

**State of Minnesota**

**2010 Childhood Lead Poisoning  
Elimination Plan**

**June 2004**



## Table of Contents

<b>Table of Contents .....</b>	<b><i>i</i></b>
<b>Governor’s Letter .....</b>	<b><i>ii</i></b>
<b>List of Acronyms .....</b>	<b><i>iii</i></b>
<b>Work Group Participants .....</b>	<b><i>iv</i></b>
<b>Introduction.....</b>	<b>1</b>
<b>Work Group Organization.....</b>	<b>2</b>
<b>Overview of the Planning Process .....</b>	<b>2</b>
Orientation meeting .....	2
<i>Mission Statement</i> .....	2
<i>Statement of Purpose</i> .....	3
Subsequent meetings.....	3
Other Plans.....	4
<b>Background on Minnesota Lead Poisoning Problem .....</b>	<b>4</b>
<b>Assessment of Minnesota Lead Risks.....</b>	<b>7</b>
<b>The Plan for Elimination by 2010.....</b>	<b>10</b>
Goal I: Lead Education and Training.....	13
Goal II: Identifying At-Risk Properties and Children.....	20
Goal III: Better Coordination of Health and Housing Enforcement.....	31
Goal IV: Resources to Increase the Supply of Lead-Safe Housing.....	35
Goal V: Availability of Lead Liability Insurance .....	37
<b>Evaluation and Modifications .....</b>	<b>40</b>
<b>Acknowledgements .....</b>	<b>41</b>



# STATE OF MINNESOTA

## Office of Governor Tim Pawlenty

130 State Capitol • 75 Rev. Dr. Martin Luther King Jr. Boulevard • Saint Paul, MN 55155

July 6, 2004

Dear Minnesota Residents:

Despite recent progress in reducing childhood lead poisoning rates, lead exposure remains a health risk to our state's children. The primary concern for young children is the leaded paints that were used on the interior and exterior of homes until 1978. When leaded paint in these older homes begins to deteriorate, young children can be exposed to lead dust. Over one million homes in Minnesota were built prior to 1978.

To help address this issue, I am pleased to present the State of Minnesota 2010 Childhood Lead Poisoning Elimination Plan. It was created over the past year by a collaborative workgroup that included the Minnesota Department of Health (MDH) Lead Program along with partners from federal, state, and local government, community based organizations, housing, real estate, landlord, and tenant organizations, and many other disciplines. The stated goal of the plan is: "To create a lead-safe Minnesota where all children have blood lead levels below 10 ug/dL by the year 2010."

The State of Minnesota has consistently played a leading role in identifying and addressing public health issues related to lead exposure. The State of Minnesota 2010 Childhood Lead Poisoning Elimination Plan is an important tool to help protect the children of our great state. More information about childhood lead poisoning is available on the MDH Lead Program website at: <http://www.health.state.mn.us/divs/eh/lead>.

Sincerely,

A handwritten signature in blue ink, appearing to read "T. Pawlenty".

Tim Pawlenty  
Governor

## List of Acronyms

ACOG – American College of Obstetricians and Gynecologists  
CBO – community-based organization  
CDBG – Community Development Block Grant  
CDC – U.S. Centers for Disease Control and Prevention  
CLEARCorp – Minnesota Community Lead Education and Reduction Corp  
CLPPP – Childhood Lead Poisoning Prevention Program (CDC grant to MDH)  
C&TC - Child and Teen Check-up (MN equivalent of federal EPSDT)  
DEED – Minnesota Department of Employment and Economic Development  
DHS – Minnesota Department of Human Services  
EBLL – Elevated Blood Lead Level (defined by MN statute as > 10 ug/dL)  
EIA Unit – Minnesota Department of Health Environmental Impacts Analysis Unit  
EPA – U.S. Environmental Protection Agency  
FH – Minnesota Department of Health Family Health Division  
GIS – Geographic Information System  
GMDCA – Greater Minneapolis Day Care Association  
HRA – Housing and Rehabilitation Authority (local housing jurisdiction)  
HUD – U.S. Department of Housing and Urban Development  
LHR – Lead Hazard Reduction  
LSWP – lead-safe work practices  
MA – Medical Assistance (Minnesota equivalent of Medicaid)  
MCDA – Minneapolis Community Development Agency  
MDH – Minnesota Department of Health  
MHFA – Minnesota Housing Finance Agency  
NAHRO – National Association of Housing and Redevelopment Officials  
NPCA – National Paint and Coatings Association  
NRP – Neighborhood Revitalization Program  
RPO – rental property owner  
SRC - Sustainable Resources Center  
WIC – Women, Infant and Children (Supplemental Nutrition Programs)

Additional definitions for lead in Minnesota can be found in statute (MS 144.9501) and in the MDH Childhood Blood Lead Case Management Guidelines for Minnesota at [www.health.state.mn.us/divs/eh/lead](http://www.health.state.mn.us/divs/eh/lead) .

**The 2010 childhood lead poisoning elimination advisory work group:**

Emma Avant, U.S. Environmental Protection Agency, Region 5 – Chicago  
Bill Brand, MDH Immunization Program  
Jim Cegla, Minnesota Housing Finance Agency  
Betsy Clarke, MDH Women, Infants, and Children’s (WIC) Program  
Dale Darrow, U.S. Housing and Urban Development  
Jackie Deneen, Minnesota Pollution Control Agency  
Megan Ellingson, Minneapolis Department of Health and Family Support  
Representative Keith Ellison, Minnesota House of Representatives  
Christopher Galler, Minnesota Association of Realtors  
Jim Graham, Hennepin County Housing Inspections  
Sue Gunderson, Sustainable Resources Center/Minnesota CLEARCorp  
Lisa Heilman, Builders Association of Minnesota  
Jack Horner, Minnesota Multihousing Association  
Leona Humphrey, Minnesota Department of Employment and Economic Development  
Patrick Kennedy, Krause Anderson Insurance Agency  
Cheryl Lanigan, Minnesota Visiting Nurse Agency  
Greg Luce, Project 504  
Joan Mailander, Metropolitan Health Plan, Minnesota Council of Health Plans  
Johanna Miller, Sustainable Resources Center  
Nancy Mischel, Legal Services Advocacy Project  
Paula Maccabee, City of Minneapolis  
Colleen Olson, Minnesota Department of Human Services  
Bill O’Meara, Community Action for Suburban Hennepin County  
Susan Palchick, Hennepin County Community Health Department  
Ed Petsche, Greater Minneapolis Daycare Association  
Jeff Schiffman, Douglas County Housing Redevelopment Authority  
Sandy Simar, Minnesota Department of Education, Head Start Program  
Sue Spector, Dakota County Child and Teen Checkup  
JoAnn Velde, City of Minneapolis Housing Inspections  
Jim Yannarely, St Paul/Ramsey County Lead Program

MDH staff who attended meetings were:

Linda Bruemmer, Manager, Asbestos, Lead, Indoor Air, and Radiation Section  
Tom Hogan, Supervisor, Lead and Asbestos Compliance Program  
Rebecca Kenow, Manager, Environmental Surveillance and Assessment Section  
Andrea Michael, Program Manager, MN CLPPP  
Daniel Symonik, Principal Investigator, MN CLPPP  
Erik Zabel, CLPPP Senior Epidemiologist,  
Myron Falken, CLPPP Principal Epidemiologist,  
Coyleen Johnson, CLPPP PHN/State Case Monitor,  
Dan Locher, Lead and Asbestos Compliance Unit Industrial Hygienist.

## Introduction

In 2003, the U.S. Centers for Disease Control and Prevention (CDC) directed its childhood lead poisoning prevention program (CLPPP) grantees to develop a plan to eliminate statewide (and therefore, national) childhood lead poisoning by 2010. This activity became a program requirement for the CDC Childhood Lead Poisoning Prevention Program. The Minnesota Department of Health (MDH), as a recipient of a CLPPP award, therefore assumed responsibility for developing and implementing a statewide lead elimination plan.

The two CDC requirements for the elimination planning process, which are incorporated into this plan, included:

1. Programs must establish an advisory workgroup to publish and implement a statewide childhood lead poisoning elimination plan. The group should also serve to monitor the process of the elimination plan, and to leverage resources and enhance cooperative efforts toward this goal. The workgroup should include representation from the various stakeholders who will be involved in solving the jurisdiction's lead poisoning problem. It is important that member representatives have sufficient authority to commit staff and resources to the elimination work plan.

2. At a minimum, the elimination plan should contain:

- A mission statement
- A statement of purpose
- Background on the jurisdiction's childhood lead poisoning problem
- A detailed assessment of the lead poisoning problem in the jurisdiction. This assessment should be based upon all available data sources (e.g. surveillance, housing, Medicaid, tax assessors, census, etc.) that may assist the committee in determining the approximate number of children under six who have elevated blood lead levels. This estimate will be used to help measure the change in the number of children at-risk as the plan progresses.
- A Strategic Work Plan that:
  - ✓ Develops five-year goals that address key areas of surveillance, targeting high-risk populations, and primary prevention.
  - ✓ Supports each five-year goal with 12-month objectives. The objectives should be detailed sufficiently to demonstrate that they are specific, measurable, achievable, realistic, and time-phased.
  - ✓ Includes a plan to annually evaluate progress toward elimination. This plan should specify who will conduct the evaluation, what data sources and other information will be used to assess progress and how the information will be used, a timeline for conducting and presenting annual evaluations to the workgroup and CDC, and how the evaluation results will be used to improve progress towards elimination.

