked immune-sorbent assay (ELISA)
  - antigen-capture detection tests
  - serum neutralization test
  - reverse transcriptase polymerase chain reaction (RT-PCR) assay
  - electron microscopy
  - virus isolation by cell culture.

- Samples from Ebola patients are an extreme biohazard.
  - Any laboratory testing on non-inactivated samples should be conducted under maximum biological containment conditions.

3. *It often takes at least 6-8 hours to get results from an Ebola blood test.*

4. *Blood tests for Ebola need to be done by a certified laboratory, such as a state health department laboratory.*

- Blood tests for Ebola can be done by a certified mobile laboratory.
122. How can people be exposed to Ebola?

Shorter answer:

1. *Ebola is hard to catch.*
2. *All body fluids from someone infected with Ebola should be considered dangerous.*
3. *A person must have a link to body fluids infected with Ebola virus.*

Longer answer:

1. **Ebola is hard to catch.**
   
   - Ebola is spread by direct contact with blood or other body fluids (such as: vomit, mucus, feces, urine, breast milk, sweat, semen) of an infected person who has symptoms of Ebola or who has recently died from Ebola.
   - It can be spread on objects or surfaces contaminated by body fluids of an infected person, for example clothing or bedding of an ill person that have not been cleaned.
   - Ebola can only be spread from one person to another when someone has symptoms.
   - Ebola is not spread through air, food, or water.
   - Ebola is not spread through casual contact.

2. **All body fluids from someone infected with Ebola should be considered dangerous.**
   
   - Experts believe the most dangerous body fluids are blood, vomit, and feces from an Ebola patient with symptoms.
   - Body fluids like saliva and tears may carry some risk though the scientific studies were not conclusive as studies implicating these additional body fluids were extremely limited in sample size and the science is inconclusive.
   - In studies of saliva, the virus was found most frequently in patients at a severe stage of illness.
   - The whole live virus has never been isolated from sweat.

3. **A person must have a link to body fluids infected with Ebola virus.**
   
   - Casual travel in an affected area or country is unlikely to expose people to Ebola. Healthcare workers are at higher risk of being exposed.
   - There are many parts of the 3 most affected West African countries where the risk of Ebola is very low.
123. Can a dog or cat get Ebola?

Shorter answer:

1. *There are no reports of dogs or cats becoming sick with Ebola.*
2. *Dogs can be infected with Ebola but they do not get sick.*
3. *To get Ebola, a dog or cat needs exposure to infected body fluids.*
4. *To date, only a few species of animals have become infected with Ebola.*

Longer answer:

1. **There are no reports of dogs or cats becoming sick with Ebola.**
   - There have been no reports of dogs or cats becoming sick with Ebola or of being able to spread Ebola to people or other animals.
   - It is not known whether a pet’s body, paws, or fur can pick up and spread Ebola to people or other animals.
   - It is important to keep people and animals away from blood or body fluids of a person with symptoms of Ebola infection.

2. **Dogs can be infected with Ebola but they do not get sick.**
   - Experts recommend that public health officials in collaboration with a veterinarian evaluate the pet’s risk of exposure to the virus (close contact or exposure to blood or body fluids of an Ebola patient).
   - If a dog or cat is exposed to body fluids from an Ebola patient with symptoms, a decision on how to manage the animal will be made based on the specific situation with the local health department.
   - Additional guidance for the U.S. pet population is being developed by the U.S. Department of Agriculture, the American Veterinary Medical Association, and many other partners.

3. **To get Ebola, a dog or cat needs exposure to infected body fluids.**
   - Since the risk of an Ebola outbreak affecting multiple people in the United States is very low therefore the risk to pets is very low.
   - There would not be any reason to test a dog or cat for Ebola if there was no exposure to a person infected with Ebola.
   - Routine testing for Ebola is not available for pets.
4. To date, only a few species of animals have become infected with Ebola.
   
   - Only monkeys, apes, and fruit bats are known to get and transmit Ebola.
IV. 200 series: Preparedness

201. Is the United States prepared for an Ebola outbreak?
202. What is the United States doing to make sure that Ebola does not spread?
203. How is CDC protecting the American public from an Ebola outbreak?
204. What can governments and healthcare organizations do to be better prepared for a major Ebola outbreak?
205. What are the chances there will be a major Ebola outbreak in the United States?
206. Is there were an Ebola outbreak in the United States, what should people do?
207. Could terrorists make and spread the Ebola virus?
208. What are the primary lessons learned from dealing with Ebola cases in the United States?
201. Is the United States prepared for an Ebola outbreak?

Shorter answer:

1. Public health experts are confident that a major outbreak of Ebola in the United States is unlikely and can be prevented.
2. The U.S. public health system has the ability to quickly identify Ebola cases, isolate infected people, and trace contacts.
3. Most public health experts are less concerned about an Ebola outbreak in the United States than about a major Ebola outbreak in a developing country.

Longer answer:

1. Public health experts are confident that a major outbreak of Ebola in the United States is unlikely and can be prevented.
   - Healthcare providers and emergency responders have systems in place for the early detection of Ebola.
   - Healthcare providers and emergency responders have systems in place for the early containment of Ebola.
   - Healthcare providers and emergency responders are strengthening early detection and containment systems based on lessons learned.
   - Lessons learned include the need to improve:
     - training and protocols for healthcare workers
     - Ebola treatment facilities
     - risk and crisis communications
     - equipment, guidelines, and training for those involved in Ebola clean up.

2. The U.S. public health system has the ability to quickly identify Ebola cases, isolate infected people, and trace contacts.
   - Identifying Ebola cases quickly can significantly reduce transmission.
     - Heath care workers are trained to be on the watch for patients with symptoms that in the early stages of illness may seem like the flu.
     - Healthcare workers are trained to take travel histories that may indicate contact with Ebola.
     - Healthcare workers train and practice how to put on and take off protective gear, draw blood safely, and dispose of bio-hazardous materials.
   - Isolating people sick with Ebola quickly can significantly reduce transmission.
     - People with Ebola are at their most contagious when they are at their sickest.
- The most contagious body fluids are blood, feces and vomit, which are most likely to be contacted when Ebola sickness is at its height.
- Tracing contacts of Ebola patients quickly can significantly reduce transmission of Ebola.
  - People who have been in contact with an Ebola patient are monitored for temperature and symptoms.
  - CDC has published detailed guidelines on monitoring and movement related to Ebola - please refer to the Appendix or http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html.
  - People who have been in contact with an Ebola patient may be quarantined for as long as 21 days.
  - State and local jurisdictions may impose a greater level of restriction than what is recommended by CDC.

3. **Most public health experts are less concerned about an Ebola outbreak in the United States than about a major Ebola outbreak in a developing country.**

- Many developing countries do not have the robust health systems found in most developed countries.
- Many developing countries have conditions similar to those that led to the current Ebola outbreak in West Africa.
- The financial and manpower resources required to deal with a major Ebola outbreak exceed the capacity of most developing countries.
202. What is the United States doing to ensure that Ebola doesn’t spread?

Shorter answer:

1. Public health experts are confident that Ebola in the United States can be contained to a small number of cases.
2. The U.S. public health system has the ability to quickly identify Ebola cases, isolate sick people, and trace contacts.
3. Most public health experts are less concerned about a major Ebola outbreak in the United States than about a major Ebola outbreak in a developing country.

Longer answer:

1. Public health experts are confident that Ebola in the United States can be contained to a small number of cases.
   - Healthcare providers and emergency responders have systems in place for the early detection of Ebola.
   - Healthcare providers and emergency responders have systems in place for the early containment of Ebola.
   - Healthcare providers and emergency responders are strengthening early detection and containment systems based on lessons learned.
     - Lessons learned include the need to improve:
       - training and protocols for healthcare workers
       - Ebola treatment facilities
       - risk and crisis communications
       - equipment, guidelines, and training for those involved in Ebola clean up.

2. The U.S. public health system has the ability to quickly identify Ebola cases, isolate sick people, and trace contacts.
   - Identifying Ebola cases quickly can significantly reduce transmission.
     - Healthcare workers are trained to be on the watch for patients with symptoms that in the early stages of illness may seem like the flu.
     - Healthcare workers are trained to take travel histories that may indicate contact with Ebola.
     - Healthcare workers train and practice how to put on and take off protective gear, draw blood safely, and dispose of bio-hazardous materials.
• Isolating people sick with Ebola quickly can significantly reduce transmission.
  o People with Ebola are at their most contagious when they are at their sickest.
  o The most contagious body fluids are blood, feces, and vomit, which are most likely to be contacted when Ebola sickness is at its height.

• Tracing contacts of Ebola patients quickly can significantly reduce transmission of Ebola.
  o People who have been in contact with an Ebola patient are monitored for temperature and symptoms.
  o If people who are being monitored develop symptoms of Ebola, they can be quickly isolated and their contacts can be promptly identified.
  o People who have been in contact with an Ebola patient may be quarantined for a long as 21 days.
  o CDC has published detailed guidelines on monitoring and movement related to Ebola - please refer to the Appendix or http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html.

3. **Most public health experts are less concerned about a major Ebola outbreak in the United States than about a major Ebola outbreak in a developing country.**

  o Many developing countries do not have the robust health systems found in most developed countries.
  o Many developing countries have conditions similar to those that led to the current Ebola outbreak in West Africa.
  o The financial and manpower resources required to deal with a major Ebola outbreak exceed the capacity of most developing countries.
203. How is CDC protecting the American public from a major Ebola outbreak?

