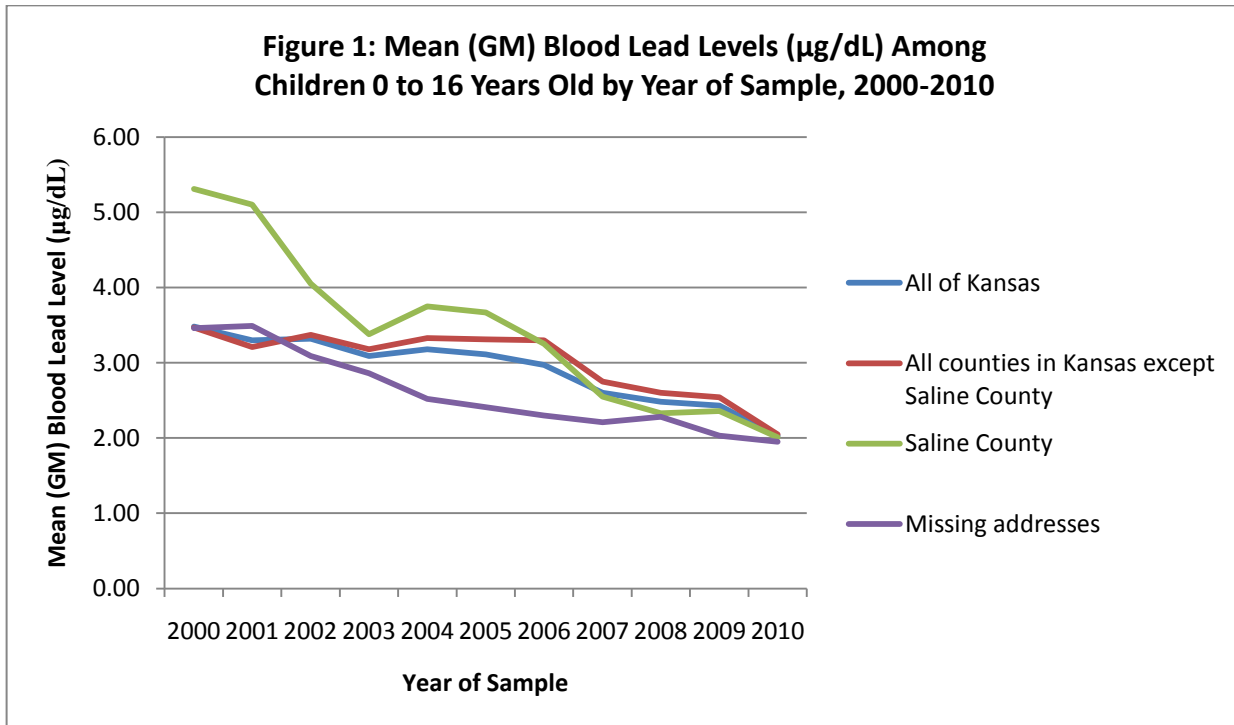


Lead Fact Sheet

Lead is a heavy bluish-grey metal that occurs naturally in the Earth's crust. Lead and lead alloys are commonly found in storage batteries, pipes, weights, and ammunition. Lead compounds are also used as pigments in dyes and paints. The amount of lead used for these purposes has been reduced in recent years. Lead compounds were phased out of use as a fuel additive in the United States in the 1980s.

Although lead also occurs naturally in the environment, most of the high levels in the environment come from human activities. Once lead falls onto soil, it adheres strongly to soil particles and remains in the upper layer of soil. Movement of lead from soil to groundwater is unlikely. People can be exposed to lead by breathing air, drinking water, eating foods, or swallowing dust or dirt that contain lead.

