

Epidemiology: HLSC 2003
Assignment 2

Group ID: _____

Group Members (those in attendance only):

1. _____ 2. _____ 3. _____ 4. _____

Instructions: Under each description, name the study type and describe why using information from Class 6 and Chapter 3 of Basic Epidemiology. If you believe the described study is a cohort study, you must state which type (retrospective or prospective) for full marks.

1. The entire population of a given community is examined in 2013, and all who are judged to be free from esophageal cancer are questioned extensively about their diets. These people then are followed for several years to see whether or not their eating habits will predict their risk of developing esophageal cancer.

Study Type: _____ **Analytic or Descriptive?** _____

Rationale:

Identify at least one strength and one limitation of this type of study design:

2. To test the efficacy of vitamin C in preventing colds, army recruits are randomly assigned to one of two groups: one in which 500 mg of vitamin C is administered daily and one in which 500 mg of a placebo is administered daily. Both groups are followed to determine the number and severity of subsequent colds.

Study Type: _____ **Is this study Observational (Y/N)?** _____

Rationale:

3. A study examines the effect of childhood trauma on alcohol dependence. Adults with current alcohol dependence are identified using an addictions treatment clinic. Controls are selected from a random sample of the general population. Participants are asked about traumatic experiences that occurred when they were children.

Study Type: _____

Where does this study fit on the study hierarchy of strength in determining causation (the bottom being level one)? _____

Rationale:

Identify at least one strength and one limitation of this type of study design:

4. Researchers were interested in testing the hypothesis that good social support is associated with good perceived health (outcome). They randomly select 5000 adults from Alberta using random digit dialing and interviewed them by phone. During the interview they ask if people believe they currently have good social support from family and friends (yes or no) and at the same time ask if they believed they are currently in good health (yes or no).

Study Type: _____ **What is the exposure of interest?** _____

Rationale: _____

Identify at least one strength and one limitation of this type of study design:

5. A physician working in an emergency department has 3 patients who arrive in the emergency department with a strange but similar cluster of symptoms over a one month period. He writes and publishes a paper describing these 3 cases.

Study Type: _____

Rationale: _____

Identify at least one strength and one limitation of this type of study design:

6. Researchers are interested to determine if exposure to fluoride in drinking water is associated with increased incidence of bone fractures. They used data available from 36 different municipalities and compared them to determine if there was a correlation between fluoridated water and bone fractures among the identified communities.

Study Type: _____

Rationale:

Identify at least one strength and one limitation of this type of study design:

7. Investigators want to test the hypothesis that working with certain chemicals in the manufacturing of tires increases the rate of death. Using employee occupational health records from past decades, they identify employees of a large tire factory and divide them by exposure and non-exposure to the chemical (those who handled the chemical in the manufacturing process vs. those who were involved with more clerical/management work in the company). They then determine their current outcome status (i.e. death) through telephone contact and death registries.

Study Type: _____

Is the time of data collection in the past or in the future: _____

Rationale: _____

Identify at least one strength and one limitation of this type of study design:
