

## Chapter 2: Optimizing Population Health

### Multiple Choice

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_\_ 1. In 2011, the National Prevention Strategy released a plan to increase the number of Americans who are healthy at every stage of life. Which of the following is not one of the strategic directions included in the strategy?
  - 1. Eliminating health disparities
  - 2. Building healthy and safe community efforts
  - 3. Increasing access to care
  - 4. Empowering people to make healthy choices
  
- \_\_\_\_\_ 2. A nursing student is studying the seven priorities of the National Prevention Strategy. The student correctly identifies which one of the following interventions as not reflecting any of the seven priorities in this plan?
  - 1. Conducting a smoking cessation clinic
  - 2. Assisting low-income families to sign up for health-care insurance
  - 3. Providing nutrition classes which offer weekly fill-in guides for grocery shopping
  - 4. Building a health and exercise center in a hospital near the physical and occupational therapy areas
  
- \_\_\_\_\_ 3. If a nurse is using the natural history of a disease to help develop a primary prevention program for a specific disease, he or she would begin with:
  - 1. Making sure that everyone in a certain area receives treatment.
  - 2. Studying the continuum of the disease with a focus on the disease free state.
  - 3. Looking at screening tools for identifying person who may have the disease.
  - 4. Going to the autopsies of the patients who have died.
  
- \_\_\_\_\_ 4. When a health-care provider offers nutritional health teaching on portions, patterns, and choices, he or she is using which type of approach?
  - 1. Ecological
  - 2. Downstream
  - 3. Upstream
  - 4. Health promotion
  
- \_\_\_\_\_ 5. A school cafeteria is planning menus for the school year. They used the 2012 national law that calls for school lunch programs to have larger portions of fruits and vegetables, less sodium, and no trans fats as their guide. This is an example of:
  - 1. An upstream approach
  - 2. An examination of the social aspects of obesity
  - 3. A downstream approach
  - 4. A and C
  
- \_\_\_\_\_ 6. A public health nurse (PHN) notices the rising incidence of H1N1 (swine flu) in a geographic area. The nurse considers possible interventions, knowing that the preclinical phase of H1N1 lasts:
  - 1. One to two days
  - 2. Two to four days
  - 3. Three to four days
  - 4. Five to seven days
  
- \_\_\_\_\_ 7. In the traditional public health prevention framework, the level of prevention that includes early detection and initiation of treatment for disease, or screening, is referred to as the:

1. Clinical level
2. Primary level
3. Tertiary level
4. Secondary level

- \_\_\_\_\_ 8. Attributable risk is the proportion of cases or injuries that would be eliminated if a risk factor did not occur, but preventable fraction is:
1. The number of cases that actually occur in a given population at a specific point in time.
  2. What could be achieved with a program implemented in a community setting within the at-risk population when community members actually participate in the program.
  3. The number of cases that require intervention.
  4. An estimation of the number of cases with the high-risk factor(s).
- \_\_\_\_\_ 9. Population attributable risk (PAR) is based on the assumption that the risk factor is removed from the entire population being targeted. It also can be used to calculate the cost benefit and the \_\_\_\_\_ of a prevention program.
1. Cost effectiveness
  2. Necessity
  3. Population ecology
  4. Percent of repeat participants
- \_\_\_\_\_ 10. The nursing student is studying learning theories. He learns that television commercials are an example of which learning theory?
1. Constructivism
  2. Cognitivist
  3. Bandura's theory of social learning
  4. Behaviorism
- \_\_\_\_\_ 11. A patient diagnosed with diabetes buys books, reads articles, talks with knowledgeable people, informs himself about what he can do to improve his health, and takes action. The nurse recognizes this method of adult learning as:
1. Pedagogy
  2. Andragogy
  3. Constructivism
  4. Humanism
- \_\_\_\_\_ 12. A nursing student is listening to a lecture on poor health outcomes. Based on research by the Institute of Medicine (IOM), the instructor says that for an individual with a non-communicable disease less knowledge of chronic disease management and performance of fewer health promotion activities at home, most likely reflects:
1. Low health literacy
  2. Lack of adequate health insurance
  3. Limited access to medical services
  4. Few prevention programs within the community
- \_\_\_\_\_ 13. Which of these tests is not an indicator of health literacy?
1. The Test of Functional Health Literacy in Adults (TOFHLA)
  2. Rapid Estimate of Adult Literacy in Medicine (REALM)
  3. National Quality Forum (NQF)
  4. Suitability Assessment of Material (SAM)
- \_\_\_\_\_ 14. A nursing student is studying preventable causes of death. In 2011, what was not one of the four leading at-risk behaviors that were underlying causes of disease and preventable death?