## **Work Group Organization**

Throughout July and August 2003 the MDH CLPPP invited potential work group members to participate in the yearlong planning process. Invitation letters were prepared and signed by the MDH Commissioner of Health, Ms. Dianne Mandernach. The letter pointed out that although lead poisoning is preventable and rates are declining in Minnesota, poor children living in substandard, pre-1950 housing continue to be disproportionately affected by lead. It also presented the draft mission and vision statements for the group and reaffirmed the commitment of MDH to striving towards elimination of childhood lead poisoning by 2010.

In addition to key staff from the MDH Lead Program, the invitees included those specified by CDC, and other individuals/agencies assuring a diverse and inclusive membership. The invitations were extended with particular attention to planning housing-based primary prevention activities. They included lead partners from federal, state, and local government, community based organizations, housing, real estate, landlord, and tenant organizations, and many other disciplines.

While the work group was being developed, it was determined that individuals from outside the CLPPP should be designated to preside over the meeting proceedings. Two individuals who agreed to serve as co-chairs were Rebecca Kenow, Manager, MDH Environmental Surveillance and Assessment Section, and Ed Petsche, Lead Project Manager of the Greater Minneapolis Daycare Association and board member of the Alliance for Healthy Homes. Both Ms. Kenow and Mr. Petsche have experience managing large work groups, and have a thorough understanding of childhood lead poisoning issues.

## **Overview of the Planning Process**

### Orientation Meeting

The first meeting occurred in September 2003. To inaugurate the planning process, the MDH prepared a press release describing the planning advisory work group and the goal for the process. This release was provided to all participants at the orientation meeting.

During the first meeting the advisory work group reviewed and voted on a vision and mission statement prepared by the MDH. The group also considered and agreed upon a Minnesota definition of childhood lead poisoning “elimination.” The approved mission statement for the Workgroup was:

*“To provide technical expertise and advisory support to the MDH through the development of a strategic plan to eliminate childhood lead poisoning by 2010.”*

The vision, that serves as the statement of purpose of the Workgroup, was:

*“To create a lead-safe Minnesota where all children have blood lead levels below 10 ug/dL by the year 2010.”*

The elimination definition approved by the Workgroup was:

*Zero percent of at-risk children who are less than 72 months of age with blood lead levels  $\geq 10$  ug/dL\*\**

- \*\* The definition of elimination is subject to change due to at least two variables:
- The definition of who is “at-risk” may change based on 1) changes in trends in elevated blood lead levels determined by ongoing analyses of blood lead surveillance and related data, and 2) ongoing childhood lead poisoning prevention activities by governmental and nongovernmental agencies;
  - Changes to federal guidelines regarding acceptable levels of childhood blood lead.

The “ground rules” for all future meetings were established at the initial meeting. It was emphasized that the tone of the meetings was informal and that dialogue was encouraged. Contact information for all members was compiled and shared with the consent of the work group.

The advisory work group Co-Chairs, Becky Kenow (MDH) and Ed Petsche (GMDCA), then discussed the overall approach to the meetings. Ms. Kenow explained that although it may seem that lead has been around for a long time, it is still a significant public health problem. She indicated this was recently shown in dramatic fashion when the MDH received a report of a small child with an elevated blood lead level of 101 ug/dL. Ms. Kenow encouraged the diverse work group membership to “think big” about solutions to end childhood lead poisoning.

Mr. Petsche discussed the basic procedural methods to guide the planning process. He indicated that all opinions will be respected. However, since the role of the work group is advisory, he noted that not all ideas or opinions will appear in the final work plan. Mr. Petsche also explained that a form was available for dissenting opinions to be included in the final plan. However, throughout the process no dissenting opinion forms were submitted, indicating group consensus was reached on all discussion items.

Mr. Petsche stated that decision-making for inclusion in the final plan would be by “majority rule.” Because of the short timeline for the preparation of the document, the size of the advisory work group, and the fact that dissenting opinions will be documented, the Co-Chairs felt that reaching true consensus was not practical for the planning process. Group members did not express any concerns over this approach.

### Subsequent meetings

Additional planning meetings were held through May 2004. An agenda, most current draft of the plan, and other informational materials were distributed to all members prior to the meeting. The meetings were generally designed to address an individual goal per

meeting (see Table 1 below). Rather than taking minutes, the updated version of the planning table was used to capture ideas, recommendations, and details regarding current tasks and future proposals. The final two meetings were designed to fill in missing information and review the entire draft plan prior to “completion” in June 2004.

**Table 1: Planning Committee meeting dates and agenda focus area. Does not include 9/03 meeting.**

<b>Meeting Date</b>	<b>Agenda Focus Area: Elimination Plan Goal</b>
October 28, 2003	Finalize “elimination” definition. Goal I: Education and Training
December 9, 2003	Goal II: Identifying At-Risk Properties and Children
January 13, 2004	Goal III: Coordination of Housing Enforcement
February 5, 2004	Goal V: Availability of Lead Liability Insurance for Contractors and Single- and Multi-Family Property Owners
March 23, 2004	Goal IV: Identify Resources to Increase the Supply of Lead-Safe Housing in Minnesota
April 20, 2004	Review of all Goals: As needed, designate sponsoring agency, estimate funding amount, and establish intended outcomes.
May 25, 2004	Gather final comments and dissenting opinions. Plan for future evaluation of goals and objectives.

Other Plans

A number of resources were consulted as part of the development of this plan, including the Comprehensive Strategic Plan for the Lead Hazard Mitigation Act of 2002 from Rhode Island, a template from the Alliance for Healthy Housing, an elimination plan developed by the City of Minneapolis, and others. The key components of the Minneapolis Plan were very similar to those adopted in this plan, and consisted of:

- ✓ Centralization/Coordination/Cooperation
- ✓ Adoption of a Prevention Model
- ✓ Remediation of Housing: Proactive and Reactive
- ✓ Increased Risk Assessment/Testing Activity
- ✓ Adherence to Medical Screening Guidelines
- ✓ Improved Surveillance Efforts

Although implementation and evaluation of the Minneapolis Elimination Plan is the primary responsibility of the City, it is intended that the City and the State plans will work together to achieve the goal of eliminating childhood lead poisoning by 2010. The two plans share many common goals and objectives, using a collaborative, housing-based approach to promoting primary prevention of lead exposure.

**Background on Minnesota Lead Poisoning Problem**

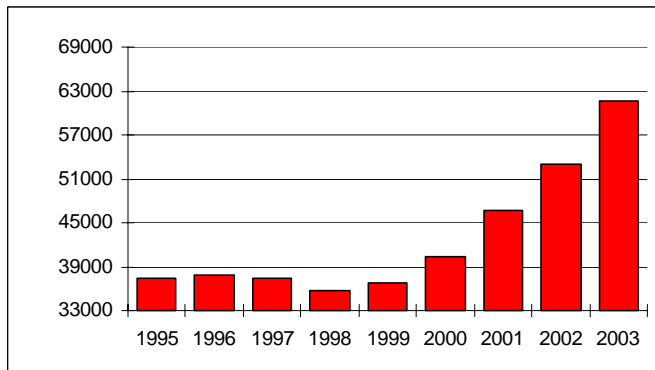
The State of Minnesota has consistently played a leading role in identifying and addressing public health issues related to lead exposure. The lead programs across

Minnesota are positioned to maintain that leadership role and protect the health and well-being of the citizens of Minnesota from the potentially devastating effects of exposure to high levels of lead.

Lead poisoning prevention activities at MDH are housed within the Division of Environmental Health. The Environmental Impacts Analysis (EIA) Unit is responsible for lead-related surveillance activities and implements the CLPPP. The Asbestos/Lead Compliance (ALC) Unit is responsible for assuring compliance with state rules and statutes dealing with lead hazards. Other state agencies dealing with lead include the Pollution Control Agency, Agriculture, Occupational Safety and Health Administration, Natural Resources, Housing Finance Agency, and Employment and Economic Development. At the local level, cities of the first class and counties/local public health agencies have a wide variety of duties with respect to lead risk assessment and case management. Non-governmental advocacy organizations, such as the Sustainable Resources Center (which houses CLEARCorps for Minnesota) and Project 504, also perform essential tasks regarding education, training, and primary prevention pilot projects and assessments.

The MDH blood lead surveillance database collects blood lead reports on all Minnesota residents. State guidelines on screening, case management, and clinical treatment help standardize practices and raise awareness of high-risk populations. Figure 1 compares the number of children tested in past years and gives some indication of how screening practices may have changed. Only data for children less than six years old are presented.

**Figure 1: Number of children with blood lead tests reported to MDH from 1995 – 2003. Results include all test types (venous, capillary, unknown).**



The dramatic increase in lead screening in Minnesota is the result of the combined efforts of City, local, state, and private organizations recognizing the importance of testing high-risk children and implementing innovative strategies to provide those services. At the state level, the MDH Blood Lead Screening Guidelines for Minnesota were issued in 2000 and the Minnesota Department of Human Services (DHS) implemented financial incentives for health plans to perform complete Child and Teen Checkups, of which blood lead testing is a vital component. Other screening efforts have included targeted projects in Minneapolis, St. Paul/Ramsey County, Hennepin County, rural counties in west-central Minnesota, WIC clinics in high-risk counties across the state, and a series of

seminars sponsored by a consortium of health plans focusing on lead issues. As shown in Figure 2, the number of confirmed elevated blood lead level reported to MDH has been gradually declining over time, consistent with national trends.

