

Name _____

Citizen Science: How Particulate Matter Pollution Affects a Community

Data

	People living within 200 feet of a major roadway	People living between 200 feet and 1,000 feet of a major roadway	People living beyond 1,000 feet of a major roadway
Cardiovascular disease rate			
Lung function in women (volume of air)			
% of children with asthma who went to the ER in the last year for asthma symptoms			
COPD (bronchitis) rates (women)			

What do each of these health effects mean?

- Cardiovascular disease: _____

- Lung function: _____

- Childhood emergency room visits for asthma: _____

- COPD (bronchitis/emphysema): _____

Analysis

For each variable, decide whether the data goes up, goes down, or neither the farther you get from the roadway:

- Cardiovascular disease: _____
- Lung function: _____
- Childhood emergency room visits for asthma: _____
- COPD: _____

For each variable, decide whether the health outcome gets better (healthier), worse (less healthy), or neither the farther away you get from the roadway. Remember, just because a number goes up or down doesn't mean it's getting better or worse:

- Cardiovascular disease: _____
- Lung function: _____
- Childhood emergency room visits for asthma: _____
- COPD: _____

For each variable, decide how big the difference in health outcome is between the 200-foot health outcomes and the 1,000-foot health outcomes (ex. what is the difference in the numbers?). Write the difference as a part of a complete sentence (ex. the cardiovascular disease rate is <blank> percent lower/higher at less than 200 feet away compared to 1,000 or more feet away.)

- Cardiovascular disease: _____

- Lung function: _____

- Childhood emergency room visits for asthma: _____

- COPD: _____

Create graphs of each variable using graph paper provided by your teacher, or use a computer to make your graphs.

