



Eliminating Childhood Lead Poisoning:

A Strategic Plan for Louisiana

Prepared by

The Louisiana Childhood Lead Poisoning

Prevention Program



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I. Executive Summary

The Mission

The mission of this strategic plan is to eliminate childhood lead poisoning by 2010 in Louisiana through surveillance, primary prevention and reaching high risk populations. Evidence for focusing on the elimination of childhood lead poisoning is vast.

First, childhood lead poisoning is entirely preventable. Secondly, public health focus throughout the state has been mainly dedicated to the identification and follow-up of affected children through medical screening (secondary prevention). Elimination, however, means shifting the focus from secondary prevention to primary prevention, whereby a child has protection from lead hazard exposures.

The Louisiana Childhood Lead Poisoning Prevention Program (LACLPPP) recognizes the importance of this shift, and with direction and funding from the Center for Disease Control and Prevention (CDC), has partnered with various organizations and stakeholders to create a five-year strategic plan to eliminate childhood lead poisoning. Integral to the mission of this plan is enhanced partnerships and effective monitoring and tracking.

Call for Primary Prevention

Lead poisoning is defined at $\geq 10\mu\text{g/dL}$ by both federal and statewide standards. Over 2,000 children aged 6 months to 6 years old who were screened in Louisiana for lead in 2002 had an initial blood lead level (BLL) of $10\mu\text{g/dL}$ or greater.¹ The proportion of elevated blood lead levels among those screened

was 4.5%; this is about twice the national average (2.2%).²

No level of lead is safe in the body, and over the years the level for defining blood lead elevation has dropped from $60\mu\text{g/dL}$ in the mid 1960s down to the current level of $10\mu\text{g/dL}$ in 1991. Recent publications have brought attention to associated decreases in IQ levels with blood lead levels even lower than $10\mu\text{g/dL}$. Statewide, there were 14,515 children with BLLs between 5 - $10\mu\text{g/dL}$ in 2002 and 16,846 for 2003.

Lead poisoning may go undetected without screening. Further reasoning for primary prevention efforts is that effects of lead poisoning can be present without obvious symptoms. A child may be either asymptomatic or experience symptoms common to other ailments (e.g. flu and colds) and not recognizable as having to do with lead. Additionally, lead may leave the body before being detected by a lead screening test, depending on the level and duration of exposure to the lead poisoning source.

Sources of lead poisoning are known. The most common sources are dust and soil contaminated by lead-based paint from older housing stock. Hazard control measures and investigations are currently initiated at the state and local levels based on a confirmed case of childhood lead poisoning. The purpose of the investigation control measure is to identify the source of lead poisoning and prevent further exposure. However, damage to the child's health may have already occurred. This is even more reason to prevent a child's exposure to lead hazards in the first place.

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We recognize that it is time to go beyond using children as the detection method for lead hazards. Rather, using primary prevention strategies to prevent children from ever being exposed to lead hazards will be the emphasis. Ongoing evaluation of childhood lead poisoning screening data will identify high-risk populations and help appropriately direct prevention activities.

We believe these strategies will greatly reduce the level of poisoning for those children who are already exposed as well as prevent future children from exposure. Community based organizations, real estate agencies, local housing agencies, universities and maternal and child health medical providers, advocates and other state agencies have come together to provide insight and expertise for this statewide plan to eliminate childhood lead poisoning.

Defining Elimination

Elimination of childhood lead poisoning is defined as “the state in which no child 1 to 6 years old has a blood lead level greater than 10ug/dL by the year 2010, and where lead has been effectively removed or controlled in the children’s environment.”

LACLPPP and the LACLPPP Advisory Committee agree that the national goal of elimination by 2010 can be achieved. The current amount of data in the surveillance system (LALSS), however, is not sufficient to provide an accurate projected year of elimination given current trends of elevated blood lead levels. Levels have continued to decrease over the four years of existing data. Objectives and activities in this plan, therefore, are based on elimination

by 2010. The ultimate indicator that elimination has been achieved is by tracking and monitoring blood lead levels through the surveillance system.

The Plan

The main components of the Strategic Plan are the Needs Assessment and the Work Plan. The four main sections of the Work Plan are Surveillance, Educational & Environmental Primary Prevention and Reaching High Risk Populations. A narrative begins each section describing the background and history as well as future directions. Goals, objectives and activities are presented in tables for each component to highlight the timeframes and evaluation methods.

The guiding principle of the plan is primary prevention. Continued screening, particularly areas where screening has been traditionally low, is not discounted, however, as still a part of elimination. Secondary prevention is still necessary to treat those already affected. Key informant interviews were conducted with various stakeholders and professionals in order to carefully craft a strategic plan that demonstrates how lead partners in Louisiana will be working to prevent childhood lead poisoning.

The plan will be enhanced and updated as directed by evaluation findings. The plan will serve as a basis and guide for yearly objectives developed by state agencies regarding lead. Yearly objectives will be evaluated for effectiveness. Changes will be made as needed.

II. Assessing the Need

The Lead Poisoning Landscape in Louisiana

Background

While childhood lead poisoning affects all socioeconomic levels of society, there are certain groups that are more commonly affected and have higher risk. Various risk factors are associated with lead poisoning including poverty, age of housing and race (see Figure 1). Figure 1 represents the factors that affect and predict lead poisoning in children. This plan takes into account all risk factors. While housing is a major target for elimination activities, other issues continue to have to be addressed in order to support elimination efforts. Louisiana data evidences the many ways that children are at risk for lead poisoning.

i. Demographics

Nearly 4.5 Million people live in Louisiana, and about 19.6% of the population lives below poverty.³ This is higher than the percent of persons in the United States, in general, who live below poverty (12.4%).³ Even those households earning median income have an income of about \$10,000 less than the rest of the nation.³ Poverty is one of several risk factors of childhood lead poisoning. Housing stock of those living in poverty conditions is less likely to be maintained in good condition. In those circumstances, lead-based paint is more likely to be in poor condition (peeling, chipping, peeling or flaking). These conditions lend itself to a more hazardous environment, increasing a child's risk for lead poisoning.

ii. Medicaid Population

Children who are Medicaid eligible and those actually enrolled in Medicaid are

also a population that is given priority for lead poisoning prevention activities. A GAO study in 1998 showed that 80% of children with blood lead levels >10ug/dL were enrolled in the Medicaid Program. Screening for blood lead levels is a required element of the EPSDT Program, where screening protocol is based on risk. Every 1 and 2 year old must be screened under this Program regardless of risk status.

Nearly 30% of children screened in Louisiana were Medicaid recipients in 2001. A Medicaid data link with LACLPPP Surveillance data revealed that 6.6% of Medicaid-enrolled children screened for lead poisoning in the state of Louisiana had an initial blood lead level $\geq 10\mu\text{g/dL}$ in 2001 (this was 10.4% in 2000). This is still three times higher than the national average of elevated blood lead level, which is at an all-time low of 2.2%.⁴ See Table 1 (Section IV, Tables and Figures) for Lead Poisoning Landscape Statistics.

iii. Shifts in Healthcare

Since 1998, the percent of uninsured children in Louisiana has dropped to 11%. This is largely due to the implementation of LACHIP, Louisiana's Child Health Insurance Program. Through this Program, income eligibility for Medicaid has increased to 200% of federal poverty level.

Additionally, Community Care, the State's Primary Care Case Management model of managed care for the state's Medicaid Program, has been implemented statewide. Community

Care began in the northern part of the state in the early 1990's. The program was present in 20 parishes until August 2001 when the statewide implementation began on a region by region basis.

