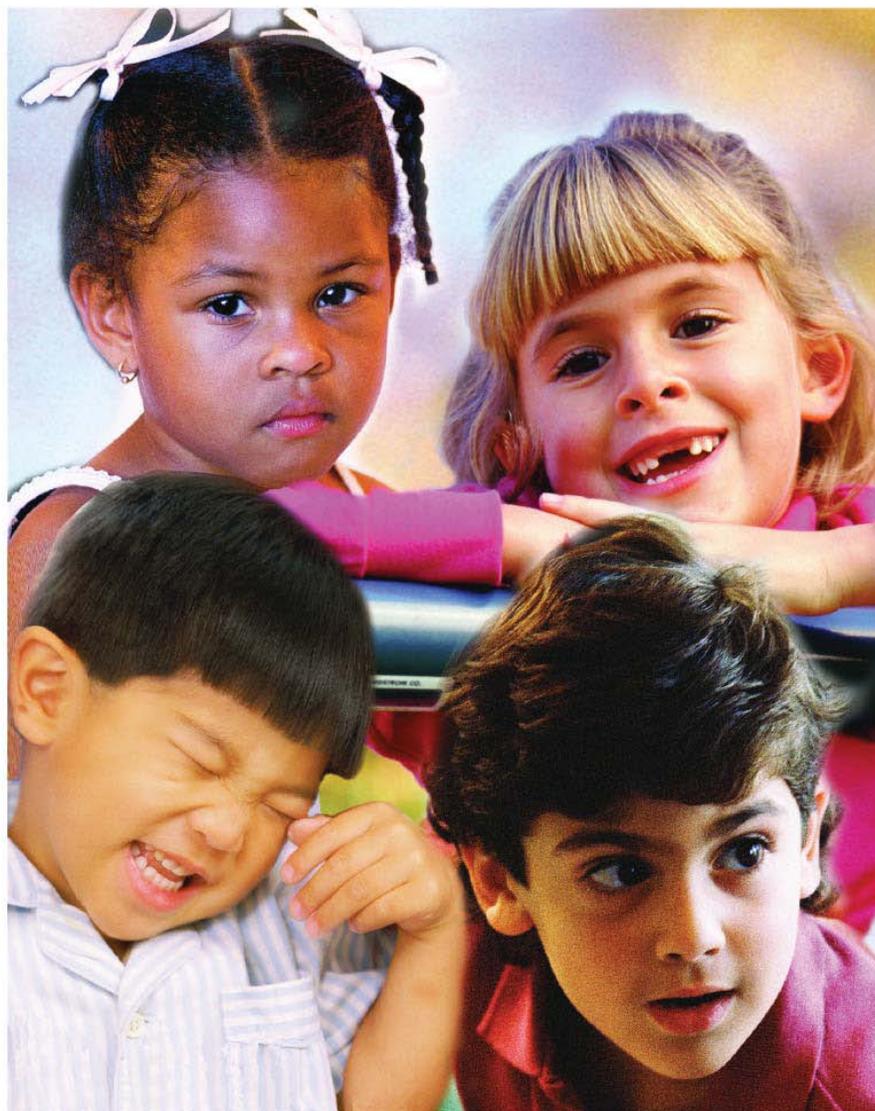


*Mississippi State Department of Health's Lead Poisoning Prevention and Healthy Homes Program*

*2012-2016 Lead Poisoning Prevention and Healthy Homes Strategic Plan*



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## LETTER FROM STATE HEALTH OFFICER

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MISSISSIPPI STATE DEPARTMENT OF HEALTH

October 31, 2012

Dear Mississippi Residents,

The Mississippi State Department of Health (MSDH) is proud to support the Mississippi State Lead Poisoning Prevention and Healthy Housing Strategic Plan 2012-2016. Housing conditions have a considerable impact on the health of Mississippi's children and families, and their quality of life.

The Healthy Housing Strategic Plan was developed to provide a framework for developing, disseminating, and integrating the healthy homes concept into existing practices. This plan will serve as a roadmap for persons interested in addressing environmental health hazards from a public health perspective. With this approach, we can seek to accomplish the mission of MSDH, which is to promote and protect the health of all Mississippians.

We appreciate those who serve on the committees and contribute their time and expertise to the development and implementation of this plan. Together, we can reduce environmental hazards in Mississippi to enhance the quality of life for people in the state.

Sincerely,

Mary Currier, MD, MPH  
State Health Officer

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## LETTER FROM PRESIDENT OF ADVISORY COMMITTEE

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**JACKSON STATE UNIVERSITY**  
COLLEGE OF PUBLIC SERVICE • SCHOOL OF HEALTH SCIENCES  
**Institute of Epidemiology & Health Services Research**

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August 22, 2012

Dear Mississippians:

As President of the Lead Poisoning Prevention and Healthy Homes Advisory Committee, I am pleased to support the Mississippi State Lead Poisoning Prevention and Healthy Housing Strategic Plan 2012-2016.

The plan addresses strategies that the citizens of Mississippi can take to help reduce children's and families' exposure to housing related environmental hazards. These hazards may contribute to undesirable health conditions.

Over the past several years, the Mississippi Lead Poisoning Prevention and Healthy Homes Program has enhanced program capacity, developed criteria for care coordination, collaborated with local communities on interventions, and collaborated with stakeholders to develop three statewide plans.

Sincerely,

A handwritten signature in cursive script that reads "Marinelle Payton".

Marinelle Payton, M.D., Ph.D., M.P.H., M.S.  
Chairperson, MSLPPHP Advisory Committee  
Jackson State University  
School of Health Sciences

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## EXECUTIVE SUMMARY

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The Mississippi State Department of Health's (MSDH) mission is to promote and protect the health of the citizens of Mississippi. The MSDH strives for excellence in government, cultural competence in carrying out its mission, and local solutions to local problems.

Periodic preventive health screenings of children are critical for early identification of health conditions and problems. Identification allows linkage to resources for effective management of problems and promotion of optimal health and well-being.

### **Mississippi State Department of Health's Lead Poisoning Prevention and Healthy Homes Program**

In July 2006, the MSDH's Childhood Lead Poisoning Prevention Program was awarded a five year grant by the Centers for Disease Control and Prevention (CDC) to eliminate lead hazards in the state. Since then the program has transitioned its focus to address housing related issues in a more comprehensive manner. In July 2011, the program was funded by the CDC to develop a comprehensive program that will connect issues related to health and housing, promote environmental health policies, and improve the quality of life for children and their families.

From this transition, the program changed its name to the MSDH's Lead Poisoning Prevention and Healthy Homes Program. The Lead Poisoning Prevention and Healthy Homes Program seeks to promote healthy and safe homes for children and families by raising awareness, coordinating services, conducting needs assessments, and evaluations. To address these important issues, the MSLPPHPP collaborated with the Advisory Committee to coordinate a strategic plan. Appendix I and II contain a list of program staff and Advisory Committee members.

### **Strategic Plan 2012-2016**

The purpose of the strategic plan is to provide a framework for developing, disseminating, and integrating the healthy homes concept into existing practices. The strategic plan will also serve as a roadmap to increase public awareness, build capacity, and strengthen partnerships to provide sustainable resources.

The Strategic Plan focuses on the following key areas to guide program activities:

1. Lead Poisoning Prevention
2. Care Coordination
3. Healthy Homes and Environments Promotion
4. Asthma Risk Reduction Strategies
5. Injury Prevention
6. Toxin Reduction Strategies
7. Data and Surveillance
8. Policy Support
9. Evaluation Strategies

## **Lead Poisoning Prevention and Healthy Home Goals**

The goals of the program are to provide statewide efforts to eliminate childhood lead poisoning in children less than 72 months of age and develop strategies to decrease housing related environmental hazards (i.e., mold, mildew, carbon monoxide, smoke, and pests) that may contribute to undesirable health conditions. The program provides practical prevention measures through care coordination, education, and risk reduction activities for children identified with elevated blood lead levels and their families. The program also collaborates with an array of organizations to promote, develop, and implement activities and policies.

## **Advisory Committee**

The state of Mississippi first convened the Mississippi Childhood Lead Poisoning Prevention Advisory Committee to address lead poisoning prevention issues in 1998. This committee consisted of stakeholders from the public and private sectors who dealt with children with elevated blood lead levels and who had an interest in the health and safety of children. Their ongoing efforts focused on developing and implementing a plan to eliminate childhood lead poisoning in Mississippi by 2010 through shared expertise and resources provided by key stakeholders from federal, state, and local agencies, as well as universities and community and faith-based organizations. Specific activities included: assisting with the development of the strategic plan, monitoring progress towards elimination, and reviewing barriers and progress at least twice a year.

In 2009, the Advisory Committee and the Lead Poisoning Prevention and Healthy Homes Program began to focus on lead and other housing related issues in a more comprehensive manner. The first step of developing a healthy homes program was to assess the current program to focus on goals and efforts. The needs assessment involved collecting and analyzing data to understand the community demographics, identifying the health and housing needs of the community, and examining the program's and partners' capabilities.

The Advisory Committee is organized into five key work groups. Each group has established overarching goals and measurable objectives for its area and has set yearly target activities:

1. Care Coordination
2. Primary Prevention through Health Education
3. Primary Prevention through Risk Reduction
4. Surveillance and Analysis
5. Evaluation

## **Partnerships**

There are several components to developing and sustaining a healthy homes program. Community partnerships are necessary. The Lead Poisoning Prevention and Healthy Homes Program has developed partnerships based on issues identified by community analysis. Through these partnerships the program is able to leverage resources and coordinate interventions with multiple stakeholders to reduce lead and healthy homes risk factors. Appendix III contains a list of program partnerships.

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## I. LEAD POISONING PREVENTION

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### What is Lead Poisoning?

Lead poisoning is one of the most preventable environmental health problems in young children.<sup>1</sup> Lead is a natural bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of the environment. Most human exposure to lead comes from activities including burning fossil fuels, mining, and manufacturing. According to the Agency for Toxic Substances and Disease Registry, lead is also used in the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays.<sup>2</sup>

In 2007, the CDC reaffirmed the definition of lead poisoning and set the level of concern as a blood lead level of 10 micrograms of lead per deciliter of whole blood ( $\mu\text{g}/\text{dL}$ ). As the CDC and the Mississippi Division of Medicaid amend the guidelines, the Lead Poisoning Prevention and Healthy Homes Program will reflect these changes. The only way to diagnose lead poisoning is through blood lead testing. Although concentrations of lead have decreased in most children, some children continue to have higher blood lead concentrations. The CDC also acknowledges that harmful effects are experienced by children with blood lead levels that are substantially lower than  $10\mu\text{g}/\text{dL}$ .

### Sources of Lead Poisoning

Lead is found in many places in the environment, especially in older homes where children may be easily exposed. High levels of lead can harm the brain, interfere with growth, cause learning disabilities, and may lead to death. Children can be exposed to lead from lead-based paint, dust, batteries, imported vinyl and plastic mini blinds made before 1997, and tap water that is delivered through lead pipes. Children who frequent older homes that contain lead components and have chipping and peeling paint are at higher risk of lead exposure. Possible sources of lead are:

- lead-based paint
- soil and dust
- glazed pottery
- keys
- metal jewelry
- imported canned goods
- garden hoses
- tap water
- electrical cords
- batteries
- outside water faucets
- imported/plastic mini-blinds bought before 1997

### Goal 1: Eliminate families' exposure to lead hazards.

#### Statement of Need

The most common sources of lead poisoning in children are dust and chips from deteriorating lead paint on interior and exterior surfaces. Children who live in homes with deteriorating

paint can have blood lead concentrations greater than or equal to 20µg/dL without frank pica. By the mid-1970's, lead-based paint was no longer used on interior surfaces in the United States.

According to the 2000 U.S. Census Bureau's Housing Characteristic Data, 135,350 homes in Mississippi were built prior to 1950, with an estimated 34,851 of the pre-1950 homes occupied by renters.<sup>3</sup> From 2005-2010, 1,436 children were identified with lead poisoning (Figure 1, Appendix VII). Children with lead poisoning were identified in 78 of the 82 counties. During this time, the program conducted 315 environmental inspections; of these homes, 143 were pre-1950 (Table 1, Appendix VII).

In 2007, the following counties were identified as high risk areas based on the CDC's and American Academy of Pediatrics' recommendations for a risk based approach: Adams, Coahoma, Forrest, Harrison, Hinds, Holmes, Humphreys, Jones, Lauderdale, Leflore, Pike, Sunflower, Tallahatchie, Warren, Washington, and Yazoo. The criteria were based on a combination of the following factors:

1. Proportion of pre-1950 housing units
2. Proportion of children in poverty
3. Number of children less than six years of age
4. Lead screening rate
5. Total confirmed elevated blood lead level cases greater than or equal to 10µg/dL
6. Number of addresses where multiple children had confirmed elevated blood lead levels within the past five years

**Objective 1: By June 2013, integrate activities with other stakeholders to educate families, tenants, and property owners on sources of lead exposure and existing policies and state laws.**

**Activities:**

1. Identify target areas and develop educational materials.
2. Provide care coordination services for children with elevated blood lead levels greater than or equal to 5µg/dL.
3. Educate families on lead risk reduction strategies (i.e., deteriorated paint, renovation work, lead in plumbing, sources of lead exposure, and related Mississippi laws).
4. Collaborate with local hardware stores in promoting lead safe work practices.
5. Advocate for enforcement policies that promote lead free schools and daycare facilities (i.e., soil, water, dust, and paint).

6. Provide community resources for families who need home repairs to reduce lead hazards in high risk areas (i.e., Department of Environmental Quality, Department of Human Services).
7. Disseminate health education materials to health care providers, parents, child care providers, health educators, and the community.

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## **II. CARE COORDINATION**

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Care coordination for children with elevated blood lead levels involves coordinating, providing, and overseeing the services required to reduce their elevated blood lead level and decrease environmental hazards found in the home. Care coordination is based on the efforts of an organized team that includes the child's caregivers. The Lead Poisoning Prevention and Healthy Homes Program has implemented an internal care coordination protocol that guides the services provided to a child with an elevated blood lead level. A hallmark of effective care coordination is ongoing communication with the caregivers and other service providers. This cooperative approach is necessary to solve any problems that arise during the efforts to decrease the elevated blood level and decrease lead and other environmental hazards in the child's environment<sup>4</sup>. Appendix IV and V contain the Housing Health and Safety Rating System and the Individualized Risk Assessment.

**Goal 1: Ensure that 100% of children with elevated blood lead levels receive appropriate medical, educational, nutritional, developmental, and other environmental hazard control interventions.**

### **Statement of Need**

From 2004-2011, there were 1,783 children under the age of six who were reported with a confirmed venous blood lead level greater than or equal to 10µg/dL in the state. This is the level of concern recommended by the CDC.

