**Activity 5: Case study - Communicable Disease**

Purpose

The purpose of this assignment is to give you hands-on experience in communicable disease research and management through an historical case study.

Knowledge and skills you will practice

* Conducting epidemiologic investigations of communicable diseases
* Thinking critically about disease prevention and management solutions

Description

I’ll be honest: I am *obsessed* with the show *Forensic Files.* HLN plays reruns all the time, and it’s hands-down my go-to program to fill the “there’s nothing good on television but it’s still not bedtime” entertainment void. *Forensic Files* covers a wide gamut of cases where experts use scientific methods as part of a systematic investigation. While many are crime-related, there are a handful of good health-related ones as well. In this assignment, you’ll review one episode of *Forensic Files* that is particularly relevant to the field of public health.

Disclaimer: This episode first aired in 1996. It discusses a public health situation that arose in Philadelphia in 1976. I realize the interviewees’ styling may be a little ‘vintage’, but please don’t discredit this resource on looks alone. This is a super-interesting public health investigation into one of the most serious disease outbreaks in contemporary US history!

What you’ll need

1. **Link to *Forensic Files* Season 1, Episode 07 - *Legionnaire’s Disease:*** [**https://youtu.be/swr9zW06Skc**](https://youtu.be/swr9zW06Skc)

Instructions

**Please follow along with the instructions provided on the subsequent pages. You’ll need to pause the video every so often to answer the questions. I suppose you could watch the entire video and then go back and answer the questions, but that defeats the purpose of the exercise.**

**Remember: Effort counts! Your answers don’t necessarily have to be ‘perfect’, but they need to demonstrate your ability to think critically and apply class concepts in the real world.**

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**Watch the *Forensic Files* video until the 07:00 mark, then answer the following questions.**

1. What clues do we have so far that a public health problem might be occurring?

[Delete this prompt and fill in your answer here]

1. According to the Centers for Disease Control and Prevention (CDC; [www.cdc.gov](http://www.cdc.gov)), an ***outbreak*** is the occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time. Usually, the cases are presumed to have a common cause or to be related to one another in some way.Do you believe there is evidence of an outbreak? Why or why not?

 [Delete this prompt and fill in your answer here]

**Continue watching the video until the 12:35 mark, then complete the following:**

1. What methods did Dr. Fraser’s team use to conduct their investigation? Name at least 4 sources/methods they used to gather data.

[Delete this prompt and fill in your answer here]

1. Name at least 2 additional data collection methods/sources the team could have used.

Note: There’s no ‘right’ or ‘wrong’ answer here. Think critically (and rationally!) and be creative.

[Delete this prompt and fill in your answer here]

1. What initial hypotheses [or ‘theories’, as the narrator calls them] did the CDC investigators generate? Name at least 5.

[Delete this prompt and fill in your answer here]

1. What did Dr. Fraser’s team learn about the transmission of the disease from examining additional Legionnaires and guests and employees of the hotels where the Legionnaires had stayed? Name at least 6 important discoveries made during the investigation.

[Delete this prompt and fill in your answer here]

1. Given these findings, generate a hypothesis about the source of the illness. Why do you think the Legionnaires are getting sick and dying?

*Note: You don’t have to be ‘right’ here. Give your honest-to-goodness best guess.*

[Delete this prompt and fill in your answer here]

**Finish watching the remainder of the video, then complete the following:**

1. What do you think about Dr. Fraser’s final hypothesis (or ‘theory’, according to the narrator) about the source of the disease vector? Do you think it’s plausible? If yes, why? If no, why not?

[Delete this prompt and fill in your answer here.]

1. If an outbreak like this happened today, how might public health officials communicate important information to the public? What information would be important to share? What communication channels could they use?

[Delete this prompt and fill in your answer here.]

**Congratulations! You just conducted a pared-down version of an epidemiologic investigation for communicable diseases. These types of investigations (and the subsequent surveillance efforts needed to monitor public health) are important parts of public health work.**

1. What did you think about conducting an epidemiologic investigation? What did you like? Dislike?

[Delete this prompt and fill in your answer here.]

1. Do you think you would like to pursue a career that involves this type of work? Why/why not?

[Delete this prompt and fill in your answer here.]