Through this program, all Medicaid enrolled children are assigned to a primary care health provider who is responsible for assuring preventive services as well as primary care. This should lead to an increase in children being screened.

iv. Housing Stock

A glance at the age of housing stock in Louisiana shows that about 45% of the structures are built before 1960 (822,274)³. Dwellings built before 1978, the year lead was banned from non-industrial paint, are likely to contain lead-based paint. However, more children are poisoned in housing built before 1978, specifically those built before 1960 and 1950. Lead was phased out of residential paint beginning in 1950, and totally banned in 1978. Those built prior to 1950 have higher concentrations of lead than those built between 1950 and 1978. About 20% of structures in Louisiana are built before 1950 (roughly 376, 654) according to the 1990 U.S. Census.

Weak data exists for houses that have poisoned multiple children. Additionally, data regarding homes that have been remediated or abated for identified lead hazards is also limited and is currently being strengthened.

v. State & Local Policies

In addition to the federal rules and regulations, such as the Title X, Section 1018 – the Lead Disclosure Rule and the HUD Pre-Renovation Education rule, there are several state and local policies

that influence the lead poisoning prevention landscape.

LAC Title 33, Part III, Chapter 28 Lead Accreditation & Licensure

This piece of the Louisiana Administrative Code (LAC) sets forth the Louisianan Department of Environmental Quality's (DEQ) set of standards and training procedures to certify Lead Risk Assessors, Lead Inspectors, Lead Workers and Supervisors. To date, DEQ has accredited 143 Risk Assessors, 336 Lead Inspectors and 100 Lead Supervisors. Only 27 Accredited Risk Assessors and 48 Accredited Lead Inspectors are currently active, and are not evenly located throughout the state. When abatement work is planned or conducted, it is these professionals whose involvement is required. When a homeowner wants to determine if lead-based paint or lead hazards exist in their home, it is these professionals who can conduct the test. When an EBLL investigation is done to find out the source of lead poisoning for a child, the state sends out a Certified Risk Assessor.

R.S. 40:1299.21-28 Lead Poisoning Prevention & Control

This piece of legislation establishes the lead poisoning prevention program, mandates reporting by labs of all blood lead levels (physicians are required to report blood lead levels $\geq 15\mu\text{g/dL}$) and sets forth a protocol for detecting lead poisoning sources. When the state health officer (or his or her designee) is notified of an eligible child's elevated blood lead level, then an investigation can be conducted to inspect the child's "primary residence or any recently-resided residence."

Legal leverage to enforce that property owners remove or cover identified lead hazards “so as to make it inaccessible to children six years of age or any mentally retarded persons” is set forth in this legislation. Forty-five (45) days to remove or control the hazards (15 to make a plan and 30 days to complete) is also set forth in this legislation.

**LAC Title 51, Part IV, Chapter 1
Lead Contamination**

Part of the Sanitary Code, this piece of the Administrative Code includes definitions of words associated with lead poisoning control, including “lead contamination.” Day care facilities are also addressed here, saying that they “shall be maintained free of lead contamination.”

Inspection of premises, required control measures and verified abatement protocols are also included here. The state health officer is given authority to not only inspect the child’s primary residence, but “other residences or premises which the person with lead poisoning frequents.” LACLPPP defines a “frequent amount of time” as 10 or more hours per week.

Ordinance 20345

Local Dry Sanding Ordinance

In September 2001, the New Orleans Councilmembers passed an ordinance that restricts dry sanding on the outside of homes built before December 31, 1978. The ordinance also sets forth notification requirements when interior or exterior renovations include disturbance of lead-based paint.

Act 893

Designation of High Risk Areas

Passed in the regular 2004 session, this new law allows the Department of

Health & Hospitals to “identify geographic areas in the state and establish those areas as high-risk for lead poisoning.” Once the areas are identified, these areas will be required to screen certain-aged children for lead poisoning.

vi. High Risk Areas

High risk areas have been identified through prevalence rate (based on number of children screened), number of Medicaid-enrolled children, and percent of older housing in each parish. The same process will be used to make official recommendations for mandated screening. Guidance on designating high risk areas is also being sought from national, state and local partners. Seven parishes were identified and prioritized as high risk areas in Louisiana based on LACLPPP Surveillance data from the year 2000.

Orleans Parish, home of New Orleans, LA, is the highest risk parish, where 21.22% (about 7889 out of 37179) of children 6 months to 6 years old were screened, and 15.39% of those screened had an initial blood lead level \geq 10 μ g/dL (1,214 children). The city of New Orleans recently was listed as #28 in “The Top 100 Places in the 50 United States According to the Estimated Number of Housing Units with Lead-Based Paint³.” High-risk areas help identify focal points for program activities and their designation will predict whether an area should have a targeted or universal screening recommendation for lead poisoning.

Defining and identifying high risk areas is also being supported by the State lead program’s screening plan, which is being finalized. Guidance of the screening plan will include such recommendations

as routine screening of blood lead levels for those children most at risk, and those not at risk to be maintained in lead safe environments. The screening plan will incorporate legislative efforts as well as methods of tracking success and working with target communities. A screening plan is necessary to efficiently direct provider care in high risk catchment areas. If screening rates are at a continuous low in certain parts of the state, information is not sufficient for making a determination of the risk status and the need for targeted or universal screening.

vii. Lead Poisoning Sources

Sources of lead poisoning are consistent with traditional sources: paint and dust. Non-traditional sources have not typically been an issue in the CLPPP program’s history. However, some non-traditional sources, such as fishing weights, old vinyl mini-blinds, car batteries and occupational & industrial exposure are common non-traditional sources of lead hazards.

Figure 1. Lead Sources

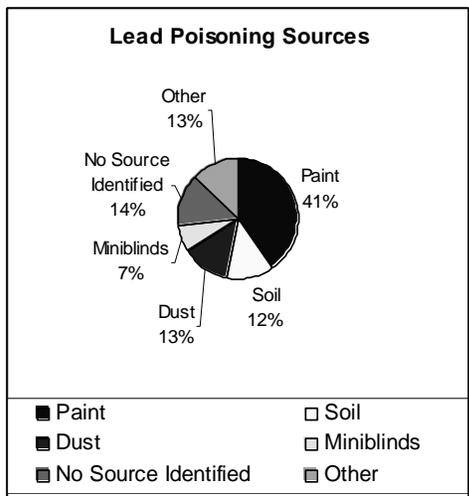


Figure 1 shows that 41% of the identified lead poisoning from EBL investigations sources have been paint.

viii. Costs, Barriers & Resources

Using the Korfmacher⁴ calculator for estimating costs of lead poisoning based on incidence of children with BLL >10µg/dL in 2001, it is figured that the state could save the following amounts in each of these areas if lead poisoning is eliminated:

1. Special Education: \$ 629,173
2. Medical Costs: \$ 538,509
3. Juvenile Justice: \$125,000,000

Special Education estimates are based on Schwartz’s (1994) estimates that “20% of children with blood lead levels over 25µg/dL need special education for an average of 3 years.” The special education includes assistance for slowed learning, e.g. low vocabulary and grammatical-reasoning scores and poor hand-eye coordination.

Several barriers to eliminating lead poisoning were identified through responses to the key informant interviews. Some barriers identified include maintaining lead based paint in good condition, protective policies for lead safe work practices, low screening rates lead found in toys and dinnerware that children eat on or play with, and availability of funding.

