

# Healthcare Workers

1 Which vaccine-preventable disease is not affected by herd immunity?

- A. Influenza
- B. Measles
- C. Mumps
- D. Tetanus

2 Which of the following pairs are vaccine-preventable diseases transmitted by mosquitos?

- A. Yellow fever and Japanese encephalitis virus
- B. Measles and Mumps
- C. Varicella (chickenpox) and Lyme disease
- D. Cholera and rubella

3 What vaccine-preventable disease was not distinguished from smallpox until the end of the 19th century?

- A. Tetanus
- B. Rubella
- C. Chickenpox
- D. Pertissis

4 Infection with what virus can cause cirrhosis and liver disease?

- A. HPV
- B. Hepatitis B virus
- C. Measles virus
- D. Mumps virus

5 What does an epidemiological study determine?

- A. The groups of people most likely to get a disease
- B. The age group most likely to get a disease
- C. The number of people who get the disease and the number who die from it
- D. All of these

6 What percent of the world's population is immunodeficient?

- A. 1 of 100
- B. 10 of 100
- C. 50 of 100
- D. 75 of 100

7 In the 1960s, mirrors were removed from the rooms of female patients suffering from what vaccine-preventable disease?

- A. Smallpox
- B. Measles
- C. Chickenpox
- D. Polio

8 What does the "acellular" pertussis vaccine offer as compared to the older version, known as the "whole-cell" pertussis vaccine?

- A. Lower rates of side effects and decreased immunity
- B. Higher rates of side effects and increased immunity
- C. Lower rates of side effects and increased immunity
- D. Higher rates of side effects and decreased immunity

9 What U.S. president said going through the process of inoculation was "preferable to living in fear of the disease?"

- A. Thomas Jefferson
- B. Ulysses S. Grant
- C. Andrew Jackson
- D. John Adams

10 How do companies know the dose of vaccine that should be given?

- A. They study different doses to determine the lowest effective dose for the target group.
- B. They study different doses for the highest dose possible for the target group.
- C. They use doses used for other vaccines.
- D. The dose of the vaccine is chosen randomly.

# Healthcare Workers ANSWERS

1

The correct answer is **D**

Because tetanus does not spread from person to person, people cannot be protected from the disease just because everyone around them has been vaccinated. So, the best way to protect yourself from tetanus is to receive the tetanus vaccine.

2

The correct answer is **A**

Yellow fever and Japanese encephalitis virus are two vaccine-preventable diseases that are transmitted by mosquitos, but vaccines are typically only given to high-risk groups, such as some travelers.

3

The correct answer is **C**

Because chickenpox and smallpox both caused rash-like illnesses, the two diseases were not realized as different until the end of the 19th century.

4

The correct answer is **B**

People with chronic hepatitis B infection typically suffer severe liver damage, known as cirrhosis, which often results in liver disease or liver cancer. Because most people do not show symptoms of chronic infection, they do not know they are infected until they are diagnosed with liver cancer.

5

The correct answer is **D**

Epidemiological studies determine who gets a disease (susceptibility), when a person gets a disease (seasonality) and the number of people who get a disease (morbidity). Epidemiological studies also determine the number of people who die from a disease (mortality).

6

The correct answer is **A**

Immunodeficiency is defined as the inability to generate a normal immune response. In fact, 1 of 100 people are immunodeficient and, therefore, may be unable to receive certain vaccines. For this reason, high vaccination rates are important in providing protection to this group.

7

The correct answer is **A**

Due to the disfigurement caused by smallpox, mirrors were removed from rooms of female sufferers so they would not see themselves. Some survivors committed suicide rather than live with their disfigured appearance.

8

The correct answer is **A**

The “whole-cell” pertussis vaccine was made in the 1920s and contained whole, killed pertussis bacteria; however, this version was also a rare cause of severe side effects, including high fever, seizures and persistent and inconsolable crying. In the 1990s, a safer pertussis vaccine, known as the “acellular” pertussis vaccine, was made by inactivating and purifying pertussis proteins. Although fewer and less severe side effects are associated with the “acellular” pertussis vaccine, the immunity provided by this vaccine wanes more quickly.

9

The correct answer is **D**

Before becoming president, James Adams was variolated (a technique used to inoculate a person against smallpox) for smallpox so that he could conduct business in Boston without fearing the disease.

10

The correct answer is **A**

Studies are performed to determine the lowest dose that will still provide enough immunity to prevent illness.