**Figure 2: Number of elevated venous blood lead tests reported to MDH from 1995 – 2003. This is not the same as the number of children tested (some have multiple tests).**

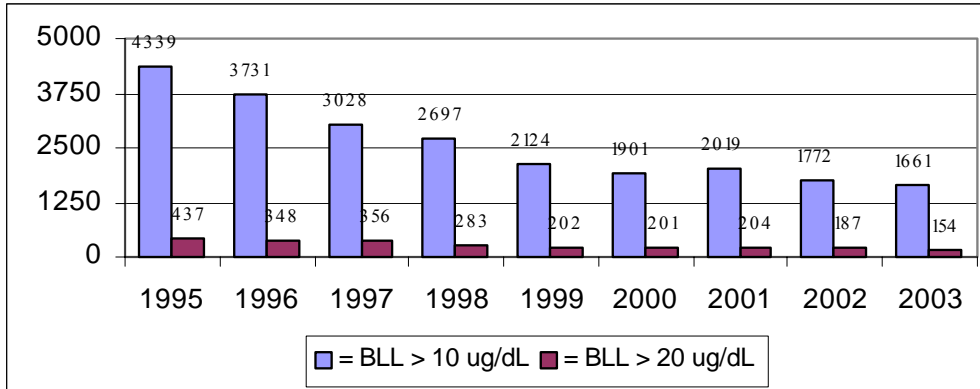


Table 2 presents the distribution of blood lead tests reported to MDH in 2002 based on concentration. The data show that 1,772 of the 53,147 of the children with reported tests (3.3%) were considered to be elevated, which is defined by Minnesota statute, as greater than 10 ug/dL. The confirmed venous elevated blood lead test rate for Minnesota for 2002 was 1.4%. This is slightly below the most recent National Health and Nutrition Examination Survey (NHANES) data for 1999-2000, which observed a 2.2% prevalence of elevated blood lead levels  $\geq 10 \mu\text{g/dL}$  in a sample of American children aged 1-5 years. The national data were also limited to venous specimens.

**Table 2: Distribution of Blood Lead Levels in Minnesota Children in 2002. Data are number of children in a given range. If a child had multiple tests, the highest venous level was chosen, followed by the highest capillary level if no venous test was performed.**

Blood Lead Level (ug/dL)	< 5	5-9	10-14	15-19	20+	Total
Venous	10,462	1,837	416	136	187	13,038
Capillary/Unknown	32,411	6,665	733	171	129	40,109
<b>Total</b>	<b>42,873</b>	<b>8,502</b>	<b>1149</b>	<b>307</b>	<b>316</b>	<b>53,147</b>

Compliance monitoring ensures that lead hazard reduction is completed consistent with state statutes and best public health practices. This involves working with assessing agencies and licensed lead workers to address exposure issues (e.g. lead paint removal). Training is provided, inspections performed, and assessments audited as needed to ensure that public health concerns are addressed. Health education is performed within the lead programs using well-established information sources and targeted outreach opportunities.

The complete list of assessing agencies in Minnesota is presented in Table 4 below. These are the governmental agencies with authority to conduct enforceable lead risk assessments on elevated blood lead cases. Many of these groups, along with non-profit, private, and other organizations, also conduct advisory risk assessments across the state for concerned households on a voluntary basis, regardless of blood lead level.

**Table 4: Assessing Agencies in Minnesota**

MDH (82 Counties)	City of Bloomington	Dakota County
City of Minneapolis	St. Paul/Ramsey County	St. Louis County
City of Richfield	Hennepin County	Stearns County

Lead programs across Minnesota are required to generate unique and innovative approaches to institutional and scientific problems. These include forming cooperative workgroups to solicit input prior to generating guidelines, cooperating with other agencies to meet common goals, conducting research to address basic problems, and overseeing lead hazard reduction efforts to ensure complete and timely resolution of lead orders. Diverse populations are targeted to help address public health disparities. This spirit of creativity and risk-taking is fostered, resulting in programs that are flexible, responsive, and well grounded in the core public health functions of assessment, assurance, and policy/planning.

### **Assessment of Minnesota Lead Risks**

The MDH maintains an extensive blood lead surveillance system for the purpose of monitoring trends in blood lead levels in adults and children in Minnesota. There are 573,934 tests in the system as of January 1, 2004. Of these tests, 489,249 were for kids under the age of 6, and they were from 336,680 individual children. The data go back to 1995 and are used to help identify populations at risk for elevated blood lead levels and to help ensure that screening services are provided to groups with the highest risk of lead poisoning and that environmental and medical follow-up is provided to children with elevated blood lead levels.

Work in Minnesota and nationally has shown that an estimate of lead risks may be performed based on two risk factors: living in an old home and being enrolled in Medicaid (e.g. MNCare). The data shown in Table 3 below are taken from the 2000 Census and DHS Medicaid/MNCare enrollment for 2001. These figures do not take into account homes that have already been made lead-safe and assume that the proportion of children is constant across different ages of homes. Children were defined as individuals less than 72 months of age. The number of children is based on a 5-year period, assuming approximately 67,000 children per year group.

**Table 3: Housing and population characteristics for Minnesota lead risk factors**

	<b>Built &lt;1950</b>	<b>Built &lt;1960</b>	<b>All Homes</b>
<b># Housing Units in year 2000</b>	560,322 (27%)	810,152 (39%)	2,065,946
<b># Children in Minnesota &lt; 72 mo. (5 yr. period)</b>	180,000	330,000	660,000
<b># Enrolled in MA/MNCare (5 yr. period)</b>	44,000	63,000	160,000
<b># Children either in old housing or on MA/MNCare (5 yr. period)</b>	340,000	490,000	N/A

The following responses to an elevated blood lead report are currently presented in Minnesota Statute (MS 144.9504) and the MDH Childhood Blood Lead Case Management Guidelines for Minnesota (issued in 2001):

- ✓ If levels are less than 10 µg/dL, information is entered into the surveillance database, and no additional follow-up is pursued.
- ✓ If levels are 10 µg/dL or greater, educational intervention is called for. This includes giving the children’s caretakers a letter and information on how to reduce and/or avoid exposure to lead in the environment.
- ✓ If levels are 20 µg/dL or greater (or 15 µg/dL for more than 90 days), environmental follow-up is necessary. This includes assessment of walls, windows, etc.; abatement or hazard reduction; and follow-up sampling.
- ✓ Levels of 60 µg/dL or greater indicate a medical emergency, and immediate action is taken.

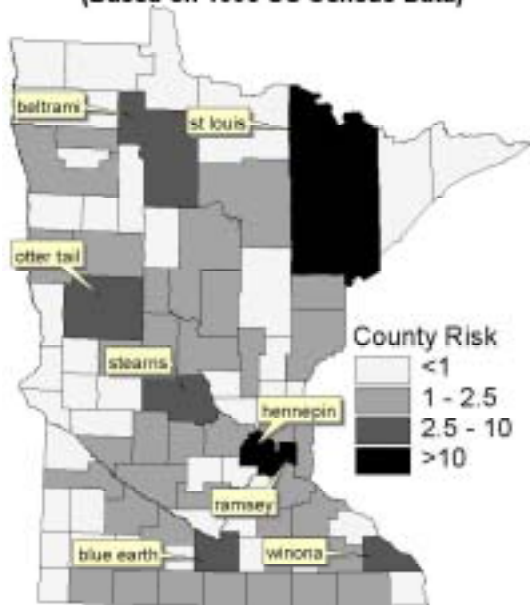
Although Minnesota has mandatory reporting from all facilities analyzing blood lead levels, blood lead testing is not universal, and the data collected by the surveillance system are not representative of all Minnesota children. Data are collected only when a family member or health care provider orders a blood lead test. The percentage of children tested varies greatly from county to county and from year to year. Based on 1998 data, 77% of the children in the Minnesota blood lead surveillance database reside in urban areas. Therefore, the database contains fairly reliable information on the prevalence of lead poisoning in urban areas of Minnesota. Evidence shows, however, that some populations state-wide are clearly at risk. For example, it is estimated that 70% of the Medicaid-eligible population in Minnesota did not receive a blood lead test in 1998. Although ongoing data matching shows that this trend is improving, it remains well short of the goal of 100% screening in Medicaid populations in Minnesota. In addition, a study conducted in a representative rural area of Minnesota showed lead poisoning rates of 2.1% at or above 10 ug/dL and 0.7% at or above 20 ug/dL, which is slightly below the

rate reported to the MDH surveillance system but relatively consistent with national prevalence estimates.

