Fundamentals of Epidemiology 1st edition Lindquist Test Bank

SKU: 9780826166937-TEST-BANK

Fundamentals of Epidemiology

Ancillary Materials: Multiple Choice Questions (25 MCQs)

Chapter 1: Introduction to Public Health and the Fundamentals of Epidemiology

Choose the one BEST answer unless otherwise indicated.

1. Which of the following topics might epidemiologists study?
    a. How implementation of the Affordable Care Act influenced the number of new cancer diagnoses @ No. This is an example of a topic related to the determinants of cancer diagnoses but is not the most inclusive answer choice.
    b. The causes of a cancer cluster among adolescents @ No. This is an example of a topic related to the determinants of cancer diagnoses but is not the most inclusive answer choice.
    c. The number of breast cancer deaths in a specific state @ No. This is an example of a topic related to the distribution of cancer diagnoses but is not the most inclusive answer choice.
    d. Options a and b only @ No. This is not the most inclusive answer choice.
    *e. All of the above @ Yes. All of the above topics may be of interest to epidemiologists.

2. Which of the following is the BEST definition of epidemiology?
    a. The study of the distribution of disease in a particular population @ No. This statement is missing key components of the definition of epidemiology.
    b. The study of the determinants of disease in a particular population @ No. This statement is missing key components of the definition of epidemiology.
    c. The study of the distribution and determinants of disease in a particular population @ No. This definition is limited to the study of disease, but epidemiologists may be interested in nondisease outcomes.
    d. The study of the distribution and determinants of disease in a particular population during a specific time @ No. This definition is limited to the study of disease, but epidemiologists may be interested in nondisease outcomes.
    *e. The study of the distribution and determinants of health-related states in a particular population during a specific time @ Yes. This is the best and most inclusive definition of epidemiology.

3. What term BEST describes the condition of illness from a disease?
    *a. Morbidity @ Yes. Morbidity refers to illness from a disease.
    b. Mortality @ No. Mortality refers to death from a disease.
    c. Morality @ No. Morality refers to principles distinguishing between right and wrong.
    d. Epidemiology @ No. Epidemiology is the study of the patterns of disease and health-related states in populations.
    e. Health-related state @ No. Health-related state refers to an outcome that epidemiologists study.

Copyright © Springer Publishing Company, LLC. All Rights Reserved.

Fundamentals of Epidemiology 1st edition Lindquist Test Bank

4. Which of the following is an example of a case definition for diabetes?

a. Obesity is a risk factor for type 2 diabetes. @ No. Obesity is an example of a determinant of diabetes but this is not a case definition because it does not provide specific criteria needed for the diagnosis of diabetes.

b. There are three major forms of diabetes: type 1, type 2, and gestational. @ No. This information does not provide specific criteria needed for the diagnosis of diabetes.

c. Diabetes is one of the top 10 causes of death in the United States. @ No. This information does not provide specific criteria needed for the diagnosis of diabetes.

*d. A hemoglobin A1C value greater than 6.5% or a fasting blood sugar level greater than 126 mg/dL indicates diabetes. @ Yes. This is an example of specific criteria needed to diagnosis someone with diabetes.

e. Diabetes is a disease in which the body does not make or respond to insulin. @ No. This information does not provide specific criteria needed for the diagnosis of diabetes.

5. A study participant's income level is an example of what type of characteristic?

*a. Person @ Yes. Personal income level is an example of a person (demographic) characteristic.

b. Place @ No. Place characteristics refer to geographic factors (e.g., where a person lives).

c. Time @ No. Time characteristics refer to temporal factors (e.g., a certain year).

d. Behavioral @ No. Behavioral characteristics include health-related behaviors (e.g., smoking) and would be considered demographic (person) characteristics.

e. Geographic @ No. Geographic factors are place characteristics.

6. A specific population experiencing a surge of disease, beyond the level expected in that specific population, is experiencing a(n) _____

a. Endemic @ No. Endemic diseases are those that occur with the same frequency as expected in the population.