Resources

Many monetary resources are known about, yet may not be part a direct part of Louisiana’s lead poisoning prevention activities. Some are beginning to be a part of lead prevention activities. Ways of pooling together resources are being more creatively identified as the purposes of programs, intents of agencies and directions of funds are understood.

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Some Community Development Block Grant (CDBG) funding in the state is used for general home and community improvements, sometimes activities include issues regarding lead. CDBG funds come from the Department of Housing & Urban Development (HUD), and is distributed in two ways: either directly to entitlement cities or indirectly (through the state) to non-entitlement areas. LACLPPP has provided some letters of support and lead hazard data to entitlement and non-entitlement areas.

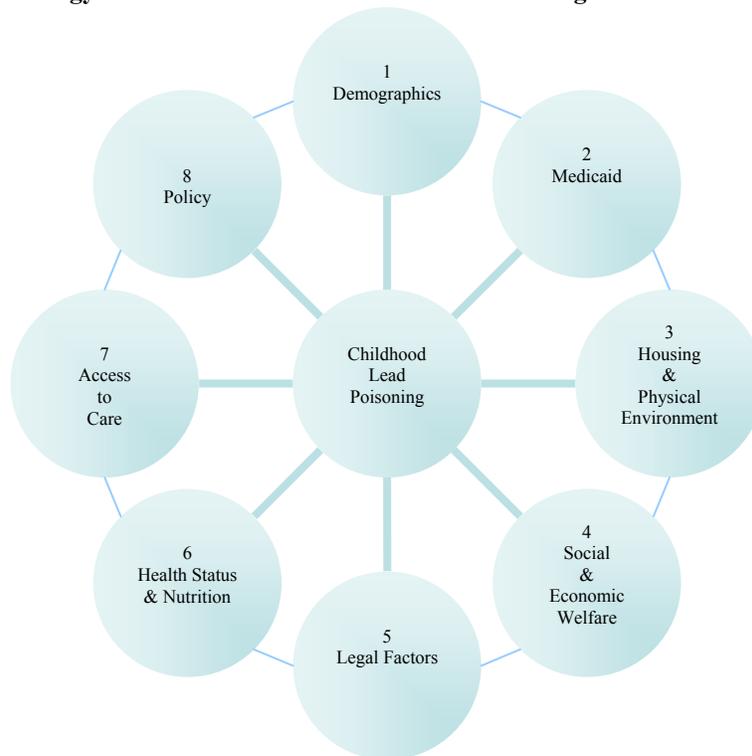
HUD also houses the Office of Healthy Homes & Lead Hazard Control which administers several lead-related grants. There are currently four agencies receiving OHHLC funding for different activities. The four recipients are the New Orleans Department of Housing

and Neighborhood Development, Association of Community Organizations for Reform Now (ACORN), Tulane School of Public Health & Tropical Medicine as well as Xavier University.

The United States Department of Agriculture has resources for rural areas to do community development work such as home rehabilitation. Funding per home is limited. Some rural areas, such as Madison Parish in northeast Louisiana already receive such funding.

The Maternal and Child Health Block Grant helps fund local and state lead-related activities.

Ecology of Influences/Antecedent Factors Affecting Lead Poisoning



1: Race, national origin/ethnicity, age, 2: Medicaid enrolled/ever on Medicaid, 3: Age of housing, exposure to lead sources (traditional & non-traditional), time spent in pre-1978 housing, 4: Income level/resources, parent/guardian education level, caregiver characteristics, housing situation, hobbies/occupational exposure 5: Homeowner and tenant/landlord rights, 6: Child's health, 7: Health seeking behavior, 8: State's screening requirements, sanitation codes, medical & environmental case management policies

III. Work Plan

i. SURVEILLANCE

The Childhood Blood Lead Surveillance System (CBLSS) provides the data necessary to effectively operate components of LACLPPP. When LACLPPP first received CDC funds in 1998, the program worked with Tulane University School of Public Health & Tropical Medicine to develop and maintain the surveillance system. The CBLSS was successfully transferred from Tulane to DHH/OPH. Two surveillance personnel employed by the State of Louisiana since July 1st, 2003 have operated the CBLSS.

The surveillance system has been expanded into a comprehensive, population-based system by collecting all blood lead test conducted on children between the ages of 6 and 72 months. Reporting to the CBLSS has been imported to the system electronically or manually. A total of six private and one state laboratory are now electronically sending periodic screening reports on all blood lead levels to the CBLSS. The environmental investigation results are also imported manually to the system. After cleaning collected data through maintenance procedures, the elevated cases are sent to the tracking system. Surveillance data is currently being used to monitor and direct program activities as it captures patient data and links follow-up blood lead tests and environmental investigations, individual laboratory and provider data and Medicaid status data. Patient data enables the case manager to monitor and direct case management while the

associated provider data enables the program to target specific providers for guidance on screening and case management protocols. The surveillance data also enables the program to expand its understanding of high risk population and high risk areas by describing the screening and prevalence rates for each in the relationship with Medicaid and housing data and being disseminated in the form of quarterly and annual surveillance reports, quarterly and annual screening and case management reports cards and through mid-point and annual process and outcome evaluation reports. GIS software has been used to target program resources and efforts.

Improving the quality of data is the most important thing that needs to be taken into consideration: almost 60% of our records are missing race and about 27% are missing specimen type. A lot of efforts have been made to improve reporting quality by contacting providers who submit incomplete data, working with certain laboratories to get the right blood analysis forms, to educate providers to promote the lead program reporting rule. As the quality of reporting improves, population based data from surveillance system will be used to further refine the screening recommendation for the state.

Goal: To use surveillance to guide statewide monitoring, planning and evaluation of lead poisoning prevention activities

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Surveillance is the driving force behind lead prevention activities because it helps to track and monitor progress. The three main surveillance objectives reflect the need to continued identification and monitoring of blood lead levels in high

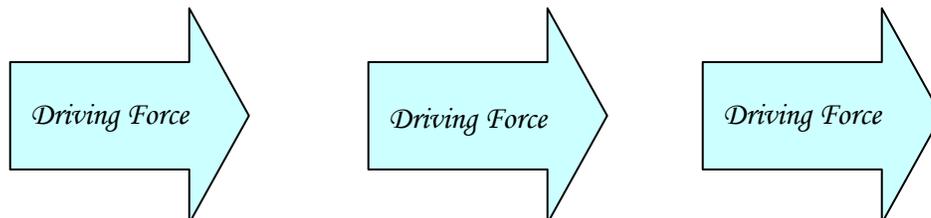
risk areas, to identify non-traditional lead sources in high risk areas and to use LALSS data to conduct special analysis. The following work table shows the objectives, activities as well as timelines and evaluation measures.