**Objective 1: By 2016, provide comprehensive care coordination services to all children with blood lead levels greater than or equal to 5µg/dL.**

### **Activities:**

1. Provide families of children identified with an elevated blood lead level with educational materials on how to decrease lead and other environmental hazards that exist from pest, mold, mildew, toxic pesticides, and home cleaning products.
2. Visit homes of children identified with an elevated blood lead level of 15µg/dL or greater and conduct an environmental assessment for lead exposures and other environmental hazards that exist from pest, mold, mildew, toxic pesticides, and home cleaning products.
3. Collaborate with the Mississippi Division of Medicaid to secure reimbursement for care coordination and environmental assessments.

4. Revise and disseminate care coordination protocol and forms to local health departments, clinics, and hospitals.
5. Collaborate with other public and private organizations (i.e., health care providers, managed care organizations, Medicaid, HUD, and other groups) to provide consultation, education, technical assistance, and educational materials.

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### III. HEALTHY HOMES AND ENVIRONMENTS PROMOTION

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The National Center for Healthy Housing defines a healthy home as one that is designed, constructed, maintained, or rehabilitated in a manner that supports the health of residents. Housing affects health directly and indirectly. Young children spend nearly 80 - 90% of their time indoors. The lack of structural and safety features in homes can increase the risk of elevated lead levels, mold, mildew, injuries, fires, burns, falls, and poor indoor air quality. Inadequate and unhealthy housing disproportionately affects children and families, resulting in health disparities among populations that have the fewest resources. Creating healthier housing promotes the growth and development of children and can decrease healthcare costs.<sup>5</sup>

Sudden Infant Death Syndrome (SIDS) is the sudden death of a baby under one year of age that remains unclear after a complete investigation, which includes an autopsy, examination of the death scene, and review of the symptoms or illness the baby had before dying. SIDS is the leading cause of death among infants aged 1–12 months, and is the third leading cause overall of infant mortality in the United States. A safe sleep environment reduces the risk of injury and death to infants when sleeping. Eliminating risk factors such as secondhand smoke and overheating also reduce an infant's risk for SIDS.

**Goal 1: Reduce health and safety hazards in homes and communities in a cost effective manner.**

#### **Statement of Need**

Environmental home and community health hazards are poisons and pollutants that can be visible or invisible. These hazards and pollutants can put children and families at greater risk for developing asthma and allergies. The 2010 Maternal and Child Health Program Portrait of Mississippi revealed that the state was ranked 32<sup>nd</sup> in the United States on the number of housing units at high risk of lead hazards.<sup>6</sup> The American Housing Survey of 2007 and 2009 revealed there were approximately 110 million housing units in the United States, of which 5.8 million were classified as inadequate and 23.4 million were considered unhealthy.<sup>7</sup>

From 2008-2011 the MSLPPHHP conducted 118 home visits for families of children with elevated blood lead levels. The following hazards were identified during these visits: lead, mold/mildew, lack of carbon monoxide detectors and smoke alarms, child safety issues, food safety, home maintenance, and home structural damages.

In 2010, the MSDH Vital Statistics reported that there were 45 SIDS deaths.

**Objective 1: By 2014, promote the incorporation of healthy homes principles into ongoing practices and programs for individual homes and communities (Keep It Dry, Keep It Clean, Keep It Well Ventilated, Keep It Free From Contaminants, Keep It Pest Free, Keep It Safe, Keep It Well-Maintained).**

**Activities:**

1. Build a framework to foster partnerships for implementing healthy homes education within communities.
2. Establish internal and external partners to integrate healthy homes principles.
3. Build and sustain community level healthy homes partnerships.
4. Provide Sudden Infant Death Syndrome (SIDS) and safe sleep educational materials to families who have a child less than one year of age who also resides in the home of a child with an elevated blood lead level.

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#### **IV. ASTHMA RISK REDUCTION STRATEGIES**

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Asthma is one of the most common childhood chronic diseases, affecting approximately 6.8 million children under the age of 18 in the United States. The 2011-2015 Mississippi State Asthma Plan states that the prevalence of a chronic disease such as asthma is an indicator of the burden and distribution of the disease. The plan also includes that approximately 76,710 (10.4%) of Mississippi children ages 0-17 and 163,015 (7.5%) Mississippi adults ages 18 and above currently have asthma. The prevalence of asthma is significantly higher among male children than female children, black children than white children, and adult females than adult males. As with most chronic conditions, current asthma is more prevalent in adults with low income and without education.<sup>8</sup>

**Goal 1: Reduce children and families' exposure to environmental hazards that trigger asthma exacerbation.**

**Statement of Need**

Evidence has shown that lead poisoning and asthma are aggravated by residential hazards and outdoor pollutants. Residential hazards and outdoor pollutants (i.e., smoke, allergy triggers, rodents, mold, mildew, dust, and paint) cause health problems. The Mississippi State Department of Health's Asthma Surveillance System tracks the number of children with asthma, and the Mississippi State Department of Health's Systematic Tracking of Elevated Blood Lead Levels and Remediation (STELLAR) Surveillance System tracks the number of children with elevated blood lead levels and remediation activities. The information retrieved from the surveillance systems is used to determine the prevalence of children with asthma and lead poisoning. There were 20 counties identified with the highest number of cases of

children with asthma and elevated blood lead levels; six of these were reported for asthma and lead poisoning: Leflore, Bolivar, Washington, Sunflower, Jones, and Jackson.

From 2005-2010, Mississippi spent a total of \$82,427,121 on healthcare related to asthma for residents birth to five years old. The Mississippi Division of Medicaid reported the state of Mississippi was charged over \$232 million for the same time and same age group for those eligible for Medicaid. More money is spent for males birth to five years old than for females in the same age group. The amount of money spent on males for this age group directly correlates with Mississippi hospitalization and emergency room visits. Male children have more frequent asthma attacks than female children (See Figure 2, Appendix VII).

**Objective 1: By 2014, expand the number of integrated activities to educate families and property owners on environmental health hazards in the home that could trigger asthma.**

**Activities:**

1. Collaborate with state Asthma Program and the American Lung Association of the Gulf Plains Region to provide education to parents and other stakeholders.
2. Include asthma prevention strategies in environmental assessment interviews during care coordination activities.
3. Educate families, property owners, and contractors about environmental hazards that may trigger asthma exacerbation.
4. Provide the Master Home Environmentalist training to partners (i.e., environmental inspectors, family daycare homes, and Head Start).
5. Provide environmental assessments for children ages 6-14 that have been diagnosed with asthma. Appendix VI contains the Environmental Home Hazard Assessment.

**Goal 2: Promote public schools' environmental health programs.**

**Statement of Need**

The U.S. Environmental Protection Agency's mission is to protect human health and the environment. Students and staff spend a significant portion of their day in school buildings.<sup>9</sup> Exposure to environmental hazards in schools can negatively impact the health of students and staff. Unhealthy school environments can affect the student's attendance and academic performance. Children's developing systems can be more susceptible to the effects of environmental contaminants. Their respiratory, immune, nervous, reproductive, and skeletal systems continue to develop throughout childhood. Exposures to environmental contaminants that occur early in life can cause adverse health outcomes in children that can have implications well into adulthood.<sup>10</sup>

**Objective 1: By 2015, establish partnerships with school districts to adopt environmental and safety policies.**

**Activities:**

1. Partner with schools to develop a green cleaning and safety plan.
2. Create or identify a train the trainer module on green cleaning and safe environments.
3. Collaborate with schools to develop cleaning practices, policies, and procedures.
4. Partner with schools to conduct green cleaning and safe environments activities.

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**V. INJURY PREVENTION**

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The CDC states that many unintentional injuries and deaths are related to the home and its environment. It has been estimated that 11,000 people die each year from preventable unintentional injuries that include falls, fires, drowning, and poisoning.<sup>11</sup>

**Goal 1: Reduce indoor and outdoor unintentional injuries.**

**Statement of Need**

In 2008, the CDC reported that unintentional injuries were the leading cause of death and disability among children less than 15 years of age. Injuries cause emotional, physical, and economic stress. The CDC has estimated that approximately half of all injuries (i.e. falls, fire, drowning, poisoning, suffocation, gun safety, and choking) occur in and around the home.<sup>12</sup>

Mississippi has the highest rates of death from unintentional injuries in the nation. Unintentional injuries have many causes, both indoors and outdoors. The MSDH reports that the leading injury risks in the home are from fires, burns, falls, and poisons. The MSDH's also reported that Mississippi's rate of death due to injuries exceeds the national rate by more than 50%. Despite evidence that most injuries are preventable, injuries continue to constitute one of the most tragic and costly public health problems to date.

The state also has one of the highest fire mortality rates in the nation. Older adults, young children, and people in substandard housing are at the highest risk for fire related deaths. From 2005-2010, Mississippi's fire and burn death rate for children from birth to four were approximately four times the death rate of the United States population of the same age range. This justifies an intervention to eliminate the gap that exists among citizens in the state. Many families are in need of properly installed smoke alarms in the home. In Mississippi, adults age 65 and older experience higher fire and burn deaths than the United States death rate for adults in the same age groups (Figure 3, Appendix VII). Mississippi has experienced an increase in mortality caused by fires and burns from 2005 to 2010.

**Objective 1: By 2015, collaborate with the state injury prevention program to identify strategies and activities to reduce unintentional injuries among young children.**

**Activities:**

1. Educate property owners, families, and schools about unintentional injuries (i.e., falls, fire, drowning, poisoning, suffocation, gun safety, and choking).
2. Work with internal and external programs to integrate safety and injury prevention messages during outreach for all age appropriate counseling or guidance.
3. Work with the MSDH Injury Prevention Program and Research and Data Unit to monitor data on unintentional injuries.

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**VI. TOXIN REDUCTION STRATEGIES**

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Toxins in the home can pose an immediate threat such as poisoning, chronic, or long term health threat to children and their families. Poisoning can occur through ingestion (i.e., drinking a product), inhalation (i.e., toxic fumes created by mixing chemical cleaners) and skin contact (i.e., acid burning the skin).<sup>13</sup>

**Goal: Reduce indoor and outdoor toxic exposures.**

**Statement of Need**

Evidence has shown that toxic substances, harmful gases, and indoor air pollutants (i.e., carbon monoxide and secondhand smoke) are at least ten times more prevalent indoors than outdoors. These environmental hazards have a tremendous impact on the health of young children. The Alliance for Healthy Homes reported that individuals spend at least 90% of their time indoors. Pollutants in the home environment directly affect the health of infants and toddlers, whose developing neurological, cognitive, and motor skills make them most sensitive to pollutants. Substandard housing is the nation's number one environmental health threat to young children.<sup>14</sup>

In 2011, the University of Mississippi Medical Center Poison Control Program reported that 50% of Mississippi citizens are potentially exposed to toxic pharmaceutical products. These exposures include a combination of children getting into a family member's medications, drug overdoses, adverse drug reactions, and drug allergies. Approximately 21% of exposure cases involve household products such as cleaning products, drain cleaners, and other household chemicals. Pesticides and industrial chemicals each accounted for 6% of exposures. From 2005-2010, the MSDH reported that of all deaths from accidents, 14.8% were from poisoning (Figure 4, Appendix VII). From 2005-2010, the University of Mississippi Medical Center reported there were 81,660 toxic human exposures in the home and there were 268 cases of carbon monoxide exposure (Table 2 and Table 3, Appendix VII).

**Objective 1: By 2016, increase stakeholder participation to raise awareness of poison prevention strategies and decrease families' exposure to carbon monoxide, smoking, and other toxic exposures.**

**Activities:**

1. Educate families about the hazards of carbon monoxide, unvented stove hoods, smoking, and heaters to improve indoor air quality.
2. Educate families about the hazards of toxic substances (i.e., drain cleaners, cleaning products, and those containing alcohol).
3. Partner with agencies to provide smoke alarms and carbon monoxide detectors to educate and facilitate their usage.
4. Provide training on integrated pest management for families and licensed pesticide operators.
5. Educate homeowners and property managers about alternatives to using pesticides in liquid form (i.e., gels, baits, and traps).
6. Partner with hardware stores to promote non-toxic pesticide use in the home.

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**VII. DATA and SURVEILLANCE**

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Public health surveillance is the ongoing systematic collection, analysis, and interpretation of health related data essential to the planning, implementation, and evaluation of public health practice. Surveillance is important in monitoring the progress of the programs aimed at specific goals (i.e., to decrease environmental hazards found in the homes of children with elevated blood lead levels). Surveillance enables decision makers to lead and manage effectively. An effective surveillance system has the following functions: detection and notification of health events, collection and consolidation of pertinent data, investigation and confirmation, routine analysis, and creation of reports.<sup>15</sup>

**Goal 1: Utilize the Healthy Homes and Lead Poisoning Surveillance System (HHLPSS) to collect and compile data to monitor children with reported blood lead levels and environmental hazards.**

**Statement of Need**

The Lead Poisoning Prevention and Healthy Homes Program is in the last phases of transitioning to the Healthy Housing and Lead Poisoning Surveillance System. The system is supported by CDC as a practical means of storing and monitoring screening data for children with lead toxicity, identification, confirmation of cases, and care coordination of cases, and the investigation of lead and other environmental hazards. With the current surveillance

systems in place, the program is able to enhance intervention efforts, identify trends and additional high risk areas, and determine best practices of the program.

**Objective 1: By 2016, monitor the surveillance system to identify trends and additional high risk areas and determine best practices for primary prevention.**

**Activities:**

1. Assess the existing Quality Assurance Protocol for data collection, cleaning, analysis, and dissemination.
2. Develop annual reports of lead and healthy homes findings to include the number of children with elevated blood lead levels, lead screenings, and environmental hazards.
3. Review trends for targeted education and outreach initiatives.

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## **VIII. POLICY SUPPORT**

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National standards for informing residents about lead-based paint and other environmental hazards apply to all housing. By adopting, implementing, and enforcing federal and state policies and codes, more homes and buildings will be constructed and maintained to decrease families' exposure to environmental hazards.<sup>16</sup>

**Goal 1: Develop approaches to address gaps identified in current laws, regulations, and policies.**

**Statement of Need**

The National Center for Healthy Homes estimates 5.7 million U.S. families live in substandard housing that causes significant illness, injury, and deaths. These issues can be prevented through housing regulations, inexpensive repairs, ongoing maintenance, and small behavior changes. The Lead Poisoning Prevention and Healthy Homes Program developed a 2004-2009 Surveillance Report to inform policymakers and advocates in the state about the housing conditions in communities.

**Objective 1: By 2016, increase awareness and knowledge about environmental hazards and their impact on health and housing among the general public, legislators, and key state agencies.**

**Activities:**

1. Provide communities with strategies to develop and implement policies to decrease environmental hazards in the home and community.
2. Work with state higher education institutions to research and draft legal memoranda regarding methods of enforcing environmental laws.

3. Design and conduct a simulated trial or hearing to highlight effective and ineffective portions of the law and to illustrate the need for legislative, regulatory, or administrative changes to laws.
4. Share trends data with communities and policymakers (i.e., children with blood lead levels, substandard housing, and environmental hazards).
5. Identify state and federal policies that impact all populations.
6. Notify city officials of hazards identified during environmental home assessments for children with elevated blood lead levels  $\geq 15\mu\text{g/dL}$ .