*b. Epidemic @ Yes. An epidemic occurs when disease frequency exceeds the level expected in the population.

c. Pandemic @ No. A pandemic is an epidemic that occurs across geographically distinct populations.

d. Steady state @ No. Steady state describes a condition that is not changing over time.

e. Syndemic @ No. A syndemic describes the occurrence of two epidemics at the same time.

Questions 7 to 9 are based on the following information:

Zika virus is primarily transmitted through the bite of an infected mosquito and may lead to Zika virus disease. Symptoms are generally mild; however, in 2016, an increase in a serious birth defect, microcephaly, was associated with Zika virus disease during pregnancy. This finding led the World Health Organization (WHO) to declare a public health emergency. Cases of Zika virus disease were mostly limited to Brazil and other countries in South America.

7. What BEST describes the occurrence of Zika virus-associated microcephaly in 2016?

a. Endemic @ No. The observed frequency of microcephaly was not the same as expected during this time in South America.

*b. Epidemic @ Yes. The frequency of microcephaly exceeded the frequency expected in South America during 2016.

Copyright © Springer Publishing Company, LLC. All Rights Reserved.

c. Pandemic @ No. Zika cases and therefore Zika virus-associated microcephaly cases were mostly limited to a single geographic area (South America).
d. Steady state @ No. The conditions resulting in an increase in microcephaly were not constant.
e. Syndemic @ No. The increase in microcephaly cases was a cause of the epidemic of Zika virus disease, and therefore would not be considered a separate simultaneous epidemic.

8. How can the association between Zika virus infection during pregnancy and risk of microcephaly best be described?

*a. Positive association @ Yes. An increase in cases of Zika virus infection during pregnancy resulted in an increase in cases of microcephaly.
b. Negative association @ No. A negative association is one in which an increase in exposure leads to a decrease in the outcome.
c. Mixed association @ No. This term does not describe an epidemiologic association.
d. Determinant association @ No. This term does not describe an epidemiologic association.
e. Epidemic association @ No. This term does not describe an epidemiologic association.

9. Discouraging pregnant women from travel to areas with high rates of Zika virus transmission is an example of what type of prevention?

*a. Active primary prevention @ Yes. Discouraging travel is aimed at preventing Zika virus disease from occurring and requires active participation from pregnant women.
b. Passive primary prevention @ No. Discouraging travel is a form of primary prevention, but it requires participation from pregnant women and therefore is not passive.
c. Secondary prevention @ No. Secondary prevention strategies are aimed at groups that already have disease.
d. Tertiary prevention @ No. Tertiary prevention strategies are aimed at groups that already have disease.
e. Quaternary prevention @ No. Quaternary prevention strategies are aimed at groups that already have disease. Note this term is relatively new to the field and not widely recognized.

10. Which of the following is an example of a tertiary prevention strategy?

a. Anti-smoking campaigns to reduce lung cancer incidence @ No. This is an example of primary prevention because the goal is to stop people from developing lung cancer.
b. Immunization against measles @ No. This is an example of primary prevention because the goal is to prevent measles from occurring.
*c. Treatment of coronary heart disease with statins @ Yes. This is an example of tertiary prevention because the disease has already occurred and the goal of treatments is to reduce long-term complications or death.
d. Screening for sexually transmitted infections @ No. This is an example of secondary prevention because the goal is to detect asymptomatic disease.
e. Colorectal cancer screening and removal of pre-cancerous lesions @ No. This is an example of primary prevention because the goal is to prevent colorectal cancer from developing.

11. Which of the following countries is LEAST LIKELY to have experienced the epidemiologic transition?

Copyright © Springer Publishing Company, LLC. All Rights Reserved.

a. Spain @ No. Spain is a high-income country and therefore is likely to have experienced the epidemiologic transition.
b. China @ No. China is an upper middle-income country and therefore is likely to have experienced or be undergoing the epidemiologic transition.
c. Canada @ No. Canada is a high-income country and therefore is likely to have experienced the epidemiologic transition.
d. Japan @ No. Japan is a high-income country and therefore is likely to have experienced the epidemiologic transition.
*e. Guinea @ Yes. Guinea is a low-income country and therefore is least likely to have experienced the epidemiologic transition.