1. Tobacco use
2. Falls
3. Alcohol use
4. Lack of exercise or physical activity
5. Poor nutrition

### Completion

*Complete each statement.*

15. If the total number of cases of a disease is 100, and the total number of persons in a population is 1,000, what would the prevalence be? Record answer as a decimal. \_\_\_\_\_
16. In a hypertensive study, nurses took the blood pressure readings of 250 participants. In order to determine the accuracy of their readings, they wanted to test the sensitivity of their instruments. If the number of true positives is 40, and the total number of participants with disease (true positives plus false negatives) is 55, the sensitivity of the instrument is \_\_\_\_\_. Record answer with one decimal place.

### Multiple Response

*Identify one or more choices that best complete the statement or answer the question.*

- \_\_\_\_ 17. When screening for, monitoring, and diagnosing disease, a health-care provider always evaluates a measurement tool for which of the following attributes?  
*Select all that apply.*
  1. Reliability
  2. Validity
  3. Functionality
  4. Sensitivity
  5. Specificity
- \_\_\_\_ 18. In order to assess the prevalence of a disease in a population, a PHN can use the prevalence pot to help better understand the occurrence of disease in her or his community. The prevalence pot: *Select all that apply.*
  1. Depicts the total number of current cases in the population.
  2. Takes into account duration and incidence of the disease.
  3. Includes assessing the total number of cases of a disease taking into account all of the stages of the disease.
  4. Is a method of calculating the potential number of new cases in a population.
  5. Is a method of calculating the potential number of new cases in a population.  
Determines the amount of primary medications used to treat diseases in a certain population.
- \_\_\_\_ 19. Based on the Social-Ecological model of health, which of the following are components of health? *Select all that apply.*
  1. Physical environments
  2. Social environments
  3. Social relations
  4. Political systems
  5. Health-care systems

## Chapter 2: Optimizing Population Health

### Answer Section

#### MULTIPLE CHOICE

1. ANS: 3

Objective: 1. Describe the National Prevention Strategy.

Page: 27-28

Heading: Introduction

Integrated Processes: N/A

Client Need: Health Promotion and Maintenance

Cognitive Level: Knowledge [Remembering]

Concept: Promoting Health; Legal

Difficulty: Easy

	Feedback
1	Eliminating health disparities is one of the four fundamental strategies.
2	Building healthy and safe community efforts is one of the four fundamental strategies.
3	Though the National Prevention Strategy was authorized by the Affordable Care Act, the focus is to promote health and not increase access to care.
4	Empowering people to make healthy choices is one of the four fundamental strategies.

PTS: 1

CON: Promoting Health | Legal

2. ANS: 2

Objective: 1. Describe the National Prevention Strategy.

Page: 27-28

Heading: Introduction

Integrated Processes: Teaching/Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Promoting Health; Nursing Roles; Legal

Difficulty: Moderate

	Feedback
1	One of the seven priorities is tobacco free living.
2	Providing assistance to help lower income families obtain health-care insurance is not one of the priorities of the National Prevention Strategy.
3	Healthy eating is one of the seven priorities.
4	Active living is one of the seven priorities.

PTS: 1

CON: Promoting Health | Nursing Roles | Legal

3. ANS: 2

Objective: 2. Describe public health in terms of current frameworks guiding prevention efforts from a local to a global perspective.

Page: 30-32

Heading: Prevention Frameworks > Natural History of Disease

Integrated Processes: Nursing Process

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Promoting Health; Health-Care System

Difficulty: Easy

	Feedback
1	If the focus is prevention, then the nurse is focusing on primary prevention. Based on the natural history of disease model, provision of treatment is a tertiary prevention approach.
2	The natural history of disease provides the nurse with the continuum of the disease from the disease free state to resolution. In this case with a primary prevention focus she/he would begin with the first part of the model, the disease free state and focus on the prevention of development of disease in those who are healthy.
3	Screening is a secondary prevention strategy.
4	When death has occurred the focus is on the resolution stage of the natural history of disease rather than primary prevention during the disease free state.

PTS: 1 CON: Promoting Health | Health-Care System

4. ANS: 2

Objective: 2. Describe public health in terms of current frameworks guiding prevention efforts from a local to a global perspective.