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## **IX. EVALUATION STRATEGIES**

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### **Evaluation**

The purpose of the Lead Poisoning Prevention and Healthy Homes Evaluation Plan is to provide a systematic way to improve and account for public health actions by: measuring program operations, achievements or progress, demonstrating accountability to stakeholders, and advocating for and managing program resources. At the completion of each activity, the program will be able to identify the barriers and gaps that may exist.

### **Process Evaluation**

Process evaluation involves tracking progress towards objectives and activities developed to make changes that are related to the program's goals. The process evaluation will determine:

1. The extent to which the plan is being implemented.
2. The degree to which the objectives are progressing toward completion of projects to include the assessment of strengths, weaknesses, and lessons learned during the implementation phase.
3. How the program appropriately focuses lead poisoning and healthy homes interventions toward the targeted population.

### **Outcome Evaluation**

Outcome evaluation determines whether changes are occurring and how these changes impact the program and the targeted population. These outcomes may include community changes that involve the creation of policies and increase awareness of environmental hazards. The outcome evaluation will determine:

1. Changes in services and policies that have occurred as a result of the strategic plan.
2. Number of materials disseminated.
3. Changes in high risk areas based on lead and healthy housing criteria.
4. The progress of program goals and objectives.

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## **X. SUSTAINABILITY**

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### **Sustainability**

The goals and objectives of the Lead Poisoning Prevention and Healthy Homes Program will continue to be addressed and implemented through Strategic Plan activities and stakeholders. Collaborations with partners will continue as we work on statewide policy development and implementation to address lead and home health hazards. Negotiations will continue with the Division of Medicaid for reimbursement fees that will provide continuity of care through care coordination and environmental inspections.

Program sustainability will be obtained through integration of internal programs to provide education and outreach (i.e., lead poisoning prevention and healthy homes, tobacco prevention, SIDS risk reduction, asthma, and injury prevention). External program sustainability is planned to be obtained through partnerships to provide education and outreach (i.e., Home Depot, HUD, and Fire Marshal's Office). The program will develop a comprehensive approach to deliver services to families through referrals (i.e., WIC, weatherization, and primary care provider).

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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
APPENDICES**

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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
LEAD POISONING PREVENTION AND HEALTHY HOMES PROGRAM STAFF  
APPENDIX I**

<p>Beryl W. Polk, PhD, CPM Bureau Director, Principal Investigator Bureau of Genetic Services</p>	<p>LaQuita Shanks-Cooper, MPH, MHSA Division Director II Lead Poisoning Prevention and Healthy Homes Program</p>
<p>Crystal Veazey, BS Program Manager Lead Poisoning Prevention and Healthy Homes Program</p>	<p>Clifton Strong, BS Special Projects Officer Lead Poisoning Prevention and Healthy Homes Program</p>
<p>Ninglong Han, MS Biostatistician Lead Poisoning Prevention and Healthy Homes Program</p>	<p>Miranda Richardson, BS Health Program Specialist, Senior Lead Poisoning Prevention and Healthy Homes Program</p>

**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
LEAD POISONING PREVENTION AND HEALTHY HOMES  
ADVISORY COMMITTEE MEMBERS  
APPENDIX II**

<p>Marinelle Payton, MD, PhD, MPH, MS Chairperson, MSLPPHHP Advisory Committee Jackson State University 350 West Woodrow Wilson Suite 2301B Jackson, MS 39213</p>	<p>Bobbie Shaffett, PhD School of Human Sciences MSU Extension Service 337 Lloyd Ricks P. O. Box 9745 Mississippi State, MS 39762</p>	<p>John Spears US Department of Housing and Urban Development 100 West Capitol Street Room 910 Jackson, MS 39289</p>
<p>Amy Ellis Mississippi American Lung Association of the Plains Gulf Region 731 South Pear Orchard Road Suite 18 Ridgeland, MS 39157</p>	<p>Elizabeth Lynch Mississippi Division of Medicaid 239 North Lamar Street Jackson, MS 39201</p>	<p>Tammy L. Peavy Mississippi Fire Marshal's Office 660 North Street, Suite 100B Jackson, MS 39202</p>
<p>Dennis Kelly MS Department of Environmental Quality 101 West Capitol Street, Suite 100 Jackson, MS 39201</p>	<p>Robert Cox, MD, PhD University of Mississippi Medical Center Poison Control 2500 North State Street Jackson, MS 39216</p>	<p>Kimalesha Brown Mississippi State Department of Health Office of Tobacco Control 805 South Wheatley Boulevard Suite 400 Ridgeland, MS 39157</p>
<p>Cynthia Street Children's Medical Program Jackson Medical Mall, Suite 3504 350 Woodrow Wilson Jackson, MS 39213</p>	<p>Rick Eades HERSCO and TAGMA of Jackson 600 Arbour Court Ridgeland, MS 39157</p>	<p>Ron Anderson Mississippi Department of Human Services Weatherization Assistance Program 750 North State Street Jackson, MS 39202</p>
<p>Lindsay Parsons Mississippi State Department of Health Bureau of Genetic Services 570 E Woodrow Wilson Jackson, MS 39215</p>	<p>Danielle Lampton Mississippi State Department of Health Bureau of Genetic Services 570 E Woodrow Wilson Jackson, MS 39215</p>	<p>Donna Speed Mississippi State Department of Health Nutrition Services 570 E Woodrow Wilson Jackson, MS 39215</p>

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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
LEAD POISONING PREVENTION AND HEALTHY HOMES PARTNERSHIPS  
APPENDIX III**

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- Mississippi State Department of Health
  - Sudden Infant Death Syndrome (SIDS) Outreach Program
  - Asthma Control Program
  - Tobacco Control Program
  - Injury Prevention Program
- Mississippi State University Extension Service
- Mississippi Valley State University
- Jackson State University
- University of Mississippi
- Department of Environmental Quality
- Mississippi State Fire Marshall's Office
- Home Depot
- Department of Housing and Urban Development
- Mississippi Division of Medicaid
  - Early Periodic Screening Diagnosis and Treatment (EPSDT) Program
- American Lung Association of the Plains Gulf Region
- Delta Health Collaborative Mayors Health Council
- Mississippi Asthma and Allergy Clinic
- City of Jackson, Office of the Mayor

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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
HOUSING HEALTH AND SAFETY RATING SYSTEM  
APPENDIX IV**

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In 2010, the MSLPPHHP adopted the Housing Health and Safety Rating System (HHSRS) of New England. The rating system is used to identify potential health and safety hazards that may be found in a home during a visit. The health and safety components selected for the rating system are based on three of the “Seven Principles of Healthy Housing,” which includes keeping the home clean, ventilated, and safe. Upon identification of a hazard, staff will discuss with the family practical options to take to reduce or eliminate the hazards.

The hazards that can be assessed in a home in regards to the program component areas are:

**Physiological**

- Damp (ventilated)
- Mold/Mildew (ventilated)
- Excess cold (safe)
- Excess heat (safe)
- Carbon Monoxide (ventilated)
- Lead (safe)
- Volatile organic compounds (ventilated)

**Psychological**

- Crowding (safe)
- Adequate lighting (safe)

**Protection against infection**

- Food safety (safe and clean)
- Personnel hygiene (safe and clean)
- Water supply (safe)
- Domestic hygiene (clean)

**Protection against accidents**

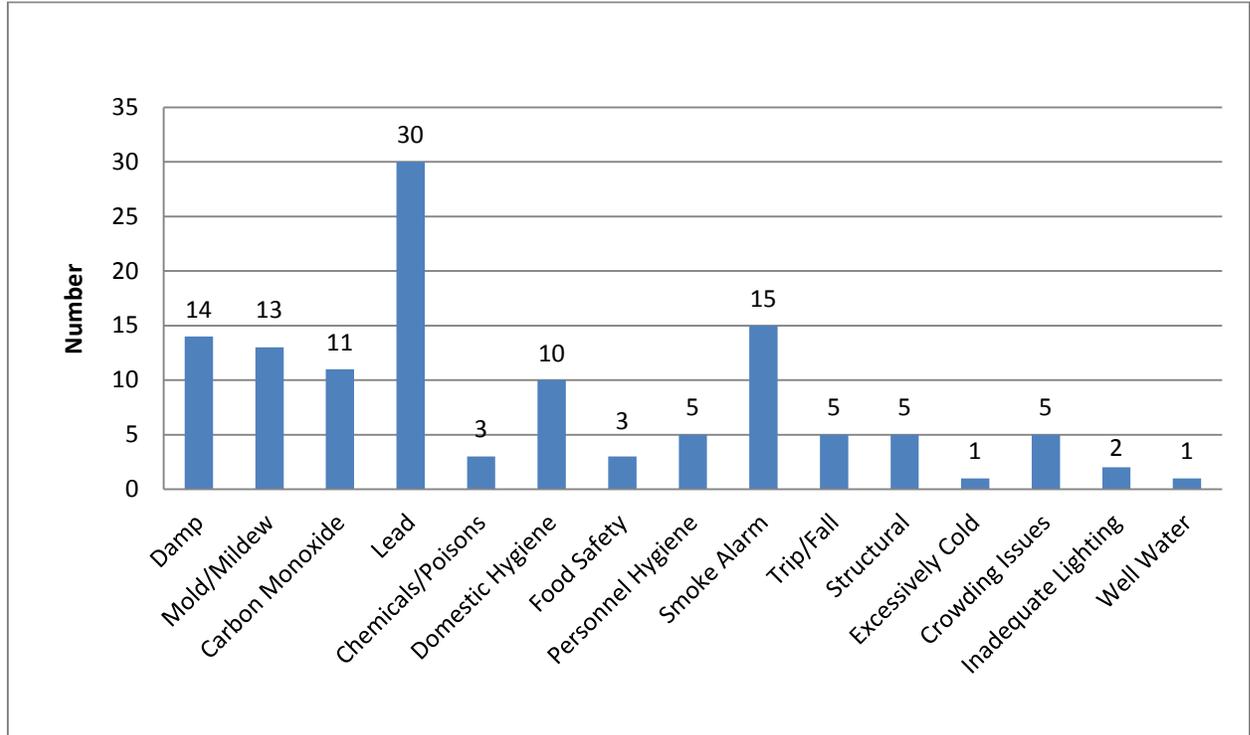
- Fires (safe and ventilated)
- Falls (safe)
- Explosions (ventilated)
- Structural soundness (safe)

Hazards in the home are scored using a pass or fail point system. The points are added to generate an overall score of pass or fail. A high score indicates there are one to five hazards in the home and a low score indicates that there are five or more hazards in the home.

COMPONENT	PASS (2)	FAIL (1)
Damp		
Mold/Mildew		
Excess cold		
Excess heat		
Carbon Monoxide		
Lead		
Volatile Organic Compounds		
Crowding		
Adequate lighting		
Domestic hygiene		
Food safety		
Personnel hygiene		
Water supply		
Fires		
Falls		
Explosions		
Structural soundness		
NOTES:		

Sources: <http://www.everyhomecounts.info/letting/responsibilities/hhsrs> and Housing Health and Safety Rating System, Guidance for Landlords and Property Related Professionals May 2006.

## 2010-2011, Home Visit Environmental Hazards



From January 1, 2010 – December 31, 2011, the MSLPPHHP conducted 57 home visits and identified the following environmental hazards: dampness, mold, mildew, lack of carbon monoxide detector, lead, hazardous items stored within child’s reach, domestic hygiene problems, food safety problems, personnel hygiene problems, lack of smoke alarm, trip/fall hazards, structural problems, crowding issues, inadequate lighting issues, and use of well water. All homes received a Healthy Homes Kit that included items and resources to help reduce exposure to mold, mildew, and dust. Families with children less than four years of age received a childproofing safety kit. For those homes identified without a smoke or carbon monoxide alarm, one was installed.

**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
INDIVIDUALIZED RISK ASSESSMENT  
APPENDIX V**

The MSLPPHHP provides environmental assessments for children identified with blood lead levels greater than or equal to 15µg/dL. The Individualized Risk Assessment is utilized to capture information about the child's environment and possible lead exposure routes.

**Mississippi Lead Poisoning Prevention and Healthy Homes  
Individualized Risk Assessment (IRA)**



**Care Coordinator:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Interview type:** In person  by phone

*The results of this questionnaire will be used by the care coordinator for three purposes: A.)To determine where Environmental samples should be collected, B.)To identify possible lead exposure source(s), C.)To develop corrective measures to reduce the child's exposure to identified lead hazards.*

**Patient Information**

1. Child's name: \_\_\_\_\_

2. Name of person interviewed: \_\_\_\_\_ Relationship to child: Mother  Father   
 Legal Guardian  Other  (Specify): \_\_\_\_\_

3. Child's Date of birth: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

4. Date of blood lead test: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ Results: \_\_\_\_\_µg/dL Type: Capillary  Venous

5. Language: \_\_\_\_\_ Interpreter \_\_\_\_\_

6. Interpreter contact information: \_\_\_\_\_

7. Resident address: \_\_\_\_\_ County \_\_\_\_\_ Year Built? \_\_\_\_\_

8. Phone number: \_\_\_\_\_ Cell # \_\_\_\_\_

9. Address under investigation (if different): \_\_\_\_\_  
\_\_\_\_\_ County \_\_\_\_\_

10. Emergency contact name: \_\_\_\_\_ Phone # \_\_\_\_\_

11. Child's Race: Black  White  Asian/Pacific Islander  American Indian/Alaskan Native   
Other  (specify) \_\_\_\_\_

12. Child's Ethnicity: Hispanic  Non-Hispanic  Other  (specify) \_\_\_\_\_

13. Other children in household six and under tested for lead.

Name: \_\_\_\_\_ age: \_\_\_\_\_ BLL: \_\_\_\_\_ C  V  Date: \_\_\_\_\_

Name: \_\_\_\_\_ age: \_\_\_\_\_ BLL: \_\_\_\_\_ C  V  Date: \_\_\_\_\_

Name: \_\_\_\_\_ age: \_\_\_\_\_ BLL: \_\_\_\_\_ C  V  Date: \_\_\_\_\_

14. Does the child have a regular doctor (primary care physician)? If so, name and phone number:

Name \_\_\_\_\_ Phone # \_\_\_\_\_

15. Is the child/family enrolled in: WIC? Yes  No

16. Is the child enrolled in Medicaid? Yes  No  # \_\_\_\_\_

17. Does your child receive Early Intervention Services (EIS) or Pregnancy High Risk Management Service (PHRM)? Yes  No  Don't Know