Surveillance Work Plan:

Objective	Activity (Planning and Implementation)	Time Frame for Completion	Evaluation	
			Process Measure	Impact Measure
Objective 1: By Jun 30, 2010, utilize the surveillance system to identify areas and populations at high risk of lead elevation, monitor the screening and elevated rates for high risk areas in order to provide a mechanism for mobilizing education and resources to target these areas.	Develop the format of reporting quarterly surveillance information for providers	July1, 2004- Jan 1, 2005 (5 months)	Quarterly reports # of providers sent reporting cards	# of lead screening by public and private providers
	Produce quarterly data-based reporting cards and send throughout the state to public and private providers, risk assessors and other involved in lead poisoning prevention program	Quarterly April 1, 2005 (start date)		# of lead elevated by public and private providers # of environmental investigation had been done
	Establish the strong relationship with NOCLPPP and HUD to support data and surveillance capacity	July 1, 2004 – Jan 1, 2005 (5 months)	Monthly and quarterly reports	# of lead screening by zip code or by census tracts in NO
	Provide data sharing with NOCLPPP and HUD	Monthly and quarterly reports		# of lead elevated by zip code or by census tract in No
	Strengthen and maintain the linkage with Medicaid and LINKS	Jul 1, 2004 – Sep 30, 2004	Quarterly and annual reports	#of lead screening in Medicaid and LINKS files
	Conduct reports of data sharing with Medicaid, LINKS	Yearly reports		# and % of records matched by Medicaid and Links
Develop data link protocols with WIC	July 1 st , 2004- Sep 30, 2004	Annual reports	# and % of missing variables matched by WIC	
Conduct data links	Yearly reports			
Integrate surveillance data with housing stock data (Census data) from high risk areas using updated Geocoding software	Quarterly	Quarterly and annual reports	# and % of housing built before 1950 # and % of housing built before 1978	

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Objective	Activity (Planning and Implementation)	Time Frame for Completion	Process Measure	Impact Measure
Objective 2: By Jun 30, 2010 identify the most common traditional and untraditional lead sources in the state and high risk areas.	Develop an electronic reporting mechanism for environmental inspectors	Jul 1, 2004 – Jul 1, 2005 (1 year)	Monthly reports	# and % reported electronically
	Quarterly update all electronic environmental reports in to surveillance system	Quarterly	Quarterly	# and % of reported electronically have been linked to the surveillance system
	Quarterly in-depth analysis of environmental investigation results and mapping the results	Quarterly by July 1, 2005	Quarterly	# and % of analysis results by sample categories and by region
Objective 3: By Jun 30, 2010 conduct special analysis of Childhood Blood Lead Levels data for program planning and evaluation	Develop the cross-sectional analysis design to determine the odd ratio of having lead elevation among Medicaid enrolled	Jul 1, 2004- Dec 31, 2004	Designed analysis completed Report of findings	Odd ratio of having lead elevation by Medicaid status
	Analyze the available data and interpret the finding	Jan 1, 2005 – Jun 30 2005		
	Design the appropriate analysis to evaluate the validity and reliability of screening test using filter paper	Jul 1, 2005- Dec 31, 2005	Special analysis complete Report the findings	# and % of elevated blood lead levels at initial test # and % of confirmed elevated blood lead levels
	Collect data for subgroup using filter paper	Jan 1, 2006- Dec 31, 2006	False positive, false negative rate defined	
	Analyze the collected data	Jan 1, 2007- Jan 30, 2007		
	Conduct the trend analysis of available data to define the time of lead elimination	2004 - 2010	Annual analysis completed by Sep 30 of each year	Annual assessment of program toward elimination plan



ii. PRIMARY PREVENTION – EDUCATION/OUTREACH

Conducting outreach and education among Louisiana citizens about childhood lead poisoning has always been a priority. Printed inserts have been designed and mailed to help spread the word about lead poisoning in Orleans and Caddo Parishes. Workshops have been conducted to educate professionals about lead poisoning. Workshop components included presentations on legislation, screening, environmental, general lead information and more recently primary prevention strategies. LACLPPP has been successful in obtaining the declaration of lead poisoning prevention week by the Governor's Office. It is during this week that we hold prevention activities and lead poisoning is at peak awareness levels. LACLPPP also launched its statewide toll-free number which allows medical providers to request documents and the reporting Rule, parents to request health education materials, and to speak with appropriate staff members.

There has been a paradigm shift in the trek to eliminate childhood lead poisoning in Louisiana from secondary, reactive approaches to primary, proactive approaches. In keeping with this paradigm shift LACLPPP's health education efforts focus on increasing awareness and knowledge about lead poisoning that will lead to a change in attitudes and beliefs about the dangers of lead poisoning leading to increased lead-safe behaviors before a child is poisoned. This is a major accomplishment in working toward achieving Healthy People 2010 goals.

As of June 2004, LACLPPP conducted seven workshops to educate professionals about lead poisoning and strategies that can be used in practice. Inserts were mailed with New Orleans' water bills encouraging screening in Orleans Parish. Lead Busters, a research project conducted by Tulane University School of Public Health and Tropical Medicine, Center for Applied Environmental Health was implemented in Orleans Parish after evaluation findings showed success in the community.

The health education component now focuses on primary prevention such that education efforts are geared toward preventing the onset of lead poisoning in addition to education about screening. Screening is still very important and while one of LACLPPP's goals is to increase screening rates, health education is one mechanism to help decrease the number of elevated blood levels among children screened until there are none.

LACLPPP's primary prevention health education component now has a rigorous evaluation plan that reflects behavioral science and health education theory yet it is very practical. The evaluation plan will continue to evolve as findings are obtained. Evaluation is essential to any community health education plan and it is now a major focus area for primary prevention health education. The above mentioned strategies and activities are being strengthened with formal evaluation methods and over time will reflect the results of the data collected.

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Goal: To use primary prevention strategies to increase awareness of childhood lead poisoning in Louisiana leading to an increase in lead safe behaviors among target populations.

Other health education and behavior theories guided the development of the health education activities.

The PRECEDE/PROCEED model, an Educational and Ecological Approach to Health Education, served as a framework for developing objectives for health education.

Objective	Activity (Planning and Implementation)	Time Frame for Completion	Evaluation	
			Process Measure	Impact Measure
<p><u>Objective1: Formative Phase</u></p> <p>Form local coalitions in 100% of high-risk parishes in Louisiana to determine needs and assets.</p> <p>Identify 80% of prevention needs and assets in high-risk parishes in Louisiana</p> <p>Collect primary data to determine baseline measures</p>	<p>Key Informant Interviews</p> <p>Focus Groups</p>	<p>4 – 6 weeks</p>	<p># of Contacts Made</p> <p># of Approach Letters Sent</p> <p># of Acceptance Letters Received</p>	
	<p>Community Diagnosis (Social Indicator Analysis, Resource Inventory)</p> <p>Key Informant Interviews</p> <p>Community Forums</p>	<p>3 – 6 months</p>	<p><i>Results of:</i></p> <p>Focus Groups</p> <p>Community Diagnosis</p> <p>Key Informant Interviews</p> <p>Community Forums</p> <p>Intervention Development</p>	

