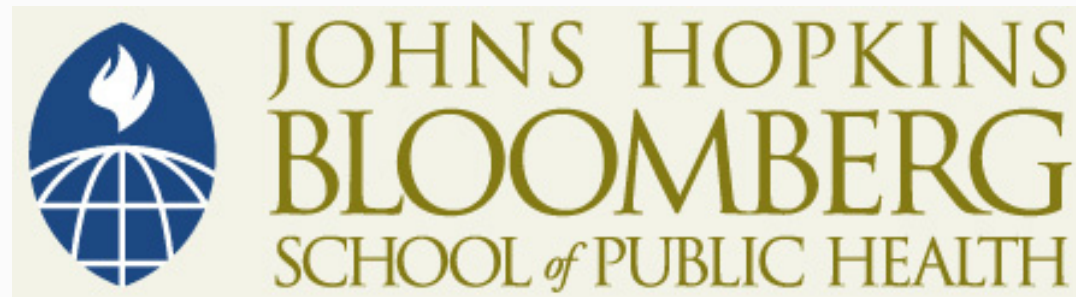


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## Lecture 5a: Practice Problems

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# Practice Problems

1. In a high school in the United States, a dietary counseling is being tested to measure the program's long-term impact on student's fat intake. Of the three hundred students at the school, 150 are randomized to receive five one-hour sessions of dietary counseling; the other 150 students receive no counseling.
  - Six months after the last counseling sessions, all students are asked to keep a food diary for one week. Each student's average fat intake in grams, is calculated at the end of this week. The results of this exercise are as follows:

# Practice Problems

- Intervention group
  - $\bar{x}_1 = 54.8$  grams ,  $s_1 = 28.1$  grams,  $n_1 = 146$
- Control group
  - $\bar{x}_2 = 62.8$  grams,  $s_2 = 34.7$  grams,  $n_2 = 142$
  - (Please note—follow up sample sizes differ slightly from initial sample size because of loss to follow up)
- The public-health question of interest is whether there is a difference in mean fat intake between the two groups, six months after the intervention ended. You are going to help answer this question:
  - Construct a 95% CI for the population mean difference in daily fat intake for the intervention group as compared to the control group.