## **Risk Assessment**

### **Behavior**

1. Does the child suck his/her thumb or fingers, or does your child bite their nails? Yes  No

2. Does the child suck a pacifier? Yes  No

3. Does the child chew or put items in his/her mouth (other than foods.) Yes  No  Don't Know

If yes, describe item(s) and frequency: \_\_\_\_\_

4. Does the child eat dirt? Yes  No  Don't Know

5. Does the child have favorite toys he/she likes to chew on? Yes  No

If yes, ask to describe item (stuffed/washable) \_\_\_\_\_

6. Has there been a change in the child's sleep pattern? Yes  No

If yes, explain \_\_\_\_\_

7. Has there been a change in the child's behavior? Yes  No

If yes, explain \_\_\_\_\_

### **Asthma & Indoor Pollutants**

1. Has your child been diagnosed with asthma by a doctor, nurse practitioner or other health care provider?

Yes  No  Don't Know  **(If yes is answered for question number 1 of this section, please ask question number 2; if no is answered for question number 1 of this section, please proceed to question number 3.)**

2. How frequent are your child's unscheduled doctor/clinic, urgent care, ER and hospitalization visits?

once a week  once a month  more than once a week \_\_\_\_\_  more than once a month \_\_\_\_\_

3. Has your child experienced asthma symptoms over the past 12 months?

- Wheezing
- Coughing
- Shortness of breath, which is rapid, shallow breathing or difficulty breathing
- Trouble sleeping
- Tiring quickly
- None of the above

4. Have you ever been told by a doctor, nurse practitioner or other health care provider that your child has allergies?

Yes  No  Don't Know

5. Do you use air fresheners or scented candles? Yes  No  How often? Not Often  Somewhat Often  Very Often

*\*Candles and air fresheners do not cover up but simply mask odors. If your home has an odor, figure out the source. Try natural aromatics, such as lemons and orange zests.*

6. Do you smoke? Yes  No  If yes, Indoors  Outdoors
7. Do you vacuum? Yes  No  How often? Not Often  Somewhat Often  Very Often  N/A
8. How often do you change your vent filters? Not Often  Somewhat Often  Very Often

### **Sleep Environment**

1. Do you use a *zippered* allergen-proof pillow casing? Yes  No
2. Do you use a *zippered* washable or water-proof mattress cover? Yes  No  If yes, explain \_\_\_\_\_.
3. Does your child have a favorite stuffed animal they like to sleep with? Yes  No
- \* Note: If the child has **asthma**, and the answer is yes, ask if they frequently wash it.*

### **Nutrition**

1. Has your child's appetite changed recently? Yes  No   
If yes, explain \_\_\_\_\_.
2. Has your child complained of having a stomach ache? Yes  No
3. Has your child showed signs of being nauseated or vomiting? Yes  No
4. How many times a day does your child eat? \_\_\_\_\_
5. Do you regularly prepare meals that are high in Calcium? (milk, cheese, yogurt, kale, collards, turnip greens, canned salmon, sardines with bones) Yes  No   
If yes, explain \_\_\_\_\_.

*\*The more **Calcium** a child has, the less likely the lead is retained by their body. Calcium and lead seem to compete for absorption in the GI tract and for storage sites in the bones. Remobilization and subsequent elevation of blood lead levels (BLLs) occurs most readily when dietary calcium intakes are low and/or when calcium needs are increased, as during pregnancy, periods of bone growth, lactation, and following bone fractures.*

6. Does your child have sickle cell anemia? Yes  No   
*\* If yes, suggest that they speak to the child's pediatrician before giving a supplement containing iron.*
7. Do you regularly prepare meals that are high in iron? (lean meats and poultry, seafood, cereals and breads fortified with iron, peanut butter, nuts, dried beans & peas, raisins, prunes, prune juice, greens such as broccoli and spinach) Yes  No   
If yes, explain \_\_\_\_\_.

*\***Iron** deficient individuals absorb 2 to 3 times more lead than individuals with adequate levels of blood iron. Iron and lead interact and compete in heme-synthesis. In addition, more severe anemia occurs when both lead toxicity and iron-deficient diets are present. Iron supplementation lowers lead levels in children and lead-exposed women.*

8. Do you ever use cast iron skillet or pots to prepare meals? Yes  No

*\* Cooking in a **cast iron skillet** can add significant amounts of iron to your food and into your body.*

9. Does your child eat foods regularly that are high in Vitamin C? (tomatoes, oranges and grapefruit, juices fortified with vitamin C, strawberries, kiwi, green peppers, watermelon, potatoes) Yes  No   
If yes, explain \_\_\_\_\_

*\* Diets rich in **Vitamin C** enhance iron absorption.*

### **Disclosure**

1. When did you/your family move into this house? \_\_\_\_\_

2. Type of home: single-family  duplex multifamily  apartment  manufactured home  other

3. The home is: owned rented/leased  public housing  Section 8  other  (specify) \_\_\_\_\_

#### **Ask questions 4 and 5 if home was built before 1978.**

4. Did you receive the pamphlet "Protect Your Family from Lead in Your Home" from your landlord or realtor/seller? (Show pamphlet) Yes  No  Don't Know  Not Applicable

5. Did you sign a disclosure form? Yes  No  Don't Know  Not Applicable

6. Owner of residence (if different from occupants): \_\_\_\_\_

7. Address: \_\_\_\_\_

8. Phone number: \_\_\_\_\_

9. Is the child cared for away from the home? (This would include school, preschool, childcare center, child care at a home, or child care provided by a relative or friend.) Yes  No

10. Name and address of Child Care Facility: \_\_\_\_\_  
\_\_\_\_\_

11. Year facility was built? \_\_\_\_\_

### **Household Sources**

1. Can you think of any sources of lead that your child may have been exposed to?  
\_\_\_\_\_  
\_\_\_\_\_

2. Do you use any **imported** containers to cook or store foods? Yes  No  Don't Know

3. Does your family use metal (pewter), crystal, leaded glass, older family heirlooms or improperly glazed dishes/pottery to prepare, store, or serve foods or beverages? Yes  No  Don't Know

4. Does your child have a favorite cup or eating utensil? Yes  No  Don't Know

5. Are there any vinyl mini-blinds (non-glossy) purchased before 1997 in the home? Yes  No  Don't Know

6. Do you have any painted or ceramic toys that are accessible to your child (antique or old painted boats, soldiers, dolls)? Yes  No  Don't Know

If yes, where? \_\_\_\_\_

7. Does your child frequently play with toys/jewelry that are exported from China? Yes  No  Don't Know   
If yes, explain? \_\_\_\_\_

8. Does your family have a cat, dog, or other animal? Yes  No

a. Where does the pet sleep? \_\_\_\_\_

b. Does the pet spend time both inside and outside the house? Yes  No  Not Applicable

9. Have you and/or your family traveled out of the country in the past 6 months? Yes  No

If yes, where? \_\_\_\_\_

### **Lead-Based Paint and Lead-Contaminated Dust Hazards**

1. Has this dwelling been tested for lead-based paint or lead-contaminated dust? Yes  No  Don't Know

2. Have you noticed any paint that is cracking, peeling, flaking, and chalking on the inside or outside of the home? Yes  No  Don't Know

If yes, describe \_\_\_\_\_

3. Has there been any repainting, remodeling, renovation, window replacement, sanding, or scraping of painted surfaces inside or outside the home in the past two years? Yes  No  Don't Know

4. Where **inside** does the child like to play, hide, or frequent? (Include rooms, closets, porches, outbuildings, under beds) \_\_\_\_\_

### **Lead in Soil Hazards**

1. Has the soil ever been tested? Yes  No  Don't Know

If yes, can this information be obtained? \_\_\_\_\_

2. Does your family eat food grown in the yard? Yes  No  Don't Know

If yes, where do you grow the food? \_\_\_\_\_

3. Do you know of any factories, industrial plants, radiator repair shop, or metal related industries near the child's home, child care or school? Yes  No  Don't Know

If yes, describe \_\_\_\_\_

4. Where **outside** does the child like to play or hide? \_\_\_\_\_

### **Water Lead Hazards**

1. Has the water ever been tested for lead? Yes  No  Don't Know

If yes, can results be obtained? \_\_\_\_\_

2. How is your home's water supplied? Community/ City  Private Well  Shared Well

3. What is the source of your drinking water? (If different than above) \_\_\_\_\_

4. Is tap water used to prepare infant formula, powdered milk, or juices for the children? Yes  No

If yes, do you use hot or cold tap water? \_\_\_\_\_

## **Hobbies/Jobs**

1. Has anyone in the household engaged in the following type(s) of work or hobbies within the last year? (Check all that apply)

**Hunting/Fishing/Shooting**

Casting/working with bullets or sinkers

Hunting or target/firing range shooting

**Metal-related**

Radiator shop/repair

Battery mfg/recycling

Welding, soldering, torch cutting

Plumbing

Metal foundry, salvage, recycling

Auto/boat body repair

**Construction/Painting**

Commercial/residential/industrial painting

Construction

Renovation/remodeling/repairing

Demolition

Bridge painter/repair

Paint manufacturing

**Arts**

Ceramics/pottery

Stained glass

Jewelry making/repair

Photography developing

Refinishing/painting furniture

Fine art painting

**None of the above**

*\* Note: Only ask the following question if they answered yes to any of the above questions.*

2. Do they wear their work clothes home? Yes  No  Don't Know  Not Applicable

a. If yes, are work clothes separated from other laundry? Yes  No

b. Has this person ever had a blood lead test? Yes  No  Don't Know

If yes, results/date: \_\_\_\_\_

## Mississippi Lead Poisoning Prevention and Healthy Homes

Preliminary Investigation   
  Full Investigation   
  Follow-up Investigation  
 To be completed by the environmental investigator during home visits.

<b>Assessment Start Date:</b>		<b>Primary Residence:</b>		<input type="checkbox"/> Yes		<input type="checkbox"/> No					
<b>Child's Name:</b>			<b>D.O.B.:</b>								
<b>Guardian's Name:</b>			<b>Phone Number:</b>								
<b>Assessment Address :</b>				<b>City:</b>		<b>County:</b>					
<b>Occupancy Type:</b>		<input type="checkbox"/> Owner Occupied		<input type="checkbox"/> Rental		<input type="checkbox"/> Public Housing		<input type="checkbox"/> Section 8		<input type="checkbox"/> Other	
<b>Type of Dwelling:</b>		<input type="checkbox"/> Single Family		<input type="checkbox"/> Multi-Family		<input type="checkbox"/> Other		<b>Year Built:</b>			
Areas of Potential Hazards		Location (i.e. living room, bedroom)		Color		Sample Type					
							Result	Positive swab?			
INTERIOR											
<input type="checkbox"/> Window Sills						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Window Sills						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Walls						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Walls						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Walls						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Floors						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Floors						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Furniture						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Old Sinks and Tubs						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Keys						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Mini Blinds						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Electrical Cords						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> High Contact Play Area						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Other						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
EXTERIOR											
<input type="checkbox"/> Painted/ Stained Porches						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Steps						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Wall						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Wall						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> High Contact Play Area						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Furniture						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Window Sills						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
<input type="checkbox"/> Other						<input type="checkbox"/> XRF		<input type="checkbox"/> Swab	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> Dust Wipe
Other testing areas (if necessary)				Location				Result			
<input type="checkbox"/> Bare Soil											
<input type="checkbox"/> Bare Soil											
<input type="checkbox"/> Water Supply											
<input type="checkbox"/> Water Supply											
<input type="checkbox"/> Other											
If lab results indicate the presence of lead hazards, you will be notified of the findings and additional recommendations may be made to help remediate or control the lead hazards.											
Received by: (signature of owner or occupant)						Date:					
Relation to Client:											
Investigated By:						Date:					

**Visual Assessment** (\*for inspector/assessor use only)

1. Any visible lead hazards? Yes  No

2. If the child was present during the interview/inspection, did he/she exhibit hand-to-mouth activity?  
Yes  No  Not present

3. Did you see any peeling, chipping, flaking or deteriorated paint? Yes  No   
If yes, where \_\_\_\_\_

4. Did you see visible dust in window wells, sills or on floors? Yes  No   
If yes, where \_\_\_\_\_

5. Is there evidence of take-home-work exposures or hobby exposures in the dwelling? Yes  No   
If yes, where \_\_\_\_\_

6. Is there evidence that the child has access to pesticides, paint, old batteries, solder, drapery weights, or household, lawn, or garden chemicals? Yes  No   
If yes, where \_\_\_\_\_

7. Number of bedrooms in dwelling? 1  2  3  4 or more

8. Environmental samples collected? None  Water  Dust  Paint  Soil   
Other  (specify) \_\_\_\_\_

9. Type of flooring in home? (Check all that apply) Carpet  Tile/Linoleum  Wood

10. Is there a smoke alarm in the home? Yes  No   
If yes, where \_\_\_\_\_

11. If no, has installation been requested? Yes  No

12. Is there an acceptable fire exit from home/unit? Yes  No

13. Is there evidence of smoking in the home (ashtrays, cigarette butts, cigarette packs, etc.)? Yes  No

14. Is there a carbon monoxide detector in the home? Yes  No   
If yes, where \_\_\_\_\_

15. Are there signs of water leakage (brown spots on ceiling, mold, and mildew)? Yes  No   
If yes, where \_\_\_\_\_

16. Does the house have a musty or stale odor? Yes  No

17. Are the cleaning supplies stored properly (out of child's reach)? Yes  No

18. Is there a lack of or poor ventilation system (e.g. non-operational windows, vent/fan)?  Yes  No  
Where? Kitchen  Bathroom

19. Are there pests like cock roaches or rodents like mice or rats?  Yes  No

If yes, are there signs the family is trying to manage the pests (e.g., traps or poisons)? Explain.  
\_\_\_\_\_

20. Are there any signs of more than three stuffed animals?  Yes  No

21. Are there visible paint chips near the house, fences, garages, or play structures? Yes  No

22. Are nearby buildings or neighboring homes being renovated, repainted, or demolished? Yes  No

23. Are there any active renovations or remodeling at the dwelling? Yes  No

24. Is there adequate lighting in hallways? Yes  No

25. List any circumstances that suggest an unsafe dwelling other than those listed on the form.

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26. Is any additional follow-up needed? Yes  No

If yes, explain \_\_\_\_\_

Inspected by: \_\_\_\_\_ Date \_\_\_\_\_

## **MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES CARE COORDINATION COUNSELING CHECKLIST**

### **PURPOSE**

The purpose of the Care Coordination Counseling Checklist is to document specific education services that have been provided to parent/care givers of children screened with elevated blood lead levels through the Mississippi State Department of Health, Lead Poisoning Prevention and Healthy Homes Program. This form will be used during education counseling through phone counseling and home visits.

### **INSTRUCTIONS**

The child's name, date of birth, county/private provider, persons counseled (i.e., parent or caregiver), and address of place where education counseling was provided should be supplied in the appropriate available space.

The Care Coordination Counseling Checklist provides a list of key points to be reviewed at the time of the education counseling. During time of the education counseling, the staff member marks the boxes provided to indicate that the item has been reviewed/discussed with the parent or caregiver of the child with the elevated blood lead level. Also mark the appropriate box to indicate the perceived level of understanding of the information provided to the parent or caregiver of the child. When the education counseling is complete, the staff member is to sign and date the checklist and provide the parent or care giver with a copy. Also a copy should be placed in all of the child's file folders (i.e., Central Office and County Health Departments).