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Objective	Activity (Planning and Implementation)	Time Frame for Completion	Process Measure	Impact Measure
<p><u>Objective 2: Implementation Phase</u></p> <p>Increase knowledge of sources, symptoms, effects, etc. of childhood lead poisoning by 100% among parents, children, the general public and medical professionals <i>in high-risk parishes</i></p> <p>Increase change in attitudes toward childhood lead poisoning by 80% among parents, children, the general public, and medical professionals <i>in high-risk parishes</i></p> <p>Increase intentions to change behaviors by 70% among parents, children, the general public, and medical professionals <i>in high-risk parishes</i></p> <p>Increase behavior change to 70% among parents, children, the general public, and medical professionals</p> <p>Maintain behavior change among 70% of parents, children, the general public, and medical providers</p>	<p>Print Materials Development</p> <p>Toll-free number</p> <p>Website content</p> <p>Community activities (i.e. block party)</p> <p>Newsletter</p> <p>Louisiana Childhood Lead Poisoning Prevention Week</p> <p>Poster Contest</p> <p>Workshops</p> <p>Other as identified by communities</p> <p>Media Campaign</p>	<p>6 months – 1 year</p>	<p>Duration of activity</p> <p># of people reached by activity</p> <p>Attendance logs</p> <p>Obtrusive and Unobtrusive observations</p> <p>Pre-testing Materials</p> <p>Training trainers/facilitators</p> <p>TBD</p>	<p><u>Knowledge Measures:</u> Results of Knowledge Assessment tool(s)</p> <p><u>Attitude Measures:</u> Results of Attitude Assessment tool(s) <i>Health Belief Model</i></p> <p><u>Intention Measures:</u> Results of Intention Assessment tool(s) <i>Theory of Planned Behavior</i></p> <p><u>Behavior Measures:</u> Results of Behavior Change tool(s) <i>Transtheoretical Model of Change</i> <i>Social Learning Theory</i></p>

iii. PRIMARY PREVENTION – ENVIRONMENTAL/HOUSING

To eliminate childhood lead poisoning as defined in this report, lead safe homes and play areas must be made available for children ages 6 months to 6 years old. The overall environmental goal, then is to increase lead safe housing for children. Property owners, property managers, realtors and tradespersons involved in construction and painting must be educated, involved and motivated to safely remove lead based paint. The first two years of the strategic plan should focus on removing hazards already identified from environmental inspections, continue conducting EBL investigations and train the target population on lead safe work practices, while the last three years should work to survey high risk areas for lead before a child is exposed.

Until recently the state lead program worked with Sanitarian Services for provision of environmental lead investigations. Elevated blood lead level investigations are now performed by risk assessors at the state level, which allows a more comprehensive approach to identifying and removing hazards. Local sanitarian offices housed records of dwellings identified with lead hazards and only over the last four years did records of identified dwellings begin to be streamlined into one central database. Historically, the main activities after a dwelling was identified with lead hazards were to post the home with a notice of hazards, notify the property owner of the hazards and remove the children from posted homes. In order to create home environments that are lead

safe, political will and enforcement mechanisms must be strengthened. Activities will be implemented according to the priority areas identified. Realtors, property owners in high risk areas, contractors, do-it-yourselfers, and community based organizations working on environmental issues must be identified in each area and invited to participate in lead safe work practice trainings and/or participate in a local lead task force.

Goal: To have lead safe housing available to children ages 6 months to 6 years old.

The objectives that deal with this goal, and ultimately elimination, deal with increasing lead safe work practices among professional and non-professionals, increasing enforcement and policy development.

Working to Create Lead Safe Housing



by 2010

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Environmental/Housing Work Plan

Objective	Activity (Planning and Implementation)	Time Frame for Completion	Evaluation	
			Process Measure	Impact Measure
Objective 1: Implement initiatives to increase lead safe work practices and lead safe housing choices.	Assess knowledge, attitudes and behavior of tenants and homeowners regarding lead based paint and lead safe cleaning.	1 year – beginning October 12, 2005	# surveys distributed # responses receive Types of responses gathered (qualitative)	
	Conduct health education outreach based on identified gaps of knowledge.	4 -6 months starting March 2005	Record of outreach content and method	
	Repeat survey.	6 weeks starting April 2005	# surveys distributed # responses received Types of responses gathered (qualitative)	Changes in knowledge, attitudes and behaviors
	Conduct surveys among homeowners to identify barriers for incorporating lead safe work practices in renovations.	8 months beginning October 2005	Type of survey developed # homeowners responding Type of responses received	# renovation projects done in a lead safe manner
	Increase data sharing among agencies and businesses who conduct lead renovation projects.	January 1, 2005 through January 1, 2006	# partners and agencies collaborating (e.g. HUD, DEQ) Database created Database monitored & maintained	# of registered lead safe housing increased
	Educate public on availability of database.	January 1, 2006 to January 1, 2008	Methods used to educate (e.g. local TV programs, morning shows on public networks)	Frequency of database use and from what areas

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Objective	Activity (Planning and Implementation)	Time Frame for Completion	Evaluation	
			Process Measure	Impact Measure
<p>Objective 2: Increase opportunities for lead safe remediation and abatement.</p> <p>◆ At least 10% of contractors in high risk areas have certification in Abatement, Lead Work, Risk Assessment or Lead Inspection by 2006.</p> <p>◆ At least 80% of the contractors, property owners, painters and do-it-yourselfers from high risk areas have attended the lead safe work practice training by 2007.</p>	<p>Enumerate # of contractors in high risk areas</p> <p>Determine % of those currently having certification</p> <p>Work with DEQ to send out letter to contractors with certification info.</p> <p>Identify trainers</p>	<p>2004 - 2006</p> <p>(starting August 1, 2004 with first high risk area)</p>	<p># contractors identified</p> <p># letters sent out</p>	<p># contractors certified</p>
	<p>Schedule trainings</p> <p>Identify target population (e.g. hardware store employees, contractors etc.)</p> <p>Contact target population</p> <p>Identify funding sources for training</p>	<p>2004 - 2007</p> <p>(starting August 1, 2004 with first target area)</p>	<p># trainings</p> <p># participants</p> <p>Types of participants</p> <p>How they learned about the training</p>	<p>Changes in knowledge, attitude, and behavior</p>
<p>Objective 3: Establish ways in which homes are identified with lead hazards before a child is affected</p>	<p>Assure that lead inspections are included in general home inspections</p>	<p>July 1, 2005 – October 1, 2005</p>	<p>Professionals survey</p> <p># inspection done yearly</p> <p># that include lead insp.</p>	<p>Lead inspection policy included as part of general inspection for pre 1978 homes</p>
	<p>Explore opportunities for policy change in checking homes next door to those identified with lead hazards through EBL investigations</p>	<p>July 1, 2005 – June 30, 2006</p>	<p>Notes on needs assessment done with NOCLPPP and other partners</p>	<p>Policy developed</p>
	<p>Establish policy for lead safe registry requirements for pre-1960 homes</p>	<p>July 1, 2004 though June 30, 2006</p>	<p># meeting and discussions with local housing agencies & tax assessors offices etc.</p>	<p>Registry developed</p>

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Objective	Activity (Planning and Implementation)	Time Frame for Completion	Evaluation	
			Process Measure	Impact Measure
<p>Objective 4: Increase initiatives and activities to increase enforcement.</p> <ul style="list-style-type: none"> ◆ Assure that at least 75% of new homes identified with lead hazards meet compliance with R.S. 40:1299.27. ◆ Enforce renovation and lead hazard removal of 50% of existing properties identified but not in compliance with lead safe housing criteria. ◆ Educate 50% local judges in high risk areas about lead paint, dust hazards and how to control them by the end of 2005. ◆ Increase recognition of dust sampling technicians in state policy. ◆ Assure inclusion of lead inspection or dust sampling in code enforcement inspections. 	<p>Collaborate with DHH/OPH legal staff to secure protocol for non-compliance situations.</p> <p>Identify & secure incentives for compliance (e.g. availability of HEPA vacuum & compliance certificate)</p>	<p>July 1, 2004 to December 1, 2004</p> <p>December 1, 2004 ongoing</p>	<p>Protocols secured</p> <p>Protocols used</p> <p># incentives id.</p>	<p>Compliance of property owner to create lead safe housing</p> <p>Compliance of property owner to create lead safe housing</p>
	<p>Enumerate existing dwellings identified with lead</p> <p>Send out letters & conduct follow-up calls</p>	<p>May 1, 2005 through June 30, 2006</p>	<p># identified dwellings</p> <p># letters sent</p> <p># phone calls in response</p>	<p># identified dwelling in compliance</p>
	<p>Identify judges</p> <p>Contact judges</p> <p>Create handout</p>	<p>January 1, 2005 through June 30, 2005</p>	<p># judges id.</p> <p># contacts made</p> <p># pre/post surveys done</p>	<p>Changes in knowledge based on pre/post analysis</p>
	<p>Identify barriers of state recognition</p> <p>Summarize national trends</p> <p>Make recommendations</p>	<p>2007 – 2008</p>	<p>#, type and content of discussions</p> <p>feedback from partners</p> <p>Recommendations</p>	<p>Adoption of policy</p> <p>Implementation of policy</p>
	<p>Determine current code enforcement protocol</p> <p>Identify gaps</p>	<p>2007 - 2008</p>	<p>Meeting held</p> <p>Recommendations made</p>	<p>Adoption of policy</p> <p>Implementation of policy</p>