Page: 28-29

Heading: Population Health Promotion, Health Protection, and Risk Reduction > Health Promotion

Integrated Processes: Teaching/Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Nutrition; Promoting Health; Nursing Roles

Difficulty: Moderate

	Feedback
1	This refers to a larger model that includes a more upstream approach since it takes into account environmental influences on health. The health promotion strategy in this question is considered a downstream approach.
2	This approach to health promotion is considered downstream since it does not take into account environmental factors such as a lack of supermarkets that influence healthy eating choices.
3	The upstream approach looks more at the environmental factors that prevent or allow healthy choices, such as urban zoning for gardening or a lack of supermarkets in a community.
4	Health promotion is the broad term used to classify all incentives and interventions to encourage healthy lifestyles.

PTS: 1 CON: Nutrition | Promoting Health | Nursing Roles

5. ANS: 1

Objective: 2. Describe public health in terms of current frameworks guiding prevention efforts from a local to a global perspective.

Page: 28-29

Heading: Population Health Promotion, Health Protection, and Risk Reduction > Health Promotion

Integrated Processes: Nursing Process

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Nutrition; Promoting Health; Legal

Difficulty: Easy

	Feedback
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1	The new law is an example of an upstream approach that takes in the environmental factors influencing health.
2	Following specific guidelines for healthy school menus does not incorporate social aspects of eating habits and obesity.
3	A downstream approach does not take into account environmental factors.
4	Setting of school menus provides an environment for healthy eating for a population but does not include individual level health promotion.

PTS: 1 CON: Nutrition | Promoting Health | Legal

6. ANS: 1

Objective: 3. Apply public health prevention frameworks to specific diseases.

Page: 30-32

Heading: Prevention Frameworks > Natural History of Disease

Integrated Processes: Nursing Process

Client Need: Safe and Effective Care Environment: Safety and Infection Control

Cognitive Level: Application [Applying]

Concept: Infection; Clinical Thinking

Difficulty: Difficult

	Feedback
1	The preclinical phase of H1N1 lasts one to two days, and people that are infected can infect others on the first day. Symptoms develop rapidly, and intervention cannot prevent progression to the clinical phase.
2	This is past the preclinical phase of H1N1. The preclinical phase lasts only one to two days.
3	This is past the preclinical phase of H1N1. The preclinical phase lasts only one to two days.
4	This is past the preclinical phase of H1N1. The preclinical phase lasts only one to two days.

PTS: 1 CON: Infection | Clinical Thinking

7. ANS: 4

Objective: 2. Describe public health in terms of current frameworks guiding prevention efforts from a local to a global perspective.

Page: 32-37

Heading: Prevention Frameworks > Public Health Prevention Frameworks

Integrated Processes: N/A

Client Need: Health Promotion and Maintenance

Cognitive Level: Comprehension [Understanding]

Concept: Promoting Health

Difficulty: Easy

	Feedback
1	The clinical level is not a level of prevention in the traditional public health framework.
2	The primary level of prevention includes interventions aimed at preventing disease in those who currently do not have the disease.
3	The tertiary level includes prevention of disability and premature death in those who are already diagnosed with the disease.
4	The secondary level includes screening to help detect disease among persons who are apparently well during the preclinical phase of the disease.

PTS: 1 CON: Promoting Health

8. ANS: 2

Objective: 4. Compare and contrast different levels of health promotion, protection, and risk reduction interventions.

Page: 32-37

Heading: Prevention Frameworks > Public Health Prevention Frameworks

Integrated Processes: N/A

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Promoting Health

Difficulty: Moderate

	Feedback
1	Preventable fraction is not the number of cases that actually occur.
2	Preventable fraction includes the portion of the population at risk that actually participates in a program and the number of cases prevented.
3	The preventable fraction includes the number of cases that have been prevented from happening, not the cases that now require intervention.
4	The estimated number of cases with high-risk factors is included in attributable risk.

PTS: 1 CON: Promoting Health

9. ANS: 1

Objective: 4. Compare and contrast different levels of health promotion, protection, and risk reduction interventions.

Page: 32-37

Heading: Prevention Frameworks > Public Health Prevention Frameworks

Integrated Processes: N/A

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Promoting Health; Economics

Difficulty: Moderate

	Feedback
1	PAR can be used as a measurement of the cost benefit and cost effectiveness of a prevention program, which is based on the strength of the risk factor and the prevalence of the risk factor in a population.
2	PAR can be used to estimate the cost effectiveness of a prevention program. The estimation of the cost effectiveness of a program is a separate issue from whether a program is necessary or not.
3	PAR can be used to estimate the cost effectiveness of a prevention program. There is no measurement of the population ecology, only of the strength and prevalence of the risk factor.
4	PAR can be used to estimate the cost effectiveness of a prevention program. The percent of repeat participants is not a measure of the cost effectiveness of the program when the risk factor has been removed from the targeted population.

