Commonwealth of Kentucky

Childhood Lead Poisoning Elimination Plan 2010

December 2004

Kentucky Department for Public Health
Division of Adult and Child Health Improvement
275 East Main Street, Mail Stop HS2GW-A
Frankfort, KY 40621

Kentucky Child Lead Poisoning Elimination Plan 2010
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JAMES W. HOLSINGER, JR., M.D.
SECRETARY

My fellow Kentuckians:

Contrary to the thoughts of many, the dangers of childhood lead poisoning continue to be a major public health issue throughout our state and nation. Thought to be a problem of the past, lead poisoning is virtually undetectable to the watchful eyes of parents and health care professionals. Prolonged elevated levels of lead in a child's blood stream can cause lasting and irreparable damage to vital organs and systems in a developing child's body. Kentucky's Childhood Lead Poisoning Elimination Plan is aimed at safeguarding the health and well being of Kentucky's children. In it you will find integrated goals, objectives and activities designed to achieve the state's goal of elimination of childhood lead poisoning as a major public health issue by 2010.

Of course, plans are only effective and goals are only achieved when they receive the approval and support from the communities for which they have been developed. I therefore ask you, your friends, neighbors and co-workers to support the activities outlined in the plan and help in our goal of eliminating lead poisoning and its harmful affects on our children. It is your support that will enable us to secure a healthier environment and future for all Kentuckians.

Sincerely,

William D. Hacker, M.D.
Commissioner

Commonly Used Acronyms

- **ACHI** – Kentucky Division of Adult and Child Health Improvement
- **AHEC** – Area Health Education Center
- **BLL** – Blood lead level
- **CDC** – Centers for Disease Control and Prevention
- **CDP** – Central Data Processing
- **CHFS** – Kentucky Cabinet for Health and Family Services
- **CLP** – Child Lead Poisoning Prevention
- **CLPPP** – Childhood Lead Poisoning Prevention Program
- **DPH** – Kentucky Department for Public Health
- **EBLL** – Elevated blood lead level
- **EMS** – Emergency Medical System
- **EPA** – Environmental Protection Agency
- **HANDS** – Health, Access, Nurturing and Development Services
- **HUD** – U.S. Department of Housing and Urban Development
- **KBLS** – Kentucky Blood Lead Surveillance System
- **KHDA** – Kentucky Health Department Association
- **KCHIP** – Kentucky Children's Health Insurance Program
- **MCH** – Maternal Child Health Branch
- **MMWR** – Morbidity and Mortality Weekly Review
- **μg/dL** – micrograms per deciliter (unit of measurement for lead in blood)
- **PCP** – Primary Care Provider
- **PHPR** – Public Health Practice Reference
- **PSRS** – Patient Services Reporting System
- **PVA** – Property Valuation Administrator
- **QIT** – Quality Improvement Team
- **WIC** – Women, Infants and Children (federal nutrition supplement program)

Introduction

Thought to be a problem of the past by most of the American public, childhood lead poisoning remains one of the most serious threats to the health and well being of developing children. Completely undetectable to the watchful eyes of parents and health care professionals, elevated levels of lead in a child's blood stream can cause lasting and irreparable damage to vital systems in a developing mind and body. Some of the more severe side effects from elevated levels of lead in a child's blood include damage to the central nervous system resulting in learning disabilities and behavioral problems which have been associated with increased drop out rates, delinquency and other lasting socioeconomic problems. In the most severe cases lead poisoning may result in seizures, coma and even death.

The Centers for Disease Control and Prevention (CDC) has recognized lead poisoning as a condition that is 100% preventable. Yet despite efforts by the CDC and state health organizations, it is estimated that nearly half a million children in the United States possess blood levels high enough to cause damaging effects.

In the pages to come you will find history and background information on Kentucky's lead poisoning status as well as Kentucky's plans for future activities aimed at eliminating childhood lead poisoning by 2010.

Advisory Committee Organization and Processes

The Kentucky Childhood Lead Poisoning Prevention Advisory Committee was initially convened January 15, 2004 in Frankfort, KY. In accordance with CDC leadership, the Advisory Committee's intent was to develop a statewide plan aimed at eliminating lead poisoning as a major public health concern in Kentucky by 2010.

The committee represents broad-based expertise and interests in regard to childhood lead poisoning, including persons from various local and state government agencies, policy makers, healthcare professionals, community action groups, housing interests and environmental interests.

The definition of elimination of lead poisoning was determined through advisory committee meeting discussions with consideration of the CDC and Healthy People 2010 guidelines. The term "elimination of lead" as a public health issue in Kentucky is defined as: **the reduction of the number of children in Kentucky, ages 0-6 yrs of age, who have elevated levels of blood lead (>10 ug/dL) to zero percent by the year 2010.**

The following table depicts each advisory committee meeting, the topics discussed and/or conclusions met.

Table –1.1

Meeting Date	Primary Orders of Business
January 15, 2004	Organizational; overview of CLPPP and disease burden
March 11, 2004	First draft of mission statement; overview of subcommittees
June 17, 2004	Mission statement adopted; subcommittee structure identified, based on North Carolina experience and recommendations
July 13, 2004	Housing and Health Subcommittees met, agreed on broad objectives, and identified activities; this worked to guide first draft of Elimination Plan by CLPPP staff; three smaller committees formed (Media Outreach, Legislative and Evaluation).
October 27, 2004	Approximately twenty committee members met to discuss and comment on specific goals and objectives outlined in the elimination plan. Comments ranged from content to appearance of the plan. All comments were discussed and CLPPP staff asked for additional comments. Committee adopted definition of elimination. A finalizing/editing committee was formed to oversee completion of the plan once all comments are received and incorporated.
November 10, 2004	Small group of Advisory Committee members met in Frankfort, KY to review and finalize Elimination Plan for submission to the CDC in December. Leaders of Legislative, Housing and Media Sub Committees were in attendance to ensure group's priorities were included and accurately depicted.

