

STATE OF MICHIGAN

**CHILDHOOD
LEAD POISONING
PREVENTION:**

A Call to Action

JULY, 2003

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CHILDHOOD LEAD POISONING PREVENTION:

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EXECUTIVE SUMMARY

Lead poisoning may affect as many as 20,000 children under the age of six in Michigan. *If not detected early, the lead that accumulates in a child's body may cause brain damage, mental retardation, developmental delay, learning difficulties, behavior problems, anemia, liver and kidney damage, hearing loss, hyperactivity, and in extreme cases, even coma and death.*

In a recent comprehensive multi-part investigative report, the Detroit Free Press examined the nature and extent of lead contamination in southeastern Michigan. The series focused on the imminent threats posed to children's health and cognitive development from ingestion of lead paint dust in residential neighborhoods, the broad dispersal of lead-laden soils from historical airborne deposition of leaded fuel emissions, and identified specific facilities that present known or potential lead hazards. The series alerted Michigan citizens to what public health and environmental scientists and children's health advocates had known for decades. Lead is a clear threat to the health of thousands of Michigan's children.

Clearly, Michigan must improve its efforts in 1) detecting lead poisoning in children, 2) eliminating lead from our environment, 3) assuring collaboration in decision-making and coordination of state and local efforts, and 4) assuring the most effective and efficient use of all available resources. To accomplish these tasks, Michigan needs to initiate a focused multi-agency / multistakeholder *Lead Poisoning Prevention Task Force* charged with developing recommendations regarding: 1) policy and legislative needs, 2) health program content, structure, and administrative responsibilities, 3) long range revenue and funding alternatives, 4) recommended collaborative initiatives, and 5) accountability and costs for carrying out the recommendations of the task force.

Effectively addressing Michigan's lead problem will, of course, take a sustained effort over time. However, there are important steps that can be taken now and in the near-term that can jumpstart Michigan's efforts.

Specifically, this **Childhood Lead Poisoning Prevention: A Call to Action** report supports the need for immediate action on the following:

- **Michigan Department of Community Health (MDCH) Departmental Action:** Launch a major new lead testing initiative involving Michigan's new Surgeon General. This will include sending lead testing education information to each new parent. Additionally, a letter will be developed for signature by the Surgeon General to providers of health care to children, assuring their understanding of the standard of care for lead testing of children in Medicaid and high risk areas throughout the state. It will state her expectation that the standard will be followed by all individuals who provide health care for children. This letter will clearly spell out the requirements of

Medicaid and the recommendations of the Centers for Disease Control and Prevention and the American Academy of Pediatrics.

- **MDCH Departmental Action:** Refocus current efforts within MDCH to create capacity to assist Michigan's communities in writing successful grants to H.U.D., other federal agencies, and private foundations for lead testing and abatement activities. MDCH will provide technical assistance to communities that seek to build collaborative relationships with private businesses and other partners for local lead abatement activities. The goal would be to double the current level of federal and private resources dedicated to lead testing and abatement.
- **Department of Environmental Quality (DEQ) Departmental Action:** Establish and pilot a process in the Detroit area to determine if sites that are contaminated with lead pose an increased risk of lead exposure to children in the area. The DEQ will screen available databases and information, inspect and sample identified sites as necessary, validate and prioritize sites of unacceptable risks to children and, as required, take appropriate action to remediate those sites that pose a risk to children. The DEQ will share this information with the City of Detroit, MDCH, the Detroit Lead-Safe Partnership, community organizations, residents in the vicinity of the identified sites, and other interested stakeholders.
- **Michigan State Housing Development Authority (MSHDA) Action:** Modify MSHDA's current Property Improvement Program (PIP) loan program to assist in the remediation of lead hazards. The PIP program is designed to help homeowners and landlords make improvements to their homes or small apartment buildings.
- **Legislative Action:** Create a lead-safe housing registry and provide reasonable state civil/criminal penalties and fines for rental agencies, rental property owners, managers, and owners who knowingly fail to remediate and re-rent or sell housing to Michigan's families. It is difficult for families with children to know with certainty whether the housing units they rent or purchase are lead safe. Several states have established registries of inspected lead-safe housing units to help guide families and to help recognize rental property owners that have made effective abatement efforts. On the other hand, a number of owners of rental properties that are known to be lead contaminated re-rent these facilities to families without making proper repairs. Local zoning and enforcement regulations are either nonexistent or not effective, and state sanctions are needed.
- **Legislative Action:** Require electronic reporting by all laboratories providing analysis of blood lead samples from Michigan citizens. Current rules strongly encourage, but do not mandate, electronic reporting.
- **Legislative Action:** Create a multi-agency/multi-stakeholder task force with a specific charge to develop - within six months - a *Michigan Strategic Lead Poisoning Prevention Action Plan* for making all Michigan families lead safe. The plan will specifically identify needed changes in health policies and legislation, will require the development of formal interdepartmental

implementation agreements by the appropriate state departments and agencies and will establish concrete proposal for funding lead testing, remediation and abatement activities,

- **Legislative Action:** Require fee for service and Medicaid managed care plans to increase the percentage of Medicaid covered eligible children tested in each plan so that within three years every plan would reach at least 80 percent of all children who should be tested according to federal regulations.

The **Childhood Lead Poisoning: A Call to Action** report describes a range of important lead testing and abatement activities that should be undertaken by the **MDCH Childhood Lead Poisoning Prevention Project (CLPPP), the MDCH Lead Hazard Remediation Program (LHRP), Michigan Department of Environmental Quality (DEQ) and Michigan State Housing Development Authority (MSHDA).**

Childhood Lead Poisoning: A Call to Action also identifies sixteen other short range activities and strategies that can make a difference including:

1. Complete a survey of states to determine how housing registries have been developed and implemented to assist in the development of a Michigan lead-safe housing registry. (See Attachment A)
2. Work closely with the Federal Administration and Congressional delegation to identify funds to support testing, treatment, follow-up, and remediation activities [e.g., Housing & Urban Development (HUD), Environmental Protection Agency (EPA), and Centers for Disease Control (CDC)].
3. Review current programs and policies across state departments to determine how they may be able to assist in addressing issues relating to lead poisoning and environmental contamination (e.g., Michigan State Housing Development Authority (MSHDA), Family Independence Agency (FIA) funding for emergency housing, Community Development Block Grant (CDBG) funding that could be redirected to address lead issues). Identify conflicting policies that may need change and/or clarification.
4. Strengthen and support interaction between state government, major cities, and counties (e.g., Detroit, Wayne County, Berrien County) with significant problems with lead poisoning and environmental contamination through appointment of specific liaisons.
5. Begin working with health professional schools and schools of education to assure that all graduates are knowledgeable about the effects of lead on the growing brain, and the educational implications of teaching children who have been lead poisoned.
6. Identify policy needs to correct any known weaknesses in the current system, (e.g., housing codes for rehabilitation of homes under Consumer & Industry Services (CIS), Medicaid testing and reimbursement policies, and rental property owner policies).

7. Engage Michigan's medical organizations to assist with an education campaign for physicians and practitioners to test all children at risk for lead poisoning.
8. Consider policy to directly provide Medicaid reimbursement to Women, Infants & Children (WIC), other local health department programs serving children, and Head Start programs that complete a lead test for a child who has not been tested as required by the primary provider.
9. Determine cleanup status at known lead contaminated sites within the pilot area.
10. Reexamine existing lead sampling data from all available sources, review inventories of emission sources and uses of lead from toxic substance registries.
11. Continue to refine designation of high-risk areas by cross-referencing available databases using Geographic Information Systems (GIS) to more accurately pinpoint areas where children face the greatest potential of unacceptable exposure.
12. Determine the most effective means (e.g., pamphlets, radio, etc.) for informing families with young children about the most effective low-cost, low-tech actions they can take to reduce lead hazard exposure.
13. Review the most recent toxicological and other pertinent data to determine if the current Part 201 residential cleanup criterion is protective and to determine the most appropriate method of soil sampling.
14. Develop a clearinghouse of current, relevant lead information, and a strategy to assure broad access to the clearinghouse.
15. Work with local housing authorities, Family Independence Agency (FIA) and Community Development Block Grantees to assure that lead-safe housing and emergency relocation is available to families while their dwellings are being remediated.
16. Modify the current Property Improvement Program (PIP) loan program with MSHDA to assist in the remediation of lead hazards.

Finally, the **Childhood Lead Poisoning: A Call to Action** suggests several mid- and longer-term actions that should be seriously considered by the proposed task force charged with developing the Michigan Strategic Lead Prevention Action Plan, including: establishing increased funding for remediation and abatement, identification of housing units with lead hazards, and lead poisoning prevention initiatives.

CHILDHOOD LEAD POISONING PREVENTION:

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INTRODUCTION

Lead poisoning is a serious, yet entirely preventable environmental illness that has life-long effects on the individuals who become lead-poisoned. Examining clinical and environmental issues related to the control of lead hazards is crucial to addressing the needs of affected individuals and their families.

I. Key Facts About Lead and Lead Poisoning

A. Health Effects

A child may be lead-poisoned and not feel or look ill. Some children with elevated blood lead levels (EBLLs) will develop stomach complaints including diminished appetite and vomiting, and parents may notice overall lethargy, changes in the child's behavior and sleep patterns, but **most** lead-poisoned children have no symptoms at all. If not detected early, the lead that accumulates in a child's body may cause brain damage, mental retardation and learning difficulties, behavior problems, anemia, liver and kidney damage, hearing loss, developmental delay, hyperactivity and, in extreme cases, coma and death¹. *There is no safe level of lead in the body. The "level of concern" currently recommended by the Centers for Disease Control and Prevention (CDC) is 10 micrograms per deciliter of blood ($\mu\text{g}/\text{dL}$)*.*

*This standard was lowered from 25 micrograms per deciliter in the early 1990's.