### **OFFICE MECHANICS AND FILING**

A copy is to be provided to the county health departments (i.e., Lead Coordinator, Nurse, Social Worker) for placement in the child's medical records. This form will document that childhood lead poisoning education counseling has been provided to the parent or care giver of the child. If the patient does not have a county health record, the childhood lead poisoning education checklist shall be filed in the child's care coordination folder at the central office.

### **RETENTION PERIOD**

This form becomes a part of the child's care coordination record and medical record. It shall be retained according to agency policy. This form will be maintained for auditing purposes.

**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
CARE COORDINATION COUNSELING CHECKLIST**

Child's Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

Medicaid #: \_\_\_\_\_ BLL: \_\_\_\_\_ Capillary  Venous

County Health Department/Private Provider: \_\_\_\_\_

Persons Receiving Education: \_\_\_\_\_

Address of Education Counseling Session: \_\_\_\_\_

	<u>Discussed</u>		<u>Level of Understanding</u>		
	Yes	No	Good	Fair	Poor
1. Reviewed the elements of lead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Specific Measures explained to reduce lead exposure based on Visual Environmental Assessment of child's home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Specific measures explained to address any other hazards found during Visual Environmental Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Lead poisoning explained: What Everyone Should Know About Lead Poisoning (orange)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Possible long-term effects in children explained: What Every Parent Should Know About Lead Levels in Children (turquoise)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Importance of diet explained (↑Ca, ↑Fe, ↑Vitamin C, and ↓fat): EPA-Fight Lead Poisoning with a Healthy Diet (pamphlet)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>Discussed</u>		<u>Level of Understanding</u>		
	Yes	No	Good	Fair	Poor
7. Cleaning techniques explained: How To Clean A Home That Has Lead-Contaminated Dust	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Proper hygiene explained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. What Every Parent Should Know! Developmental List	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Healthy Homes Demonstration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REFERRALS MADE			If the child is already receiving these services, check the box and list the name/number.	
Medicaid/CHIPS	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Primary Care Physician	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
WIC or Food Pantry	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
HUD	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Emergency Shelter	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Head Start	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Counseling/Mental Health	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Early intervention:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Nutritionist:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Other: _____	Yes <input type="checkbox"/>	No <input type="checkbox"/>	<input type="checkbox"/>	
Release of information signed	Yes <input type="checkbox"/>	No <input type="checkbox"/>		

Care Coordinator Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Care Coordinator Notes

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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
CARE COORDINATION SERVICE PLAN**

**Direction: Detail each problem noted at the residence or for the patient (thumb sucking or poor hygiene).**

Child's Name: \_\_\_\_\_ D.O.B. \_\_\_\_\_ / / \_\_\_\_\_  
 Guardian's Name: \_\_\_\_\_  
 County of Residence: \_\_\_\_\_  
 Care  
 Coordinator: \_\_\_\_\_

<u>Date</u>	<u>Problem</u>	<u>Action</u>	<u>Plan</u>

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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
ENVIRONMENTAL HOME HAZARD ASSESSMENT  
APPENDIX VI**

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The MSLPPHHP provides environmental assessments for children ages 6-14 who have been diagnosed with asthma. The Individualized Risk Assessment and the Master Home Environmentalist Assessment are utilized to capture information about the child's environment and possible environmental hazard exposure.

**Mississippi Lead Poisoning Prevention and Healthy Homes  
Environmental Home Hazard Assessment**

**Care Coordinator:** \_\_\_\_\_

**Interview type:** In person  by phone

Date: \_\_\_\_\_ Date: \_\_\_\_\_

*The results of this questionnaire will be used by the care coordinator for two purposes: A.) To identify asthma triggers in the home(s), B.) To develop corrective measures to reduce the child's exposure to identified asthma triggers.*

**Patient Information**

1. Child's name: \_\_\_\_\_

2. Name of person interviewed: \_\_\_\_\_ Relationship to child:  
Mother  Father  Legal Guardian  Other  (Specify): \_\_\_\_\_

3. Child's Date of birth: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

4. Language: \_\_\_\_\_ Interpreter \_\_\_\_\_

5. Interpreter contact information: \_\_\_\_\_

6. Resident address: \_\_\_\_\_ County \_\_\_\_\_ Year Built? \_\_\_\_\_

7. Phone number: \_\_\_\_\_ Cell # \_\_\_\_\_

8. Emergency contact name: \_\_\_\_\_ Phone # \_\_\_\_\_

9. Child's Race: Black  White  Asian/Pacific Islander  American Indian/Alaskan Native  
 Other  (specify)

---

10. Child's Ethnicity: Hispanic  Non-Hispanic  Other  (specify) \_\_\_\_\_

11. Does the child have a regular doctor (primary care physician)? If so, name and phone number: Name \_\_\_\_\_ Phone # \_\_\_\_\_

13. Is the child/family enrolled in: WIC? Yes  No

14. Is the child enrolled in Medicaid? Yes  No

15. Is the child covered by private insurance? Yes  No

### Risk Assessment

#### Asthma & Indoor Pollutants

1. How frequent are your child's unscheduled doctor/clinic, urgent care, ER and hospitalization visits?

once a week  once a month  more than once a week \_\_\_\_\_  more than once a month \_\_\_\_\_

2. Has your child experienced asthma symptoms over the past 6 months?

Wheezing

Coughing

Shortness of breath, which is rapid, shallow breathing or difficulty breathing

Trouble sleeping

Tiring quickly

None of the above

3. Have you ever been told by a doctor, nurse practitioner or other health care provider that your child has allergies?

Yes  No  Don't Know

4. Do you use air fresheners or scented candles? Yes  No  How often? Not Often   
Somewhat Often  Very Often

*\*Candles and air fresheners do not cover up but simply mask odors. If your home has an odor, figure out the source. Try natural aromatics, such as lemons and orange zests.*

5. Do you or anyone in the home smoke? Yes  No  If yes, Indoors  Outdoors

6. Do you vacuum? Yes  No  How often? Not Often  Somewhat Often  Very Often  N/A

7. How often do you change your vent filters? Not Often  Somewhat Often  Very Often

### **Sleep Environment**

1. Do you use a *zippered* allergen-proof pillow casing? Yes  No

2. Do you use a *zippered* washable or water-proof mattress cover? Yes  No  If yes, explain \_\_\_\_\_.

3. Does your child have a favorite stuffed animal they like to sleep with? Yes  No

*\* Note: If the child has **asthma**, and the answer is yes, ask if they frequently wash it.*

### **Visual Assessment**

1. Is there evidence that the child has access to pesticides, paint, old batteries, solder, drapery weights or household, lawn or garden chemicals? Yes  No

If yes, where \_\_\_\_\_

2. Number of bedrooms in dwelling? 1  2  3  4 or more

3. Type of flooring in home? (Check all that apply) Carpet  Tile/Linoleum  Wood

4. Is there a smoke alarm in the home? Yes  No

If yes, where \_\_\_\_\_

5. If no, has installation been requested? Yes  No

6. Is there an acceptable fire exit from home/unit? Yes  No

7. Is there a fire extinguisher in the home? Yes  No

8. Is there evidence of smoking in the home (ashtrays, cigarette butts, cigarette packs, etc.)? Yes  No

9. Is there a carbon monoxide detector in the home? Yes  No

If yes, where \_\_\_\_\_

10. Are there signs of water leakage (brown spots on ceiling, mold, and mildew)? Yes  No

If yes, where \_\_\_\_\_

11. Does the house have a musty or stale odor? Yes  No

12. Are the cleaning supplies stored properly (out of child's reach)? Yes  No

13. Is there a lack of or poor ventilation system (e.g., non-operational windows, vent/fan)?

Yes  No Where? Kitchen  Bathroom

14. Are there pest like cock roaches, or rodents like mice or rats?  Yes  No

If yes, are there signs the family is trying to manage the pests (e.g., traps or poisons) Explain.

\_\_\_\_\_.

15. Are there any signs of over abundance of stuffed animals?  Yes  No

16. Does your family have a cat, dog, or other animal? Yes  No

a. Where does the pet sleep? \_\_\_\_\_

b. Does the pet spend time both inside and outside the house? Yes  No  Not  
Applicable

17. Is any additional follow-up needed? Yes  No

If yes, explain \_\_\_\_\_

Inspected by: \_\_\_\_\_ Date \_\_\_\_\_

**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
MASTER HOME ENVIRONMENTALIST ASSESSMENT**

**PART I: Questions**

Walk through the home, make observations, and circle answers.

<b>RESIDENTS</b>	<b>Low Concern</b>	<b>Medium Concern</b>	<b>High Concern</b>	<b>Action Items</b>
How many times a year does a person complain of illness (headaches, fatigue, flu-like symptoms)?	0-3	4-9	10+	2
Does anyone smoke in the home?	No		Yes	1
How many cats, dogs, and birds live inside the home?	None	1-3 if not allergic	4+ or 1+ if allergic	3, 4, 5
<b>MOISTURE</b>	<b>Low Concern</b>	<b>Medium Concern</b>	<b>High Concern</b>	<b>Action Items</b>
What is the temperature inside the building during the cold season?	60-68°F	55-60°F	Below 55°F	6
How often do you clean the refrigerator drip pan?	Often or N/A	Sometimes	Rarely, if ever	8
How often do you clean the refrigerator coils?	Often	Sometimes	Rarely, if ever	9
Are there any water leaks or damp areas in the kitchen or bathrooms? (Be sure to look under all sinks.)	No		Yes	10
Is there carpeting in the kitchen or bathroom?	No		Yes	12
Do you use a fan or open a bathroom window during and after showering or bathing?	Yes	Sometimes	No	13
Is the bathroom fan vented to the outside?	Yes or N/A		No	14
Do you use a fan or open a window while cooking, especially when boiling water?	Yes	Sometimes	No	13
Is kitchen fan vented to the outside?	Yes or N/A		No	15
Are there signs of mold growth in corners or around windows?	Rarely	Sometimes	Often	7, 11, 13, 16, 19
If you have a clothes dryer, is it vented to the outside?	Yes or N/A	Don't know	No	17
Do windows fog up during the cold season?	Rarely	Sometimes	Often	7, 18, 19
<b>INDOOR AIR</b>	<b>Low Concern</b>	<b>Medium Concern</b>	<b>High Concern</b>	<b>Action Items</b>
Is this building a mobile home or trailer?	No	Yes		18, 19

How often do you air out your home and open the windows?	Weekly	1-3/month	Less than monthly	25
Are bedroom windows open at night when sleeping?	Yes	No		25
Is there an unvented kerosene or gas heater?	No	Don't know	Yes	20
If you have a wood stove or fireplace, do you smell smoke indoors when it is in use?	Never	Sometimes	Usually	21
Do you use scented products?	No	Sometimes	Yes	24
Do you use a stove fan when cooking?	Yes	Sometimes	No	22
Is the stove fan vented to the outside?	Yes		No or N/A	23
<b>HAZARDOUS HOUSEHOLD PRODUCTS</b>	<b>Low Concern</b>	<b>Medium Concern</b>	<b>High Concern</b>	<b>Action Items</b>
How often do you use the following products?				
• Permanent or whiteboard markers	Never	Monthly-yearly	Weekly-daily	26
• Ammonia or chlorine-based cleaners	Never	Monthly-yearly	Weekly-daily	26
• Windex, Comet, 409, or other every-day cleaners	Never	Monthly-yearly	Weekly-daily	26
• Drain, oven, or toilet cleaner with the word DANGER on the label	Never	Monthly-yearly	Weekly-daily	26
What do you usually do to avoid inhaling the products listed above?	Use them outside and wear respirator	Open at least 2 windows or use fan	Nothing special or open a window	27
Do you wear gloves and goggles (or glasses) when using these products?	Always	Sometimes	Never	28
How often do you or a commercial service apply pesticides (bug sprays, weed killers, rat poison) inside or outside the home? (Traps do not count.)	Never	Less than once a year	Once or more a year	31, 32
If you use pesticides do you wear?				
• Goggles or glasses	Always	Sometimes	Never	28, 29
• Gloves	Always	Sometimes	Never	28, 29
• Long sleeved shirt and long pants	Always	Sometimes	Never	28, 29
• Hat	Always	Sometimes	Never	28, 29
• Dust mask (when using powders)	Always	Sometimes	Never	28, 29
• Respirator (for vapors from paint, glues, solvents)	Always	Sometimes	Never	28, 29
How do you dispose of leftover pesticides?	Take to a household hazardous waste collection site		Pour them down the drain, keep them, or put them in the trash	30, 33
Do you have a lawn?	No		Yes	34

**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
MASTER HOME ENVIRONMENTALIST ASSESSMENT**

**PART II: The Action Plan**

Participate  
Understands  
  
Participate Didn't  
Understand

Check the boxes with the same numbers as the question action items.

