PHRD554 Public Health Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- **Practice answering questions under realistic conditions,**
- **Improve accuracy and speed,**
- **Review explanations to strengthen weak areas, and**
- **Approach the exam with greater confidence.**

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here’s how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don’t just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There’s no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. Which describes the three levels of prevention?

- **A. Primary prevents disease before it occurs**
- **B. Secondary detects early to prevent progression**
- **C. Tertiary reduces harm after disease onset**
- **D. All of the above**

2. What best defines risk communication in public health?

- **A. Withholding information to avoid public panic.**
- **B. Conveying information about health risks clearly and honestly to the public, addressing uncertainty and mistrust.**
- **C. Sharing only statistical jargon with no plain language.**
- **D. Focusing on one risk and ignoring uncertainty.**

3. A disease vector is defined as _____.

- **A. Organism that transmits a disease**
- **B. Symptom of a disease**
- **C. An environmental condition associated with a disease**
- **D. A test used for diagnosing diseases**

4. Which statement best defines program sustainability?

- **A. Short-term pilot with evaluation.**
- **B. Achieving maximum reach within the first year.**
- **C. Continuation of program benefits after initial funding; strategies include community ownership, diversified funding, and capacity building.**
- **D. Only funded by government.**

5. What is a p-value, and what does it tell you?

- **A. The probability of observing data as extreme as the sample if the null hypothesis is true.**
- **B. The probability that the null hypothesis is true given the observed data.**
- **C. The probability that the alternative hypothesis is true.**
- **D. The p-value is an effect size measure.**

6. What is a confidence interval?

A. A single estimate of the population parameter.

B. A range around a sample estimate within which the true population parameter lies with a given probability (e.g., 95%).

C. The margin of error divided by sample size.

D. The interval between the 2.5th and 97.5th percentile in data.

7. Environmental justice concerns are addressed through which combination of actions?

A. Policy change, targeted interventions, and advocacy.

B. Withholding data from affected communities.

C. Increasing pollutant emissions to all areas.

D. Eliminating environmental regulations.

8. What is information bias from recall?

A. Misclassification of outcome due to inaccurate memory.

B. Bias due to interviewer effects.

C. Misclassification of exposure due to inaccurate memory.

D. Loss to follow-up bias.

9. Which entity has primary legal responsibility for protecting health?

A. States

B. CDC

C. The Federal government

D. Local governments

10. Sensitivity and specificity definitions.

A. Sensitivity is ability to correctly identify true positives; specificity is ability to correctly identify true negatives.

B. Sensitivity is ability to correctly identify true negatives; specificity is ability to correctly identify true positives.

C. Sensitivity is probability of observing data under null; specificity is probability of rejecting null.

D. Sensitivity is how quickly a test yields results; specificity is how much it costs.

Answers

1. D
2. B
3. A
4. C
5. B
6. B
7. A
8. C
9. D
10. A

Explanations

1. Which describes the three levels of prevention?

A. Primary prevents disease before it occurs

B. Secondary detects early to prevent progression

C. Tertiary reduces harm after disease onset

D. All of the above

Prevention has three levels defined by when they act relative to disease. Primary prevention aims to stop a disease from developing in the first place by removing risk factors and promoting health—think vaccination, healthy lifestyle changes, and sanitation. Secondary prevention is about finding disease early so treatment can prevent progression—screening tests and early diagnosis fall here. Tertiary prevention focuses on reducing harm and disability once disease is already present—rehabilitation and ongoing disease management to minimize complications. Each line describes one level, so together they cover the full approach to prevention. That's why all of the above is the best answer. For example, immunizing a child is primary, screening a healthy adult is secondary, and rehab after a stroke is tertiary.

2. What best defines risk communication in public health?

A. Withholding information to avoid public panic.

B. Conveying information about health risks clearly and honestly to the public, addressing uncertainty and mistrust.

C. Sharing only statistical jargon with no plain language.

D. Focusing on one risk and ignoring uncertainty.

Risk communication in public health is delivering information about potential health risks to the public in a way that is clear, honest, and timely, while explicitly addressing what is known, what is not known, and the uncertainties involved. It also aims to build trust by acknowledging concerns and explaining why recommendations may evolve as new evidence emerges, helping people understand the risk and decide what actions to take. This approach is essential because withholding information can erode trust and leave people unprepared; sharing only jargon excludes non-experts and hinders understanding; and focusing on a single risk while ignoring uncertainty misleads the public and undermines credibility.

3. A disease vector is defined as _____.

A. Organism that transmits a disease

B. Symptom of a disease

C. An environmental condition associated with a disease

D. A test used for diagnosing diseases

A vector in public health is the living organism that transmits a pathogen from one host to another. It's not the pathogen itself, not a symptom, not an environmental condition, and not a diagnostic test. The vector enables the spread of disease by carrying the pathogen between individuals or populations—for example, mosquitoes transmitting malaria or dengue, and ticks transmitting Lyme disease. This concept distinguishes transmission agents from symptoms (what the patient feels), from environmental factors that influence risk, or from tools used to diagnose disease. So the correct idea is that a disease vector is an organism that transmits the disease.

4. Which statement best defines program sustainability?

A. Short-term pilot with evaluation.

B. Achieving maximum reach within the first year.

C. Continuation of program benefits after initial funding; strategies include community ownership, diversified funding, and capacity building.

D. Only funded by government.

Sustainability in public health programming means that the benefits of an intervention continue after the initial funding ends. This happens when the program becomes owned by the community and local institutions, funding comes from multiple sources rather than a single grant, and partners have built the capacity to maintain and adapt the activities over time. The statement that best defines this idea explicitly notes the continuation of benefits after initial funding and lists practical ways to achieve it—community ownership, diversified funding, and capacity building. This contrasts with ideas that focus only on short-term pilots, rapid initial reach, or reliance on one funding source, which do not ensure long-term continuation of impact.