### *State-wide Lead Poisoning Risk Estimates*

The most important factors related to lead poisoning risk in Minnesota are the percentage of children in poverty and the percentage of homes built before 1950. Both of these characteristics were used, in conjunction with the population of children under 6, to estimate the population-adjusted lead poisoning risk for individual geographic areas. For each geographic area the “County Risk” equals the number of children less than 6 years of age multiplied by the fraction of children in poverty multiplied by the fraction of homes that were built prior to 1950. The resulting number is NOT the expected number of eblls or percentage of eblls. It is simply a population-adjusted factor for comparing lead risk between counties or zip codes. Using the statewide county-level risk estimation, three counties have the greatest potential for lead poisoning (Figure 3). Of these, two counties contain the largest cities in Minnesota, Minneapolis (Hennepin) and St. Paul (Ramsey). Current state screening guidelines recommend screening of all children in Minneapolis and St. Paul at 1 and 2 years old. The other county at highest risk is St. Louis County, which contains the second largest urban area in Minnesota, the city of Duluth. Five counties are in the moderate category of lead poisoning risk (Beltrami, Otter Tail, Stearns, Blue Earth, and Winona). The remaining counties in Minnesota are at lower risk for significant numbers of lead poisoned children.

**Figure 3: Minnesota Relative Lead Risk by County  
(Based on 1990 US Census Data)**

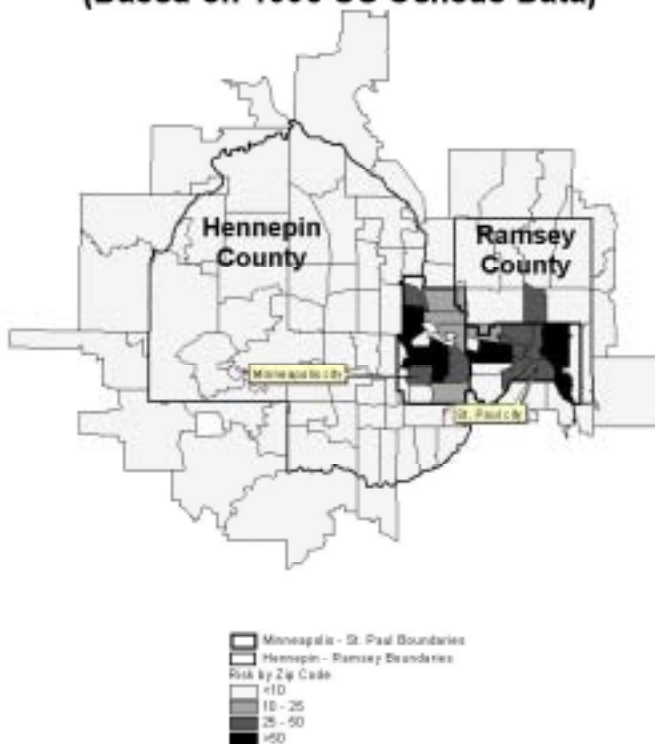


### *Minneapolis/St. Paul Lead Poisoning Risk Estimates*

Even within urban counties most elevated blood lead tests are identified in Minneapolis and St. Paul. In 2001, 96% of the children with blood lead levels  $> 10 \mu\text{g/dL}$ , and 93% of the children with blood lead levels  $> 20 \mu\text{g/dL}$  in Ramsey county lived in St. Paul, and 87% of the children with blood lead levels  $> 10 \mu\text{g/dl}$  and 84% of the children with blood lead levels  $> 20 \mu\text{g/dl}$  in Hennepin county lived in Minneapolis.

Lead poisoning risk data by zip code for St. Paul and Minneapolis are presented in Figure 4. These city-specific data have been used to determine the most at-risk areas for lead poisoning. Both Minneapolis and St. Paul are classified as “cities of the first class” and are therefore designated as assessing agencies by Minnesota Statute and are responsible for lead risk assessment and case management.

**Figure 4: Mpls./St. Paul Relative Lead Risk by Zip Code (Based on 1990 US Census Data)**



Local data shows that positive tests in Minneapolis tend to concentrate in the Near North and Phillips Communities. Near North is one of the poorest in the City, has the greatest number of subsidized housing units, and is home to the highest ratio of Minneapolis' children under age 6. Most families are below the 80% poverty level, and are eligible for Medicaid programs. Nearly 90% of the housing stock in the Near North Community was built prior to 1950, 52% are rental units, and 34% of housing is classified as "Below Average".

The City of St. Paul is divided into over 80 individual census tracts. During the past five years, one or more children residing in 56 of these census tracts have been identified as having an elevated blood lead level.

Of these 56 census tracts, a single census tract has nearly twice as many elevated blood lead cases as the other 55. The age and condition of housing within this target area is very consistent. Nearly 90 % of the homes were built prior to 1940. Local data indicates that 95% of these homes contain lead based paint and 84% have deteriorated lead-based paint. Most have deteriorated paint on window components that is a major source of lead poisoning. This census tract is very near a major interstate. It has high levels of lead in the soil and many deteriorated houses throughout its neighborhoods.

### **The Plan for Elimination by 2010**

The details of the plan for eliminating childhood lead poisoning in Minnesota are contained in a table organized by broad goal and specific objective. Specific objectives are then further examined by current strategies and new strategies. Current strategies are briefly defined and a sponsoring agency identified. These activities are ongoing with funding and goals that are parallel to the state-wide elimination plan. The sponsoring agency is typically responsible for sustaining the activity within its jurisdiction. New strategies are also identified, along with a sponsoring agency, proposed funding source for the current fiscal year and years FY06 through FY09, and the intended outcome. The intended outcomes will be used as a baseline for future evaluation efforts. Funds are identified from a wide variety of federal, state, and local sources.

The role of the sponsoring agency for new strategies is to act as a model for the specified task by completing a new or ongoing project with parallel objectives or to organize collaborating agencies to examine the issue and implement reasonable approaches. The sponsoring agency typically is the organization that committed to performing a task as part of the planning process. However, additional agencies may be added to specific tasks as identified through the implementation and evaluation process. For example, while the City of Minneapolis has incorporated lead programs within the Housing Inspections area and has agreed to distribute lead education material as part of housing inspections within the City, it is appropriate for all city/local housing agencies in Minnesota to consider this approach within their area of responsibility.

The broad goals were designed to eliminate childhood lead poisoning by:

- I. Developing strategies for lead education and training.
- II. Developing strategies for identifying at-risk properties and children.
- III. Developing strategies to better coordinate health and housing enforcement.
- IV. Developing strategies to identify resources to increase the supply of lead-safe housing.
- V. Developing strategies to assess the availability of lead liability insurance for single-family property owners, rental property owners, and contractors.

Each of these goals and an overview of specific objectives are presented below. The plan strongly advocates for a collaborative, housing-based approach to promoting primary prevention of childhood lead exposure, while still incorporating ongoing programs that are based on secondary prevention models. This is consistent with the federal elimination strategy to act before children are poisoned (primary prevention), identify and care for lead poisoned children (secondary prevention), conduct research, and measure progress to refine lead poisoning prevention strategies.

*Developing strategies for lead education and training.*

Specific objectives include raising awareness of and increasing compliance with the Federal Pre-Renovation Disclosure Law (406B) and the federal 1018 Disclosure Law with the general public, home buyers, renters, and contractors, informing health care providers about anticipatory guidance for lead poisoning prevention, providing training on lead-safe work practices and maintenance, and promoting the newly created lead sampling technician classification.

*Developing strategies for identifying at-risk properties and children.*

Specific objectives include maintaining the state-wide blood lead surveillance system, structuring incentives and disincentives promoting blood lead screening for at-risk children and pregnant women, characterizing Minnesota-specific lead risk factors based on available data, collaborating to identify at-risk properties, and performing primary prevention risk assessment to address lead hazards before a child is exposed.

*Developing strategies to better coordinate health and housing enforcement.*

Specific objectives include collaboration with housing agencies to assure compliance with lead paint laws through existing enforcement tools and coordination with home-visiting agencies to incorporate lead safe work practices into their routines.

*Developing strategies to identify resources to increase the supply of lead-safe housing.*

Specific objectives include improving access and coordination with housing and health organizations with respect to lead, leveraging current private and non-federal funds to control lead paint hazards, and linking access to public housing funds with lead-safe practices.

*Developing strategies to assess the availability of lead liability insurance for single-family property owners, rental property owners, and contractors.*

Specific objectives include a survey and assessment of lead liability insurance in Minnesota to encourage lead-safe work practices.

**2010 Childhood Lead Poisoning Elimination Plan for Minnesota  
Implementation Plan**

**Goal I.  
Strategies for Lead Education and Training.**

**Objective A1.  
Raise general public awareness of and increasing compliance with the Federal Pre-Renovation Disclosure Law (406B).**

<b>Current Strategies</b>		<b>Sponsor Agency</b>					
1. Extend provision of disclosure information on 406b (and 1018) in building permit, rental license, and other information packets, based on Minneapolis prototype.		Minneapolis Housing Inspections and Inspections Departments statewide					
2. Disclosure education provided during home shows, other outreach.		Sustainable Resources Center (SRC)					
3. Abrasive Blasting Permits - city requires test for lead before work occurs. If lead is present lead-safe work practices are required.		Minneapolis Housing Inspections					
4. Disclosure information packets are disseminated to interested parties including camera-ready copies of EPA pamphlet, "Protect Your Family From Lead in Your Home."		MDH Lead Compliance Unit					
<b>New Strategies for FY05 (Beginning or continuing after July 1, 2004)</b>	<b>Sponsor Agency</b>	<b>Funding Source/Amount (if known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Develop summary document of EPA "disclosure pamphlet" based on Minneapolis version. Goes out with rental licenses and other permits. Assure that the "short form" is for education and cannot be used during disclosure.	a. Minneapolis Housing Inspections (contact for master of summary document) b. MHFA c. SRC d. Project 504	a. Fees b. Fees c. Hennepin County/DEED-MDH HUD Round XI	1. Produce a reader-friendly document to educate a wider audience of property owners about 406b. 2. Distribute through CBO, faith-based orgs, other. 3. Translate into other languages.				