Shorter answer:

1. **CDC is working to prevent the spread of Ebola in West Africa and to other countries.**
2. **CDC is working with its partners at U.S. ports of entry to prevent the spread of Ebola.**
3. **CDC is working with its partners to educate and train healthcare workers to respond to Ebola.**
4. **CDC has activated its Emergency Operations Center to provide guidance and coordinate Ebola response activities in the United States.**

Longer answer:

1. **CDC is working to prevent the spread of Ebola in West Africa and to other countries.**
   - CDC has deployed teams of public health experts to West Africa.
     - CDC staff have been deployed to Guinea, Liberia, Nigeria, Senegal, and Sierra Leone to assist with response efforts.
     - CDC teams in West Africa provide support on logistics, staffing, communication, analytics, management, and other functions.
     - CDC is providing assistance on exit screening, surveillance, contact tracing, data management, laboratory testing, and health education.
   - CDC has issued a Warning, Level 3 (the highest level) travel notice for the 3 countries where the Ebola outbreak is severe.
     - CDC has warned U.S. citizens to avoid all non-essential travel to Guinea, Liberia, and Sierra Leone.
     - All travelers returning to the United States from countries with Ebola outbreaks in West Africa are advised to monitor their health for 21 days.

2. **CDC is working with its partners at U.S. ports of entry to prevent the spread of Ebola.**
   - CDC is working with the Department of Homeland Security and other organizations to develop and implement procedures for identifying and isolating travelers who show signs of Ebola.
   - CDC is working closely with partners to ensure that anyone found to be sick with Ebola at a U.S. port of entry gets appropriate care immediately.
3. **CDC is working with its partners to educate and train healthcare workers to respond to Ebola.**

- CDC is working with its partners to educate healthcare workers on how to evaluate suspected Ebola cases, how to treat Ebola patients, and how to protect themselves from infection.
  - CDC has published guidelines for Ebola response planning and preparedness for healthcare organizations.
  - Published guidelines can be found at: [http://www.cdc.gov/vhf/ebola/outbreaks/preparedness/planning-tips-top10.html](http://www.cdc.gov/vhf/ebola/outbreaks/preparedness/planning-tips-top10.html).

4. **CDC has activated its Emergency Operations Center to provide guidance and coordinate Ebola response activities in the United States.**

- CDC advises and assists health departments and hospitals on their Ebola response activities.
- CDC publishes information on Ebola on its Web site for the general public and for specific audiences.
- CDC is using social media to share information with the general public and specific audiences about Ebola.
204. What can governments and healthcare organizations do to be better prepared for an Ebola outbreak?

Shorter answer:

1. Identifying Ebola cases quickly will significantly reduce the possibility of a major Ebola outbreak in the United States.
2. Isolating people sick with Ebola quickly will significantly reduce the possibility of a major Ebola outbreak in the United States.
3. Tracing contacts of Ebola patients quickly will significantly reduce the possibility of a major Ebola outbreak in the United States.
4. Developing a vaccine specific to Ebola will significantly reduce the possibility of a major Ebola outbreak in the United States.

Longer answer:

1. **Identifying Ebola cases quickly will significantly reduce the possibility of a major Ebola outbreak in the United States.**
   - Health care workers are trained to be on the watch for patients with symptoms that in the early stages of illness may seem like the flu.
   - Healthcare workers are trained to take travel histories that may indicate contact with Ebola.
   - Healthcare workers train and practice how to put on and take off protective gear, draw blood safely, and dispose of bio-hazardous materials.

2. **Isolating people sick with Ebola quickly will significantly reduce the possibility of a major Ebola outbreak in the United States.**
   - People with Ebola are at their most contagious when they are at their sickest.
   - The most contagious body fluids are blood, feces, and vomit, which are most likely to be contacted when Ebola sickness is at its height.

3. **Tracing contacts of Ebola patients quickly will significantly reduce the possibility of a major Ebola outbreak in the United States.**

4. **Developing a vaccine specific to Ebola will significantly reduce the possibility of a major Ebola outbreak in the United States.**
• The National Institutes of Health is working with researchers to begin the first clinical trials as soon as possible.
• The National Institutes of Health announced in mid-October that they have started a new human trial of an Ebola vaccine at a government-run hospital outside Washington, D.C.
• Clinical trials of an Ebola vaccine are under way in several countries.
205. What are the chances there will be a major Ebola outbreak in the United States?

Shorter answer:

1. The likelihood of a major outbreak of Ebola in the United States is difficult to predict, but experts assess the chance as very unlikely.
2. Stopping Ebola in West Africa will drastically reduce the likelihood of a major outbreak elsewhere in the world.
3. The only two people confirmed to have contracted Ebola in the United States were healthcare workers involved in the care of an infected patient.
4. Working together is critical to the effectiveness of the Ebola response effort in the United States.
5. CDC has provided guidance on monitoring and movement that identifies recommended actions for different scenarios of people at risk for Ebola.

Longer answer:

1. The likelihood of a major outbreak of Ebola in the United States is difficult to predict, but experts assess the chance as very unlikely.

2. Stopping Ebola in West Africa will drastically reduce the likelihood of a major outbreak elsewhere in the world.

3. The only two people confirmed to have contracted Ebola in the United States were healthcare workers involved in the care of an infected patient.

   • It is possible there may be additional cases in the United States, but effective public health actions should prevent individual cases from causing an outbreak.

4. Working together is critical to the effectiveness of the Ebola response effort in the United States.

   • Hospitals and other healthcare organizations are strengthening detection, identification, tracking, and monitoring of people who may have been exposed to the Ebola virus.
   • Hospitals and other healthcare organizations have activated their infectious disease response plans.
   • Pharmaceutical companies are working to develop medicines and vaccines.
5. **CDC has provided guidance on monitoring and movement that identifies recommended actions for different scenarios of people at risk for Ebola.**
   
206. If there were a major Ebola outbreak in the United States, what should people do?

Shorter answer:

1. A major outbreak of Ebola in the United States is highly unlikely and experience with the few cases in the United States point to the importance of protection and training of healthcare workers.
2. If there were a major Ebola outbreak in the United States, health officials would advise the public about what they should do.
3. If there were a major Ebola outbreak in the United States, people would be advised on steps to prevent its spread and to care for themselves and their loved ones.
4. Preparing and staying informed are the best responses to Ebola now.

Longer answer:

1. A major outbreak of Ebola in the United States is highly unlikely and experience with the few cases in the United States point to the importance of protection and training of healthcare workers.

   - People cannot get Ebola unless they come in contact with infected body fluids.
   - Healthcare providers and emergency responders have systems in place for the early detection of Ebola.
   - Healthcare providers and emergency responders have systems in place for the early containment of Ebola.
   - Healthcare providers and emergency responders are strengthening early detection and containment systems based on lessons learned.

2. If there were a major Ebola outbreak in the United States, health officials would advise the public about what they should do.

   - The best actions to take will depend on the specific situation.
   - Advice may evolve as new information is acquired.
   - Currently Ebola is primarily in three West African countries.

3. If there were a major Ebola outbreak in the United States, people would be advised on steps to prevent its spread and to care for themselves and their loved ones.

   - Health officials would describe the signs and symptoms of the specific disease.
• Health officials would advise people to take steps as simple as practicing good health habits.
• People should discuss their own health concerns with their doctor, health department, or other trusted sources.

4. **Preparing and staying informed are the best responses to Ebola now.**

• Currently Ebola is primarily in three West African countries.
• Healthcare policy-makers, providers, and institutions are currently preparing to limit the effects of Ebola.
• You can stay informed through information from your local and state public health departments.
207. Could terrorists make and spread the Ebola virus?

Shorter answer:

1. Since the Ebola virus is not airborne, it would not be practical to use Ebola as a bio-weapon.
2. A terrorist would be infectious with Ebola only when they showed symptoms.
3. Unlike some bio-weapons, such as anthrax, Ebola’s method of spreading makes it hard to weaponize.

Longer answer:

1. Since the Ebola virus is not airborne, it would not be practical to use Ebola as a bio-weapon.

2. A terrorist would be infectious with Ebola only when they showed symptoms.
   - A terrorist who infected himself with Ebola would have only a small window of time for action.
   - The debilitating nature of Ebola in its later stages – joint and muscle aches, weakness, feces, vomiting, stomach pain, lack of appetite, or abnormal bleeding – would severely limit the actions of a terrorist.

3. Unlike some bio-weapons, such as anthrax, Ebola’s method of spreading makes it hard to weaponize.
   - Anthrax spores can be dried and milled so they form small particles that can float on the air and be inhaled.
   - To get Ebola, a person requires direct contact with infected body fluids, such as blood, vomit and feces, which does not make an efficient bio-weapon.
208. What are the primary lessons learned from dealing with Ebola cases in public health?

Shorter answer:

1. Public health needs to be sure that healthcare workers are trained and prepared for Ebola.
2. Public health needs to ensure hospitals and healthcare facilities are prepared and ready to respond to potential and actual cases.
3. Public health needs to improve risk and health communications.
4. Public health needs better equipment, clearer guidelines, and training for those involved in Ebola clean up.

Longer answer:

1. Public health needs to be sure that healthcare workers are trained and prepared for Ebola.
   - Public Health needs more extensive training for healthcare workers on protective guidelines.
   - Public Health needs more extensive training on the use of personal protective equipment.
   - Public Health needs more stringent monitoring of healthcare workers who may have inadvertently become infected.
   - It’s important for healthcare providers to inquire about the travel history of any patients with symptoms consistent with Ebola.

2. Public health needs to ensure hospitals and healthcare facilities are prepared and ready to respond to potential and actual cases.
   - Public Health needs to improve personal protective equipment training for healthcare workers
   - Public Health needs improved facilities for the isolation of Ebola patients
   - Public Health needs improved methods for transporting Ebola patients

3. Public health needs to improve risk and health communications.
• Research on risk and health communications indicates the need to be empathic and respectful in responding to Ebola concerns, questions, and complaints.
• Research on risk and health communications indicates the need to avoid blaming others.
• Research on risk and health communications indicates the need to be willing to apologize if we make mistakes.
• Research on risk and health communications indicates the need to be transparent.
• Research on risk and health communications indicates the need to be willing to admit to uncertainty.
• Research on risk and health communications indicates the need to avoid over-reassuring and over-confident statements.