B. Number of Children in Michigan Affected

In 2002, 92,742 infants and children birth through age six were tested for lead-poisoning: 4,083 children were found to be lead-poisoned, and another 1,505 children await confirmation of their lead status. This represents 4.9 percent of those tested. See Figures 1 through 3 (pages 29-31).

C. Total Number of Children Potentially Affected in Michigan

It is estimated that roughly 50 percent of all children under six are either Medicaid-eligible and/or live in high-risk zip code areas (where there are a significant number of old homes with lead-based paint). Using 2000 census data, it is estimated that 412,253 children should be tested for lead poisoning. If the same prevalence rate for lead-poisoning is applied to this population as those children already tested (4.9 percent), it is estimated that there may be as many as 14,600 additional children who are lead poisoned but not yet tested. If lead-poisoning in these

¹ Preventing Lead Poisoning in Young Children, Centers for Disease Control, Oct. 1991, Chapter 2, pp 7-10.

children remains untreated, their health and cognitive abilities may be permanently damaged.¹

D. Number of Housing Units with Potential Sources of Lead Hazards

An accurate determination of the number of residential units that have lead-based paint and soil hazards is not possible to obtain without extensive testing of each unit and the sampling of soils. To date, no nationwide or statewide surveys of non-government-owned properties have been attempted. Consequently, trends and past data must be examined to determine the units that would be considered a potential threat to the occupants, including the age and condition of the unit. Additionally, the existence of lead-based paint in itself is not necessarily a hazard; only paint that is being released into the interior and exterior environment through deterioration, abrasion, or friction is a contributing factor. *A review of year 2000 census data for Michigan indicates that the number of homes constructed prior to 1950, a time when over 90 percent of homes used lead-based paint, is 1,838,758. Of this number, 392,586 are rental properties. Older rental properties tend to reflect substandard maintenance and increased risk to children living in these units.*

E. Geographic Distribution

Information from Michigan's Childhood Lead Testing registry indicates a higher incidence of lead poisoning in the major urban areas of Michigan (City of Detroit, and counties of Wayne, Kent, Muskegon, Berrien, Calhoun, Kalamazoo, Genesee, Ingham, Saginaw, and Oakland). Blood lead testing in rural areas of Michigan has yielded smaller numbers of children with EBLs. The entire upper peninsula has had very few cases over the past three years and is now considered a "low risk" area. The primary source of lead poisoning is lead paint dust resulting from paint deterioration in older housing that is poorly maintained, as is found in urban areas. See Figure 4 (page 33).

F. Treatment

Treatment of children with lead poisoning children will vary greatly based on the lead level measured in the child. Treatment ranges from education and anticipatory guidance provided by the local health department to immediate hospitalization with chelation therapy in order to clear some of the lead from the circulating blood. When chelated, the child should not return to the residence where he/she was poisoned until the lead hazards have been identified and cleared. *Unfortunately, many children are treated on an outpatient basis, or return to their dwelling from the hospital before any lead hazards have been cleared.*

G. Medical Resources

Two medical centers (Children's Hospital of Michigan in Detroit and Spectrum Health in Grand Rapids) specialize in the care of lead-

¹ Michigan Department of Community Health, CLPPP Data Manager, June 2003.

poisoned children and have comprehensive clinics for them. Physicians throughout the state are encouraged to seek consultation on the care of lead-poisoned children from one of several pediatric consultants to the MDCH Childhood Lead Poisoning Prevention Program (CLPPP), but many children are inadequately treated or untreated, because physicians are unfamiliar with the treatment of lead-poisoning or do not recognize that the problem may exist in their patients.

H. Policy

The federal Centers for Medicare and Medicaid Services (CMS) as well as Michigan's Medicaid program require that enrolled children be tested at one and two years of age, or once between ages three and six if they have not been previously tested. In 2002, 25 percent of the one- and two-year-old children enrolled in Medicaid in Michigan were tested.¹

II. Stakeholders

A. State Agencies

The problem of lead-poisoning crosses many jurisdictions of government agencies, ranging from child and adult health to environmental concerns. The following state agencies all share a direct role in addressing lead:

1. The Department of Community Health houses two programs that address issues of lead poisoning and environmental remediation of lead hazards. The Childhood Lead Poisoning Prevention Program (CLPPP) assists local health departments (LHDs) in the identification, assessment, and follow-up of children who are lead-poisoned; manages the statewide lead registry; and offers consultation to physicians managing the children's care. The Lead Hazard Remediation Program (LHRP) addresses lead hazards in housing that require remediation; maintains a registry of contractors certified to correct lead hazards; develops protocols for lead inspections, and assists LHDs in monitoring clearance testing following remediation.
2. The Department of Environmental Quality (DEQ) regulates lead levels in soil, drinking water, surface water, and landfills and maintains a registry of radioactive instruments used to measure lead in the home.
3. The Family Independence Agency (FIA) may assist with placing children with lead poisoning into lead-safe homes. They may also direct families to lead-safe housing when they distribute vouchers. Lead paint must also be addressed in FIA's home weatherization program.
4. The Department of Education must address children with learning disabilities that result from lead poisoning, many of whom will

¹ HCFA-416: Annual EPSDT Participation Report, State of Michigan, FY 2001.

require special education services. School buildings may also be sources of lead exposure.

5. The Department of Consumer and Industry Services (CIS) regulates lead levels in adults in the Michigan Occupational, Safety, and Health Act (MIOSHA). The Bureau of Construction Codes has recently enacted statewide housing codes for new construction as well as remodeling older housing.
 - a. Michigan State Housing Development Authority (MSHDA) receives from CDBG and HOME funds for housing rehabilitation. MSHDA utilizes about \$20 million of these funds per year through governmental and nonprofit sub-recipients to rehabilitate sub-standard housing. The rehabilitation process involves correcting health and safety hazards and bringing the property up to local housing code standards, or at least Section 8 minimum Housing Quality Standards (HQS). As of August 10, 2001, MSHDA and its grantees receiving federal dollars for rehabilitation must comply with the federal lead regulations 24 CFR Part 35, and all lead hazards in pre-1978 housing must be remediated as part of the rehabilitation work.
 - b. The Insurance Bureau regulates business practices for homeowners insurance, building rehabilitation, and hazard remediation contractors.
 - c. Head Start (3-5 years) and Early Head Start (2 weeks-3 years) serve infants and children.
6. The Department of Corrections is often the final home for those who suffer from the long-term effects of lead-poisoning. Several studies now point to lead-poisoning as a cause of delinquent behaviors, reduced learning abilities, and school dropout that may lead to the incarceration of young individuals.
7. The Department of Attorney General manages litigation for state agencies, receives and addresses consumer complaints, and will be involved in litigation related to rental property maintenance.

B. Local Government

Local governmental agencies play a role in the identification, treatment, and follow-up of lead-poisoned children, and the remediation of lead hazards:

1. City Governments: Detroit, Grand Rapids, Saginaw, Flint, among others with predominance of older housing, and proximity to major highways, lead smelters, etc.
2. Local Public Health Departments
3. Local and Intermediate School Districts
4. Community Mental Health Agencies

C. Other Stakeholders:

Community-based and Statewide Coalitions

1. Michigan Lead-Safe Partnership
2. Detroit Lead-Safe Partnership
3. Grand Rapids "Get the Lead Out" Coalition
4. Saginaw Lead Initiative Project
5. Detroit Mayor's Task Force

Trade Groups

1. Rental property owners associations
2. Home builders associations
3. Renovation and remodeling contractors
4. Renter associations
5. Real estate firms and associations
6. Water utilities

Consumer Groups

1. Parents' groups - United Parents Against Lead (UPAL)
2. Individual parents of children who have been lead poisoned

Professional Groups

1. Health professional organizations (e.g., Michigan State Medical Society, Michigan Nurses Association, Michigan Chapter - American Academy of Pediatrics, Michigan Section - American College of OB/GYN, Michigan Association of Family Practice, Michigan Osteopathic Association, National Association of Pediatric Nurse Associates and Practitioners, and American College of Nurse Midwives).
2. Environmental and industrial hygiene consultants and contractors
3. Other professional organizations (e.g., Michigan Education Association, Michigan Association of Social Workers)
4. The Michigan Association for Local Public Health
5. The Michigan Public Health Association
6. Michigan Association of Health Plans
7. Chambers of Commerce, businesses, and industry advocacy groups
 - * Michigan Council for Maternal and Child Health
 - * Michigan League for Human Services
 - * Michigan's Children
 - * Michigan Coalition for Children and Families
 - * The Michigan Environmental Council
 - * Children's Charter of the Courts
 - * Foundations

III. Previous Recommendations by the Michigan Environmental Science Board

The findings and recommendations of the Michigan Environmental Science Board shared with the Governor in 1995 identified lead as pervasive throughout society, but particularly in Michigan because of its industrial nature. Lead-poisoning was identified as a preventable condition that must be addressed because the "insidious and sub-clinical outcomes of lead exposure may result in significant decreases in overall health and productivity of the

state's citizens." The report indicated that testing is essential in order to identify children with elevated blood lead levels.

