Do females live longer than males in this area?

Objective:

We would like to test whether females in Decatur (or any city that you are interested) or the vicinity of Decatur live longer than, equal to, or shorter than males (write $H_0$ and $H_a$ according to what you believe).

Procedure:

You can collect data by looking at a newspaper (for example: Herald & Review) in the obituary section or use the Internet for at least a sample of size 100.

For females express what $n_1$, $\bar{x}_1$, $s_1$ and med$_1$ are. Do the same for males ($n_2$, $\bar{x}_2$, $s_2$, and med$_2$).

a. Write $H_0$ and $H_a$.

b. Find the value of your test (test statistics).

c. Based on the level of significance ($\alpha = .05$), make a decision.

d. Write a conclusion.

e. A histogram (use a class width of 10 years. The class limit for the first class would be 1-10. Use blue color for males and red color for females.)

Note: At the beginning of the project you must explain what you want to do and how it is going to be done.