Lead affects children more seriously than adults. Some of the more common health effects of lead exposure in children include: irritability, anemia, loss of appetite, hyperactivity and learning disabilities. Common health effects of lead exposure in adults include: fatigue, nausea, anemia, reproductive problems and impaired concentration. The Centers for Disease Control and Prevention has recommended that protective actions take place when a child is diagnosed with a blood lead level greater than or equal to 10 $\mu\text{g}/\text{dL}$ or a blood lead level of 25 $\mu\text{g}/\text{dL}$ or greater is found in an adult. Blood lead levels for Kansans and residents of Saline County are shown in the graphs below.



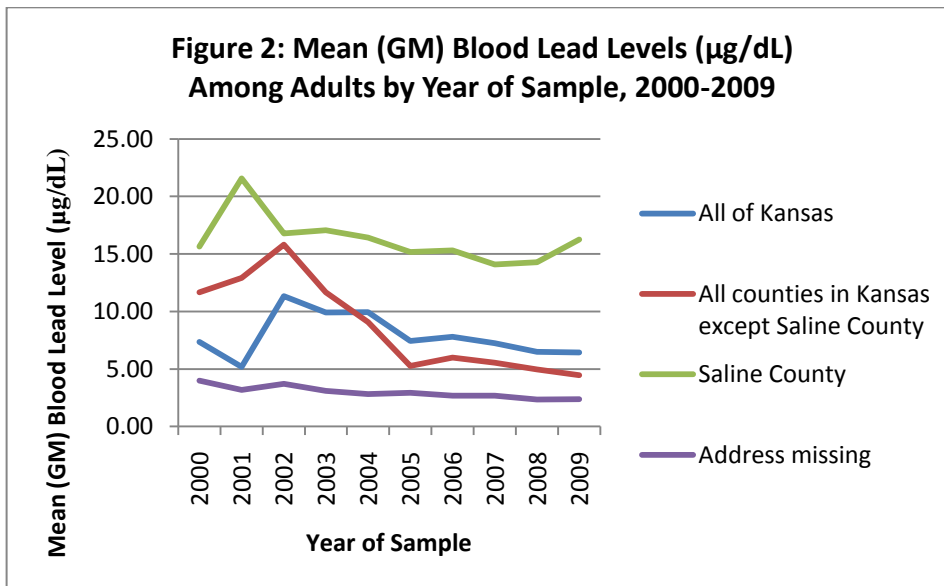
About 24% of the records have missing addresses. This could introduce a source of bias to the results if the missing addresses are not evenly distributed throughout the state.

Children

- The mean blood lead levels among Saline County children, as well as all children in Kansas, have steadily declined from 2000 to 2010 (Figure 1). This follows a similar pattern of decline seen in the US between 1999 and 2008.
- The mean blood lead level among children living in Saline County was higher (3.01 $\mu\text{g}/\text{dL}$) than children living in all other counties in Kansas combined (2.86 $\mu\text{g}/\text{dL}$).

Adults

- The mean blood lead level among adults living in Saline County (15.58 $\mu\text{g}/\text{dL}$) was significantly higher than that of adults living in all other counties in Kansas (6.54 $\mu\text{g}/\text{dL}$).
- Among adults in Saline County, the mean blood lead level remained relatively steady, averaging around 15-20 $\mu\text{g}/\text{dL}$ during the ten-year study period (Figure 2). The mean blood lead levels generally declined among adults in the US between 1999 and 2008 with the highest level of 1.8 $\mu\text{g}/\text{dL}$ in 1999.



*About 18% of the records have missing addresses. This could introduce a source of bias to the results if the missing addresses are not evenly distributed throughout the state.

The levels among Saline County children, as well as all children in Kansas, have steadily declined from 2000 to 2010. This follows a similar declining trend among children in the general US population between 1999 and 2008. Among adults in Saline County, the mean blood lead level remained relatively steady between 2000 and 2009 despite a decline in the US national average among adults; the levels for Saline County were on average ten times higher than national levels.

If you have concerns about lead exposure in yourself or your family, please contact your local health department or the Kansas Department of Health and Environment, Bureau of Environmental Health at (785) 296-5606.