

Kentucky Childhood Lead Poisoning Prevention Program (KCLPPP)



Epidemiologist:	Bethlyn Shepard, MPH Kentucky Department for Public Health Maternal and Child Health Division Child and Family Health Improvement Branch (502) 564-2154 ext. 4416 bethlynm.shepherd@ky.gov
State Web Site:	https://chfs.ky.gov/agencies/dph/dmch/cfhib/Pages/clppp.aspx
National Web Site:	http://www.cdc.gov/nceh/lead/

Sources of Information for the Database

The Kentucky Childhood Lead Poisoning Prevention Program (KYCLPPP) is a state-mandated program that is cosponsored by the Centers for Disease Control and Prevention (CDC) and the Kentucky Department for Public Health. KYCLPPP is to provide a statewide program for the prevention, screening, diagnosis, and treatment of lead poisoning, including identification of the sources of such poisoning through such research, educational, epidemiological, and clinical activities as may be necessary. KYCLPPP operates under the authority of Kentucky Revised Statute (KRS) 211.900-905 and is located organizationally in the Cabinet for Health and Family Services, Department for Public Health, Division of Maternal and Child Health. The surveillance system (Health Homes and Lead Poisoning Surveillance System – HHL PSS) was provided by the CDC and is funded with a mix of agency funds and a cooperative agreement from the CDC.

Description of the Data Collected

KYCLPPP collects information from any physician, nurse, hospital administrator, director of a clinical laboratory, or public health officer who receives information of the existence of any person found or suspected to have a two and three-tenths (2.3) micrograms per deciliter or higher of whole blood level of lead in his or her blood. A comprehensive record of such reports are electronically and/or manually entered into HHL PSS. These reports include, but are not limited to the patient name, full address, date of birth, phone number, guardian's name, relation and occupation (if applicable), date of initial and confirmatory blood lead draw, blood lead test results, blood lead test type (venous or capillary), date received by KYCLPPP, provider and insurance information, testing laboratory, local health department (LHD), assigned LHD case staff,

environmental assessment dates, and other demographic and case specific information. HHL PSS also houses results from on-site environmental lead inspections/risk assessments, which collects housing specific data (i.e. full address, year built, ownership type, and type of dwelling) on homes or structures that have been assessed by certified risk assessors. The Risk Assessment section of HHL PSS also stores all the environmental measurements taken during the lead inspection/risk assessment. Some of these measurements include samples from paint, floors, dust, windows, soil, water, etc. This housing data is used to report to CDC.

Strengths of the Data

Data is received in a timely manner, which allows for accurate reporting. With current electronic data submission nearing 100% there is little manual data entry from outside labs. However, out-of-state laboratories that voluntarily report blood lead levels on Kentucky residents need to be manually entered. The current system is population-based rather than relying on a sampling strategy.

Data Limitations

Incompleteness of data:

- a) Data submitted lacks information necessary for analysis. Names, addresses, and date of birth, for example, are absolutely necessary for entry into the system. Patient records with incorrect data fields are held for manual review before uploaded into the system. Due to the vacant epidemiologist position, there is a backlog of held records.
- b) There is a lack of blood lead screening tests and reporting despite federal and state mandates. As a result, the reported screening numbers are subject to non-coverage bias. As non-compliant laboratories and providers are identified, the program makes effort to collect missing lab reports.
- c) Blood lead data for years 2010-2015 is missing some required data fields such as address and source of specimen. Currently the program is working to collect missing data through phone contact. Corrected data must then be entered into the child's HHL PSS record.

Difficult to analyze data:

Most analysis of the data is performed at the county level. Unfortunately, county and zip code are missing for a large percentage of records making geographical analysis inaccurate or unrepresentative. In addition, the data includes true duplicates, which must be removed prior to analysis.

Specific Uses of Information

- Ensure timely local health department intervention for elevated blood lead levels (EBLLs).
- An EBLL case review history to help identify and prevent further access to potential and identified lead hazards.
- Ensure continual decrease in the blood lead level.
- Submit quarterly reports to the CDC.
- Complete annual reports and performance evaluations.
- Fulfill data requests.
- Estimate the population of lead poisoned children in the state of Kentucky.
- Estimate a populations' risk of lead poisoning based on their specific demographic and address information.
- Use by the CDC to assemble a national surveillance database.

System Evaluation

The data collected are based on CDC and National Institute for Occupational Safety and Health (NIOSH) guidelines. The data are subject to computerized edit checks when entered.

Data Set Availability

KYCLPPP data from 2005 to 2015 are available to certain individuals provided an institutional review board (IRB) approval to access the data has been obtained. KYCLPPP staff reserve the right to deny any data request they deem would violate state and or federal laws governing the data set. The data set is only available in aggregate form and NO identifying information will be released to any requestor under any circumstances. Data requests should be submitted to the coordinator listed above once Cabinet IRB approval is completed.

Data Release Policy

All data requests that are HIPAA compliant will be met. An IRB approval and data sharing agreement/memorandum of understanding may be requested by the Department before data requests are completed. Datasets in their entirety are not available to the public. Data are generally given in aggregate form by county level. However, if the total number of children having elevated blood lead levels is less than five (5) for a county, the exact count is not presented to help protect the identity of the client.

Data Publications

KYCLPPP currently reports both child blood lead and environmental data to the Centers for Disease Control and Prevention (CDC) on a quarterly basis. The CDC website provides statistical information for the state of Kentucky based on the reports received from the KYCLPPP:

<http://www2.cdc.gov/nceh/lead/census90/house11/house11.htm>.

Additional reports and data are available upon request and on KYCLPPP's website:

<https://chfs.ky.gov/agencies/dph/dmch/cfhpb/Pages/clppp.aspx>.

Suggested Data Citation

Childhood Lead Poisoning Prevention Data. [Year]; Kentucky Cabinet for Health and Family Services, Kentucky Department for Public Health, Division of Maternal and Child Health.

Contributing Authors

Susan Lawson, RN, Kentucky Department for Public Health
Monica Clouse, MPH, Kentucky Department for Public Health