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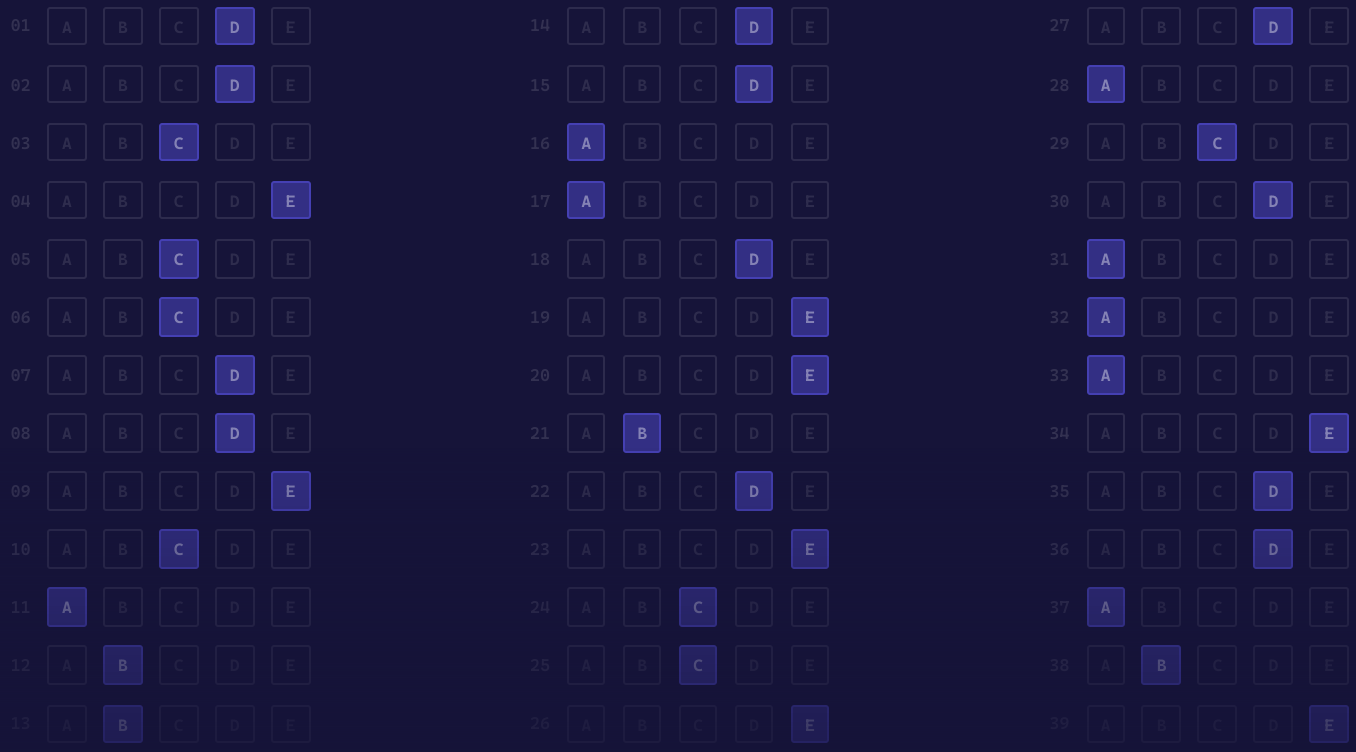

PRACTICE QUESTIONS

Dubai Health Authority (DHA)

SPHGP

Specialist Public Health And General Preventive Medicine

EDITION	QUESTIONS	FORMAT
Demo	9	Limited Edition PDF

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Before you begin

What this is

9 practice questions for Dubai Health Authority (DHA) `SPHGP`, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, `SPHGP`
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

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QUESTION 1 MULTIPLE CHOICE

A cohort study followed 1,000 adults aged 40-60 for 10 years to assess the association between a dietary exposure and coronary heart disease (CHD). Among the 400 exposed individuals, 80 developed CHD. Among the 600 unexposed individuals, 60 developed CHD. Which of the following statements are correct? (Choose two.)

A The incidence rate of CHD in the exposed group is 20 per 1,000 person-years

B The risk ratio (RR) comparing exposed to unexposed is 2.0

C The attributable risk in the exposed is 20 per 1,000

D The odds ratio approximates the risk ratio because CHD is a common outcome in this study

ANSWER **B · C**

WHY Risk in exposed = 80/400 = 0.20 (20%); risk in unexposed = 60/600 = 0.10 (10%); RR = 0.20/0.10 = 2.0. Attributable risk in the exposed = 0.20 - 0.10 = 0.10 (10% or 100 per 1,000 — the value of 20 per 1,000 is the absolute risk in the exposed, not the attributable risk). Person-years are not given so an incidence rate per person-years cannot be calculated. The odds ratio approximates the RR only when the outcome is rare (the rare disease assumption); CHD at 10-20% is not rare, so this approximation is not valid.

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QUESTION 2 MULTIPLE CHOICE

A new screening test is evaluated against the gold standard diagnostic test in a population of 5,000 people. The test correctly identifies 850 of the 1,000 people who have the disease (true positives) and correctly identifies 3,800 of the 4,000 people who do not have the disease (true negatives). Which of the following statements about this screening test are correct? (Choose two.)

