

The NCHS report indicated that in 2002 the prevalence of cigarette smoking among American adults was 21.1%. Data on prevalent smoking in  $n=3,536$  participants who attended the seventh examination of the Offspring in the Framingham Heart Study indicated that 482 of the respondents were currently smoking at the time of the exam. Suppose we want to assess whether the prevalence of smoking is different in the Framingham Offspring sample given the focus on cardiovascular health in that community. Is there evidence of a statistically different prevalence of smoking in the Framingham Offspring study as compared to the prevalence among all Americans?

1. State the Type of Hypothesis or the TI calculator function to be used (and any settings):
2. State the Null and Alternative Hypotheses:  
 $H_0$ :  
 $H_a$ :
3. List all the data entered into your calculator to find the test statistic, or state the formula used if solving by hand.
4. Provide the output of the calculator. If solving by hand, find the test statistic and convert this value to a P-value using your calculator or the table.
5. Graph the critical values and the test statistic on the normal distribution.

6. What is your conclusion based on the critical values/test statistic, or the significance levels/p-values? Do you reject the null or fail to reject the null?

7. Restate your conclusion in the context of the problem (circle your choice):

There IS/IS NOT sufficient evidence that the prevalence of smoking in the Framingham study IS/IS NOT different than the general population.