

Exam 1 Practice Problems Answer Key

- 1) Answer: A. A state of complete physical, mental, and social well-being
- 2) Answer: D. Populations

Answers A, B, and C are units of service, but the focus is on the health of large groups or populations that make up communities. At times, the health of one individual, family, or group may affect the health of the larger population, but the focus remains on the population level.

- 3) Answer: B. Discovery of the germ theory

The discovery and acceptance of the germ theory changed the approach of public health and opened the door to future discoveries that would lead to the eradication of many diseases.

- 4) Answer: D. Lillian Wald

Clara Barton was a teacher and volunteer nurse, and is known for being the founder of the American Red Cross. Dorothea Dix was a teacher who committed her life to prison and mental health reform. Mary Breckenridge was a nurse-midwife who founded the Frontier Nursing Service in Kentucky.

- 5) Answer: B. be the one authority on international health.

Answer choice A is not spelled out in their mission and would be a monumental task. Smallpox has been eradicated since the 1980s. The WHO works with member nations to provide individualized forms of health care delivery, based on each nation's needs.

- 6) Answer: D. Express personal opinion and provide useful data

Form letters are not recommended. Legislators tend not to read them. Personal opinion is desired and the purpose of writing. Negative and positive comments are welcomed and needed to sway a vote.

- 7) Answer: D. Public Health Services

Answer choices A,B, and C are the other three operating components of the DHHS. Community health care concerns are administrated through the Public Health Service.

- 8) **Prevalence Rate:** # of cases of a disease from a specific cause for one year for the state X 100,000 = rate

$$\frac{\text{Total population of state that year}}{2,432 / 12,625,136} = 0.0001926 \times 100,000 = 19.26 \sim 19 \text{ per } 100,000$$

- 9) **Incidence Rate:** # of new cases of disease over a specific period of time X 100,000 = rate
of persons at risk of disease over that specific period of time

$$155 / 50,205 = 0.0030873 \times 10,000 = 30.873 \sim 31 \text{ per } 10,000$$

- 10) **Infant Mortality Rate:** # of infant deaths < 1 year in state x 1,000 = infant mortality rate state
live births

$$7 / 4,452 = 0.0015723 \times 1,000 = 1.5723 \sim 2 \text{ per } 1,000$$

11) **Birth rate:** $\frac{\# \text{ of live births}}{\# \text{ Total population}} \times 1,000 = \text{birth rate}$

$$4,452/343,360 = 0.0129659 \times 1,000 = 12.9659 \sim 13 \text{ per } 1,000$$

12) **Crude Death Rate:** $\frac{\# \text{ of deaths in Illinois}}{\text{Total estimated mid-year Population of Illinois}} \times 100,000 = \text{rate}$

$$6,537/545,342 = 0.0119869 \times 100,000 = 119.869 \sim 120 \text{ per } 10,000$$

13) **Cause Specific Death Rate:** $\frac{\# \text{ of deaths from *** in Illinois}}{\# \text{ Total Population}} \times 100,000 = \text{rate}$

$$900/654,387 = 0.0013753 \times 100,000 = 137.53 \sim 138 \text{ per } 100,000$$