Wisconsin Childhood Lead Poisoning Prevention Program

Program Boundary Statement

For each performance-based contract program, the Division of Public Health has identified a boundary statement. The boundary statement sets the parameters of the program within which the local public health agencies (LPHA) will need to set its objectives.

Program Boundary Statement:
Local childhood lead poisoning prevention programs are to implement objectives that will protect children against lead poisoning and eliminate it as a major childhood disease. The impact of LPHA activities should result in decreasing lead hazards in the environment(s) of children and increasing early detection and treatment of lead poisoning in children up to age 16. All children up to age 16 who have an elevated blood lead level should receive environmental and nursing interventions.

Education activities are to be targeted at community members who play a role in preventing lead exposure, eliminating lead hazards, providing blood lead testing, or providing medical or environmental follow-up to children who are lead poisoned (greater than or equal to 3.5 micrograms per deciliter [µg/dL]).

Long-term Program Goal:
To eliminate childhood lead poisoning in Wisconsin.

Annual Program Goals:
- Increase the involvement of community members in childhood lead poisoning prevention activities.
- Increase the availability of lead-safe housing for families with young children.
- Educate parents so they have the knowledge and skills necessary to protect their children from lead hazards.
- Increase blood lead testing of children across Wisconsin.
- Provide interventions for children with blood lead levels greater than or equal to 3.5 µg/dL.
- Provide comprehensive environmental investigations for children up to age 16 with elevated blood lead levels, including adequate documentation of environmental lead sources, work orders and property clearance.

High Risk Populations:
Highest-risk children for blood lead testing include those 0-5 years of age who meet one or more of the following criteria:
- live in high-risk neighborhoods,
- live, or spend significant time, in a house built before 1950.
- live in a house built before 1978 with recent or ongoing renovations
- are enrolled in the Medicaid or WIC program,
- have a sibling or playmate with lead poisoning.

Acceptable Program Objectives:
- Objectives that involve increasing blood lead testing for children under 6 years of age..
    - Local health departments must seek Medicaid reimbursement for blood lead testing of Medicaid-enrolled children. This may require establishing contracts with the managed care organizations within their community.

- Objectives that involve direct provision of services to families with children at high risk for, or with, lead poisoning.
- Objectives that build capacity in a community to prevent lead poisoning and increase the availability of lead-safe housing to families of young children.
    - This involves going beyond the one-to-one transfer of information to building partnerships with targeted organizations or groups that can assist in maximizing community resources to meet the goal of eliminating lead poisoning. For example, reaching out to child care regulators, child care providers, home visitors, and housing agencies who provide service to or work with the target population, parents or caregivers of young children.

Unacceptable Program Objectives:

- Objectives for general educational outreach, such as health fairs or public service announcements, will not be accepted.

State of Wisconsin Statute and Administrative Rules:

- WI Statute Chapter 254: *Environmental Health* (http://docs.legis.wi.gov/statutes/statutes/254.pdf)
- WI Administrative Rule DHS 163: *Certification for the Identification, Removal and Reduction of Lead-Based Paint Hazards* (http://docs.legis.wisconsin.gov/code/admin_code/dhs/110/163.pdf)
- WI Administrative Rule DHS 181: *Reporting of Blood Lead Test Results* (http://docs.legis.wisconsin.gov/code/admin_code/dhs/110/181.pdf)

Program Policies and Guidance Documents:

- WI Blood Lead Testing Recommendations
- WCLPPP Handbook for Local Health Departments (Revised 2014; https://www.dhs.wisconsin.gov/lead/ph-intervention.htm; under the Handbook tab)
- Nursing and environmental investigation forms and templates; (https://www.dhs.wisconsin.gov/lead/ph-intervention.htm; under the Forms and Templates tab)
    - Nursing Case Management Report (F-44771A)
    - Nursing Case Closure Report (F-44771B)
    - Property Investigation Report (F-44771C)
    - Property Investigation Closure Report (F-44771D)
    - Risk Assessment Report (template)
    - Work Specification Language for Lead Hazard Reduction (list of work spec options)
    - Work Orders Letter (template)
    - Scope of Work (template)
    - Clearance Report (template)
- *How to Do A Lead Risk Assessment* video (https://www.youtube.com/watch?v=QOrhcnyKUwU)
- Healthy Homes and Lead Poisoning Surveillance System (HHLPSS) Job Aids (https://www.dhs.wisconsin.gov/lead/hhlpss-job-aids.htm)
- Medicaid reimbursement for lead-related services (https://dhs.wisconsin.gov/lead/medicaid-reimbursement.htm)