4. **Public health needs better equipment, clearer guidelines, and training for those involved in Ebola clean up.**

• Public health needs better equipment, clearer guidelines, and training for those involved in the cleaning of places and disposal of items suspected or confirmed to be contaminated with Ebola.
• Public health needs improved laboratory testing facilities and training.
V. 300 series: Medicines and Vaccines

301. Can a vaccine be made to protect against Ebola?
302. How long will it take to develop a vaccine for Ebola?
303. How safe will an Ebola vaccine be?
304. Who decides who will get Ebola vaccine in the United States?
305. Are there any drugs to treat Ebola?
306. Can you tell me more about the experimental Ebola drug ZMapp?
307. When you say that the current best available treatment is “supportive care,” what does that mean?
301. Can a vaccine be made to protect against Ebola?

Shorter answer:

1. *Scientists need to develop a vaccine specific to the Ebola virus.*
2. *Work to develop a vaccine specific to the Ebola virus is underway.*
3. *It will likely be months or longer before an Ebola vaccine could be made available.*
4. *If an Ebola vaccine becomes available, it will likely first be in small amounts.*
5. *In the highly unlikely event of a major Ebola outbreak in the United States, the goal would be to have enough vaccine as needed for the threat.*

Longer answer:

1. **Scientists need to develop a vaccine specific to the Ebola virus.**
   - The United States Government has been studying how to make an Ebola vaccine for many years.
   - Candidate Ebola vaccines are currently being tested.
   - It is not known whether a safe and effective Ebola vaccine can be developed.

2. **Work to develop a vaccine specific to the Ebola virus is underway.**
   - The National Institutes of Health is working with researchers to begin the first clinical trials as soon as possible.
   - The National Institutes of Health announced in mid-October that they have started a new human trial of an Ebola vaccine at a government-run hospital outside Washington, D.C.
   - Clinical trials of an Ebola vaccine are under way in several countries.

3. **It will likely be months or longer before an Ebola vaccine could be available.**
   - Using current vaccine technology, it could take as little as a few months or as long as several years to develop a safe and effective Ebola vaccine.
   - Currently in the United States, it takes 2-3 years for a candidate vaccine to get a license from the U.S. Food and Drug Administration.
   - A vaccine can be used before it is licensed but this requires Emergency Use Authorization and an informed consent process.

4. **If an Ebola vaccine becomes available, it will likely first be in small amounts.**
5. In the highly unlikely event of a major Ebola outbreak in the United States, the goal would be to have enough vaccine as needed for the threat.

- Based on previous disease outbreaks, the first batches of vaccine will likely be used to protect healthcare workers.
- People who perform essential society services, such as those who work for police or fire departments are likely amongst the first to be vaccinated.
302. How long will it take to make a vaccine for Ebola?

Shorter answer:

1. The goal of the Ebola vaccine program is to develop a safe and effective vaccine in the amounts needed to protect against the threat.
2. Using current vaccine technology, it could take as little as a few months or as long as several years to develop a safe and effective Ebola vaccine.
3. It is very likely initial supplies of licensed vaccines would be limited.
4. Plans are being made for early limits on Ebola vaccine availability.

Longer answer:

1. The goal of the Ebola vaccine program is to develop a safe and effective vaccine in the amounts needed to protect against the threat.

   • It is not known whether a safe and effective Ebola vaccine can be developed.
   • Even if a safe and effective Ebola can be produced, it may not be ready in time to help stem the current epidemic in West Africa.

2. Using current vaccine technology, it could take as little as a few months or as long as several years to develop a safe and effective Ebola vaccine.

   • Currently in the United States, it takes 2-3 years for a candidate vaccine to get a license from the U.S. Food and Drug Administration.
   • In the United States, a vaccine can be used before it is licensed but this requires Emergency Use Authorization and an informed consent process.
   • Decisions on whether and how to use an Ebola vaccine would likely vary by country.

3. It is very likely initial supplies of licensed vaccines would be limited.

   • Health officials, medical experts, officials in affected countries and many others will need to be involved in determining how best to use the initial limited supplies.
   • Even if a safe and effective Ebola vaccine can be produced, it may not be ready in time to help stem the current epidemic in West Africa.

4. Plans are being made for early limits on Ebola vaccine availability.

   • People who perform essential day-to-day services (for example, healthcare workers, people who trace contacts of Ebola patients, police, etc.) will likely be among the first vaccinated.
• People who perform essential society services, such as those who work for police or fire departments, will likely be among the first vaccinated.
• Other groups will be identified for vaccination based on an assessment of risks and needs.
303. How safe will an Ebola vaccine be?

Shorter answer:

1. The U.S. and other countries have extensive experience making safe and effective vaccines.
2. New vaccines must typically pass rigorous safety tests before being approved.
3. An Ebola vaccine, once available, will be monitored for safety and effectiveness.

Longer answer:

1. The United States and other countries have extensive experience making safe and effective vaccines.
   - Vaccines do not give a person the disease that they protect against.
   - For currently used vaccines, the most common side effects of vaccines are sore arm and redness.
   - For currently used vaccines, most people who get vaccinated have no side effects.

2. New vaccines must typically pass rigorous safety tests before being approved.
   - In the United States, the U.S. Food & Drug Administration (FDA) grants a vaccine license only when testing indicates the vaccine is safe and effective.
   - Safety tests and clinical trials are conducted at each step in the development of a vaccine.
   - Safety standards for vaccines are very high.
   - In the United States, the U.S. Food and Drug Administration and panels of experts review safety findings before approving vaccines.

3. An Ebola vaccine, once available, will be monitored for safety and effectiveness.
   - Monitoring helps identify rare side effects events that may not have been detected in clinical trials.
   - Systems are in place for monitoring vaccine use.
   - In the United States, vaccines against Ebola would have to meet existing safety requirements.
   - It is likely that the World Health Organization would have a leadership role with an Ebola vaccine in West Africa.
304. Who would decide who would get Ebola vaccine in the United States?

Shorter answer:

1. Public health officials, government officials, scientists, medical experts, and others will likely all be involved in decisions regarding who would get Ebola vaccine in the United States.
2. In the United States, vaccine use and vaccination recommendations are made by the Advisory Committee on Immunization Practices (CDC); this committee makes recommendations to CDC and the Department of Health and Human Services.
3. Protecting people at high risk will be an important consideration in deciding who will get the vaccine.

Longer answer:

1. Public health officials, government officials, scientists, medical experts, and others will likely all be involved in decisions regarding who would get Ebola vaccine in the United States.

2. In the United States, vaccine use and vaccination recommendations are made by the Advisory Committee on Immunization Practices (CDC); this committee makes recommendations to CDC and the Department of Health and Human Services.

3. Protecting people at high risk will be an important consideration in deciding who will get the vaccine.

- Protecting essential day-to-day services, such as electricity, water, fire protection, and police protection will be an important consideration.
305. Are there any drugs to treat Ebola?

Shorter answer:

1. There are no proven drugs or medicines to specifically fight Ebola.
2. Many drugs and medicines are being tested.
3. Therapy using blood products from Ebola survivors is being evaluated as a specific therapy.
4. The only proven effective strategy is providing general medical support the infected person to best fight Ebola.

Longer answer:

1. There are no proven drugs or medicines to specifically fight Ebola.
2. Many drugs and medicines are being tested.
   - Current information on drugs and vaccines can be found at: http://www.nih.gov/health/ebola.htm.
3. Therapy using blood products from Ebola survivors is being evaluated as a specific therapy.
   - Blood products from survivors was used in the Spanish flu pandemic of 1918.
   - Blood products are still used for diseases like rabies, snake bites, hepatitis A and B, and other diseases.
   - The World Health Organization is encouraging the use of blood products to treat Ebola and has issued an interim guidance to countries.
   - Blood products do not work for some viral diseases like hepatitis C and human immunodeficiency virus.
4. The only proven effective strategy is providing general medical support to the infected person to best fight Ebola.
   - The only proven treatment for Ebola is supporting the patient by correcting specific medical problems such as dehydration and low blood pressure and helping the patient’s immune system to fight the disease.
306. Can you tell me more about the experimental Ebola drug ZMapp?

Shorter answer:

1. The number of cases treated with ZMapp is too small to prove the drug is safe and effective against Ebola.
2. An ethics panel convened by the World Health Organization concluded it is ethical to give experimental drugs such as ZMapp during a large outbreak.
3. Determining how best to use very limited supplies of an experimental drug such as ZMapp during a large outbreak is difficult.

Longer answer:

1. The number of cases treated with ZMapp is too small to prove the drug is safe and effective against Ebola.
   - Two American missionary workers infected with Ebola were given the experimental Ebola drug ZMapp and survived.
   - Three Liberian healthcare workers infected with Ebola were given ZMapp and one died.

2. An ethics panel convened by the World Health Organization concluded it is ethical to give experimental drugs such as ZMapp during a large outbreak.

3. Determining how best to use very limited supplies of an experimental drug such as ZMapp during a large outbreak is difficult.
307. When you say that the current best available treatment is “supportive care,” what does that mean?

Shorter answer:

1. Supportive care means giving the patient basic medical interventions to help the patient's body fight Ebola.
2. Supportive care does not mean using a medicine specifically approved to treat Ebola.
3. Early treatment with supportive care can significantly improve the chances of survival of an Ebola patient.

Longer answer:

1. Supportive care means giving the patient basic medical interventions to help the patient's body fight Ebola.
   - Patients are provided supportive care in specialized facilities.
   - Supportive care may include the following:
     - Providing intravenous fluids and balancing electrolytes (body salts)
     - Hydrating the patient
     - Providing oxygen
     - Maintaining blood pressure
     - Treating the Ebola patient for any complicating infections.
   - Patients are provided supportive care in hospitals using isolation rooms.
   - Patients may be placed in a single patient room (containing a private bathroom) with the door closed.