From the series of meetings, the advisory committee and its members agreed on the following objectives for the basis of the Elimination Plan:

Housing

1. Increase outreach efforts to entities directly involved in activities that potentially create lead hazards in dwellings such as landlords, contractors and renovation specialists. (Outreach and Education)
2. Identify environmental factors and areas statewide, as specifically as possible, for high-risk exposure to children in order to target for outreach and remediation assistance programs. (Screening)
3. Expand and capitalize on funding sources to develop remediation assistance programs for high-risk housing related to lead. (Resources)
4. Ensure remediation strategies for housing will effectively and adequately protect occupants for the money spent. (Case Management)
5. Develop stronger regulations and statutes relative to abatement and interim controls for maximum protection of occupants of target housing and at risk neighborhoods. (Legislative)
6. To create and identify internal and external methods to evaluate each specific housing objective as it relates to plan's completion and success. (Evaluation)

Health

1. Progressively increase number of screenings of at-risk Kentucky children less than 72 months of age who receive a lead test. (Screening)
2. Move screening processes toward targeted screening of at risk groups rather than universal screening of all children. (Screening)
3. Ensure appropriate intervention and follow-up of all children with an elevated blood lead level. (Case management)
4. Raise the awareness in Kentucky regarding the major public health issue of childhood lead poisoning. (Education and Outreach)
5. Increase legislative support for the elimination of childhood lead poisoning in Kentucky. (Legislation)
6. Expand state resources for the achievement of the Kentucky Elimination Plan Goals and Objectives. (Resources)
7. Create and identify internal and external methods to evaluate each health objective and activity as it relates to the elimination plans completion and success. (Evaluation)

Information / Infrastructure

1. Develop and maintain working databases and tracking systems to support Kentucky's Childhood Lead Poisoning Elimination Plan as it relates to housing, health and other environmental factors.
2. Support the evaluation, refinement and implementation of lead poisoning elimination strategies through data analysis and reporting.

Advisory Committee Members

1.	Sue Bell, RN Nurse Consultant	KY Department of Public Health- Healthy Start Program
2.	Jackie Black Field Operation Mgr.	Kentucky Housing Corporation
3.	Salvatore Bertolone, MD Director	University of Louisville - Hematology/Oncology Dept.
4.	Martha Campbell	Passport Health Plan
5.	Marty Carter Social Worker	Louisville-Metro Health Department-CLLP
6.	Sandy Cleveland, RN Nurse Consultant	KY Department for Public Health Prenatal Program
7.	Gwen Cobb Pediatrics Section Supervisor	KY Department for Public Health
8.	Jo Comley	KY Department for Public Health
9.	Gary Crum, PhD Director	Northern Kentucky Independent District Health Dept.
10.	Frank B. Davis II Environmentalist	Cumberland Valley District Health Department
11.	Kathy Fields, RN Nursing Director	Cumberland Valley District Health Department
12.	John Flood	Louisville Metro Housing-Inspections and Permits
13.	Mary Sue Flora, RN Nurse Consultant	Department of Medicaid Services
14.	Sharon Godec, RN Nursing Director	Purchase District Health Department
15.	Kim Henken	University of Kentucky Cooperative Extension Services
16.	Dewayne Henson Environmentalist	Cumberland Valley District Health Department
17.	Brett Heuser Environmentalist	Louisville Metro Health Department
18.	George Holmes Chair	Louisville Lead Safe Coalition
19.	Connie Howell	North Central Area Health Education Center
20.	Mike Kathman, RN Clinic Manager	Northern Kentucky Independent District Health Dept.
21.	Sharma Klee, RN Nurse Consultant	KY Department for Public Health
22.	Minnie T. LaMay Director	Kentucky Housing Corporation-Tennant Assistance Program
23.	Linda Lancaster, RN, MPA Branch Manager	KY Department for Public Health-Maternal and Child Health
24.	Candice Malone Health Educator	Louisville Metro Health Department-CLPP

25. Cindy J. Mangrum — Purchase District Health Department
26. Dee Ann Mansfield — KY Legislative Research Commission
27. Melanie McMahan — Citizens for A Lead Free Kentucky
28. Barbara Motley — Louisville Metro Housing
29. Judy Nielsen, Director — Louisville Metro Health Department
30. William M. Pierce, Professor — University of Louisville-Pharmacology
31. Linda Proctor — Department of Medicaid Services
32. Kenny Ratliff, Program Coordinator — KY Department for Public Health-Enviro. Lead Program
33. Donna Roby — Audubon Area Head Start
34. Charles Ross, Public Health Director — Purchase District Health Department
35. Melinda Rowe, MD, Public Health Director — Lexington-Fayette County Health Department
36. Glyndon Sallengs, RN, Nurse Consultant — KY Department for Public Health-Well Child Program
37. Bill Schreck — Louisville Metro-Inspections Permits and Licensing
38. Charles Seay, Director of Environmental Health — Purchase District Health Department
39. Leigh Ann Sizemore, Health Educator — Cumberland Valley District Health Department
40. Steve Sparrow — OSHA - KY Labor Cabinet

Staff Support

41. Justin Carey, CLPPP Program Coordinator — KY Department for Public Health
42. Ginger Wagoner, CLPPP Nurse Consultant — KY Department for Public Health
43. Paula Alexander, RN, QA Nurse Consultant — KY Department for Public Health
44. Nancy Briggs, QA Nurse Consultant — KY Department for Public Health
45. Tracy Jewell, MCH Epidemiologist — KY Department for Public Health
46. Cheryl Duncan, CLPPP Administrative Assistant — KY Department for Public Health

Background Information and History of Lead Poisoning in Kentucky

With its lush, meandering bluegrass hills and scattered horse farms to its dense, mountainous forests, Kentucky is thought by many to be a rural and under developed state, when in fact that is just the opposite. As it stands today, Kentucky possesses several major cities including Louisville, Lexington and Owensboro and census data shows that populations are growing rapidly throughout most of the state.

Louisville is Kentucky's largest city, with a population of 693,604, while Lexington is second with 260,512 residents. Each city has a major university, the University of Louisville and the University of Kentucky, respectively, with research and teaching facilities that support public health programs throughout the state. Other universities that support public health include Eastern Kentucky University at Richmond and Western Kentucky University in Bowling Green.

Kentucky has 120 counties. Populations in these counties vary from the small Eastern Kentucky county of Robertson (pop. 2,266) to Jefferson County (pop. 693,604 in 2000). Kentucky's total population is 4,041,769 according to 2000 census figures. During the past decade, Kentucky's population grew by 356,473 persons, a growth rate of 9.7 percent. This places Kentucky 25th among states in population. During the previous decade, Kentucky's population grew by only 0.7 percent.

Table 1.2

Demographic Information – 2000 Census	**Kentucky**	**USA**
Population, 2000	4,041,769	281,421,906
Population, % change, 1990 to 2000	9.60%	13.10%
White persons, %, 2000 (a)	90.10%	75.10%
Non Hispanic African American persons, %, 2000 (a)	7.30%	12.30%
American Indian and Alaska Native persons, %, 2000 (a)	0.20%	0.90%
Asian persons, %, 2000 (a)	0.70%	3.60%
Native Hawaiian and Other Pacific Islander, %, 2000 (a)	-	0.10%
Persons reporting some other race, %, 2000 (a)	0.60%	5.50%
Persons reporting two or more races, %, 2000	1.10%	2.40%

Census data shows that approximately 44.2 percent of the African-American population within the Commonwealth resides in Jefferson County. Other counties with substantial African-American populations (as a portion of the total population in the state) include Fayette (12%), Christian (6%), Hardin (4%), Warren (2.7%), McCracken (2.4%) and Kenton (2%).

