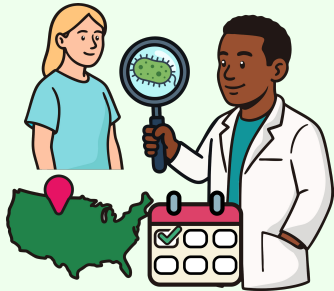
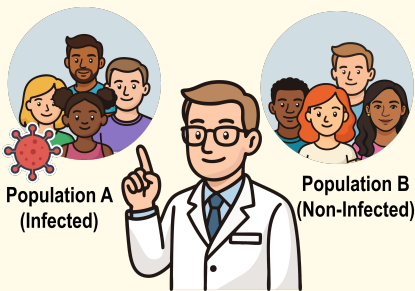






## TOPIC: EPIDEMIOLOGICAL STUDIES

### Types of Epidemiological Studies

- ◆ **Descriptive:** finds patterns answering *WHO* is affected & *WHERE/WHEN* disease occurred (generates hypotheses).
- ◆ **Analytical:** *observationally* \_\_\_\_\_ groups to find *associations* that propose *WHY/HOW* disease occurred.
- ◆ **Experimental:** \_\_\_\_\_ an *intervention* to some to determine *WHAT* works to prevent or control a disease.

Scenario: Outbreak of a new, emerging disease on campus.		
Descriptive Study	Analytical Study	Experimental Study
		
Who gets sick, where, & when? Students, on campus, 1-3 days after each monthly game night. <b>Generate a hypothesis.</b>	Form groups & compare: ◆ <b>Cases:</b> those who got sick. ◆ <b>Control:</b> those who didn't get sick. Illness <i>associated</i> with attending events.	<b>Intervention:</b> assign hand-sanitizer & masks to some. Evidence for Effectiveness: hand-sanitizer & masks lower risk of illness.
 <b>Describe</b>	 <b>Analyze (without experimenting)</b>	 <b>Experiment</b>

### PRACTICE

A nutritionist is investigating an outbreak of salmonellosis cases in a city over the past month. She collects data on when and where each case occurs but does not attempt to identify a cause yet. Which type of epidemiological study is she conducting?

- a) Descriptive epidemiology.
- b) Analytical epidemiology.
- c) Experimental epidemiology.
- d) A combination of options a, b, & c.

### PRACTICE

Which of the following is the best example of analytical epidemiology?

- a) Tracking the number of lung cancer patients in a population over a 50-year period.
- b) Testing effectiveness of a new lung cancer treatment in clinical trials.
- c) A doctor who documents & reports the number of patients at her clinic with lung cancer.
- d) Comparing the rate of lung cancer between 2 groups; one who are smokers & one who are non-smokers.