2. Supportive care does not mean using a medicine specifically approved to treat Ebola.
   - No government-approved medicine is available for Ebola.
   - Ebola patients may be given experimental medications.
   - Several medications for Ebola are currently being developed or tested.

4. Early treatment with supportive care can significantly improve the chances of survival of an Ebola patient.
VI. 400 series: Response by Healthcare Systems and Healthcare Workers

401. Who would be in charge if there were a major Ebola outbreak in the United States?
402. Will non-citizens with Ebola get treated at U.S. hospitals?
401. Who would be in charge if there were a major Ebola outbreak in the United States?

Shorter answer:

1. The National Incident Management System (NIMS) describes federal responsibilities in case of a major disease outbreak.
2. The U.S. Department of Health and Human Services and the Centers for Disease Control and Prevention would have a leadership role during a major Ebola outbreak.
3. Local, state, territorial, and tribal officials will lead the response to a major Ebola outbreak in their areas.

Longer answer:

1. The National Incident Management System (NIMS) describes federal responsibilities in case of a major disease outbreak.
   - The NIMS would be used if an Ebola outbreak occurs.
   - A “Lead Federal Official” would be assigned to direct the response.

2. The U.S. Department of Health and Human Services and the Centers for Disease Control and Prevention would have a leadership role during a major Ebola outbreak.
   - The Department of Health and Human Services and CDC would work with the WHO and other countries in response to an Ebola outbreak in the U.S.
   - DHHS would work with many federal agencies in response to an Ebola outbreak.
   - DHHS will help state, local, and tribal governments, hospitals, and healthcare providers develop and implement their Ebola outbreak response plans.

3. Local, state, territorial, and tribal officials will lead the response to a major Ebola outbreak in their areas.
   - Local, state, and tribal plans for Ebola are being drafted, tested, and refined.
   - Local, state, and tribal officials would work with federal partners to meet their local needs.
   - Local, state, and tribal officials would work with the healthcare system in response to Ebola.
402. Will non-citizens with Ebola get treated at U.S. hospitals?

Shorter answer:

1. *Ebola affects all people regardless of citizenship.*
2. *The needs of all people must be addressed in the response to Ebola.*
3. *In the current outbreak, we must all work together.*
4. *Health professionals have an ethical obligation to treat the sick.*

Longer answer:

1. *Ebola affects all people regardless of citizenship.*
   - The response to Ebola must address the needs of citizens and non-citizens alike.
   - It is in our collective interest to isolate and treat an ill individual to prevent the spread of Ebola regardless of nationality.

2. *The needs of all people must be addressed in the response to Ebola.*
   - People who have been exposed to a communicable disease might not know it.
   - People may have a communicable disease without showing obvious symptoms.

3. *In the current outbreak in West Africa, we must all work together.*
   - An effective response to Ebola requires the cooperation of everyone.
   - People here must be treated alike, wherever they are from.
   - We will continue the American tradition of helping those in need.

4. *Health professionals have an ethical obligation to treat the sick.*
VII. 500 series: Quarantine and Isolation

501. What is quarantine?
502. What is isolation?
503. Will quarantine and isolation be effective in limiting the spread of Ebola?
504. Where are people quarantined?
501. What is quarantine?

Shorter answer:

1. Quarantine has been successfully used to prevent the spread of communicable disease.
2. Quarantine is an action taken for an individual with a believed exposure who is not yet ill (not presenting signs/symptoms).
3. Quarantine involves keeping people who are likely to have been directly exposed to the Ebola virus or who may be potentially infected away from others.

Longer answer:

1. **Quarantine has been successfully used to prevent the spread of communicable disease.**
   - Quarantine during Ebola may last for as long as 21 days.
   - Quarantine separates and restricts the movement of people.
   - Quick action by health officials is needed to stop person-to-person spread of a contagious disease.
   - Quarantine may be voluntary or involuntary based on medical evaluation.

2. **Quarantine is an action taken for an individual with a believed exposure who is not yet ill (not presenting signs/symptoms).**
   - Quarantine is where a person is asked to remain separate from other people to avoid spreading infection if they become ill.
   - The CDC has published guidelines on monitoring symptoms and controlling movement of persons that relate to quarantine.

3. **Quarantine involves keeping people who are likely to have been directly exposed to the Ebola virus or who may be potentially infected away from others.**
   - People who have been exposed to a communicable disease might not know it.
502. What is isolation?

Shorter answer:

1. Isolation separates infected people from others.
2. Isolation applies to people known to be infected with a disease.
3. Isolation is a way to limit the spread of disease.

Longer answer:

1. *Isolation separates infected people from others.*

   - Isolation protects healthy people and caregivers from disease.
   - Isolation protects infected people from getting other diseases.
   - Isolation protects family and friends of infected people from getting sick.
   - Isolation typically involves putting an infected person in a separate room or special area, for example, of a hospital.

2. *Isolation applies to people known to be infected with a disease.*

   - Isolation allows for the delivery of specialized care to infected persons.
   - Isolation helps keep infected people from spreading a disease to others.

3. *Isolation is a way to limit the spread of disease.*

   - Isolation is a standard public health practice for disease control.
   - Hospitals have plans that describe how to isolate patients.
   - Isolation is a medical decision that can be legally enforced.
503. **Will quarantine and isolation be effective in limiting the spread of Ebola?**

**Shorter answer:**

1. *Quick action by health officials is needed to limit person-to-person spread of a contagious disease.*
2. *Quarantine and isolation are two of the available public health tools to help control the spread of disease.*
3. *Previous outbreaks of communicable disease have been controlled by quarantine, isolating patients with disease, and monitoring all contacts.*

**Longer answer:**

1. *Quick action by health officials is needed to limit person-to-person spread of a contagious disease.*

2. *Quarantine and isolation are two of the available public health tools to help control the spread of disease.*
   - Quarantine and isolation are two of the first steps often taken by public health officials in response to a disease outbreak.
   - Other helpful tools for slowing communicable disease spread include monitoring and contact tracing.
   - Quarantine and isolation have helped limit the spread of diseases such as plague and smallpox.

3. *Previous outbreaks of communicable disease have been controlled by quarantine, isolating patients with disease, and monitoring all contacts.*
   - Isolating people with Ebola coupled with aggressive and through tracing of all contacts, followed by monitoring the contacts for symptoms of Ebola for 21 days and then isolating any contact who develops symptoms has been a proven strategy to defeat Ebola.
504. Where are people quarantined?

Shorter answer:

1. Quarantine can be done at homes as well as at special facilities.
2. Special facilities may be needed if large numbers of people are involved.
3. Many communities have plans for quarantine procedures during a disease outbreak.

Longer answer:

1. **Quarantine can be done at homes as well as at special facilities.**
   - Quarantine sites are determined in part by the number of cases.
   - Based on medical evaluation, quarantine may be done at a private residence or specialized facility.

2. **Special facilities may be needed if large numbers of people are involved.**
   - Facilities may be needed to quarantine many people in many locations.
   - Local and state emergency plans identify facilities that can be used for quarantine.
   - The federal government is working with states and cities to identify additional facilities for quarantine.
   - Due to the nature of the disease and the rigorous monitoring in place, it is unlikely that large numbers of Americans will have contact with someone sick with Ebola.

3. **Many communities have plans for quarantine procedures during a disease outbreak.**
   - Disease control plans describe the equipment needed to do quarantine.
   - These plans describe the supplies needed for quarantine.
   - These plans describe the medicines needed for quarantine.
VIII. 600 series: Monitoring, Contact-Tracing, and Screening

601. What is “monitoring” in relation to Ebola?
602. How does “monitoring” work for a person who might have contracted Ebola?
603. Why do you believe that monitoring and contact tracing will be effective in preventing or limiting the spread of Ebola?
601. What is “monitoring” in relation to Ebola?

Shorter answer:

1. Monitoring involves regularly checking the health of a person who may be infected with Ebola.
2. CDC guidance on monitoring and movement distinguished between active and direct active monitoring.
3. CDC guidance refers to risk level which in turn determines monitoring actions.

Longer answer:

1. Monitoring involves regularly checking the health of a person who may be infected with Ebola.
   - Monitoring enables health officials to quickly identify and isolate potential cases of Ebola.
   - Monitoring involves checking for fever and other symptoms and reporting them to a health worker or agency.

2. CDC guidance on monitoring and movement distinguishes between active and direct active monitoring.
   - Active monitoring involves the individual reporting to the public health authority.
   - Direct active monitoring involves the public health authority conducting direct observation.

3. CDC guidance refers to risk level which in turn determines monitoring actions.
   - Please refer to the Appendix III or http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html.
602. How does “monitoring” work for a person who may have been exposed to Ebola?

Shorter answer:

1. Monitoring involves regularly checking the health of a person who may be infected with Ebola.
2. Monitoring often involves checking for fever and other symptoms, and reporting them to a health worker or agency.
3. CDC guidance on monitoring and movement distinguished between active and direct active monitoring.
4. CDC guidance refers to risk level which in turn determines monitoring actions.

Longer answer:

1. Monitoring involves regularly checking the health of a person who may be infected with Ebola.
   - Monitoring enables health officials to quickly identify and isolate potential cases of Ebola.
2. Monitoring often involves checking for fever and other symptoms, and reporting them to a health worker or agency.
3. CDC guidance on monitoring and movement distinguishes between active and direct active monitoring.
   - Active monitoring involves the individual reporting to the public health authority.
   - Direct active monitoring involves the public health authority conducting direct observation.
4. CDC guidance refers to risk level which in turn determines monitoring actions.
   - Please refer to the attached Appendix III or http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html.
603. Why do you believe that monitoring will be effective in preventing or limiting the spread of Ebola?