2. Identify previously untapped at-risk families using Advisory Group expertise for targeted education efforts.	SRC	HUD	Culturally competent outreach occurs within risk groups previously unaware of 406b.				
3. Include disclosure information in homestead application materials to reach all Minnesota property owners.	Minnesota Department of Commerce	Inform MN property owners about 406b	Reach all individuals with a primary residence in MN (homestead) with 406b info.				
4. Work with neighborhood organizations receiving Neighborhood Revitalization Program (NRP; Minneapolis) funding or other similar housing-based support to provide education.	NRP: Hennepin County HUD Round XI and SRC  Other: HUD approved counseling agencies, neighborhood advocacy organizations	Neighborhood Revitalization Program and other neighborhood support funds	Provide neighborhood-specific 406b info to property owners.				
5. Housing Resource Center – will provide education to families/contractors they work with.	Housing Resource Center	Community Development Block Grant					
6. Work with state-wide health plans to distribute information and facilitate links between websites.	Minnesota Council of Health Plans; Individual Health Plans	Individual Health Plans	Increase/diversify sources for 406b info to general public				
7. Extend practice of requiring lead testing before sand blasting paint, based on Minneapolis model	Minneapolis; permitting jurisdictions statewide		Decrease release of lead from sand-blasted paint sources.				

**Goal I.  
Strategies for Lead Education and Training.**

**Objective A2.  
Raise contractor awareness of and compliance with the Federal Pre-Renovation Disclosure Law (406B).**

<b>Current Strategies</b>			<b>Sponsor Agency</b>				
1. Support Hardware Store "Lead Centers" – small "mom & pop" contractors & property owners seek information and HEPA-vac rental here.			SRC				
2. Disclosure information packets are disseminated to interested parties including camera-ready copies of EPA pamphlet "Protect Your Family From Lead in Your Home."			MDH Lead Compliance Program				
<b>New Strategies (Beginning or continuing after July 1, 2004)</b>	<b>Sponsor Agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Provide 1 hour lead refresher workshops for Department of Commerce (approximately 10/year).	MDH Lead Compliance Unit	EPA/General Fund/HUD \$5,000	Compliance monitoring for LSWP & disclosure.	\$5,000	\$5,000	\$5,000	\$5,000
2. Provide one-on-one training on 406b through building associations and other professional contractor groups (approximately 300/year).	MDH Lead Compliance Unit	EPA/General Fund \$35,000	Assure proper disclosure & prevent lead exposure.				
3. Develop summary document of EPA "disclosure pamphlet" based on Minneapolis version to be distributed through professional organizations.	SRC (will get master from MN Housing Inspections)	HUD	Increase knowledge of disclosure by developing reader-friendly document summary.				
4. 406b training through SRC; will also subsidize other cert. firms to conduct training.	Hennepin County Housing/SRC	HUD \$16,667	Assure proper disclosure & prevent lead exposure.	\$16,667	\$16,667		

5. Work through partner agencies that already work with potential trainers e.g. technical colleges, apprenticeship programs to raise their awareness of lead disclosure as a training topic.	Community Action for Suburban Hennepin County (CASH)	Increase opportunities for disclosure education.	Messages are disseminated to and through partner agencies.				
6. Examine ways to incorporate LSWP into ongoing rehab support programs	MN Housing Finance Agency		State-wide guidelines for rehab include LSWP				

**Goal I.  
Strategies for Lead Education and Training.**

**Objective B1.  
Raise purchaser/tenant awareness of the Federal 1018 Disclosure Law.**

<b>Current Strategies</b>	<b>Sponsor Agency</b>
1. Provide one-on-one education to at-risk families re: disclosure through Tenant Remedies Act (MS 504b).	Project 504
2. Distribution of EPA Lead pamphlet by property owners, real estate professionals, and rehab agencies	Private and public sector housing agencies/professionals

<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor Agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Provide one-on-one, property owner education to at-risk families re: 1012/1013 and disclosure.	a. Project 504 b. SRC c. City of Minneapolis	a. HUD LEEP Grant b. Hennepin County & DEED HUD	Increase opportunities for educating at-risk families about their disclosure rights and responsibilities.				
2. Provide one-on-one, property owner education to at-risk families.	DEED	CDBG \$75,000		\$75,000	\$75,000	\$75,000	\$75,000

<b>Goal I. Strategies for Lead Education and Training.</b>							
<b>Objective B2. Raise seller/rental property owner (RPO) agent awareness of the Federal 1018 Disclosure Law.</b>							
<b>Current Strategies</b>				<b>Sponsor agency</b>			
1. Distribute Minneapolis RPO video.				Minneapolis Housing Inspections/SRC			
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Provide educational materials during "homeowner's permit night."	Minneapolis Community Education Program; Community Education Programs statewide		Raise homeowner awareness of federal disclosure laws				
2. Educate Rental Property Owners (RPO) receiving financing through MHFA.	Minnesota Housing Finance Agency (MHFA); RPO groups		Raise rental property owner awareness of federal disclosure laws				
3. Disseminate lead disclosure information during "Truth in Housing" inspection.	Minneapolis Housing Inspections; other local housing jurisdictions; private inspectors		Raise potential homeowner awareness of federal disclosure laws				
<b>Goal I. Strategies for Lead Education and Training.</b>							
<b>Objective C. Inform health care providers about anticipatory guidance for lead poisoning prevention.</b>							
<b>Current Strategies</b>				<b>Sponsor agency</b>			
1. Obtaining existing pregnancy screening guidelines for ACOG review and endorsement in Minnesota.				MDH EIA Unit			

2. Educate providers in outer-ring Hennepin County suburbs about MDH Blood Lead Screening Guidelines and encourage screening.			MDH EIA Unit/Hennepin County Health Department				
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Disseminate pregnancy-screening guidelines to clinic Medical Directors through Medicaid Health Plans.	MDH EIA Unit (CLPPP)/DHS	CDC (staff, travel, & materials) \$2,000	Reach Medical Directors who make clinic decisions on lead guidelines.				
2. Educate physicians in high-risk county about blood lead screening requirements for at-risk children.	Hennepin County Health Department	HUD Round XI	Increase opportunities to screen at-risk children for blood lead.	\$7,500	\$1,800		
3. Convene a physician work group to develop anticipatory guidance for childhood blood lead levels below 10 ug/dL.	MDH EIA Unit (CLPPP)	CDC (refreshments, materials, & staff) \$1,600	Develop case management guidelines for blood lead levels once thought "safe."				
4. Partner with the MN Institute for Public Health to disseminate lead and pregnancy information to the MN Council of Preventive Medicine during Lead Week 2004	MDH EIA Unit (CLPPP)	CDC (staff, travel) \$500	Disseminate information to a wide audience of physicians about pregnancy and lead poisoning prevention.				
<b>Goal I. Strategies for Lead Education and Training.</b>							
<b>Objective D. Train RPOs and contractors in lead-safe maintenance and work practices.</b>							

<b>Current Strategies</b>			<b>Sponsor agency</b>				
1. Promote free, lead-safe trainings offered by the NPCA.			MDH Lead Compliance; others				
2. MDH will continue to approve training courses, and license/certify lead professionals.			MDH Lead Compliance Unit				
3. Conduct quarterly lead-safe work practices training for rehab contractors/workers			St. Paul/Ramsey County Public Health				
4. Conduct quarterly lead-safe work practices training for rehab contractors/workers			Duluth Housing Rehab Authority				
5. Conduct lead-safe work practice training for Section 8 property owners			St. Paul/Ramsey County Public Health--Duluth Housing Rehab Authority--Dakota County Public Health				
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Promote free, lead-safe NPCA trainings.	MDH Lead Compliance Program	\$100	Post through MDH website and list serve.	\$100	\$100	\$100	
2. Train at least 5 minority/small business contractors and provide on-the-job training in 40 units.	SRC	Hennepin County HUD Grant	Increase the number of lead professionals working in high-risk areas.	\$50,000	\$10,000		
<b>Goal I. Strategies for Lead Education and Training.</b>							
<b>Objective E. Increase the supply of licensed and certified lead professionals, including lead sampling technicians.</b>							
<b>Current Strategies</b>			<b>Sponsor agency</b>				
1. Developing administrative rules to allow for the lead sampling technician discipline.			MDH				
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>

1. Provide 6 worker, supervisor, and sampling technician trainings over 42 months.	MDH Lead Compliance Unit/DEED	HUD Round XI \$15,000	Trainings successfully completed.	\$15,000	\$15,000		
2. Contract with certified firms to offer subsidized training to become lead professionals.	SRC/Hennepin County Housing	HUD Round XI \$10,000	Increase the number of lead professionals working in Minnesota in order to increase the amount of lead-safe housing by 2010	\$10,000	\$10,000		
3. Conduct semi-annual lead sampling technician training for certified home inspectors and truth-in-sale of housing evaluators	St. Paul/Ramsey County Public Health	Participant Fees	Increase the number of newly created lead sampling technician professionals working in Minnesota	\$4,000	\$4,000		
4. Explore ways to support supervisor and sampling technician training statewide.	Current private training agencies and other available providers	To be identified	Increase the number of newly created lead sampling technician professionals working in Minnesota				