IV. MDCH, DEQ, and MSHDA Activities to Address Childhood Lead Poisoning

A. MDCH Childhood Lead Poisoning Prevention Program (CLPPP)

1. The Division of Family and Community Health, Childhood Lead Poisoning Prevention Program (CLPPP) has worked closely with Medicaid to develop strategies to increase the number of children tested in Medicaid and in high risk zip codes throughout the state.
2. During 2002, Medicaid established baseline levels of lead testing performance for all Medicaid health plans and established an initial target of 40 percent of children being tested for blood lead levels.
3. CLPPP utilizes CDC, Maternal and Child Health Block Grant and state general funds to fund several communities in Michigan to provide identification of children with lead poisoning and follow-up. These communities were selected based on the number of lead-poisoned children who had been identified in the jurisdictions. General Fund dollars are also utilized in the programs, and currently funds one rural project. Agencies not receiving funding have access to Medicaid funding for two environmental visits and two public health nursing visits to the child's home, *but no funding exists for families who are not Medicaid enrolled*. Local funds are utilized for inspections and public health nursing visits for assessment and follow-up when available, but *many children go without nursing or environmental inspections because of the lack of local funds or capacity for these activities*.
4. Numerous communications and educational opportunities have been offered for physicians who provide primary care for children regarding the importance of lead testing and the consequences that may be suffered by children whose lead status has not been identified. Physicians still continue to test in relatively small numbers, and so a few local health departments have begun to test children in WIC and immunization clinics to increase the numbers of children whose blood lead status is known. Some WIC clinics, however, feel severely overburdened with current responsibilities and are unwilling to add lead testing without personnel resources and clear guidelines regarding reimbursement.
5. CLPPP works with quality improvement managers in Medicaid and private Health Maintenance Organizations (HMOs) to assist them in achieving compliance from their providers. Staff have also met with providers and laboratories regarding required reporting of blood lead analysis results to assist them in increasing the quality of data reported to the state, and also to encourage electronic reporting. However, not all laboratories have been willing to move to electronic reporting.

B. MDCH Lead Hazard Remediation Program (LHRP)

The Lead Hazard Remediation Program (LHRP) coordinates the following activities: 1) administers a statewide accreditation and certification program for lead professionals, trainers, and lead-based paint hazard abatement contractors; 2) administers an enforcement program to ensure work practice standards are adhered to by all persons; 3) provides education and outreach to inform families and other stakeholders of the importance of the lead poisoning issues and applicable laws and guidelines that are in place to address the concerns; 4) participates in both the Michigan and Detroit Lead-Safe Partnerships; and 5) administers lead hazard remediation projects in target housing to reduce the incidence of lead-poisoning in young children.

Lead Hazard Reduction in Residential Housing

1. Two grants from the U.S. Department of Housing and Urban Development (HUD) funded abatement of 581 homes to date at a cost for abatement of \$3,280,753. The remainder of the funds went to project oversight at the local health department level, as well as laboratory services and state administrative costs.
2. Clean Michigan Initiative bond funds have been used to abate 250 homes to date at a total cost for abatement of over \$1.9 million. The remainder of the funds went to project oversight at the local health department level as well as laboratory services.

Accreditation/Certification of Lead Professionals, Trainers, and Abatement Contractors

Accreditation and certification of licensed lead professionals take place under authority of legislation passed by the state in 1998 and subsequently amended in December of 2002. Recent amendments will add another profession of "clearance technician" to assist local housing agencies in verifying the adequacy of interim control measures and hazard abatement.

Enforcement and Compliance Assistance Activities

1. Enforcement and compliance assistance follows an approach of providing both education and compliance assistance to regulated communities during initial years of enactment. This is to ensure full understanding of the Michigan Lead Abatement Act (M.C.L. 333.5451-5477), corresponding rules (R325.9901-R325.9925), and departmental interpretations.
2. One hundred and twenty-seven enforcement cases have been opened to date to investigate potential violations of the Michigan Lead Abatement Act and rules with total fines of \$7,325 in addition to non-monetary penalties.

3. Compliance assistance is important to local housing authorities in assuring their understanding of the Lead Regulations, how they relate to housing renovation and rehabilitation work, and the safety of housing occupants.

Education and Outreach

Homeowners, rental property owners, renovation and remodeling contractors, city administrators, local health departments, the medical community, educational institutions, nonprofit housing agencies, and other state and federal government agencies all have a stake in the prevention of lead poisoning.

1. In fiscal year 2002, 86 public presentations were conducted by LHRP staff and subcontracted local health departments.
2. In the last six months of 2002 (the period for which data was recorded with assistance of a new database), 1,055 responses were made to requests for educational materials and program applications.
3. The program shares an active website with CLPPP that is updated on a weekly basis. The address is www.michigan.gov/mdch, link Physical Health and Prevention, link Prevention, and link Lead Poisoning.

C. Department of Environmental Quality (DEQ)

The DEQ and the United States Environmental Protection Agency (USEPA) have primary responsibility to evaluate the risks associated with the deposition of lead from environmental sources specifically including, but not limited to, historical contamination attributable to vehicular emissions, historical industrial and commercial sources, and current regulatory efforts governing existing and new sources.

The DEQ activities related to lead contamination that will be piloted in the Greater Detroit area include:

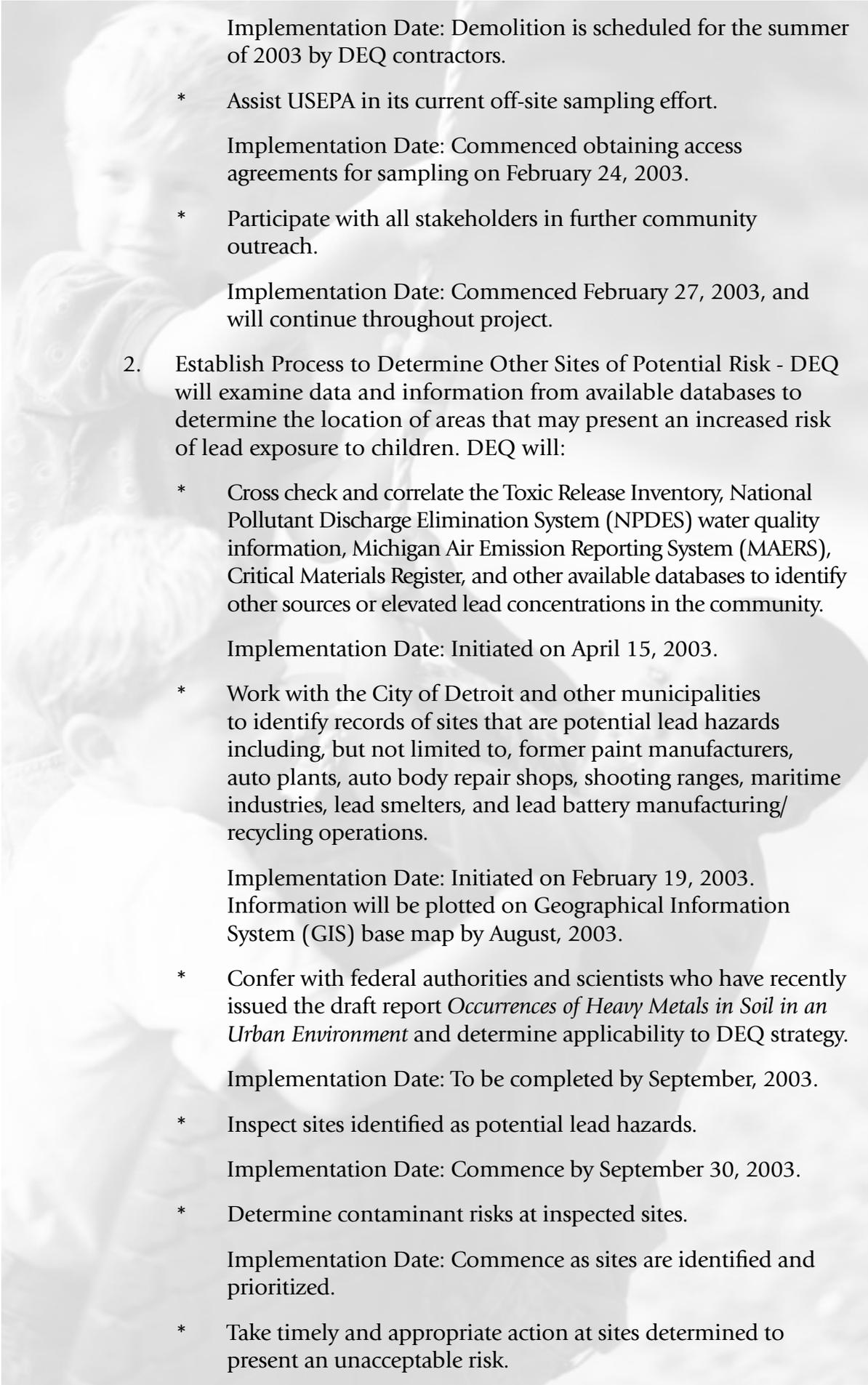
1. Addressing abatement needs at the Detroit Master Metals Facility

This facility operated as a lead smelter from approximately 1955 until 1984 and thereafter processed ferrous sulfate heptahydrate until 1990. USEPA executed an Administrative Order of Consent with certain responsible parties that resulted in interim response activities directed at removing the highest concentrations of lead contamination and securing the site from trespassers. Most recently, USEPA issued a Unilateral Administrative Order requiring potentially responsible parties to immediately undertake additional removal activities to abate the hazards remaining on the site. DEQ will:

- * Ensure and maintain that the site is secure.

