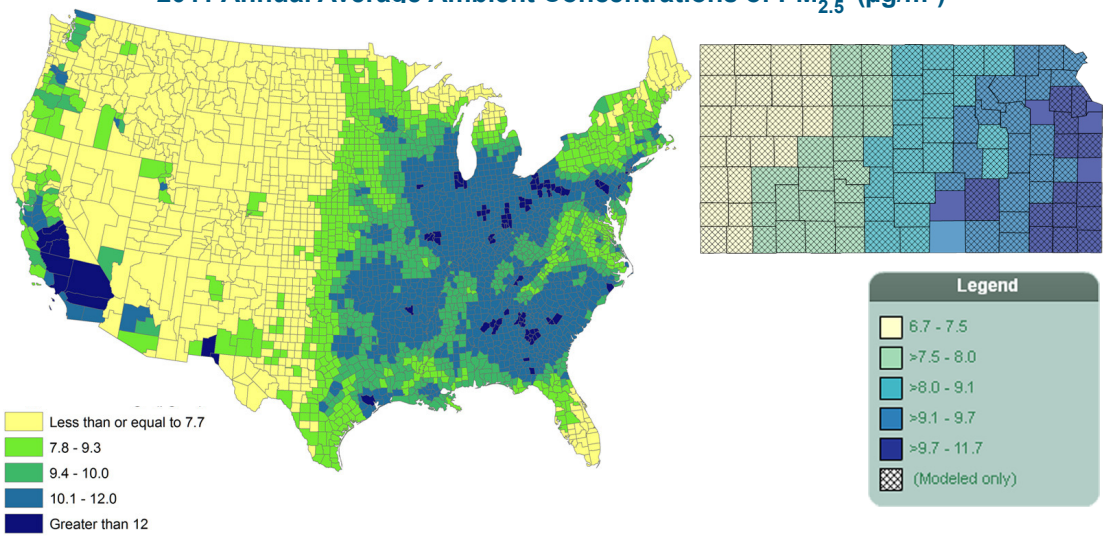
CDC's National Environmental Public Health Tracking Network

The Environmental Public Health Tracking Network is a dynamic system that provides information and data about environmental hazards and potentially related health problems. It presents what is known about environmental hazards, such as air pollution, and where they might exist, where people are exposed to hazards, and how targeted action can protect health, reduce illness, and save lives.

AIR POLLUTION ($PM_{2.5}$) AND HEALTH

Air pollution is a leading environmental threat to human health. Particles in the air such as dust, dirt, soot, and smoke are kinds of air pollution that have been linked with health problems. Some particles in the air are large or dark enough to be seen, like some kinds of smoke and soot. Other particles are so small that you cannot see them. Very small particles that are less than 2.5 micrometers wide (smaller than a grain of sand) are known as fine particulate matter or $PM_{2.5}$.

2011 Annual Average Ambient Concentrations of $PM_{2.5}$ ($\mu g/m^3$)



$PM_{2.5}$ particles are small enough to be inhaled deeply into the lungs. Once fine particles are in the lungs, they can affect the heart, blood vessels, and lungs. People exposed to fine particles over a long period of time can have more heart and lung problems than people who are not breathing this kind of air pollution. Being exposed to any kind of particulate matter may lead to increased emergency department visits and hospital stays for breathing and heart problems and other health problems. In Kansas:

8 /10,000 *Age-adjusted Rate of Hospitalizations for Asthma - 2011*

27 /10,000 *Age-adjusted Rate of Hospitalizations for Heart Attacks (Over 35) - 2012*

cdc.gov/ephtracking

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Radon, Lung Cancer Incidence, and Geology

Radon is a naturally occurring radioactive gas that seeps into homes from soil and bedrock. Kansas is tracking radon levels and lung cancer cases and is working with the Kansas Geological Survey to identify unique geological formations that cause higher radon levels in homes. Radon is the second leading cause of lung cancer in the United States, after smoking, and results in an estimated 200 new lung cancer cases diagnosed each year in Kansas. The Kansas Environmental Public Health Tracking Program (Kansas Tracking Program) is working to increase testing rates especially in the western third of the state, which may have higher rates due to the geology of this area. Through a collaborative effort with the Kansas Radon Program, the Kansas Tracking Program has access to over 65,000 radon test results. The Environmental Protection Agency recommends that people take action to reduce radon exposure when levels measure higher than 4 picocuries per liter (pCi/L). The Kansas Tracking Program has identified areas of the state with potentially high levels of residential radon.

Environmental Hazards

The average observed residential radon test in Kansas is currently **4.8 pCi/L**

In some Kansas counties **1 out of 4** homes have radon levels higher than 4.0 pCi/L

Health Effects

It is estimated radon contributes to **200** lung cancer deaths per year

Childhood Lead Poisoning Prevention

Childhood blood lead levels have been decreasing over the past decade. However, 150 children in Kansas continue to have blood tests that show lead levels above 10 micrograms per deciliter of blood(µg/dL) each year. Experts use a reference level of 5 µg/dL to identify children with blood lead levels that are much higher than most children's levels. No safe level of lead has been identified. Even low levels of lead in children's blood have been shown to affect IQ, ability to pay attention, and academic achievement. The Kansas Tracking Program works with local communities and the Kansas Healthy Homes and Lead Hazard Prevention Program in an effort to significantly reduce the number of children exposed to improve health outcomes of all Kansas children. The Kansas Tracking Program uses lead data to identify potential "at-risk" communities and to guide screening efforts in those identified areas.

Health Effects

The geometric mean of blood lead among children was **2.03 µg/dl** in 2010

In 2010, **one out of 3** adults tested in Kansas had a blood lead level >= 10 µg/dl