



ISD Virtual Learning

# Contemporary Issues Lesson

**#17**

**April 4, 2020**



## Contemporary Issues

Lesson 4: April 9th: Pollution around the world

**Objective/Learning Target: Students will be able to identify where major pollution is taking place around the globe.**

# Warm Up

Directions: Take a look at the map found at the following link: [Global Pollution Map](#)

Answer the following questions on a separate sheet of paper while using the map:

1. What locations does air pollution appear the most? (Specific continents? Countries?)
2. Why do you think these locations create so much more pollution?
3. Do contaminated sites always seem to be in the same place as the pollution?

# Lesson Activity

In the warm up you probably noticed that the world's air pollution is created primarily in three locations China, Europe, and the North America. This is because these regions have an abundance of factories, trafficways, and urban centers. However, these areas can still contaminate areas far from their country.

Directions: Watch the following video about air pollution in China. As you watch, make a list of all the negative effects the smog is causing.



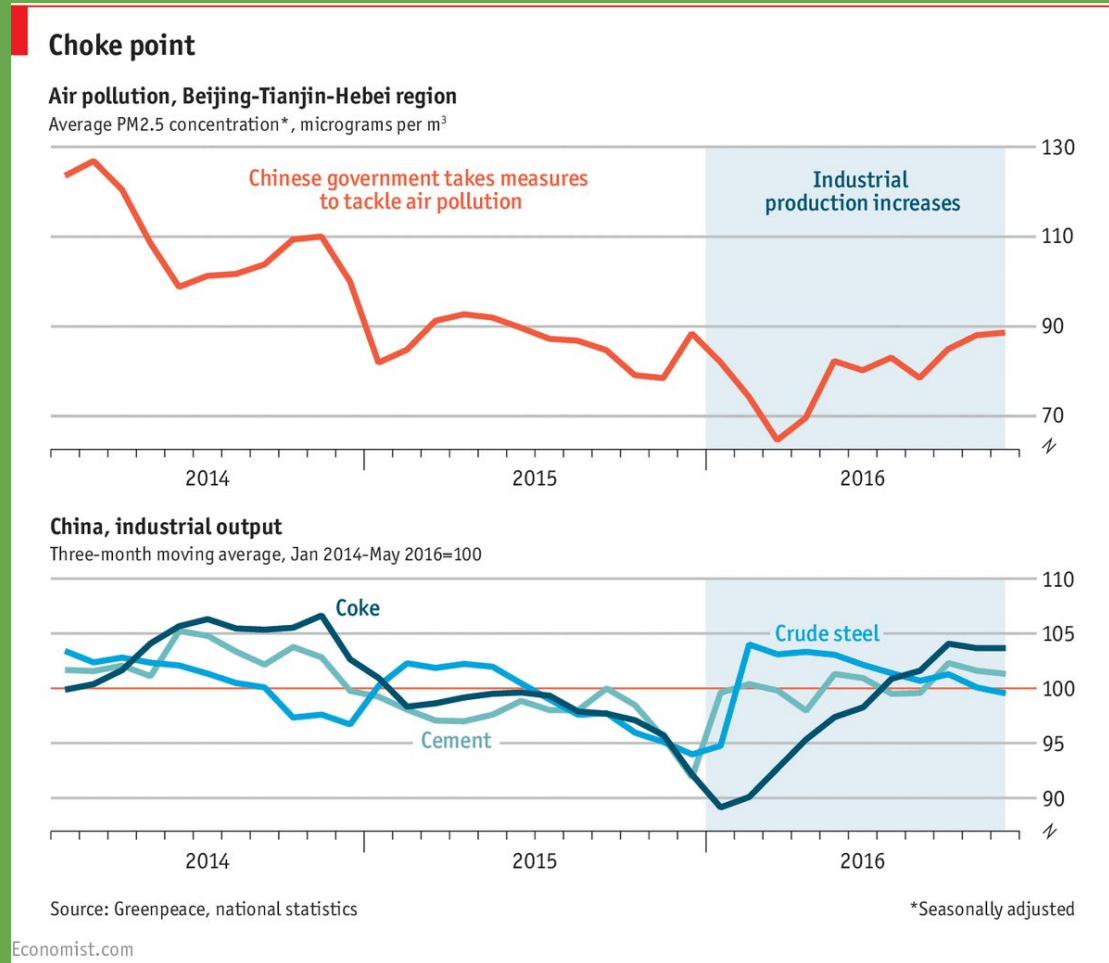
# Practice

Directions: On the next two slides you will find two sets of charts/graphs about pollution in China. Interpret the graphs and answer the questions that accompany them. Think back to your list from the video as you complete this activity.