A **The sensitivity of the test is 85%**

B **The specificity of the test is 95%**

C The positive predictive value (PPV) is 85% in this population

D The negative predictive value (NPV) is 95% in this population

ANSWER **A** · **B**

WHY Sensitivity = TP/(TP+FN) = 850/1,000 = 85%. Specificity = TN/(TN+FP) = 3,800/4,000 = 95%. PPV = TP/(TP+FP) = 850/(850+200) = 850/1,050 ≈ 80.9%, not 85%. NPV = TN/(TN+FN) = 3,800/(3,800+150) = 3,800/3,950 ≈ 96.2%, not 95%.

QUESTION 3 SINGLE CHOICE

A public health program in Dubai targets school-aged children to ensure they receive the HPV vaccine before exposure to the virus. Which level of prevention does this program represent?

A Primordial prevention

B **Primary prevention**

C Secondary prevention

D Tertiary prevention

ANSWER **B**

WHY Primary prevention aims to prevent disease before it occurs by reducing exposure or increasing resistance, such as through immunization. The HPV vaccine given before exposure is a classic primary prevention intervention. Primordial prevention targets underlying social and environmental conditions that create risk factors; secondary prevention involves early detection through screening; tertiary prevention aims to reduce complications and disability from established disease.

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QUESTION 4 SINGLE CHOICE

An outbreak of foodborne illness is being investigated. The investigator identifies the specific food item, the time and place of exposure, and the affected population. Which step of the outbreak investigation involves establishing that the observed cases exceed the expected number for that population?

A **Verification of the outbreak**

B Case definition and case finding

C Descriptive epidemiology

D Hypothesis generation

ANSWER A

WHY Verification of the outbreak involves confirming that the observed number of cases exceeds what would normally be expected based on surveillance data, thereby confirming a true outbreak. Case definition and case finding come next to systematically identify cases; descriptive epidemiology characterizes cases by person, place, and time; hypothesis generation develops explanations for the source and mode of transmission.

QUESTION 5 SINGLE CHOICE

A country reports 500 new cases of tuberculosis diagnosed during the year 2023, and a mid-year population of 5,000,000. What is the incidence rate of tuberculosis in this population for 2023?

A 5 per 1,000 population

B **10 per 100,000 population**

C 100 per 100,000 population

D 0.01 per 1,000 population

ANSWER B

WHY Incidence rate = (number of new cases / population at risk) × 100,000 = (500 / 5,000,000) × 100,000 = 10 per 100,000 population. This is the standard way to express TB incidence, as TB is relatively rare and rates per 100,000 facilitate international comparisons.

QUESTION 6 SINGLE CHOICE

In a case-control study examining the association between smoking and lung cancer, the investigators noted that cases (patients with lung cancer) were more likely to recall their smoking history in detail than controls. This type of error is best classified as:

A Selection bias

B Recall bias

C Confounding

D Information bias due to interviewer bias

ANSWER B

WHY Recall bias is a type of information bias that occurs when cases and controls differ in their ability or motivation to recall past exposures. Patients with lung cancer may think more deeply about their smoking history than healthy controls. Selection bias relates to how participants were selected into the study; confounding involves a third variable associated with both exposure and outcome; interviewer bias occurs when the interviewer's knowledge of case status influences how questions are asked or recorded.

QUESTION 7 SINGLE CHOICE

Under the International Health Regulations (IHR 2005), a State Party is required to notify WHO of events that may constitute a public health emergency of international concern. What is the maximum timeframe within which such notification must occur after the national health authority has assessed the public health information?

A 12 hours

B 24 hours

C 48 hours

D 7 days

ANSWER B

WHY Under IHR 2005, States Parties are required to notify WHO within 24 hours of identifying an event that may constitute a public health emergency of international concern, after conducting an assessment of the available information using the decision instrument in Annex 1.

QUESTION 8 SINGLE CHOICE

A health promotion campaign aims to increase physical activity among office workers in Dubai by providing subsidized gym memberships and creating walking paths near workplaces. The campaign focuses on making healthy choices easier through environmental and policy changes. Which health promotion approach does this primarily represent?

A Health education approach

B Behavioral change approach

C Socio-environmental approach

D Medical approach

ANSWER C

WHY The socio-environmental (or ecological) approach to health promotion addresses the social, economic, and environmental determinants of health by modifying conditions that shape behavior. Subsidized gym memberships and walking paths are structural/environmental interventions, not just education or individual behavior change. This approach is consistent with the Ottawa Charter for Health Promotion's action areas of creating supportive environments and strengthening community action.

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QUESTION 9 SINGLE CHOICE

Which of the following best describes the principle of primary health care as defined in the Declaration of Alma-Ata (1978)?

A Specialist-driven care delivered through hospitals

B **Essential health care based on practical, scientifically sound, and socially acceptable methods made universally accessible**

C Privately financed curative services for those who can afford them

D Vertical disease-specific programs targeting single health problems

ANSWER B

WHY The Declaration of Alma-Ata (1978) defined primary health care as essential health care based on practical, scientifically sound, and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost the community and country can afford. This reflects principles of universal access, community participation, intersectoral action, and appropriate technology — principles that contrast with hospital-based, specialist-driven, privately financed, or vertical disease-specific models.

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