PTS: 1 CON: Promoting Health | Economics

10. ANS: 3

Objective: 5. Identify health education strategies and chronic disease self-management within the context of prevention frameworks.

Page: 38-40

Heading: A Primary Prevention Approach: Health Education > Theories of Education  
Integrated Processes: Teaching/Learning  
Client Need: Health Promotion and Maintenance  
Cognitive Level: Application [Applying]  
Concept: Evidence-Based Practice; Promoting Health; Nursing Roles  
Difficulty: Easy

	Feedback
1	Constructivism is a learning theory that includes reflecting on our own experiences and knowledge.
2	Cognitivist focuses on inner mental activity and knowledge that has changed thought patterns through rationally responding to an external stimulus.
3	Bandura's theory of learning specifically connects understanding, behavior, and environment. Whereas the other theories listed are based in behavior and cognitive frameworks, Bandura's theory stresses imitation and reinforcement in learning. In this example, the audience is encouraged to mimic the behavior seen on the commercial.
4	Behaviorism includes the theory of classical conditioning, which emphasizes that change comes with an environmental stimulus resulting in a response.

PTS: 1 CON: Evidence-Based Practice | Promoting Health | Nursing Roles

11. ANS: 4

Objective: 5. Identify health education strategies and chronic disease self-management within the context of prevention frameworks.

Page: 38-40

Heading: A Primary Prevention Approach: Health Education > Theories of Education  
Integrated Processes: Nursing Process  
Client Need: Health Promotion and Maintenance  
Cognitive Level: Application [Applying]  
Concept: Evidence-Based Practice; Promoting Health  
Difficulty: Easy

	Feedback
1	Pedagogy is the correct use of teaching strategies to provide the best learning.
2	Andragogy is the art and science of helping adults learn.
3	Constructivism is a learning theory that includes reflecting on our own experiences and knowledge.
4	Humanism is defined as self-directed learning through examining personal motivation and goals. It also includes the development of personal actions to fulfill one's personal motivation and goals.

PTS: 1 CON: Evidence-Based Practice | Promoting Health

12. ANS: 1

Objective: 5. Identify health education strategies and chronic disease self-management within the context of prevention frameworks.

Page: 40-42

Heading: A Primary Prevention Approach: Health Education > Health Literacy  
Integrated Processes: Teaching/Learning  
Client Need: Health Promotion and Maintenance  
Cognitive Level: Application [Applying]  
Concept: Promoting Health; Nursing Roles; Evidence-Based Practice  
Difficulty: Easy

	Feedback
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1	The lack of health-care literacy is an issue, particularly in older Americans with limited education. There is a causal relationship between low health literacy and poor health outcomes due to the lack of understanding of one's health problems.
2	Poor insurance produces problems such as a lack of access to health services and inability to receive proper care. However, this is not the cause cited by the IOM research of the trends mentioned above.
3	Limited access to medical services due to transportation or financial issues means poorer outcomes, but this is not the cause cited by the IOM research.
4	Few prevention programs mean more intervention programs are needed, but this is not related to the trends mentioned above and does not reflect implementing health promotion activities within the home.

PTS: 1 CON: Promoting Health | Nursing Roles | Evidence-Based Practice

13. ANS: 3

Objective: 5. Identify health education strategies and chronic disease self-management within the context of prevention frameworks.

Page: 40-42

Heading: A Primary Prevention Approach: Health Education > Health Literacy

Integrated Processes: Nursing Process

Client Need: Health Promotion and Maintenance

Cognitive Level: Comprehension [Understanding]

Concept: Assessment; Promoting Health; Quality Improvement

Difficulty: Easy

	Feedback
1	The TOFHLA is a 50-item reading comprehension and numerical test available in English and Spanish that tests the ability of the patient to understand health-related materials.
2	REALM is used to assess the reading skills of patients.
3	The NQF is an agency for health-care quality, safety, and infection control; it is not a test.
4	SAM assesses health information for content and cultural appropriateness.

PTS: 1 CON: Assessment | Promoting Health | Quality Improvement

14. ANS: 2

Objective: 2. Describe public health in terms of current frameworks guiding prevention efforts from a local to a global perspective.

Page: 32-37

Heading: Prevention Frameworks > Public Health Prevention Frameworks

Integrated Processes: Teaching/Learning

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Addiction; Sleep, Rest, and Activity; Nutrition; Promoting Health; Nursing Roles

Difficulty: Easy

	Feedback
1	The four at-risk health behaviors that were the underlying cause of disease and premature death were tobacco use, alcohol use, lack of exercise or physical activity and poor nutrition.
2	The four at-risk health behaviors that were the underlying cause of disease and premature death were tobacco use, alcohol use, lack of exercise or physical activity and

	poor nutrition. Falls was not one of the at-risk behavioral issues.
3	The four at-risk health behaviors that were the underlying cause of disease and premature death were tobacco use, alcohol use, lack of exercise or physical activity and poor nutrition.
4	The four at-risk health behaviors that were the underlying cause of disease and premature death were tobacco use, alcohol use, lack of exercise or physical activity and poor nutrition.
5	The four at-risk health behaviors that were the underlying cause of disease and premature death were tobacco use, alcohol use, lack of exercise or physical activity and poor nutrition.

PTS: 1

CON: Addiction | Sleep, Rest, and Activity | Nutrition | Promoting Health | Nursing Roles

## COMPLETION

15. ANS:

0.1

Feedback: The prevalence of a disease is calculated by dividing the total number of disease cases (100) by the total number of persons in a population (1,000) to equal the total number of cases of disease in a population.

$100 \div 1,000 = 0.1$ .

Objective: 2. Describe public health in terms of current frameworks guiding prevention efforts from a local to a global perspective.

Page: 30-32

Heading: Prevention Frameworks > Natural History of Disease

Integrated Processes: Nursing Process

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Promoting Health

Difficulty: Easy

PTS: 1

CON: Promoting Health

16. ANS:

72.7%

Feedback: The number of true positives (40) is divided by the total number of people with the disease (true positives plus false negatives = 55) and multiplied by 100 to equal the sensitivity of the instrument.  $(40/55) \times 100 \approx 72.7\%$ .

Objective: 2. Describe public health in terms of current frameworks guiding prevention efforts from a local to a global perspective.

Page: 46-50

Heading: Screening and Early Identification > Sensitivity and Specificity

Integrated Processes: Nursing Process

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Assessment; Perfusion; Promoting Health

Difficulty: Easy

PTS: 1

CON: Assessment | Perfusion | Promoting Health

## MULTIPLE RESPONSE

17. ANS: 1, 2, 4, 5

Objective: 6. Describe components of screening from a population and individual perspective.

Page: 46-50

Heading: Screening and Early Identification > Sensitivity and Specificity

Integrated Processes: Nursing Process

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Assessment; Promoting Health

Difficulty: Easy

	Feedback
1.	Reliability is the ability of the instrument to give consistent results on repeated trials.
2.	Validity is the degree to which the instrument measures what it is supposed to measure.
3.	Functionality is the quality of being suited to serve a purpose well. This is not one of the attributes by which a measurement tool is always evaluated.
4.	Sensitivity is the ability of the screening test to a positive finding when the person truly has the disease or is a true positive.
5.	Specificity is the ability of the screening test to give a negative finding when the person does not have the disease or is a true negative.

PTS: 1

CON: Assessment | Promoting Health

18. ANS: 1, 2, 3

Objective: 2. Describe public health in terms of current frameworks guiding prevention efforts from a local to a global perspective.

Page: 30-32

Heading: Prevention Frameworks > Natural History of Disease

Integrated Processes: Nursing Process

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Promoting Health

Difficulty: Moderate

	Feedback
1.	A prevalence pot includes the total number of current cases.
2.	A prevalence pot takes into account duration and incidence of the disease.
3.	A prevalence pot is a way of depicting the total number of cases of a disease in a population that takes into account issues related to duration of the disease and the incidence of the disease.
4.	A prevalence pot does not specifically provide information on potential new cases.
5.	A prevalence pot does not determine the amount of medication used.

PTS: 1

CON: Promoting Health

19. ANS: 1, 2, 3

Objective: 2. Describe public health in terms of current frameworks guiding prevention efforts from a local to a global perspective.

Page: 28-29

Heading: Population Health Promotion, Health Protection, and Risk Reduction

Integrated Processes: Nursing Process

Client Need: Health Promotion and Maintenance

Cognitive Level: Application [Applying]

Concept: Assessment; Promoting Health; Evidence-Based Practice

Difficulty: Easy

	Feedback
1.	Physical environments contribute to the health of populations and individuals.
2.	Social environments along with physical environments are key determinants of health for individuals and communities.
3.	Social relations are one of the upstream determinants of health included in the model.
4.	Political systems may support communities but are not specific to the model.
5.	Health-care systems may support communities but are not specific to the model.

PTS: 1

CON: Assessment | Promoting Health | Evidence-Based Practice