**Question Bank**

**Chapter 16**

**Cost-Effectiveness and Cost-Benefit Analysis**

***\*\*There are no thought break questions from this chapter as there are numerous other questions in the text and tables****.*

***Multiple Choice Questions***

1. What is the name of the project that JP got funded?

a. Better Days with Better Diets

b. This City is Cooking

c. Healthy Food Shopping with Pokemon Go

2. A $20.00 per shot vaccine is more cost effective than a $100.00 per shot vaccine.

a. True

b. False

c. Uncertain

3. The most effective program will always be the most cost effective as well.

a. True

b. False

4. Cost identification analysis

a. is the identification of the individuals that are the most costly to reach in an intervention.

b. is the identification of unexpected costs in delivering a program.

c. is the identification and measurement of the cost associated with some good.

5. Health is an example of

a. a market good.

b. a non-market good.

c. neither a or b.

6. The major categories of inputs are

a. Fixed, variable, direct, and indirect.

b. labor, capital, material, and utilities.

c. Short run, intermediate run, and long run.

7. The major types of inputs are

a. Fixed, variable, direct, and indirect.

b. labor, capital, material, and utilities.

c. Short run, intermediate run, and long run.

8. Labor is always a variable input or cost.

a. True

b. False

9. A computer is a \_\_\_\_\_\_\_ (fill in the blank)

a. capital and fixed cost in most cases.

b. capital and variable cost in most cases.

c. material and fixed cost in most cases.

10. Childcare costs associated with a nutrition curriculum intervention program is an example of a

a. labor, fixed, and indirect cost.

b. labor, variable, and indirect cost.

c. labor, variable, and direct cost.

11. The cost effectiveness ration (CER) is

a. simply the ratio of the cost of the program relative to the effects and is the cost per unit of the effect.

b. simply the ratio of the cost of the program relative to the effects and is the cost per unit of the benefit.

c. a and b.

12. If the cost of program A is $1,000,000 and the effect is 50,000 lives saved but the cost of program B is $10,000,000 but 250,000 lives saved, then which program is more cost effective?

a. A

b. B

c. the same

13. In a cost effective analysis there is only one cost effectiveness ratio of interest.

a. True

b. False

14. A quality adjusted life year (QALY)

a. is an index for measuring the quantity and quality of remaining years for an individual.

b. is an index of the change in health after a medical procedure.

c. is an index of the change in happiness associated with the quality of life after a medical procedure.

15. A cost utility analysis is often preferred to a cost effectiveness analysis because the quality adjusted life year index used in the cost utility analysis offers an objective measure of an effect.

a. True

b. False

16. A cost-benefit analysis differs from a cost-effectiveness analysis by

a. taking into account the cost of health benefits paid for by insurance companies.

b. by measuring the benefits to society by including cost savings from avoided health costs.

c. taking the effects of an intervention and converting the effects into a dollar value and then compares the cost(s) to the benefit(s).

17. A benefit-cost ratio for a program less than 1 means the program was not effective.

A. True

B. False

18. A cost-benefit analysis requires \_\_\_\_\_\_\_\_\_\_ (fill in the blank) assumptions than a cost-effectiveness analysis.

A. less

B. more

C. the same

19. A cost-benefit analysis usually implicitly values richer individuals’ lives more than poorer individuals’ lives.

A. True

B. False

20. The Panel on Cost-Effectiveness in Health and Medicine (PCEHM) recommended cost benefit analysis over cost effectiveness analysis.

A. True

B. False

***Short Answer Questions***

1. List and explain the five main questions you need to answer in doing a cost effectiveness and cost benefit analysis.

2. Define and give an example of each of the components of a cost identification analysis.

3. Explain why cost-effectiveness analysis is preferred over cost-benefit analysis.

***Discussion Questions***

1. Suppose you are considering a nutrition education program targeted at middle schoolers. Explain some of the questions you need to ask and answer in order to conduct a cost effectiveness analysis versus a cost benefit analysis.

2. One million people live in the Garden of Nede. There is an evil food supplier who sells a fruit that maximizes his profit. The fruit is very tempting but will eventually lead to death of any individual who eats the fruit. The creator of the garden loves the people of the garden and considers two intervention programs to save his people. Program I is an education program consisting of nutritional guidelines targeted at stopping this fruit consumption. Program II is an anecdote program whereby a doctor is sent to the garden to administer a shot that will help remove the desire for the fruit and make it actually taste bad, if the individual is willing to meet with him and simply accept the shot. Paul, the resident epidemiologist, estimates that the present value of a life saved will be $5 (gazillion), though he is certain this is a very low estimate. Below are the relevant cost, participation numbers, and effect numbers for each program.

|  |  |
| --- | --- |
| **Program I** | **Program II** |
| Development of educational materials | $500,000 | Doctor’s visit to Garden | $1,000,000 |
| Distribution of education materials | $500,000 | Cost of shots (all) | $0 |
| Number of people participating | 800,000 | Number of people participating | 100,000 |
| Number of people saved from bad fruit | 2,000 | Number of people saved from bad fruit | 100,000 |

Based on this information answer the following questions:

1. For each program, explain what type of costs is involved (e.g., fixed, variable, direct, indirect). Remember an item can be of multiple types.

1. What is the cost effectiveness ratio for the number people participating in each program? **Show work and** e**xplain**.

1. What is the cost effectiveness ratio for the number people saved from the bad fruit in each program? **Show work and** e**xplain**.
2. What is the benefit cost ratio of each program? **Show work and** e**xplain**. (Hint: just use $5 in calculation).

1. Compare and contrast these two programs. Which would you recommend and why?