According to the 2000 Census data, the Hispanic population in Kentucky is growing rapidly, with an increase of 172.6 percent over 1990 Census totals. The Hispanic population nearly tripled from 20,363 in 1990 to 59,939 in 2000. This figure does not take the illegal population into account, which is thought to be a substantial number. Local health departments are working within the Hispanic communities and through community faith based groups to help eliminate barriers to access to services for Hispanic families. Counties with the largest Hispanic population include Jefferson (12,370), Fayette (8,561), Hardin (11,178), Christian (3,494), and Warren (2,466).

Needs Assessment and Background – Lead Poisoning Prevention

It is well known through the medical and public health fields that expectant mothers and young children are at greatest risk for lead poisoning. Amazingly, children have the capacity to absorb up to 50% of the lead to which they are exposed regardless of the source. Most commonly, children are exposed through chronic ingestion of lead-contaminated dust from deteriorating lead-based chipping, peeling, or flaking paint in older homes in poor condition. In expectant mothers, lead poisoning increases the risk of miscarriages, low birth weight, stillbirths, growth retardation, premature births, and neurological deficits for the child. Widely known effects of lead poisoning in children include anemia, learning

disabilities, lowered intelligence quotient (IQ), behavioral disorders, seizures, growth failure, hyperactivity, and hearing loss.

Due to wide use of lead based paint in both residential and commercial settings the CDC and other government agencies have established two dates as they relate to the use of lead containing paint. Buildings built on or before 1950 and homes built on or before 1978 that have undergone renovation have been identified as probable to contain lead based paint and therefore pose a threat to young children.

As it currently stands, consideration for lead risk exposure indicators include: (1) concentration of older housing built prior to 1950 greater than or equal to 27 percent of total housing stock; (2) median value of housing; (3) percent of children living below poverty greater than or equal to 50 percent; (4) concentrations of Medicaid population; (5) the percent of non-white race greater than or equal to 50%; (6) screening rates; and (7) elevated blood lead prevalence among children aged 1-2 years greater than or equal to 12 percent of the total population of children aged 1-2 years. The block group is the unit of analysis. Where reliable elevated blood lead level (EBLL) prevalence estimates are available, race is excluded and has been found to bias targeted surveillance activities to geographic areas where non-white race is concentrated, even though high concentrations of older housing, poverty and prevalence are equal co-factors of risk in comparison areas where nonwhite concentrations are low to very low. Race as an indicator will be considered when reliable EBLL prevalence data are not available.

The latest National Survey of Lead-Based Paint in Housing conducted in 1989-1990 for the HUD Report showed that approximately 83 percent of all pre-1978 occupied housing units have lead-based paint somewhere on the exterior or interior of the dwelling. Approximately 26% of all homes have significant lead-based paint hazards such as deteriorated lead-based paint levels, dust-lead levels, and/or soil-lead levels above Environmental Protection Agency (EPA) risk assessment clearance standards. In the United States, children under age six occupy approximately 4.4 million of these homes.

In Kentucky, it is estimated that 80% of housing stock or approximately 1,205,476 units were built on or before 1978. In addition, twenty-four percent of Kentucky homes were built before 1950, thereby increasing the risk of lead-based paint hazard exposures. Translating the national rates of lead paint hazards and child occupancy into Kentucky rates, it is estimated that nearly 313,424 (26%) homes in Kentucky have significant lead-based paint hazards and it is estimated that children under age six years of age occupy approximately 14,417 (4.6%) or more of these homes.

Currently, based on three years of programmatic data (2000-2002) 6% (range 0%-20.5%) of all children, aged less than 6 years, and 10% (range 0%-36.4%) of all children, aged 1-2 years, respectively, receive a lead-screening test in Kentucky**.** County-level prevalence of elevated ($\geq$10 ug/dL) blood lead levels among children aged 1-2 years in Kentucky is 73% (range 0%-28.6%). Preliminary data analysis shows highest risk among 40 block groups within seven counties including Bell, Campbell, Fulton, Harlan, Hickman, Kenton and Jefferson counties which have been determined by the CLPPP to be high risk areas**.** Average EBLL prevalence in these counties in at risk block groups is 27.4% among children aged 1-2 years and it is estimated that 3,651 children, aged less than 6 years, and 1,191 children aged 1-2 years, respectively, are at highest risk in these block groups. This data is based on an initial analysis of 37 counties found to be at significant risk at the county level for lead exposure. An analysis of a random sample of counties not included in the original sample of 37 counties found significant risk at the sub-county (block groups) level as well.

Further, it is estimated that due to housing conditions, age of housing and concentration of populations, nearly 1,000 children in Lexington/Fayette and nearly 3,000 children in Louisville Metro (Jefferson County) less than six years of age are at highest risk for lead exposure. Based on this initial assessment on 37 of the 120 Kentucky counties, the CDC estimates appear to be low for the number of children with elevated blood lead levels in Kentucky. The Department for Public Health has begun an assessment of stratified risk at the block group levels, to provide better data to guide elimination plan strategies.

As another point of interest, several of the at risk counties/communities have above average prenatal care infrastructure and utility through their local health department's in-house clinic. Prenatal care infrastructure is defined as a local health department's participation in prenatal care services; utility is the number of women served per year. Bell and Harlan counties, located in southeastern Kentucky, exceed this prenatal care utility factor by more than six times the statewide rate which may result in these two communities demonstrating lead testing rates 1.5-2.5 times higher than Kentucky's statewide rate of 6%.

Out of the seven at risk communities initially identified within Kentucky, only Louisville-Jefferson County had community-based coalitions focusing on lead hazard exposure and lead poisoning prevention issues. Kentucky is continuing to build capacity to eliminate lead poisoning in high-risk target areas selected for project development and implementation. In four (4) targeted Kentucky communities, greater than 50 percent of the block groups had very high concentrations of older housing with a large percentage of children living in poverty.

Capacity to Eliminate Childhood Lead Poisoning as a Public Health Problem

The Childhood Lead Poisoning Prevention Program (CLPPP) is housed within the Kentucky Department for Public Health under the Cabinet for Health and Family Services (CHFS). The CHFS is the state government agency that administers public programs to promote the mental and physical health of all Kentuckians.

