

**EVE 491/591**  
**Toxicology**

**Case Study #1. “Mary Beth”**

**Part 5. Research Analysis**

Mary Beth has decided to research lung cancer incidence in her region. Help her by analyzing the Hendryx, O’Donnell, Horn paper, and answering the following questions.

**Questions**

1. What prior studies led to the research described in this paper? What was already known about the topic and what needs to be better understood?
2. What is the research question? What was the approach the authors took to answer this question?
3. Define the “exposed” group(s)? How were they chosen?
4. Define the “control” group(s)? How were they chosen?
5. Describe the basic methods used in this research.
6. What challenging situations arose before or during the completion of the project?
7. Discuss each figure or table in the paper.
8. Describe the main scientific conclusions of this research. Indicate which table or figure shows the data that support each conclusion.
9. What do the authors themselves admit are weaknesses of the experimental design?
10. What could be done to improve the accuracy of the results?
11. What is the “take-home” message from this research? Did the authors answer the question they set out to address?