12. When making comparisons of disease frequency across two different populations, it is important to consider which of the following?
a. Number of cases @ No. The number of cases is important, but not the only consideration.
b. Size of the populations @ No. The size of the populations is important, but not the only consideration.
c. Timing of the cases @ No. The timing of cases is important, but not the only consideration.
d. Options a and b @ No. The number of cases and size of the population must be contextualized.
*e. Options a, b, and c @ Yes. The number of cases, size of the populations, and timing of the cases are all necessary to consider when comparing disease frequency across two populations.

13. In the United States, the National Highway Traffic Safety Administration sets specific standards for child car seats used in motor vehicles. Only car seats that meet the federal safety standards can be sold in the United States. For example, one component of the safety standards states that the material surrounding the child's head must consist of energy-absorbing material of a certain thickness. These federal safety standards are an example of what type of prevention strategy?
a. Active primary prevention @ No. The standards are a form of primary prevention but do not require active participation by the consumer since only car seats that meet the federal safety standards can be sold in the United States.
*b. Passive primary prevention @ Yes. The standards are an example of passive primary prevention because the goal is to prevent motor vehicle-related injuries; also, active participation by the consumer is not necessary since only approved car seats are available for purchase.
c. Active secondary prevention @ No. The standards are aimed at preventing a health outcome from occurring and therefore are not an example of secondary prevention.
d. Passive secondary prevention @ No. The standards are aimed at preventing a health outcome from occurring and therefore are not an example of secondary prevention.
e. Tertiary prevention @ No. The standards are aimed at preventing a health outcome from occurring and therefore are not an example of tertiary prevention.

14. Which of the following BEST describes the epidemiologic transition?
a. A shift from one disease epidemic to a different, unrelated disease epidemic @ No. This does not describe the epidemiologic transition.
b. A shift from disease mortality to disease morbidity @ No. This does not describe the epidemiologic transition.

Copyright © Springer Publishing Company, LLC. All Rights Reserved.

Fundamentals of Epidemiology 1st edition Lindquist Test Bank

*c. A shift from relatively high mortality among infants and children to higher mortality among older adults @ Yes. This describes the epidemiologic transition that occurs when the population shifts from a high burden of disease due to communicable diseases to a high burden of disease due to noncommunicable diseases.
d. A shift from a high burden of death due to noncommunicable diseases to a high burden of death due to communicable diseases @ No. The epidemiologic transition is a shift from a high burden of communicable diseases to a high burden of noncommunicable diseases.
e. A shift in disease frequency from pandemic levels to endemic levels @ No. This does not describe the epidemiologic transition.

15. In a low-income country, which of the following is MOST LIKELY to be in the top 10 causes of mortality?
a. Childhood cancer @ No. Childhood cancer is a very rare noncommunicable disease and is unlikely to be in the top 10 causes of death.
b. Juvenile diabetes @ No. Juvenile diabetes is a noncommunicable disease and is not a top 10 cause of death in low-income counties.
*c. Diarrheal diseases @ Yes. Low-income counties are most likely to have high mortality due to communicable diseases among infants and children. Diarrheal diseases are among the top 10 causes of death in low-income countries.
d. Kidney disease @ No. Kidney disease is a noncommunicable disease and is not a top 10 cause of death in low-income counties.
e. Alzheimer disease and dementias @ No. Dementia is a noncommunicable disease, mainly affecting older adults, and therefore is not a top 10 cause of death in low-income countries.

16. Which of the following DOES NOT contribute to the epidemiologic transition?
a. Malaria prevention and control @ No. Malaria prevention and control does contribute to the epidemiologic transition because it reduces the incidence of malaria, a communicable disease which remains one of the top 10 causes of death in low-income countries.
b. Increase in sanitation @ No. Increase in sanitation does contribute to the epidemiologic transition because it reduces the incidence of communicable diseases.
*c. Increased access to mammography @ Yes. Increased access to mammography does not contribute to the epidemiologic transition because it does not reduce mortality from a communicable disease. Breast cancer is a noncommunicable disease.
d. Improved access to clean water @ No. Improved access to clean water does contribute to the epidemiologic transition because it reduces the incidence of communicable diseases.
e. Vaccination @ No. Vaccination does contribute to the epidemiologic transition because it reduces the incidence of communicable diseases.