The mission of CHFS is to promote the physical and mental health and well being of individual Kentuckians and their communities through public policies and services that emphasize education, prevention, quality medical care, monitoring and public health planning. The CHFS envisions a Kentucky where citizens live in a safe and healthy environment and have access to health care programs that promote wellness, treat illness and deliver high-quality, cost-efficient, mental and physical health services.

Division of Adult and Child Health Improvement

Located within the Department for Public Health, the Division of Adult and Child Health Improvement (ACHI) and the Maternal and Child Health (MCH) Branch coordinate the activities set forth under the Title V program. The Title V Director, Steve Davis, M.D., is also the Director of the Division of Adult and Child Health Improvement and serves as administrator for a number of programs including WIC, HANDS, School Health, Healthy People 2010 and Well Child programs. This has fostered opportunities for interagency collaboration, thereby increasing the potential impact on the health care delivery system affecting the women and children most likely to be threatened by lead poisoning.

Local Health Departments

Local health department capacity for assessment reflects standardized universal lead screening services that are provided in all 120 Kentucky counties. Screening guidelines are widely available through the Kentucky Department for Public Health's Public Health Practice Reference (PHPR). Screening data for all children under six years old from both private and health department providers depicts a wide range from zero to 20.5% of the population. County specific screening data and technical assistance is currently provided per request and through professional lead in-services. Proposed web-based data access will allow for greater data sharing capabilities.

Kentucky's children may obtain lead screenings from private physicians or from their local health department. The KY CLPPP is working diligently to strengthen relationships and improve data sharing with state Medicaid and WIC programs to improve screening rates of targeted populations and surveillance. Several mechanisms are currently being explored on the state level including "flags" and quarterly reports for children needing lead tests that are health department patients or receiving other services.

Surveillance

As part of the cooperative agreement requirements, KY CLPPP has implemented and currently uses an electronic surveillance system for blood lead data management. The system allows for electronic data to be entered into a central data base for storage and analysis. Currently, KY receives data from multiple laboratories across the state and country for entry into the database. Dialogue between the CLPPP and reporting laboratories has been increased in recent months in hopes of improving data prior to import into the surveillance system. KY statutes now mandate that all laboratories doing blood lead analysis submit results to the KY CLPPP program for statistical as well as case management purposes. From that, labs including the University of Louisville have increased data submission adding to our database and surveillance system. In addition, the CLPPP is working hand in hand with Kentucky's Office of Technology to develop an electronic reporting format to be used by all reporting laboratories. With the assistance of several laboratories, the

KY CLPPP has made great strides to ensure complete laboratory reporting in hopes of producing accurate and meaningful data for analysis, planning and evaluation.

Case Management

The KY CLPPP has recognized that effective case management is vital in the prevention and eventual elimination of childhood lead poisoning. The KY CLPPP provides case follow up, health education and environmental precautions for those families with children who have elevated blood lead levels. The KY CLPPP provides resources for local health departments to assure quality information and instructions for families whose children may have elevated blood lead levels.

In association with good case management, it is imperative that the KY CLPPP possess clear and concise case closure protocol available to all local heath departments. Current case closure protocols are readily available to all though Kentucky's Public Health Practice References (PHPR) where step by step instructions can be found regarding case closure. Current protocol requires a series of tests must be administered resulting in a blood lead level below 15 ug/dL over a six month period of time in order for case closure. Further illustration of Kentucky's case closure protocol can be found in the Public Health Practice Reference portion of the appendices attached to this document.

Statement of Purpose:

Despite being a virtually 100% preventable condition, childhood lead poisoning continues to cause detrimental environmental effects to America's young children. Childhood lead exposure may cause a variety of lasting effects including permanent cognitive dysfunction and behavioral abnormalities, which in turn claim tremendous personal and societal tolls.

Public health gains have been made over the past several decades to eliminate lead poisoning as a major pubic health problem. However, these very successes across much of the country may now in fact be working against a complete elimination. This is because many medical professionals, as well as the lay public, are unaware of the continued seriousness of childhood lead poisoning. Therefore, undesirable health and housing conditions and sanitary practices continue to exist because lead poisoning is not at the top of the public health "radar screen." Unfortunately, Kentucky's socially disadvantaged children are the most vulnerable population to the threat of childhood lead poisoning, and therefore a group most in need of immediate attention.

The Center of Disease Control and Prevention (CDC) continues to actively promote the elimination of childhood lead poisoning by the year 2010. The CDC has defined childhood lead poisoning as blood lead levels at or above 20 ug/dL for children six years of age and younger and any level above 10 ug/dL as a level of concern**.** Kentucky has embraced the support of the CDC for childhood lead poisoning prevention, and melded these federal opportunities with an existing state program.

A Cooperative Agreement between Kentucky and the CDC has resulted in this *"Childhood Lead Poisoning Elimination Plan 2010."* This Kentucky Cabinet for Health and Families document has been developed through invaluable input from partners on the Childhood Lead Advisory Committee. The Plan is to be an on-going document, subject to revisions and additions as required by the latest science and state and national developments.

Mission Statement

"To Eliminate Lead Poisoning and Its Detrimental Effects on Kentucky Children by 2010 through Health, Housing and Legislative Actions"

Commonwealth of Kentucky Childhood Elimination Plan Goals, Objectives, Activities and Time Frames for Process Evaluation

Housing Goal:

To eliminate Lead Poisoning and its detrimental effects on Kentucky children by 2010 as it pertains to housing and activities that may cause housing conditions to continue to be a source of childhood lead poisoning.

Housing-Objective 1:
To increase outreach efforts to all stakeholders directly involved in activities that will potentially create lead hazards in dwellings.

Activities:

- *KY CLPPP and Lead Poisoning Advisory Committee partners will conduct the following:*

  - **Housing-1-01:**
    Coordinate and provide certified lead risk assessor trainings to state environmentalists.
    January 1, 2008

    Measure:
    01/01/05-Each sub recipient group will have at a minimum one trained and certified lead risk assessor to conduct site visits and risk assessments for children with elevated blood lead levels.

    01/01/06-In addition to sub recipient environmentalists, KY will train and designate regional lead experts trained and certified as risk assessors that will assist with risk assessments and education in order better serve those health departments without a certified risk assessor on staff.