Implementation Date: Secured site on January 24, 2003.
Conducting periodic inspections.

- * Demolish the existing office building at the site.



Implementation Date: Demolition is scheduled for the summer of 2003 by DEQ contractors.

- * Assist USEPA in its current off-site sampling effort.

Implementation Date: Commenced obtaining access agreements for sampling on February 24, 2003.

- * Participate with all stakeholders in further community outreach.

Implementation Date: Commenced February 27, 2003, and will continue throughout project.

2. Establish Process to Determine Other Sites of Potential Risk - DEQ will examine data and information from available databases to determine the location of areas that may present an increased risk of lead exposure to children. DEQ will:

- * Cross check and correlate the Toxic Release Inventory, National Pollutant Discharge Elimination System (NPDES) water quality information, Michigan Air Emission Reporting System (MAERS), Critical Materials Register, and other available databases to identify other sources or elevated lead concentrations in the community.

Implementation Date: Initiated on April 15, 2003.

- * Work with the City of Detroit and other municipalities to identify records of sites that are potential lead hazards including, but not limited to, former paint manufacturers, auto plants, auto body repair shops, shooting ranges, maritime industries, lead smelters, and lead battery manufacturing/recycling operations.

Implementation Date: Initiated on February 19, 2003. Information will be plotted on Geographical Information System (GIS) base map by August, 2003.

- * Confer with federal authorities and scientists who have recently issued the draft report *Occurrences of Heavy Metals in Soil in an Urban Environment* and determine applicability to DEQ strategy.

Implementation Date: To be completed by September, 2003.

- * Inspect sites identified as potential lead hazards.

Implementation Date: Commence by September 30, 2003.

- * Determine contaminant risks at inspected sites.

Implementation Date: Commence as sites are identified and prioritized.

- * Take timely and appropriate action at sites determined to present an unacceptable risk.

Implementation Date: Commence as sites are identified and prioritized.

- * Communicate information about identified sites with other stakeholder agencies and the multi-agency Task Force.

Implementation Date: Within 30 days of identifying sites.

3. Determine Sources of Additional Funding for Response Activity and Demolition - There is an acute need to determine and secure short- and long-term funding to facilitate efforts to identify, prioritize, and address acute lead hazards as well as abandoned residences that present a variety of hazards to the public health and safety.

DEQ will:

- * Survey sources of existing funding.

Implementation Date: Completed April 4, 2003.

- * Identify other hazards associated with abandoned residential housing slated for demolition, including asbestos hazards.

Implementation Date: In process. Detroit indicates it already does asbestos abatement.

- * Assure that all demolition by professionals and nonprofit housing coalitions is completed according to recognized standards.

Implementation Date: In process.

- * Prioritize sites based upon threats to children's health and safety.
Implementation Date: Initial prioritization by September, 2003.

4. Review of Incinerators and Emission Limits - review all incinerators that are subject to the Renewable Operating Permits (ROP) program and have ROPs expected to be issued in 2003. The DEQ will:

- * Review current permissible emission levels.

Implementation Date: Completion by December 30, 2003.

- * Ensure that permits contain sufficient monitoring, testing, record keeping and reporting to determine compliance with all of the emission limits including lead.

Implementation Date: Completion by December 30, 2003.

- * Ensure that all new sources of lead install the Best Available Control Technology (BACT) and conduct dispersion modeling to assure that they do not cause any potential environmental or health problems.

Implementation Date: In process.

5. Monitoring of Ambient Lead Levels - Ambient levels of lead have decreased dramatically since the initial phase-out of lead in gasoline in 1976. There

are, however, other regulated sources that emit lead. DEQ will:

- * Continue to monitor ambient lead levels at eight sites (Flint, Grand Rapids, Houghton Lake, Detroit [Southwest High School], Detroit [East 7 Mile], Dearborn, Allen Park, and River Rouge) to assure that ambient lead levels are maintained at very low levels.

Implementation Date: In process.

- * Investigate any sources that report lead and lead compound releases to the Toxic Chemical Release Inventory (TRI) and not to the MAERS to ensure that MAERS contains an accurate and quality-assured emission inventory.

Implementation Date: Completion by October 1, 2003.

- * Require all regulated lead sources to demonstrate compliance with their lead emission limits by stack testing on a periodic basis through the Renewable Operating Permit Program.

Implementation Date: In process.

- * Take action against any source that violates any of their lead emission limits requiring the source to immediately submit a comprehensive plan to bring the source back into compliance.

Implementation Date: In process.

6. Determine Immediate and Future Needs for Education and Outreach to the Public. To ensure that the public and private sectors have all relevant and appropriate information, DEQ will:

- * Coordinate education and outreach efforts with Department of Community Health, the City of Detroit, USEPA, the Detroit Lead Partnership, Michigan Lead-Safe Partnership, and other community organizations.

Implementation Date: In process.

- * Examine the means of outreach available and work in concert with partnerships already established to best reach the targeted audience.

Implementation Date: Action pending establishment of stakeholder group.

- * Disseminate key information.

Implementation Date: Action pending establishment of stakeholder group.

- * Add materials to the existing kiosks that are placed in libraries, malls, and other venues for access by the public. Kiosks may also be moved and placed in more targeted areas, depending on the information and the need.

Implementation Date: Action pending determination of what information would best be shared through this means.

- * Hold workshops on building demolition and renovations.
Implementation Date: Fall or early winter, 2003.
- * Participate in Interagency Advisory Committee for the Coordination of Childhood Lead Poisoning, Prevention, and Control Strategy.

Implementation Date: In process.

- * Establish DEQ lead liaisons to evaluate any impact or recommendations for change to the DEQ Lead Strategy.

Implementation Date: Completed April 12, 2003.

7. Additional Measures to Insure Public Health and Safety During Future State/Federal Remedial Actions - The DEQ will:

- * Provide technical assistance to assure that fugitive dust airborne emissions generated through cleanup and truck track-out are minimized during the cleanup of any contaminated lead sites.

Implementation Date: Coordination ongoing.

- * Provide technical guidance on setting up temporary air monitors at the remediation sites to assure that ambient lead levels are maintained at environmentally acceptable levels.

Implementation Date: USEPA will address fugitive dust, track-out, and air monitoring at Master Metals site. DEQ will implement at future sites as identified.

8. The DEQ will issue a report and recommendations for future actions by December 23, 2003.

D. Michigan State Housing Development Authority (MSHDA)

MSHDA proposes to modify its current Property Improvement Program (PIP) loan program to assist in the remediation of lead hazards. The PIP program is designed to help homeowners and landlords make improvements to their homes or small apartment buildings.

- * Receives \$40 million per year in CDBG and HOME from HUD for housing.
- * Sub-grants \$20 million of this to nonprofits and governmental entities for rehabilitating sub-standard housing.
- * MSHDA ensures that all lead hazards in pre-1978 housing assisted with these HUD funds are remediated and/or abated.
- * MSHDA estimates that \$2-4 million of the \$20 million total is used to remediate and/or abate the lead hazards.

- * MSHDA was the lead agency in implementing HUD lead regulation 24 CFR Part 35 for both CDBG and HOME entitlement (communities directly funded by HUD) and non-entitlement (communities funded through MSDHA) areas of the state.

V. Future Strategies

A. Short Term (next 6 - 12 months)

The following recommendations are made to address lead poisoning in children in a cohesive and collaborative manner. Careful consideration should be placed on each task with measurable objectives and deliverables designed to document progress.

Convene a multi-agency/organization task force that includes representatives from all affected state agencies as well as members of the Michigan Lead-Safe Partnership, the Detroit Lead-Safe Partnership, and members of the current CLPPP/LHRP Advisory Committee, parents and other stakeholders to develop a "Michigan Lead-Poisoning Prevention Strategy." At minimum, this task force should be charged with developing recommendations regarding 1) policy and legislative needs; 2) health program content, structure, and administrative responsibilities; 3) long-range revenue and funding alternatives; 4) recommended collaborative initiatives; and 5) accountability and costs for carrying out the recommendations.

1. Complete a survey of states to determine how housing registries have been developed and implemented to assist in the development of a Michigan Housing Registry. (See Attachment A)
2. Work closely with the Federal administration and Congressional delegation to identify funds to support testing, treatment, follow-up, and remediation activities (e.g., HUD, EPA, CDC, State Child Health Insurance Plan [SCHIP]).

- * Internal departmental briefings to bring department administration up-to-date on specific funding needs and federal agencies supporting these activities.

- * Department administration identifies appropriate educational materials for Michigan congressional delegates.

- * Departmental administration educates congressional delegates and encourages their support of additional federal revenues for Michigan.

Implementation Date: Fall, 2003

3. Review current programs and policies across state departments to determine how they are able to assist in addressing issues relating to lead poisoning and environmental contamination (e.g., MSHDA, FIA funding for emergency housing, CDBG funding that could be redirected to address lead issues). Identify conflicting policies that may need change and/or clarification.

- * Direct all state departments to begin internal review of policies and what changes are required to address lead.
- * Identify changes and discuss with task force.
- * Identify changes that need to be implemented.

Implementation Date: Presently being performed by MDCH, DEQ, and MSHDA; other agencies to begin immediately. Must be completed by August 31, 2003.