iv. REACHING HIGH RISK POPULATIONS

History

Screening for childhood lead poisoning began in Louisiana in the early 1970's in the New Orleans area and the rest of the State in the early 1980's has resulted in identification of areas and populations at risk. Information from the early years of the Louisiana Childhood Lead Poisoning Prevention Program was based on children screened through public health clinics. The CDC Cooperative Agreement beginning in 1998 has allowed the establishment of a population based surveillance system based on laboratory reporting. With this, a statewide system exists which provides screening and prevalence data that can be used to better define those areas and populations at risk for childhood lead poisoning.

Current Status

In 2003, 63,115 children between the ages of 6 months and 6 years were reported to have been screened for lead poisoning. This represents approximately 18% of 6 month to 6 year old children in the State. The percent of children screened varies from parish to parish with a high of 48% to lows of less than 5% (See Table 2, Section IV, Tables and Figures). Approximately 25% of the children screened were screened through public health units with the other 75% through private providers.

Both the old and the current surveillance data show that New Orleans has the highest prevalence and largest number of children affected by lead poisoning. Efforts on reaching high risk populations in this state have been focused on the children in Orleans Parish. Other areas in the State have been identified as

having high numbers of affected children. These areas include the northeastern and northwestern parts of the State and the East Baton Rouge area.

A population that is thought to be high risk are those children enrolled in the Medicaid Program. Since January of 2000, children in families with incomes up to 200% of Federal Poverty Level (FPL) have been eligible for Medicaid in Louisiana. Linkage of surveillance data with Medicaid files for 2001 (See Table 3, Section IV, Tables and Figures) indicates that Medicaid enrolled children in the Surveillance system are not more likely to have an elevated lead than those not enrolled in Medicaid. This may be due to the increase in income eligibility for Medicaid of 200% FPL resulting in the inclusion of children in families with better socioeconomic status and improved environmental conditions than in previous times in which Medicaid eligibility was at 133% FPL.

Successes

The New Orleans Childhood Lead Poisoning Prevention Program has continued to provide screening and case management including environmental investigation for those children identified with elevated lead levels. Additionally, the NO CLPPP provides community education through its Program staff. Additional education and outreach efforts in New Orleans have been through the development of the Lead Busters Program through the Tulane Center for Applied Environmental Health.

LACLPPP has incorporated children screened by private providers into the Patient Tracking system. Support to

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private as well as public health providers is provided through the LACLPPP Case Management Coordinator. The centralization of environmental assessments and follow-up has been established and has been successful in improving environmental management of children with elevated lead levels.

Challenges

The low screening rate in many parishes throughout the State has made it difficult to fully define all populations at risk. However, the children who are screened

most likely do come from populations identified as at risk because of income level and Medicaid enrollment

Increasing awareness of the effects of lead poisoning and the need for screening among providers and those involved in programs providing services to young children is essential to reach those children with an increased risk. We will be working with state as well as local groups to accomplish this.

Work Plan for Reaching High Risk Populations:

GOAL: To identify children, populations and communities who will most benefit from lead poisoning prevention activities.

Objective	Activity (Planning and Implementation)	Time Frame for Completion	Evaluation	
			Process Measure	Impact Measure
Objective 1: Assure screening of children with increased risk of lead poisoning by increasing screening rates to at least 30% in all parishes.	Establish ongoing relationships with statewide programs that provide services to young children such as Head Start/Early Head Start, WIC Medicaid, and the State Immunization Program.	By 12/31/2004	Number of letters sent Record of meetings	# and percent of children screened statewide and by parish .
	Develop and disseminate recommendations for screening for Head Start/Early Head Start and WIC	By 9/30/2004	Record of meetings with WIC and Head Start Recommendations developed Mailing list of recipients of recommendations	# of children screened
	Provide information to early childhood service programs through presentations and program newsletters	By 6/30/2005 and annually	Copies of newsletters List of program presentations	

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	Establish a relationship with the Immunization Program to utilize the LINKS Program to inform providers on lead screening recommendations	By 6/30/2005	Record of meetings System implemented	# of providers receiving screening recommendations
	Increase screening of children enrolled in the Medicaid Program development of a plan for improving lead screening of Medicaid children	By 9/30/2004	Record of meetings with Medicaid Program staff Plan developed	# of children screened through Medicaid
	In conjunction with the Medicaid Program, conduct a quality improvement study	By 6/30/05 and ongoing	Copy of Report	
	Provide screening and prevalence information to Medicaid providers	Quarterly starting April 1, 2005	Mailing list of recipients of information	
<p>Objective 2: Increase screening of children in geographic areas identified as high risk through local programs that provide services to young children including Early Head Start, Head Start, and WIC so that at least 50% of children in high risk areas are screened.</p>	Disseminate screening recommendations to local programs.	By 6/30/2005 and ongoing	Reports of meetings	# and % of children screened in high risk areas
	Provide feedback in the form of quarterly reports on screening rates and prevalence rates in high risk areas			Continued on next page. . .
<p>Objective 3: Establish partnerships with agencies and organizations that have a role in the elimination of childhood lead poisoning including those who provide services to young children.</p>	Expand the CLPP Advisory Group to include representation of identified agencies and organizations	By 9/30/2004	List of identified additional agencies and organizations	# of identified partners at the State and local levels
	Establish local Advisory Groups in high risk areas	By 12/31/2004 and ongoing	List of members Record of meetings	

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<p>Objective 4: Enhance Case management of children identified with elevated blood lead levels to assure case closure of 80% of cases within 1 year of case finding.</p>	<p>Develop and disseminate a Louisiana Case Management for Children with Lead Poisoning Protocol with annual updates.</p>	<p>By 12/31/2004 and annually</p>	<p>Protocol developed List of recipients of protocol</p>	
	<p>Seek funding of Case Management for Children with Lead Poisoning through the Medicaid Program</p>	<p>By 6/30/2005</p>	<p>Record of meetings</p>	
	<p>Improve the timeliness of case management through ongoing analysis of time intervals from times of testing, case reporting, follow-up activities, and case closure in the patient tracking system.</p>	<p>Ongoing</p>	<p>Reports of analysis</p>	<p># and percent of children who achieve case closure within one year of case finding</p>
	<p>Improve timeliness of environmental activities in lead hazard reduction activities by ongoing analysis of time intervals from case reporting, environmental inspection, and control of lead hazard.</p>	<p>Ongoing</p>	<p>Reports of analysis</p>	<p># and % of cases in which lead hazard control is achieved in 1 month</p>