    01/01/08-KY will train and certify one environmentalist from each county or regional health department as a lead risk assessor.
    Contacts: KY CLPPP Environmentalist

  - **Housing-01-02:**
    KY CLPPP will work to coordinate regional HUD approved seminars on Lead Safe Work Practices for landlords, property managers, inspectors and contractors.
    July30, 2005 and On Going

    Measure:
    Coordinate and schedule six (6) regional trainings/seminars per quarter focusing on recognizing lead hazards and providing subsequent prevention measures and educational materials.
    Contact: CLPPP Environmentalist

  - **Housing-01-03:**
    KY CLPPP will work to coordinate presentations to professional real estate and rental property associations and organizations regarding issues of lead hazard disclosures in leases.
    January 31, 2006

    Measure:
    Coordinate and schedule six (6) presentations twice per quarter to various associations and professional organizations on lead hazard disclosure in leases.
    Contact: CLPPP Environmentalist

  - **Housing-01-04:**
    KY CLPPP will coordinate presentation to Public Health directors and Environmentalists about their roles in childhood lead poisoning prevention.

December 1, 2005

Measure:
Develop and conduct presentations to Public Health directors and Environmentalist through the KHDA (Kentucky Health Dept. Association) and DPH annual conference. Division Director will deliver annual evaluation report on lead status for all local health departments.
Contact: CLPPP Program Coordinator, Nurse Consultant/Health Educator & Epidemiologist

- **Housing-01-05:**
  Coordinate meetings with local health dept. Environmentalists and compliance personnel to increase awareness of lead safe work practices.
  July1, 2005 and July 1, 2006

  Measure:
  July 1, 2005 – Environmentalists at each sub grantee site will make personal contact with all compliance personnel within their administrative units about lead safe work practices.

  July 1, 2006 – Based on above pilot experience and under direction of the KY CLPPP environmentalist, the remaining local enforcement personnel will be reached through their Local Health Department Environmentalists.
  Contacts: CLPPP Environmentalist

- **Housing-01-06:**
  Expand the DPH webpage to include messages about basic Lead Safe Work practices and related CLPPP information.
  July 1, 2005, and on-going

  Measure:
  DPH webpage updates with multiple links to latest CLPPP-related information will be updated on a monthly basis.
  Contacts: CLPPP Nurse Consultant/Health Educator, Epidemiologist & IT

- **Housing-01-07:**
  Develop lead awareness media campaign to be conducted statewide through a contracted professional agency targeting lay audiences.
  January 31, 2006

  Measure:
  Launch media campaign targeting lay audiences about lead poisoning prevention, presented in culturally and educationally sensitive manner, and in a non-alarming context in 50% of Kentucky counties giving priority to those counties that exhibit the highest numbers of lead poisoning.
  Contacts: CLPPP Nurse Consultant/Health Educator & Sub Recipient Health Educators

- **Housing-01-08:**
  Work to expand the DPH webpage to include credible childhood lead poisoning prevention practices in the home.
  July 1, 2005, and on-going

  Measure:
  Updated DPH webpage with lay audience information and relevant links on a monthly basis.
  Contacts: CLPPP Nurse Consultant/Health Educator, Epidemiologist & IT

- **Housing-01-09**:
  Work to establish and build partnerships with utility companies to provide lead awareness information "stuffers" with bills.

July 1, 2005

Measure:
At least one Kentucky utility company to provide lead awareness "stuffers" in monthly bills and expanding the number of companies yearly.
Contacts: CLPP Program Coordinator, Nurse Consultant/Health Educator & Environmentalist

- **Housing-01-10:**
  Develop a public service announcement about lead hazards in the home to be aired on KET (Kentucky Education Television).
  January, 30 2006

  Measure:
  Air lead in housing PSA on KET during home improvement programming once per quarter.
  Contacts: CLPP Program Coordinator & Environmentalist

Housing-Objective 2*:*
To identify and correct lead hazards in 100% of known housing that has led to or contributed to multiple cases of child lead poisoning.

Activities:

- *KY CLPPP and Lead Poisoning Advisory Committee partners will conduct the following:*

  - **Housing-2-01:**
    Refine coordination efforts with KY Environmental Lead Program to follow up on remediation efforts related to EBL's.
    June 30, 2005

    Measure:
    KY Environmental Lead and CLPPP protocols and reporting methods functioning together using shared environmental tracking program.
    Contacts: Program Coordinator & Environmentalist

  - **Housing-2-02:**
    Work with Kentucky's Environmental Lead Division using CLPPP database and archived data to identify physical addresses that have produced elevated blood lead levels in two or more children.
    June 30, 2005

    Measure:
    KY surveillance system will produce and allow examination of annual report for addresses that have produced elevated blood lead levels in multiple children.
    Contacts: CLPPP Environmentalist

  - **Housing-2-03:**

Work with community and faith based groups to create coalitions aimed at assisting homeowners with interim controls or abatement efforts in those houses with multiple elevated blood level cases.
June 30, 2005

Measure:
Identify at a minimum of one (1) community or faith based organization in each of the sub recipient areas willing to deliver educational materials and assist with abatement costs for homeowners.
Contacts: CLPPP Environmentalist

- **Housing-2-04:**
  Increase communication with HUD and other local housing authorities of properties/houses that have produced multiple cases of elevated blood lead in children.
  July 30, 2005

  Measure:
  Present HUD officers with list of residences responsible for multiple cases of elevated blood lead in a child twice a year.
  Contacts: CLPPP Environmentalist

- **Housing-2-05:**
  Explore possible tax credit for homeowners who have voluntarily made their homes lead free or lead safe.
  January 30, 2006

  Measure:
  Discuss possibilities of tax credit for property owners who voluntarily conduct interim controls or complete abatement of lead hazards with local KY Governments.
  Contact: CLPPP Program Coordinator & Environmentalist

Housing-Objective 3*:*
To identify and obtain one hundred thousand dollars ($100,000) yearly in additional funding in order to develop remediation assistance programs for high-risk housing related to lead.

Activities:

- *KY CLPPP and Lead Poisoning Advisory Committee partners will conduct the following:*

  - **Housing-03-01:**
    Explore, with state and agency partners, the feasibility of obtaining HUD grants, and submit applications as indicated.
    January 30, 2006

    Measure:
    HUD sub grantee applications submitted, as indicated.
    Contacts: Program Coordinator, Environmentalist & Epidemiologist

  - **Housing-03-02:**
    Explore feasibility of generating additional income through local health department through fees levied for various environmental inspections to assist with abatement and related costs.
    July 1, 2005

    Measure:
    Feasibility report and potential income report completed by KY CLPPP.
    Contacts: Program Coordinator

Housing-Objective 4:

To develop and promote stronger state regulations and statutes relative to lead interim controls and abatement for maximum protection of occupants.