**Residents**

- |   |   |                          |                          |
|---|---|--------------------------|--------------------------|
| 1 | <input type="checkbox"/> Stop smoking for clean air and good health. Or restrict smoking to outside the home so household members will not be exposed, and wear a smoking jacket or garment to be removed upon entering the home. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | <input type="checkbox"/> Pay attention to reducing allergy triggers such as dust, molds, pet dander, and household products with strong odors.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | <input type="checkbox"/> Keep pets, pet beds, and pet areas clean and vacuumed. Flea comb cats or dogs.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | <input type="checkbox"/> Vacuum areas used by pets, and reduce pet access to some parts of the home.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | <input type="checkbox"/> If fleas are a problem, get more information on the least toxic control of fleas.  | <input type="checkbox"/> | <input type="checkbox"/> |

**Moisture**

- |    |  |                          |                          |
|----|--|--------------------------|--------------------------|
| 6  | <input type="checkbox"/> Raise indoor temperatures to 60-68°F to reduce moisture.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 7  | <input type="checkbox"/> If you have a hygrometer to measure humidity levels, take action until humidity levels have been lowered to 50-60%. (Hygrometers are sometimes available at hardware or allergy supply stores.) | <input type="checkbox"/> | <input type="checkbox"/> |
| 8  | <input type="checkbox"/> Clean refrigerator drip pan at least every three months.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 9  | <input type="checkbox"/> Clean refrigerator coils at least every six months.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 | <input type="checkbox"/> Repair water leaks and remove or repair any damaged material.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 11 | <input type="checkbox"/> Reduce kitchen humidity by covering pots, running ventilation fan, or opening windows.  | <input type="checkbox"/> | <input type="checkbox"/> |

	Participate Understands	Participate Didn't Understand
12 <input type="checkbox"/> Consider removing kitchen or bathroom carpeting.	<input type="checkbox"/>	<input type="checkbox"/>
13 <input type="checkbox"/> Use fan or open windows to reduce moisture.	<input type="checkbox"/>	<input type="checkbox"/>
14 <input type="checkbox"/> Bathroom fan should be vented to the outside, and preferably it should have a timer. Keep fan on during bathing and for about 30 minutes after bath/shower.	<input type="checkbox"/>	<input type="checkbox"/>
15 <input type="checkbox"/> Kitchen fan should be vented to outside.	<input type="checkbox"/>	<input type="checkbox"/>
16 <input type="checkbox"/> Clean up mold with detergent and hot water. Allow area to dry thoroughly.	<input type="checkbox"/>	<input type="checkbox"/>
17 <input type="checkbox"/> Vent clothes dryer to outside to reduce moisture, mold, and dust.	<input type="checkbox"/>	<input type="checkbox"/>
18 <input type="checkbox"/> Ventilate home by opening windows whenever weather permits. Repair or replace windows that cannot be opened.	<input type="checkbox"/>	<input type="checkbox"/>
19 <input type="checkbox"/> Minimize moisture producing activities: take shorter showers, keep lids on pots, use exhaust fans.	<input type="checkbox"/>	<input type="checkbox"/>

**COMMENTS:**

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**Indoor Air**

20 <input type="checkbox"/> Avoid using unvented kerosene or gas heater inside the home; carbon monoxide poisoning may happen.	<input type="checkbox"/>	<input type="checkbox"/>
21 <input type="checkbox"/> Have fireplace/woodstove checked. Older woodstoves may not meet current air quality standards. Consider updating stove or using less often. Burn dry seasoned wood and provide enough air for fire.	<input type="checkbox"/>	<input type="checkbox"/>
22 <input type="checkbox"/> Use stove fan when cooking.	<input type="checkbox"/>	<input type="checkbox"/>
23 <input type="checkbox"/> Vent stove fan to outside to minimize moisture buildup.	<input type="checkbox"/>	<input type="checkbox"/>

	Participate Understands	Participate Didn't Understand
24 <input type="checkbox"/> Some people react to the smells of commonly used household and personal care products. Switch to unscented and fragrance-free products, and avoid ingredients containing petroleum and formaldehydes. Products to look at include deodorizers, air fresheners, perfumes, colognes, laundry detergents, fabric softener, dryer anti-static sheets, cosmetics, hair care products, skin products, dish soaps, and other cleaning products.	<input type="checkbox"/>	<input type="checkbox"/>
25 <input type="checkbox"/> Open windows more often, and keep bedroom window open at night whenever possible, if it is safe to do so.	<input type="checkbox"/>	<input type="checkbox"/>

**COMMENTS:**

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**Hazardous Household Products**

26 <input type="checkbox"/> Use less hazardous products if possible. (See “Less-Toxic Alternatives” on last page for information sources.)	<input type="checkbox"/>	<input type="checkbox"/>
27 <input type="checkbox"/> Use hazardous solvent-based products outdoors, or open two windows and use a fan.	<input type="checkbox"/>	<input type="checkbox"/>
28 <input type="checkbox"/> Wear gloves and goggles when using corrosive products or pesticides.	<input type="checkbox"/>	<input type="checkbox"/>
29 <input type="checkbox"/> Wear appropriate protective gear when applying pesticides: long sleeved shirt and long pants, a non-permeable hat, and a dust mask for powders or a respirator for solvents.	<input type="checkbox"/>	<input type="checkbox"/>
30 <input type="checkbox"/> Call your local hazards line about removal of hazardous products.	<input type="checkbox"/>	<input type="checkbox"/>
31 <input type="checkbox"/> Reduce or stop using indoor pesticides. Try non-chemical controls or less-hazardous products. (See “Less-Toxic Alternatives” on last page for information sources.). If insects are invading your home investigate why. For example, common ants seek out water (look for leaks), or food (clean-up spills and store food in refrigerator or airtight containers).	<input type="checkbox"/>	<input type="checkbox"/>
32 <input type="checkbox"/> Avoid calendar applications of pesticides. Treat specific problems only when necessary and use non-chemical controls or less-hazardous chemicals if possible.	<input type="checkbox"/>	<input type="checkbox"/>

- 33  Do not put pesticides down the drain or in the trash. Call your local hazards line for information. (See “Hazardous Product Disposal” on last page.)
- 34  Avoid using “weed and feed” and other pesticides on your lawn. To keep your lawn healthy, fertilize with a “natural organic” or “slow-release” fertilizer.

Participate Understands	Participate Didn't Understand
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<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

**COMMENTS:**

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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
PEDIATRIC ASTHMA QUALITY OF LIFE QUESTIONNAIRE**

We want you to tell us how much you have been bothered doing these things during the last three months because of your asthma.

Put an "X" in the box that best describes how bothered you have been.

HOW BOTHERED HAVE YOU BEEN DURING THE LAST THREE MONTHS?

	Extremely Bothered	Very Bothered	Quite Bothered	Somewhat Bothered	Bothered A bit	Hardly Bothered	Not Bothered	Activity Not done
	1	2	3	4	5	6	7	
1. Playing at recess	<input type="checkbox"/>							
2. Running	<input type="checkbox"/>							
3. Sleeping	<input type="checkbox"/>							
4. Coughing	<input type="checkbox"/>							

IN GENERAL, HOW OFTEN DURING THE LAST THREE MONTHS DID YOU:

	All of the Time	Most of the time	Quite Often	Some of the Time	Once in a While	Hardly any of the Time	None of Time
	1	2	3	4	5	6	7
5. Feel FRUSTRATED because of your asthma?	<input type="checkbox"/>						
6. Feel TIRED because of your asthma?	<input type="checkbox"/>						
7. Feel WORRIED, CONCERNED OR TROUBLED because of your asthma?	<input type="checkbox"/>						

HOW BOTHERED HAVE YOU BEEN DURING THE LAST THREE MONTHS BY?

	Extremely Bothered	Very Bothered	Quite Bothered	Somewhat Bothered	Bothered A bit	Hardly Bothered	Not Bothered
	1	2	3	4	5	6	7
8. Asthma Attacks?	<input type="checkbox"/>						

IN GENERAL, HOW OFTEN DURING THE LAST THREE MONTHS DID YOU:

	All of the Time	Most of the time	Quite Often	Some of the Time	Once in a While	Hardly any of the Time	None of Time
	1	2	3	4	5	6	7
9. Feel ANGRY because of your asthma?	<input type="checkbox"/>						

HOW BOTHERED HAVE YOU BEEN DURING THE LAST THREE MONTHS BY?

	Extremely Bothered	Very Bothered	Quite Bothered	Somewhat Bothered	Bothered A bit	Hardly Bothered	Not Bothered
	1	2	3	4	5	6	7
10. Wheezing	<input type="checkbox"/>						

IN GENERAL, HOW OFTEN DURING THE LAST THREE MONTHS DID YOU:

	All of the Time	Most of the time	Quite Often	Some of the Time	Once in a While	Hardly any of the Time	None of Time
	1	2	3	4	5	6	7
11. Feel IRRITABLE / grumpy because of your asthma?	<input type="checkbox"/>						

HOW BOTHERED HAVE YOU BEEN DURING THE LAST THREE MONTHS BY?

	Extremely Bothered	Very Bothered	Quite Bothered	Somewhat Bothered	Bothered A bit	Hardly Bothered	Not Bothered
	1	2	3	4	5	6	7
12. Tightness in your chest	<input type="checkbox"/>						

IN GENERAL, HOW OFTEN DURING THE LAST THREE MONTHS DID YOU:

	All of the Time	Most of the time	Quite Often	Some of the Time	Once in a While	Hardly any of the Time	None of Time
	1	2	3	4	5	6	7
13. Feel different or left out because of your asthma?	<input type="checkbox"/>						

Student Name: \_\_\_\_\_ Time point: Baseline 8 wks 1 yr

HOW BOTHERED HAVE YOU BEEN DURING THE LAST THREE MONTHS BY?

	Extremely Bothered	Very Bothered	Quite Bothered	Somewhat Bothered	Bothered A bit	Hardly Bothered	Not Bothered
	1	2	3	4	5	6	7
14. Shortness of breath	<input type="checkbox"/>						

IN GENERAL, HOW OFTEN DURING THE LAST THREE MONTHS DID YOU:

	All of the Time	Most of the time	Quite Often	Some of the Time	Once in a While	Hardly any of the Time	None of Time
	1	2	3	4	5	6	7
15. Feel FRUSTRATED because you couldn't KEEP UP with others?	<input type="checkbox"/>						
16. WAKE UP during the NIGHT because of your asthma?	<input type="checkbox"/>						
17. Feel UNCOMFORTABLE because of your asthma?	<input type="checkbox"/>						
18. Feel OUT OF BREATH because of your asthma?	<input type="checkbox"/>						
19. Feel you COULDN'T KEEP UP WITH OTHERS because of your asthma?	<input type="checkbox"/>						

20. Have TROUBLE SLEEPING  
at night because of  
your asthma?

<input type="checkbox"/>							
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

21. Feel FRIGHTENED by  
an ASTHMA attack?

<input type="checkbox"/>							
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

THINK ABOUT ALL THE ACTIVITIES THAT YOU DID IN THE PAST THREE MONTHS:

Extremely Bothered	Very Bothered	Quite Bothered	Somewhat Bothered	Bothered A bit	Hardly Bothered	Not Bothered
1	2	3	4	5	6	7

22. How much were you  
bothered by your  
asthma during these  
activities?

<input type="checkbox"/>							
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

IN GENERAL, HOW OFTEN DURING THE LAST THREE MONTHS DID YOU:

All of the Time	Most of the time	Quite Often	Some of the Time	Once in a While	Hardly any of the Time	None of Time
1	2	3	4	5	6	7

23. Have difficulty taking  
a DEEP BREATH?

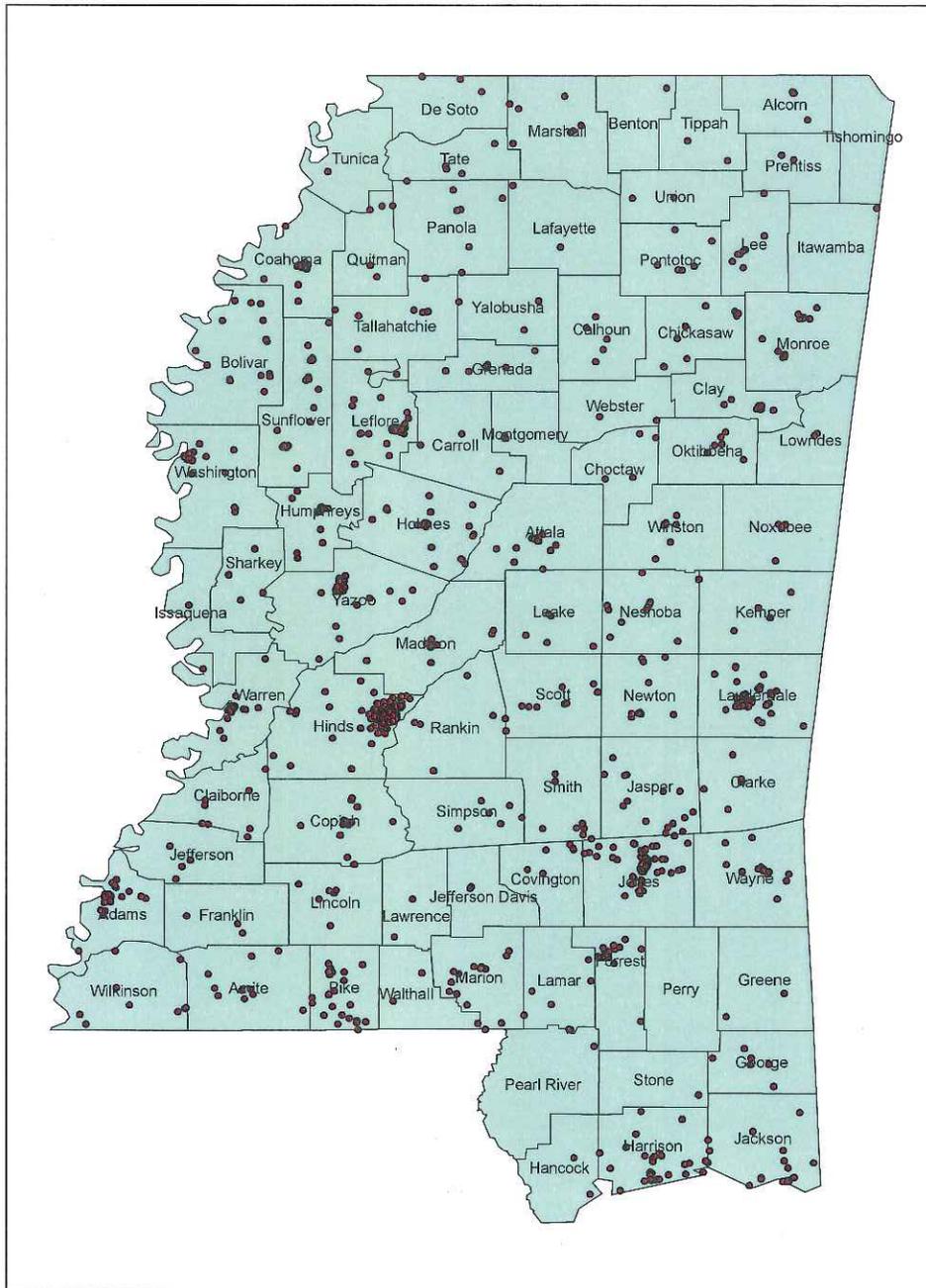
<input type="checkbox"/>							
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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
FIGURES AND TABLES  
APPENDIX VII**

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**Figure 1: 2005-2010, Distribution of Children Less Than Six Years Old with Elevated Blood Lead Levels**

