Student Resource 7.2

Analysis: Causation and Correlation

Student Names: Date:

Directions: Below are the first few sentences of several news stories. Read the stories, and then determine if the story is describing causation or correlation. You may wish to refer to the list of correlation key phrases in Student Resource 7.1, Reading: Causation and Correlation, as you work. Base your decisions on what you have learned about causation and correlation. If the story is describing correlation, give two hypotheses that could be tested to investigate the issue further. If the story is describing causation, think of two steps public health officials could take to help people improve their health. Study the example below before you begin.

Example

A recent report released today shows that a group of researchers based in Germany have discovered an association between smoking cigarettes and alcoholism. They found that alcoholics are more likely to smoke than nonalcoholics.

Is the story describing causation or correlation? correlation

If it is correlation, write two hypotheses that could be tested to investigate the issue further. If it is causation, write two steps that could be taken by public health officials to help people improve their health.

1. People who drink a lot hang out in bars where people tend to smoke.

2. People who drink don’t care about their health, so they are more likely to smoke.

Story 1

The findings of a report conducted over a period of 10 years show that the risk for cardiovascular disease is partly genetic. The report emphasizes that heart disease is also caused by other factors, including lifestyle choices.

Is the story describing causation or correlation?

If it is correlation, write two hypotheses that could be tested to investigate the issue further. If it is causation, write two steps that could be taken by public health officials to help people improve their health.

1.

2.

Story 2

According to a new study, people diagnosed with schizophrenia are at risk for using marijuana as a way to self-medicate. The study shows a link between the mental health disorder and marijuana use.

Is the story describing causation or correlation?

If it is correlation, write two hypotheses that could be tested to investigate the issue further. If it is causation, write two steps that could be taken by public health officials to help people improve their health.

1.

2.

Story 3

Researchers have pinpointed a bacterium that causes pneumonia. It is called *Streptococcus pneumoniae.*

Is the story describing causation or correlation?

If it is correlation, write two hypotheses that could be tested to investigate the issue further. If it is causation, write two steps that could be taken by public health officials to help people improve their health.

1.

2.

Story 4

An international group studying health issues related to mine work has released a study claiming that mine workers are at greater risk for lung cancer than workers in other professions.

Is the story describing causation or correlation?

If it is correlation, write two hypotheses that could be tested to investigate the issue further. If it is causation, write two steps that could be taken by public health officials to help people improve their health.

1.

2.

Story 5

After decades of extensive research, researchers at a press conference on Friday declared that smoking does indeed cause lung cancer. The finding is likely to have a great effect on public health awareness campaigns.

Is the story describing causation or correlation?

If it is correlation, write two hypotheses that could be tested to investigate the issue further. If it is causation, write two steps that could be taken by public health officials to help people improve their health.

1.

2.