Activities:

- *KY CLPPP will provide input and support to the following:*

❖ **Housing-04-01:**
The KY CLPPP and area partners will work with local environmentalists and other officials to explore and promote enforcement statewide of housing codes related to lead poisoning prevention.
July 1, 2005

Measure:
Through the KY Department for Public Health, the KY CLPPP will author a letter communicating the importance of housing codes as it relates to lead poisoning.
Contacts: Environmentalist & Program Coordinator

❖ **Housing-04-02:**
CLPPP staff and Advisory Committee will assist in drafting new legislation related to the prevention of childhood lead poisoning prevention. Proposed legislation will strive for a balance between public health needs and available resources, and clarify "abatement" versus "remodeling" language.
July 1, 2005

Measure:
Propose and support legislation related to the prevention of childhood lead poisoning prevention. Current legislation will be amended to more accurately reflect CLPPP goals and national guidelines.
Contacts: Legislative Sub Committee Chair

❖ **Housing-04-03:**
KY CLPPP and Advisory Committee will explore possibility for monetary or tax incentives for those housing industry professionals who demonstrate compliance with lead poisoning prevention practices.
July 1, 2006

Measure:
1) State lead poisoning prevention legislation proposed to be amended to reflect tax incentives for compliance

2) Legislation proposed to reflect lead free certification status for homes meeting national standards.
Contacts: Program Coordinator & Advisory Committee Members

Housing-04-04:
KY CLPPP will assist Advisory Committee to explore possibility of low-interest loans for remediation activities.
January 31, 2006

Measure:
With the approval of the Health and Family Services Cabinet, the KY CLPPP will assist Advisory Committee in presentation to mortgage lenders (especially those in high risk areas) about the benefits of providing low-interest remediation loans.
Contacts: Program Coordinator & Advisory Committee Members

❖ **Housing-04-05:**

Explore a state government feasibility study of a possible remediation resource pool that will be presented for future action as indicated. This study will include exploration of a paint surcharge and "add-ons" to permit fees.
January 31, 2006

Measure:
The CLPPP, with input from related state government agencies, the Advisory Committee and other partners, will oversee completion and distribution of the study.
Contacts: Environmentalist & Advisory Committee Members

Health Goal:

To eliminate lead poisoning and its detrimental effects on Kentucky children as it relates to the health care and case management through policies and activities of state government and community partners.

Health-Objective 1:
To progressively increase lead screening rates of KY children one and two years of age by a minimum of 10% yearly.

Activities:

- *KY CLPPP and Lead Poisoning Advisory Committee partners will conduct the following:*

  - **Health-01-01:**
    Assure that all local health department nurses and other health care providers are familiar with and adhere to Kentucky Screening Plan, as updated in the KY DPH Public Health Practice Reference.
    January 1, 2005 and on-going

    Measure:
    QAT reviews will depict 50% compliance rate in FY 05; 70% compliance rate in FY 06; 80% compliance rate in FY 07: 90% compliance rates in FY 08; and 95% compliance rate in FY 09.
    Contacts: CLPPP Nurse Consultant/Health Educator

  - **Health-01-02:**
    Increase communication and collaboration with Medicaid to coordinate 100% data linkage with KY CLPPP.
    July 1, 2005, and on-going

    Measure:
    Data received by KY CLPPP will match Medicaid data: 50% match for **FY 05**; 60% match for **FY 06**; 70% match for **FY 07**; 80% match for **FY 08**; 90% match for **FY 09**.
    Contacts: CLPPP Epidemiologist & Nurse Consultant/Health Educator

  - **Health-01-03:**
    Continue collaborative partnership with all reporting labs to ensure proper reporting of all blood lead levels.
    January 1, 2005

    Measure:
    Electronic surveillance system will receive the data from all labs with increase in electronic submissions
    Contacts: CLPP Program Coordinator & Epidemiologist

- **Health-01-04:**
  CLPPP will work to insure all children who receive Medicaid will be sent a written reminder to have their child screened for lead at one and two years of age. Children receiving services in any health department program (WIC, HANDS, Well child, etc.) will be tested for lead at one and two years of age; or, if they are less than 72 months of age and have not previously been tested, or if their risk factor changes due to a "yes" or "don't know" answer on the risk assessment.
  June 30, 2006

  Measure:
  Medicaid percentage of Kentucky children ages two and under screened for lead will increase from 3% to 15% by 6/30/05 and improve by increments of 20% each additional year.
  Contacts: CLPPP Nurse Consultant/Health Educator & Epidemiologist

- **Health-01-05:**
  Work with state adoption agencies to insure adopted and foster children will receive screening under the age of six years old (72 mos.)
  December 30, 2006

  Measure:
  The KY CLPPP and Advisory Committee will review the literature for specificity of the current screening tool for adopted and foster children, and revise accordingly, as indicated
  Contacts: CLPP Program Coordinator & Advisory Committee Members

- **Health-01-06:**
  Work with KY's Chief Nurse to develop and present informative lead presentations to all state Nursing Directors regarding lead screening protocols and other program guidelines.
  July 30, 2006

  Measure:
  The KY CLPPP team will develop informative, nurse oriented presentations and materials and present them at a minimum of twice per year to all state Nursing Directors during their meetings.
  Contacts: CLPPP Nursing Consultant/Health Educator & Program Coordinator

Health Objective 2:
To ensure appropriate intervention and follow-up for 100% of children that exhibit an elevated blood lead level as defined by most current standards.

Activities:

- *KY CLPPP will assure the following:*

  - **Health -02-01**
    Provide continuous input for KY PHPR and Administrative Reference to insure lead screening guidelines and procedures are clear and concise.
    January 1, 2005 and on-going

    Measure:
    KY CLPPP team will make revisions to both the PHPR and Administrative reference on a bi-yearly basis.
    Contacts: CLPPP Nurse Consultant/Health Educator

- **Health-02-02**:
  Work to ensure local health nurses and other health care professionals will apply the DPH PHPR "Lead Classification Chart" directives to screening results. (See Screening Plan)
  January 1, 2005 and on-going

  Measure:
  A KY CLPPP case management tracking system for all local health departments will be fully operational, per the DPH PHPR; and QIT chart reviews will find 60% compliance in FY 05; 75% compliance in FY 06; 85% compliance in FY 07; 90% compliance in FY 08; 95% compliance in FY 09.
  Contacts: CLPPP Nurse Consultant/Health Educator

- **Health-02-03:**
  Electronic Surveillance system will be fully operational for purposes of local health department case management.
  June 30, 2005

  Measure:
  KY CLPPP and local health departments will receive all information needed for case management according to CDC guidelines.
  Contacts: CLPPP Epidemiologist

- **Health-02-04:**
  Adopt the latest science supporting levels of exposure and recommended actions by local health departments.
  June 30, 2005 and on-going

  Measure:
  KY CLPPP and Committee will conduct a review of the literature, with CDC, and revise protocols as indicated.
  Contacts: CLPPP Program Coordinator, Nurse Consultant/Health Educator, Environmentalist, Epidemiologist and Advisory Committee Members

Health-Objective 3:
To progressively increase community awareness in Kentucky regarding childhood lead poisoning as a major public health issue.