Shorter answer:

1. Previous outbreaks of Ebola have been controlled by quarantine, isolating patients with disease, and monitoring all contacts.
2. Monitoring can be especially effective when done in combination with controlled movement and exclusion from public places or workplaces.
3. Monitoring is an important tool for checking the health status of people who have or may have been exposed to the Ebola virus or a person infected with Ebola.

Longer answer:

1. Previous outbreaks of Ebola have been controlled by quarantine, isolating patients with disease, and monitoring all contacts.
   - These tools have been used to contain and end all previous Ebola outbreaks since 1976.
   - These tools have been used to stop and contain the outbreaks in Senegal and Nigeria that have been associated with the current Ebola outbreak.
   - These tools have been used in Spain to contain the onward spread of disease where a nurse contracted Ebola from a patient receiving care in a hospital.
   - The tools have been used in the United States to prevent onward transmission of Ebola in the community (beyond healthcare workers).

2. Monitoring can be especially effective when done in combination with controlled movement and exclusion from public places or workplaces.
   - Please refer to the attached Appendix or http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html.

3. Monitoring is an important tool for checking the health status of people who have or may have been exposed to the Ebola virus or a person infected with Ebola.
   - Monitoring the health status of people exposed to Ebola virus or infected people helps healthcare providers identify infected people as quickly as possible.
   - People are only able to spread the virus to others when they have symptoms of Ebola.
IX. 700 series: Mental Health

701. What can people do if thinking about Ebola makes them anxious?
702. If there are no vaccines and specific medicines, what hopes can people have?
703. How worried should people be about an Ebola outbreak in the United States?
704. How are authorities helping those who are stigmatized by Ebola?
701. What can people do if thinking about Ebola makes them anxious?

Shorter answer:

1. **People can take good care of their physical needs to help their anxious feelings.**
2. **People can address their emotional and spiritual needs to help them be calmer.**
3. **It is helpful to follow the instructions of the federal, state, and local health departments.**

Longer answer:

1. **People can take good care of their physical needs to help their anxious feelings.**
   - People can remember that good physical health helps produce good mental health.
   - Avoiding increased use of drugs, alcohol, and tobacco can help reduce anxiety.
   - Eating a balanced diet, practicing good sleep habits, maintaining normal routines, and getting regular exercise can help reduce anxiety.
   - It is important to follow the prevention recommendations of healthcare providers and public health officials, such as getting the annual flu vaccination.

2. **People can address their emotional and spiritual needs to help them be calmer.**
   - People should recognize and reduce other sources of stress as much as possible.
   - People can identify and plan for healthy ways to take care of themselves.
   - It is often helpful to call on sources of social and spiritual support, such as friends and houses of worship.

3. **It is helpful to follow the instructions of the federal, state, and local health departments.**
   - Stress is often reduced when people can take constructive actions, like washing their hands or getting the annual flu vaccination to take charge of their health and control their risk.
702. If there are no vaccines and specific medicines, what hopes can people have?

Shorter answer:

1. All previous Ebola epidemics have been stopped using basic public health measures.
2. People do survive Ebola.
3. The United States and other countries are working to control Ebola.
4. People can take common-sense steps to keep from spreading germs.

Longer answer:

1. All previous Ebola epidemics have been stopped using basic public health measures.
   • The proven Ebola epidemic strategy includes:
     o Early recognition and isolation of Ebola cases.
     o Early identification, quarantine, and monitoring of contacts so that should they become ill, they can immediately be isolated.
     o Ensuring that healthcare workers are protected is effective at containing and stopping an Ebola outbreak.

2. People do survive Ebola.
   • Ebola survivors have natural immunity against being re-infected and experts believe this may be lifelong.
   • Ebola survivors can help care for Ebola victims.
   • Survivors are important educators and links to the community particularly in high-burden countries.

3. The United States is working with other countries to control Ebola.
   • The U.S. Department of Health and Human Services and others are testing new vaccines and medicines.
   • The United States has been working with the World Health Organization and other countries to strengthen the ability to detect and respond to Ebola.
   • Preparedness efforts are on-going at the national, state, and local level.

4. People can take common-sense steps to keep from spreading germs.
• It is important to remember a person can only get Ebola if they come in contact with a person who is ill with Ebola or their body fluids.
• People should wash their hands frequently.
• People should avoid direct contact with body fluids of persons suspected of having Ebola.
• People should avoid contact with objects that may be contaminated with Ebola.
• If you think you may have Ebola, you should avoid direct contact with others and immediately contact your healthcare provider.
703. **How worried should people be about a major Ebola outbreak in the United States?**

Shorter answer:

1. Experts assess the likelihood of a major outbreak of Ebola in the United States as very unlikely.
2. The likelihood of a major outbreak of Ebola in the United States depends on how successfully Ebola can be stopped in West Africa.
3. Working together is critical to the effectiveness of the Ebola response effort in the United States.

Longer answer:

1. Experts assess the likelihood of a major outbreak of Ebola in the United States as very unlikely.
   - The only two people confirmed to have gotten Ebola in the United States were healthcare workers involved in the care of a critically ill patient with Ebola during the time when the likelihood of disease spread is the greatest.
   - It is possible there may be additional cases in the United States, but effective public health actions should prevent individual cases from causing a major outbreak.

2. The likelihood of a major outbreak of Ebola in the United States depends on how successfully Ebola can be stopped in West Africa.

3. Working together is critical to the effectiveness of the Ebola response effort in the United States.
   - Hospitals and other healthcare organizations are strengthening detection and tracking of suspected cases of Ebola.
   - Hospitals and other healthcare organizations have activated their disease response plans.
   - Researchers are working to develop medicines and vaccines.
704. How are authorities helping those who are stigmatized by Ebola?

Shorter answer:

1. Stigma involves stereotyping and discriminating against an identifiable group of people, a place, or a nation.
2. People who are treated for, or survive Ebola, may face stigma.
3. People who come from West Africa, or have travelled recently to West Africa, may face stigma.
4. Public health authorities can raise awareness and counter Ebola stigma problems.

Longer answer:

1. **Stigma involves stereotyping and discriminating against an identifiable group of people, a place, or a nation.**
   - Stigmatized people may be avoided or ostracized.
   - Stigmatized people may be refused entry or access.
   - Stigmatized people may be refused services.
   - Stigmatized people may encounter rejection of their services.
   - Stigmatized people may encounter fear of the places they frequent or items they have handled.

2. **People who are treated for, or survive Ebola, may face stigma.**
   - Ebola survivors may find it difficult to come back to their communities and be accepted.
   - Many people do not believe that Ebola survivors have been fully cured.
   - In West Africa, there is a superstitious belief that Ebola is a “curse.”

3. **People who come from West Africa or have travelled recently to West Africa may face stigma.**

4. **Public health authorities can raise awareness and counter Ebola stigma problems.**
   - Authorities can seek to protect the privacy and confidentiality of those affected by Ebola.
- Authorities can seek to protect the privacy and confidentiality of those who seek healthcare for Ebola.
- Authorities can maintain the privacy and confidentiality of those involved in an Ebola contact investigation.
- Authorities can communicate clearly about the risks of Ebola from products, people, and places.
  - Authorities can share accurate information about how Ebola spreads.
  - Authorities can explain that Ebola is caused by a virus and not by a person.
- Authorities can speak out against negative media and social media statements about Ebola that stereotype or discriminate against an identifiable group of people.
  - Authorities can be cautious about images that are shared, make sure they do not reinforce stereotypes.
  - Authorities can engage with stigmatized groups in person and through media channels.
X. 800 series: Travel and Transport

801. What can travelers do to prevent Ebola?
802. What is post-arrival monitoring for travelers?
803. Should I avoid contact with a relative/co-workers/classmate/neighbour that recently travelled to West Africa?
804. Would a travel ban or imposing travel restrictions from countries experiencing Ebola outbreaks help protect the United States?
805. Can I get Ebola from public transportation?
806. Is it safe to travel by commercial airline?
807. What should U.S. citizens do if they become sick while travelling in highly-affected countries?
808. What are the requirements for bringing pets or other animals into the United States from West Africa?
801. What can travelers do to prevent Ebola?

Shorter answer:

1. People should avoid nonessential travel to Liberia, Guinea, and Sierra Leone.
2. The vast majority of travelers who do not visit the most affected countries in West Africa need to do nothing other than practicing good basic hygiene.
3. Travelers should always practice good hygiene.
4. If people must travel to West Africa (e.g., aid workers, family matters, etc.), they must take special precautions.
5. Travelers should seek advice from the U.S. embassy or consulate or other international healthcare provider for prompt medical attention if they develop Ebola symptoms.

Longer answer:

1. People should avoid nonessential travel to Liberia, Guinea, and Sierra Leone.
2. The vast majority of travelers who do not visit the most affected countries in West Africa need to do nothing other than practicing good basic hygiene.
3. Travelers should always practice good hygiene.
   - Regular hand washing with soap and water or use of an alcohol-based hand sanitizer will reduce the likelihood of many common travel maladies.
4. If people must travel to West Africa (e.g., aid workers, family matters, etc.), they must take special precautions.
   - Special precautions for travelers to West Africa include:
     - Avoiding contact with blood and body fluids (such as urine, saliva, sweat, feces, vomit, mucus, and semen).
     - Not handling items that may have come in contact with an infected person’s blood or body fluids.
     - Avoiding direct contact with the body of someone who has died from Ebola, including participating in funeral or burial rituals.
     - Before departure, checking their health insurance plan and benefits to learn what is covered in the event of illness.
     - Carrying the full coverage, including coverage for emergency medical evacuation.
o Checking the information about medical evacuation services can be found on the U.S. Department of State's web page.
o Checking their health insurance to be sure they have coverage for travelling to countries highly affected by Ebola.
o Checking their coverage limits for evacuation insurance and whether their policy covers evacuation to the United States or to the nearest location where adequate medical care is offered.

