***Objective 2: Explain the Various Types of Observational Studies***

Objective 2, Page 1

*Answer the following while watching the video.*

1. Define: Cross-sectional studies
2. Define: Case-control studies
3. List some difficulties that may occur and affect the outcomes of a case-control study.
4. List some of the advantages of performing a case-control study over a cross-sectional study.
5. Define: Cohort studies
6. List an advantage of using a cohort study.
7. List two disadvantages of using a cohort study.

Objective 2, Page 2

**Example 1** ***What Type of Study?***

Determine whether each of the following studies depict an observational study or an experiment. If the researchers conducted an observational study, determine the type of the observational study.

1. Researchers wanted to assess the long-term psychological effects of children evacuated during World War II. They obtained a sample of 169 former evacuees and a control group of 43 people who were children during the war but were not evacuated. The subjects’ mental states were evaluated using questionnaires. It was determined that the psychological well being of the individuals was adversely affected by evacuation. (Source: Foster D, Davies S, and Steele H (2003) The evacuation of British children during World War II: a preliminary investigation into the long-term psychological effects. Aging & Mental Health (7)5.)
2. Xylitol has proven effective in preventing dental carries (cavities) when included in food or gum. A total of 75 Peruvian children were given milk with and without xylitol and were asked to evaluate the taste of each. Overall, the children preferred the milk flavored with xylitol. (Source: Castillo JL, et al (2005) Children’s acceptance of milk with xylitol or sorbitol for dental carries prevention. BMC Oral Health (5)6.)
3. A total of 974 homeless women in the Los Angeles area were surveyed to determine their level of satisfaction with the healthcare provided by shelter clinics versus the healthcare provided by government clinics. (Source: Swanson KA, Andersen R, Gelberg L (2003) Patient satisfaction for homeless women. Journal of Women’s Health (12)7.)
4. The Cancer Prevention Study II (CPS-II) is funded and conducted by the American Cancer Society. Its goal is to examine the relationship among environmental and lifestyle factors on cancer cases by tracking approximately 1.2 million men and women. Study participants completed an initial study questionnaire in 1982 providing information on a range of lifestyle factors such as diet, alcohol and tobacco use, occupation, medical history, and family cancer history. These data have been examined extensively in relation to cancer mortality. Vital status of study participants is updated biennially. Cause of death has been documented for over 98% of all deaths that have occurred. Mortality follow-up of the CPS-II participants is complete through 2002 and is expected to continue for many years. (Source: American Cancer Society)

Objective 2, Page 3

1. It is not always possible to conduct an experiment. Explain why we could not conduct an experiment to investigate the perceived link between high tension wires and leukemia (on humans).

Objective 2, Page 6

1. There is no point in reinventing the wheel. List some agencies that regularly collect data that are available to the public.

Objective 2, Page 7

1. What is a census?

Why is the U.S. Census so important?