

# Public Health Policy and Human Physiology

Public Health Policy · Answer Key · 18 Questions

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**1. What is the minimum recommended blood lead level intervention threshold established by the CDC for public health policy action in children?**

- A) 5 micrograms per deciliter
- B) 10 micrograms per deciliter
- C) 3.5 micrograms per deciliter**
- D) 20 micrograms per deciliter

**2. Under the WHO Framework Convention on Tobacco Control, which chemical compound is the primary target for mandated reduction in cigarette smoke yield to mitigate cardiovascular harm?**

- A) Carbon monoxide**
- B) Formaldehyde
- C) Benzene
- D) Ammonia

**3. Which specific immunoglobulin class is the primary target for public health immunization policies aimed at achieving mucosal immunity against respiratory pathogens?**

- A) IgE
- B) IgA**
- C) IgG
- D) IgM

**4. What is the physiologically accepted definition of 'overweight' for adults based on BMI, as adopted by the World Health Organization for global health policy monitoring?**

- A) BMI 23.0-24.9
- B) BMI 25.0-29.9**
- C) BMI 27.0-30.0
- D) BMI 30.0+

**5. In the context of water fluoridation policy, what is the optimal concentration of fluoride generally recommended for caries prevention while minimizing the risk of dental fluorosis?**

- A) 0.3 mg/L
- B) 0.7 mg/L**
- C) 1.5 mg/L
- D) 2.5 mg/L

**6. What is the daily upper intake level (UL) of sodium for adults recommended by major health authorities to manage hypertension at a population level?**

- A) 1500 mg
- B) 2000 mg
- C) 2300 mg**
- D) 3000 mg

**7. Public health policies regarding nutritional labeling of trans-fats are based on the physiological fact that trans-fats cause which specific lipid profile change?**

- A) Increase in HDL and decrease in LDL
- B) Decrease in LDL and increase in triglycerides
- C) Increase in LDL and decrease in HDL**
- D) Increase in VLDL and decrease in total cholesterol

**8. Which organ is primarily responsible for the physiological clearance of ethanol, a process that informs blood-alcohol concentration (BAC) legal policy thresholds?**

- A) Kidneys
- B) Liver**
- C) Pancreas
- D) Stomach

**9. What is the physiological half-life of methylmercury, a critical factor for determining public health fish consumption advisory policies?**

- A) 10 days
- B) 30 days
- C) 70 days**
- D) 120 days

**10. In radiation protection policy, what is the established threshold for the deterministic effect of skin erythema (reddening) from ionizing radiation?**

- A) 0.5 Gray
- B) 2.0 Gray**
- C) 5.0 Gray
- D) 10.0 Gray

**11. Which physiological process is disrupted by fine particulate matter (PM<sub>2.5</sub>), forming the basis for air quality public health regulations?**

- A) Alveolar gas exchange**
- B) Bile production
- C) Myelin sheath regeneration
- D) Glomerular filtration

**12. What is the WHO-recommended minimum duration of exclusive breastfeeding, a policy aimed at optimizing infant physiological immune development?**

- A) 3 months
- B) 6 months**
- C) 9 months
- D) 12 months

**13. The efficacy of mandatory seatbelt policy is linked to the reduction of which specific physiological trauma mechanism?**

- A) Hypovolemic shock
- B) Deceleration injury**
- C) Anaphylactic shock
- D) Neurogenic shock

**14. According to clinical guidelines used in public health, what is the systolic blood pressure threshold that defines stage 1 hypertension?**

- A) 120 mmHg
- B) 130 mmHg**
- C) 140 mmHg
- D) 150 mmHg

**15. Public health policy on folic acid fortification in flour is designed to prevent which specific physiological developmental defect?**

- A) Atrial septal defect
- B) Neural tube defect**
- C) Pyloric stenosis
- D) Cleft palate

**16. Which nutrient deficiency is the primary target of WHO universal salt iodization policies to prevent physiological thyroid dysfunction?**

- A) Selenium
- B) Iodine**
- C) Zinc
- D) Iron

**17. What physiological 'refractory period' is the basis for mandatory rest breaks in high-risk occupational health policies to prevent central nervous system fatigue?**

- A) Circadian rhythm misalignment
- B) Synaptic vesicle depletion**
- C) Lactic acid crystallization
- D) Mitochondrial DNA degradation

**18. In environmental health policy, what is the primary physiological marker used to monitor chronic arsenic exposure in human populations?**

A) Serum ferritin levels

**B) Urinary arsenic concentration**

C) Hair follicle cortisol

D) Liver enzyme elevation