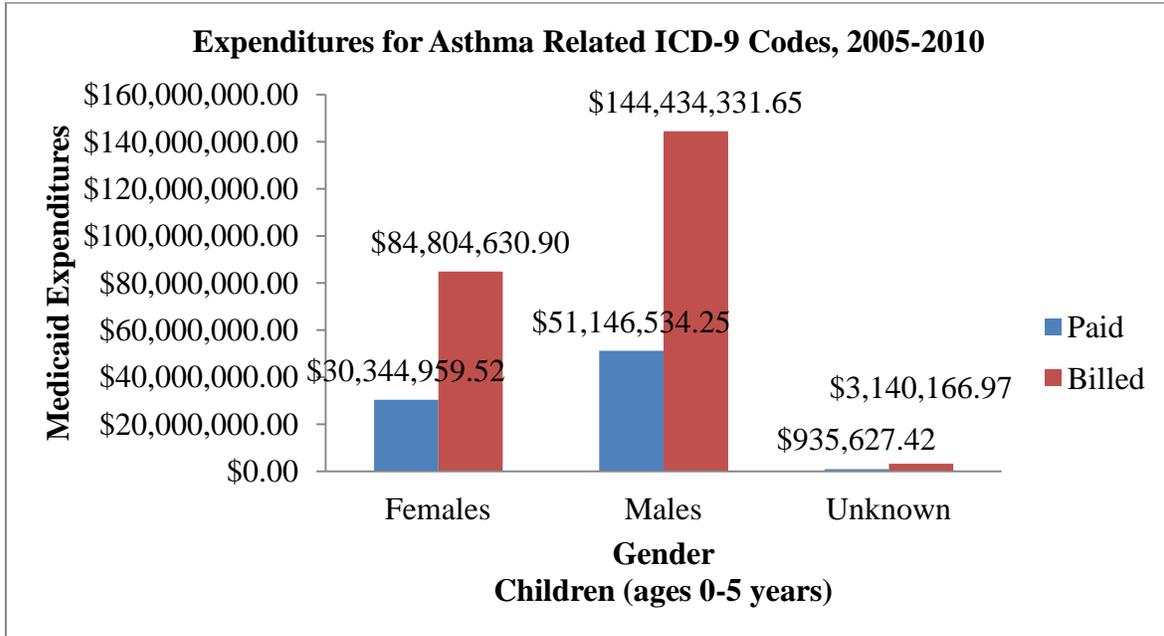


**Table 1: 2005-2010, Environmental Assessments in Homes**

<b>Year</b>	<b>Total Homes</b>	<b>Pre-1950</b>	<b>1950-1959</b>	<b>1960-1969</b>	<b>1970-1977</b>	<b>After 1977</b>	<b>Unknown</b>	<b>Mobile Home</b>
2005	63	26	9	9	4	0	7	8
2006	82	43	5	3	0	15	4	12
2007	39	17	5	6	4	1	4	2
2008	39	10	7	3	4	5	0	10
2009	49	26	7	4	3	3	5	1
2010	43	21	6	1	1	8	0	6
<b>Total</b>	<b>315</b>	<b>143</b>	<b>39</b>	<b>26</b>	<b>16</b>	<b>32</b>	<b>20</b>	<b>39</b>

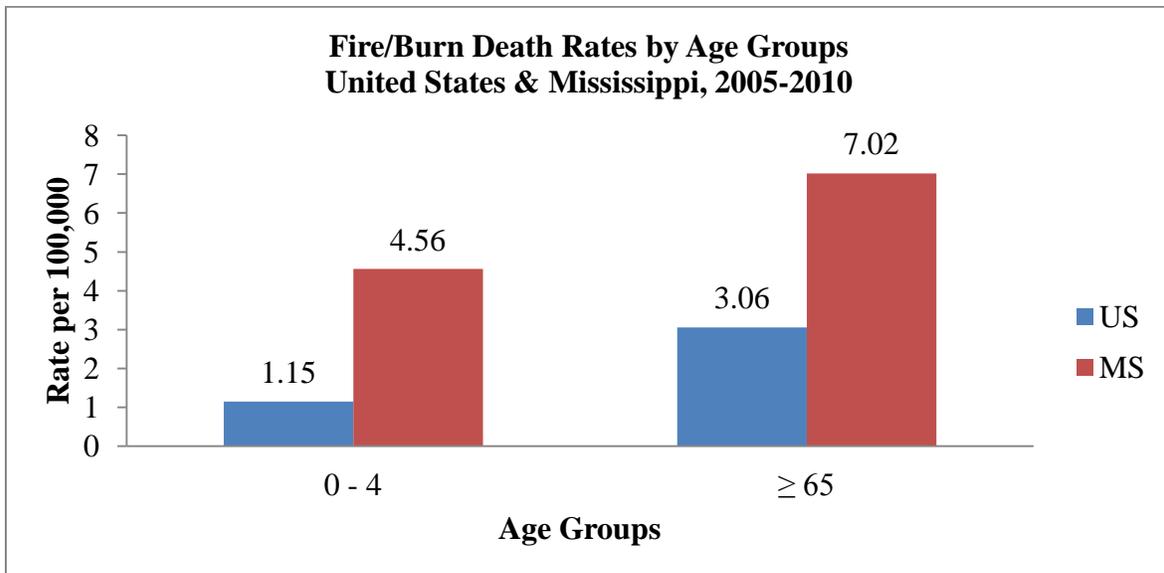
Source: MSCLPPP STELLAR Database

**Figure 2: 2005-2010, Expenditures for Asthma Related ICD-9 Codes (ages 0-5) Children Age 0-5 Years, By Gender**



Source: Mississippi Division of Medicaid  
 \* Paid represents the amount the Mississippi Division of Medicaid expended for services.  
 \* Charged represents the amount the Mississippi Division of Medicaid was billed for services.

**Figure 3: 2005-2010, Fatal Fire and Burn Death Rates by Age Groups for United States and Mississippi**



U.S. Source: CDC's National Center for Injury Prevention and Control  
 MS Source: MSDH's Public Health Statistics  
 U.S./MS crude rates were calculated using the Bureau of Census pop

**Table 2: 2005-2010, Medical Outcome of Carbon Monoxide Exposures**

Year	Number of Cases	Death	Major Effect	Moderate Effect	Minor Effect	No Effect, Other
2005	57	1	0	12	19	25
2006	39	0	0	3	22	14
2007	45	1	0	3	25	16
2008	43	1	5	4	26	7
2009	43	2	2	6	25	8
2010	41	0	2	10	8	21

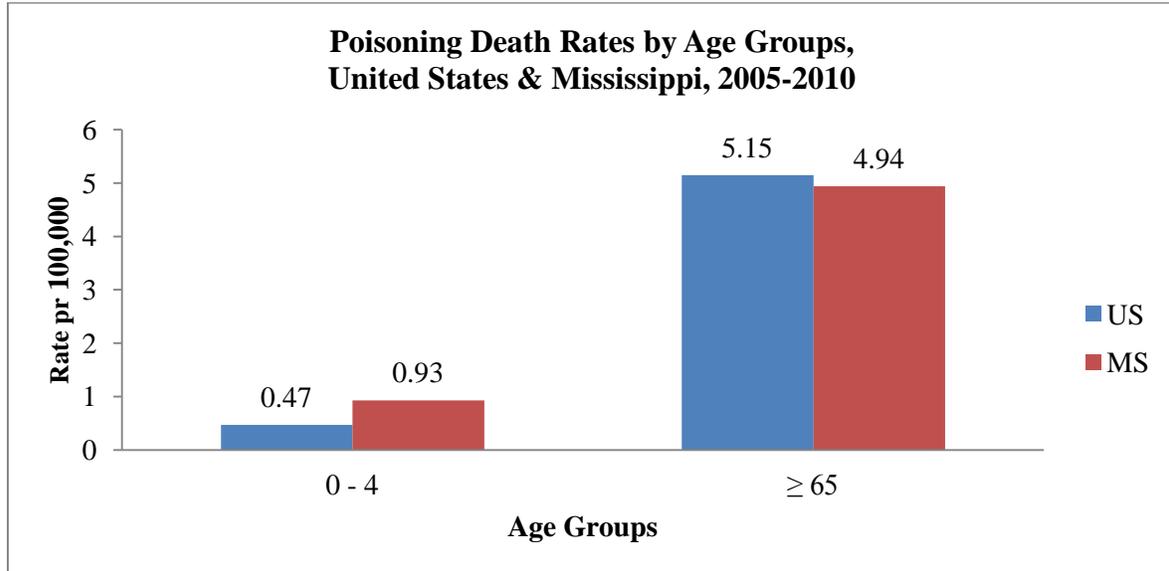
MS Source: University of Mississippi Medical Center Poison Control Center Call Center Database

**Table 3: 2005-2010, Human Toxic Exposures in the Home**

Year	Human exposures	Human exposure in Home	Out of Number of Human Exposures in the Home								
			Age Unknown	<6yrs	6-12yrs	13-18 yrs	19-65 yrs	>65 yrs	Female	Male	Unknown
2005	18,179	13,467	242	8,779	816	486	2,690	454	6,734	6,694	39
2006	17,336	12,800	245	8,757	774	409	2,242	373	6,400	6,360	40
2007	18,506	13,705	333	9,297	817	456	2,366	436	6,909	6,760	36
2008	18,425	13,876		9,514	843	445	2,641	433	6,790	7,071	15
2009	19,022	14,270		9,708	906	496	2,706	454	7,035	7,215	20
2010	18,699	13,542		8,961	795	419	2,844	523	6,790	6,741	11

MS Source: University of Mississippi Medical Center Poison Control Center Call Center Database

**Figure 4: 2005-2010 Poisoning Death Rates by Age Groups for United States and Mississippi**



U.S. Source: CDC's National Center for Injury Prevention and Control

MS Source: MSDH's Public Health Status

U.S. /MS crude rates were calculated using the Bureau of Census population estimates

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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
LOGIC MODEL  
APPENDIX VIII**

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Program Logic Model – Lead Poisoning Prevention and Healthy Homes Program (MSLPPHHP)  
 Goal of program: To decrease health disparities in Mississippi caused by environmental home health hazards  
 Target population: Families and stakeholders affected by environmental home health hazards

Inputs	Activities	Outputs	Outcomes		
			Short Term	Intermediate	Long Term
<p><i>Staff</i></p> <ul style="list-style-type: none"> <li>-Bureau Director</li> <li>-Division Director</li> <li>-Program Manager</li> <li>-Biostatistician</li> <li>-Environmental Health Program Specialist</li> <li>-Health Program Spec., Sr.</li> </ul> <p><i>Partnerships</i></p> <ul style="list-style-type: none"> <li>-MSLPPHHP Advisory Committee</li> <li>-MSDH: Asthma Program, Injury Prevention, Tobacco Prevention, Childcare Licensure</li> <li>-SIDS Outreach Project</li> <li>-DHS: Weatherization Assistance Program</li> <li>-MS Division of Medicaid</li> <li>-MS Lung Association</li> <li>-MS State Department of Education</li> <li>-MS State Fire Marshall's Office</li> <li>-Housing and Urban Development</li> <li>-Department of Environmental Quality</li> <li>-Universities: MS Valley State University, University of Mississippi, MS State University, JSU</li> <li>-City Officials</li> <li>-Home Depot</li> <li>-Delta Health Collaborative</li> </ul>	<p>A) coordinate healthy home services within communities and statewide</p> <p>B) develop and gain partnerships</p> <p>C) provide care coordination services (i.e. referrals, home visits) to families of children with elevated blood lead levels greater than or equal to 5µg/dL</p> <p>D) provide care coordination services for children with asthma</p> <p>E) provide Master Home Environmentalist Training and healthy housing training to inspectors, code officials, MS State Department of Education sponsors, landlords, contractors, realtors, and childcare providers</p> <p>F) provide integrated pest management trainings for childcare providers and stakeholders in high-risk communities</p> <p>G) provide contractors and consumers with point of sale environmental health education</p>	<p>-number of lead and healthy housing trainings (Master Home Environmentalist Training, integrated pest management, etc.)</p> <p>-number of groups receiving training (i.e. landlords, contractors, child-care)</p> <p>-number of healthy homes kits provided to high-risk families</p> <p>-number of children with elevated blood lead levels greater than or equal to 5µg/dL</p> <p>-number of educational materials disseminated through MSLPPHHP</p> <p>-number of educational materials disseminated at other MSDH programming</p> <p>-number of point of sale environmental health education materials disseminated</p> <p>-number of referrals provided for each community service</p> <p>-number of families who receive care coordination services</p>	<p>1) increase in identification of homes with environmental health and safety hazards</p> <p>2) decrease exposure to environmental health hazards</p> <p>3) define and establish environmental health hazard policies</p> <p>4) increase the number of families reached by education and outreach (individual phone counseling, Head Start, etc)</p> <p>5) increase referrals for community services to families with healthy home hazards</p>	<p>6) reduce the number of children and families exposed to environmental home hazards</p> <p>7) develop healthy/safe housing policies for Mississippians at the county/city levels</p> <p>8) increase the identification of homes with environmental home health hazards through inspections</p> <p>9) implement healthy environment ordinances focused on smoke-free and healthy homes initiatives</p> <p>10) coordinate services across programs to identify hazards regardless of what the initial inspection is for</p> <p>11) increase public relations highlighting program efforts and successes</p> <p>12) expand and promote awareness of healthy homes</p>	<p>13) reduce the number of children with EBLLs</p> <p>14) reduce exposure to lead and other home health hazards</p> <p>15) implement healthy/safe housing policies</p> <p>16) improved health outcomes</p> <p>17) reduce the number of children with long-term effects of lead poisoning (i.e. developmental delay, hearing loss)</p> <p>18) reduce the number of children with long-term effects of home health hazards (i.e. asthma, injuries)</p> <p>19) implement and continue enforcement of international property maintenance code and local building code</p>

<b>Inputs (cont.)</b>	<b>Activities (cont.)</b>	<b>Outputs (cont.)</b>	<b>Outcomes</b>		
			<i>Short Term (cont.)</i>	<i>Intermediate (cont.)</i>	<i>Long Term (cont.)</i>
<p><i>Facilities</i></p> <ul style="list-style-type: none"> <li>-MSDH central office</li> <li>-county health departments</li> <li>-health care clinics</li> <li>-PCP offices</li> </ul> <p><i>Funding</i></p> <ul style="list-style-type: none"> <li>-CDC</li> <li>-MS general state funds</li> <li>-MCH block grant</li> </ul>	<p>H) incorporate healthy housing activities into existing health education and outreach initiatives to include informational newsletters, presentations and trainings</p> <p>I) utilize methods, such as GIS, to identify at-risk children</p> <p>J) partner with state higher education institutions to research and draft legal memoranda regarding methods of enforcing environmental laws and create policy resources for case managers</p> <p>K) notification to city officials of environmental home health hazards identified during home assessments</p> <p>L) develop and implement a continuing education program for building code enforcement officials</p> <p>M) develop policy resources for case managers</p>				

**Constraints:**

- willingness of the community to participate
- difficult to determine all houses affected by lead
- lack of resources/funding
  - +lack of enforcement
  - +resources to remediate lead containment

**External Factors:**

- parent/caregiver not seeking health care for a child at risk of lead poisoning
- no one to enforce disclosure rule
- lack of awareness of lead poisoning

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**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
PARTNER SUPPORT LETTERS  
APPENDIX IX**

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MISSISSIPPI STATE DEPARTMENT OF HEALTH

August 27, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

Please consider this correspondence as support for the Mississippi State Department of Health's Mississippi Childhood Lead Poisoning Prevention Program (MSCLPPP) and the Division of Injury & Violence Prevention.

As the Acting Division Director of Injury & Violence Prevention, I applaud the efforts of MSCLPPP's desire to address health disparities that would have an immediate impact on the health status of our children and families.

With its primary goal of implementing a holistic approach to decreasing lead poisoning, MSCLPPP expands beyond the reduction of lead poisoning to also address mold, mildew, asthma and injuries. In addition, collaborations are underway with MSCLPPP to incorporate educating and equipping parents and caregivers with socket covers, childproof cabinet locks and providing semantics for home fire drills and evaluations within the targeted communities. Through the promotion and administering of the Healthy House Council, this partnership looks forward to decreasing home injuries, ultimately creating a healthier Mississippi.

