

Cholera is a disease that has killed millions of people. Find out how scientists have slowed its spread. Read the selection below. Then read each question and choose the best answer. Use the provided answer sheet at the end of the workbook to record your answers.

Fighting Cholera

Medical geographers want to discover why a disease occurs in a particular place. Does a disease occur in a certain type of environment? Is there a pattern to the way a disease spreads? Mapping is one tool medical geographers use to answer these questions. They first used maps in this way to fight cholera.

Cholera has existed in India for hundreds of years. It did not appear in Europe, however, until the 1800s. At that time better transportation systems helped spread cholera around the world. For example, in 1817 India experienced an unusually bad outbreak of the disease. India was then part of the British Empire. British soldiers and ships carried cholera to new places. By 1832, the disease had spread to the British Isles and to North America.

No one knew what caused cholera. In fact, no one knew about bacteria or how they caused disease. What was known was that sick people suffered from diarrhea and vomiting. They often died quickly.

In just ten days in 1854, more than 500 people in one London neighborhood died from cholera. Dr. John Snow thought he knew why.

Dr. Snow believed that people got cholera from dirty water. To test his theory, he mapped the location of some of London's public water pipes. (Houses at that time did not have running water.) Then he marked the location of each cholera death on his map. He found most of the deaths were scattered around the water pump on Broad Street. He persuaded officials to remove the pump's handle. After the pump was shut down, there were few new cases of cholera. Not everyone, however, believed Dr. Snow's evidence.

Bacteria were discovered in the 1880s. Yet many people still believed that bad air from river mud or swamps spread diseases like cholera. It took another epidemic to convince everyone that dirty water made people sick.

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1. Based on the selection, what was the *most likely* way cholera got to North America?
 - A It was brought by immigrants from India and the British Isles.
 - B It developed in swamps and river mud.
 - C It was carried from Britain by ocean currents.
 - D It arrived in a shipment of pump handles from England.

2. Which of the following happened before Dr. Snow made a map showing the cholera deaths and London's water pipes?
 - A People believed that dirty water made them sick.
 - B Bacteria were discovered.
 - C The Broad Street water pump was shut down.
 - D Cholera was a problem in India.

3. In the fourth paragraph, the author says, "(Houses at that time did not have running water.)" Why did the author put the statement in parentheses ()?
 - A because the statement was extra information
 - B to show what people's houses were like
 - C because the information may not be true
 - D to show how uncivilized people were back then

4. Which statement expresses cause and effect?
 - A Dr. John Snow researched cholera by making maps.
 - B The pump on London's Broad Street was contaminated.
 - C People drank dirty water and got cholera.
 - D Bacteria causes cholera.

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5. Which statement supports the idea that Dr. John Smith was right about the cause of cholera?
- A When the Broad Street pump's handle was removed, there were few new cases of cholera.
 - B In ten days, more than 500 people in one London neighborhood died from cholera.
 - C British soldiers and ships carried cholera to new places.
 - D People who are sick from cholera suffer from diarrhea and vomiting.
6. Which of these conclusions make the *most* sense based on this selection?
- A Cholera is the most serious disease ever.
 - B Most people did not really understand what bacteria really were even after they were first discovered.
 - C Great Britain should never have held India as a colony.
 - D Mapping is the best way to cure diseases.
7. Based on the context of the last paragraph, what does the word *epidemic* mean?
- A advertising campaign
 - B new law
 - C protest movement
 - D disease outbreak
8. What is the *main* idea of the selection?
- A A clean source of water is important to staying healthy.
 - B Scientists successfully used maps to fight cholera.
 - C Cholera is a deadly disease that still shows up around the world.
 - D The discovery of bacteria was important in the fight against cholera.