5. **Travelers should seek advice from the U.S. embassy or consulate or other international healthcare provider for prompt medical attention if they develop Ebola symptoms.**

- The U.S. embassy or consulate is often able to provide advice on facilities that are suitable for people’s needs.
- Travelers should avoid hospitals in West Africa where Ebola patients are being treated.
- Travelers should seek medical care immediately if they develop a fever or other symptoms of Ebola such as severe headache, muscle pain, vomiting, diarrhea, stomach pain, or unexplained bleeding or bruising.
802. What is monitoring for travelers?

Shorter answer:

1. Monitoring involves regularly checking the health of a person who may be infected with Ebola.
2. CDC guidance on monitoring and movement distinguished between active and direct active monitoring.
3. CDC guidance refers to risk level which in turn determines monitoring actions.

Longer answer:

1. Monitoring involves regularly checking the health of a person who may be infected with Ebola.
   
   - Monitoring enables health officials to quickly identify and isolate potential cases of Ebola.
   - Monitoring often involves checking for fever and other symptoms and reporting them to a health worker or agency.

2. CDC guidance on monitoring and movement distinguishes between active and direct active monitoring.
   
   - Active monitoring involves the individual reporting to the public health authority.
   - Direct active monitoring involves the public health authority conducting direct observation.

3. CDC guidance refers to risk level which in turn determines monitoring actions.
   
   - Please refer to the attached Appendix III or http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html.
803. Should I avoid contact with a relative/co-worker/classmate/neighbor who recently traveled to West Africa?

Shorter answer:

1. People do not need to avoid relatives/coworkers/classmates/neighbors who have recently traveled to the most affected countries in West Africa.
2. People should avoid contact with body fluids from those who have symptoms of Ebola.
3. Travelers should be alert and cautious, but remember that Ebola is hard to catch.

Longer answer:

1. People do not need to avoid relatives/coworkers/classmates/neighbors who have recently traveled to the most affected countries in West Africa.

   - Ebola is not spread through ordinary social contact.
   - Ebola is not spread by shaking hands, travelling on public transport, or sitting beside someone who is infected and does not have any symptoms.

2. People should avoid contact with body fluids from those who have symptoms of Ebola.

   - People who work in healthcare settings or other occupations that may come into contact with blood or other body fluids should be properly trained.

3. Travelers should be alert and cautious, but remember that Ebola is hard to catch.

   - Direct contact with infected body fluids must happen in order to get Ebola.
   - An Ebola patient is only contagious—that is, able to spread or transmit the disease to other people only when they showing symptoms.
   - It takes between 2 and 21 days – but typically around 8-10 days – from infection for someone to start showing symptoms.
   - Before a person starts showing symptoms, they would likely be unaware that they have Ebola, but they wouldn’t be infectious.
804. Would a travel ban or imposing travel restrictions from countries experiencing Ebola outbreaks help protect the United States?

Shorter answer:

1. Travel bans or travel restrictions on people coming from the most affected countries in West Africa would likely have minimal effect in protecting the United States from Ebola.
2. The best way to protect the United States is to fight and stop the Ebola epidemic in West Africa.
3. If the Ebola outbreak in West Africa is not stopped, Ebola will spread to other countries, and there could be serious global social, political, and economic consequences.

Longer answer:

1. Travel bans or travel restrictions on people coming from the most affected countries in West Africa would likely have minimal effect in protecting the United States from Ebola.

   - If a travel ban were in place, travelers from West Africa who enter the United States would do so illegally and there would be no screening.
   - Having an official mechanism to screen, track and monitor travelers gives public health authorities much greater control over who and what enters the United States.
   - It is important to note that state officials have no authority to restrict international travel.

2. The best way to protect the United States is to fight and stop the Ebola epidemic in West Africa.

   - Guinea, Sierra Leone, and Liberia are some of the poorest countries and the Ebola epidemic has overwhelmed their ability to respond.
   - If the Ebola epidemic continues uncontrolled, Ebola will spread making it much more difficult to stop.
   - As long as the Ebola outbreak in West Africa continues, the United States will always be at risk.
   - People who have experience with fighting diseases like Ebola can help West African governments, healthcare workers and control Ebola in West Africa.
The United States can best use its resources to screen, track, and follow up travelers from West Africa and throw its considerable capabilities to lead and support the global efforts to stop Ebola in West Africa.

3. **If the Ebola outbreak in West Africa is not stopped, Ebola will spread to other countries, governments may fail, and there could be serious global social, political, and economic consequences.**

- If Ebola spread to other countries, scarce resources will have to be diluted to fight the epidemic on multiple fronts.
- If the Ebola epidemic continues uncontrolled, a collapse of the social structure in West Africa is possible.
- Throughout history, major disease outbreaks have had considerable economic impact.
- The 2003 epidemic of the Severe Acute Respiratory Syndrome (SARS) cost an estimated $40 billion to the global economy.
805. Can I get Ebola from public transportation?

Shorter answer:

1. *Ebola is very unlikely to spread through public transport.*
2. *During previous Ebola outbreaks in Africa, there are no known cases of Ebola caught from using public transport.*
3. *It is uncertain how much Ebola virus is required to establish an infection.*

Longer answer:

1. **Ebola is very unlikely to spread through public transport.**
   - No case of Ebola coming from a dry surface has ever been confirmed.
   - Though Ebola is found in the body fluids of an infected person, the virus is usually at high levels only in blood, feces, and vomit.
   - A person with the symptoms of the most infectious stages of Ebola is unlikely to use public transportation.
   - Ebola experts say the disease cannot be transmitted before the appearance of symptoms.

2. **During previous Ebola outbreaks in Africa, there are no known cases of Ebola caught from using public transport.**
   - Africa has densely crowded public transport including buses, mini vans and trains and despite many Ebola outbreaks, there are no known cases of Ebola caught by using public transport.
   - In July 2014, a person with Ebola flew to Nigeria and was vomiting on the plane: all 200 people aboard were monitored for Ebola and no one caught the disease.

3. **It is uncertain how much Ebola virus is required to establish an infection.**
   - Large amounts of Ebola virus in saliva are rare except for very sick people.
   - Though detectable, Ebola virus capable of causing infection has never been found in sweat.
   - Body fluids known to have large amounts of Ebola virus are blood, feces and vomit that come from people when they are very sick and unlikely to travel.
   - Re-use of needles or an inadvertent needle stick would expose a person to large amounts of virus in the contaminated needle.
806. Is it safe to travel by commercial airline?

Shorter answer:

1. Travelling by commercial airline is low risk.
2. Ebola is hard to get and requires direct contact with infected body fluids from a person with symptoms.
3. The Ebola virus dies quickly when dried.

Longer answer:

1. Travelling by commercial airline is low risk.
   - Airports in the most affected countries have pre-departure screening for Ebola.
   - If a person is not screened or develops symptoms on the flight, people must have direct contact with infected body fluids to be at risk for Ebola.
   - In July 2014, a person with Ebola flew to Nigeria and was vomiting on the plane: all 200 people aboard were monitored for Ebola and no one caught Ebola.
   - The International Air Transport Association (IATA) has guidelines for identifying a sick passenger with communicable disease on board as well as for the ground staff receiving the passenger at the destination.

2. Ebola is hard to get and requires direct contact with infected body fluids from a person with symptoms.
   - Body fluids containing Ebola virus may include: blood, saliva, sweat, urine, feces, vomit, mucus, breast milk, and semen.
     - According to the World Health Organization, blood, feces and vomit are the most infectious fluids.
     - The Ebola virus is found in saliva mostly once patients are severely ill.
   - There is no evidence of any cases of Ebola spreading through the air by small droplets.
     - The Ebola virus is not spread in the air the same way the flu or the measles virus spreads through the air.
   - The virus in blood and body fluids can enter another person’s body through broken skin or unprotected mucous membranes like the eyes, nose, or mouth.
• Ebola can be spread through contact with objects that have been contaminated with the virus.

3. The Ebola virus dies quickly when dried.

• According to experts, the Ebola virus is easily destroyed outside of the body.
• The Ebola virus is fragile and dies when dried out.
• Studies done in Ebola Treatment Units in Africa have found that the Ebola virus can live on surfaces for a few hours at most.
807. What should U.S. citizens do if they become sick while travelling in or from highly affected countries?

Shorter answer:

1. Travelers should seek advice from the U.S. embassy or consulate or other international healthcare provider for prompt medical attention if they develop Ebola symptoms in an affected country.
2. Travelers should notify their home organization, travel group, friends, or relatives immediately that they are not feeling well.
3. Travel companions should be monitored.

Longer answer:

1. Travelers should seek advice from the U.S. embassy or consulate or other international healthcare provider for prompt medical attention if they develop Ebola symptoms in an affected country.
   • The U.S. embassy or consulate is often able to provide advice on facilities that are suitable for people’s needs.
   • Travelers should avoid hospitals in West Africa where Ebola patients are being treated.
   • Travelers should seek medical care immediately if they develop fever or other symptoms such as severe headache, muscle pain, vomiting, diarrhea, stomach pain, or unexplained bleeding or bruising.

2. Travelers should notify their home organization, travel group, friends, or relatives immediately that they are not feeling well.
   • Travelers with Ebola symptoms should not go anywhere until after consulting with a healthcare provider or government official.
   • Travelers with Ebola symptoms should limit their contact with other people when they travel to a healthcare facility.
   • People should inform the doctor about their symptoms before going to the doctor’s office or hospital.
     o Advance notice will help the doctor provide appropriate care and protect other people who may be in the doctor’s office or hospital.