**Goal II.  
Strategies for Identifying At-Risk Properties and Children.**

**Objective A.  
Continue to maintain and improve the statewide blood lead surveillance system.**

<b>Current Strategies</b>	<b>Sponsor agency</b>
1. Formal evaluation of surveillance system.	MDH EIA Unit
2. Data matching with DHS MA data.	MDH/DHS
3. Data sharing agreement with UCare.	MDH
4. Data sharing with CUHCC clinic/University of Minnesota	MDH

5. Obtaining GIS software and training.		MDH					
6. Began issuing a “date year” for surveillance data.		MDH					
7. Sharing Section 8 voucher data with local lead program.		St. Paul/Ramsey County Lead Program					
8. Data matching with Hennepin Lead Program to determine data quality i.e. duplicates/inconsistencies		MDH/Hennepin County Lead Program					
9. Geo-coding blood lead surveillance data for county-level use.		Hennepin County Lead Program					
10. Blood lead testing pilot in outer-ring Hennepin County suburbs. Contract ended 12/03.		MDH/Hennepin County Lead Program					
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Continue to work with MDH NEDSS work group to assure increased electronic reporting.	MDH EIA Unit (CLPPP)	CDC (staff time) \$1,000	Increase electronic reporting to MDH.	\$1,000	\$1,000	\$1,000	\$1,000
2. Contact all labs reporting blood lead results to MDH to determine their minimum detection limits.	MDH EIA Unit (CLPPP)	CDC (staff time & communications costs) \$2,000	Assure accuracy of blood lead surveillance data.				
3. Work with MDH ITSM to resolve department-wide data privacy issues, in order to make lead surveillance data available to local public health via the Internet.	MDH EIA Unit (CLPPP)	CDC (one FTE) \$60,000	Assure timely follow-up for children with elevated blood lead levels.	\$60,000	\$60,000	\$60,000	\$60,000
4. Investigate ability to make GIS mapping available on MDH lead website for local public health and other partner use.	MDH EIA Unit (CLPPP)	CDC (staff time) \$3,000	Assure timely and accurate surveillance data for local public health.		\$3000		\$3000

5. Investigate strategies to report 5-9 ug/dL results to lph in a timelier manner. Current statutory language gives labs 30 days to send reports less than 15 ug/dL.	MDH EIA Unit (CLPPP)	CDC \$5,000	Increase timely primary prevention opportunities.	\$5,000			
6. Evaluate local HRA offices to determine the extent to which they share Section 8 housing inspection data with local lead programs.	NAHRO/SRC	Hennepin County & DEED HUD	Assure and facilitate compliance with HUD requirements for data sharing.				
7. Work with RPOs training to become Section 8 providers; work with families who obtain Sec. 8 vouchers.	SRC/Hennepin County Housing	HUD	Assure RPO's understand requirements and access resources to make units lead safe under section 8.				
8. Continue to match DHS Medicaid claims and MDH blood lead surveillance data to monitor trends in the MN C&TC population.	MDH EIA Unit (CLPPP)/DHS	CDC (staff time) \$7,500 DHS (staff time) \$2,500	Assure services to high-risk children.				

**Goal II.  
Strategies for Identifying At-Risk Properties and Children.**

**Objective B.  
Promote blood lead screening activities for at-risk children and pregnant women, including increasing compliance with existing policies concerning blood lead testing.**

<b>Current Strategies</b>		<b>Sponsor agency</b>					
1. Lead regional workshops encouraged MA testing.		Health Plans/MDH/SRC					
2. Incentive pay for previously untested kids on MA.		DHS					
3. WIC pilot screening project to encourage screening through WIC clinics. Final step is to develop and disseminate screening protocol to all WIC clinics in Minnesota.		MDH EIA Unit					
4. Individual health plan strategies to address corrective action orders and contract withholding targets from DHS.		DHS/Health Plans					
5. HITS projects in Minneapolis and St. Paul.		MDH EIA Unit/City of Minneapolis/St. Paul-Ramsey County/SRC					
6. EPA-funded pilot to test children through licensed daycare.		SRC/City of Minneapolis/Health Plans					
7. Train providers on CTC (MA) requirement for blood lead testing through web-based training tool.		MDH FH					
8. Blood lead testing pilot in outer-ring Hennepin County suburbs. Contract ended 12/03.		MDH EIA Unit/Hennepin County Health Department					
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Develop a one-on-one campaign to "ask your doctor" about a lead test.	SRC GMDCA	HUD	Develop and pretest message for urban and rural settings.				
2. Incorporate blood lead testing message with other health activities e.g. immunization database.	MDH EIA Unit (CLPPP)/Immunization Program	CDC (staff time) \$1,000 Immunization (staff time) \$2500	Increase lead screening/testing opportunities for at-risk children.				
3. Encourage clinics/administrators to include a lead check sheet in files i.e. quality measure. Focus on cost-savings.	SRC/All Health Plans	HUD/Health Plans	Increase lead screening/testing opportunities for at-risk children.				

4. Develop policy on follow-up for bll of 5-9ug/dL.	MDH EIA Unit (CLPPP)	CDC (staff time) \$2,000	Policy is developed and disseminated.				
5. Continue to match MDH surveillance data with DHS Medicaid data.	MDH EIA Unit (CLPPP)/DHS	CDC (staff time) See: Goal II, Objective B	Increase lead testing opportunities for at-risk children.				
6. Continue to match MDH surveillance data with MDH Refugee Health Data.	MDH EIA Unit (CLPPP)	CDC (staff time) \$1,000	Increase lead testing opportunities for at-risk children.				
7. Work with Project-Based Section 8 Housing Tenant groups.	Project 504/SRC/Legal Aid	HUD	Increase lead testing opportunities for at-risk children.				
8. Test 450 children/175 pregnant women in Minneapolis for MCLOP project.	City of Minneapolis/SRC	HUD Outreach Grant	Subcontractors submit monthly reports to verify increased testing.				
9. Provide technical support to WIC programs interesting in starting up blood lead testing at their clinics.	MDH EIA Unit (CLPPP)	CDC (staff time & travel) \$5,000	Increase the number of children who receive a blood lead test at MN WIC clinics.				
10. Collaborate with DHS to disseminate lead and pregnancy guidelines to Medical Directors via Health Plans.	MDH EIA Unit (CLPPP)	CDC (staff time) See: Goal I, Objective C	Prevent lead exposure for pregnant women & fetus.				

11. Organize a physician advisory group to develop anticipatory guidance for blood lead levels below 10 ug/dL.	MDH EIA Unit (CLPPP)	CDC (staff time) See: Goal I, Objective C	Increase the number of children that receive physician guidance on blood lead levels previously considered "normal."				
12. Promote lead and pregnancy guidelines statewide	MDH EIA Unit (CLPPP); Local public health departments; non-profit advocacy groups, health plans	CDC (staff time) See: Goal I, Objective C	Increase testing in women of childbearing age.				

**Goal II.  
Strategies for Identifying At-Risk Properties and Children.**

**Objective C.  
Use census and other data to identify risk factors such as poverty and pre-1978 housing.**

<b>Current Strategies</b>		<b>Sponsor agency</b>					
1. Use GIS mapping to determine high-risk areas for lead exposure and children in need to blood lead testing.		Hennepin County Lead Program					
2. Incorporating census data (census block and census tract) to county blood lead database to compare with assessor's office data re: age of housing.		Hennepin County Lead Program					
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Enhance annual surveillance report with GIS and blood lead results from 5-9 ug/dL.	MDH EIA Unit (CLPPP)	CDC \$5,000	Increase opportunities for identifying at-risk children.	\$5,000			

2. Mail compliance reports to all labs reporting blood lead analysis to the MDH.	MDH EIA Unit (CLPPP)	CDC (staff time & postage/copy costs) \$2,600	Assure timely case management for children affected by lead.				
3. Mail annual letter to clinics including results of blood lead and MA data matching to remind clinics to screen their 1 & 2 year old MA patients.	MDH EIA Unit (CLPPP)	CDC \$5,000	Increase opportunities for identifying at-risk children.				
4. Investigate working with universities to include GIS mapping in class project.	MDH EIA Unit (CLPPP)	CDC \$500	Increase opportunities for identifying at-risk children.				
5. Routinely review professional literature to identify new risk factors for lead exposure.	ALL		Increase opportunities for identifying at-risk children.				