Activities:

- *KY CLPPP and Lead Poisoning Advisory Committee partners will conduct the following:*

  - **Health-03-01:**
    Work with partners to develop and distribute lead poisoning outreach educational packet for physicians and other providers in multiple languages.
    June 1, 2005

    Measure:
    Lead awareness educational packet developed and distributed to state medical private providers, health departments, realtors, child daycare providers, and early childhood development programs.
    Contacts: CLPPP Nurse Consultant/Health Educator & Environmentalist and Advisory Committee

- **Health-03-02:**
  Work along with Advisory Committee and community partners to develop, or adopt existing educational packets for parents, for distribution through local health departments, daycare facilities, early childcare programs, private providers, parent teacher organizations and local recreation departments.
  January 1, 2006

  Measure:
  Lead awareness packet for parents will be developed and made available to public and private providers, daycare facilities, and early childcare programs.
  Contacts: CLPPP Nurse Consultant/Health Educator & Environmentalist

- **Health-03-03:**
  Work alongside Advisory Committee and community partners to develop and distribute survey for state medical community to determine practices of screening children according to national guidelines and/or providing lead poisoning information to patients who are pregnant.
  June 30, 2005

  Measure:
  Survey completed and analyzed by 75% of state's doctors and physicians.
  Contacts: CLPPP Epidemiologist, Nurse Consultant/Health Educator

- **Health-03-04:**
  Work along with Advisory Committee to develop a statewide media campaign, including billboards, radio and television spots and newspaper articles to raise awareness of lead poisoning in Kentucky's children.
  June 30, 2006

  Measure:
  Media campaign developed, implemented and visible in identified high risk communities the community.
  Contacts: CLPPP Program Coordinator, Nurse Consultant/Health Educator, Environmentalist, Epidemiologist & Advisory Committee

- **Health-03-05:**
  Develop a state lead slogan and have buttons, magnets, posters, etc., made up for distribution through the local health departments, WIC, childcare facilities, libraries, pre-school programs, physician offices, etc.
  December 30, 2005

  Measure:
  Lead slogan developed and shared with partner childcare agencies statewide.
  Contacts: CLPPP Nurse Consultant/Health Educator & Program Coordinator

- **Health-03-06:**
  Develop relationships with state universities having public health programs to increase lead awareness in respective communities.
  January 30, 2005

  Measure:
  KY CLPPP message and objectives presented in one (1) university or university club newsletter.
  Contacts: CLPPP Program Coordinator, Nurse Consultant/Health Educator & Environmentalist

- **Health-03-07:**
  Work with Advisory Committee and community partners to assist various ethic organizations and coalitions in educating their members about the dangers of lead poisoning.
  July 30, 2006

  Measure:
  KY CLPPP and advisory committee will identify and present lead hazard and prevention information to at least one ethic organization per quarter.
  Contacts: CLPPP Nurse Consultant & Advisory Committee

Health -Objective 4:
To inform and increase participation by state legislators in regard to elimination of lead poisoning and lead hazards in Kentucky.

Activities:

- *KY CLPPP and Lead Poisoning Advisory Committee partners will coordinate the following:*

  - **Health-04-01:**
    KY CLPPP and Legislative Sub Committee will continue to propose changes to state regulations and statutes supporting KY's Elimination Plan.
    On-going

    Measure:
    KY CLPPP team and Advisory Committee will participate when possible and while continuing to monitor legislative issues to ensure KY's Lead Poisoning issues are properly addressed.
    Contacts CLPP Program Coordinator & Advisory Committee

  - **Health-04-02**
    KY CLPPP and Advisory Committee will continue to assist and promote community advocacy in regards to lead legislation.
    January 1, 2005

    Measure:
    KY CLPPP and Advisory Committee will monitor community involvement on lead legislation.
    Contacts: CLPP Program Coordinator and Advisory Committee

Infrastructure Goal:

To develop and maintain working databases and tracking systems to support the state of Kentucky's Childhood Lead Poisoning Elimination Plan as it relates to housing, health and other environmental factors.

Infrastructure-Objective 1:
To increase utilization of PVA and lead screening data in 100% of KY counties where available to identify locations and numbers of high risk areas statewide ad they relate to lead exposure.

Activities:

- *KY CLPPP will conduct the following:*

  - **Infrastructure-01-01:**
    Develop or obtain electronic environmental module to assist with case management and data surveillance.
    June 30, 2005

    Measure:
    Electronic Environmental module implemented with all lead administrative and clinical data.
    Contacts: CLPP Program Coordinator, Epidemiologist & IT Support

  - **Infrastructure-01-02:**
    Apply GIS information as relates to childhood lead poisoning to those 80-plus counties in Kentucky that now have digitalized PVA data.
    June 30, 2005 and on-going

    Measure:
    Lead-specific GIS data plotted for all Kentucky counties with digitalized PVA information.
    Contacts: CLPPP Epidemiologist

  - **Infrastructure-01-03:**
    Use electronic environmental module in order to integrate PVA, GIS and screening data into schematics identifying high risk areas as well as tracking abatement actions for case management purposes.
    January 30, 2005 and on-going

    Measure:
    KY CLPPP will have capability to produce detailed maps and charts based on PVA, GIS and screening data to identify high risk areas down to the block level.
    Contact: CLPPP Epidemiologist

Infrastructure Objective 2:
To increase utilization of PVA and lead screening data in 100% of KY counties where available to identify numbers of children in high risk areas that are likely to be at risk for lead exposure

Activities:

- *KY CLPPP will conduct the following*

  - **Infrastructure 01-01:**
    KY CLPPP will use PVA, GIS and Kentucky Vital statistics data to determine numbers of children at high risk of being exposed to lead.
    January 30, 2006 and on-going

    Measure:
    1/30/05-KY CLPPP will have capability to produce detailed maps identifying numbers and locations of children likely to be exposed to lead on the county level.