5. What is a p-value, and what does it tell you?

A. The probability of observing data as extreme as the sample if the null hypothesis is true.

B. The probability that the null hypothesis is true given the observed data.

C. The probability that the alternative hypothesis is true.

D. The p-value is an effect size measure.

A p-value tells you how surprising your data would be if there were really no effect. It is the probability, assuming the null hypothesis is true, of obtaining a result as extreme as or more extreme than what you actually observed. A small p-value means the observed data are unlikely under the null, which is why we might question the null hypothesis. A large p-value means the data are quite compatible with the null, offering little evidence against it. It does not give the probability that the null hypothesis is true given the data, nor does it indicate the size of any effect; those require different interpretations or measures.

6. What is a confidence interval?

A. A single estimate of the population parameter.

B. A range around a sample estimate within which the true population parameter lies with a given probability (e.g., 95%).

C. The margin of error divided by sample size.

D. The interval between the 2.5th and 97.5th percentile in data.

A confidence interval is a range around a sample estimate that expresses the uncertainty about the true population parameter. It reflects the idea that if we repeated the study many times, the method would produce intervals that contain the true parameter a specified proportion of the time, such as 95%. For example, if we estimate a population mean and compute a 95% confidence interval, we would say we are 95% confident that the true mean lies within that interval, given the method and assumptions used. It's not about a probability that this exact interval contains the parameter for this one study; rather, it's about the long-run performance of the estimation procedure. The other descriptions don't capture this idea: a single point estimate is just the best estimate without an expressed range; a margin of error divided by sample size misstates how the interval is formed; and using data percentiles to define an interval does not necessarily reflect uncertainty about the population parameter in the confidence-interval sense.

7. Environmental justice concerns are addressed through which combination of actions?

A. Policy change, targeted interventions, and advocacy.

B. Withholding data from affected communities.

C. Increasing pollutant emissions to all areas.

D. Eliminating environmental regulations.

Environmental justice is achieved when actions address who bears environmental burdens and how communities participate in decisions that affect their health and environment. The best approach combines policy change, targeted interventions, and advocacy because it tackles systems, locations most in need, and the voices of affected residents. Policy change creates enduring protections and fair rules that limit where and how hazards are allowed, enforce accountability, and allocate resources to reduce disparities. Targeted interventions ensure that communities most affected by pollution receive immediate and appropriate support, remediation, and monitoring. Advocacy empowers residents, builds public awareness, and keeps pressure on institutions to follow through and implement equitable practices. Choosing to withhold data from affected communities erodes trust and blocks informed decision-making, which jeopardizes any attempt at fairness. Increasing pollutant emissions to all areas spreads harm more widely and intensifies injustice. Eliminating environmental regulations would remove protections and disproportionately hurt the communities already bearing the burden.

8. What is information bias from recall?

A. Misclassification of outcome due to inaccurate memory.

B. Bias due to interviewer effects.

C. Misclassification of exposure due to inaccurate memory.

D. Loss to follow-up bias.

Recall bias is a form of information bias that happens when exposure information relies on participants' memory and those memories are imperfect or different between groups. In studies that look back in time, especially case-control studies, cases may remember past exposures more clearly or emphasize them differently than controls. This leads to misclassification of whether someone was exposed, which can distort the observed association between exposure and outcome. So, information bias from recall is misclassification of exposure due to inaccurate memory. Other biases listed are different in origin: interviewer effects are about how questions are asked, loss to follow-up is about attrition, and misclassification of outcome due to inaccurate memory would be recall for outcome data rather than exposure data.

9. Which entity has primary legal responsibility for protecting health?

A. States

B. CDC

C. The Federal government

D. Local governments

Protecting health at the community level mainly rests with local governments because they hold the police powers to enact and enforce public health laws within their borders. Local health departments implement core functions like disease surveillance, inspections of restaurants and housing, vaccination requirements for schools, environmental health measures, and emergency response during outbreaks. They're closest to residents, can move quickly to address local health threats, and collect data specific to their community to guide actions. The federal government and state health agencies provide guidance, standards, and funding, but the legal responsibility for day-to-day protection lies with local authorities under state oversight. That combination—local enforcement backed by state and federal support—explains why local governments are the primary actors in protecting health.

10. Sensitivity and specificity definitions.

A. Sensitivity is ability to correctly identify true positives; specificity is ability to correctly identify true negatives.

B. Sensitivity is ability to correctly identify true negatives; specificity is ability to correctly identify true positives.

C. Sensitivity is probability of observing data under null; specificity is probability of rejecting null.

D. Sensitivity is how quickly a test yields results; specificity is how much it costs.

Sensitivity and specificity measure how well a test classifies people by their true disease status. Sensitivity is the ability to correctly identify those who truly have the condition (true positives). Specificity is the ability to correctly identify those who truly do not have the condition (true negatives). In formulas, sensitivity = true positives divided by all who actually have the disease, and specificity = true negatives divided by all who actually do not have the disease. This makes sense in practice: a test with high sensitivity is good at catching cases and minimizes missed diagnoses (false negatives), while a test with high specificity is good at ruling out people who don't have the disease and minimizes false alarms (false positives). The option that states this relationship accurately is the right one. The other statements either swap the roles of true positives and true negatives, refer to probabilities under a null hypothesis, or describe unrelated aspects like speed or cost.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://phrd554publichealth.examzify.com

We wish you the very best on your exam journey. You've got this!