4. Strengthen and support interaction between state government, major cities and counties (e.g., Detroit, Wayne County, Berrien County) with significant problems with lead-poisoning and environmental contamination through appointment of specific liaisons.

- * Identify Michigan communities with the highest risk of lead hazards.

Implementation Date: June, 2003.

- * Identify key policy makers in each selected community.
Implementation Date: June, 2003.

- * Identify/assign consultants to provide liaison as communities move forward with implementation.

Implementation Date: September, 2003.

- * Assist communities with development of coalitions to begin identifying strategies specific to the community.

Implementation Date: October, 2003.

5. Begin working with health professional schools and schools of education to assure that all graduates are knowledgeable about the effects of lead on the growing brain, and the educational implications of teaching children who have been lead poisoned.

- * Develop educational presentation on the effects of lead and brain development.

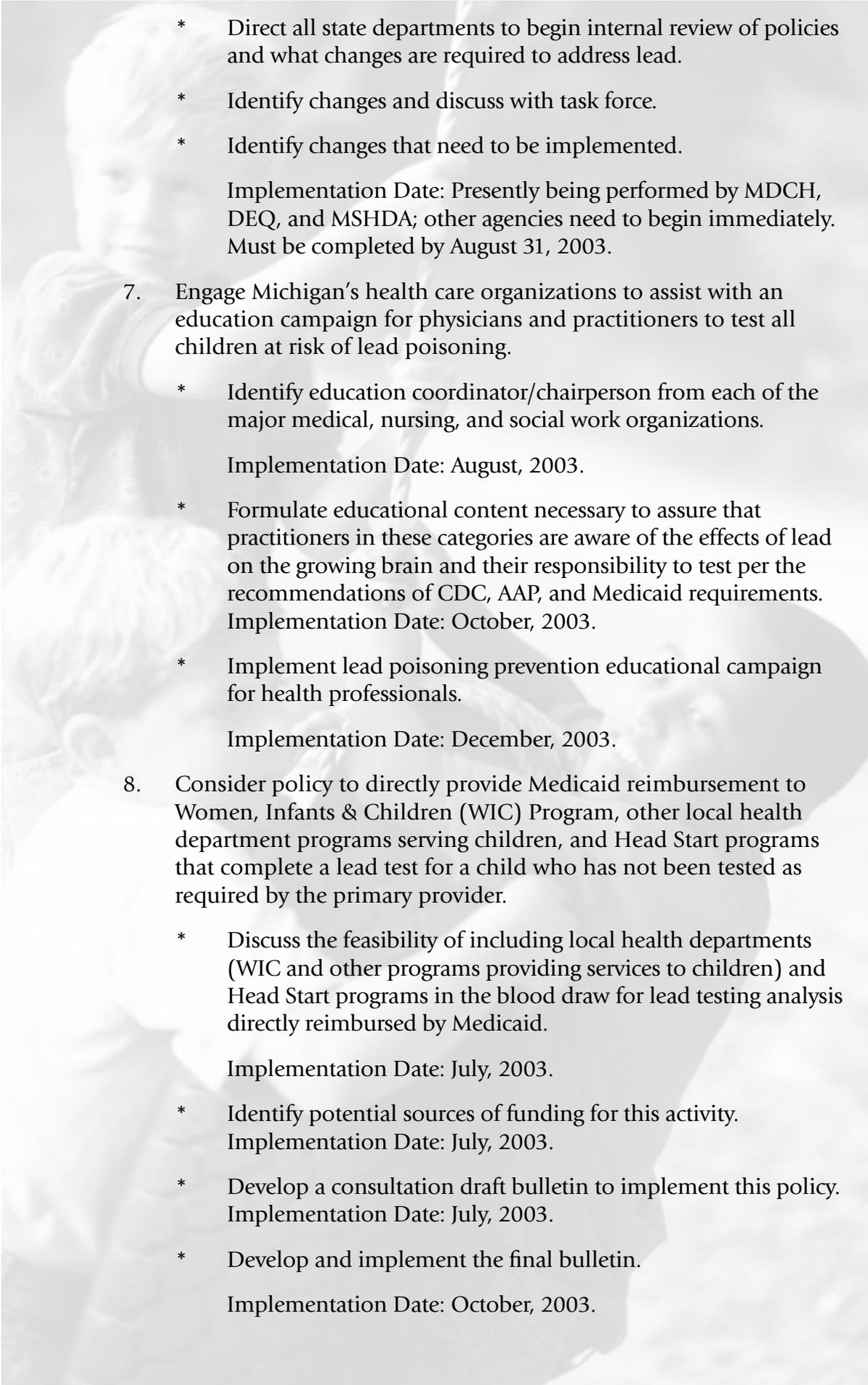
Implementation Date: August, 2003.

- * Meet with directors of selected health professional schools to determine whether content on lead and its effect on brain development is provided to preservice students.

Implementation Date: November, 2003.

- * Meet with directors of selected schools of education to discuss learning problems in children who are or have been lead poisoned. Implementation Date: November, 2003.

6. Identify policy needs to correct any known weaknesses in current system, (e.g., housing codes for rehabilitation of homes under CIS, Medicaid testing and reimbursement policies, rental property owner policies).

- 
- * Direct all state departments to begin internal review of policies and what changes are required to address lead.
 - * Identify changes and discuss with task force.
 - * Identify changes that need to be implemented.

Implementation Date: Presently being performed by MDCH, DEQ, and MSHDA; other agencies need to begin immediately. Must be completed by August 31, 2003.

7. Engage Michigan's health care organizations to assist with an education campaign for physicians and practitioners to test all children at risk of lead poisoning.

- * Identify education coordinator/chairperson from each of the major medical, nursing, and social work organizations.

Implementation Date: August, 2003.

- * Formulate educational content necessary to assure that practitioners in these categories are aware of the effects of lead on the growing brain and their responsibility to test per the recommendations of CDC, AAP, and Medicaid requirements. Implementation Date: October, 2003.

- * Implement lead poisoning prevention educational campaign for health professionals.

Implementation Date: December, 2003.

8. Consider policy to directly provide Medicaid reimbursement to Women, Infants & Children (WIC) Program, other local health department programs serving children, and Head Start programs that complete a lead test for a child who has not been tested as required by the primary provider.

- * Discuss the feasibility of including local health departments (WIC and other programs providing services to children) and Head Start programs in the blood draw for lead testing analysis directly reimbursed by Medicaid.

Implementation Date: July, 2003.

- * Identify potential sources of funding for this activity. Implementation Date: July, 2003.

- * Develop a consultation draft bulletin to implement this policy. Implementation Date: July, 2003.

- * Develop and implement the final bulletin.

Implementation Date: October, 2003.

9. Determine cleanup status at known lead contaminated sites in high risk areas within the pilot area.

- * Cross check and correlate the Toxic Release Inventory, National Pollutant Discharge Elimination System (NPDES) water quality information, Michigan Air Emission Reporting System (MAERS), Critical Materials Register, and other available databases to identify other sources or elevated lead concentrations in the community.

Implementation Date: Initiated on April 15, 2003.

- * Work with the City of Detroit and other municipalities to identify records of sites that are potential lead hazards including, but not limited to, former paint manufacturers, auto plants, auto body repair shops, shooting ranges, maritime industries, lead smelters, and lead battery manufacturing/recycling operations.

Implementation Date: Initiated on February 19, 2003.
Information will be plotted on Geographical Information System (GIS) base map by August, 2003.

- * Confer with federal authorities and scientists who have recently issued the draft report *Occurrences of Heavy Metals in Soil in an Urban Environment* and determine applicability to DEQ strategy.

Implementation Date: To be completed by September, 2003.

- * Inspect sites identified as potential lead hazards.

Implementation Date: Commence by September 30, 2003.

- * Determine contaminant risks at inspected sites.

Implementation Date: Commence as sites are identified and prioritized.

- * Take timely and appropriate action at sites determined to present an unacceptable risk.

Implementation Date: Commence as sites are identified and prioritized.

