Kentucky in the News
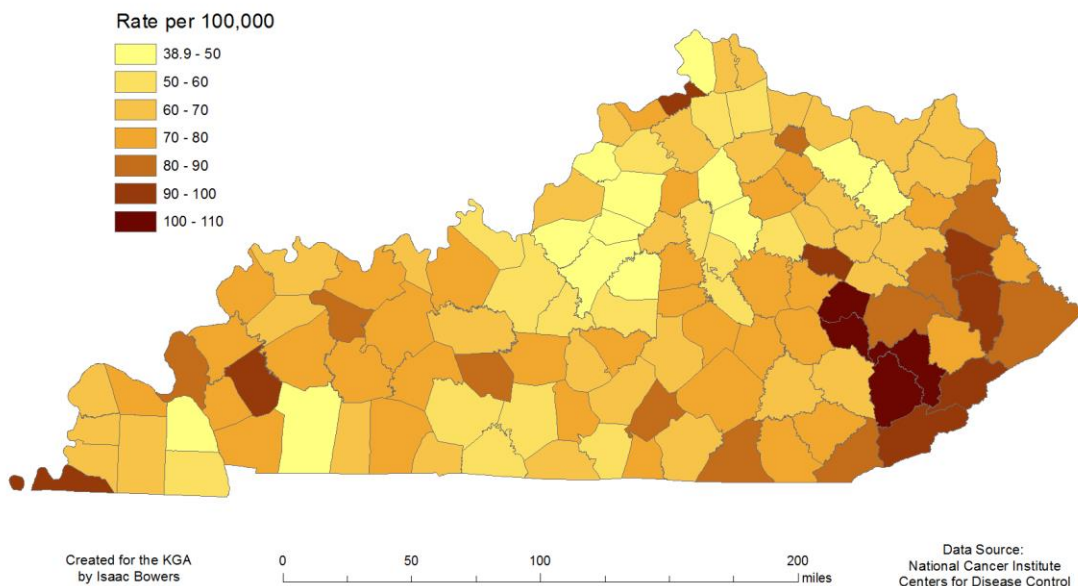
The Kentucky Geographic Alliance –October 2016

Lung Cancer Deaths Among Kentucky Women
Death Rate, 1999-2014

Rate per 100,000

- 38.9 - 50
- 50 - 60
- 60 - 70
- 70 - 80
- 80 - 90
- 90 - 100
- 100 - 110

Created for the KGA
by Isaac Bowers

0   50   100   200
miles

Data Source:
National Cancer Institute
Centers for Disease Control

One in four U.S. cancer deaths is linked directly to smoking (AP). The Journal of the American Medical Association recently published research that showed Kentucky women ranked the highest in the U.S. (29%). Kentucky men were ranked 5th in the nation, with 34% of overall cancer deaths linked to smoking.

Geographers study mortality rates to see regional patterns over time. Different regions in the United States have higher life expectancies than other regions, for a number of reasons. Some of these reasons are age, race, and gender (CDC). Morbidity is a specific term that focuses on the reason for the death, like tobacco use, nutrition, physical activity, and obesity (CDC). The map above shows lung cancer deaths associated with women by county in Kentucky. There are many environmental causes for lung cancer, including radon. The pattern associated with the highest radon levels in Kentucky does not match the map above because there are a number of causes of lung cancer, but smoking is the largest risk factor.

Geographers specialize in understanding and explaining the distribution of data like these. The use of Geographic Information Systems (GIS) as a tool has helped society visualize information in a different way. The Kentucky Geographic Alliance is currently developing a story map that shows the underlying causes of death between 1999 and 2014 by Kentucky county. A similar story map has been developed by esri that shows the relationship between diabetes and obesity for all counties in the U.S. The Cancer Statistics Center has provided a map for incident rates and death rates of cancer by U.S. state. You can see that Kentucky is one of the few states that rank in the highest category for both incidence and death associated with all cancer types.

The Kentucky Geographic Alliance provides teacher training in the use of GIS for Science, Technology, Engineering, and Math (STEM) disciplines. Please join or contact us if you would like more information.

The Kentucky Geographic Alliance • www.kga.org • kga@wku.edu