

# Foundations of Epidemiology

Epidemiology · Answer Key · 20 Questions

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**1. What term refers to the number of new cases of a disease that develop in a population during a specified period?**

- A) Prevalence
- B) Incidence**
- C) Mortality
- D) Endemic

**2. Which 19th-century physician is often called the 'father of modern epidemiology' for his study of the London cholera outbreak?**

- A) Louis Pasteur
- B) Edward Jenner
- C) John Snow**
- D) Robert Koch

**3. What is the term for a disease that is constantly present in a specific geographic area or population?**

- A) Pandemic
- B) Sporadic
- C) Endemic**
- D) Epidemic

**4. Which measure represents the total number of existing cases of a disease in a population at a specific point in time?**

- A) Incidence
- B) Prevalence**
- C) Attack rate
- D) Case fatality

**5. What is the term for an unexpected increase in the number of disease cases in a specific area?**

- A) Epidemic**
- B) Endemic
- C) Index case
- D) Vector

**6. What type of study design compares individuals with a disease to those without the disease to identify past exposures?**

- A) Cohort study
- B) Case-control study**
- C) Cross-sectional study
- D) Clinical trial

**7. In epidemiology, what is a 'vector'?**

- A) A type of virus
- B) An organism that transmits a pathogen**
- C) The speed of an outbreak
- D) A statistical average

**8. What is the 'incubation period' of an infectious disease?**

- A) The time from infection to the appearance of symptoms**
- B) The time a patient stays in the hospital
- C) The duration of the infection
- D) The time it takes for a vaccine to work

**9. What does the 'Case Fatality Rate' measure?**

- A) Total deaths in a population
- B) Proportion of persons with a specific condition who die from that condition**
- C) The speed of disease spread
- D) Number of recoveries

**10. What is a 'reservoir' in the context of disease transmission?**

- A) The patient's immune system
- B) The hospital ward
- C) The habitat where a pathogen normally lives and multiplies**
- D) The medical laboratory

**11. Which of these is considered a 'host' factor in the epidemiological triad?**

- A) Climate
- B) Genetic susceptibility**
- C) Pollution
- D) Sanitation

**12. What is the primary role of a vaccine in public health?**

- A) To cure existing infections
- B) To build immunity against specific pathogens**
- C) To increase antibiotic resistance
- D) To kill all bacteria

**13. What is a 'zoonotic' disease?**

- A) A disease that only affects insects
- B) A disease transmitted from animals to humans**
- C) A disease that cannot be spread
- D) A disease caused by genetics

**14. What is the term for the proportion of a population that is susceptible to a disease but is protected through prior vaccination?**

- A) Herd immunity**
- B) Quarantine
- C) Active immunity
- D) Isolation

**15. Which type of study follows a group of people over time to see who develops a specific disease?**

- A) Cohort study**
- B) Case-control study
- C) Retrospective study
- D) Ecological study

**16. What is the definition of a 'pandemic'?**

- A) A local outbreak
- B) A disease outbreak spanning multiple countries or continents**
- C) A rare genetic disorder
- D) A controlled clinical trial

**17. What does 'morbidity' refer to in epidemiology?**

- A) The rate of death
- B) The state of being diseased or unhealthy**
- C) The number of births
- D) The effectiveness of a drug

**18. Which of the following is a direct mode of disease transmission?**

- A) Contaminated water
- B) Person-to-person contact**
- C) Contaminated food
- D) Infected medical equipment

**19. What is the 'index case' in an epidemiological investigation?**

**A) The first documented case of an infectious disease in a population**

B) The average age of patients

C) The most common symptom

D) The final patient to recover

**20. What does 'sanitation' aim to prevent in the context of epidemiology?**

**A) The spread of waterborne pathogens**

B) The development of genetic mutations

C) The onset of cancer

D) The aging process