    1/30/06-KY CLPPP will have capability to produce detailed maps identifying numbers and locations of children likely to be exposed to lead on the block level.
    Contact: CLPPP Epidemiologist

  - **Infrastructure 01-02:**
    KY CLPPP will map KY Vital Statistics data vs. screening data to determine percentage of children born in area to those that are being screened for review and refinement of screening strategies.
    January 30, 2006 and on-going

    Measure:
    KY CLPPP will produce report to determine number of children born in high risk area vs. those that were screened and modify screening strategies.
    Contact: CLPPP Epidemiologist

Evaluation and Modification Processes

Evaluation

The evaluation component of the Elimination Plan has been crafted to include both process (formative, or evaluation of effort) and outcomes (the extent to which objectives were actually met) identifiers. This is to better achieve the overall evaluation goal of obtaining results that speak to the success (or failure) of the objectives and activities. These data can then in turn guide revisions and additions of program directives.

In addition, the KY CLPPP has explored and identified professional evaluation consultants to assist with evaluation and improvement of the Elimination Plan on a yearly basis. Through various sources of funding, the CLPPP will employ a consulting team to review all goals and activities of the program in hopes of identifying strengths and weaknesses. Recommendations will be submitted in writing to the CLPPP and then forwarded onto the CDC for review. From that, the plan and it's activities can be adjusted to best suit the health of Kentucky's children while moving toward the elimination of lead poisoning.

Assessment, Assurance and Policy Development

The evaluation component is based on a program founded according to the essential services of public health (assessment, assurance and policy development); relevance to the *Kentucky State Health Plan* and *Healthy Kentuckians 2010*. This component is also related to the Lead Sections of the *Kentucky Department for Public Health Practice Reference* and the *Administrative Reference*. In addition, the evaluation component also includes specifics enumerated in the *National Public Health Performance Standards Program.*

These core functions include attention to and effective action upon childhood lead poisoning as a major detriment to overall public health status of Kentuckians. This assessment includes consideration of adequate distribution of educated staff and continued education resources, case management, outreach and access to treatment. Surveillance also includes particular focus on special populations, e.g., those in high-risk areas as identified by older housing and lower socio-economic status.

Local staff and their partners, particularly the residents, best identify community assets and resources that may be used toward the elimination of childhood lead poisoning. (Hence, the Kentucky CLPPP has established special sub grantee projects for targeted interventions.) Health informatics through existing and emerging technology further assist with the assessment. Finally, this information must be integrated with related systems to achieve optimal outcomes. Toward this end, the Kentucky CLPPP has introduced the electronic surveillance program for specific lead data surveillance, and continues efforts to integrate this program with the larger DPH system known as CDP, and other data sources.

Ideally, policy development is implemented at the grassroots level, particularly by those most affected by and knowledgeable about childhood lead poisoning. The Childhood Lead Poisoning Prevention Advisory Committee was created based on this principle. This broad-based statewide partnership was charged with development of this plan, and will continue to assist in revisions and additions. Each member continues to be an advocate for the elimination of childhood lead poisoning.

Continued Quality Assurance

The Quality Improvement Team (QIT) of the Division of Adult and Child Health Improvement provides continued quality assurance of the Kentucky CLPPP and its goals. The QIT conducts on-going site visits to Kentucky's 56 administrative units. Each visit includes programmatic reviews of medical records according to designated tools, as well as extensive conversations with staff and facility tours. The visits are a day long at a minimum, and conclude with exit conferences with local health leadership and designated staff. The QIT findings are summarized during these exit conferences, and quickly followed by formal reports with recommendations. The local health units then in turn submit responses in a timely manner. The QI lead

program evaluation used visits is illustrated further in the lead poisoning section of the Public Health Practice Reference (PHPR) which has been included in the appendices.

Modifications

In order to best serve the children of KY, the Elimination Plan's goals and objectives will be monitored and evaluated on a constant basis. In addition to the continuous oversight by the CLPPP staff and Quality Improvement team, quarterly advisory meetings will allow for input form the many areas of expertise that aided in the plan itself. With the idea that any good plan is flexible enough to allow for the adjustments to new and unforeseen challenges the advisory board will meet in Frankfort, KY in order to discuss any difficulties or shortcomings that are being encountered while carrying out the plan. Although comments and suggestions will be welcomed year round, these meetings will allow for all issues to be heard and corrective action or actions determined by the group primarily responsible for plan's development.

In addition to the quarterly advisory committee meetings, the MCH staff will meet twice a year to address any issues with the implementation of the plan and its goals. Quality Improvement team members will be invited to join this meeting in order to discuss any issues that they have identified. The primary purpose of these meetings will be to identify problems and decide on corrective action before they jeopardize the success of the plan. Any and all changes will be proposed to all advisory board members prior to becoming official. When it is deemed necessary for changes to the plan itself, advisory board members along with KY CLPPP's CDC program officer will be formally notified. In addition, the CDC will again be notified in annual reports required for CLPPP status.

Commonwealth of Kentucky Childhood Lead Poisoning Elimination Plan 2010 Resources List

Centers for Disease Control and Prevention. Blood Lead Levels in Young Children --- United States and Selected States, 1996—1999. *Morbidity and Mortality Weekly Report,* Vol. 49, No. 50.

Centers for Disease Control and Prevention. (September 17, 1999) Framework for Program Evaluation in Public Health. *Morbidity and Mortality Weekly Review*, 48(RR11); 1-40.

Centers for Disease Control and Prevention. (2003) Program Announcement 03007: Childhood Lead Poisoning Prevention Programs (CLPPP) Notice of Availability of Funds.

Centers for Disease Control and Prevention. (1997) *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials*.

Centers for Disease Control and Prevention. (2003) Surveillance for Elevated Blood Lead Levels Among Children – United States, 1997—2001. *Morbidity and Mortality Weekly Report*. Vol. 52, No. SS-10

Department for Health and Human Services. (November 2000) *Healthy People 2010*.

Kentucky Department for Public Health. (Spring 2000) *Healthy Kentucky 2010*.

Kentucky Department for Public Health. (1997) *Kentucky State Health Plan*.

Kentucky Department for Public Health. (July 2004) *Public Health Practice Reference.*

Kettner, Peter M., et al. (1990) *Designing and Managing Programs*. Newbury Park, California: Sage Publications, Inc.

Advisory Committee Acknowledgement

This Elimination Plan has come about through the selfless efforts of the Kentucky Childhood Lead Poisoning Prevention Advisory Committee. Each member has set aside time from customary work to help achieve a common goal – the elimination of childhood lead poisoning as a major public health problem in Kentucky. They remain committed to this cause, and are an integral group to see that this plan comes to fruition by 2010.