Info: The red line graph depicts the amount of pollution in China from 2014-2016; The blue line graph below shows the amount of “stuff” factories in China made from 2014-2016.

Questions:

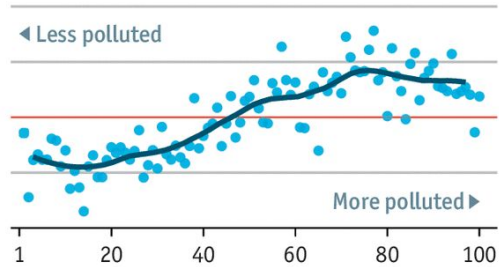
1. In general, did pollution increase or decrease in China from 2014 to 2016?
2. Pollution started to slowly increase again in 2016. How was the industrial output of factories linked to this increase in pollution?



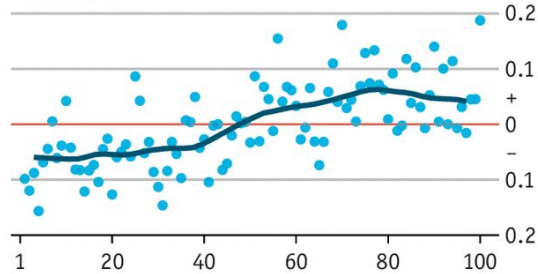
## Get thee to an apothecary

China, consumer spending\* in relation to concentration of PM<sub>2.5</sub>  
2013-15

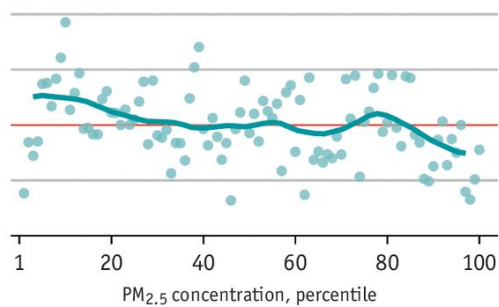
Health care



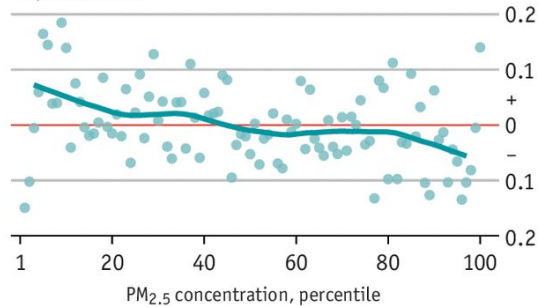
Pharmacies



Necessities†



Supermarkets



Source: "The morbidity cost of air pollution: evidence from consumer spending in China" by Barwick, Li, Rao and Zahur, NBER 2018

\*Number of credit/debit-card transactions (log values) after controlling for holidays, weather, day of the week, etc.  
†Excluding supermarkets

Info: These four graphs show how much people's spending changed in China as pollution increased. (X-Axis= Pollution as percentile; Y-Axis= Change in daily spending)

### Questions:

1. What two things did the Chinese tend to spend more money on as pollution increased?
2. What two things did the Chinese tend to spend less money on as pollution increased?
3. What is alarming about these graphs? How are people's lives being affected?

# Answer Key

## Graph 1:

1. In general, did pollution increase or decrease in China from 2014 to 2016?- **It decreased.**
2. Pollution started to slowly increase again in 2016. How was the industrial output of factories linked to this increase in pollution?- **As industrial output increased, so did the amount of pollution.**

## Graph 2:

1. What two things did the Chinese tend to spend more money on as pollution increased?- **Health care and pharmacies.**
2. What two things did the Chinese tend to spend less money on as pollution increased?- **Necessities and super markets.**
3. What is alarming about these graphs? How are people's' lives being affected?- **This is alarming because it means people are taking money that would normally be spent on food or other necessities, and are now spending it on healthcare related to illnesses from pollution. Which means there could be less food on their tables.**



# Reflection

Answer the following questions to reflect:

1. The graphs from the practice section show that pollution is a health issue, but in order to limit pollution, industrial output must be diminished. Why do you think this is a dilemma for some countries?
2. Do you think governments should tell companies to limit their pollution? Or do you think that it should be more of a suggestion?