IV. Tables & Figures

i. Tables

Table 1. Lead Poisoning Landscape Statistics

Louisiana Characteristic	Louisiana Statistic		U.S. Statistic
	Number	Percentage	
Total Population	4,500,000		287,900,000
Population Living below Poverty level	882,000	19.6%	11.3%
Median Income Level	\$32,124		\$41,990
Children enrolled in Medicaid (1 – 6 yrs old)	190,885		
Medicaid children screened for lead (2001)	30,799		

Table 2. Parish Profiles

Parish	2000 Population	Number Screened	Percent Screened	Number ≥ 10	Percent ≥ 10	Total Medicaid (n)
Acadia	5065	334	6.6%	6	1.8%	2724
Allen	1833	329	17.9%	3	0.9%	1128
Ascension	6798	908	13.4%	24	2.6%	2656
Assumption	1819	204	11.2%	6	2.9%	887
Avoyelles	3142	680	21.6%	24	3.5%	2079
Beauregard	2524	514	20.4%	15	2.9%	1346
Bienville	1139	169	14.8%	6	3.6%	677
Bossier	8083	537	6.6%	12	2.2%	3438
Caddo	19110	1229	6.4%	49	4.0%	10994
Calcasieu	14613	2758	18.9%	36	1.3%	7970
Caldwell	704	204	29.0%	11	5.4%	473
Cameron	729	93	12.8%	2	2.2%	284
Catahoula	764	264	34.6%	9	3.4%	486
Claiborne	1113	180	16.2%	16	8.9%	646
Concordia	1620	358	22.1%	16	4.5%	1103
De Soto	1957	217	11.1%	18	8.3%	1043
East Baton Rouge	31978	4330	13.5%	137	3.2%	16170
East Carrol	797	183	23.0%	10	5.5%	680
East Feliciana	1525	301	19.7%	12	4.0%	763
Evangeline	3119	747	23.9%	29	3.9%	1727
Franklin	1692	533	31.5%	42	7.9%	1205
Grant	1526	333	21.8%	16	4.8%	821
Iberia	6406	580	9.1%	13	2.2%	3574
Iberville	2381	409	17.2%	32	7.8%	1449
Jackson	1097	281	25.6%	12	4.3%	620
Jefferson Davis	2660	515	19.4%	13	2.5%	1427
Jefferson	33439	4365	13.1%	114	2.6%	15987
La Salle	952	202	21.2%	9	4.5%	522
Lafayette	15269	1823	11.9%	34	1.9%	6787
Lafourche	6827	1122	16.4%	26	2.3%	3370

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Parish	2000 Population	Number Screened	Percent Screened	Number ≥10	Percent ≥10	Total Medicaid (n)
Lincoln	2767	222	8.0%	10	4.5%	1677
Livingston	7638	1327	17.4%	44	3.3%	3482
Morehouse	2397	890	37.1%	79	8.9%	1696
Natchitoches	2993	775	25.9%	10	1.3%	1944
Orleans	37179	8503	22.9%	1217	14.3%	24643
Ouachita	11757	1622	13.8%	86	5.3%	6573
Plaquemines	2185	236	10.8%	5	2.1%	1114
Pointe Coupee	1726	149	8.6%	3	2.0%	960
Rapides	9836	2645	26.9%	159	6.0%	5963
Red River	775	192	24.8%	13	6.8%	463
Richland	1689	400	23.7%	27	6.8%	1106
Sabine	1691	159	9.4%	9	5.7%	914
St. Bernard	4673	754	16.1%	12	1.6%	2107
St. Charles	3964	663	16.7%	15	2.3%	1580
St. Helena	891	228	25.6%	23	10.1%	531
St. James	1667	440	26.4%	9	2.0%	905
St. John the Baptist	3791	631	16.6%	18	2.9%	1964
St. Landry	7463	1230	16.5%	19	1.5%	4571
St. Martin	4131	553	13.4%	5	0.9%	2318
St. Mary	4391	862	19.6%	30	3.5%	2712
St. Tammany	15182	2275	15.0%	39	1.7%	5794
Tangipahoa	7947	1975	24.9%	50	2.5%	5232
Tensas	480	186	38.8%	18	9.7%	392
Terrebonne	8648	769	8.9%	11	1.4%	4527
Union	1692	263	15.5%	13	4.9%	966
Vermilion	4151	246	5.9%	1	0.4%	2252
Vernon	5293	370	7.0%	10	2.7%	1817
Washington	3480	746	21.4%	22	2.9%	2372
Webster	3001	380	12.7%	26	6.8%	1699
West Baton Rouge	1674	137	8.2%	3	2.2%	784
West Carroll	815	192	23.6%	29	15.1%	640
West Feliciana	761	165	21.7%	2	1.2%	327
Winn	1172	549	46.8%	15	2.7%	759
Unknown/Missing		7413		414		

Table 3. Number and percentage of children with elevated lead levels by matching result for 46,422 children in 2001 CLPPP surveillance data linked to Louisiana Medicaid files.

Lead Level (µg/dl)	Matching Result						All Match codes Combined	
	Matched and Enrolled		Matched and Not Enrolled		Not Matched			
	n	%	n	%	n	%	n	%
<10	13270	93.9%	15491	92.9%	14662	93.7%	43423	93.5%
10-14	550	3.9%	712	4.3%	650	4.2%	1912	4.1%
15-19	167	1.2%	264	1.6%	195	1.2%	626	1.3%
≥20	146	1.0%	199	1.2%	136	0.9%	481	1.0%
Total	14133		16666		15643		46442	