3. Travel companions should be monitored.
• Provide names and contact information for travel companions should they may need to be monitored.
• Travel companions of people who develop Ebola symptoms should notify health authorities and be monitored for symptoms of illness.
• Travel companions should avoid direct contact with other travelers who are experiencing symptoms of Ebola.
• If travelling by air and you or your companion develops Ebola symptoms, contact airline staff immediately.
• To catch Ebola, someone must have direct contact with body fluids from an infected person who has symptoms.
• Normal social contact does not spread Ebola.
808. What are the requirements for bringing pets or other animals into the United States from West Africa?

Shorter answer:

1. *U.S. regulations require that dogs and cats imported in the United States be healthy.*
2. *Monkeys are at risk for carrying Ebola.*
3. *Fruit bats in Africa are considered to be a natural reservoir for Ebola.*

Longer answer:

1. *U.S. regulations require that dogs and cats imported in the United States be healthy.*
   - Dogs must be vaccinated against rabies before arrival into the United States.
   - Each State and Territory has different rules for pet importation.
   - Airlines may have additional requirements.

2. *Monkeys are at risk for carrying Ebola.*
   - Monkeys and African rodents are not allowed to be imported as pets under any circumstances.
   - Symptoms of Ebola infection in monkeys include fever, decreased appetite, and sudden death.
   - Monkeys should not be allowed to have contact with anyone who may have Ebola.
   - Healthy monkeys already living in the United States and without exposure to a person infected with Ebola are not at risk for spreading Ebola.

3. *Fruit bats in Africa are considered to be a natural reservoir for Ebola.*
   - Bats in North America are not known to carry Ebola.
   - Experts consider the risk of an Ebola outbreak from bats occurring in the United States to be very low.
   - Bats are known to carry rabies and other diseases here in the United States and thus one should avoid touching a bat, living or dead.
XI. 900 series: Media

901. What is expected from the media regarding Ebola?
902. Has the media just over-reacted and sensationalized Ebola?
901. What is expected from the media regarding Ebola?

Shorter answer:

1. The media are vital for getting information to the public and affected populations during Ebola planning and response.
2. Health officials count on the media to be informed about Ebola.
3. Health officials count on the media to provide accurate and timely reports about Ebola.

Longer answer:

1. The media are vital for getting information to the public and affected populations during Ebola planning and response.
   - The media play a critical role in keeping the public informed about Ebola.
   - The media can quickly provide urgent information if there were an Ebola outbreak.
   - The public will turn to the media if there were an Ebola outbreak.
   - The media will provide key information about Ebola to those leading and planning response efforts.

2. Health officials count on the media to be informed about Ebola.
   - Researchers are sharing the results of their efforts with the media about Ebola.
   - State and local officials are updating local reporters on Ebola.
   - Federal, state, and local governments have posted answers on their Web sites to frequently asked media questions.
   - Federal, state, and local governments are using social media to keep the media and public informed.

3. Health officials count on the media to provide accurate and timely reports about Ebola.
   - The media can inform the public on current events and what can be expected in regards to Ebola.
   - The media can bring attention to Ebola issues.
   - The media can inform the public of recommendations, available services and actions that should be taken.
902. Has the media overreacted and sensationalized Ebola?

Shorter answer:

1. *Ebola is dramatic and has many opportunities for generating intense media coverage.*
2. *People's concerns and unfamiliarity with Ebola help generate media interest and sensationalism.*
3. *The media play a vital part in providing the public with accurate and timely information about Ebola.*

Longer answer:

1. *Ebola is dramatic and has many opportunities for generating intense media coverage.*
   - Though hard to catch in a non-healthcare setting, Ebola has a high rate of death once someone is infected.
   - Ebola has no specific drugs or preventive vaccines.
   - The short time from infection to severe illness suits the attention span of sensational media coverage.
   - There are many interesting photographic and video opportunities for the mass media.

2. *People's concerns and unfamiliarity with Ebola help generate media interest and sensationalism.*
   - The American public is unfamiliar with Ebola.
   - Invisible infectious agents with lethal potential like Ebola are rated amongst the highest fear and anxiety-inducing phenomenon.
   - The current Ebola outbreak in West Africa is unprecedented in size and has many uncertainties.
   - The media frequently covers missteps, mistakes, and disagreements.

3. *The media plays a vital part in providing the public with accurate and timely information about Ebola.*
   - Public officials can use the media to provide people with reliable, helpful, and unbiased information about Ebola.
     - The media can bring attention to Ebola issues.
The media can inform the public of available services and actions that should be taken.

- Public officials can temper media sensationalism by being transparent.
- Public officials can temper media sensationalism by acknowledging uncertainties and be willing to admit mistakes.
- Public officials can temper media sensationalism by providing timely, accurate, and credible information.
XII. Appendix A: Message Mapping

Authors:
Dr. Vincent Covello, Center for Risk Communication and CrisisCommunication.net
Dr. Randall Hyer, Center for Risk Communication and CrisisCommunication.net

I. Overview

"Message maps" are risk communication tools used to help organize complex information and make it easier to express current knowledge. The development process distils information into easily understood messages written at an approximately 6th to 8th grade reading level.

Messages are presented initially in no more than 3-5 short sentences that convey 3-5 key messages, in as few words as possible. The approach is based on surveys showing that lead or front-page media and broadcast stories usually convey only three key messages usually in less than 9 seconds for broadcast media or 27 words for print.

Each key message has three supporting messages. These can be used when and where appropriate to provide context for the issue being mapped.

II. SAMPLE MESSAGE MAP – SMALLPOX (WITH KEYWORDS IN ITALICS)

Stakeholder: Public
Question or Concern: How contagious is smallpox?

a. Bullet format message map

Shorter Version

• Smallpox spreads slowly compared to other diseases.
• The slow spread of smallpox allows time to find those infected.
• People infected with smallpox can be vaccinated to prevent illness.

Longer Version

• Smallpox spreads slowly compared to other diseases.
  o People are only infectious when the rash appears.
- Smallpox typically requires hours of face-to-face contact.
- There are no smallpox carriers without symptoms.

- The slow spread of smallpox allows time to find those infected.
  - The time period before smallpox symptoms appear is 10–14 days
  - Resources are available for finding people who may have become infected with smallpox.
  - Finding people who have been exposed to smallpox and vaccinating them has proved successful in the past.

- People infected with smallpox can be vaccinated to prevent illness.
  - People who have never been vaccinated are the most important to vaccinate.
  - Adults who were vaccinated for smallpox as children may still have some immunity.
  - Adequate smallpox vaccine is on hand.

b. Box Format Message Map

<table>
<thead>
<tr>
<th>Stakeholder: Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question or Concern: How contagious is smallpox?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Message 1</th>
<th>Key Message 2</th>
<th>Key Message 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallpox spreads slowly compared to other diseases.</td>
<td>The slow spread of smallpox allows time to find those infected.</td>
<td>People infected with smallpox can be vaccinated to prevent illness.</td>
</tr>
<tr>
<td>Supporting Information 1-1</td>
<td>Supporting Information 2-1</td>
<td>Supporting Information 3-1</td>
</tr>
<tr>
<td>People are only infectious when the rash appears.</td>
<td>The time period before smallpox symptoms appear is 10–14 days</td>
<td>People who have never been vaccinated are the most important to vaccinate.</td>
</tr>
<tr>
<td>Supporting Information 1-2</td>
<td>Supporting Information 2-2</td>
<td>Supporting Information 3-2</td>
</tr>
<tr>
<td>Smallpox typically requires hours of face-to-face contact.</td>
<td>Resources are available for finding people who may have become infected with smallpox.</td>
<td>Adults who were vaccinated as children may still have some immunity.</td>
</tr>
<tr>
<td>Supporting Information 1-3</td>
<td>Supporting Information 2-3</td>
<td>Supporting Information 3-3</td>
</tr>
<tr>
<td>There are no smallpox carriers without symptoms.</td>
<td>Finding people who have been exposed to smallpox and vaccinating them has proved successful in the past.</td>
<td>Adequate vaccine is on hand.</td>
</tr>
</tbody>
</table>
III. Nine Principles of Message Mapping

1) Limiting the number of key messages to a maximum of 3-5 using as few words as possible, ideally no more than 9 seconds or 27 words to express the necessary information.

2) Constructing messages that can be easily understood by an adult with a 6th to 8th grade education. This can be tested using the “readability” utility contained in a number of word-processing programs.

3) Adhering to the “primacy/recency” or “first/last” principle. This principle states that the most important messages should occupy the first and last position in a list.

4) Citing third parties or sources that would be perceived as credible by the receiving audience.

5) Providing a preamble to the message map that indicates genuine empathy, listening, caring and compassion – crucial factors in establishing trust in high-concern, high-stress situations.

6) Using graphics, visual aids, analogies and narratives (such as personal stories) can increase an individual’s ability to hear, understand and recall a message by more than 50%.

7) Constructing messages while recognizing the dominant role of negative thinking in high-concern situations. Examples include: avoiding unnecessary, indefensible or non-productive uses of absolutes, and of the words “no”, “not”, “never”, “nothing” and “none”; balancing or countering a negative key message with positive, constructive or solution-oriented key messages; and providing three or more positive points to counter a single negative point or bad news.

8) Presenting the full message map using the repetitive structure found in the “Tell me, Tell me more, Tell me again model” (the “Triple T Model”):
   - Tell people the information in summary form (i.e., the three key messages);
   - Tell them more (i.e., the supporting information); and Tell people again what was told in summary form (i.e., repeat the three key messages).

9) Developing key messages and supporting information that address important risk perception, outrage and fear factors such as trust, benefits, control, voluntariness, dread, fairness, reversibility, catastrophic potential, effects on children, morality, origin and familiarity.
Appendix B: Media Interviews: Tips and Pitfalls

Authors:
Dr. Vincent Covello, Center for Risk Communication and CrisisCommunication.net
Dr. Randall Hyer, Center for Risk Communication and CrisisCommunication.net

1. Overview

In general, the media is interested in the following:

- Human interest stories
- Bad news more than good news
- People’s perspectives
- Yes or no/safe or unsafe answers
- Front-page news stories.