17. Which of the following principles in the Nuremberg Code allows study participants to leave the study at any point?
a. Voluntary consent @ No. This principle of the Nuremberg Code requires participants to have legal capacity and knowledge to decide whether to participate in the study without coercion.
b. Protection from risks @ No. This principle of the Nuremberg Code requires protections from any possible harm to be in place.

Copyright © Springer Publishing Company, LLC. All Rights Reserved.

c. Risk minimization @ No. This principle of the Nuremberg Code requires investigators to limit physical and mental suffering of participants.
d. Early termination @ No. This principle of the Nuremberg Code requires researchers to stop the study at any point if there is reason to believe that participants may experience additional harm.
*e. Participant discontinuation @ Yes. This principle of the Nuremberg Code allows study participants to choose to leave the study at any time.

18. What do the U.S. Kefauver-Harris Amendments require?
*a. Scientific evidence of drug safety prior to receiving U.S. Food and Drug Administration (FDA) approval @ Yes. The Kefauver-Harris Amendments require evidence of drug safety prior to receiving FDA approval.
b. Drug safety tests to include a minimum number of subjects @ No. The Kefauver-Harris Amendments do not require a minimum number of subjects.
c. Pregnant women to be included in drug safety tests @ No. The Kefauver-Harris Amendments do not require inclusion of pregnant women.
d. Post-market studies of drug efficacy @ No. The Kefauver-Harris Amendments require safety evidence before approval.
e. Generic drugs to be manufactured at the same time as brand-name drugs @ No. The Kefauver-Harris Amendments require generic drugs to be marketed as existing rather than new medications.

19. What is the purpose of the Declaration of Helsinki?
a. To provide guidelines for epidemiologists @ No. The Declaration of Helsinki provides guidelines for all investigators conducting human subjects research, not just epidemiologists.
b. To provide a global code of ethics for all physicians @ No. The Declaration of Helsinki provides guidelines for human subjects research. The Hippocratic Oath provides a global code of ethics for physicians.
c. To provide a central office for drug safety tests @ No. The Declaration of Helsinki provides guidelines for all human subjects research.
*d. To provide guidelines for all human subjects research @ Yes. The Declaration of Helsinki expanded on the Nuremberg Code and provides guidelines for all human subjects research.
e. To provide guidelines for clinical trials @ No. The Declaration of Helsinki provides guidelines for all human subjects research, not just clinical trials.

20. What are the three key principles of the Belmont Report written in 1978 in the United States?
a. Respect for persons, benefit to society, justice @ No. Benefit to society is not one of the key principles of the Belmont Report.
b. Respect for science, beneficence, justice @ No. Respect for science is not one of the key principles of the Belmont Report.
*c. Respect for persons, beneficence, justice @ Yes. The Belmont Report established basic ethical principles in human subjects research. The key principles are respect for persons (only include voluntary, informed participants who consent), beneficence (favorable risk–benefit ratio), and justice (burdens and benefits are equitably distributed).
d. Respect for society, benefit to society, justice @ No. Respect for society and benefit to society are not key principles of the Belmont Report.

Copyright © Springer Publishing Company, LLC. All Rights Reserved.

Fundamentals of Epidemiology 1st edition Lindquist Test Bank

e. Respect for persons, benefit to all subjects, justice @ No. Benefit to all subjects is not one of the key principles of the Belmont Report.