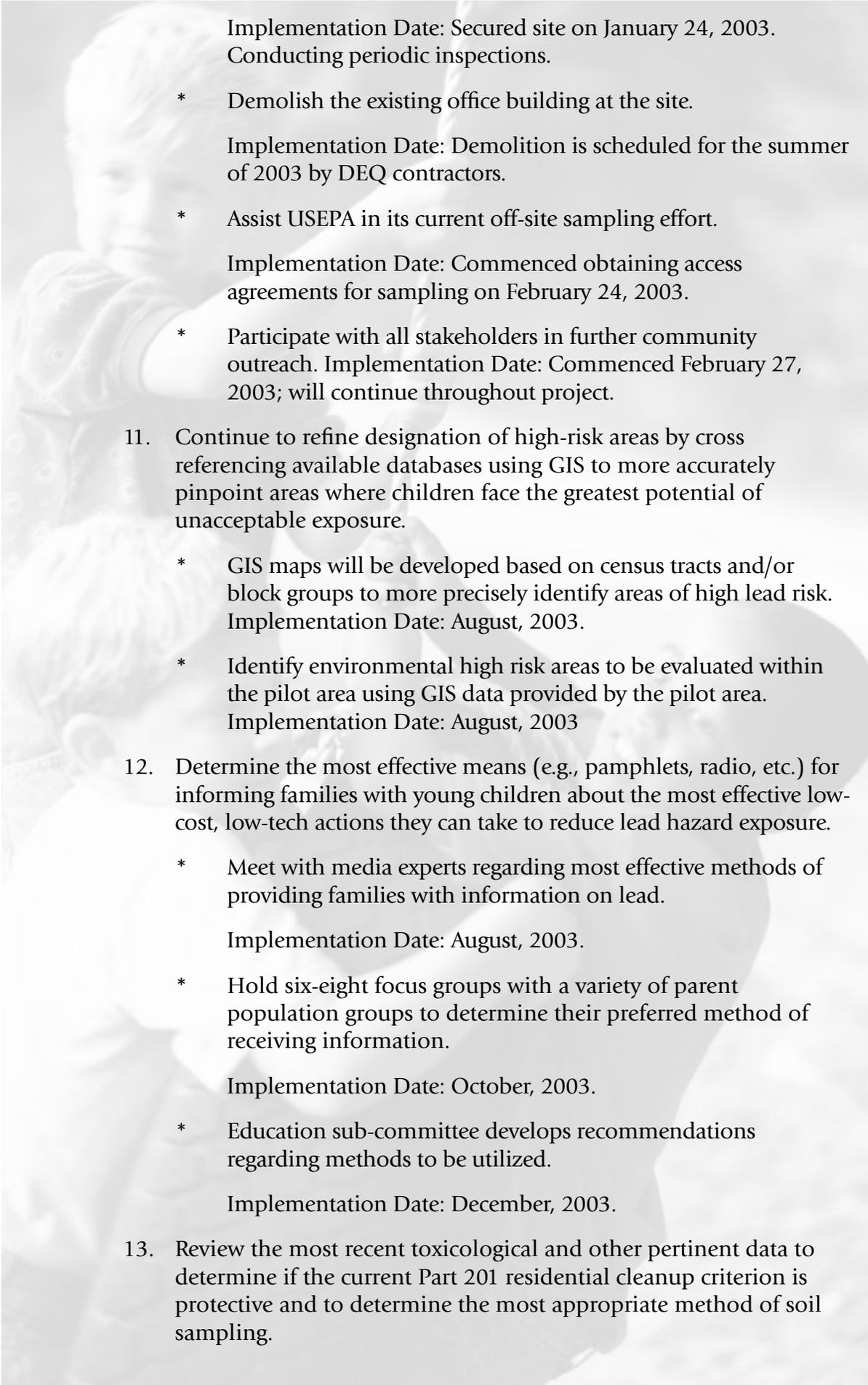
- * Communicate information about identified sites with other stakeholder agencies and the multi-agency task force.

Implementation Date: Within 30 days of identifying sites.

10. Reexamine existing lead sampling data from all available sources, review inventories of emission sources, and uses of lead from toxic substance registries.

Detroit Master Metals Facility:

- * Ensure and maintain that the site is secure.



Implementation Date: Secured site on January 24, 2003.
Conducting periodic inspections.

- * Demolish the existing office building at the site.

Implementation Date: Demolition is scheduled for the summer of 2003 by DEQ contractors.

- * Assist USEPA in its current off-site sampling effort.

Implementation Date: Commenced obtaining access agreements for sampling on February 24, 2003.

- * Participate with all stakeholders in further community outreach. Implementation Date: Commenced February 27, 2003; will continue throughout project.

11. Continue to refine designation of high-risk areas by cross referencing available databases using GIS to more accurately pinpoint areas where children face the greatest potential of unacceptable exposure.

- * GIS maps will be developed based on census tracts and/or block groups to more precisely identify areas of high lead risk. Implementation Date: August, 2003.

- * Identify environmental high risk areas to be evaluated within the pilot area using GIS data provided by the pilot area. Implementation Date: August, 2003

12. Determine the most effective means (e.g., pamphlets, radio, etc.) for informing families with young children about the most effective low-cost, low-tech actions they can take to reduce lead hazard exposure.

- * Meet with media experts regarding most effective methods of providing families with information on lead.

Implementation Date: August, 2003.

- * Hold six-eight focus groups with a variety of parent population groups to determine their preferred method of receiving information.

Implementation Date: October, 2003.

- * Education sub-committee develops recommendations regarding methods to be utilized.

Implementation Date: December, 2003.

13. Review the most recent toxicological and other pertinent data to determine if the current Part 201 residential cleanup criterion is protective and to determine the most appropriate method of soil sampling.

- * Review current permissible emission levels.

Implementation Date: Completion by December 30, 2003.

- * Ensure that permits contain sufficient monitoring, testing, record keeping and reporting to determine compliance with all of the emission limits including lead.

Implementation Date: Completion by December 30, 2003.

- * Ensure that all new sources of lead install the Best Available Control Technology (BACT) and conduct dispersion modeling to assure that they do not cause any potential environmental or health problems.

Implementation Date: Ongoing.

14. Develop a clearinghouse of current, relevant lead information, and a strategy to ensure broad access to the clearinghouse.

- * Begin an extensive literature search on all aspects of lead poisoning, including the effects of lead on the growing brain and the resultant sequelae, and the environmental issues related to lead hazards.

Implementation Date: July, 2003.

- * Review all literature and develop annotations for each item selected for inclusion in the clearinghouse.

Implementation Date: October, 2003.

- * Provide a computer link from a variety of lead websites to the clearinghouse.

Implementation Date: January, 2004.

- * Disseminate information about the availability of the clearinghouse to individuals working with lead hazards, children with lead poisoning, and the general public.

Implementation Date: February, 2004.

- * Maintain currency of the clearinghouse material.

Implementation Date: Ongoing.

15. Work with local housing authorities, FIA, and Community Development Block Grantees to assure that lead-safe housing and emergency relocation is available to families while their dwellings are being remediated.

- * Identify policies and practices to ensure this is accomplished by working with each agency to identify current and recommended changes.

- * Develop revised policies and implement at the State and local levels.

Implementation Date: Fall of 2003.

16. Modify the Property Improvement Program (PIP) loan program with MSHDA to assist in the remediation of lead hazards.

- * Establish PIP loan program.

Implementation Date: Ongoing since 1979.

- * Loan amounts of up to \$25,000 (single owner-occupied unit), up to \$12,000-maximum of \$60,000 (for up to five unit-rental properties) may be made at 4 percent interest rate when addressing lead hazards in a unit occupied by a child under six with identified elevated blood lead level.

Implementation Date: Ongoing

- * Receive referrals from MDCH or other agencies that identify units where a child under six years of age has an elevated blood lead level of greater than 10 ug/dL.

Implementation Date: November 1, 2003.

- * Begin to offer 20 year loans with repayment plans.

Implementation Date: Completed.

- * Assure that lead hazards exist before loan is offered.

Implementation Date: November 1, 2003.

- * Assure that remediation/abatement is done by certified contractors.

Implementation Date: November 1, 2003.

- * Clearance must be completed by a Certified Lead Inspectors/ Risk Assessor/Certified Lead Technician. Implementation Date: November 1, 2003.

B. Mid-Term (one to three years) - continuation of recommendations above, and additionally:

1. Develop a major public awareness campaign to assure that parents are aware of the dangers of lead exposure and encouraged to seek lead testing at appropriate intervals.

- * Identify and seek bids for lead awareness campaigns from major public relation firms statewide.

Implementation Date: July, 2004.

- * Select company to develop awareness campaign.

Implementation Date: September, 2004.

- * Develop creative materials for campaign.
Implementation Date: December, 2004.
 - * Review of materials and creative pieces.
Implementation Date: Ongoing throughout the process.
 - * Launch of campaign.
Implementation Date: January, 2005.
2. Implement an ongoing funding solution for lead hazard control statewide.
- * Identify potential sources of revenue.
 - * Identify legislative changes that are required.
 - * Determine how funds should be allocated and used.
 - * Identify key stakeholders and legislators.
 - * Identify other departments that play a role in developing funding solutions (DEQ, MSHDA, FIA, DOE).
 - * Determine amount of funds required.
- Implementation Date: Immediate implementation with a resolution determined by October 1, 2004.
3. Implement changes identified by the multi-agency/organization task force.
- * Monitor progress toward implementation of all strategies developed and recommended by the task force and subcommittees.
Implementation Date: Ongoing.
 - * Monitor funding levels for strategic activities and assure adequate funding.
Implementation Date: Ongoing.
4. Continue to increase collaborative activities with other state and local agencies and organizations, and with communities seeking to more effectively address the lead hazard issues they face.
- * All Michigan departments contributing to the lead poisoning prevention efforts should report annually on actions, accomplishments, barriers, and new recommendations.
 - * Continue the development of partnerships among all stakeholders to assure ongoing progress toward completion of **Call to Action** goals and objectives.
Implementation Date: Ongoing.

- * Identify communities seeking assistance to address lead issues specific to the community and facilitate their coalition development.

Implementation Date: Ongoing.

- * Receive and compile reports from all Michigan departments contributing to the **Call to Action** implementation, including accomplishments, barriers, and new recommendations to address any new issues.

Implementation Date: Yearly.

C. Long-Term (three years and beyond):

1. Ensure that lead issues are prominently identified as a priority in the resource and program allocation process, and that stable abatement /remediation funding sources are in place to address both clinical and environmental issues related to lead.

- * Each contributing department/agency/organization should have goals and objectives in their program plans that address lead issues relevant to their mission. Implementation Date: January 1 of each succeeding year.