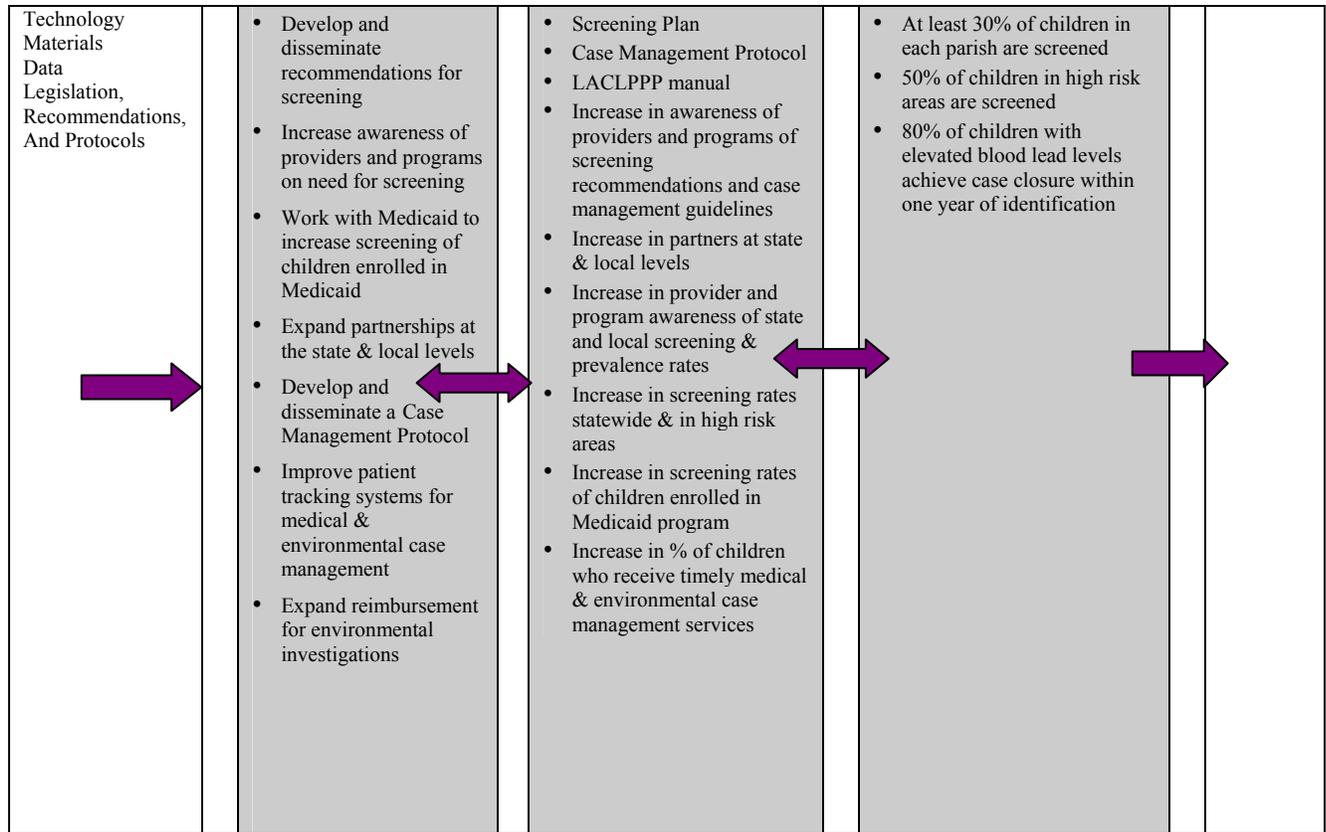
ii. Program Logic Model

The following two pages show the program logic model, which shows the inputs and activities that drive the program's intentions of certain outcomes and impacts. Inputs represent the resources that go into the program, both monetary and non-monetary, direct and in-direct, tangible and intangible. Activities are based on each component's work plan, and are distinguished by shades of gray. Products are a result of program inputs and activities, as are short and intermediate outcomes. Short term outcomes are immediate results of program activities, within 1 year, specifically, and focus on knowledge, attitudes and skills gained by target audiences. Intermediate outcomes, for the purposes of this paper, are outcomes achieved in 1 – 4 years, and include behavior, normative and policy changes.

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INPUTS	ACTIVITIES	OUTCOMES		
		Products/Short Term	Intermediate	Distal
<p><u>Staff or contractors:</u> LACLPPP NOCLPPP Tulane</p> <p><u>Partners:</u> CDC HUD EPA Medicaid Real Estate Commission DEQ <i>OPH staff:</i> Sanitarians PHUs SEET Roundtable</p> <p>Funding Equipment Technology Materials Data Legislation, Recommendations, And Protocols</p>	<ul style="list-style-type: none"> Manage and import blood lead data to LALSS each week Develop plan to improve missing data Maintain and strengthen linkages with Medicaid, LINKS, WIC Analyze data to produce quarterly reports for providers and annual reports Define high risk areas and populations 	<ul style="list-style-type: none"> Increase in completeness of data in LALSS Improved quality of data linkages Better knowledge of screening rates and blood lead levels among high risk Increase blood lead screening reports from providers 	<ul style="list-style-type: none"> Yearly increases until there is at least a 50% screening rate in high risk areas and a 30% rate statewide within 5 years 3% annual decrease in elevated blood lead levels in high risk areas and 1% annual decrease statewide 	<p>Eliminate blood lead levels \geq 10 among children ages 1 to 6 years old in Louisiana</p> <p>Eliminate Lead Hazards</p> <p>Eliminate Lead Poisoning</p>
<p>Funding Equipment Technology Materials Data Legislation, Recommendations, And Protocols</p>	<ul style="list-style-type: none"> Conduct focus groups, In-Depth Interviews, & Community Forums Form community diagnoses Create print materials Maintain LACLPPP website & 800 # Conduct poster contests, workshops, mailouts, & activities for LACLPP Week Develop appropriate legislation 	<ul style="list-style-type: none"> Increased knowledge of target community needs Increase in knowledge and awareness of lead among target population/community Community-specific print materials Policies More community partners Coalitions 	<ul style="list-style-type: none"> Increase in intention to change behavior towards more lead safe practices Increased community participation Mobilization of communities regarding lead 	<p>Eliminate blood lead levels \geq 10 among children ages 1 to 6 years old in Louisiana</p> <p>Eliminate Lead Hazards</p> <p>Eliminate Lead Poisoning</p>
<p><u>Staff or contractors:</u> LACLPPP NOCLPPP Tulane</p> <p><u>Partners:</u> CDC HUD EPA Medicaid Real Estate Commission DEQ <i>OPH staff:</i> Sanitarians PHUs SEET Roundtable</p> <p>Funding Equipment</p>	<ul style="list-style-type: none"> Educate contractors, etc. on lead safe work practices (LSWP) & Pre Renovation Education Rule Establish relationships to increase data sharing among housing agencies etc. Survey tenants in high risk areas Educate law enforcement Secure protocols for enforcement Work with/Discuss/form relationships with state, entitlement, non-entitlement areas on housing issues 	<ul style="list-style-type: none"> <i>Database of Lead Safe Housing</i> <i>Maps of sources, homes with hazards, homes in lead safe compliance</i> <i>Remediation incentives</i> <i>Increase lead safe works practices during renovation etc.</i> Increase knowledge of lead-based paint hazards among tenants in high risk areas 	<ul style="list-style-type: none"> <i>Increased desire to remediate and/or abate homes</i> <i>Enhanced enforcement of R.S. 40.1299.27</i> <i>Increased adherence to Lead Disclosure Rule and Pre Renovation Education rule among property owners, landlords, contractors and construction trade professions</i> <i>Increased practice of lead-based paint maintenance</i> <i>Increased desire of families in high risk areas to seek lead safe housing & lead safe environments</i> Policy changes for pre-1950 to prove lead safe status 	<p>Eliminate blood lead levels \geq 10 among children ages 1 to 6 years old in Louisiana</p> <p>Eliminate Lead Hazards</p> <p>Eliminate Lead Poisoning</p>

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V. References and Appendices

i. Information Sources

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ii. Helpful Definitions

BLL – Blood Lead Level

Case – based on state rule LAC 48:V.7001.7007, a case of lead poisoning occurs when children between the ages of six months to 72 months of age have:

1. a venous blood lead level $\geq 15\mu\text{g/dL}$
2. acute symptomatic illness consisting of lead colic with or without lead encephalopathy; or
3. chronic symptomatic illness consisting of the signs and symptoms of chronic plumbism, including, but not limited to anemia, nephropathy, neuropathy, loss of developmental skills, recurrent lead colic and/or lead encephalopathy

EBLL – Elevated Blood Lead Level

High Risk – population or geographic area most affected by older housing and other risk factors, especially # of EBLLs, based on population density and screening data

Lead Hazards – Any condition that causes exposure to lead from dust, soils or paint that is deteriorated, present in chewable surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects.

--Paint:

- a. Any LBP on a friction surface subject to abrasion.

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- b. Any damaged or otherwise deteriorated LBP on an impact surface.
- c. Any chewable LBP surface evidencing teeth marks.
- d. Any other deteriorated LBP
 - Soils: Above HUD threshold levels.
 - Dust: Surface dust above HUD threshold levels.

Surveillance System – database program and support staff that monitors and receives information from reporting clinics on blood lead screening and environmental information