**Goal II.  
Strategies for Identifying At-Risk Properties and Children.**

**Objective D.  
Work with partner agencies to identify at-risk property and assure disclosure through the 1018 rule.**

<b>Current Strategies</b>	<b>Sponsor agency</b>
1. Work with U.S. Attorney's Office to identify multiple ebl cases in multi-family housing within the limits of state data privacy requirements to support DOJ, EPA, HUD, and State and Local efforts to enforce 1018 Disclosure.	HUD/EPA/MDH/ U.S. Attorney's Office
2. Developed a database of properties occupied with children with ebl. Data weighted for number of children present, number of venous tests performed, age of property, and condition of property. Database used to determine risk areas for Hennepin County Round XI HUD lead grant submission.	Hennepin County Lead Program

<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Continue to work with U.S. Atty. Office to identify multiple ebl cases in multi-family housing, within the limits of state data privacy requirements.	MDH EIA Unit (CLPPP)	CDC \$1,000		\$1,000	\$1,000	\$1,000	\$1,000
2. Compile data into a consumer data base for clients seeking housing; data will include peeling paint violations (Section 8), history of evictions, etc.	Project 504	HUD					
3. Conduct informational seminars for code enforcement officials and Section 8 inspectors. Encourage referrals of at-risk housing occupied by young children from these partner agencies to local lead program.	St. Paul/Ramsey County Public Health.	HUD	Increase awareness of lead risks and issues in current housing professionals and agencies				
4. Develop database to record properties that received LHR through a HUD Round XI Grant	HUD Grantees	HUD Round XI grants					
5. Review compliance database (ACES) to determine how many properties with "multiple" cases exist.	MDH Lead Compliance Unit	EPA \$500	Identify				

6. Develop a database of properties occupied with children with ebl. Data weighted for number of children present, number of venous tests performed, age of property, and condition of property. Database used to determine risk areas for Hennepin County Round XI HUD lead grant submission.	Hennepin County Lead Program	CDC/Hennepin County	1.Verification of identified properties 2. Record measures used to reduce lead hazards in these properties.				
7. Put 1018 information on MDH Lead Program Website.	MDH EIA Unit (CLPPP)	CDC \$500	Provide accessible information about 1018.				
<b>Goal II. Strategies for Identifying At-Risk Properties and Children.</b>							
<b>Objective E. Perform primary prevention risk assessments (visual and environmental).</b>							
<b>Current Strategies</b>				<b>Sponsor agency</b>			
1. Continue to conduct lead risk assessments on properties undergoing renovation following HUD 1012/1013 regulations.				St. Paul/ Ramsey County Public Health--Duluth Housing Rehab Authority--MDH Lead Compliance Unit--SRC			
2. Performed 1° risk assessment; dust sampled 200 homes in Minneapolis – 60% of pre-1950 housing had lead hazards.				EPA pilot – Minneapolis/SRC			

<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. At the request of the parent, begin to perform risk assessments within the State's jurisdiction, in properties where a child with a bll <20 ug/dL resides, based on the availability of resources.	Assessing Agency	HUD (DEED/MDH award): \$10,000	Perform primary prevention risk assessments to avoid exposure to lead.	\$10,000	\$10,000	\$10,000	\$10,000
2. SRC will continue to follow-up on requests for primary prevention risk assessments via CLEARCorps.	SRC	CLEARCorps/HUD					
3. Visual inspections will continue through the "Section 8" program – peeling paint is a marker. Need to share information with local lead programs.	HRA's/NAHRO (local Section 8 offices)		Encourage Section 8 Inspectors to share pb case information with local public health.				
4. Train HQS inspectors to do dust wipe sampling	SRC/NAHRO	HUD					
5. Will be requested through "Small Cities" program to be eligible for HUD funding (300 properties/600 children over 3 years).	DEED/MDH Lead Compliance Unit	HUD \$500,000	Increase the number of lead-safe homes in Minnesota.	\$500,000	\$500,000	\$500,000	\$500,000
6. MCLOP – visual assessment expected for 625 people who are tested in project.	SRC/MDHFS	HUD	Subcontractor (SRC) submits monthly reports.				

7. Explore possibility of identifying lead hazards and remediating lead through truth-in-housing inspection.	SRC/Project 504 in collaboration with local housing agencies		Increased use of truth-in-housing inspections to address lead issues.				
8. Finish lead rules allowing certification of lead sampling technician.	MDH Lead Compliance Unit	General Fund \$50,000	Increase the number of lead professionals in Minnesota who can sample a home for lead hazards.				
9. Enroll 15 children in "entitlement zone" in rural MN into State HUD Award for LHR	MDH EIA Unit (CLPPP)	DEED Small Cities Program \$225,000	Primary and secondary prevention.				
10. Perform dust wipe sampling in homes of 20 women in high-risk counties. Do this through partnership with local Home Visiting Programs.	MDH EIA Unit (CLPPP)	CDC (training, sample analysis, travel, education materials) \$6200	Make homes of pregnant women lead-safe to avoid lead exposure for woman and fetus.				
11. Conduct primary prevention lead risk assessments on properties occupied by low income tenants or Section 8 children.	Referrals from Section 8 inspectors or housing code officials	Offered by assessing agencies as funding allows					
12. Provide risk assessments when state of local housing funds are used to renovate properties built before 1978.	MHFA; Local housing rehabilitation authorities		Rehab projects statewide performed using LSWP				

**Goal III.  
Strategies to Better Coordinate Health and Housing Enforcement.**

**Objective A.  
Coordinate lead enforcement through housing code.**

<b>Current Strategies</b>			<b>Sponsor agency</b>				
1. Include lead in code compliance activities.			Minneapolis Housing Inspections is currently evaluating this approach; MN Dept. of Administration, MN Housing Authority, and local jurisdictions have authority for implementation state-wide.				
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Promote awareness of lead issues and provide training opportunities for weatherization crews (lead-safe work practices) and housing code inspectors (lead sampling technician).	DEED/MDH EIA Unit/MN Department of Commerce	HUD + \$5,000 match from Department of Commerce	Trainings are established and attended by intended audience.				
2. Local housing authority have lead enforcement responsibilities in Housing Inspections Department	Minneapolis Housing Inspections has implemented; other jurisdictions will evaluate	Minneapolis General Funds/CDBG	Integrate lead hazard identification in housing inspections, permits, and rental licensing				
3. Work with MN. Department of Administration and building code officials (10,000 Lakes Chapter) to encourage support for putting lead in code enforcement.	Builder's Association of Minnesota						

4. Support development of statewide maintenance codes that include lead (lacking in many small communities)	Minnesota Area Housing Code Officials (MAHCO)/MDH	CDC	Encourage LSWP to be incorporated into statewide maintenance codes				
5. Work with technical colleges to develop lead worker/supervisor curriculum and market availability of classes.	DEED-MHFA	HUD					

**Goal III.  
Strategies to Better Coordinate Health and Housing Enforcement.**

**Objective B.  
Assure compliance and enforcement of lead paint laws through existing enforcement tools.**

<b>Current Strategies</b>		<b>Sponsor agency</b>					
1. Provide compliance assistance to regulated parties and licensed entities.		MDH Compliance					
2. Enforce lead licensing requirements and regulated lead work practices.		MDH Compliance					
3. Continue to provide information and promote federal lead requirements e.g. HUD 1012/1013, 1018, EPA 406b, OSHA.		MDH Compliance/Hennepin County Housing/SRC/St. Paul-Ramsey					
4. Provide compliance oversight of HUD 1012/1013 for DEED/MDH grant. May result in compliance/enforcement activities based on MDH requirements.		MDH Compliance					
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Continue to provide compliance assistance to regulated parties and licensed entities.	MDH Lead Compliance Unit	EPA \$200,000	Assure compliance & protect workers and families	\$180,000	\$160,000	\$140,000	\$120,000

2. Enforce lead licensing requirements and regulated lead work practices.	MDH Lead Compliance Unit	EPA \$100,000	Protect workers and occupants	\$90,000	\$80,000	\$70,000	\$60,000
3. Continue to provide information and promote federal lead requirements e.g. HUD 1012/1013, 1018, EPA 406b, OSHA.	MDH Lead Compliance Unit/SRC HC/SPRC Project 504 Minneapolis Housing/Permits	EPA/State and Local General Funds/HUD MDH=\$500	Increased general public awareness and help assure compliance with disclosure requirements				
4. Provide compliance oversight of HUD 1012/1013 for DEED/MDH grant. May result in compliance/enforcement activities based on MDH requirements.	MDH Lead Compliance Unit	HUD \$5,000	Help assure out-state compliance with federal lead disclosure regulations				

**Goal III.  
Strategies to Better Coordinate Health and Housing Enforcement.**

**Objective C.  
Identify partner agencies that go into family housing (single and multi) to determine the extent to which compliance and enforcement of lead paint laws can occur through these partners.**

<b>Current Strategies</b>	<b>Sponsor agency</b>
1. Work to establish a partnership with the Department of Commerce re: code enforcement. Goal is to determine the feasibility of housing code inspectors becoming lead sampling technicians and including the visual identification of deteriorated lead paint surfaces as part of their work write-up; inclusion of lead-safe work practices (by weatherization crews) in the project specs.	MDH Compliance

<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Establish partnership with MN Dept. of Admin on feasibility of housing code inspectors becoming lead sampling technicians and including the visual ID of deteriorated lead paint surfaces in work write-up; inclusion of lead-safe work practices (by weatherization crews) in the project specs.	MN Department of Administration	HUD					
2. Work with local public health home visiting programs to perform dust wipe sampling in the homes of pregnant women living in <1978 housing. Train CLPPP PHN as dust sampling technician. Eligible families will be enrolled in HUD for lead clean up.	MDH EIA Unit (CLPPP)	CDC See: Goal II, Objective E	Perform primary prevention activities to prevent lead exposure to Mom and fetus.				