- * Monitor the availability and adequacy of funding for identification and follow-up of children who have been lead poisoned; primary prevention activities to limit the access of young children to lead hazards in their environment; and abatement and remediation activities.

Implementation Date: Yearly, prior to development of budget recommendations.

2. Ensure that all housing units in the state with lead hazards have been identified and that information is made readily available to all citizens.

- * Identify funding to perform lead identification inspections and risk assessments.

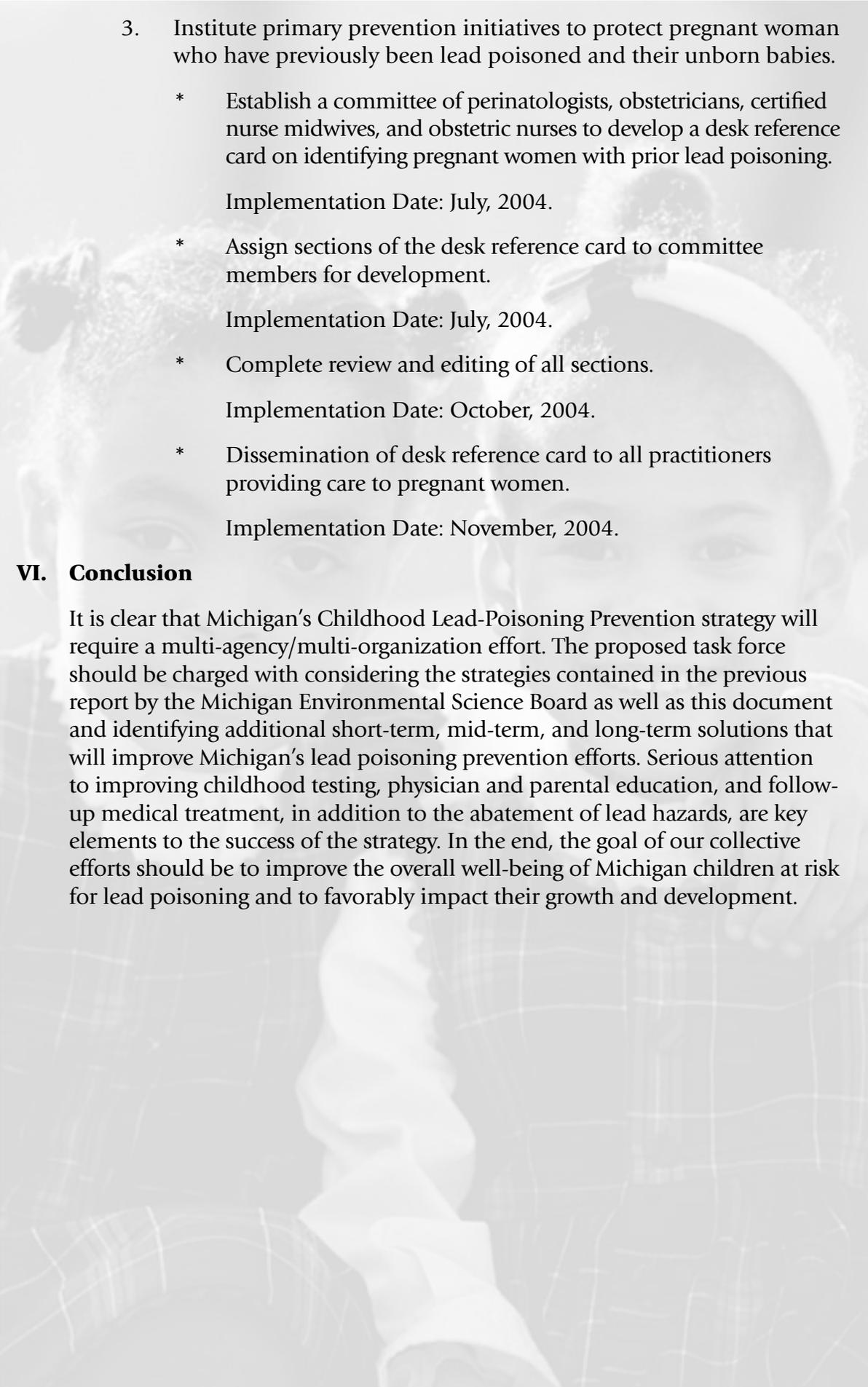
- * Develop a strategy for implementation; e.g., hiring contractors to do identification work.

- * Develop strategy to collect information and process into computer program.

- * Determine the legalities of publishing and collection of this information.

- * Place information on website and publish.

Implementation Date: Begin process of identification of funds immediately. Complete strategy for implementation spring 2004. Begin collection and publishing of information winter 2004.

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3. Institute primary prevention initiatives to protect pregnant woman who have previously been lead poisoned and their unborn babies.
 - * Establish a committee of perinatologists, obstetricians, certified nurse midwives, and obstetric nurses to develop a desk reference card on identifying pregnant women with prior lead poisoning.

Implementation Date: July, 2004.
 - * Assign sections of the desk reference card to committee members for development.

Implementation Date: July, 2004.
 - * Complete review and editing of all sections.

Implementation Date: October, 2004.
 - * Dissemination of desk reference card to all practitioners providing care to pregnant women.

Implementation Date: November, 2004.

VI. Conclusion

It is clear that Michigan's Childhood Lead-Poisoning Prevention strategy will require a multi-agency/multi-organization effort. The proposed task force should be charged with considering the strategies contained in the previous report by the Michigan Environmental Science Board as well as this document and identifying additional short-term, mid-term, and long-term solutions that will improve Michigan's lead poisoning prevention efforts. Serious attention to improving childhood testing, physician and parental education, and follow-up medical treatment, in addition to the abatement of lead hazards, are key elements to the success of the strategy. In the end, the goal of our collective efforts should be to improve the overall well-being of Michigan children at risk for lead poisoning and to favorably impact their growth and development.

ATTACHMENT A

Lead-Safe Housing Registry

Few lead programs across the country have lead housing registries. The National Center for Healthy Homes is currently working on a pilot project funded through a congressional earmark with the U.S. Department of Housing and Urban Development to create a website for a lead-safe housing registry. The Center is working with Baltimore, Boston, and Chicago to list housing data for rental properties on the Center's website. There may be opportunities to join the pilot project.

The state of Maryland has had a program in place since 1996. In 1994, the Maryland state Legislature took a proactive preventive approach to addressing the lead poisoning of children. With enabling legislation, a lead-safe registry of rental property units was established. This registry was designed to make landlords a part of the solution by ensuring the units they own and rent to families met minimal safe levels for lead dust. The legislation requires rental properties built before 1950 to be registered with the state's lead program. The registry requires that the property owner indicate if the property has been cleared of any lead hazards, or that current dust lead levels in the unit are below hazard levels, or that the unit has been made lead-safe with practical measures that are less than full abatement. Properties built between 1950 and 1978 can be registered voluntarily. Maryland's Lead Program receives a \$5 fee per year per unit to fund the registry as well as state general fund dollars of \$1 million per year, of which \$500,000 is redirected to the city of Baltimore.

The city of Providence, Rhode Island maintains a registry on the Rhode Island Department of Health website. The site allows the user to choose a Providence community or a street name via a search engine. Properties listed are locations where lead poisoned children had resided and health department lead inspections of the properties were completed and closed. Residential information includes the property address, year built, owner name and address, rental or owner occupied status, and lead testing and abatement status.

Possible data points to consider in designing a lead housing database could include: property address, year built, kind of lead identification activity (lead inspection, risk assessment), type of abatement (none, interim control, hazard abatement, total abatement), and owner's name and address.

Advantages:

- * Maryland's lead poisoning prevention efforts, of which the registry is part, have proven successful. Data indicates an 80 percent reduction in elevated blood lead levels since 1996.¹
- * Local public and private organizations and families will be able to identify lead-safe housing to prevent childhood lead poisoning, and avoid at-risk housing that has not been tested or abated.