Should you need additional information, please contact me at [nikki.johnson@msdh.state.ms.us](mailto:nikki.johnson@msdh.state.ms.us) or 601-576-7781.

Sincerely,

Nikki Johnson, MPH  
(Acting) Director, Division of Injury & Violence Prevention

---

School of Human Sciences  
Family and Consumer Sciences

August 29, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk:

We are pleased to provide this letter in support of your program. As partners for promoting Healthy Homes, we are always happy to work with your office to reduce injury, illness and death related to environmental risk factors. We appreciate your willingness to continue partnering with us to provide Healthy Homes Training to the citizens of Mississippi, including our successful Integrated Pest Management program.

New partnerships created as members of your Advisory Committee have brought a much-needed perspective of the efforts of all organizations involved. They have also facilitated the leveraging of resources between the state agencies, non-profit organizations, and universities for reaching Mississippians. Each time we meet, ideas for new collaborations result from the networking that occurs among Advisory Committee members. We would like to see these partnerships continue to grow.

As State Healthy Homes Coordinator for the National Center for Healthy Housing's (NCHH) Healthy Homes Training Center, and the Cooperative Extension Service's Healthy Homes network, I look forward to continuing our partnership to provide Healthy Homes Training and resources in our state.

Sincerely,



Bobbie Shaffett, Ph.D.  
Extension Professor

(662) 325-3080  
bobbies@ext.msstate.edu



**STATE OF MISSISSIPPI  
OFFICE OF THE GOVERNOR  
DIVISION OF MEDICAID**

DAVID J. DZIELAK, Ph.D.  
EXECUTIVE DIRECTOR

September 6, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

The Division of Medicaid (DOM) Bureau of Medical Services is pleased to support the Mississippi State Department of Health Lead Poisoning Prevention and Healthy Homes Program's (MSLPPHHP) healthy homes initiative.

The Division and the Department are in the process of working out the specifics of an interagency agreement for reimbursement of care coordination services for Medicaid eligible children who are age six (6) and under who are diagnosed through mandatory EPSDT lead screening with an EBLL of  $\geq 10\mu\text{g/dL}$ . Additionally, the agreement will include reimbursement of a one-time environmental investigation for children with venous elevated blood levels  $\geq 20\mu\text{g/dL}$  or persistent venous 15-19 $\mu\text{g/dL}$  at least three months apart.

The mission of DOM is to ensure access to health services for the Medicaid eligible population in the most cost effective and comprehensive manner possible and to continually pursue strategies for optimizing the accessibility and quality of health care.

We look forward to continuing our relationship.

Sincerely,

A handwritten signature in blue ink that reads "Dorothy K. Young".

Dorothy K. Young  
Bureau Director, Medical Services

 **AMERICAN LUNG ASSOCIATION.**  
Fighting for Air

Mississippi Leadership  
Council

August 28, 2012

**Members**

Tawni Basden  
Douglas Campbell, MD  
Tara Pierre Ellis  
Melissa Fortenberry  
Kathy Haynes, RRT-NPS,  
BS, AE-C  
Ginger S. Jenner  
Pauline McGee, R.N.  
Robin Robinson  
Monica Stinson, CHES  
Jane Tanner, RRT  
Daniel Venarske, MD  
Mark Whitlock, RT  
Greg Wynne

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

We are pleased to provide this letter in support to the program. As partners for promoting Healthy Homes, we are always happy to work with your office to reduce hazards and potential birth defects associated with smoking and the risk associated with secondhand smoke by providing the Breathe Smart from the Start program throughout the state.

As a member of the Advisory Committee the collaborations from both organizations have brought a much-needed perspective to the efforts that are made in the community.

I look forward to further collaborations to meet the healthy homes needs of families and children in our state.

Sincerely,



Amy Ellis  
Director of Health Promotions  
American Lung Association of the Gulf-Plains Region

**Local Office:**  
P.O. Box 2178  
Ridgeland, MS 39158  
(p) 601-206-5810  
(f) 601-206-5813

[www.breathehealthy.org](http://www.breathehealthy.org)  
[www.lungusa.org](http://www.lungusa.org)  
1-800-LUNG-USA

Office of the Mayor  
Harvey Johnson, Jr., Mayor



219 South President Street  
Post Office Box 17  
Jackson, Mississippi 39205-0017  
Telephone: 601-960-1084  
Facsimile: 601-960-2193

August 28, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

The City of Jackson supports the efforts of the Lead Poisoning Prevention and Healthy Homes Program through the Mississippi State Department of Health. We understand the health impact that environmental home health hazards have on children and families.

The City of Jackson and the Lead Poisoning Prevention and Healthy Homes Program are collaborating to create greener, safer, and healthier housing for families. Through this partnership, various resources will be brought together to address all of the problems of a family home through a single intervention. In return, this process will lead to a reduction in medical and energy costs for the families, and will create more sustainable housing for the City of Jackson.

We look forward to this partnership as we strive to protect the health and well being of all Mississippians.

Sincerely,

A handwritten signature in black ink, appearing to read "Catherine Lee", is written over a horizontal line.

Catherine Lee  
Special Projects Officer



*The*  
**University of Mississippi**

Oxford • Jackson • Tupelo • Southaven

**Faculty**

Law Center

Post Office Box 1848

University, MS 38677-1848

Phone: (662) 915-7361

Fax: (662) 915-6842

October 2, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

The University of Mississippi supports the efforts of the Lead Poisoning Prevention and Healthy Homes Program through the Mississippi State Department of Health. We understand the need for educating the public, including lawmakers, about environmental health hazards in the home that can lead to illness and injuries.

We have collaborated with the MSLPPHP to conduct an environmental health policy project. Through this project, local, state, and federal laws were reviewed to determine what legislative, regulatory, or administrative changes could be made that would allow for better enforcement and help to eliminate environmental health hazards in the home. Also through this partnership, a simulated public hearing was held to highlight both the effective and ineffective portions of the law.

We look forward to continuing the partnership as we strive to enhance the quality of life for people in the state.

Sincerely,

Desiree C. Hensley

Director, Civil Legal Clinic

University of Mississippi School of Law



MISSISSIPPI STATE DEPARTMENT OF HEALTH

August 28, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

The Office of Tobacco Control supports the Mississippi State Department of Health Lead Poisoning Prevention and Healthy Homes Program's (MSLPPHHP) efforts to provide a systematic approach to decreasing environmental health hazards in the home. We understand the need for educating vulnerable populations about the dangers of exposure to not only lead but also secondhand smoke, which is causally linked with asthma, SIDS and respiratory health conditions.

The Office of Tobacco Control will collaborate with the MSLPPHHP to expand and promote awareness of lead poisoning and healthy homes. Through this partnership, MSLPPHHP staff will be trained on the Environmental Protection Agency's "Care for the Air" program. This training will provide staff with the knowledge to increase awareness of the health effects of secondhand smoke exposure in children. Information obtained will be incorporated into existing presentations for our partners and affiliates encouraging them to take the smoke-free home pledge.

We look forward to continuing the partnership as we promote the need for healthy housing for all Mississippians.

Sincerely,

A handwritten signature in black ink, appearing to read "Roy Hart".

Roy Hart, MPH, CHES  
Director, Office of Tobacco Control



STATE FIRE MARSHAL'S OFFICE  
DIVISION OF THE MISSISSIPPI INSURANCE DEPARTMENT

MIKE CHANEY  
Commissioner of Insurance  
State Fire Marshal

RICKY DAVIS  
State Chief Deputy Fire Marshal

660 NORTH STREET, SUITE 100B  
JACKSON, MISSISSIPPI 39201  
[www.mid.state.ms.us](http://www.mid.state.ms.us)

MAILING ADDRESS  
Post Office Box 79  
Jackson, Mississippi 39205-0079  
TELEPHONE: (601) 359-1061  
FAX: (601) 359-1076

August 21, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

The State Fire Marshal's office will continue to collaborate with the Mississippi Lead Poisoning Prevention and Healthy Homes Program (MSLPPHHP) in efforts to decrease the number of fire deaths in the state and enhance knowledge of healthy housing issues.

The State Fire Marshal's office will provide the MSLPPHHP with smoke alarm installation training, fire prevention and fire escape planning educational materials, and free smoke alarms to distribute to families the MSLPPHHP serves.

It is our belief that their involvement in these programs is invaluable. It allows the programs to extend beyond those whom we have been able to provide smoke alarms through our State's fire departments. This helps to ensure the safety of many more of our citizens in the event they experience a fire in their residence.

Additionally, it has allowed us to build a partnership with the Mississippi State Department of Health and become active participants in some of its programs which relate to health and fire safety.

We will continue to collaborate with the MSLPPHHP to enhance families and communities knowledge about the importance of safe and healthy environments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ricky Davis", written over a horizontal line.

Ricky Davis  
Chief Deputy State Fire Marshal



**STATE OF MISSISSIPPI**

PHIL BRYANT  
GOVERNOR

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

TRUDY D. FISHER, EXECUTIVE DIRECTOR

August 27, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

The Mississippi Department of Environmental Quality (MDEQ) is pleased to provide the Mississippi State Department of Health's Lead Poisoning Prevention and Healthy Homes Program (MSLPPHHP) with this letter of support. MDEQ understands the importance of taking a holistic approach to addressing not only lead poisoning but also environmental exposures.

MDEQ will continue to collaborate with MSLPPHHP to expand and promote awareness of childhood lead poisoning and healthy homes. Through this partnership, lead and healthy housing information will be distributed to contractors, realtors, and building inspectors through brochures, presentations and trainings.

We look forward to continued collaborations that help families respond to lead and other environmental exposures.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Kelly".

Dennis W. Kelly  
Environmental Administrator  
Lead Program

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • [www.deq.state.ms.us](http://www.deq.state.ms.us)

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Moisture Intrusion Analysis, and Hazardous Material Testing*

August 21, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

TAGMA of Jackson, Mississippi supports the efforts of the Lead Poisoning Prevention and Healthy Homes Program through the Mississippi State Department of Health. We have a firm commitment to this program as TAGMA serves on the Lead Poisoning Prevention and Healthy Homes Advisory Committee. TAGMA's efforts are further channeled through the Policy Workgroup.

Since I am a Certified Healthy Home Specialist through the National Environmental Health Association, through TAGMA, I will support the efforts of the Healthy Homes Strategic Plan. TAGMA of Jackson, Mississippi applauds your efforts!

Sincerely,



C. Eric Eades

600 Arbour Court, Ridgeland, Mississippi 39157-4142  
Office: (601) 605-0446 • Fax: (601) 605-0447 • [tagma@comcast.net](mailto:tagma@comcast.net)



**Citizens for Economic Empowerment &  
Development For a Hazard Free  
Air Water Environment (CEED)**

August 21, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

The Citizens for Economic Empowerment and Development for a Hazard Free Air and Water Environment (CEED) is pleased to provide this letter in support to the program. CEED and the Mississippi State Department of Health Lead Poisoning Prevention and Healthy Homes Program have partnered in efforts to raise awareness of environmental health hazards such as: lead, mold, mildew, pests, and carbon monoxide.

In an effort to promote healthy home environments, CEED and the MSLPPHHP have collaborated to facilitate environmental home hazard assessments in the Presidential Hills Subdivision in Jackson, MS. These assessments offered insight into the environmental health hazards affecting families and provided resources to help decrease exposure to the identified hazards.

I look forward to working with the MSLPPHHP in developing activities and strengthening policies to create healthier and safer home environments.

Sincerely,

  
Johnny Beason

4847 GAYLYN DRIVE  
JACKSON, MS 39209  
PHONE: (601) 922-7374 / CELL: (601) 988-7146  
AMGISUM@AOL.COM



**703 Tallahatchie St  
Greenwood, Mississippi 38930  
662-451-5397**

August 21, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

We are pleased to support the Mississippi State Department of Health Lead Poisoning Prevention and Healthy Homes Program's (MSLPPHHP) healthy homes initiatives. In an effort to decrease childhood lead poisoning, environmental exposures and home injuries, we have collaborated with the MSLPPHHP to expand and promote awareness of childhood lead poisoning and healthy homes.

Through this partnership, we have conducted environmental home hazard assessments, provided healthy home resources, and held community forums to raise families' knowledge of healthy housing hazards and provided options to reduce hazards.

We look forward to continuing the partnership as we promote the need for healthy housing for all Mississippians.

Sincerely,



Patsy Ross, Coordinator  
Mississippi Community Education Center



# SOUTHERN HEALTH COMMISSION

P. O. BOX 293 • GREENVILLE, MS 38702-0293 • (662) 334-3349 • (662) 334-3373 (Fax)  
Email: sac@tecinfo.com

August 28, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

We are pleased to support the Mississippi State Department of Health Lead Poisoning Prevention and Healthy Homes Program's (MSLPPHHP) healthy homes initiatives. In an effort to decrease childhood lead poisoning, environmental exposures and home injuries, we have collaborated with the MSLPPHHP to expand and promote awareness of childhood lead poisoning and healthy homes.

Through this partnership, we have conducted environmental home hazard assessments, provided healthy home resources, and held community forums to raise families' knowledge of healthy housing hazards and provided options to reduce hazards.

We look forward to continuing the partnership as we promote the need for healthy housing for all Mississippians.

Sincerely,

  
Alzono Dukes, Project Manager  
Southern Health Commission



U. S. Department of Housing and Urban Development

Mississippi State Office, Southeast / Caribbean  
Dr. A. H. McCoy Federal Building, Room 910  
100 West Capitol Street  
Jackson, Mississippi 39269-1096

August 27, 2012

Beryl W. Polk, PhD, CPM  
Mississippi State Department of Health  
Bureau of Genetic Services  
P. O. Box 1700  
Jackson, MS 39215

Dear Dr. Polk,

We wanted to take this opportunity to acknowledge our partnership on various joint lead and healthy homes activities this past year in working with the Lead Poisoning Prevention and Healthy Homes Program. Over one hundred occupancy housing specialists, case managers, quality control personnel, admission specialists, and Section 8 directors have been trained on the problem of lead poisoning and healthy homes through our joint efforts. We continue to cross reference those addresses on which you notify us that there has been a lead poisoned child.

Our current MOU will allow us to work on other joint efforts as they relate to healthy housing: including issues of mold, mildew, asbestos and other health related environmental concerns. We look forward to our continued partnership to improve the health status of Mississippians.

Sincerely,

A handwritten signature in black ink, appearing to read "Holly Knight".

Holly Knight, Director  
Jackson Hub Office of Public Housing

*HUD's mission is to increase homeownership, support community development and increase access to affordable housing free from discrimination.*

---

**MISSISSIPPI LEAD POISONING PREVENTION AND HEALTHY HOMES  
REFERENCES  
APPENDIX X**

---

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