**Goal IV.  
Strategies to Identify Resources to Increase the Supply of Lead-Safe Housing in Minnesota.**

**Objective A.  
Improve access/coordination with programs such as DHS, CAP, DEED, HUD, SRC, MHFA, and HRA with health and lead hazard control programs.**

<b>Current Strategies</b>	<b>Sponsor agency</b>
Small Cities Program – uses CDBG funding to rehab existing homes	DEED
Rural Development – very low income & elderly rehab	USDA
Standard Loan Programs/Deferred Loan Programs/Home Improvement Programs	MHFA
Federal Home Loan Bank – must apply through family lender	Federal Home Loan Bank
St. Paul Planning & Development – uses MHFA/CDBG funds for lead /rehab	St. Paul/Ramsey County Health Department
Clearinghouses for funds – may need to apply through private lender or CAPS/HRAS.	Housing Resource Center; Greater Metropolitan Housing Corporation; Greater Minnesota Housing Fund.

<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Meet with discussion group to discuss MDH CLPPP submission to HUD for Demonstration Grant	MDH EIA Unit (CLPPP)	CDC \$500	Increase the supply of HUD funding in MN to contribute to lead-safe housing.				
2. Create subcommittee to develop clearinghouse (a list of program contacts) for housing rehab/lead funding information; assure information is readable and culturally competent	SRC	\$7,000	Increase use of existing lead/rehab funding.	\$3,000	\$3,000	\$3,000	\$3,000

<b>Goal IV. Strategies to Identify Resources to Increase the Supply of Lead-Safe Housing in Minnesota.</b>							
<b>Objective A2. Leverage private and non-federal funds such as state incentives, private funding/banks, and Fannie Mae to control lead paint hazards.</b>							
<b>Current Strategies</b>				<b>Sponsor agency</b>			
Mayo Foundation – “First Homes” program to build new housing for employees				May Clinic Foundation			
Community Reinvestment Act – use as matching dollars for HUD grant				Hennepin County Housing			
Foundation Funding – Prudential; Honeywell				GMDCA			
Habitat for Humanity – now providing training in lead-safe work practices				Twin Cities Habitat for Humanity Chapter			
AmeriCorps/CLEARCorps: funding for lead hazard reduction & education				NPCA			
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
1. Develop policy subcommittee to research possible legislation for new funding sources; monitor state and federal proposals	MDH EIA Unit (CLPPP) will organize through 2010 meetings	CDC \$1500	Make most effective use of legislative process to meet 2010 goals				
2. Evaluate use of Medicaid funds for lead hazard reduction activities; must take into account current and projected cuts to Medicaid due to budget shortfall	MDH, in collaboration with DHS	Medicaid (State/Federal 50/50 match) Note: no current DHS budget or policies incorporate this	Create additional funding source for lead hazard reduction				
3. Evaluate reallocation of CHIP dollars to support lead hazard reduction	MDH, in collaboration with DHS	Children’s Health Insurance Program Funding	Create additional funding source for lead hazard reduction				

4. Work with new partners i.e. asthma? to encourage new healthy homes partnerships	Policy subcommittee		Broaden scope of lead work to create healthy homes				
5. Investigate using new/existing or alternative funding sources to create lead hazard reduction fund.	Policy subcommittee	New/Existing Funding Sources	Create new source of funding in Minnesota for lead hazard reduction.				
6. New Legislation (Reps. Ellison and Clarke)	Politicians	New/Existing Funding Sources	Create new source of funding in Minnesota for lead hazard reduction.				
7. Create subcommittee to develop clearinghouse (a list of program contacts) of Foundations that offer housing rehab/lead funding; assure information is readable and culturally competent.	SRC		Increase use of existing Foundation lead/rehab funding.				
8. Establish lead hazard reduction guidelines for state and local housing programs requiring and providing reimbursement for lead assessment and LHR.	MHFA; Metropolitan Council; local housing and redevelopment agencies		Increase use of existing lead/rehab funding to perform LHR.				

**Goal V.  
Strategies To Assess the Availability of Lead Liability Insurance for Single-Family Property Owners, RPOs, and Contractors.**

**Objective A.  
Determine who is underwriting lead liability insurance in Minnesota and determine current costs.**

<b>Current Strategies</b>	<b>Sponsor agency</b>
2010 Advisory Group Member presented information on all known carriers.	Pat Kennedy, Krause Anderson Insurance

<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
<b>Goal V.</b>							
<b>Strategies To Assess the Availability of Lead Liability Insurance for Single-Family Property Owners, RPOs, and Contractors.</b>							
<b>Objective B.</b>							
<b>Determine how the availability of lead liability insurance would increase the use of lead-safe work practices and the supply of lead-safe housing.</b>							
<b>Current Strategies</b>			<b>Sponsor agency</b>				
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
Survey lead contractors, supervisors and workers on how availability of affordable liability insurance would change work practices or willingness to perform lead hazard reduction.			Survey implemented, completed, and summarized by June 30, 2005.				

<b>Goal V.</b>							
<b>Strategies To Assess the Availability of Lead Liability Insurance for Single-Family Property Owners, RPOs, and Contractors.</b>							
<b>Objective C</b>							
Increase availability of affordable, lead liability insurance, if needed.							
<b>Current Strategies</b>				<b>Sponsor agency</b>			
<b>New Strategies (Beginning after July 1, 2004)</b>	<b>Sponsor agency</b>	<b>Funding (if already known)</b>	<b>Intended Outcome</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>
Based on results of Objective B strategy may investigate options for developing purchasing pools for affordable lead liability insurance.			Create opportunities for lead professionals to purchase affordable lead liability insurance.				

## Evaluation and Modifications

The intended outcomes presented in the previous table will be used as the benchmark for conducting ongoing evaluation of the elimination plan and developing new objectives and tasks. A key first step in the implementation phase will be to develop a limited set of key priorities for each goal based on the complete set of tasks currently in the plan. This will help focus initial efforts on specific, measurable, and achievable activities that will facilitate future efforts and eventual attainment of the overall goal of the elimination of childhood lead poisoning in Minnesota by 2010.

An Advisory Group will be maintained to meet quarterly to review the progress of the plan and discuss any needed modifications to reach stated goals and objectives. The MDH currently convenes the “Minnesota Collaborative Lead Education and Assessment Network (MCLEAN)” twice a year (generally in April and October). It is anticipated that these meetings will serve as two of the needed quarterly reviews for the Elimination Plan, as most members of the Advisory Group also regularly attend MCLEAN meetings. This overview will be a standard agenda item at all MCLEAN meetings. The remaining two quarterly meetings will be scheduled by MDH at the convenience of the Advisory Group and be dedicated to reviewing recent plan deadlines, outlining successful strategies to completing objectives, and examining barriers to progress. An annual update on progress towards goals and objectives will be prepared and posted on the MDH Lead Program website at [www.health.state.mn.us/divs/eh/lead](http://www.health.state.mn.us/divs/eh/lead).

An essential aspect of meeting goals and objectives related to eliminating childhood lead poisoning will be retaining current grants and funding sources, with special emphasis on HUD Lead Hazard Reduction programs. Minnesota currently has federal HUD lead hazard reduction awards to Minneapolis/Hennepin County, St. Paul/Ramsey County (this grant includes work in Duluth/St. Louis County), and to the Minnesota Department of Employment and Economic Development. When funding barriers are identified for various aspects of the plan, available resources will be examined at the local, state, and federal level. A key role of the plan will be to help characterize the need for additional funding for targeted activities beyond current levels of support.

An additional implementation step will involve a collaborative effort to conduct a study of lead in Minnesota, as defined in text passed during the 2004 legislative session:

*The commissioner of health, in consultation with the Department of Employment and Economic Development, the Minnesota Housing Finance Agency, and the Department of Human Services, shall develop and evaluate the best strategies to reduce the number of children endangered by lead paint. The study shall examine: (1) how to promote and encourage primary prevention; (2) how to ensure that all children at risk are tested; (3) whether or not to reduce the state mandatory intervention from 20 to ten micrograms of lead per deciliter of whole blood and if a reduction is not recommended whether to develop guidelines on intervention for children with blood levels between ten and 20 micrograms of lead per deciliter of whole blood; (4) how to provide incentives and funding support to property owners for lead hazard prevention and reduction; and (5) ways to provide resources for local jurisdictions to conduct outreach. The commissioner shall submit the results of the study and any recommendations, including any necessary legislative changes to the legislature by January 15, 2005.*

The topics examined by this study are all consistent with the approach advocated by the 2010 Elimination Plan. The results will be reported to the legislature as part of the regular biannual MDH Report (stipulated by MS 144.9509) on the Lead Program. This report is also posted in several formats on the MDH website. The results will be sent to the 2010 Advisory Group for their review and consideration for inclusion into the plan.

All of the above activities will be used, in conjunction with current surveillance, census, health plan, and other demographic data, as information sources for ongoing evaluation and amendment of the plan. As adjustments are necessary, they will be presented to the Advisory Group at the non-MCLEAN quarterly meetings for discussion and approval. Upon reaching consensus, needed changes will be made to the plan. All changes to the plan will be noted on the MDH website and reported to CDC via semi-annual reporting as part of CLPPP responsibilities.

### **Acknowledgements**

This plan was the result of the hard work and dedication of the Advisory Work Group, whose attention to detail and willingness to examine the complex and diverse issues underlying childhood lead poisoning has led to a comprehensive approach to eliminate lead as a pediatric health threat in Minnesota. Although designed as an inclusive plan that crosses many administrative boundaries, the planning effort and writing was primarily conducted by MDH using support from the CDC Childhood Lead Poisoning Prevention Cooperative Agreement US7/CCU522841-01.