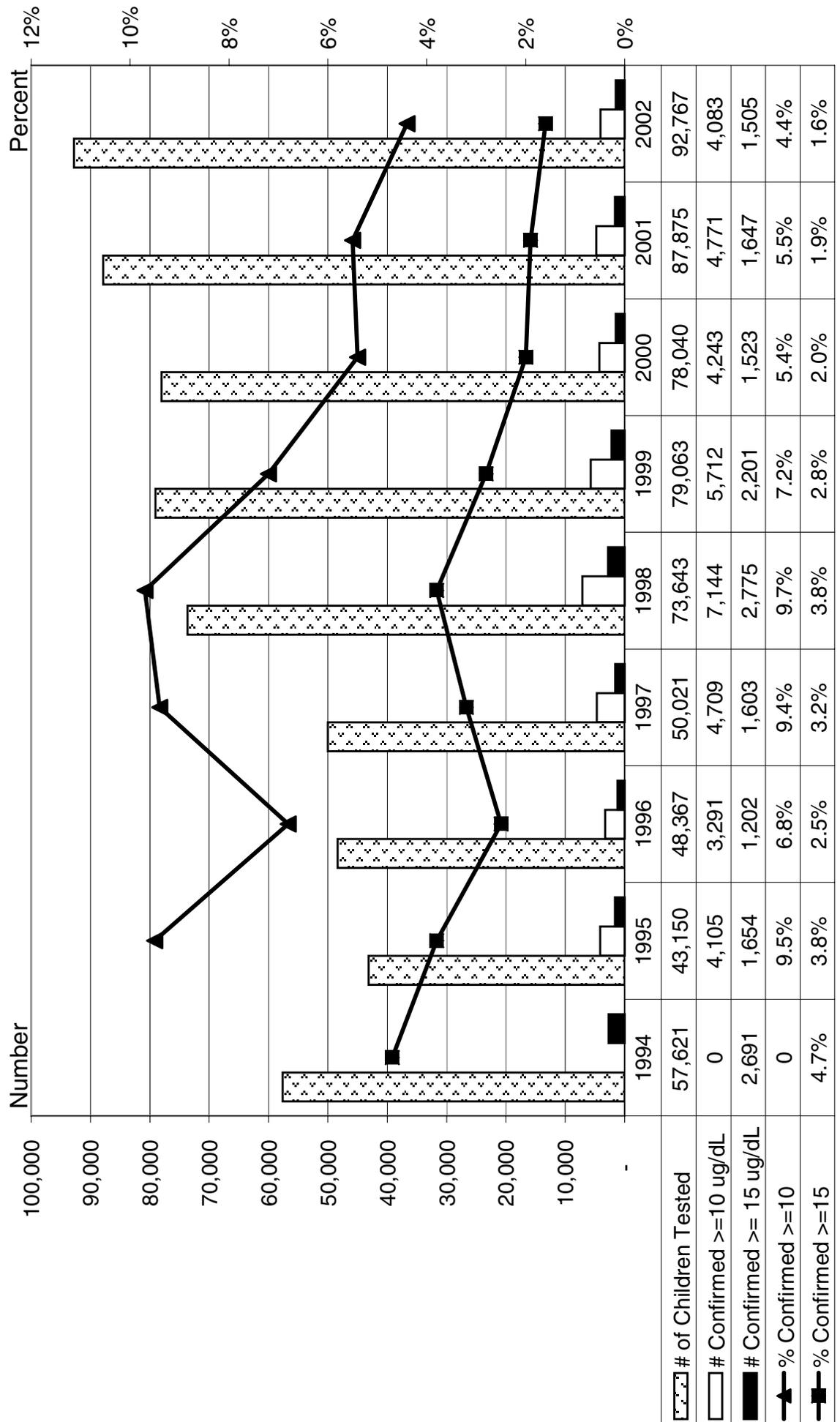
¹ Maryland Department of Public Health, CLPPP Database, 1996-2002.

- * Public can be informed of any lead-based paint activity (identification/abatement) at a property.
- * The registry can be used to identify known information about lead so that testing records could be requested prior to purchase or rental of a unit.
- * Provides a mechanism for state and cities to reach the public with lead data.
- * Can be used to evaluate success of the lead program and compare progress over time. Can be used to provide links to additional information on lead to interested parties. Health care providers can use registry to look up information about pediatric patients in order for them to find lead-safe housing.
- * Property owners can use to show potential renters information on abated properties.

Recommendations:

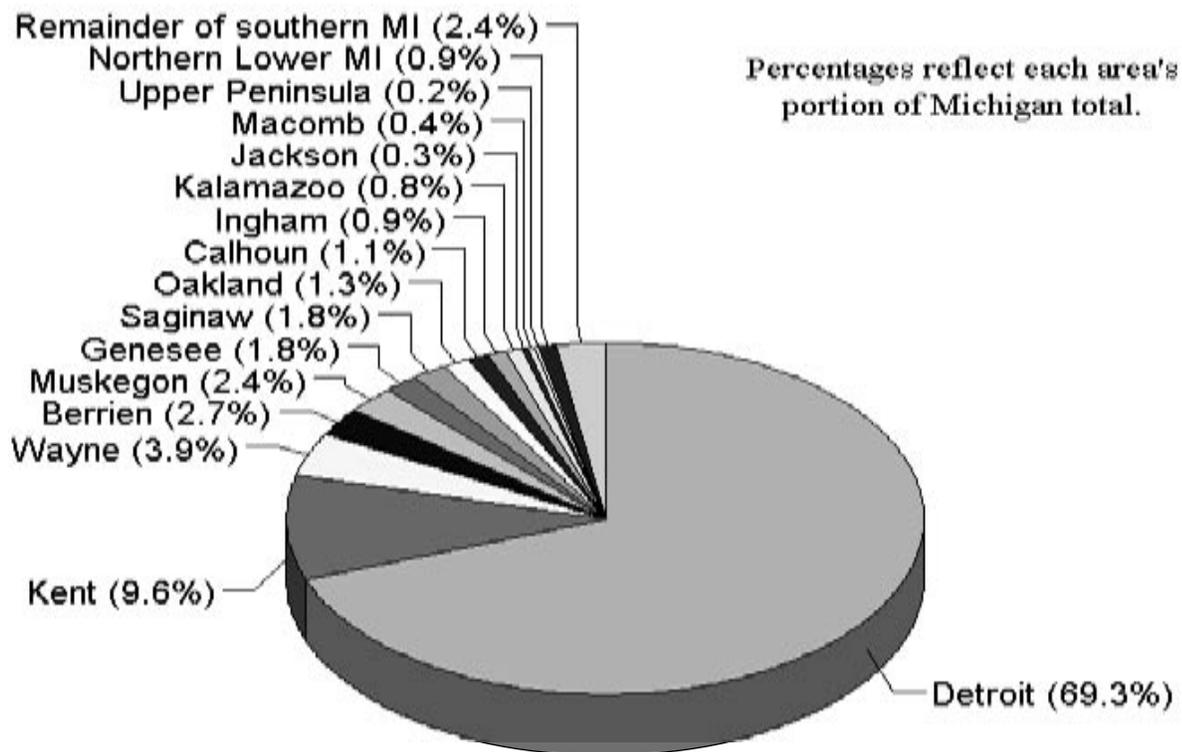
Michigan should thoroughly investigate the implementation of a Lead-Safe Housing Registry. A careful review of existing programs in the states of Maryland and Rhode Island should be made, along with the efforts of the National Center for Healthy Homes pilot project. The impressive success of the Maryland model clearly outweighs the increased costs for additional infrastructure. Costs of operation could be recovered by modest fees to the rental property owners, and would be minimal in comparison to the costs of legal liabilities for families with lead-poisoned children seeking damage retribution.

BLOOD LEAD TESTING — Children Under Age Six, 1994 - 2002

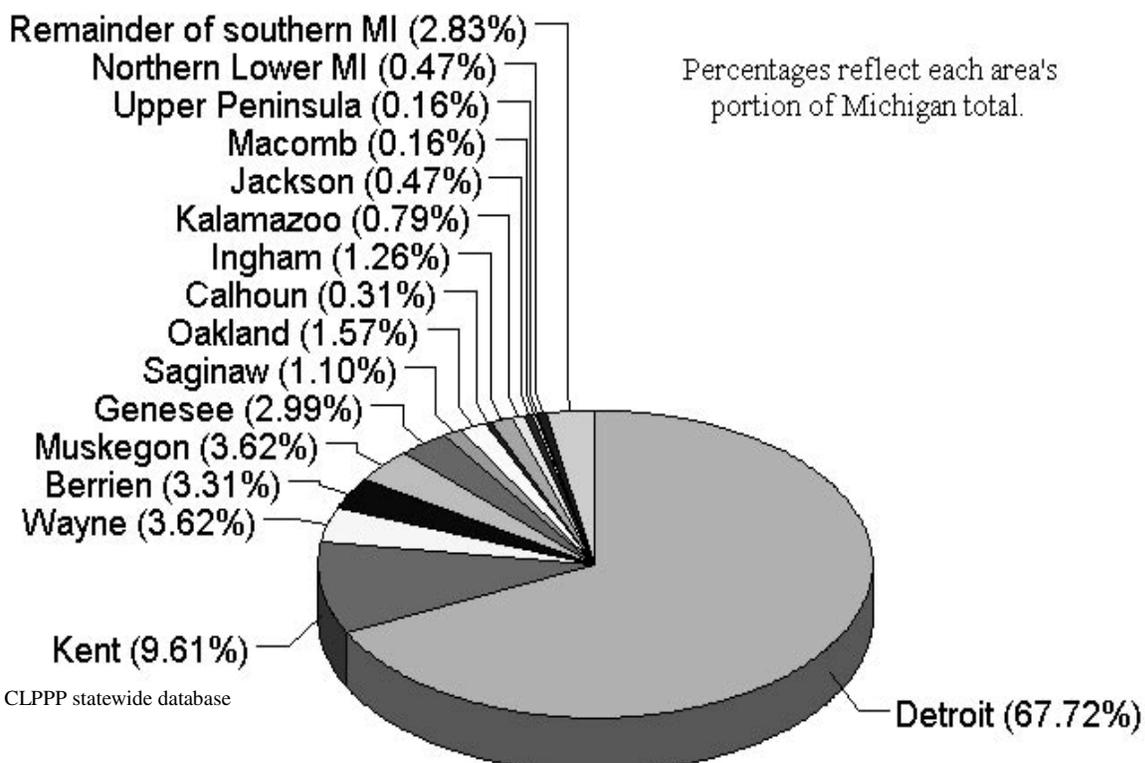


Source: MDCH CLPPP statewide database 2/2003

Children <6yrs w/Confirmed EBLL >=10 2002



Children <6yrs w/Confirmed EBLL >=20 2002



Source: MDCH CLPPP statewide database

June 2003

Michigan Children aged < six years with Elevated Blood Lead Levels (PbB \geq 10 $\mu\text{g}/\text{dL}$) - 2002