2. Preparing for the Media Interview

- To maximize your impact, prepare and practice delivering your key message.
- For broadcast media: 27 words or 9-second "sound bite."
- For print media: 1 to 3 key messages.

3. Before, During, and After a Media Interview

a. Before the Media Interview

Do:

- Ask who will be conducting the interview.
- Ask which subjects they want to cover.
- Caution them when you are not the correct person to interview because there are topics you cannot discuss (because lack of knowledge, etc.).
- Inquire about the format and duration.
- Ask who else will be interviewed.
- Prepare the key take away messages you want the media to report.
- Practice.

Don’t:
Tell the news organization which reporter you prefer.
Ask for all the questions in advance.
Insist they do not ask about certain subjects.
Demand your remarks not be edited.
Insist an adversary not be interviewed.
Think that keeping a lid on the story will prevent the media from finding out.
Assume it will be easy.

b. During the Media Interview

Do:

- Express caring, concern, or empathy.
- Acknowledge the legitimacy of people's emotions and concerns.
- Be honest and accurate.
- Stick to your key message(s).
- State your conclusions first, then provide supporting data.
- Offer to get information you don't have.
- Stress the facts.
- Give a reason if you can't discuss a subject.
- Correct mistakes by stating you would like an opportunity to clarify.

Don't:

- Lie or try to cloud the truth.
- Improvise or dwell on negative allegations.
- Raise issues you don't want to see in the story.
- Fail to think it through ahead of time.
- Guess.
- Use jargon or assume the facts speak for themselves.
- Speculate or discuss hypothetical situations.
- Lose your composure.
- Say, "No comment."
- Demand an answer not be used.
3. After the Media Interview

Do:

- Remember you are still on the record.
- Be helpful. Volunteer to get information. Make yourself available.
- Respect deadlines.
- Watch for and read the resulting report.
- Call the reporter to politely point out inaccuracies, if any.

Don’t:

- Assume the interview is over or the equipment is off.
- Refuse to talk further.
- Ask, ”How did I do?”
- Ask to review the story before publication or broadcast.
- Complain to the reporter’s boss first.
XIV. Appendix C: Potential fact sheets based on CDC’s key message document, adapted from the original CDC document

CDC’s KEY MESSAGES – EBOLA VIRUS DISEASE, WEST AFRICA

Published by CDC’s Joint Information Center on Oct. 16, 2014
(revised and partially edited)

Note: these updates will naturally change as the situation evolves.

(Note to reader – if used, this fact sheet should updated to present time)

1. On August 8, the World Health Organization declared the current Ebola outbreak in West Africa to be a Public Health Emergency of International Concern.

2. The 2014 Ebola epidemic in West Africa is the largest in history.
   - Most Ebola cases in West Africa have been reported in three countries: Guinea, Liberia, and Sierra Leone.
   - A small number of Ebola cases were reported in Nigeria.
   - On September 20, WHO reported that the Ebola outbreak in Nigeria was contained, with no new Ebola cases reported since September 5th.
   - Cases in Liberia are currently doubling every 15-20 days, and those in Sierra Leone and Guinea are doubling every 30-40 days.

3. Without additional interventions or changes, CDC estimates that by the end of January 2015 there could be over 1.4 million cases in West Africa.

   - [http://www.cdc.gov/mmwr/preview/mmwrhtml/su63e0923a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/su63e0923a1.htm).
Fact Sheet 2: Update on the response to Ebola in the United States at the federal level as of October 16, 2014.

(Note to reader – if used, this fact sheet should updated to present time)

1. On October 17, 2014, President Barack Obama appointed Ron Klain, a former White House adviser, as U.S. Ebola "czar."
   - Ron Klain is a lawyer who previously served as chief of staff to Vice Presidents Joe Biden and Al Gore.
   - Mr. Klain will oversee the U.S. response to the virus.

2. The Centers for Disease Control and Prevention will continue as the leading government agency in the Ebola response.
   - CDC’s response to Ebola is the agency’s largest international outbreak response ever.
   - CDC, together with other parts of the U.S. Department of Health and Human Services, is leading the strategic effort to strengthen Ebola response at the local, county, and state, and federal level.

3. Many federal department agencies are supporting a government wide approach to Ebola.
   - The National Institutes of Health (NIH) and the Food and Drug Administration (FDA) are leading the effort to develop and test vaccines and new treatments.
   - The U.S. Agency for International Development leads the public health component of the United States’ overseas response to the Ebola outbreak.
   - On September 16, President Obama announced additional U.S. government support for the response in West Africa, including significant U.S. military funding and engagement.
     - U.S. Africa Command (AFRICOM) is setting up a regional command in Monrovia, Liberia, to facilitate the coordination of the response and to expedite the transportation of equipment, supplies, and personnel.
- Additional Ebola treatment units are being established in the affected areas, as well as a site to train up to 500 health workers per week to care for patients.
- The U.S. Public Health Service Commissioned Corps has deployed 65 health workers to support a state-of-the-art Department of Defense hospital that will be placed in Monrovia to provide care to health workers who become sick.
Fact Sheet 3: Update on Ebola cases outside of West Africa as of October 16, 2014.

(Note to reader – if used, this fact sheet should updated to present time)

1. On September 30, CDC confirmed the first case of Ebola to be diagnosed in the United States in a person who had traveled from Liberia to Dallas, Texas.
   • The patient had no symptoms when leaving West Africa, but developed symptoms approximately four days after arriving in the United States on September 20.
   • The patient sought medical care at Texas Health Presbyterian Hospital of Dallas on September 26, was evaluated, and was discharged home.
   • The patient was then admitted to the same Dallas hospital on September 28.
   • The medical facility isolated the patient and sent specimens for testing at CDC and at a Texas lab participating in CDC’s Laboratory Response Network.
   • Test results from both laboratories on September 30 confirmed that the patient had Ebola. The patient passed away on October 8, 2014.
   • The ill person did not exhibit symptoms of Ebola during the flights from West Africa to Dallas.
   • CDC does not recommend that people on the same commercial airline flights undergo monitoring, since Ebola is contagious only if the person is experiencing active symptoms.

2. On October 6, Spain confirmed a case of Ebola in a healthcare worker who had treated a patient repatriated from West Africa.

3. On October 10, a healthcare worker who provided care for the Dallas patient tested positive for Ebola.

4. On October 15, a second healthcare worker who provided care for the Dallas patient tested positive for Ebola.
   • The healthcare worker was isolated after initial reports of fever.
   • CDC has interviewed the healthcare worker to identify any contacts or potential exposures in the community.
5. On October 15, a second healthcare worker who provided care for the index patient at Texas Health Presbyterian Hospital tested positive for Ebola.

- On the morning of October 14, the healthcare worker reported to the hospital with a low-grade fever and was isolated.
- The healthcare worker had traveled by air October 13, the day before she reported symptoms.
- Because of the proximity in time between the evening flight and the first report of illness, CDC is reaching out to passengers who flew on the flight from Cleveland to Dallas.
  - The healthcare worker did not exhibit signs or symptoms while on the flight.
- Public health professionals have begun interviewing passengers about the flight, answering their questions, and arranging follow up.

6. Because of the ongoing CDC investigation, the CDC does not expect additional Ebola exposures.

- A team from CDC has deployed to Dallas to assist with the investigation.
- The CDC investigation team is supported CDC’s Emergency Operations Center and Ebola experts at CDC’s Atlanta headquarters.
- The CDC team has worked closely with state and local health departments in finding, assessing, and assisting everyone who came into contact with the Ebola patient.
- Medical and public health professionals across the country have been preparing to respond to Ebola cases.
- Although the risk of rapid spread of Ebola in in the United States is very low, CDC and partners are taking precautions to isolate any cases of Ebola and prevent the spread of the disease.
- CDC believes that any hospital following strict CDC infection control recommendations and that can isolate a patient in their own room with a private bathroom is capable of safely managing a patient with Ebola.
Appendix D: CDC Guidance on Monitoring and Movement

Document dated 10/29/2014
Downloaded 10/29/2014
URL: http://www.cdc.gov/media/releases/2014/fs1027-monitoring-symptoms-controlling-movement.html
CDC update on Ebola is available at:

WHO update on Ebola is available at:
http://www.who.int/csr/disease/ebola/en/

Medscape Ebola web page:
http://www.medscape.com/resource/ebola

New England Journal of Medicine Ebola web page:
http://www.nejm.org/page/ebola-outbreak
Appendix F: Additional CDC Resources and Links

CDC’s Ebola Homepage – including latest updates and overview:
http://www.cdc.gov/vhf/ebola/index.html

Ebola Transmission:
http://www.cdc.gov/vhf/ebola/transmission/index.html

Risk of Exposure to Ebola:

Latest Ebola Outbreak Information (West Africa):

CDC Questions and Answers:
http://www.cdc.gov/vhf/ebola/qa.html

CDC Communication Resources:
http://www.cdc.gov/vhf/ebola/resources/index.html

Information for Healthcare Workers and Settings:
http://www.cdc.gov/vhf/ebola/hcp/index.html

Ebola: Donning and Doffing of Personal Protective Equipment (Medscape video):

Ebola Information for Travelers:
XVIII. Appendix G: WHO Guidebooks on “Effective Media Communication during Public Health Emergencies”

**Handbook**

The handbook describes a seven-step process to assist officials and others to communicate effectively through the media during emergencies.

- [Handbook (pdf, 448 kb)]

**Field Guide**

The Field Guide is a shortened version of the Handbook. It highlights the practical aspects of the seven-step approach.

- [Field Guide (pdf, 218 kb)]

**Wall Chart**

The chart shows the seven-step approach and provides easily recalled key information and advice.

- [Wall Chart (pdf, 218 kb)]