Relationship to the Wisconsin Health Improvement Plan and its Priorities

Lead exposure can cause permanent brain damage and negatively affect learning, behavior, and health throughout the child's life. Lead exposure can have an impact on each of the Division of Public Health's Health Improvement Plan Priorities.

- **Alcohol and Opioid Abuse.** Many studies have found strong associations between higher blood lead levels and aggressive behavior, impulsivity, hyperactivity, and attention impairment. Children exposed to even moderate amounts of lead are more likely to exhibit behavior problems in childhood, to engage in risky behavior, such as alcohol or drug abuse, in the teenage years, or engage in violent or criminal behavior in young adulthood.
- **Tobacco.** Tobacco smoke continues to be a substantial source of exposure to lead in the U.S. population in general. There is a linear relationship between smoke exposure and blood lead levels (BLLs) in youth and adults. Youths with secondhand smoke exposure have BLLs suggestive of the potential for adverse cognitive outcomes.
- **Nutrition and Physical Activity.**

  A) Nutrition*:* Children with an adequate amount of calcium, iron, and zinc in their diets absorb less lead than children with dietary deficiencies. In addition, a compromised nutritional state makes one more susceptible to the damaging effects that result from increased absorption of ingested lead.

  Adults who have calcium deficiency and simultaneously experience other conditions that would normally mobilize calcium from the bones may mobilize lead that has been stored in bone tissue into the blood. For example, a pregnant woman who has a low dietary calcium intake may release stored lead from her bones into her blood, where it becomes available to the fetus.

  B) Physical activity: Lead exposure in childhood has been shown to adversely affect the child's ability to maintain upright balance and other neuromotor performance capabilities, such as bilateral coordination, upper-limb speed and dexterity, and fine motor coordination. Teens and adults who were lead-poisoned as young children are more likely to experience poor upright balance, coordination, and motor skills, and increasing long-term injury risk.
- **Suicide.** Researchers have found that men and women in their 20s and 30s with the highest levels of lead in their blood were more than twice as likely to suffer from major depression as their peers with the lowest blood lead levels, while their risk of panic disorder was nearly five times greater. Research has also shown that teens that were lead-poisoned as young children are more likely to develop depression and panic attacks.
- **ACEs.** It has been documented that many of the same youth who are at risk of lead exposure are also at an increased risk for experiencing Adverse Childhood Experiences (ACEs), which have similar consequences. The neurological consequences of both lead exposure and ACEs contribute not only to medical disability but also to behavioral challenges, affecting youths' interaction with the education system, employment opportunities, and other parts of their community during their development.

References:

Federal Regulations and Guidelines:

- Educational Services for Children Affected by Lead Expert Panel, *Educational intervention for children affected by lead.* Atlanta: U.S. Department of Health and Human Services (April 2015; https://www.cdc.gov/nceh/lead/publications/Educational_Interventions_Children_Affected_by_Lead.pdf).

- CDC's Blood Lead Reference Value and Recommended Actions (Oct 2021) https://www.cdc.gov/nceh/lead/data/blood-lead-reference-value.htm
- CDC Advisory Committee on Childhood Lead Poisoning Prevention, *Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, (https://www.cdc.gov/nceh/lead/docs/final_document_030712.pdf; CDC, January 2012)
- U.S. Dept of Housing and Urban Development, *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. (2012 Edition; https://www.hud.gov/program_offices/healthy_homes/lbp/hudguidelines).
- Centers for Medicare and Medicaid Services, *State Medicaid Manual, Part 5. Early and Periodic Screening, Diagnosis and Treatment.* Section 5123.2, page 5-15, https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Paper-Based-Manuals-Items/CMS021927