21. The National Research Act passed in the United States in 1974 required development of what entities?

*a. Institutional review boards (IRBs) @ Yes. The regulations developed under the National Research Act required that institutions form IRBs to independently review human subjects research to protect the welfare of study participants.

b. Schools of public health @ No. The National Research Act did not require development of schools of public health.

c. Medical ethics committees @ No. The National Research Act did not explicitly require committees focused solely on medical ethics.

d. Drug safety monitoring boards @ No. Drug safety monitoring boards operate independently and may be required by the IRB.

e. Human Subjects Protocols @ No. The National Research Act required development of Institutional Review Boards which operate independently and may require certain protocols.

22. Enrolling patients in a study without providing information about the study, discussing the potential risks and benefits, and asking for voluntary participation is a direct violation of what key principle?

a. Beneficence @ No. Beneficence is a key principle of the Belmont Report and states that benefits must be maximized and harms minimized.

*b. Informed consent @ Yes. Informed consent is the principle that study participants are provided information about the study, including potential harms and benefits, and are asked to voluntarily decide whether to participate.

c. Risk minimization @ No. Risk minimization is a key principle of the Nuremberg Code and states that the study should be designed to limit physical and mental suffering.

d. Protection from risks @ No. Protection from risks is a key principle of the Nuremberg Code and states that participants must be protected from possible harms that could occur during the study.

e. Justice @ No. Justice is a key principle of the Belmont Report and states that burdens and benefits of the research should be equitably distributed.

23. Children, pregnant persons, and incarcerated persons are examples of what type of population?

a. Excluded populations that should not be involved in research studies @ No. Children, pregnant persons, and incarcerated persons may be involved in research studies.

*b. Vulnerable populations that require additional protections when included in research studies @ Yes. Children, pregnant persons, and incarcerated persons are vulnerable populations that require additional protections in human subjects research.

c. Unique populations that should be equally involved in research studies @ No. Children, pregnant persons, and incarcerated persons are unique populations, but they do not have to be equally involved if not appropriate.

d. Unjust populations that are treated unfairly in research studies @ No. Children, pregnant persons, and incarcerated persons require additional protections to ensure consent is voluntary but are not inherently treated unfairly.

e. Special populations that require zero risk to be involved in research @ No. Children, pregnant persons, and incarcerated persons require additional protections to ensure they are

Copyright © Springer Publishing Company, LLC. All Rights Reserved.

not coerced into participating; however, if they voluntarily participate, they may encounter risks like other participants.

24. Which of the following is NOT an example of a social determinant of health?
    a. Neighborhood @ No. Neighborhood is an example of a social determinant of health because it relates to the condition in the environment in which people live, work, and learn.
    b. Access to greenspace @ No. Access to greenspace is an example of a social determinant of health because it relates to the condition in the environment in which people live, work, and learn.
    c. Transportation @ No. Transportation is an example of a social determinant of health because it relates to the condition in the environment in which people live, work, and learn.
    *d. Family history of disease @ Yes. Family history of disease is not a social determinant of health because it is not related to the condition in the environment in which people live, work, and learn. However, it is important to note that social determinants of health may impact family history of disease (e.g., neighborhood could impact family history of asthma).
    e. Educational attainment @ No. Educational attainment is an example of a social determinant of health because it relates to the condition in the environment in which people live, work, and learn.

25. Which of the following is an example of a health inequity?
    a. COVID-19 is more severe in unvaccinated populations @ No. The difference in COVID-19 severity among unvaccinated populations did not result from unfair social conditions.
    b. Pregnant persons were not included in early COVID-19 vaccine trials @ No. Exclusion of pregnant women was not the result of unfair social conditions.
    c. Children were not eligible for COVID-19 vaccines at the same time as adults @ No. Exclusion of children from eligibility was not the result of unfair social conditions.
    *d. People of low socioeconomic status were more likely to be negatively affected by COVID-19 lockdowns than people of high socioeconomic status @ Yes. The differences in distribution of negative effects from COVID-19 lockdowns resulted from unfair conditions (e.g., differences in occupation by socioeconomic status).
    e. Some countries require travelers to have proof of COVID-19 vaccine to enter @ No. Travel restrictions based on vaccination status do not result from unfair social conditions.

Copyright © Springer Publishing Company, LLC. All Rights Reserved.