Name: _____

Mapping Public Health
Student Data Collection Sheet

Think About It! Write your answers below:

Understanding How Maps Are Used in Public Health	**1.** In what ways have you seen maps used to communicate health data?
	2. What are some possible problems with using maps to communicate information?
	3. Give an example use for a **spot map** and one for an **area map**.

Maps, Public Health, and CDC	**1.** How did Snow's map help him to identify Pump A as the problem?
	2. In addition to mapping cholera cases, what other surveillance data did Snow collect?
	3. Obesity is an area of concern in **public health**. What other health concerns might have a **correlation** with obesity? What factors might show a **contribution** to obesity?

Citizen Science	**1.** Missouri used maps to direct people to nearby cooling centers during heat waves. Find an example of how maps are used in your community to direct people to **public health** related services.
	2. Describe two ways that you have seen maps used in your life to communicate information related to **public health** (other than ways described in this lesson).
	3. When you look at a map, what features do you look for to help you understand what you are seeing?

Map Lung Cancer Mortality: Create and Analyze a Map

Age-adjusted Lung Cancer Death Rates per 100,000 Population, by State – United States, 2000

Rate per 100,000 people:

☐ 39.7 – 66.3

☐ 66.4 – 75.9

☐ 76.0 – 88.9

☐ 90.0 – 116.1

What patterns do you see on the map?

_____

_____

_____

How does the map help you to visualize patterns better than the table does?

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What interventions might **public health** officials do after seeing this map to address any health disparities that are connected to geographical location?

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Analyze Public Health Maps: Answer the Map Analysis Questions

Map 1: Influenza

What are 3 things you noticed from the map?

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Why is a map a better way to display this type of data rather than a table or graph?

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Map 2: Heart disease and stroke

What topic did you choose to explore?

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What are 3 things you noticed from the map?

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Map 3: Heart disease and stroke comparison

What question did you decide to investigate using these maps?

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What are 3 things you noticed from the map?

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Design an intervention

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Reflections

Now that you have completed this investigation, think about what you learned from your map analyses. Answer the questions below.

1. What is the difference between a **spot map** and an **area map**?

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   _____

2. Describe three purposes that maps serve in improving **public health**.

   _____

   _____

   _____

3. Would you use a **spot map** or an **area map** to display COVID-19 cases? Explain why.

   _____

   _____

4. Examine the two COVID-19 maps on the previous page for September 16, 2021. Why do the two graphs look so different? How could you use each graph to make decisions if you were in charge of the state's COVID-19 **public health** response?

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5. Describe a situation involving geographic information in which it would be better to use a table or graph instead of a map. Explain why.

   _____

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6. The National Environmental Public Health Tracking Program partners with citizen science programs like Vermont's Tick Tracker and Cyanobacteria Tracker that allow regular people to submit reports. This gives scientists data that helps them track **public health** threats. What are some benefits and drawbacks to citizen science programs like this?

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